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SAR EVALUATION REPORT

Applicant Name:
Samsung Electronics Co., Ltd.
129, Samsung-ro, Maetan dong,
Yeongtong-gu, Suwon-si
Gyeonggi-do, 16677, Korea

Date of Testing:
01/21/19 - 03/13/19
Test Site/Location:
PCTEST Lab, Columbia, MD, USA
Document Serial No.:
1M1901160007-01-R1.A3L

FCC ID: **A3LSMF900U**

APPLICANT: **SAMSUNG ELECTRONICS CO., LTD.**

DUT Type: Portable Handset
Application Type: Certification
FCC Rule Part(s): CFR §2.1093
Model: SM-F900U
Additional Model(s): SM-F900U1; SM-F900W; SM-F9000; SCV44

Equipment Class	Band & Mode	Tx Frequency	SAR					
			1g Head (W/kg)	1g Body-Worn (W/kg)	1g Hotspot (W/kg)	10g Phablet (W/kg)	1g UMPC Body (W/kg)	10g UMPC Extremity (W/kg)
PCE	CDMA/EVDO BC10 (§90S)	817.90 - 823.10 MHz	0.41	0.27	0.54	N/A	0.79	1.48
PCE	CDMA/EVDO BC0 (§22H)	824.70 - 848.31 MHz	0.41	0.25	0.57	N/A	0.80	1.38
PCE	PCS CDMA/EVDO	1851.25 - 1908.75 MHz	0.24	0.53	1.20	2.69	1.17	2.69
PCE	GSM/GPRS/EDGE 850	824.20 - 848.80 MHz	0.30	0.23	0.49	N/A	0.49	0.93
PCE	GSM/GPRS/EDGE 1900	1850.20 - 1909.80 MHz	0.11	0.24	1.03	2.59	0.92	2.57
PCE	UMTS 850	826.40 - 846.60 MHz	0.36	0.20	0.47	N/A	0.72	1.06
PCE	UMTS 1750	1712.4 - 1752.6 MHz	0.27	0.66	0.95	2.83	0.97	2.90
PCE	UMTS 1900	1852.4 - 1907.6 MHz	0.24	0.58	0.90	2.60	1.39	3.30
PCE	LTE Band 71	665.5 - 695.5 MHz	0.21	0.32	0.55	N/A	0.52	1.45
PCE	LTE Band 12	699.7 - 715.3 MHz	0.19	0.28	0.48	N/A	0.40	1.32
PCE	LTE Band 13	779.5 - 784.5 MHz	0.24	0.21	0.47	N/A	0.50	1.25
PCE	LTE Band 14	790.5 - 795.5 MHz	0.24	0.24	0.47	N/A	0.48	0.97
PCE	LTE Band 26 (Cell)	814.7 - 848.3 MHz	0.31	0.21	0.50	N/A	0.67	1.26
PCE	LTE Band 5 (Cell)	824.7 - 848.3 MHz	0.32	0.21	0.47	N/A	0.66	1.16
PCE	LTE Band 66 (AWS)	1710.7 - 1779.3 MHz	0.26	0.55	0.85	2.85	0.84	3.15
PCE	LTE Band 4 (AWS)	1710.7 - 1754.3 MHz	N/A	N/A	N/A	N/A	N/A	N/A
PCE	LTE Band 25 (PCS)	1850.7 - 1914.3 MHz	0.14	0.54	0.71	2.58	1.30	3.15
PCE	LTE Band 2 (PCS)	1850.7 - 1909.3 MHz	N/A	N/A	N/A	N/A	N/A	N/A
PCE	LTE Band 30	2307.5 - 2312.5 MHz	0.23	0.41	0.88	2.90	1.39	3.29
PCE	LTE Band 7	2502.5 - 2567.5 MHz	0.33	0.25	0.99	2.92	1.03	2.17
PCE	LTE Band 41	2498.5 - 2687.5 MHz	0.13	0.19	1.17	2.57	0.99	3.30
PCE	LTE Band 38	2572.5 - 2617.5 MHz	N/A	N/A	N/A	N/A	N/A	N/A
DTS	2.4 GHz WLAN	2412 - 2472 MHz	< 0.1	0.11	0.28	N/A	0.46	2.70
NII	U-NII-1	5180 - 5240 MHz	N/A	N/A	N/A	N/A	N/A	N/A
NII	U-NII-2A	5260 - 5320 MHz	0.10	0.29	N/A	0.75	0.48	0.66
NII	U-NII-2C	5500 - 5720 MHz	< 0.1	0.41	N/A	0.44	0.73	0.76
NII	U-NII-3	5745 - 5825 MHz	< 0.1	0.17	0.21	N/A	0.32	0.89
DSS/DTS	Bluetooth	2402 - 2480 MHz	< 0.1	< 0.1	< 0.1	N/A	0.13	0.93
Simultaneous SAR per KDB 690783 D01v01r03:			0.73	1.27	1.57	3.89	1.59	3.99

Note: This revised Test Report (S/N: 1M1901160007-01-R1.A3L) supersedes and replaces the previously issued test report on the same subject device for the same type of testing as indicated. Please discard or destroy the previously issued test report(s) and dispose of it accordingly.

This wireless portable device has been shown to be capable of compliance for localized specific absorption rate (SAR) for uncontrolled environment/general population exposure limits specified in ANSI/IEEE C95.1-1992 and has been tested in accordance with the measurement procedures specified in Section 1.8 of this report; for North American frequency bands only.

I attest to the accuracy of data. All measurements reported herein were performed by me or were made under my supervision and are correct to the best of my knowledge and belief. I assume full responsibility for the completeness of these measurements and vouch for the qualifications of all persons taking them. Test results reported herein relate only to the item(s) tested.

Randy Ortanez
President

The SAR Tick is an initiative of the Mobile & Wireless Forum (MWF). While a product may be considered eligible, use of the SAR Tick logo requires an agreement with the MWF. Further details can be obtained by emailing: sartick@mwfai.info.

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1 DEVICE UNDER TEST

1.1 Device Overview

Band & Mode	Operating Modes	Tx Frequency
CDMA/EVDO BC10 (§90S)	Voice/Data	817.90 - 823.10 MHz
CDMA/EVDO BC0 (§22H)	Voice/Data	824.70 - 848.31 MHz
PCS CDMA/EVDO	Voice/Data	1851.25 - 1908.75 MHz
GSM/GPRS/EDGE 850	Voice/Data	824.20 - 848.80 MHz
GSM/GPRS/EDGE 1900	Voice/Data	1850.20 - 1909.80 MHz
UMTS 850	Voice/Data	826.40 - 846.60 MHz
UMTS 1750	Voice/Data	1712.4 - 1752.6 MHz
UMTS 1900	Voice/Data	1852.4 - 1907.6 MHz
LTE Band 71	Voice/Data	665.5 - 695.5 MHz
LTE Band 12	Voice/Data	699.7 - 715.3 MHz
LTE Band 13	Voice/Data	779.5 - 784.5 MHz
LTE Band 14	Voice/Data	790.5 - 795.5 MHz
LTE Band 26 (Cell)	Voice/Data	814.7 - 848.3 MHz
LTE Band 5 (Cell)	Voice/Data	824.7 - 848.3 MHz
LTE Band 66 (AWS)	Voice/Data	1710.7 - 1779.3 MHz
LTE Band 4 (AWS)	Voice/Data	1710.7 - 1754.3 MHz
LTE Band 25 (PCS)	Voice/Data	1850.7 - 1914.3 MHz
LTE Band 2 (PCS)	Voice/Data	1850.7 - 1909.3 MHz
LTE Band 30	Voice/Data	2307.5 - 2312.5 MHz
LTE Band 7	Voice/Data	2502.5 - 2567.5 MHz
LTE Band 41	Voice/Data	2498.5 - 2687.5 MHz
LTE Band 38	Voice/Data	2572.5 - 2617.5 MHz
2.4 GHz WLAN	Voice/Data	2412 - 2472 MHz
U-NII-1	Voice/Data	5180 - 5240 MHz
U-NII-2A	Voice/Data	5260 - 5320 MHz
U-NII-2C	Voice/Data	5500 - 5720 MHz
U-NII-3	Voice/Data	5745 - 5825 MHz
Bluetooth	Data	2402 - 2480 MHz
NFC	Data	13.56 MHz
ANT+	Data	2402 - 2480 MHz
MST	Data	555 Hz - 8.33 kHz

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1.2 Power Reduction for SAR

This device utilizes a power reduction mechanism for some wireless modes and bands for SAR compliance under portable hotspot conditions and under some conditions when the device is being used in close proximity to the user's hand, and when headphones are inserted. All hotspot SAR evaluations for this device were performed at the maximum allowed output power when hotspot is enabled. FCC KDB Publication 616217 D04v01r02 Section 6 and FCC KDB Publication 941225 D07v01r02 were used as a guideline for selecting SAR test distances for this device when being used in phablet and UMPC mini-tablet use conditions. Detailed descriptions of the power reduction mechanism are included in the operational description.

This device uses an independent fixed level power reduction mechanism for WLAN operations during voice or VoIP held to ear scenarios. Per FCC Guidance, the held-to-ear exposure conditions were evaluated at reduced power according to the head SAR positions described in IEEE 1528-2013. Detailed descriptions of the power reduction mechanism are included in the operational description.

1.3 Nominal and Maximum Output Power Specifications

This device operates using the following maximum and nominal output power specifications. SAR values were scaled to the maximum allowed power to determine compliance per KDB Publication 447498 D01v06.

1.3.1 PCE Maximum Output Power

Mode / Band		Voice (dBm)	Burst Average GMSK (dBm)				Burst Average 8-PSK (dBm)			
		1 TX Slot	*1 TX Slots*	*2 TX Slots*	*3 TX Slots*	*4 TX Slots*	*1 TX Slots*	*2 TX Slots*	*3 TX Slots*	*4 TX Slots*
GSM/GPRS/EDGE 850	Maximum	**34.0**	**34.0**	**33.0**	**31.0**	**28.5**	**28.0**	**26.5**	**24.5**	**23.5**
	Nominal	**33.0**	**33.0**	**32.0**	**30.0**	**27.5**	**27.0**	**25.5**	**23.5**	**22.5**
GSM/GPRS/EDGE 1900	Maximum	**31.5**	**31.5**	**30.5**	**28.0**	**26.0**	**27.0**	**25.5**	**23.5**	**22.5**
	Nominal	**30.5**	**30.5**	**29.5**	**27.0**	**25.0**	**26.0**	**24.5**	**22.5**	**21.5**

Mode / Band		Modulated Average (dBm)			
		3GPP WCDMA	*3GPP HSDPA*	*3GPP HSUPA*	*3GPP DC-HSDPA*
UMTS Band 5 (850 MHz)	Maximum	**25.5**	**24.5**	**24.5**	**24.5**
	Nominal	**24.5**	**23.5**	**23.5**	**23.5**
UMTS Band 4 (1750 MHz)	Maximum	**25.5**	**24.5**	**24.5**	**24.5**
	Nominal	**24.5**	**23.5**	**23.5**	**23.5**
UMTS Band 2 (1900 MHz)	Maximum	**25.5**	**24.5**	**24.5**	**24.5**
	Nominal	**24.5**	**23.5**	**23.5**	**23.5**

Mode / Band		Modulated Average (dBm)
CDMA/EVDO BC10 (§90S)	Maximum	**26.0**
	Nominal	**25.0**
CDMA/EVDO BC0 (§22H)	Maximum	**26.0**
	Nominal	**25.0**
PCS CDMA/EVDO	Maximum	**26.0**
	Nominal	**25.0**

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Mode / Band		Modulated Average (dBm)
LTE Band 71	Maximum	**25.5**
	Nominal	**24.5**
LTE Band 12	Maximum	**25.5**
	Nominal	**24.5**
LTE Band 13	Maximum	**25.5**
	Nominal	**24.5**
LTE Band 14	Maximum	**25.5**
	Nominal	**24.5**
LTE Band 26 (Cell)	Maximum	**25.5**
	Nominal	**24.5**
LTE Band 5 (Cell)	Maximum	**25.5**
	Nominal	**24.5**
LTE Band 66 (AWS)	Maximum	**25.0**
	Nominal	**24.0**
LTE Band 4 (AWS)	Maximum	**25.0**
	Nominal	**24.0**
LTE Band 25 (PCS)	Maximum	**25.0**
	Nominal	**24.0**
LTE Band 2 (PCS)	Maximum	**25.0**
	Nominal	**24.0**
LTE Band 30	Maximum	**25.0**
	Nominal	**24.0**
LTE Band 7	Maximum	**25.0**
	Nominal	**24.0**
LTE Band 41 (PC3)	Maximum	**25.0**
	Nominal	**24.0**
LTE Band 41 (PC2)	Maximum	**28.0**
	Nominal	**27.0**
LTE Band 38	Maximum	**25.0**
	Nominal	**24.0**

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1.3.2 PCE Reduced Output Power – Hotspot Mode Active

Mode / Band		Burst Average GMSK (dBm)				Burst Average 8-PSK (dBm)			
		1 TX Slots	*2 TX Slots*	*3 TX Slots*	*4 TX Slots*	*1 TX Slots*	*2 TX Slots*	*3 TX Slots*	*4 TX Slots*
GSM/GPRS/EDGE 1900	Maximum	**29.5**	**28.5**	**26.0**	**24.0**	**27.0**	**25.5**	**23.5**	**22.5**
	Nominal	**28.5**	**27.5**	**25.0**	**23.0**	**26.0**	**24.5**	**22.5**	**21.5**

Mode / Band		Modulated Average (dBm)			
		3GPP WCDMA	*3GPP HSDPA*	*3GPP HSUPA*	*3GPP DC-HSDPA*
UMTS Band 4 (1750 MHz)	Maximum	**21.0**	**20.0**	**20.0**	**20.0**
	Nominal	**20.0**	**19.0**	**19.0**	**19.0**
UMTS Band 2 (1900 MHz)	Maximum	**21.5**	**20.5**	**20.5**	**20.5**
	Nominal	**20.5**	**19.5**	**19.5**	**19.5**

Mode / Band		Modulated Average (dBm)
PCS CDMA/EVDO	Maximum	**21.5**
	Nominal	**20.5**

Mode / Band		Modulated Average (dBm)
LTE Band 66 (AWS)	Maximum	**20.5**
	Nominal	**19.5**
LTE Band 4 (AWS)	Maximum	**20.5**
	Nominal	**19.5**
LTE Band 25 (PCS)	Maximum	**21.0**
	Nominal	**20.0**
LTE Band 2 (PCS)	Maximum	**21.0**
	Nominal	**20.0**
LTE Band 30	Maximum	**21.0**
	Nominal	**20.0**
LTE Band 7	Maximum	**20.5**
	Nominal	**19.5**
LTE Band 41 (PC3)	Maximum	**23.0**
	Nominal	**22.0**
LTE Band 41 (PC2)	Maximum	**23.0**
	Nominal	**22.0**
LTE Band 38	Maximum	**21.0**
	Nominal	**20.0**

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1.3.3 PCE Reduced Output Power – Grip Sensor Active

Mode / Band		Voice (dBm)	Burst Average GMSK (dBm)				Burst Average 8-PSK (dBm)			
		1 TX Slot	*1 TX Slots*	*2 TX Slots*	*3 TX Slots*	*4 TX Slots*	*1 TX Slots*	*2 TX Slots*	*3 TX Slots*	*4 TX Slots*
GSM/GPRS/EDGE 1900	Maximum	**28.5**	**28.5**	**27.5**	**25.0**	**23.0**	**27.0**	**25.5**	**23.5**	**22.5**
	Nominal	**27.5**	**27.5**	**26.5**	**24.0**	**22.0**	**26.0**	**24.5**	**22.5**	**21.5**

Mode / Band		Modulated Average (dBm)			
		3GPP WCDMA	*3GPP HSDPA*	*3GPP HSUPA*	*3GPP DC-HSDPA*
UMTS Band 4 (1750 MHz)	Maximum	**20.5**	**19.5**	**19.5**	**19.5**
	Nominal	**19.5**	**18.5**	**18.5**	**18.5**
UMTS Band 2 (1900 MHz)	Maximum	**21.0**	**20.0**	**20.0**	**20.0**
	Nominal	**20.0**	**19.0**	**19.0**	**19.0**

Mode / Band		Modulated Average (dBm)
PCS CDMA	Maximum	**20.5**
	Nominal	**19.5**

Mode / Band		Modulated Average (dBm)
LTE Band 66 (AWS)	Maximum	**20.0**
	Nominal	**19.0**
LTE Band 4 (AWS)	Maximum	**20.0**
	Nominal	**19.0**
LTE Band 25 (PCS)	Maximum	**21.0**
	Nominal	**20.0**
LTE Band 2 (PCS)	Maximum	**21.0**
	Nominal	**20.0**
LTE Band 30	Maximum	**21.0**
	Nominal	**20.0**
LTE Band 7	Maximum	**19.5**
	Nominal	**18.5**
LTE Band 41 (PC3)	Maximum	**21.5**
	Nominal	**20.5**
LTE Band 41 (PC2)	Maximum	**21.5**
	Nominal	**20.5**
LTE Band 38	Maximum	**21.0**
	Nominal	**20.0**

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1.3.4 PCE Reduced Output Power – Earjack Mode Active

Mode / Band		Modulated Average (dBm)			
		3GPP WCDMA	*3GPP HSDPA*	*3GPP HSUPA*	*3GPP DC-HSDPA*
UMTS Band 4 (1750 MHz)	Maximum	**21.5**	**20.5**	**20.5**	**20.5**
	Nominal	**20.5**	**19.5**	**19.5**	**19.5**
UMTS Band 2 (1900 MHz)	Maximum	**22.0**	**21.0**	**21.0**	**21.0**
	Nominal	**21.0**	**20.0**	**20.0**	**20.0**

Mode / Band		Modulated Average (dBm)
PCS CDMA	Maximum	**22.5**
	Nominal	**21.5**

Mode / Band		Modulated Average (dBm)
LTE Band 66 (AWS)	Maximum	**21.0**
	Nominal	**20.0**
LTE Band 4 (AWS)	Maximum	**21.0**
	Nominal	**20.0**
LTE Band 25 (PCS)	Maximum	**21.0**
	Nominal	**20.0**
LTE Band 2 (PCS)	Maximum	**21.0**
	Nominal	**20.0**
LTE Band 30	Maximum	**22.0**
	Nominal	**21.0**
LTE Band 7	Maximum	**22.0**
	Nominal	**21.0**
LTE Band 41 (PC3)	Maximum	**25.0**
	Nominal	**24.0**
LTE Band 41 (PC2)	Maximum	**25.0**
	Nominal	**24.0**
LTE Band 38	Maximum	**22.0**
	Nominal	**21.0**

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1.3.5 Maximum Bluetooth and WLAN Output Power

Mode / Band		Modulated Average - Single Tx Chain Antenna 1 (dBm)							
	Channel	1	2	3	4 - 9	10	11	12	13
IEEE 802.11b (2.4 GHz)	Maximum	20.0						19.0	15.5
	Nominal	19.0						18.0	14.5
IEEE 802.11g (2.4 GHz)	Maximum	18.0				17.5	15.5	12.0	6.5
	Nominal	17.0				16.5	14.5	11.0	5.5
IEEE 802.11n (2.4 GHz)	Maximum	18.0				17.5	15.5	12.0	6.5
	Nominal	17.0				16.5	14.5	11.0	5.5
IEEE 802.11ax (SU) (2.4 GHz)	Maximum	13.5	14.5	16.0	17.0	15.5	14.5	14.5	10.0
	Nominal	12.5	13.5	15.0	16.0	14.5	13.5	13.5	9.0

Mode / Band		Modulated Average - Single Tx Chain Antenna 2 (dBm)							
	Channel	1	2	3	4 - 9	10	11	12	13
IEEE 802.11b (2.4 GHz)	Maximum	20.0							18.5
	Nominal	19.0							17.5
IEEE 802.11g (2.4 GHz)	Maximum	18.0				17.5	15.5	12.0	6.5
	Nominal	17.0				16.5	14.5	11.0	5.5
IEEE 802.11n (2.4 GHz)	Maximum	18.0				17.5	15.5	12.0	6.5
	Nominal	17.0				16.5	14.5	11.0	5.5
IEEE 802.11ax (SU) (2.4 GHz)	Maximum	17.0						16.0	13.5
	Nominal	16.0						15.0	12.5

Mode / Band		Modulated Average - MIMO (dBm)							
	Channel	1	2	3	4 - 9	10	11	12	13
IEEE 802.11g (2.4 GHz)	Maximum	21.0				20.5	18.5	15.0	9.5
	Nominal	20.0				19.5	17.5	14.0	8.5
IEEE 802.11n (2.4 GHz)	Maximum	21.0				20.5	18.5	15.0	9.5
	Nominal	20.0				19.5	17.5	14.0	8.5
IEEE 802.11ax (SU) (2.4 GHz)	Maximum	17.0						14.0	14.0
	Nominal	16.0						13.0	13.0

Mode / Band		Modulated Average - Single Tx Chain (dBm)																							
		20 MHz Bandwidth									40 MHz Bandwidth								80 MHz Bandwidth						
	Channel	36	40-60	64	100	104-140	144	149	153-161	165	38	46-54	62	102	110-134	142	151	159	42	58	106	122	138	155
IEEE 802.11a (5 GHz)	Maximum	18.0																							
	Nominal	17.0																							
IEEE 802.11n (5 GHz)	Maximum	18.0									15.0	17.0	15.5	15.5	17.0	17.0	17.0	17.0							
	Nominal	17.0									14.0	16.0	14.5	14.5	16.0	16.0	16.0	16.0							
IEEE 802.11ac (5 GHz)	Maximum	18.0									15.0	17.0	15.5	15.5	17.0	17.0	17.0	17.0	13.0	13.0	14.5	16.0	16.0	16.0	
	Nominal	17.0									14.0	16.0	14.5	14.5	16.0	16.0	16.0	16.0	12.0	12.0	13.5	15.0	15.0	15.0	
IEEE 802.11ax (SU) (5 GHz)	Maximum	16.0									14.0								13.0						
	Nominal	15.0									13.0								12.0						

Mode / Band		Modulated Average - MIMO (dBm)																							
		20 MHz Bandwidth									40 MHz Bandwidth								80 MHz Bandwidth						
	Channel	36	40-60	64	100	104-140	144	149	153-161	165	38	46-54	62	102	110-134	142	151	159	42	58	106	122	138	155
IEEE 802.11a (5 GHz)	Maximum	21.0																							
	Nominal	20.0																							
IEEE 802.11n (5 GHz)	Maximum	21.0									18.0	20.0	18.5	18.5	20.0	20.0	20.0	20.0							
	Nominal	20.0									17.0	19.0	17.5	17.5	19.0	19.0	19.0	19.0							
IEEE 802.11ac (5 GHz)	Maximum	21.0									18.0	20.0	18.5	18.5	20.0	20.0	20.0	20.0	13.0	13.0	17.5	19.0	19.0	19.0	
	Nominal	20.0									17.0	19.0	17.5	17.5	19.0	19.0	19.0	19.0	12.0	12.0	16.5	18.0	18.0	18.0	
IEEE 802.11ax (SU) (5 GHz)	Maximum	16.0									14.0								13.0						
	Nominal	15.0									13.0								12.0						

Mode/Band		Modulated Average (dBm)
Bluetooth	Maximum	16.5
	Nominal	15.5
Bluetooth EDR	Maximum	10.5
	Nominal	9.5
Bluetooth LE 2Mbps	Maximum	7.0
	Nominal	6.0
Bluetooth LE 1Mbps, 125/500kbps	Maximum	5.5
	Nominal	4.5

Note: Targets for 802.11ax RU operations can be found in Appendix I.

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1.3.6 Reduced WLAN Output Power

Mode / Band		Modulated Average - Antenna 1 (dBm)							
	Channel	1	2	3	4 - 9	10	11	12	13
IEEE 802.11b (2.4 GHz)	Maximum	17.0						17.0	15.5
	Nominal	16.0						16.0	14.5
IEEE 802.11g (2.4 GHz)	Maximum	17.0					15.5	12.0	6.5
	Nominal	16.0					14.5	11.0	5.5
IEEE 802.11n (2.4 GHz)	Maximum	17.0					15.5	12.0	6.5
	Nominal	16.0					14.5	11.0	5.5
IEEE 802.11ax (SU) (2.4 GHz)	Maximum	13.5	14.5	16.0	17.0	15.5	14.5	14.5	10.0
	Nominal	12.5	13.5	15.0	16.0	14.5	13.5	13.5	9.0

Mode / Band		Modulated Average - Antenna 2 (dBm)							
	Channel	1	2	3	4 - 9	10	11	12	13
IEEE 802.11b (2.4 GHz)	Maximum	17.0							
	Nominal	16.0							
IEEE 802.11g (2.4 GHz)	Maximum	17.0					15.5	12.0	6.5
	Nominal	16.0					14.5	11.0	5.5
IEEE 802.11n (2.4 GHz)	Maximum	17.0					15.5	12.0	6.5
	Nominal	16.0					14.5	11.0	5.5
IEEE 802.11ax (SU) (2.4 GHz)	Maximum	17.0						16.0	13.5
	Nominal	16.0						15.0	12.5

Mode / Band		Modulated Average - MIMO (dBm)							
	Channel	1	2	3	4 - 9	10	11	12	13
IEEE 802.11g (2.4 GHz)	Maximum	20.0					18.5	15.0	9.5
	Nominal	19.0					17.5	14.0	8.5
IEEE 802.11n (2.4 GHz)	Maximum	20.0					18.5	15.0	9.5
	Nominal	19.0					17.5	14.0	8.5
IEEE 802.11ax (SU) (2.4 GHz)	Maximum	17.0						14.0	14.0
	Nominal	16.0						13.0	13.0

Mode / Band		Modulated Average - Single Tx Chain (dBm)																						
		20 MHz Bandwidth									40 MHz Bandwidth								80 MHz Bandwidth					
	Channel	36	40-60	64	100	104-140	144	149	153-161	165	38	46-54	62	102	110-134	142	151	159	42	58	106	122	138	155
IEEE 802.11a (5 GHz)	Maximum	14.0																						
	Nominal	13.0																						
IEEE 802.11n (5 GHz)	Maximum	14.0									14.0													
	Nominal	13.0									13.0													
IEEE 802.11ac (5 GHz)	Maximum	14.0									14.0								13.0		14.0			
	Nominal	13.0									13.0								12.0		13.0			
IEEE 802.11ax (SU) (5 GHz)	Maximum	14.0									14.0								13.0					
	Nominal	13.0									13.0								12.0					

Mode / Band		Modulated Average - MIMO (dBm)																						
		20 MHz Bandwidth									40 MHz Bandwidth								80 MHz Bandwidth					
	Channel	36	40-60	64	100	104-140	144	149	153-161	165	38	46-54	62	102	110-134	142	151	159	42	58	106	122	138	155
IEEE 802.11a (5 GHz)	Maximum	17.0																						
	Nominal	16.0																						
IEEE 802.11n (5 GHz)	Maximum	17.0									17.0													
	Nominal	16.0									16.0													
IEEE 802.11ac (5 GHz)	Maximum	17.0									17.0								13.0		17.0			
	Nominal	16.0									16.0								12.0		16.0			
IEEE 802.11ax (SU) (5 GHz)	Maximum	16.0									14.0								13.0					
	Nominal	15.0									13.0								12.0					

Note: Targets for 802.11ax RU operations can be found in Appendix I.

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1.3.7 Maximum Output Power During Conditions with Simultaneous 2.4 GHz WLAN and 5 GHz WLAN

Mode / Band		Modulated Average - Antenna 1 (dBm)								Modulated Average - Antenna 2 (dBm)								Modulated Average - MIMO (dBm)							
	Channel	1	2	3	4 - 9	10	11	12	13	1	2	3	4 - 9	10	11	12	13	1	2	3	4 - 9	10	11	12	13
IEEE 802.11b (2.4 GHz)	Maximum	17.0						17.0	15.5	17.0						16.0	13.5	N/A							
	Nominal	16.0						16.0	14.5	16.0						15.0	12.5	N/A							
IEEE 802.11g (2.4 GHz)	Maximum	17.0					15.5	12.0	6.5	17.0					15.5	12.0	6.5	20.0					18.5	15.0	9.5
	Nominal	16.0					14.5	11.0	5.5	16.0					14.5	11.0	5.5	19.0					17.5	14.0	8.5
IEEE 802.11n (2.4 GHz)	Maximum	17.0					15.5	12.0	6.5	17.0					15.5	12.0	6.5	20.0					18.5	15.0	9.5
	Nominal	16.0					14.5	11.0	5.5	16.0					14.5	11.0	5.5	19.0					17.5	14.0	8.5
IEEE 802.11ax (SU) (2.4 GHz)	Maximum	13.5	14.5	16.0	17.0	15.5	14.5	14.5	10.0	17.0						16.0	13.5	17.0						14.0	14.0
	Nominal	12.5	13.5	15.0	16.0	14.5	13.5	13.5	9.0	16.0						15.0	12.5	16.0						13.0	13.0

Mode / Band		Modulated Average - Antenna 1 (dBm)	Modulated Average - Antenna 2 (dBm)	Modulated Average - MIMO (dBm)
		20 MHz Bandwidth	20 MHz Bandwidth	20 MHz Bandwidth
	Channel	36 -165	36 -165	36 | 40-60 | 64 | 100 -165
IEEE 802.11a (5 GHz)	Maximum	14.0	14.0	17.0
	Nominal	13.0	13.0	16.0
IEEE 802.11n (5 GHz)	Maximum	14.0	14.0	17.0
	Nominal	13.0	13.0	16.0
IEEE 802.11ac (5 GHz)	Maximum	14.0	14.0	17.0
	Nominal	13.0	13.0	16.0
IEEE 802.11ax(SU) (5 GHz)	Maximum	14.0	14.0	16.0
	Nominal	13.0	13.0	15.0

Mode / Band		Modulated Average - Antenna 1 (dBm)					Modulated Average - Antenna 2 (dBm)					Modulated Average - MIMO (dBm)				
		40 MHz Bandwidth					40 MHz Bandwidth					40 MHz Bandwidth				
	Channel	38	46-54	62	102	110-159	38	46-54	62	102	110-159	38	46-54	62	102	110-159
IEEE 802.11n (5 GHz)	Maximum	14.0					14.0					17.0				
	Nominal	13.0					13.0					16.0				
IEEE 802.11ac (5 GHz)	Maximum	14.0					14.0					17.0				
	Nominal	13.0					13.0					16.0				
IEEE 802.11ax(SU) (5 GHz)	Maximum	14.0					14.0					14.0				
	Nominal	13.0					13.0					13.0				

Mode / Band		Modulated Average - Antenna 1 (dBm)				Modulated Average - Antenna 2 (dBm)				Modulated Average - MIMO (dBm)			
		80 MHz Bandwidth				80 MHz Bandwidth				80 MHz Bandwidth			
	Channel	42	58	106	122 - 155	42	58	106	122 - 155	42	58	106	122 - 155
IEEE 802.11ac (5 GHz)	Maximum	13.0	13.0	14.0		13.0	13.0	14.0		13.0	13.0	17.0	
	Nominal	12.0	12.0	13.0		12.0	12.0	13.0		12.0	12.0	16.0	
IEEE 802.11ax(SU) (5 GHz)	Maximum	13.0				13.0				13.0			
	Nominal	12.0				12.0				12.0			

Note: Targets for 802.11ax RU operations can be found in Appendix I.

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1.3.8 Reduced Output Power During Conditions with Simultaneous 2.4 GHz WLAN and 5 GHz WLAN

Mode / Band		Modulated Average - Antenna 1 (dBm)								Modulated Average - Antenna 2 (dBm)								Modulated Average - MIMO (dBm)							
	Channel	1	2	3	4 - 9	10	11	12	13	1	2	3	4 - 9	10	11	12	13	1	2	3	4 - 9	10	11	12	13
IEEE 802.11b (2.4 GHz)	Maximum	14.0								14.0								N/A							
	Nominal	13.0								13.0								N/A							
IEEE 802.11g (2.4 GHz)	Maximum	14.0						12.0	6.5	14.0						12.0	6.5	17.0						15.0	9.5
	Nominal	13.0						11.0	5.5	13.0						11.0	5.5	16.0						14.0	8.5
IEEE 802.11n (2.4 GHz)	Maximum	17.0						12.0	6.5	14.0						12.0	6.5	17.0						15.0	9.5
	Nominal	13.0						11.0	5.5	13.0						11.0	5.5	16.0						14.0	8.5
IEEE 802.11ax (SU) (2.4 GHz)	Maximum	13.5	14.0					14.0	10.0	14.0						14.0	13.5	16.0	17.0				17.0	14.0	14.0
	Nominal	12.5	13.0					13.0	9.0	13.0						13.0	12.5	15.0	16.0				16.0	13.0	13.0

Mode / Band		Modulated Average - Antenna 1 (dBm)	Modulated Average - Antenna 2 (dBm)	Modulated Average - MIMO (dBm)
		20 MHz Bandwidth	20 MHz Bandwidth	20 MHz Bandwidth
	Channel	36 -165	36 -165	36 | 40-60 | 64 | 100 -165
IEEE 802.11a (5 GHz)	Maximum	14.0	14.0	17.0
	Nominal	13.0	13.0	16.0
IEEE 802.11n (5 GHz)	Maximum	14.0	14.0	17.0
	Nominal	13.0	13.0	16.0
IEEE 802.11ac (5 GHz)	Maximum	14.0	14.0	17.0
	Nominal	13.0	13.0	16.0
IEEE 802.11ax(SU) (5 GHz)	Maximum	14.0	14.0	16.0
	Nominal	13.0	13.0	15.0

Mode / Band		Modulated Average - Antenna 1 (dBm)					Modulated Average - Antenna 2 (dBm)					Modulated Average - MIMO (dBm)				
		40 MHz Bandwidth					40 MHz Bandwidth					40 MHz Bandwidth				
	Channel	38	46-54	62	102	110-159	38	46-54	62	102	110-159	38	46-54	62	102	110-159
IEEE 802.11n (5 GHz)	Maximum	14.0					14.0					17.0				
	Nominal	13.0					13.0					16.0				
IEEE 802.11ac (5 GHz)	Maximum	14.0					14.0					17.0				
	Nominal	13.0					13.0					16.0				
IEEE 802.11ax(SU) (5 GHz)	Maximum	14.0					14.0					14.0				
	Nominal	13.0					13.0					13.0				

Mode / Band		Modulated Average - Antenna 1 (dBm)				Modulated Average - Antenna 2 (dBm)				Modulated Average - MIMO (dBm)			
		80 MHz Bandwidth				80 MHz Bandwidth				80 MHz Bandwidth			
	Channel	42	58	106	122 - 155	42	58	106	122 - 155	42	58	106	122 - 155
IEEE 802.11ac (5 GHz)	Maximum	13.0	13.0	14.0		13.0	13.0	14.0		13.0	13.0	17.0	
	Nominal	12.0	12.0	13.0		12.0	12.0	13.0		12.0	12.0	16.0	
IEEE 802.11ax(SU) (5 GHz)	Maximum	13.0				13.0				13.0			
	Nominal	12.0				12.0				12.0			

Note: Targets for 802.11ax RU operations can be found in Appendix I.

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1.4 DUT Antenna Locations

The overall dimensions of this device are > 9 x 5 cm. A diagram showing the location of the device antennas can be found in Appendix F. This device is considered a "phablet" when it is in closed configuration and a "UMPC mini-tablet" when it is in open configuration. Exact antenna dimensions and separation distances are shown in the Technical Descriptions in the FCC filing.

Table 1-1
Device Edges/Sides for Closed Configuration SAR Testing

Mode	Back	Front	Top	Bottom	Right	Left
EVDO BC10 (§90S)	Yes	Yes	No	Yes	Yes	No
EVDO BC0 (§22H)	Yes	Yes	No	Yes	Yes	No
PCS EVDO	Yes	Yes	No	Yes	Yes	Yes
GPRS 850	Yes	Yes	No	Yes	Yes	No
GPRS 1900	Yes	Yes	No	Yes	Yes	Yes
UMTS 850	Yes	Yes	No	Yes	Yes	No
UMTS 1750	Yes	Yes	No	Yes	Yes	Yes
UMTS 1900	Yes	Yes	No	Yes	Yes	Yes
LTE Band 71	Yes	Yes	No	Yes	Yes	No
LTE Band 12	Yes	Yes	No	Yes	Yes	No
LTE Band 13	Yes	Yes	No	Yes	Yes	No
LTE Band 14	Yes	Yes	No	Yes	Yes	No
LTE Band 26 (Cell)	Yes	Yes	No	Yes	Yes	No
LTE Band 5 (Cell)	Yes	Yes	No	Yes	Yes	No
LTE Band 66 (AWS)	Yes	Yes	No	Yes	Yes	Yes
LTE Band 25 (PCS)	Yes	Yes	No	Yes	Yes	Yes
LTE Band 30	Yes	Yes	No	Yes	Yes	Yes
LTE Band 7	Yes	Yes	No	Yes	Yes	Yes
LTE Band 41	Yes	Yes	No	Yes	Yes	Yes
2.4 GHz WLAN Ant 1	Yes	Yes	Yes	No	Yes	No
2.4 GHz WLAN Ant 2	Yes	Yes	Yes	No	No	Yes
5 GHz WLAN Ant 1	Yes	Yes	Yes	No	Yes	No
5 GHz WLAN Ant 2	Yes	Yes	Yes	No	No	Yes
Bluetooth	Yes	Yes	Yes	No	Yes	No

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Table 1-2
Device Edges/Sides for Open Configuration SAR Testing

Mode	Back	Front	Top	Bottom	Right	Left
EVDO BC10 (§90S)	Yes	Yes	No	Yes	Yes	No
EVDO BC0 (§22H)	Yes	Yes	No	Yes	Yes	No
PCS EVDO	Yes	Yes	No	Yes	Yes	No
GPRS 850	Yes	Yes	No	Yes	Yes	No
GPRS 1900	Yes	Yes	No	Yes	Yes	No
UMTS 850	Yes	Yes	No	Yes	Yes	No
UMTS 1750	Yes	Yes	No	Yes	Yes	No
UMTS 1900	Yes	Yes	No	Yes	Yes	No
LTE Band 71	Yes	Yes	No	Yes	Yes	No
LTE Band 12	Yes	Yes	No	Yes	Yes	No
LTE Band 13	Yes	Yes	No	Yes	Yes	No
LTE Band 14	Yes	Yes	No	Yes	Yes	No
LTE Band 26 (Cell)	Yes	Yes	No	Yes	Yes	No
LTE Band 5 (Cell)	Yes	Yes	No	Yes	Yes	No
LTE Band 66 (AWS)	Yes	Yes	No	Yes	Yes	No
LTE Band 25 (PCS)	Yes	Yes	No	Yes	Yes	No
LTE Band 30	Yes	Yes	No	Yes	Yes	No
LTE Band 7	Yes	Yes	No	Yes	Yes	No
LTE Band 41	Yes	Yes	No	Yes	Yes	No
2.4 GHz WLAN Ant 1	Yes	Yes	Yes	No	Yes	No
2.4 GHz WLAN Ant 2	Yes	Yes	Yes	No	No	No
2.4 GHz WLAN MIMO	Yes	Yes	Yes	No	Yes	No
5 GHz WLAN Ant 1	Yes	Yes	Yes	No	Yes	No
5 GHz WLAN Ant 2	Yes	Yes	Yes	No	No	No
5 GHz WLAN MIMO	Yes	Yes	Yes	No	Yes	No
Bluetooth	Yes	Yes	Yes	No	Yes	No

Note: Particular DUT edges were not required to be evaluated for wireless router SAR, phablet SAR or UMPC mini-tablet SAR if the edges were greater than 2.5 cm from the transmitting antenna according to FCC KDB Publication 941225 D06v02r01 Section III, FCC KDB Publication 941225 D07v01r02 and FCC KDB Publication 648474 D04v01r03. The distances between the transmit antennas and the edges of the device are included in the filing. When wireless router mode is enabled, U-NII-1, U-NII-2A, U-NII-2C operations are disabled.

1.5 Near Field Communications (NFC) Antenna

This DUT has NFC operations. The NFC antenna is integrated into the device for this model. Therefore, all SAR tests were performed with the device which already incorporates the NFC antenna. A diagram showing the location of the NFC antenna can be found in Appendix F.

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1.6 Simultaneous Transmission Capabilities

According to FCC KDB Publication 447498 D01v06, transmitters are considered to be operating simultaneously when there is overlapping transmission, with the exception of transmissions during network hand-offs with maximum hand-off duration less than 30 seconds.

This device contains multiple transmitters that may operate simultaneously, and therefore requires a simultaneous transmission analysis according to FCC KDB Publication 447498 D01v06 4.3.2 procedures.

Table 1-3
Simultaneous Transmission Scenarios

No.	Capable Transmit Configuration	Head	Body-Worn Accessory	Wireless Router	Phablet	Mini Tablet	Notes
1	1x CDMA voice + 2.4 GHz WI-FI	Yes	Yes	N/A	Yes	Yes	
2	1x CDMA voice + 5 GHz WI-FI	Yes	Yes	N/A	Yes	Yes	
3	1x CDMA voice + 2.4 GHz Bluetooth	Yes^	Yes	N/A	Yes	Yes	^ Bluetooth Tethering is considered
4	1x CDMA voice + 2.4GHz Bluetooth + 5 GHz WI-FI	Yes^	Yes	N/A	Yes	Yes	^ Bluetooth Tethering is considered
5	1x CDMA voice + 2.4 GHz WI-FI MIMO	Yes	Yes	N/A	Yes	Yes	
6	1x CDMA voice + 5 GHz WI-FI MIMO	Yes	Yes	N/A	Yes	Yes	
7	1x CDMA voice + 2.4 GHz WI-FI + 5 GHz WI-FI	Yes	Yes	N/A	Yes	Yes	
8	1x CDMA voice + 2.4 GHz WI-FI MIMO + 5 GHz WI-FI MIMO	Yes	Yes	N/A	Yes	Yes	
9	1x CDMA voice + 2.4GHz Bluetooth + 5 GHz WI-FI MIMO	Yes^	Yes	N/A	Yes	Yes	^ Bluetooth Tethering is considered
10	GSM voice + 2.4 GHz WI-FI	Yes	Yes	N/A	Yes	Yes	
11	GSM voice + 5 GHz WI-FI	Yes	Yes	N/A	Yes	Yes	
12	GSM voice + 2.4 GHz Bluetooth	Yes^	Yes	N/A	Yes	Yes	^ Bluetooth Tethering is considered
13	GMS voice + 2.4GHz Bluetooth + 5 GHz WI-FI	Yes^	Yes	N/A	Yes	Yes	^ Bluetooth Tethering is considered
14	GSM voice + 2.4 GHz WI-FI MIMO	Yes	Yes	N/A	Yes	Yes	
15	GSM voice + 5 GHz WI-FI MIMO	Yes	Yes	N/A	Yes	Yes	
16	GSM voice + 2.4 GHz WI-FI + 5 GHz WI-FI	Yes	Yes	N/A	Yes	Yes	
17	GSM voice + 2.4 GHz WI-FI MIMO + 5 GHz WI-FI MIMO	Yes	Yes	N/A	Yes	Yes	
18	GSM voice + 2.4GHz Bluetooth + 5 GHz WI-FI MIMO	Yes^	Yes	N/A	Yes	Yes	^ Bluetooth Tethering is considered
19	UMTS + 2.4 GHz WI-FI	Yes	Yes	Yes	Yes	Yes	
20	UMTS + 5 GHz WI-FI	Yes	Yes	Yes	Yes	Yes	
21	UMTS + 2.4 GHz Bluetooth	Yes^	Yes	Yes^	Yes	Yes	^ Bluetooth Tethering is considered
22	UMTS + 2.4GHz Bluetooth + 5 GHz WI-FI	Yes^	Yes	Yes^	Yes	Yes	^ Bluetooth Tethering is considered
23	UMTS + 2.4 GHz WI-FI MIMO	Yes	Yes	Yes	Yes	Yes	
24	UMTS + 5 GHz WI-FI MIMO	Yes	Yes	Yes	Yes	Yes	
25	UMTS + 2.4 GHz WI-FI + 5 GHz WI-FI	Yes	Yes	Yes	Yes	Yes	
26	UMTS + 2.4 GHz WI-FI MIMO + 5 GHz WI-FI MIMO	Yes	Yes	Yes	Yes	Yes	
27	UMTS + 2.4GHz Bluetooth + 5 GHz WI-FI MIMO	Yes^	Yes	Yes^	Yes	Yes	^ Bluetooth Tethering is considered
28	LTE + 2.4 GHz WI-FI	Yes	Yes	Yes	Yes	Yes	
29	LTE + 5 GHz WI-FI	Yes	Yes	Yes	Yes	Yes	
30	LTE + 2.4 GHz Bluetooth	Yes^	Yes	Yes^	Yes	Yes	^ Bluetooth Tethering is considered
31	LTE + 2.4GHz Bluetooth + 5 GHz WI-FI	Yes^	Yes	Yes^	Yes	Yes	^ Bluetooth Tethering is considered
32	LTE + 2.4 GHz WI-FI MIMO	Yes	Yes	Yes	Yes	Yes	
33	LTE + 5 GHz WI-FI MIMO	Yes	Yes	Yes	Yes	Yes	
34	LTE + 2.4 GHz WI-FI + 5 GHz WI-FI	Yes	Yes	Yes	Yes	Yes	
35	LTE + 2.4 GHz WI-FI MIMO + 5 GHz WI-FI MIMO	Yes	Yes	Yes	Yes	Yes	
36	LTE + 2.4GHz Bluetooth + 5 GHz WI-FI MIMO	Yes^	Yes	Yes^	Yes	Yes	^ Bluetooth Tethering is considered
37	CDMA/EVDO data + 2.4 GHz WI-FI	Yes*	Yes*	Yes	Yes	Yes	* Pre-installed VOIP applications are considered
38	CDMA/EVDO data + 5 GHz WI-FI	Yes*	Yes*	Yes	Yes	Yes	* Pre-installed VOIP applications are considered
39	CDMA/EVDO data + 2.4 GHz Bluetooth	Yes*^	Yes*	Yes^	Yes	Yes	* Pre-installed VOIP applications are considered ^ Bluetooth Tethering is considered
40	CDMA/EVDO data + 2.4 GHz Bluetooth + 5 GHz WI-FI	Yes*^	Yes*	Yes^	Yes	Yes	* Pre-installed VOIP applications are considered ^ Bluetooth Tethering is considered
41	CDMA/EVDO data + 2.4 GHz WI-FI MIMO	Yes*	Yes*	Yes	Yes	Yes	* Pre-installed VOIP applications are considered
42	CDMA/EVDO data + 5 GHz WI-FI MIMO	Yes*	Yes*	Yes	Yes	Yes	* Pre-installed VOIP applications are considered
43	CDMA/EVDO data + 2.4 GHz WI-FI + 5 GHz WI-FI	Yes*	Yes*	Yes	Yes	Yes	* Pre-installed VOIP applications are considered
44	CDMA/EVDO data + 2.4 GHz WI-FI MIMO + 5 GHz WI-FI MIMO	Yes*	Yes*	Yes	Yes	Yes	* Pre-installed VOIP applications are considered
45	CDMA/EVDO data + 2.4 GHz Bluetooth + 5 GHz WI-FI MIMO	Yes*^	Yes*	Yes^	Yes	Yes	* Pre-installed VOIP applications are considered ^ Bluetooth Tethering is considered
46	GPRS/EDGE + 2.4 GHz WI-FI	N/A	N/A	Yes	Yes	Yes	
47	GPRS/EDGE + 5 GHz WI-FI	N/A	N/A	Yes	Yes	Yes	
48	GPRS/EDGE + 2.4 GHz Bluetooth	N/A	N/A	Yes^	Yes	Yes	^ Bluetooth Tethering is considered
49	GPRS/EDGE + 2.4 GHz Bluetooth + 5 GHz WI-FI	N/A	N/A	Yes^	Yes	Yes	^ Bluetooth Tethering is considered
50	GPRS/EDGE + 2.4 GHz WI-FI MIMO	N/A	N/A	Yes	Yes	Yes	
51	GPRS/EDGE + 5 GHz WI-FI MIMO	N/A	N/A	Yes	Yes	Yes	
52	GPRS/EDGE + 2.4 GHz WI-FI + 5 GHz WI-FI	N/A	N/A	Yes	Yes	Yes	
53	GPRS/EDGE + 2.4 GHz WI-FI MIMO + 5 GHz WI-FI MIMO	N/A	N/A	Yes	Yes	Yes	
54	GPRS/EDGE + 2.4 GHz Bluetooth + 5 GHz WI-FI MIMO	N/A	N/A	Yes^	Yes	Yes	^ Bluetooth Tethering is considered

1. 2.4 GHz WLAN and 2.4 GHz Bluetooth share the same antenna path and cannot transmit simultaneously.
2. All licensed modes share the same antenna path and cannot transmit simultaneously.
3. When the user utilizes multiple services in UMTS 3G mode it uses multi-Radio Access Bearer or multi-RAB. The power control is based on a physical control channel (Dedicated Physical Control Channel [DPCCH]) and power control will be adjusted to meet the needs of both services. Therefore, the UMTS+WLAN scenario also represents the UMTS Voice/DATA + WLAN Hotspot scenario.
4. Per the manufacturer, WIFI Direct is not expected to be used in conjunction with a held-to-ear or body-worn accessory voice call. Therefore, there are no simultaneous transmission scenarios involving WIFI direct beyond that listed in the above table.

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5. 5 GHz Wireless Router is only supported for the U-NII-3 by S/W, therefore U-NII-1, U-NII2A, and U-NII2C were not evaluated for wireless router conditions.
6. This device supports 2x2 MIMO Tx for WLAN 802.11a/g/n/ac/ax. 802.11a/g/n/ac/ax supports CDD and STBC and 802.11n/ac/ax additionally supports SDM. Each WLAN antenna can transmit independently or together when operating with MIMO.
7. This device supports VOLTE.
8. This device supports VoWIFI.
9. This device supports Bluetooth Tethering.

1.7 Miscellaneous SAR Test Considerations

(A) WIFI/BT

Since U-NII-1 and U-NII-2A bands have the same maximum output power and the highest reported SAR for U-NII-2A is less than 1.2 W/kg, SAR is not required for U-NII-1 band according to FCC KDB Publication 248227 D01v02r02.

Since Wireless Router operations are not allowed by the chipset firmware using U-NII-1, U-NII-2A & U-NII-2C WIFI, only 2.4 GHz and U-NII-3 WIFI Hotspot SAR tests and combinations are considered for SAR with respect to Wireless Router configurations according to FCC KDB 941225 D06v02r01.

This device supports IEEE 802.11ax with the following features:

a) Up to 80 MHz Bandwidth only for 5GHz
b) Up to 20MHz Bandwidth only for 2.4 GHz
c) No aggregate channel configurations
d) 2 Tx antenna output
e) Up to 1024 QAM is supported
f) TDWR and Band gap channels are supported for 5 GHz
g) MU – MIMO UL Operations are not supported

This device supports channel 1-13 for 2.4 GHz WLAN. However, due to the reduced output power for channels 12 and 13, channels 1, 6, and 11 were considered for SAR testing per KDB 248227 D01v02r02.

Per FCC KDB Publication 648474 D04v01r03, this device is considered a "phablet" when it is in a closed configuration since the diagonal dimension is greater than 160mm and less than 200mm. Phablet SAR tests are required when wireless router mode does not apply or if wireless router 1g SAR > 1.2 W/kg. Because wireless router operations are not supported for U-NII-1, U-NII-2A & U-NII-2C WLAN, phablet SAR tests were performed. Phablet SAR was not evaluated for 2.4 GHz WLAN, 2.4 GHz Bluetooth, and U-NII-3 WLAN operations since wireless router 1g SAR was < 1.2 W/kg.

Per FCC Guidance, SAR testing was not required for 802.11ax when applying the initial test configuration procedures of KDB 248227, with 802.11ax considered a higher order 802.11 mode.

This device supports 2x2 MIMO Tx for WLAN 802.11a/g/n/ac/ax. 802.11a/g/n/ac/ax supports CDD and STBC and 802.11n/ac/ax additionally supports SDM.

(B) Licensed Transmitter(s)

GSM/GPRS/EDGE DTM is not supported for US bands. Therefore, the GSM Voice modes in this report do not transmit simultaneously with GPRS/EDGE Data.

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This device is only capable of QPSK HSUPA in the uplink. Therefore, no additional SAR tests are required beyond that described for devices with HSUPA in KDB 941225 D01v03r01.

LTE SAR for the higher modulations and lower bandwidths were not tested since the maximum average output power of all required channels and configurations was not more than 0.5 dB higher than the highest bandwidth; and the reported LTE SAR for the highest bandwidth was less than 1.45 W/kg for all configurations according to FCC KDB 941225 D05v02r04.

CDMA 1X Advanced technology was not required for SAR since the maximum allowed output powers for 1x Advanced was not more than 0.25 dB higher than the maximum powers for 1x and the measured SAR in any 1x mode exposure conditions was not greater than 1.2 W/kg per FCC KDB Publication 941225 D01v03r01.

This device supports LTE Carrier Aggregation (CA) in the downlink. All uplink communications are identical to Release 8 specifications. Per FCC KDB Publication 941225 D05A v01r02, SAR for downlink only LTE CA operations was not needed since the maximum average output power in downlink only LTE CA mode was not >0.25 dB higher than the maximum output power when downlink carrier aggregation was inactive. The downlink carrier aggregation exclusion analysis can be found in Appendix H.

Per FCC KDB Publication 648474 D04v01r03, this device is considered a "phablet" when it is closed configuration since the diagonal dimension is greater than 160mm and less than 200mm. Therefore, phablet SAR tests are required when wireless router mode does not apply or if wireless router 1g SAR > 1.2 W/kg. Additional SAR tests for phablet SAR were evaluated per KDB 616217 Section 6 (See Section 6.9 for more information)

This device supports LTE capabilities with overlapping transmission frequency ranges. When the supported frequency range of an LTE Band falls completely within an LTE band with a larger transmission frequency range, both LTE bands have the same target power (or the band with the larger transmission frequency range has a higher target power), and both LTE bands share the same transmission path and signal characteristics, SAR was only assessed for the band with the larger transmission frequency range.

This device supports 64QAM on the uplink and 256QAM on the downlink for LTE Operations. Conducted powers for 64QAM uplink configurations were measured per Section 5.1 of FCC KDB Publication 941225 D05v02r05. SAR was not required for 64QAM since the highest maximum output power for 64QAM is ≤ ½ dB higher than the same configuration in QPSK and the reported SAR for the QPSK configuration is ≤ 1.45W/kg, per Section 5.2.4 of FCC KDB Publication 941225 D05v02r05.

This device supports both Power Class 2 (PC2) and Power Class 3 (PC3) for LTE Band 41. Per May 2017 TCB Workshop Notes, SAR tests were performed with Power Class 3 (given the specific UL/DL limitations for Power Class 2). Additionally, SAR testing for the power class condition was evaluated for the highest configuration in Power Class 3 for each test configuration to confirm the results were scalable linearly (See Section 14.2).

This device supports LTE Carrier Aggregation (CA) for LTE Band 5, LTE Band 66, and LTE Band 41 with two component carriers in the uplink. SAR Measurements and conducted powers were evaluated per 2017 Fall TCB Workshop Notes.

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1.8 Guidance Applied

- IEEE 1528-2013
- FCC KDB Publication 941225 D01v03r01, D05v02r04, D05Av01r02, D06v02r01 (2G/3G/4G and Hotspot)
- FCC KDB Publication 248227 D01v02r02 (SAR Considerations for 802.11 Devices)
- FCC KDB Publication 447498 D01v06 (General SAR Guidance)
- FCC KDB Publication 865664 D01v01r04, D02v01r02 (SAR Measurements up to 6 GHz)
- FCC KDB Publication 648474 D04v01r03 (Phablet Procedures)
- FCC KDB Publication 616217 D04v01r02 (Proximity Sensor)
- October 2013 TCB Workshop Notes (GPRS Testing Considerations)
- May 2017 TCB Workshop Notes (LTE Band 41 Power Class 2/3)
- April 2018 TCB Workshop Notes (LTE Carrier Aggregation)
- FCC KDB Publication 941225 D07v01r02 (UMPC Mini-Tablet Devices)

1.9 Device Serial Numbers

Several samples with identical hardware were used to support SAR testing. The manufacturer has confirmed that the device(s) tested have the same physical, mechanical and thermal characteristics and are within operational tolerances expected for production units. The serial numbers used for each test are indicated alongside the results in Section 11.

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2 LTE INFORMATION

LTE Information					
Form Factor	Portable Handset				
Frequency Range of each LTE transmission band	LTE Band 71 (665.5 - 695.5 MHz)				
	LTE Band 12 (699.7 - 715.3 MHz)				
	LTE Band 13 (779.5 - 784.5 MHz)				
	LTE Band 14 (790.5 - 795.5 MHz)				
	LTE Band 26 (Cell) (814.7 - 848.3 MHz)				
	LTE Band 5 (Cell) (824.7 - 848.3 MHz)				
	LTE Band 66 (AWS) (1710.7 - 1779.3 MHz)				
	LTE Band 4 (AWS) (1710.7 - 1754.3 MHz)				
	LTE Band 25 (PCS) (1850.7 - 1914.3 MHz)				
	LTE Band 2 (PCS) (1850.7 - 1909.3 MHz)				
	LTE Band 30 (2307.5 - 2312.5 MHz)				
	LTE Band 7 (2502.5 - 2567.5 MHz)				
	LTE Band 41 (2498.5 - 2687.5 MHz)				
	LTE Band 38 (2572.5 - 2617.5 MHz)				
Channel Bandwidths	LTE Band 71: 5 MHz, 10 MHz, 15 MHz, 20 MHz				
	LTE Band 12: 1.4 MHz, 3 MHz, 5 MHz, 10 MHz				
	LTE Band 13: 5 MHz, 10 MHz				
	LTE Band 14: 5 MHz, 10 MHz				
	LTE Band 26 (Cell): 1.4 MHz, 3 MHz, 5 MHz, 10 MHz, 15 MHz				
	LTE Band 5 (Cell): 1.4 MHz, 3 MHz, 5 MHz, 10 MHz				
	LTE Band 66 (AWS): 1.4 MHz, 3 MHz, 5 MHz, 10 MHz, 15 MHz, 20 MHz				
	LTE Band 4 (AWS): 1.4 MHz, 3 MHz, 5 MHz, 10 MHz, 15 MHz, 20 MHz				
	LTE Band 25 (PCS): 1.4 MHz, 3 MHz, 5 MHz, 10 MHz, 15 MHz, 20 MHz				
	LTE Band 2 (PCS): 1.4 MHz, 3 MHz, 5 MHz, 10 MHz, 15 MHz, 20 MHz				
	LTE Band 30: 5 MHz, 10 MHz				
	LTE Band 7: 5 MHz, 10 MHz, 15 MHz, 20 MHz				
	LTE Band 41: 5 MHz, 10 MHz, 15 MHz, 20 MHz				
	LTE Band 38: 5 MHz, 10 MHz, 15 MHz, 20 MHz				
Channel Numbers and Frequencies (MHz)	Low	Low-Mid	Mid	Mid-High	High
LTE Band 71: 5 MHz	665.5 (133147)		680.5 (133297)	695.5 (133447)	
LTE Band 71: 10 MHz	668 (133172)		680.5 (133297)	693 (133422)	
LTE Band 71: 15 MHz	670.5 (133197)		680.5 (133297)	690.5 (133397)	
LTE Band 71: 20 MHz	673 (133222)		680.5 (133297)	688 (133372)	
LTE Band 12: 1.4 MHz	699.7 (23017)		707.5 (23095)	715.3 (23173)	
LTE Band 12: 3 MHz	700.5 (23025)		707.5 (23095)	714.5 (23165)	
LTE Band 12: 5 MHz	701.5 (23035)		707.5 (23095)	713.5 (23155)	
LTE Band 12: 10 MHz	704 (23060)		707.5 (23095)	711 (23130)	
LTE Band 13: 5 MHz	779.5 (23205)		782 (23230)	784.5 (23255)	
LTE Band 13: 10 MHz	N/A		782 (23230)	N/A	
LTE Band 14: 5 MHz	790.5 (23305)		793 (23330)	795.5 (23355)	
LTE Band 14: 10 MHz	N/A		793 (23330)	N/A	
LTE Band 26 (Cell): 1.4 MHz	814.7 (26697)		831.5 (26865)	848.3 (27033)	
LTE Band 26 (Cell): 3 MHz	815.5 (26705)		831.5 (26865)	847.5 (27025)	
LTE Band 26 (Cell): 5 MHz	816.5 (26715)		831.5 (26865)	846.5 (27015)	
LTE Band 26 (Cell): 10 MHz	819 (26740)		831.5 (26865)	844 (26990)	
LTE Band 26 (Cell): 15 MHz	821.5 (26765)		831.5 (26865)	841.5 (26965)	
LTE Band 5 (Cell): 1.4 MHz	824.7 (20407)		836.5 (20525)	848.3 (20643)	
LTE Band 5 (Cell): 3 MHz	825.5 (20415)		836.5 (20525)	847.5 (20635)	
LTE Band 5 (Cell): 5 MHz	826.5 (20425)		836.5 (20525)	846.5 (20625)	
LTE Band 5 (Cell): 10 MHz	829 (20450)		836.5 (20525)	844 (20600)	
LTE Band 66 (AWS): 1.4 MHz	1710.7 (131979)		1745 (132322)	1779.3 (132665)	
LTE Band 66 (AWS): 3 MHz	1711.5 (131987)		1745 (132322)	1778.5 (132657)	
LTE Band 66 (AWS): 5 MHz	1712.5 (131997)		1745 (132322)	1777.5 (132647)	
LTE Band 66 (AWS): 10 MHz	1715 (132022)		1745 (132322)	1775 (132622)	
LTE Band 66 (AWS): 15 MHz	1717.5 (132047)		1745 (132322)	1772.5 (132597)	
LTE Band 66 (AWS): 20 MHz	1720 (132072)		1745 (132322)	1770 (132572)	
LTE Band 4 (AWS): 1.4 MHz	1710.7 (19957)		1732.5 (20175)	1754.3 (20393)	
LTE Band 4 (AWS): 3 MHz	1711.5 (19965)		1732.5 (20175)	1753.5 (20385)	
LTE Band 4 (AWS): 5 MHz	1712.5 (19975)		1732.5 (20175)	1752.5 (20375)	
LTE Band 4 (AWS): 10 MHz	1715 (20000)		1732.5 (20175)	1750 (20350)	
LTE Band 4 (AWS): 15 MHz	1717.5 (20025)		1732.5 (20175)	1747.5 (20325)	
LTE Band 4 (AWS): 20 MHz	1720 (20050)		1732.5 (20175)	1745 (20300)	
LTE Band 25 (PCS): 1.4 MHz	1850.7 (26047)		1882.5 (26365)	1914.3 (26683)	
LTE Band 25 (PCS): 3 MHz	1851.5 (26055)		1882.5 (26365)	1913.5 (26675)	
LTE Band 25 (PCS): 5 MHz	1852.5 (26065)		1882.5 (26365)	1912.5 (26665)	
LTE Band 25 (PCS): 10 MHz	1855 (26090)		1882.5 (26365)	1910 (26640)	
LTE Band 25 (PCS): 15 MHz	1857.5 (26115)		1882.5 (26365)	1907.5 (26615)	
LTE Band 25 (PCS): 20 MHz	1860 (26140)		1882.5 (26365)	1905 (26590)	
LTE Band 2 (PCS): 1.4 MHz	1850.7 (18607)		1880 (18900)	1909.3 (19193)	
LTE Band 2 (PCS): 3 MHz	1851.5 (18615)		1880 (18900)	1908.5 (19185)	
LTE Band 2 (PCS): 5 MHz	1852.5 (18625)		1880 (18900)	1907.5 (19175)	
LTE Band 2 (PCS): 10 MHz	1855 (18650)		1880 (18900)	1905 (19150)	
LTE Band 2 (PCS): 15 MHz	1857.5 (18675)		1880 (18900)	1902.5 (19125)	
LTE Band 2 (PCS): 20 MHz	1860 (18700)		1880 (18900)	1900 (19100)	
LTE Band 30: 5 MHz	2307.5 (27685)		2310 (27710)	2312.5 (27735)	
LTE Band 30: 10 MHz	N/A		2310 (27710)	N/A	
LTE Band 7: 5 MHz	2502.5 (20775)		2535 (21100)	2567.5 (21425)	
LTE Band 7: 10 MHz	2505 (20800)		2535 (21100)	2565 (21400)	
LTE Band 7: 15 MHz	2507.5 (20825)		2535 (21100)	2562.5 (21375)	
LTE Band 7: 20 MHz	2510 (20850)		2535 (21100)	2560 (21350)	
LTE Band 41: 5 MHz	2506 (39750)	2549.5 (40185)	2593 (40620)	2636.5 (41055)	2680 (41490)
LTE Band 41: 10 MHz	2506 (39750)	2549.5 (40185)	2593 (40620)	2636.5 (41055)	2680 (41490)
LTE Band 41: 15 MHz	2506 (39750)	2549.5 (40185)	2593 (40620)	2636.5 (41055)	2680 (41490)
LTE Band 41: 20 MHz	2506 (39750)	2549.5 (40185)	2593 (40620)	2636.5 (41055)	2680 (41490)
LTE Band 38: 5 MHz	2572.5 (37775)		2595 (38000)	2617.5 (38225)	
LTE Band 38: 10 MHz	2575 (37800)		2595 (38000)	2615 (38200)	
LTE Band 38: 15 MHz	2577.5 (37825)		2595 (38000)	2612.5 (38175)	
LTE Band 38: 20 MHz	2580 (37850)		2595 (38000)	2610 (38150)	
UE Category	DL UE Cat 18 (QPSK, 16QAM, 64QAM, 256QAM); UL UE Cat 13 (QPSK, 16QAM, 64QAM)				
Modulations Supported in UL	QPSK, 16QAM, 64QAM				
LTE MPR Permanently implemented per 3GPP TS 36.101 section 6.2.3~6.2.5? (manufacturer attestation to be provided)	YES				
A-MPR (Additional MPR) disabled for SAR Testing?	YES				
LTE Carrier Aggregation Possible Combinations	The technical description includes all the possible carrier aggregation combinations				
LTE Additional Information	This device does not support full CA features on 3GPP Release 14. It supports carrier aggregation, LAA features as shown in Section 9 and Appendix H. All other uplink communications are identical to the Release 8 specifications. Uplink communications are done on the PCC unless otherwise specified. The following LTE Release 14 Features are not supported: Relay, HetNet, Enhanced eICIC, MDH, eMBMS, Cross-Carrier Scheduling, Enhanced SC-FDMA.				

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3 INTRODUCTION

The FCC and Innovation, Science, and Economic Development Canada have adopted the guidelines for evaluating the environmental effects of radio frequency (RF) radiation in ET Docket 93-62 on Aug. 6, 1996 and Health Canada Safety Code 6 to protect the public and workers from the potential hazards of RF emissions due to FCC-regulated portable devices. [1]

The safety limits used for the environmental evaluation measurements are based on the criteria published by the American National Standards Institute (ANSI) for localized specific absorption rate (SAR) in IEEE/ANSI C95.1-1992 Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz [3] and Health Canada RF Exposure Guidelines Safety Code 6 [22]. The measurement procedure described in IEEE/ANSI C95.3-2002 Recommended Practice for the Measurement of Potentially Hazardous Electromagnetic Fields - RF and Microwave [4] is used for guidance in measuring the Specific Absorption Rate (SAR) due to the RF radiation exposure from the Equipment Under Test (EUT). These criteria for SAR evaluation are similar to those recommended by the International Committee for Non-Ionizing Radiation Protection (ICNIRP) in Biological Effects and Exposure Criteria for Radiofrequency Electromagnetic Fields," Report No. Vol 74. SAR is a measure of the rate of energy absorption due to exposure to an RF transmitting source. SAR values have been related to threshold levels for potential biological hazards.

3.1 SAR Definition

Specific Absorption Rate is defined as the time derivative (rate) of the incremental energy (dU) absorbed by (dissipated in) an incremental mass (dm) contained in a volume element (dV) of a given density (ρ). It is also defined as the rate of RF energy absorption per unit mass at a point in an absorbing body (see Equation 3-1).

Equation 3-1
SAR Mathematical Equation

$$SAR = \frac{d}{dt}\left(\frac{dU}{dm}\right) = \frac{d}{dt}\left(\frac{dU}{\rho dv}\right)$$

SAR is expressed in units of Watts per Kilogram (W/kg).

$$SAR = \frac{\sigma \cdot E^2}{\rho}$$

where:

σ = conductivity of the tissue-simulating material (S/m)
ρ = mass density of the tissue-simulating material (kg/m^3)
E = Total RMS electric field strength (V/m)

NOTE: The primary factors that control rate of energy absorption were found to be the wavelength of the incident field in relation to the dimensions and geometry of the irradiated organism, the orientation of the organism in relation to the polarity of field vectors, the presence of reflecting surfaces, and whether conductive contact is made by the organism with a ground plane.[6]

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4 DOSIMETRIC ASSESSMENT

4.1 Measurement Procedure

The evaluation was performed using the following procedure compliant to FCC KDB Publication 865664 D01v01r04 and IEEE 1528-2013:

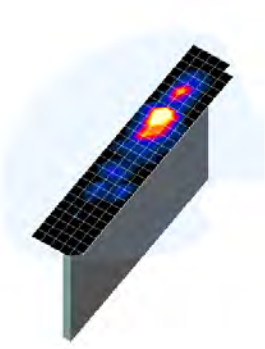


Figure 4-1
Sample SAR Area Scan

1. The SAR distribution at the exposed side of the head or body was measured at a distance no greater than 5.0 mm from the inner surface of the shell. The area covered the entire dimension of the device-head and body interface and the horizontal grid resolution was determined per FCC KDB Publication 865664 D01v01r04 (See Table 4-1) and IEEE 1528-2013.
2. The point SAR measurement was taken at the maximum SAR region determined from Step 1 to enable the monitoring of SAR fluctuations/drifts during the 1g/10g cube evaluation. SAR at this fixed point was measured and used as a reference value.
3. Based on the area scan data, the peak of the region with maximum SAR was determined by spline interpolation. Around this point, a volume was assessed according to the measurement resolution and volume size requirements of FCC KDB Publication 865664 D01v01r04 (See Table 4-1) and IEEE 1528-2013. On the basis of this data set, the spatial peak SAR value was evaluated with the following procedure (see references or the DASY manual online for more details):

   a. SAR values at the inner surface of the phantom are extrapolated from the measured values along the line away from the surface with spacing no greater than that in Table 4-1. The extrapolation was based on a least-squares algorithm. A polynomial of the fourth order was calculated through the points in the z-axis (normal to the phantom shell).

   b. After the maximum interpolated values were calculated between the points in the cube, the SAR was averaged over the spatial volume (1g or 10g) using a 3D-Spline interpolation algorithm. The 3D-spline is composed of three one-dimensional splines with the "Not a knot" condition (in x, y, and z directions). The volume was then integrated with the trapezoidal algorithm. One thousand points (10 x 10 x 10) were obtained through interpolation, in order to calculate the averaged SAR.

   c. All neighboring volumes were evaluated until no neighboring volume with a higher average value was found.
4. The SAR reference value, at the same location as step 2, was re-measured after the zoom scan was complete to calculate the SAR drift. If the drift deviated by more than 5%, the SAR test and drift measurements were repeated.

Table 4-1
Area and Zoom Scan Resolutions per FCC KDB Publication 865664 D01v01r04*

Frequency	Maximum Area Scan Resolution (mm) (Δx_{area}, Δy_{area})	Maximum Zoom Scan Resolution (mm) (Δx_{zoom}, Δy_{zoom})	Maximum Zoom Scan Spatial Resolution (mm)			Minimum Zoom Scan Volume (mm) (x,y,z)
			Uniform Grid	Graded Grid		
			$\Delta z_{zoom}(n)$	$\Delta z_{zoom}(1)$*	$\Delta z_{zoom}(n>1)$*	
≤ 2 GHz	≤ 15	≤ 8	≤ 5	≤ 4	≤ 1.5*$\Delta z_{zoom}(n-1)$	≥ 30
2-3 GHz	≤ 12	≤ 5	≤ 5	≤ 4	≤ 1.5*$\Delta z_{zoom}(n-1)$	≥ 30
3-4 GHz	≤ 12	≤ 5	≤ 4	≤ 3	≤ 1.5*$\Delta z_{zoom}(n-1)$	≥ 28
4-5 GHz	≤ 10	≤ 4	≤ 3	≤ 2.5	≤ 1.5*$\Delta z_{zoom}(n-1)$	≥ 25
5-6 GHz	≤ 10	≤ 4	≤ 2	≤ 2	≤ 1.5*$\Delta z_{zoom}(n-1)$	≥ 22

*Also compliant to IEEE 1528-2013 Table 6

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5 DEFINITION OF REFERENCE POINTS

5.1 EAR REFERENCE POINT

Figure 5-2 shows the front, back and side views of the SAM Twin Phantom. The point "M" is the reference point for the center of the mouth, "LE" is the left ear reference point (ERP), and "RE" is the right ERP. The ERP is 15mm posterior to the entrance to the ear canal (EEC) along the B-M line (Back-Mouth), as shown in Figure 5-1. The plane passing through the two ear canals and M is defined as the Reference Plane. The line N-F (Neck-Front), also called the Reference Pivoting Line, is not perpendicular to the reference plane (see Figure 5-1). Line B-M is perpendicular to the N-F line. Both N-F and B-M lines are marked on the external phantom shell to facilitate handset positioning [5].

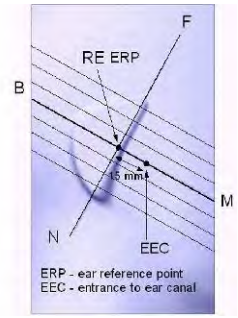


Figure 5-1
Close-Up Side view of ERP

5.2 HANDSET REFERENCE POINTS

Two imaginary lines on the handset were established: the vertical centerline and the horizontal line. The test device was placed in a normal operating position with the acoustic output located along the "vertical centerline" on the front of the device aligned to the "ear reference point" (See Figure 5-3). The acoustic output was than located at the same level as the center of the ear reference point. The test device was positioned so that the "vertical centerline" was bisecting the front surface of the handset at its top and bottom edges, positioning the "ear reference point" on the outer surface of the both the left and right head phantoms on the ear reference point.



Figure 5-2
Front, back and side view of SAM Twin Phantom

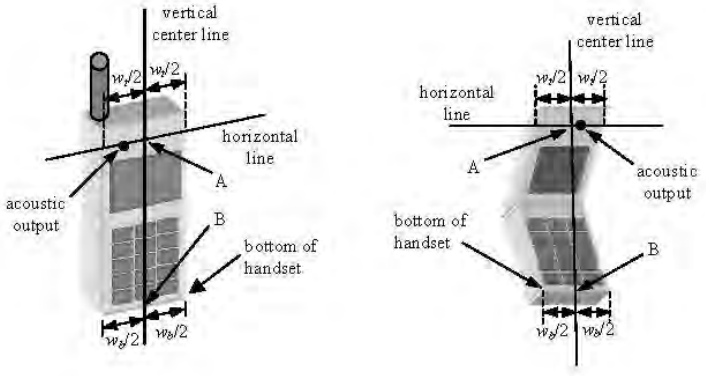


Figure 5-3
Handset Vertical Center & Horizontal Line Reference Points

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6 TEST CONFIGURATION POSITIONS

6.1 Device Holder

The device holder is made out of low-loss POM material having the following dielectric parameters: relative permittivity ε = 3 and loss tangent δ = 0.02.

6.2 Positioning for Cheek

1. The test device was positioned with the device close to the surface of the phantom such that point A is on the (virtual) extension of the line passing through points RE and LE on the phantom (see Figure 6-1), such that the plane defined by the vertical center line and the horizontal line of the phone is approximately parallel to the sagittal plane of the phantom.



Figure 6-1 Front, Side and Top View of Cheek Position

2. The handset was translated towards the phantom along the line passing through RE & LE until the handset touches the pinna.
3. While maintaining the handset in this plane, the handset was rotated around the LE-RE line until the vertical centerline was in the reference plane.
4. The phone was then rotated around the vertical centerline until the phone (horizontal line) was symmetrical was respect to the line NF.
5. While maintaining the vertical centerline in the reference plane, keeping point A on the line passing through RE and LE, and maintaining the device contact with the ear, the device was rotated about the NF line until any point on the handset made contact with a phantom point below the ear (cheek) (See Figure 6-2).

6.3 Positioning for Ear / 15º Tilt

With the test device aligned in the “Cheek Position”:

1. While maintaining the orientation of the phone, the phone was retracted parallel to the reference plane far enough to enable a rotation of the phone by 15degrees.
2. The phone was then rotated around the horizontal line by 15 degrees.
3. While maintaining the orientation of the phone, the phone was moved parallel to the reference plane until any part of the handset touched the head. (In this position, point A was located on the line RE-LE). The tilted position is obtained when the contact is on the pinna. If the contact was at any location other than the pinna, the angle of the phone would then be reduced. In this situation, the tilted position was obtained when any part of the phone was in contact of the ear as well as a second part of the phone was in contact with the head (see Figure 6-2).

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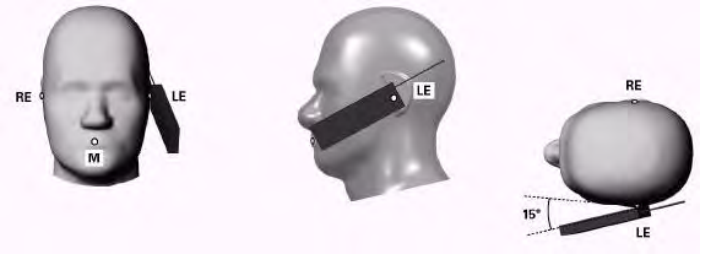


Figure 6-2 Front, Side and Top View of Ear/15º Tilt Position

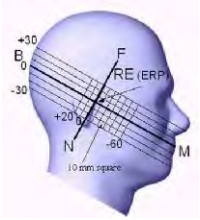


Figure 6-3
Side view w/ relevant markings

6.4 SAR Evaluations near the Mouth/Jaw Regions of the SAM Phantom

Antennas located near the bottom of a phone may require SAR measurements around the mouth and jaw regions of the SAM head phantom. This typically applies to clam-shell style phones that are generally longer in the unfolded normal use positions or to certain older style long rectangular phones. Per IEEE 1528-2013, a rotated SAM phantom is necessary to allow probe access to such regions. Both SAM heads of the TwinSAM-Chin20 are rotated 20 degrees around the NF line. Each head can be removed from the table for emptying and cleaning.

Under these circumstances, the following procedures apply, adopted from the FCC guidance on SAR handsets document FCC KDB Publication 648474 D04v01r03. The SAR required in these regions of SAM should be measured using a flat phantom. The phone should be positioned with a separation distance of 4 mm between the ear reference point (ERP) and the outer surface of the flat phantom shell. While maintaining this distance at the ERP location, the low (bottom) edge of the phone should be lowered from the phantom to establish the same separation distance between the peak SAR location identified by the truncated partial SAR distribution measured with the SAM phantom. The distance from the peak SAR location to the phone is determined by the straight line passing perpendicularly through the phantom surface. When it is not feasible to maintain 4 mm separation at the ERP while also establishing the required separation at the peak SAR location, the top edge of the phone will be allowed to touch the phantom with a separation < 4 mm at the ERP. The phone should not be tilted to the left or right while placed in this inclined position to the flat phantom.

6.5 Body-Worn Accessory Configurations

Body-worn operating configurations are tested with the belt-clips and holsters attached to the device and positioned against a flat phantom in a normal use configuration (see Figure 6-4). Per FCC KDB Publication 648474 D04v01r03, Body-worn accessory exposure is typically related to voice mode operations when handsets are carried in body-worn accessories. The body-worn accessory procedures in FCC KDB Publication 447498 D01v06 should be used to test for body-worn accessory SAR compliance, without a headset connected to it. This enables the test results for such configuration to be compatible with that required for hotspot mode when the body-worn accessory test separation distance is greater than or equal to that required for hotspot mode, when applicable. When the reported SAR for a body-worn accessory, measured without a headset connected to the handset, is > 1.2 W/kg, the highest reported SAR configuration for that wireless mode and frequency band should be repeated for that body-worn accessory with a headset attached to the handset.

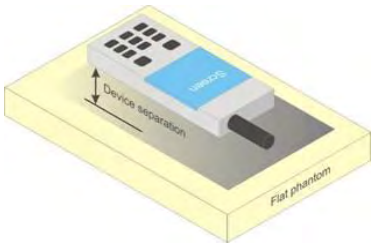


Figure 6-4
Sample Body-Worn Diagram

Accessories for Body-worn operation configurations are divided into two categories: those that do not contain metallic components and those that do contain metallic components. When multiple accessories that do not

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contain metallic components are supplied with the device, the device is tested with only the accessory that dictates the closest spacing to the body. Then multiple accessories that contain metallic components are tested with the device with each accessory. If multiple accessories share an identical metallic component (i.e. the same metallic belt-clip used with different holsters with no other metallic components) only the accessory that dictates the closest spacing to the body is tested.

Body-worn accessories may not always be supplied or available as options for some devices intended to be authorized for body-worn use. In this case, a test configuration with a separation distance between the back of the device and the flat phantom is used. Test position spacing was documented.
Transmitters that are designed to operate in front of a person's face, as in push-to-talk configurations, are tested for SAR compliance with the front of the device positioned to face the flat phantom in head fluid. For devices that are carried next to the body such as a shoulder, waist or chest-worn transmitters, SAR compliance is tested with the accessories, including headsets and microphones, attached to the device and positioned against a flat phantom in a normal use configuration.

6.6 Extremity Exposure Configurations

Devices that are designed or intended for use on extremities or mainly operated in extremity only exposure conditions; i.e., hands, wrists, feet and ankles, may require extremity SAR evaluation. When the device also operates in close proximity to the user's body, SAR compliance for the body is also required. The 1g body and 10g extremity SAR Exclusion Thresholds found in KDB Publication 447498 D01v06 should be applied to determine SAR test requirements.

Per KDB Publication 447498 D01v06, Cell phones (handsets) are not normally designed to be used on extremities or operated in extremity only exposure conditions. The maximum output power levels of handsets generally do not require extremity SAR testing to show compliance. Therefore, extremity SAR was not evaluated for this device.

6.7 Wireless Router Configurations

Some battery-operated handsets have the capability to transmit and receive user data through simultaneous transmission of WIFI simultaneously with a separate licensed transmitter. The FCC has provided guidance in FCC KDB Publication 941225 D06v02r01 where SAR test considerations for handsets (L x W ≥ 9 cm x 5 cm) are based on a composite test separation distance of 10 mm from the front, back and edges of the device containing transmitting antennas within 2.5 cm of their edges, determined from general mixed use conditions for this type of devices. Since the hotspot SAR results may overlap with the body-worn accessory SAR requirements, the more conservative configurations can be considered, thus excluding some body-worn accessory SAR tests.

When the user enables the personal wireless router functions for the handset, actual operations include simultaneous transmission of both the WIFI transmitter and another licensed transmitter. Both transmitters often do not transmit at the same transmitting frequency and thus cannot be evaluated for SAR under actual use conditions due to the limitations of the SAR assessment probes. Therefore, SAR must be evaluated for each frequency transmission and mode separately and spatially summed with the WIFI transmitter according to FCC KDB Publication 447498 D01v06 procedures. The "Portable Hotspot" feature on the handset was NOT activated during SAR assessments, to ensure the SAR measurements were evaluated for a single transmission frequency RF signal at a time.

6.8 Phablet Configurations

For smart phones with a display diagonal dimension > 150 mm or an overall diagonal dimension > 160 mm that provide similar mobile web access and multimedia support found in mini-tablets or UMPC mini-tablets that

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support voice calls next to the ear, the phablets procedures outlined in KDB Publication 648474 D04v01r03 should be applied to evaluate SAR compliance. A device marketed as phablets, regardless of form factors and operating characteristics must be tested as a phablet to determine SAR compliance. In addition to the normally required head and body-worn accessory SAR test procedures required for handsets, the UMPC mini-tablet procedures must also be applied to test the SAR of all surfaces and edges with an antenna <=25 mm from that surface or edge, in direct contact with the phantom, for 10g SAR. The UMPC mini-tablet 1g SAR at 5 mm is not required. When hotspot mode applies, 10g SAR is required only for the surfaces and edges with hotspot mode 1g SAR > 1.2 W/kg.

6.9 Proximity Sensor Considerations

This device uses a power reduction mechanism to reduce output powers in certain use conditions when the device is used close to the user's body.

When the device's antenna is within a certain distance of the user, the sensor activates and reduces the maximum allowed output power. However, the sensor is not active when the device is moved beyond the sensor triggering distance and the maximum output power is no longer limited. Therefore, additional evaluation is needed in the vicinity of the triggering distance to ensure SAR is compliant when the device is allowed to operate at a non-reduced output power level. FCC KDB Publication 616217 D04v01r02 Section 6 was used as a guideline for selecting SAR test distances for this device at these additional test positions. Sensor triggering distance summary data is included in Appendix G.

The sensor is designed to support sufficient detection range and sensitivity to cover regions of the sensors in all applicable directions since the sensor entirely covers the antennas.

6.10 UMPC Mini-Tablet Configurations

Small hand-held tablets (and devices of similar form factors that are designed primarily for interactive hand-held use next to or near the body of users) require body SAR and extremity SAR evaluation. These types of mini-tablets are normally optimized for mobile web access and multimedia use. UMPC test procedures are applicable for devices with displays and overall diagonal dimension ≤ 20 cm. Devices are to be set up according to KDB publication 941225 D07v01r02 requirements and are configured with maximum output power during SAR assessment for a worst case SAR evaluation.

Per KDB Publication 941225 D07v01r02, UMPC mini-tablet devices must be tested for all surfaces and edges ≤ 25 mm from a transmitting antenna. A test separation distance of 10 mm may be considered for 1g SAR, with the addition of 10g SAR measurement at 0 mm test separation distance for all measured 1g SAR (at 10 mm) configurations to address hand exposure.

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7 RF EXPOSURE LIMITS

7.1 Uncontrolled Environment

UNCONTROLLED ENVIRONMENTS are defined as locations where there is the exposure of individuals who have no knowledge or control of their exposure. The general population/uncontrolled exposure limits are applicable to situations in which the general public may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Members of the general public would come under this category when exposure is not employment-related; for example, in the case of a wireless transmitter that exposes persons in its vicinity.

7.2 Controlled Environment

CONTROLLED ENVIRONMENTS are defined as locations where there is exposure that may be incurred by persons who are aware of the potential for exposure, (i.e. as a result of employment or occupation). In general, occupational/controlled exposure limits are applicable to situations in which persons are exposed as a consequence of their employment, who have been made fully aware of the potential for exposure and can exercise control over their exposure. This exposure category is also applicable when the exposure is of a transient nature due to incidental passage through a location where the exposure levels may be higher than the general population/uncontrolled limits, but the exposed person is fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means.

Table 7-1
SAR Human Exposure Specified in ANSI/IEEE C95.1-1992 and Health Canada Safety Code 6

HUMAN EXPOSURE LIMITS		
	UNCONTROLLED ENVIRONMENT *General Population* (W/kg) or (mW/g)	CONTROLLED ENVIRONMENT *Occupational* (W/kg) or (mW/g)
Peak Spatial Average SAR Head	1.6	8.0
Whole Body SAR	0.08	0.4
Peak Spatial Average SAR Hands, Feet, Ankle, Wrists, etc.	4.0	20

1. The Spatial Peak value of the SAR averaged over any 1 gram of tissue (defined as a tissue volume in the shape of a cube) and over the appropriate averaging time.
2. The Spatial Average value of the SAR averaged over the whole body.
3. The Spatial Peak value of the SAR averaged over any 10 grams of tissue (defined as a tissue volume in the shape of a cube) and over the appropriate averaging time.

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8 FCC MEASUREMENT PROCEDURES

Power measurements for licensed transmitters are performed using a base station simulator under digital average power.

8.1 Measured and Reported SAR

Per FCC KDB Publication 447498 D01v06, when SAR is not measured at the maximum power level allowed for production units, the results must be scaled to the maximum tune-up tolerance limit according to the power applied to the individual channels tested to determine compliance. For simultaneous transmission, the measured aggregate SAR must be scaled according to the sum of the differences between the maximum tune-up tolerance and actual power used to test each transmitter. When SAR is measured at or scaled to the maximum tune-up tolerance limit, the results are referred to as *reported* SAR. The highest *reported* SAR results are identified on the grant of equipment authorization according to procedures in KDB 690783 D01v01r03.

8.2 3G SAR Test Reduction Procedure

In FCC KDB Publication 941225 D01v03r01, certain transmission modes within a frequency band and wireless mode evaluated for SAR are defined as primary modes. The equivalent modes considered for SAR test reduction are denoted as secondary modes. When the maximum output power including tune-up tolerance specified for production units in a secondary mode is ≤ 0.25 dB higher than the primary mode or when the highest reported SAR of the primary mode, scaled by the ratio of specified maximum output power and tune-up tolerance of secondary to primary mode, is ≤ 1.2 W/kg, SAR measurements are not required for the secondary mode. These criteria are referred to as the 3G SAR test reduction procedure. When the 3G SAR test reduction procedure is not satisfied, SAR measurements are additionally required for the secondary mode.

8.3 Procedures Used to Establish RF Signal for SAR

The following procedures are according to FCC KDB Publication 941225 D01v03r01 “3G SAR Measurement Procedures.”

The device is placed into a simulated call using a base station simulator in a RF shielded chamber. Establishing connections in this manner ensure a consistent means for testing SAR and are recommended for evaluating SAR [4]. Devices under test are evaluated prior to testing, with a fully charged battery and were configured to operate at maximum output power. In order to verify that the device is tested throughout the SAR test at maximum output power, the SAR measurement system measures a “point SAR” at an arbitrary reference point at the start and end of the 1 gram SAR evaluation, to assess for any power drifts during the evaluation. If the power drift deviates by more than 5%, the SAR test and drift measurements are repeated.

8.4 SAR Measurement Conditions for CDMA2000

The following procedures were performed according to FCC KDB Publication 941225 D01v03r01 “3G SAR Measurement Procedures.”

8.4.1 Output Power Verification

See 3GPP2 C.S0011/TIA-98-E as recommended by FCC KDB Publication 941225 D01v03r01 “3G SAR Measurement Procedures.” Maximum output power is verified on the High, Middle and Low channels according to procedures in section 4.4.5.2 of 3GPP2 C.S0011/TIA-98-E. SO55 tests were measured with power control bits in the “All Up” condition.

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1. If the mobile station (MS) supports Reverse TCH RC 1 and Forward TCH RC 1, set up a call using Fundamental Channel Test Mode 1 (RC=1/1) with 9600 bps data rate only.
2. Under RC1, C.S0011 Table 4.4.5.2-1, Table 8-1 parameters were applied.
3. If the MS supports the RC 3 Reverse FCH, RC3 Reverse SCH_0 and demodulation of RC 3,4, or 5, set up a call using Supplemental Channel Test Mode 3 (RC 3/3) with 9600 bps Fundamental Channel and 9600 bps SCH0 data rate.
4. Under RC3, C.S0011 Table 4.4.5.2-2, Table 8-2 was applied.

Table 8-1
Parameters for Max. Power for RC1

Parameter	Units	Value
$\hat{I}_{or}$	dBm/1.23 MHz	-104
$\frac{\text{Pilot } E_c}{I_{or}}$	dB	-7
$\frac{\text{Traffic } E_c}{I_{or}}$	dB	-7.4

Table 8-2
Parameters for Max. Power for RC3

Parameter	Units	Value
$\hat{I}_{or}$	dBm/1.23 MHz	-86
$\frac{\text{Pilot } E_c}{I_{or}}$	dB	-7
$\frac{\text{Traffic } E_c}{I_{or}}$	dB	-7.4

5. FCHs were configured at full rate for maximum SAR with “All Up” power control bits.

8.4.2 Head SAR Measurements

SAR for next to the ear head exposure is measured in RC3 with the handset configured to transmit at fullrate in SO55. The 3G SAR test reduction procedure is applied to RC1 with RC3 as the primary mode; otherwise, SAR is required for the channel with maximum measured output in RC1 using the head exposure configuration that results in the highest reported SAR in RC3.

Head SAR is additionally evaluated using EVDO Rev. A to support compliance for VoIP operations. See Section 8.4.5 for EVDO Rev. A configuration parameters.

8.4.3 Body-worn SAR Measurements

SAR for body-worn exposure configurations is measured in RC3 with the DUT configured to transmit at full rate on FCH with all other code channels disabled using TDSO / SO32. The 3G SAR test reduction procedure is applied to the multiple code channel configuration (FCH+SCHn), with FCH only as the primary mode. Otherwise, SAR is required for multiple code channel configuration (FCH + SCHn), with FCH at full rate and SCH0 enabled at 9600 bps, using the highest reported SAR configuration for FCH only. When multiple code channels are enabled, the transmitter output can shift by more than 0.5 dB and may lead to higher SAR drifts and SCH dropouts.

The 3G SAR test reduction procedure is applied to body-worn accessory SAR in RC1 with RC3 as the primary mode. Otherwise, SAR is required for RC1, with SO55 and full rate, using the highest reported SAR configuration for body-worn accessory exposure in RC3.

8.4.4 Body-worn SAR Measurements for EVDO Devices

For handsets with EVDO capabilities, the 3G SAR test reduction procedure is applied to EVDO Rev. 0 with 1x RTT RC3 as the primary mode to determine body-worn accessory test requirements. Otherwise, body-worn accessory SAR is required for Rev. 0, at 153.6 kbps, using the highest reported SAR configuration for body-worn accessory exposure in RC3.

The 3G SAR test reduction procedure is applied to Rev. A, with Rev. 0 as the primary mode to determine body-worn accessory SAR test requirements. When SAR is not required for Rev. 0, the 3G SAR test reduction is applied with 1x RTT RC3 as the primary mode.

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When SAR is required for EVDO Rev. A, SAR is measured with a Reverse Data Channel payload size of 4096 bits and a Termination Target of 16 slots defined for Subtype 2 Physical Layer configurations, using the highest reported SAR configuration for body-worn accessory exposure in Rev. 0 or 1x RTT RC3, as appropriate.

8.4.5 Body SAR Measurements for EVDO Hotspot

Hotspot Body SAR is measured using Subtype 0/1 Physical Layer configurations for Rev. 0. The 3G SAR test reduction procedure is applied to Rev. A, Subtype 2 Physical layer configuration, with Rev. 0 as the primary mode; otherwise, SAR is measured for Rev. A using the highest reported SAR configuration for body-worn accessory exposure in Rev. 0. The AT is tested with a Reverse Data Channel rate of 153.6 kbps in Subtype 0/1 Physical Layer configurations; and a Reverse Data Channel payload size of 4096 bits and Termination Target of 16 slots in Subtype 2 Physical Layer configurations.

For EVDO data devices that also support 1x RTT voice and/or data operations, the 3G SAR test reduction procedure is applied to 1x RTT RC3 and RC1 with EVDO Rev. 0 and Rev. A as the respective primary modes. Otherwise, the 'Body-Worn Accessory SAR' procedures in the '3GPP2 CDMA 2000 1x Handsets' section are applied.

8.4.6 CDMA2000 1x Advanced

This device additionally supports 1x Advanced. Conducted powers are measured using SO75 with RC8 on the uplink and RC11 on the downlink per FCC KDB Publication 941225 D01v03r01. Smart blanking is disabled for all measurements. The EUT is configured with forward power control Mode 000 and reverse power control at 400 bps. Conducted powers are measured on an Agilent 8960 Series 10 Wireless Communications Test Set, Model E5515C using the CDMA2000 1x Advanced application, Option E1962B-410.

The 3G SAR test reduction procedure is applied to the 1x-Advanced transmission mode with 1x RTT RC3 as the primary mode. When SAR measurement is required, the 1x-Advanced power measurement configurations are used. The1x Advanced SAR procedures are applied separately to head, body-worn accessory and other exposure conditions.

8.5 SAR Measurement Conditions for UMTS

8.5.1 Output Power Verification

Maximum output power is verified on the High, Middle and Low channels according to the general descriptions in section 5.2 of 3GPP TS 34.121, using the appropriate RMC with TPC (transmit power control) set to all "1s" or applying the required inner loop power control procedures to maintain maximum output power while HSUPA is active. Results for all applicable physical channel configurations (DPCCH, DPDCHn and spreading codes, HS-DPCCH etc) are tabulated in this test report. All configurations that are not supported by the DUT or cannot be measured due to technical or equipment limitations are identified.

8.5.2 Head SAR Measurements

SAR for next to the ear head exposure is measured using a 12.2 kbps RMC with TPC bits configured to all "1's". The 3G SAR test reduction procedure is applied to AMR configurations with 12.2 kbps RMC as the primary mode. Otherwise, SAR is measured for 12.2 kbps AMR in 3.4 kbps SRB (signaling radio bearer) using the highest reported SAR configuration in 12.2 kbps RMC for head exposure.

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8.5.3 Body SAR Measurements

SAR for body exposure configurations is measured using the 12.2 kbps RMC with the TPC bits all “1s”. The 3G SAR test reduction procedure is applied to other spreading codes and multiple $DPDCH_n$ configurations supported by the handset with 12.2 kbps RMC as the primary mode. Otherwise, SAR is measured using an applicable RMC configuration with the corresponding spreading code or $DPDCH_n$, for the highest reported SAR configuration in 12.2 kbps RMC.

8.5.4 SAR Measurements with Rel 5 HSDPA

The 3G SAR test reduction procedure is applied to HSDPA body configurations with 12.2 kbps RMC as the primary mode. Otherwise, Body SAR for HSDPA is measured using an FRC with H-Set 1 in Sub-test 1 and a 12.2 kbps RMC configured in Test Loop Mode 1, for the highest reported SAR configuration in 12.2 kbps RMC without HSDPA. Handsets with both HSDPA and HSUPA are tested according to Release 6 HSPA test procedures.

8.5.5 SAR Measurements with Rel 6 HSUPA

The 3G SAR test reduction procedure is applied to HSPA (HSUPA/HSDPA with RMC) body configurations with 12.2 kbps RMC as the primary mode. Otherwise, Body SAR for HSPA is measured with E-DCH Sub-test 5, using H-Set 1 and QPSK for FRC and a 12.2 kbps RMC configured in Test Loop Mode 1 and power control algorithm 2, according to the highest reported body SAR configuration in 12.2 kbps RMC without HSPA.

When VOIP applies to head exposure, the 3G SAR test reduction procedure is applied with 12.2 kbps RMC as the primary mode; otherwise, the same HSPA configuration used for body SAR measurements are applied to head exposure testing.

8.5.6 SAR Measurement Conditions for DC-HSDPA

SAR is required for Rel. 8 DC-HSDPA when SAR is required for Rel. 5 HSDPA; otherwise, the 3G SAR test reduction procedure is applied to DC-HSDPA with 12.2 kbps RMC as the primary mode. Power is measured for DC-HSDPA according to the H-Set 12, FRC configuration in Table C.8.1.12 of 3GPP TS 34.121-1 to determine SAR test reduction. A primary and a secondary serving HS-DSCH Cell are required to perform the power measurement and for the results to be acceptable.

8.6 SAR Measurement Conditions for LTE

LTE modes are tested according to FCC KDB 941225 D05v02r04 publication. Establishing connections with base station simulators ensure a consistent means for testing SAR and are recommended for evaluating SAR [4]. The R&S CMW500 or Anritsu MT8820C simulators are used for LTE output power measurements and SAR testing. Closed loop power control was used so the UE transmits with maximum output power during SAR testing. SAR tests were performed with the same number of RB and RB offsets transmitting on all TTI frames (maximum TTI).

8.6.1 Spectrum Plots for RB Configurations

A properly configured base station simulator was used for SAR tests and power measurements. Therefore, spectrum plots for RB configurations were not required to be included in this report.

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8.6.2 MPR

MPR is permanently implemented for this device by the manufacturer. The specific manufacturer target MPR is indicated alongside the SAR results. MPR is enabled for this device, according to 3GPP TS36.101 Section 6.2.3 – 6.2.5 under Table 6.2.3-1.

8.6.3 A-MPR

A-MPR (Additional MPR) has been disabled for all SAR tests by setting NS=01 on the base station simulator.

8.6.4 Required RB Size and RB Offsets for SAR Testing

According to FCC KDB 941225 D05v02r04:

a. Per Section 5.2.1, SAR is required for QPSK 1 RB Allocation for the largest bandwidth
    i. The required channel and offset combination with the highest maximum output power is required for SAR.
    ii. When the reported SAR is ≤ 0.8 W/kg, testing of the remaining RB offset configurations and required test channels is not required. Otherwise, SAR is required for the remaining required test channels using the RB offset configuration with highest output power for that channel.
    iii. When the reported SAR for a required test channel is > 1.45 W/kg, SAR is required for all RB offset configurations for that channel.
b. Per Section 5.2.2, SAR is required for 50% RB allocation using the largest bandwidth following the same procedures outlined in Section 5.2.1.
c. Per Section 5.2.3, QPSK SAR is not required for the 100% allocation when the highest maximum output power for the 100% allocation is less than the highest maximum output power of the 1 RB and 50% RB allocations and the reported SAR for the 1 RB and 50% RB allocations is < 0.8 W/kg.
d. Per Section 5.2.4 and 5.3, SAR tests for higher order modulations and lower bandwidths configurations are not required when the conducted power of the required test configurations determined by Sections 5.2.1 through 5.2.3 is less than or equal to ½ dB higher than the equivalent configuration using QPSK modulation and when the QPSK SAR for those configurations is <1.45 W/kg.

8.6.5 TDD

LTE TDD testing is performed using the SAR test guidance provided in FCC KDB 941225 D05v02r04. TDD is tested at the highest duty factor using UL-DL configuration 0 with special subframe configuration 6 and applying the FDD LTE procedures in KDB 941225 D05v02r04. SAR testing is performed using the extended cyclic prefix listed in 3GPP TS 36.211 Section 4.

8.6.6 Downlink Only Carrier Aggregation

Conducted power measurements with LTE Carrier Aggregation (CA) (downlink only) active are made in accordance to KDB Publication 941225 D05Av01r02. The RRC connection is only handled by one cell, the primary component carrier (PCC) for downlink and uplink communications. After making a data connection to the PCC, the UE device adds secondary component carrier(s) (SCC) on the downlink only. All uplink communications and acknowledgements remain identical to specifications when downlink carrier aggregation is inactive on the PCC. Additional conducted output powers are measured with the downlink carrier aggregation active for the configuration with highest measured maximum conducted power with downlink carrier aggregation inactive measured among the channel bandwidth, modulation, and RB combinations in each frequency band. Per FCC KDB Publication 941225 D05Av01r02, no SAR measurements are required for downlink only carrier aggregation configurations when the average output

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power with downlink only carrier aggregation active is not more than 0.25 dB higher than the average output power with downlink only carrier aggregation inactive.

8.7 SAR Testing with 802.11 Transmitters

The normal network operating configurations of 802.11 transmitters are not suitable for SAR measurements. Unpredictable fluctuations in network traffic and antenna diversity conditions can introduce undesirable variations in SAR results. The SAR for these devices should be measured using chipset based test mode software to ensure the results are consistent and reliable. See KDB Publication 248227 D01v02r02 for more details.

8.7.1 General Device Setup

Chipset based test mode software is hardware dependent and generally varies among manufacturers. The device operating parameters established in test mode for SAR measurements must be identical to those programmed in production units, including output power levels, amplifier gain settings and other RF performance tuning parameters.

A periodic duty factor is required for current generation SAR systems to measure SAR. When 802.11 frame gaps are accounted for in the transmission, a maximum transmission duty factor of 92 - 96% is typically achievable in most test mode configurations. A minimum transmission duty factor of 85% is required to avoid certain hardware and device implementation issues related to wide range SAR scaling. The reported SAR is scaled to 100% transmission duty factor to determine compliance at the maximum tune-up tolerance limit.

8.7.2 U-NII-1 and U-NII-2A

For devices that operate in both U-NII-1 and U-NII-2A bands, when the same maximum output power is specified for both bands, SAR measurement using OFDM SAR test procedures is not required for U-NII-1 unless the highest reported SAR for U-NII-2A is > 1.2 W/kg. When different maximum output powers are specified for the bands, SAR measurement for the U-NII band with the lower maximum output power is not required unless the highest reported SAR for the U-NII band with the higher maximum output power, adjusted by the ratio of lower to higher specified maximum output power for the two bands, is > 1.2 W/kg. When 10g SAR measurement is considered, a factor of 2.5 is applied to the thresholds above.

8.7.3 U-NII-2C and U-NII-3

The frequency range covered by U-NII-2C and U-NII-3 is 380 MHz (5.47 – 5.85 GHz), which requires a minimum of at least two SAR probe calibration frequency points to support SAR measurements. When Terminal Doppler Weather Radar (TDWR) restriction applies, the channels at 5.60 – 5.65 GHz in U-NII-2C band must be disabled with acceptable mechanisms and documented in the equipment certification. Unless band gap channels are permanently disabled, SAR must be considered for these channels. Each band is tested independently according to the normally required OFDM SAR measurement and probe calibration frequency points requirements.

8.7.4 Initial Test Position Procedure

For exposure conditions with multiple test positions, such as handset operating next to the ear, devices with hotspot mode or UMPC mini-tablet, procedures for initial test position can be applied. Using the transmission mode determined by the DSSS procedure or initial test configuration, area scans are measured for all positions in an exposure condition. The test position with the highest extrapolated (peak) SAR is used as the initial test position. When reported SAR for the initial test position is ≤ 0.4 W/kg, no additional testing for the remaining test positions is required. Otherwise, SAR is evaluated at the subsequent highest peak SAR positions until the reported SAR result is ≤ 0.8 W/kg or all test positions are measured. When 10g SAR measurement is considered, a factor of 2.5 is applied to the thresholds above.

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8.7.5 2.4 GHz SAR Test Requirements

SAR is measured for 2.4 GHz 802.11b DSSS using either the fixed test position or, when applicable, the initial test position procedure. SAR test reduction is determined according to the following:

1) When the reported SAR of the highest measured maximum output power channel for the exposure configuration is ≤ 0.8 W/kg, no further SAR testing is required for 802.11b DSSS in that exposure configuration.

2) When the reported SAR is > 0.8 W/kg, SAR is required for that position using the next highest measured output power channel. When any reported SAR is > 1.2 W/kg, SAR is required for the third channel; i.e., all channels require testing.

2.4 GHz 802.11 g/n/ax OFDM are additionally evaluated for SAR if the highest reported SAR for 802.11b, adjusted by the ratio of the OFDM to DSSS specified maximum output power, is > 1.2 W/kg. When SAR is required for OFDM modes in 2.4 GHz band, the Initial Test Configuration Procedures should be followed. When 10g SAR measurement is considered, a factor of 2.5 is applied to the thresholds above.

8.7.6 OFDM Transmission Mode and SAR Test Channel Selection

When the same maximum output power was specified for multiple OFDM transmission mode configurations in a frequency band or aggregated band, SAR is measured using the configuration with the largest channel bandwidth, lowest order modulation and lowest data rate. When the maximum output power of a channel is the same for equivalent OFDM configurations; for example, 802.11a, 802.11n and 802.11ac or 802.11g and 802.11n with the same channel bandwidth, modulation and data rate etc., the lower order 802.11 mode i.e., 802.11a, then 802.11n and 802.11ac or 802.11g then 802.11n, is used for SAR measurement. Per FCC Guidance, 802.11ax was considered a higher order 802.11 mode when compared to a/b/g/n/ac to apply KDB Publication 248227 Guidance. When the maximum output power are the same for multiple test channels, either according to the default or additional power measurement requirements, SAR is measured using the channel closest to the middle of the frequency band or aggregated band. When there are multiple channels with the same maximum output power, SAR is measured using the higher number channel.

8.7.7 Initial Test Configuration Procedure

For OFDM, an initial test configuration is determined for each frequency band and aggregated band, according to the transmission mode with the highest maximum output power specified for SAR measurements. When the same maximum output power is specified for multiple OFDM transmission mode configurations in a frequency band or aggregated band, SAR is measured using the configuration(s) with the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order IEEE 802.11 mode. The channel of the transmission mode with the highest average RF output conducted power will be the initial test configuration.

When the reported SAR is ≤ 0.8 W/kg, no additional measurements on other test channels are required. Otherwise, SAR is evaluated using the subsequent highest average RF output channel until the reported SAR result is ≤ 1.2 W/kg or all channels are measured. When there are multiple untested channels having the same subsequent highest average RF output power, the channel with higher frequency from the lowest 802.11 mode is considered for SAR measurements (See Section 8.7.6). When 10g SAR measurement is considered, a factor of 2.5 is applied to the thresholds above.

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8.7.8 Subsequent Test Configuration Procedures

For OFDM configurations in each frequency band and aggregated band, SAR is evaluated for initial test configuration using the fixed test position or the initial test position procedure. When the highest reported SAR (for the initial test configuration), adjusted by the ratio of the specified maximum output power of the subsequent test configuration to initial test configuration, is ≤ 1.2 W/kg, no additional SAR tests for the subsequent test configurations are required. When 10g SAR measurement is considered, a factor of 2.5 is applied to the thresholds above.

8.7.9 MIMO SAR considerations

Per KDB Publication 248227 D01v02r02, the simultaneous SAR provisions in KDB Publication 447498 D01v06 should be applied to determine simultaneous transmission SAR test exclusion for WIFI MIMO. If the sum of 1g single transmission chain SAR measurements is <1.6 W/kg, no additional SAR measurements for MIMO are required. Alternatively, SAR for MIMO can be measured with all antennas transmitting simultaneously at the specified maximum output power of MIMO operation. When 10g SAR measurement is considered, a factor of 2.5 is applied to the thresholds above.

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9 RF CONDUCTED POWERS

9.1 CDMA Conducted Powers

Table 9-1
Maximum Conducted Power

				Loopback			Data			
Band	**Channel**	**Rule Part**	**Frequency**	**SO55 [dBm]**	**SO55 [dBm]**	**SO75 [dBm]**	**TDSO SO32 [dBm]**	**TDSO SO32 [dBm]**	**1x EvDO Rev. 0 [dBm]**	**1x EvDO Rev. A [dBm]**
	F-RC		MHz	RC1	RC3	RC11	FCH+SCH	FCH	(RTAP)	(RETAP)
Cellular	564	90S	820.1	24.95	24.99	24.99	24.91	24.90	24.95	24.96
Cellular	1013	22H	824.7	24.92	25.01	25.00	24.91	24.93	24.96	24.95
	384	22H	836.52	24.98	25.06	25.08	25.05	25.07	25.10	25.09
	777	22H	848.31	25.08	25.15	25.14	25.14	25.11	25.20	25.19
PCS	25	24E	1851.25	24.57	24.59	24.52	24.57	24.56	24.53	24.59
	600	24E	1880	24.54	24.53	24.49	24.53	24.54	24.54	24.54
	1175	24E	1908.75	24.44	24.44	24.39	24.47	24.45	24.40	24.45

Table 9-2
Reduced Conducted Power – Hotspot Mode Active

				Data			
Band	**Channel**	**Rule Part**	**Frequency**	**TDSO SO32 [dBm]**	**TDSO SO32 [dBm]**	**1x EvDO Rev. 0 [dBm]**	**1x EvDO Rev. A [dBm]**
	F-RC		MHz	FCH+SCH	FCH	(RTAP)	(RETAP)
PCS	25	24E	1851.25	21.36	21.41	21.47	21.36
	600	24E	1880	21.33	21.38	21.48	21.50
	1175	24E	1908.75	21.33	21.34	21.40	21.40

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Table 9-3
Reduced Conducted Power – Grip Sensor Active

				Loopback			Data			
Band	**Channel**	**Rule Part**	**Frequency**	**SO55 [dBm]**	**SO55 [dBm]**	**SO75 [dBm]**	**TDSO SO32 [dBm]**	**TDSO SO32 [dBm]**	**1x EvDO Rev. 0 [dBm]**	**1x EvDO Rev. A [dBm]**
	F-RC		MHz	RC1	RC3	RC11	FCH+SCH	FCH	(RTAP)	(RETAP)
PCS	25	24E	1851.25	19.94	19.98	19.96	20.00	19.92	20.12	20.13
	600	24E	1880	19.95	19.99	19.98	20.00	19.99	20.09	20.15
	1175	24E	1908.75	19.89	19.93	19.89	20.02	19.92	20.08	20.11

Note: RC1 is only applicable for IS-95 compatibility. For FCC Rule Part 90S, Per FCC KDB Publication 447498 D01v06 4.1.g), only one channel is required since the device operates within the transmission range of 817.90 – 823.10 MHz.



Figure 9-1
Power Measurement Setup

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9.2 GSM Conducted Powers

Table 9-4
Maximum Conducted Power

Maximum Burst-Averaged Output Power										
		Voice	*GPRS/EDGE Data (GMSK)*				*EDGE Data (8-PSK)*			
Band	**Channel**	**GSM [dBm] CS (1 Slot)**	**GPRS [dBm] 1 Tx Slot**	**GPRS [dBm] 2 Tx Slot**	**GPRS [dBm] 3 Tx Slot**	**GPRS [dBm] 4 Tx Slot**	**EDGE [dBm] 1 Tx Slot**	**EDGE [dBm] 2 Tx Slot**	**EDGE [dBm] 3 Tx Slot**	**EDGE [dBm] 4 Tx Slot**
GSM 850	128	32.54	32.52	31.68	**29.52**	27.44	26.48	25.18	23.27	22.03
	190	32.62	32.82	31.51	**29.98**	27.43	26.51	25.22	23.06	22.05
	251	32.76	32.81	31.50	**29.65**	27.50	26.75	25.14	23.31	22.27
GSM 1900	512	30.83	30.81	**29.80**	27.16	25.40	26.45	25.00	22.73	21.47
	661	30.55	30.55	**29.56**	27.32	25.30	26.51	24.82	22.72	21.21
	810	30.47	30.50	**29.44**	26.98	24.99	26.00	24.57	22.50	21.51

Calculated Maximum Frame-Averaged Output Power										
		Voice	*GPRS/EDGE Data (GMSK)*				*EDGE Data (8-PSK)*			
Band	**Channel**	**GSM [dBm] CS (1 Slot)**	**GPRS [dBm] 1 Tx Slot**	**GPRS [dBm] 2 Tx Slot**	**GPRS [dBm] 3 Tx Slot**	**GPRS [dBm] 4 Tx Slot**	**EDGE [dBm] 1 Tx Slot**	**EDGE [dBm] 2 Tx Slot**	**EDGE [dBm] 3 Tx Slot**	**EDGE [dBm] 4 Tx Slot**
GSM 850	128	23.51	23.49	25.66	**25.26**	24.43	17.45	19.16	19.01	19.02
	190	23.59	23.79	25.49	**25.72**	24.42	17.48	19.20	18.80	19.04
	251	23.73	23.78	25.48	**25.39**	24.49	17.72	19.12	19.05	19.26
GSM 1900	512	21.80	21.78	**23.78**	22.90	22.39	17.42	18.98	18.47	18.46
	661	21.52	21.52	**23.54**	23.06	22.29	17.48	18.80	18.46	18.20
	810	21.44	21.47	**23.42**	22.72	21.98	16.97	18.55	18.24	18.50

GSM 850	**Frame Avg.Targets:**	23.97	23.97	25.98	**25.74**	24.49	17.97	19.48	19.24	19.49
GSM 1900		21.47	21.47	**23.48**	22.74	21.99	16.97	18.48	18.24	18.49

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Table 9-5
Reduced Conducted Power – Hotspot Mode Active

Maximum Burst-Averaged Output Power									
		GPRS/EDGE Data (GMSK)				*EDGE Data (8-PSK)*			
Band	**Channel**	**GPRS [dBm] 1 Tx Slot**	**GPRS [dBm] 2 Tx Slot**	**GPRS [dBm] 3 Tx Slot**	**GPRS [dBm] 4 Tx Slot**	**EDGE [dBm] 1 Tx Slot**	**EDGE [dBm] 2 Tx Slot**	**EDGE [dBm] 3 Tx Slot**	**EDGE [dBm] 4 Tx Slot**
GSM 1900	512	29.24	**28.07**	26.00	23.99	26.97	25.45	23.13	22.36
	661	28.82	**28.34**	25.90	23.82	27.00	25.41	23.04	22.42
	810	28.61	**28.05**	25.64	23.48	26.83	25.19	22.86	22.12

Calculated Maximum Frame-Averaged Output Power									
		GPRS/EDGE Data (GMSK)				*EDGE Data (8-PSK)*			
Band	**Channel**	**GPRS [dBm] 1 Tx Slot**	**GPRS [dBm] 2 Tx Slot**	**GPRS [dBm] 3 Tx Slot**	**GPRS [dBm] 4 Tx Slot**	**EDGE [dBm] 1 Tx Slot**	**EDGE [dBm] 2 Tx Slot**	**EDGE [dBm] 3 Tx Slot**	**EDGE [dBm] 4 Tx Slot**
GSM 1900	512	20.21	**22.05**	21.74	20.98	17.94	19.43	18.87	19.35
	661	19.79	**22.32**	21.64	20.81	17.97	19.39	18.78	19.41
	810	19.58	**22.03**	21.38	20.47	17.80	19.17	18.60	19.11
GSM 1900	**Frame Avg.Targets:**	19.47	**21.48**	20.74	19.99	16.97	18.48	18.24	18.49

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Table 9-6
Reduced Conducted Power – Grip Sensor Active

Maximum Burst-Averaged Output Power										
		Voice	*GPRS/EDGE Data (GMSK)*				*EDGE Data (8-PSK)*			
Band	**Channel**	**GSM [dBm] CS (1 Slot)**	**GPRS [dBm] 1 Tx Slot**	**GPRS [dBm] 2 Tx Slot**	**GPRS [dBm] 3 Tx Slot**	**GPRS [dBm] 4 Tx Slot**	**EDGE [dBm] 1 Tx Slot**	**EDGE [dBm] 2 Tx Slot**	**EDGE [dBm] 3 Tx Slot**	**EDGE [dBm] 4 Tx Slot**
GSM 1900	512	28.23	28.28	**27.17**	25.00	22.97	26.84	25.35	23.01	22.32
	661	28.50	28.49	**27.09**	24.92	22.81	27.00	25.32	22.91	22.37
	810	28.17	28.16	**26.89**	24.82	22.57	26.65	25.11	22.74	22.08

Calculated Maximum Frame-Averaged Output Power										
		Voice	*GPRS/EDGE Data (GMSK)*				*EDGE Data (8-PSK)*			
Band	**Channel**	**GSM [dBm] CS (1 Slot)**	**GPRS [dBm] 1 Tx Slot**	**GPRS [dBm] 2 Tx Slot**	**GPRS [dBm] 3 Tx Slot**	**GPRS [dBm] 4 Tx Slot**	**EDGE [dBm] 1 Tx Slot**	**EDGE [dBm] 2 Tx Slot**	**EDGE [dBm] 3 Tx Slot**	**EDGE [dBm] 4 Tx Slot**
GSM 1900	512	19.20	19.25	**21.15**	20.74	19.96	17.81	19.33	18.75	19.31
	661	19.47	19.46	**21.07**	20.66	19.80	17.97	19.30	18.65	19.36
	810	19.14	19.13	**20.87**	20.56	19.56	17.62	19.09	18.48	19.07
GSM 1900	**Frame Avg.Targets:**	18.47	18.47	**20.48**	19.74	18.99	16.97	18.48	18.24	18.49

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Note:

1. Both burst-averaged and calculated frame-averaged powers are included. Frame-averaged power was calculated from the measured burst-averaged power by converting the slot powers into linear units and calculating the energy over 8 timeslots.
2. GPRS/EDGE (GMSK) output powers were measured with coding scheme setting of 1 (CS1) on the base station simulator. CS1 was configured to measure GPRS output power measurements and SAR to ensure GMSK modulation in the signal. Our Investigation has shown that CS1 - CS4 settings do not have any impact on the output levels or modulation in the GPRS modes.
3. EDGE (8-PSK) output powers were measured with MCS7 on the base station simulator. MCS7 coding scheme was used to measure the output powers for EDGE since investigation has shown that choosing MCS7 coding scheme will ensure 8-PSK modulation. It has been shown that MCS levels that produce 8PSK modulation do not have an impact on output power.

GSM Class: B
GPRS Multislot class: 12 (Max 4 Tx uplink slots)
EDGE Multislot class: 12 (Max 4 Tx uplink slots)
DTM Multislot Class: N/A

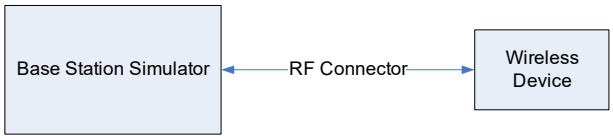


Figure 9-2
Power Measurement Setup

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9.3 UMTS Conducted Powers

Table 9-7
Maximum Conducted Power

3GPP Release Version	Mode	3GPP 34.121 Subtest	Cellular Band [dBm]			AWS Band [dBm]			PCS Band [dBm]			3GPP MPR [dB]
			4132	4183	4233	1312	1412	1513	9262	9400	9538	
99	WCDMA	12.2 kbps RMC	24.43	24.45	24.50	24.31	24.33	24.22	24.41	24.24	24.21	-
99		12.2 kbps AMR	24.45	24.48	24.55	24.40	24.36	24.21	24.42	24.26	24.19	-
6	HSDPA	Subtest 1	23.13	23.05	23.02	23.05	23.27	22.95	23.20	23.02	22.90	0
6		Subtest 2	23.09	23.02	22.92	22.76	23.07	22.65	23.31	23.07	23.04	0
6		Subtest 3	22.62	22.61	22.73	22.61	22.52	22.30	22.95	22.69	22.54	0.5
6		Subtest 4	22.60	22.66	22.73	22.42	22.42	22.43	22.95	22.55	22.57	0.5
6	HSUPA	Subtest 1	23.12	23.23	23.29	23.04	23.09	22.86	23.41	23.21	23.06	0
6		Subtest 2	21.11	21.23	21.24	21.01	21.03	20.98	21.33	21.11	21.02	2
6		Subtest 3	22.22	22.38	22.35	21.97	21.99	21.80	22.27	22.16	22.04	1
6		Subtest 4	21.19	21.33	21.34	20.97	21.03	20.89	21.34	21.16	21.03	2
6		Subtest 5	23.23	23.25	23.37	23.03	23.08	22.87	23.41	23.25	23.04	0
8	DC-HSDPA	Subtest 1	23.23	23.08	23.25	23.00	22.97	22.93	23.55	23.22	23.15	0
8		Subtest 2	22.94	23.20	23.37	22.62	23.01	22.64	23.19	23.15	23.17	0
8		Subtest 3	22.77	22.63	22.66	22.45	22.75	22.27	23.02	22.71	22.55	0.5
8		Subtest 4	22.70	22.72	22.84	22.53	22.52	22.33	22.98	22.48	22.57	0.5

Table 9-8
Reduced Conducted Power – Hotspot Mode Active

3GPP Release Version	Mode	3GPP 34.121 Subtest	AWS Band [dBm]			PCS Band [dBm]			3GPP MPR [dB]
			1312	1412	1513	9262	9400	9538	
99	WCDMA	12.2 kbps RMC	20.21	20.26	20.01	20.86	20.74	20.65	-
99		12.2 kbps AMR	20.28	20.33	20.02	20.92	20.75	20.67	-
6	HSDPA	Subtest 1	19.06	19.13	18.91	19.87	19.72	19.66	0
6		Subtest 2	19.06	19.15	18.91	19.88	19.73	19.69	0
6		Subtest 3	18.57	18.64	18.41	19.42	19.23	19.14	0.5
6		Subtest 4	18.59	18.63	18.45	19.36	19.30	19.13	0.5
6	HSUPA	Subtest 1	19.10	19.18	18.94	19.88	19.74	19.66	0
6		Subtest 2	17.06	17.13	16.91	17.85	17.70	17.62	2
6		Subtest 3	18.07	18.11	17.90	18.84	18.69	18.64	1
6		Subtest 4	17.09	17.14	16.91	17.84	17.72	17.66	2
6		Subtest 5	19.21	19.29	19.06	19.98	19.86	19.77	0
8	DC-HSDPA	Subtest 1	19.17	19.17	18.94	19.91	19.79	19.67	0
8		Subtest 2	19.14	19.26	18.97	19.88	19.77	19.68	0
8		Subtest 3	18.61	18.67	18.48	19.46	19.27	19.20	0.5
8		Subtest 4	18.62	18.70	18.52	19.45	19.27	19.22	0.5

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Table 9-9
Reduced Conducted Power – Grip Sensor Active

3GPP Release Version	Mode	3GPP 34.121 Subtest	AWS Band [dBm]			PCS Band [dBm]			3GPP MPR [dB]
			1312	1412	1513	9262	9400	9538	
99	WCDMA	12.2 kbps RMC	19.72	19.75	19.54	19.87	19.73	19.68	-
99		12.2 kbps AMR	19.73	19.78	19.52	19.88	19.76	19.60	-
6	HSDPA	Subtest 1	18.80	18.87	18.65	18.80	18.63	18.62	0
6		Subtest 2	18.78	18.85	18.61	18.80	18.67	18.56	0
6		Subtest 3	18.21	18.32	18.13	18.36	18.34	18.10	0.5
6		Subtest 4	18.24	18.32	18.10	18.38	18.23	18.11	0.5
6	HSUPA	Subtest 1	18.60	18.65	18.40	18.87	18.74	18.66	0
6		Subtest 2	16.54	16.60	16.43	16.82	16.67	16.60	2
6		Subtest 3	17.58	17.62	17.43	17.83	17.65	17.62	1
6		Subtest 4	16.55	16.67	16.40	16.81	16.65	16.61	2
6		Subtest 5	18.72	18.75	18.55	18.98	18.81	18.71	0
8	DC-HSDPA	Subtest 1	18.65	18.76	18.53	18.99	18.81	18.77	0
8		Subtest 2	18.58	18.74	18.51	18.89	18.81	18.75	0
8		Subtest 3	18.12	18.19	17.95	18.55	18.31	18.25	0.5
8		Subtest 4	18.23	18.14	18.00	18.54	18.32	18.22	0.5

DC-HSDPA considerations

- 3GPP Specification 34.121-1 Release 8 Ver 8.10.0 was used for DC-HSDPA guidance
- H-Set 12 (QPSK) was confirmed to be used during DC-HSDPA measurements
- The DUT supports UE category 24 for HSDPA

It is expected by the manufacturer that MPR for some HSPA subtests may be up to 2 dB more than specified by 3GPP, but also as low as 0 dB according to the chipset implementation in this model.

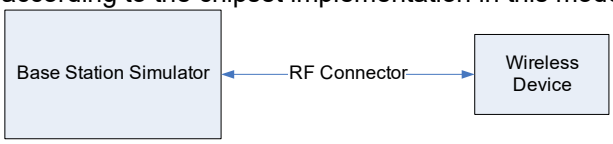


Figure 9-3
Power Measurement Setup

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9.4 LTE Conducted Powers

9.4.1 LTE Band 71

Table 9-10
LTE Band 71 Conducted Powers - 20 MHz Bandwidth

LTE Band 71 20 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel 133297 (680.5 MHz) Conducted Power [dBm]	MPR Allowed per 3GPP [dB]	MPR [dB]
QPSK	1	0	**24.80**	0	0
	1	50	24.72		0
	1	99	24.64		0
	50	0	23.89	0-1	1
	50	25	**24.04**		1
	50	50	23.98		1
	100	0	23.90		1
16QAM	1	0	24.10	0-1	1
	1	50	24.15		1
	1	99	23.93		1
	50	0	22.87	0-2	2
	50	25	22.86		2
	50	50	22.79		2
	100	0	22.80		2
64QAM	1	0	23.13	0-2	2
	1	50	23.09		2
	1	99	22.92		2
	50	0	21.88	0-3	3
	50	25	21.91		3
	50	50	21.84		3
	100	0	21.79		3

Note: LTE Band 71 at 20 MHz bandwidth does not support three non-overlapping channels. Per KDB Publication 941225 D05v02, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

Table 9-11
LTE Band 71 Conducted Powers - 15 MHz Bandwidth

LTE Band 71 15 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel 133297 (680.5 MHz) Conducted Power [dBm]	MPR Allowed per 3GPP [dB]	MPR [dB]
QPSK	1	0	24.76	0	0
	1	36	24.80		0
	1	74	24.90		0
	36	0	24.05	0-1	1
	36	18	24.07		1
	36	37	24.12		1
	75	0	24.06		1
16QAM	1	0	24.39	0-1	1
	1	36	24.31		1
	1	74	24.30		1
	36	0	22.97	0-2	2
	36	18	23.01		2
	36	37	23.08		2
	75	0	22.97		2
64QAM	1	0	23.14	0-2	2
	1	36	23.39		2
	1	74	23.24		2
	36	0	21.90	0-3	3
	36	18	22.01		3
	36	37	22.02		3
	75	0	22.07		3

Note: LTE Band 71 at 15 MHz bandwidth does not support three non-overlapping channels. Per KDB Publication 941225 D05v02, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

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Table 9-12
LTE Band 71 Conducted Powers - 10 MHz Bandwidth

LTE Band 71 10 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 133172 (668.0 MHz)	Mid Channel 133297 (680.5 MHz)	High Channel 133422 (693.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	24.82	24.83	24.78	0	0
	1	25	24.63	24.81	24.64		0
	1	49	24.65	24.74	24.62		0
	25	0	23.85	23.85	23.86	0-1	1
	25	12	23.87	24.16	23.90		1
	25	25	23.80	23.79	23.82		1
	50	0	23.84	23.88	23.85		1
16QAM	1	0	24.12	24.06	24.25	0-1	1
	1	25	24.32	24.10	24.15		1
	1	49	24.04	24.18	23.97		1
	25	0	22.83	22.82	22.86	0-2	2
	25	12	22.76	22.86	22.85		2
	25	25	22.74	22.82	22.80		2
	50	0	22.83	22.84	22.81		2
64QAM	1	0	22.82	22.98	23.17	0-2	2
	1	25	23.07	23.27	23.06		2
	1	49	22.95	23.08	23.04		2
	25	0	21.82	21.78	21.72	0-3	3
	25	12	21.72	21.78	21.83		3
	25	25	21.77	21.82	21.78		3
	50	0	21.80	21.97	21.82		3

Table 9-13
LTE Band 71 Conducted Powers - 5 MHz Bandwidth

LTE Band 71 5 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 133147 (665.5 MHz)	Mid Channel 133297 (680.5 MHz)	High Channel 133447 (695.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	24.64	24.63	24.49	0	0
	1	12	24.75	24.75	24.74		0
	1	24	24.75	24.74	24.73		0
	12	0	23.79	23.78	23.76	0-1	1
	12	6	23.86	23.87	23.87		1
	12	13	23.92	23.92	23.85		1
	25	0	23.87	23.87	23.84		1
16QAM	1	0	23.82	24.01	23.81	0-1	1
	1	12	24.08	24.12	24.09		1
	1	24	24.11	24.16	24.07		1
	12	0	22.77	22.79	22.73	0-2	2
	12	6	22.89	22.93	22.94		2
	12	13	22.90	22.92	22.89		2
	25	0	22.83	22.80	22.85		2
64QAM	1	0	22.81	22.99	23.01	0-2	2
	1	12	23.05	23.12	23.09		2
	1	24	23.01	23.14	23.03		2
	12	0	21.72	21.76	21.74	0-3	3
	12	6	21.76	21.91	21.86		3
	12	13	21.80	21.93	21.90		3
	25	0	21.86	21.82	21.79		3

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9.4.2 LTE Band 12

Table 9-14
LTE Band 12 Conducted Powers - 10 MHz Bandwidth

LTE Band 12 10 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel 23095 (707.5 MHz) Conducted Power [dBm]	MPR Allowed per 3GPP [dB]	MPR [dB]
QPSK	1	0	24.49	0	0
	1	25	**24.51**		0
	1	49	24.33		0
	25	0	23.79	0-1	1
	25	12	23.83		1
	25	25	**23.84**		1
	50	0	23.82		1
16QAM	1	0	23.84	0-1	1
	1	25	23.80		1
	1	49	23.75		1
	25	0	22.82	0-2	2
	25	12	22.86		2
	25	25	22.80		2
	50	0	22.81		2
64QAM	1	0	22.60	0-2	2
	1	25	22.84		2
	1	49	22.62		2
	25	0	21.80	0-3	3
	25	12	21.83		3
	25	25	21.86		3
	50	0	21.84		3

Note: LTE Band 12 at 10 MHz bandwidth does not support three non-overlapping channels. Per KDB Publication 941225 D05v02, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

Table 9-15
LTE Band 12 Conducted Powers - 5 MHz Bandwidth

LTE Band 12 5 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 23035 (701.5 MHz)	Mid Channel 23095 (707.5 MHz)	High Channel 23155 (713.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	24.51	24.50	24.41	0	0
	1	12	24.25	24.61	24.51		0
	1	24	24.45	24.47	24.58		0
	12	0	23.94	23.63	23.57	0-1	1
	12	6	23.69	23.76	23.62		1
	12	13	23.63	23.74	23.62		1
	25	0	23.65	23.71	23.60		1
16QAM	1	0	23.82	23.83	23.81	0-1	1
	1	12	23.50	23.84	23.77		1
	1	24	23.81	23.85	23.81		1
	12	0	22.71	22.68	22.43	0-2	2
	12	6	22.74	22.74	22.59		2
	12	13	22.79	22.76	22.66		2
	25	0	22.69	22.72	22.59		2
64QAM	1	0	22.80	22.80	22.75	0-2	2
	1	12	22.52	22.80	22.77		2
	1	24	22.72	22.99	22.72		2
	12	0	21.67	21.69	21.65	0-3	3
	12	6	21.76	21.79	21.67		3
	12	13	21.69	21.71	21.65		3
	25	0	21.71	21.70	21.60		3

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Table 9-16
LTE Band 12 Conducted Powers - 3 MHz Bandwidth

LTE Band 12 3 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 23025 (700.5 MHz)	Mid Channel 23095 (707.5 MHz)	High Channel 23165 (714.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	24.50	24.47	24.41	0	0
	1	7	24.54	24.54	24.46		0
	1	14	24.25	24.59	24.27		0
	8	0	23.65	23.64	23.56	0-1	1
	8	4	23.72	23.70	23.51		1
	8	7	23.66	23.66	23.57		1
	15	0	23.72	23.73	23.62		1
16QAM	1	0	23.86	23.87	23.72	0-1	1
	1	7	23.81	23.84	23.46		1
	1	14	23.57	23.88	23.76		1
	8	0	22.69	22.72	22.55	0-2	2
	8	4	22.82	22.81	22.67		2
	8	7	22.86	22.75	22.62		2
	15	0	22.75	22.72	22.60		2
64QAM	1	0	22.54	22.74	22.74	0-2	2
	1	7	22.87	22.91	22.80		2
	1	14	22.34	22.91	22.49		2
	8	0	21.68	21.69	21.60	0-3	3
	8	4	21.77	21.78	21.61		3
	8	7	21.79	21.64	21.63		3
	15	0	21.73	21.73	21.59		3

Table 9-17
LTE Band 12 Conducted Powers -1.4 MHz Bandwidth

LTE Band 12 1.4 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 23017 (699.7 MHz)	Mid Channel 23095 (707.5 MHz)	High Channel 23173 (715.3 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	24.55	24.42	24.36	0	0
	1	2	24.59	24.55	24.26		0
	1	5	24.53	24.52	24.13		0
	3	0	24.54	24.52	24.22		0
	3	2	24.64	24.59	24.19		0
	3	3	24.53	24.51	24.13		0
	6	0	23.63	23.62	23.53	0-1	1
16QAM	1	0	23.94	23.69	23.63	0-1	1
	1	2	23.88	23.71	23.46		1
	1	5	23.97	23.79	23.56		1
	3	0	23.64	23.74	23.39		1
	3	2	23.73	23.76	23.36		1
	3	3	23.74	23.75	23.21		1
	6	0	22.76	22.70	22.60	0-2	2
64QAM	1	0	22.84	22.73	22.76	0-2	2
	1	2	22.90	23.14	22.49		2
	1	5	22.76	22.85	22.41		2
	3	0	22.75	22.81	22.50		2
	3	2	22.80	22.82	22.40		2
	3	3	22.71	22.74	22.34		2
	6	0	21.68	21.61	21.62	0-3	3

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9.4.3 LTE Band 13

Table 9-18
LTE Band 13 Conducted Powers - 10 MHz Bandwidth

LTE Band 13 10 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel 23230 (782.0 MHz) Conducted Power [dBm]	MPR Allowed per 3GPP [dB]	MPR [dB]
QPSK	1	0	24.45	0	0
	1	25	24.66		0
	1	49	**24.77**		0
	25	0	23.87	0-1	1
	25	12	23.87		1
	25	25	**23.88**		1
	50	0	23.86		1
16QAM	1	0	23.88	0-1	1
	1	25	23.71		1
	1	49	23.82		1
	25	0	22.81	0-2	2
	25	12	22.86		2
	25	25	22.86		2
	50	0	22.83		2
64QAM	1	0	22.62	0-2	2
	1	25	22.80		2
	1	49	22.85		2
	25	0	21.80	0-3	3
	25	12	21.82		3
	25	25	21.88		3
	50	0	21.79		3

Table 9-19
LTE Band 13 Conducted Powers - 5 MHz Bandwidth

LTE Band 13 5 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel 23230 (782.0 MHz) Conducted Power [dBm]	MPR Allowed per 3GPP [dB]	MPR [dB]
QPSK	1	0	24.31	0	0
	1	12	24.20		0
	1	24	24.29		0
	12	0	23.43	0-1	1
	12	6	23.44		1
	12	13	23.40		1
	25	0	23.44		1
16QAM	1	0	23.64	0-1	1
	1	12	23.62		1
	1	24	23.66		1
	12	0	22.46	0-2	2
	12	6	22.48		2
	12	13	22.43		2
	25	0	22.21		2
64QAM	1	0	22.52	0-2	2
	1	12	22.49		2
	1	24	22.46		2
	12	0	21.44	0-3	3
	12	6	21.37		3
	12	13	21.43		3
	25	0	21.27		3

Note: LTE Band 13 at 5 MHz bandwidth does not support three non-overlapping channels. Per KDB Publication 941225 D05v02, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

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9.4.4 LTE Band 14

Table 9-20
LTE Band 14 Conducted Powers - 10 MHz Bandwidth

LTE Band 14 10 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel 23330 (793.0 MHz) Conducted Power [dBm]	MPR Allowed per 3GPP [dB]	MPR [dB]
QPSK	1	0	24.56	0	0
	1	25	**24.80**		0
	1	49	24.65		0
	25	0	**24.05**	0-1	1
	25	12	24.04		1
	25	25	23.98		1
	50	0	23.93		1
16QAM	1	0	24.01	0-1	1
	1	25	23.89		1
	1	49	23.77		1
	25	0	23.16	0-2	2
	25	12	23.18		2
	25	25	23.05		2
	50	0	22.95		2
64QAM	1	0	23.20	0-2	2
	1	25	23.19		2
	1	49	23.01		2
	25	0	22.07	0-3	3
	25	12	22.08		3
	25	25	21.97		3
	50	0	21.98		3

Table 9-21
LTE Band 14 Conducted Powers - 5 MHz Bandwidth

LTE Band 14 5 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel 23330 (793.0 MHz) Conducted Power [dBm]	MPR Allowed per 3GPP [dB]	MPR [dB]
QPSK	1	0	24.43	0	0
	1	12	24.60		0
	1	24	24.55		0
	12	0	23.58	0-1	1
	12	6	23.71		1
	12	13	23.67		1
	25	0	23.64		1
16QAM	1	0	23.73	0-1	1
	1	12	23.97		1
	1	24	23.85		1
	12	0	22.65	0-2	2
	12	6	22.69		2
	12	13	22.64		2
	25	0	22.67		2
64QAM	1	0	22.71	0-2	2
	1	12	22.74		2
	1	24	22.75		2
	12	0	21.65	0-3	3
	12	6	21.63		3
	12	13	21.70		3
	25	0	21.69		3

Note: LTE Band 14 at 5 MHz bandwidth does not support three non-overlapping channels. Per KDB Publication 941225 D05v02, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

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9.4.5 LTE Band 26 (Cell)

Table 9-22
LTE Band 26 (Cell) Conducted Powers - 15 MHz Bandwidth

LTE Band 26 (Cell) 15 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel 26865 (831.5 MHz) Conducted Power [dBm]	MPR Allowed per 3GPP [dB]	MPR [dB]
QPSK	1	0	24.14	0	0
	1	36	**24.62**		0
	1	74	23.95		0
	36	0	23.76	0-1	1
	36	18	**23.93**		1
	36	37	23.46		1
	75	0	23.50		1
16QAM	1	0	23.19	0-1	1
	1	36	23.64		1
	1	74	22.95		1
	36	0	22.75	0-2	2
	36	18	22.86		2
	36	37	22.46		2
	75	0	22.56		2
64QAM	1	0	22.44	0-2	2
	1	36	22.85		2
	1	74	22.20		2
	36	0	21.87	0-3	3
	36	18	21.85		3
	36	37	21.61		3
	75	0	21.60		3

Note: LTE Band 26 (Cell) at 15 MHz bandwidth does not support three non-overlapping channels. Per KDB Publication 941225 D05v02, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

Table 9-23
LTE Band 26 (Cell) Conducted Powers - 10 MHz Bandwidth

LTE Band 26 (Cell) 10 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 26740 (819.0 MHz)	Mid Channel 26865 (831.5 MHz)	High Channel 26990 (844.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	23.76	24.27	23.93	0	0
	1	25	23.64	24.11	23.92		0
	1	49	23.99	24.27	23.70		0
	25	0	23.21	23.27	22.99	0-1	1
	25	12	23.01	23.26	23.32		1
	25	25	22.79	23.29	23.39		1
	50	0	22.88	23.29	23.23		1
16QAM	1	0	22.85	23.50	23.10	0-1	1
	1	25	22.82	23.38	23.02		1
	1	49	23.11	23.49	22.92		1
	25	0	22.18	22.28	21.93	0-2	2
	25	12	21.90	22.31	22.24		2
	25	25	21.73	22.33	22.40		2
	50	0	21.89	22.26	22.15		2
64QAM	1	0	21.49	22.05	21.57	0-2	2
	1	25	21.50	22.25	21.86		2
	1	49	21.77	22.24	21.79		2
	25	0	20.53	21.11	20.98	0-3	3
	25	12	20.54	21.24	21.32		3
	25	25	20.56	21.18	20.60		3
	50	0	20.58	21.27	20.69		3

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Table 9-24
LTE Band 26 (Cell) Conducted Powers - 5 MHz Bandwidth

LTE Band 26 (Cell) 5 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 26715 (816.5 MHz)	Mid Channel 26865 (831.5 MHz)	High Channel 27015 (846.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	23.69	24.05	24.12	0	0
	1	12	24.05	24.12	24.03		0
	1	24	23.77	24.15	23.74		0
	12	0	23.10	23.17	23.53	0-1	1
	12	6	23.19	23.22	23.58		1
	12	13	23.16	23.23	23.45		1
	25	0	23.17	23.25	23.41		1
16QAM	1	0	22.88	23.35	23.35	0-1	1
	1	12	23.27	23.40	23.21		1
	1	24	23.03	23.39	23.01		1
	12	0	22.12	22.20	22.60	0-2	2
	12	6	22.22	22.31	22.67		2
	12	13	22.18	22.25	22.49		2
	25	0	22.20	22.23	22.37		2
64QAM	1	0	21.73	22.34	21.78	0-2	2
	1	12	21.97	22.20	21.84		2
	1	24	21.79	22.14	21.89		2
	12	0	20.68	21.25	21.13	0-3	3
	12	6	20.70	21.35	21.20		3
	12	13	20.69	21.29	21.12		3
	25	0	20.51	21.24	21.04		3

Table 9-25
LTE Band 26 (Cell) Conducted Powers - 3 MHz Bandwidth

LTE Band 26 (Cell) 3 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 26705 (815.5 MHz)	Mid Channel 26865 (831.5 MHz)	High Channel 27025 (847.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	23.70	24.03	24.09	0	0
	1	7	24.02	24.06	24.10		0
	1	14	24.02	24.13	23.77		0
	8	0	23.06	23.15	23.59	0-1	1
	8	4	23.16	23.23	23.58		1
	8	7	23.14	23.20	23.38		1
	15	0	23.18	23.22	23.42		1
16QAM	1	0	22.81	23.26	23.16	0-1	1
	1	7	23.17	23.36	23.25		1
	1	14	23.21	23.42	22.98		1
	8	0	22.17	22.24	22.68	0-2	2
	8	4	22.28	22.25	22.60		2
	8	7	22.16	22.27	22.48		2
	15	0	22.15	22.21	22.40		2
64QAM	1	0	21.81	22.34	21.88	0-2	2
	1	7	21.89	22.20	22.11		2
	1	14	21.95	22.31	21.89		2
	8	0	20.97	21.17	21.14	0-3	3
	8	4	20.96	21.26	21.42		3
	8	7	20.98	21.21	21.50		3
	15	0	21.16	21.22	21.59		3

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Table 9-26
LTE Band 26 (Cell) Conducted Powers -1.4 MHz Bandwidth

LTE Band 26 (Cell) 1.4 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 26697 (814.7 MHz)	Mid Channel 26865 (831.5 MHz)	High Channel 27033 (848.3 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	23.44	23.99	24.01	0	0
	1	2	23.62	24.13	23.93		0
	1	5	23.73	24.03	23.66		0
	3	0	23.73	23.97	23.99		0
	3	2	23.86	24.07	23.91		0
	3	3	23.86	24.03	23.80		0
	6	0	23.10	23.17	23.21	0-1	1
16QAM	1	0	22.72	23.31	23.21	0-1	1
	1	2	22.88	23.45	23.17		1
	1	5	23.01	23.29	22.87		1
	3	0	22.62	23.20	23.04		1
	3	2	22.84	23.27	23.00		1
	3	3	22.84	23.24	22.89		1
	6	0	22.13	22.21	22.27	0-2	2
64QAM	1	0	21.98	22.27	21.88	0-2	2
	1	2	21.81	22.30	22.16		2
	1	5	21.89	22.20	21.96		2
	3	0	21.78	22.25	21.45		2
	3	2	21.88	22.23	21.78		2
	3	3	21.81	22.17	21.99		2
	6	0	20.83	21.14	20.87	0-3	3

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9.4.6 LTE Band 5 (Cell)

Table 9-27
LTE Band 5 (Cell) Conducted Powers - 10 MHz Bandwidth

LTE Band 5 (Cell) 10 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel 20525 (836.5 MHz) Conducted Power [dBm]	MPR Allowed per 3GPP [dB]	MPR [dB]
QPSK	1	0	24.51	0	0
	1	25	24.48		0
	1	49	**24.63**		0
	25	0	**23.81**	0-1	1
	25	12	23.80		1
	25	25	23.78		1
	50	0	23.77		1
16QAM	1	0	23.83	0-1	1
	1	25	23.84		1
	1	49	24.01		1
	25	0	22.86	0-2	2
	25	12	22.85		2
	25	25	22.80		2
	50	0	22.74		2
64QAM	1	0	22.93	0-2	2
	1	25	22.95		2
	1	49	22.86		2
	25	0	21.80	0-3	3
	25	12	21.75		3
	25	25	21.75		3
	50	0	21.76		3

Note: LTE Band 5 (Cell) at 10 MHz bandwidth does not support three non-overlapping channels. Per KDB Publication 941225 D05v02, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

Table 9-28
LTE Band 5 (Cell) Conducted Powers - 5 MHz Bandwidth

LTE Band 5 (Cell) 5 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 20425 (826.5 MHz)	Mid Channel 20525 (836.5 MHz)	High Channel 20625 (846.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	24.20	24.49	24.47	0	0
	1	12	24.33	24.43	24.59		0
	1	24	24.33	24.46	24.31		0
	12	0	23.29	23.42	23.56	0-1	1
	12	6	23.40	23.52	23.67		1
	12	13	23.45	23.48	23.69		1
	25	0	23.52	23.47	23.65		1
16QAM	1	0	23.50	23.60	23.86	0-1	1
	1	12	23.70	23.73	23.94		1
	1	24	23.73	23.79	23.51		1
	12	0	22.33	22.46	22.52	0-2	2
	12	6	22.52	22.56	22.65		2
	12	13	22.49	22.63	22.78		2
	25	0	22.40	22.46	22.63		2
64QAM	1	0	22.55	22.65	22.84	0-2	2
	1	12	22.62	22.70	22.81		2
	1	24	22.72	22.53	22.85		2
	12	0	21.33	21.50	21.56	0-3	3
	12	6	21.48	21.52	21.71		3
	12	13	21.45	21.60	21.70		3
	25	0	21.42	21.47	21.63		3

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Table 9-29
LTE Band 5 (Cell) Conducted Powers - 3 MHz Bandwidth

LTE Band 5 (Cell) 3 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 20415 (825.5 MHz)	Mid Channel 20525 (836.5 MHz)	High Channel 20635 (847.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	24.19	24.33	24.48	0	0
	1	7	24.25	24.51	24.55		0
	1	14	24.29	24.59	24.54		0
	8	0	23.28	23.50	23.57	0-1	1
	8	4	23.29	23.51	23.61		1
	8	7	23.48	23.63	23.69		1
	15	0	23.42	23.62	23.60		1
16QAM	1	0	23.38	23.67	23.62	0-1	1
	1	7	23.54	23.60	23.97		1
	1	14	23.69	23.91	23.77		1
	8	0	22.38	22.58	22.57	0-2	2
	8	4	22.34	22.67	22.64		2
	8	7	22.61	22.65	22.72		2
	15	0	22.45	22.55	22.68		2
64QAM	1	0	22.38	22.61	22.75	0-2	2
	1	7	22.83	22.74	22.57		2
	1	14	22.61	22.82	22.93		2
	8	0	21.35	21.37	21.48	0-3	3
	8	4	21.46	21.53	21.60		3
	8	7	21.51	21.73	21.65		3
	15	0	21.42	21.66	21.59		3

Table 9-30
LTE Band 5 (Cell) Conducted Powers -1.4 MHz Bandwidth

LTE Band 5 (Cell) 1.4 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 20407 (824.7 MHz)	Mid Channel 20525 (836.5 MHz)	High Channel 20643 (848.3 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	24.04	24.26	24.34	0	0
	1	2	24.12	24.36	24.45		0
	1	5	24.12	24.44	24.42		0
	3	0	24.14	24.26	24.39		0
	3	2	24.18	24.36	24.44		0
	3	3	24.15	24.40	24.40		0
	6	0	23.25	23.40	23.53	0-1	1
16QAM	1	0	23.32	23.56	23.71	0-1	1
	1	2	23.50	23.62	23.87		1
	1	5	23.42	23.66	23.83		1
	3	0	23.23	23.40	23.60		1
	3	2	23.31	23.49	23.62		1
	3	3	23.27	23.32	23.57		1
	6	0	22.28	22.51	22.55	0-2	2
64QAM	1	0	22.28	22.55	22.70	0-2	2
	1	2	22.50	22.47	22.82		2
	1	5	22.41	22.48	22.42		2
	3	0	22.31	22.39	22.62		2
	3	2	22.40	22.49	22.64		2
	3	3	22.41	22.67	22.69		2
	6	0	21.26	21.44	21.48	0-3	3

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9.4.7 LTE Band 66 (AWS)

Table 9-31
LTE Band 66 (AWS) Maximum Conducted Powers - 20 MHz Bandwidth

LTE Band 66 (AWS) 20 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 132072 (1720.0 MHz)	Mid Channel 132322 (1745.0 MHz)	High Channel 132572 (1770.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	**24.41**	24.31	24.38	0	0
	1	50	24.22	24.15	24.09		0
	1	99	24.22	24.21	24.12		0
	50	0	**23.39**	23.36	23.35	0-1	1
	50	25	23.37	23.34	23.32		1
	50	50	23.32	23.30	23.31		1
	100	0	23.37	23.28	23.31		1
16QAM	1	0	23.55	23.46	23.56	0-1	1
	1	50	23.55	23.41	23.45		1
	1	99	23.51	23.47	23.33		1
	50	0	22.36	22.33	22.35	0-2	2
	50	25	22.33	22.30	22.35		2
	50	50	22.32	22.29	22.30		2
	100	0	22.30	22.32	22.34		2
64QAM	1	0	22.48	22.44	22.49	0-2	2
	1	50	22.41	22.34	22.33		2
	1	99	22.36	22.45	22.40		2
	50	0	21.38	21.34	21.39	0-3	3
	50	25	21.34	21.33	21.38		3
	50	50	21.29	21.30	21.30		3
	100	0	21.35	21.34	21.35		3

Table 9-32
LTE Band 66 (AWS) Maximum Conducted Powers - 15 MHz Bandwidth

LTE Band 66 (AWS) 15 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 132047 (1717.5 MHz)	Mid Channel 132322 (1745.0 MHz)	High Channel 132597 (1772.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	24.35	24.35	24.30	0	0
	1	36	24.40	24.23	24.22		0
	1	74	24.27	24.27	24.07		0
	36	0	23.48	23.43	23.35	0-1	1
	36	18	23.46	23.38	23.36		1
	36	37	23.41	23.37	23.30		1
	75	0	23.45	23.38	23.34		1
16QAM	1	0	23.78	23.52	23.49	0-1	1
	1	36	23.66	23.51	23.55		1
	1	74	23.53	23.53	23.44		1
	36	0	22.50	22.43	22.39	0-2	2
	36	18	22.47	22.43	22.48		2
	36	37	22.37	22.36	22.39		2
	75	0	22.42	22.42	22.36		2
64QAM	1	0	22.69	22.64	22.59	0-2	2
	1	36	22.59	22.50	22.50		2
	1	74	22.54	22.54	22.38		2
	36	0	21.52	21.47	21.37	0-3	3
	36	18	21.49	21.44	21.31		3
	36	37	21.43	21.37	21.33		3
	75	0	21.48	21.43	21.36		3

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Table 9-33
LTE Band 66 (AWS) Maximum Conducted Powers - 10 MHz Bandwidth

LTE Band 66 (AWS) 10 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 132022 (1715.0 MHz)	Mid Channel 132322 (1745.0 MHz)	High Channel 132622 (1775.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	24.36	24.08	24.06	0	0
	1	25	24.18	24.08	23.98		0
	1	49	24.26	23.94	24.11		0
	25	0	23.27	23.15	23.10	0-1	1
	25	12	23.27	23.13	23.12		1
	25	25	23.20	23.07	23.13		1
	50	0	23.28	23.14	23.08		1
16QAM	1	0	23.37	23.26	23.38	0-1	1
	1	25	23.33	23.22	23.21		1
	1	49	23.43	22.84	23.32		1
	25	0	22.32	22.12	22.06	0-2	2
	25	12	22.29	22.04	22.12		2
	25	25	22.27	22.10	22.04		2
	50	0	22.22	22.12	22.12		2
64QAM	1	0	22.57	22.35	22.43	0-2	2
	1	25	22.66	22.13	22.44		2
	1	49	22.33	22.34	22.61		2
	25	0	21.35	21.07	21.18	0-3	3
	25	12	21.21	21.22	21.11		3
	25	25	21.17	21.05	21.07		3
	50	0	21.20	21.16	21.13		3

Table 9-34
LTE Band 66 (AWS) Maximum Conducted Powers - 5 MHz Bandwidth

LTE Band 66 (AWS) 5 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 131997 (1712.5 MHz)	Mid Channel 132322 (1745.0 MHz)	High Channel 132647 (1777.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	24.20	24.06	23.96	0	0
	1	12	24.35	24.14	24.19		0
	1	24	24.25	24.11	24.15		0
	12	0	23.33	23.16	23.11	0-1	1
	12	6	23.39	23.14	23.19		1
	12	13	23.38	23.18	23.22		1
	25	0	23.42	23.23	23.15		1
16QAM	1	0	23.46	23.18	23.39	0-1	1
	1	12	23.28	23.36	23.47		1
	1	24	23.84	23.57	23.47		1
	12	0	22.50	22.18	22.23	0-2	2
	12	6	22.46	22.23	22.27		2
	12	13	22.30	22.33	22.18		2
	25	0	22.45	22.17	22.16		2
64QAM	1	0	22.33	22.54	22.32	0-2	2
	1	12	22.32	22.54	22.26		2
	1	24	22.32	22.57	22.62		2
	12	0	21.40	21.10	21.16	0-3	3
	12	6	21.38	21.23	21.24		3
	12	13	21.36	21.38	21.44		3
	25	0	21.46	21.21	21.09		3

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Table 9-35
LTE Band 66 (AWS) Maximum Conducted Powers - 3 MHz Bandwidth

LTE Band 66 (AWS) 3 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 131987 (1711.5 MHz)	Mid Channel 132322 (1745.0 MHz)	High Channel 132657 (1778.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	24.21	24.16	24.21	0	0
	1	7	24.19	24.05	24.25		0
	1	14	24.29	24.09	24.19		0
	8	0	23.37	23.17	23.32	0-1	1
	8	4	23.38	23.27	23.35		1
	8	7	23.38	23.21	23.37		1
	15	0	23.42	23.18	23.41		1
16QAM	1	0	23.51	23.22	23.62	0-1	1
	1	7	23.51	23.35	23.57		1
	1	14	23.36	23.25	23.38		1
	8	0	22.45	22.22	22.53	0-2	2
	8	4	22.49	22.34	22.44		2
	8	7	22.51	22.30	22.42		2
	15	0	22.41	22.31	22.51		2
64QAM	1	0	22.65	22.48	22.62	0-2	2
	1	7	22.57	22.44	22.18		2
	1	14	22.69	22.37	22.54		2
	8	0	21.50	21.36	21.36	0-3	3
	8	4	21.45	21.22	21.47		3
	8	7	21.22	21.18	21.50		3
	15	0	21.35	21.37	21.47		3

Table 9-36
LTE Band 66 (AWS) Maximum Conducted Powers -1.4 MHz Bandwidth

LTE Band 66 (AWS) 1.4 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 131979 (1710.7 MHz)	Mid Channel 132322 (1745.0 MHz)	High Channel 132665 (1779.3 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	24.05	23.93	24.00	0	0
	1	2	24.24	24.03	24.09		0
	1	5	24.17	24.08	24.08		0
	3	0	24.15	24.05	23.95		0
	3	2	24.23	24.02	23.95		0
	3	3	24.19	24.10	24.01		0
	6	0	23.32	23.12	23.05	0-1	1
16QAM	1	0	23.25	23.13	23.16	0-1	1
	1	2	23.69	23.29	23.20		1
	1	5	23.29	23.28	23.15		1
	3	0	23.32	23.16	23.40		1
	3	2	23.54	23.06	23.07		1
	3	3	23.30	23.27	23.07		1
	6	0	22.29	22.17	21.92	0-2	2
64QAM	1	0	22.53	22.25	22.31	0-2	2
	1	2	22.55	22.22	22.16		2
	1	5	22.56	22.21	22.01		2
	3	0	22.44	22.23	22.09		2
	3	2	22.37	22.24	22.15		2
	3	3	22.32	22.17	22.23		2
	6	0	21.57	21.09	21.27	0-3	3

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Table 9-37
LTE Band 66 (AWS) Reduced Conducted Powers - 20 MHz Bandwidth – Hotspot Mode Active

LTE Band 66 (AWS) 20 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 132072 (1720.0 MHz)	Mid Channel 132322 (1745.0 MHz)	High Channel 132572 (1770.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	**20.05**	19.84	19.89	0	0
	1	50	19.83	19.81	19.70		0
	1	99	19.95	19.91	19.72		0
	50	0	**20.14**	20.05	20.01	0-1	0
	50	25	20.06	20.01	19.97		0
	50	50	20.03	19.96	19.90		0
	100	0	20.04	20.00	19.94		0
16QAM	1	0	20.19	20.11	20.07	0-1	0
	1	50	20.11	20.01	19.98		0
	1	99	20.07	20.10	19.98		0
	50	0	20.10	20.02	20.04	0-2	0
	50	25	20.10	19.98	19.97		0
	50	50	20.02	20.02	19.94		0
	100	0	20.05	19.99	19.96		0
64QAM	1	0	20.20	20.08	20.07	0-2	0
	1	50	20.18	20.11	19.95		0
	1	99	20.14	20.17	19.99		0
	50	0	20.17	20.10	20.08	0-3	0
	50	25	20.14	20.04	20.03		0
	50	50	20.05	20.07	19.98		0
	100	0	20.12	20.03	20.03		0

Table 9-38
LTE Band 66 (AWS) Reduced Conducted Powers - 15 MHz Bandwidth – Hotspot Mode Active

LTE Band 66 (AWS) 15 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 132047 (1717.5 MHz)	Mid Channel 132322 (1745.0 MHz)	High Channel 132597 (1772.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	19.93	19.82	19.77	0	0
	1	36	19.86	19.77	19.83		0
	1	74	19.71	19.73	19.65		0
	36	0	20.00	19.98	19.90	0-1	0
	36	18	19.94	19.88	19.88		0
	36	37	20.01	19.84	19.83		0
	75	0	19.97	19.92	19.80		0
16QAM	1	0	20.20	20.03	19.96	0-1	0
	1	36	20.15	20.08	19.77		0
	1	74	20.09	20.07	19.94		0
	36	0	20.03	19.94	19.92	0-2	0
	36	18	20.06	19.91	19.90		0
	36	37	19.98	19.94	19.82		0
	75	0	19.99	19.95	19.89		0
64QAM	1	0	19.97	20.14	19.67	0-2	0
	1	36	20.34	20.07	19.98		0
	1	74	20.11	19.97	19.97		0
	36	0	20.14	19.98	19.94	0-3	0
	36	18	20.09	19.95	19.92		0
	36	37	20.07	19.95	19.93		0
	75	0	20.01	19.98	19.88		0

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Table 9-39
LTE Band 66 (AWS) Reduced Conducted Powers - 10 MHz Bandwidth – Hotspot Mode Active

LTE Band 66 (AWS) 10 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 132022 (1715.0 MHz)	Mid Channel 132322 (1745.0 MHz)	High Channel 132622 (1775.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	19.62	19.48	19.56	0	0
	1	25	19.68	19.63	19.47		0
	1	49	19.73	19.65	19.55		0
	25	0	19.84	19.81	19.51	0-1	0
	25	12	19.79	19.80	19.75		0
	25	25	19.87	19.74	19.67		0
	50	0	19.83	19.79	19.65		0
16QAM	1	0	19.84	19.93	19.77	0-1	0
	1	25	19.99	19.89	19.93		0
	1	49	19.99	19.84	19.78		0
	25	0	19.87	19.79	19.75	0-2	0
	25	12	19.86	19.75	19.75		0
	25	25	19.86	19.81	19.75		0
	50	0	19.87	19.79	19.65		0
64QAM	1	0	19.98	19.85	19.84	0-2	0
	1	25	19.98	19.50	19.76		0
	1	49	19.98	19.64	19.76		0
	25	0	19.88	19.75	19.75	0-3	0
	25	12	19.86	19.70	19.66		0
	25	25	19.76	19.71	19.77		0
	50	0	19.89	19.64	19.73		0

Table 9-40
LTE Band 66 (AWS) Reduced Conducted Powers - 5 MHz Bandwidth – Hotspot Mode Active

LTE Band 66 (AWS) 5 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 131997 (1712.5 MHz)	Mid Channel 132322 (1745.0 MHz)	High Channel 132647 (1777.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	19.60	19.52	19.65	0	0
	1	12	19.73	19.69	19.54		0
	1	24	19.81	19.70	19.52		0
	12	0	19.83	19.71	19.65	0-1	0
	12	6	19.87	19.81	19.68		0
	12	13	19.91	19.86	19.60		0
	25	0	19.88	19.71	19.61		0
16QAM	1	0	19.95	19.80	19.86	0-1	0
	1	12	19.97	19.96	19.86		0
	1	24	19.96	20.01	19.92		0
	12	0	19.93	19.79	19.72	0-2	0
	12	6	19.94	19.87	19.72		0
	12	13	19.91	19.92	19.93		0
	25	0	19.86	19.80	19.69		0
64QAM	1	0	19.86	19.83	19.78	0-2	0
	1	12	19.96	19.94	19.45		0
	1	24	20.05	19.95	19.66		0
	12	0	19.95	19.77	19.81	0-3	0
	12	6	19.98	19.94	19.83		0
	12	13	19.93	19.87	19.95		0
	25	0	19.93	19.77	19.80		0

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Table 9-41
LTE Band 66 (AWS) Reduced Conducted Powers - 3 MHz Bandwidth – Hotspot Mode Active

LTE Band 66 (AWS) 3 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 131987 (1711.5 MHz)	Mid Channel 132322 (1745.0 MHz)	High Channel 132657 (1778.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	19.74	19.62	19.47	0	0
	1	7	19.81	19.72	19.51		0
	1	14	19.82	19.73	19.48		0
	8	0	19.93	19.77	19.60	0-1	0
	8	4	19.96	19.86	19.62		0
	8	7	19.92	19.79	19.61		0
	15	0	19.97	19.75	19.62		0
16QAM	1	0	19.90	19.96	19.87	0-1	0
	1	7	20.08	19.97	19.88		0
	1	14	19.98	19.95	19.90		0
	8	0	19.94	19.88	19.79	0-2	0
	8	4	19.91	19.97	19.84		0
	8	7	19.93	19.94	19.84		0
	15	0	19.87	19.81	19.73		0
64QAM	1	0	19.94	19.89	19.97	0-2	0
	1	7	19.99	19.74	19.98		0
	1	14	19.97	19.97	19.85		0
	8	0	19.89	19.88	19.84	0-3	0
	8	4	19.95	19.96	19.83		0
	8	7	19.88	19.90	19.85		0
	15	0	19.87	19.85	19.80		0

Table 9-42
LTE Band 66 (AWS) Reduced Conducted Powers -1.4 MHz Bandwidth – Hotspot Mode Active

LTE Band 66 (AWS) 1.4 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 131979 (1710.7 MHz)	Mid Channel 132322 (1745.0 MHz)	High Channel 132665 (1779.3 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	19.70	19.51	19.45	0	0
	1	2	19.72	19.63	19.51		0
	1	5	19.66	19.51	19.46		0
	3	0	19.67	19.55	19.42		0
	3	2	19.72	19.60	19.45		0
	3	3	19.70	19.57	19.41		0
	6	0	19.82	19.65	19.54	0-1	0
16QAM	1	0	19.97	19.88	19.79	0-1	0
	1	2	19.91	19.89	19.83		0
	1	5	19.99	19.86	19.79		0
	3	0	19.85	19.92	19.59		0
	3	2	19.83	19.78	19.66		0
	3	3	19.81	19.96	19.62		0
	6	0	19.84	19.73	19.62	0-2	0
64QAM	1	0	19.91	19.88	19.76	0-2	0
	1	2	19.97	19.95	19.74		0
	1	5	19.97	19.87	19.83		0
	3	0	19.88	19.79	19.73		0
	3	2	19.88	19.60	19.63		0
	3	3	19.83	19.86	19.64		0
	6	0	19.80	19.63	19.55	0-3	0

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Table 9-43
LTE Band 66 (AWS) Reduced Conducted Powers - 20 MHz Bandwidth – Grip Sensor Active

LTE Band 66 (AWS) 20 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 132072 (1720.0 MHz)	Mid Channel 132322 (1745.0 MHz)	High Channel 132572 (1770.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	18.90	18.82	18.85	0	0
	1	50	18.89	18.79	18.81		0
	1	99	**18.94**	18.88	18.79		0
	50	0	19.11	18.98	18.97	0-1	0
	50	25	19.04	19.00	18.96		0
	50	50	**19.12**	19.07	18.99		0
	100	0	18.93	18.87	18.83		0
16QAM	1	0	19.13	18.97	19.08	0-1	0
	1	50	19.00	19.01	18.84		0
	1	99	19.09	19.18	18.93		0
	50	0	19.08	19.01	18.88	0-2	0
	50	25	19.06	18.97	18.91		0
	50	50	18.99	18.95	18.90		0
	100	0	19.03	18.98	18.96		0
64QAM	1	0	19.18	19.06	19.05	0-2	0
	1	50	19.19	19.03	18.92		0
	1	99	19.07	19.16	18.98		0
	50	0	19.14	19.05	18.99	0-3	0
	50	25	19.07	19.00	18.97		0
	50	50	19.04	19.01	18.95		0
	100	0	19.06	19.01	18.99		0

Table 9-44
LTE Band 66 (AWS) Reduced Conducted Powers - 15 MHz Bandwidth – Grip Sensor Active

LTE Band 66 (AWS) 15 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 132047 (1717.5 MHz)	Mid Channel 132322 (1745.0 MHz)	High Channel 132597 (1772.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	19.19	19.20	19.05	0	0
	1	36	19.05	19.18	18.98		0
	1	74	19.08	19.19	18.90		0
	36	0	19.29	19.30	19.21	0-1	0
	36	18	19.25	19.36	19.19		0
	36	37	19.24	19.29	19.10		0
	75	0	19.25	19.33	19.18		0
16QAM	1	0	19.39	19.39	19.32	0-1	0
	1	36	19.44	19.37	19.39		0
	1	74	19.28	19.40	19.25		0
	36	0	19.29	19.35	19.23	0-2	0
	36	18	19.26	19.31	19.19		0
	36	37	19.21	19.30	19.13		0
	75	0	19.26	19.34	19.18		0
64QAM	1	0	19.38	19.38	19.33	0-2	0
	1	36	19.35	19.30	19.33		0
	1	74	19.28	19.38	19.23		0
	36	0	19.35	19.30	19.26	0-3	0
	36	18	19.32	19.25	19.31		0
	36	37	19.28	19.23	19.25		0
	75	0	19.28	19.21	19.19		0

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Table 9-45
LTE Band 66 (AWS) Reduced Conducted Powers - 10 MHz Bandwidth – Grip Sensor Active

LTE Band 66 (AWS) 10 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 132022 (1715.0 MHz)	Mid Channel 132322 (1745.0 MHz)	High Channel 132622 (1775.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	19.21	19.11	19.02	0	0
	1	25	19.17	19.05	18.96		0
	1	49	19.20	19.14	18.85		0
	25	0	19.34	19.21	19.09	0-1	0
	25	12	19.31	19.27	19.14		0
	25	25	19.25	19.16	19.04		0
	50	0	19.27	19.23	19.13		0
16QAM	1	0	19.41	19.35	19.18	0-1	0
	1	25	19.39	19.35	19.17		0
	1	49	19.42	19.31	19.35		0
	25	0	19.31	19.21	19.14	0-2	0
	25	12	19.30	19.20	19.09		0
	25	25	19.24	19.19	19.07		0
	50	0	19.24	19.18	19.08		0
64QAM	1	0	19.35	19.44	19.22	0-2	0
	1	25	19.28	19.40	19.35		0
	1	49	19.39	19.34	19.33		0
	25	0	19.33	19.27	19.12	0-3	0
	25	12	19.31	19.27	19.10		0
	25	25	19.24	19.38	19.10		0
	50	0	19.29	19.24	19.15		0

Table 9-46
LTE Band 66 (AWS) Reduced Conducted Powers - 5 MHz Bandwidth – Grip Sensor Active

LTE Band 66 (AWS) 5 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 131997 (1712.5 MHz)	Mid Channel 132322 (1745.0 MHz)	High Channel 132647 (1777.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	19.06	19.05	18.99	0	0
	1	12	19.16	19.10	19.02		0
	1	24	19.18	19.15	19.05		0
	12	0	19.21	19.17	19.10	0-1	0
	12	6	19.32	19.20	19.18		0
	12	13	19.28	19.23	19.14		0
	25	0	19.28	19.20	19.15		0
16QAM	1	0	19.29	19.24	19.27	0-1	0
	1	12	19.41	19.35	19.21		0
	1	24	19.43	19.40	19.39		0
	12	0	19.38	19.30	19.22	0-2	0
	12	6	19.43	19.27	19.13		0
	12	13	19.40	19.29	19.27		0
	25	0	19.41	19.20	19.22		0
64QAM	1	0	19.31	19.23	19.25	0-2	0
	1	12	19.41	19.37	19.39		0
	1	24	19.42	19.38	19.36		0
	12	0	19.39	19.22	19.18	0-3	0
	12	6	19.43	19.32	19.28		0
	12	13	19.40	19.12	19.19		0
	25	0	19.37	19.19	19.12		0

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Table 9-47
LTE Band 66 (AWS) Reduced Conducted Powers - 3 MHz Bandwidth – Grip Sensor Active

LTE Band 66 (AWS) 3 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 131987 (1711.5 MHz)	Mid Channel 132322 (1745.0 MHz)	High Channel 132657 (1778.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	19.12	19.04	18.99	0	0
	1	7	19.25	19.11	18.99		0
	1	14	19.16	19.13	19.02		0
	8	0	19.29	19.17	19.09	0-1	0
	8	4	19.39	19.15	19.09		0
	8	7	19.31	19.25	19.14		0
	15	0	19.31	19.18	19.11		0
16QAM	1	0	19.40	19.29	19.26	0-1	0
	1	7	19.41	19.33	19.27		0
	1	14	19.42	19.35	19.27		0
	8	0	19.37	19.29	19.20	0-2	0
	8	4	19.45	19.21	19.23		0
	8	7	19.39	19.30	19.25		0
	15	0	19.33	19.15	19.13		0
64QAM	1	0	19.36	19.33	19.34	0-2	0
	1	7	19.30	19.31	19.24		0
	1	14	19.35	19.29	19.03		0
	8	0	19.41	19.18	19.22	0-3	0
	8	4	19.39	19.36	19.22		0
	8	7	19.37	19.26	19.11		0
	15	0	19.33	19.22	19.16		0

Table 9-48
LTE Band 66 (AWS) Reduced Conducted Powers -1.4 MHz Bandwidth – Grip Sensor Active

LTE Band 66 (AWS) 1.4 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 131979 (1710.7 MHz)	Mid Channel 132322 (1745.0 MHz)	High Channel 132665 (1779.3 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	19.05	19.02	18.93	0	0
	1	2	19.14	19.10	18.95		0
	1	5	19.00	19.05	18.89		0
	3	0	19.10	19.01	18.91		0
	3	2	19.10	19.06	18.97		0
	3	3	19.15	19.04	18.91		0
	6	0	19.22	19.13	19.05	0-1	0
16QAM	1	0	19.31	19.32	19.33	0-1	0
	1	2	19.41	19.32	19.32		0
	1	5	19.31	19.37	19.28		0
	3	0	19.29	19.23	19.23		0
	3	2	19.40	19.33	19.06		0
	3	3	19.19	19.32	19.13		0
	6	0	19.33	19.19	19.12	0-2	0
64QAM	1	0	19.36	19.27	19.22	0-2	0
	1	2	19.39	19.37	19.33		0
	1	5	19.35	19.15	19.24		0
	3	0	19.35	19.22	19.30		0
	3	2	19.33	19.26	19.21		0
	3	3	19.37	19.20	19.12		0
	6	0	19.26	19.09	19.06	0-3	0

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9.4.8 LTE Band 25 (PCS)

Table 9-49
LTE Band 25 (PCS) Maximum Conducted Powers - 20 MHz Bandwidth

LTE Band 25 (PCS) 20 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 26140 (1860.0 MHz)	Mid Channel 26365 (1882.5 MHz)	High Channel 26590 (1905.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	24.47	24.36	24.33	0	0
	1	50	**24.51**	24.44	24.30		0
	1	99	24.50	24.39	24.38		0
	50	0	23.57	23.45	23.40	0-1	1
	50	25	**23.64**	23.53	23.46		1
	50	50	23.63	23.55	23.47		1
	100	0	23.62	23.52	23.44		1
16QAM	1	0	23.83	23.65	23.58	0-1	1
	1	50	23.78	23.71	23.54		1
	1	99	23.80	23.61	23.70		1
	50	0	22.52	22.43	22.35	0-2	2
	50	25	22.58	22.54	22.40		2
	50	50	22.59	22.55	22.43		2
	100	0	22.56	22.49	22.42		2
64QAM	1	0	22.68	22.61	22.51	0-2	2
	1	50	22.67	22.64	22.51		2
	1	99	22.66	22.58	22.64		2
	50	0	21.54	21.48	21.35	0-3	3
	50	25	21.61	21.56	21.44		3
	50	50	21.61	21.55	21.45		3
	100	0	21.53	21.50	21.37		3

Table 9-50
LTE Band 25 (PCS) Maximum Conducted Powers - 15 MHz Bandwidth

LTE Band 25 (PCS) 15 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 26115 (1857.5 MHz)	Mid Channel 26365 (1882.5 MHz)	High Channel 26615 (1907.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	24.10	24.27	24.02	0	0
	1	36	24.19	24.17	24.04		0
	1	74	24.24	24.19	24.14		0
	36	0	23.27	23.28	23.11	0-1	1
	36	18	23.33	23.34	23.19		1
	36	37	23.32	23.32	23.18		1
	75	0	23.29	23.30	23.14		1
16QAM	1	0	23.40	23.48	23.35	0-1	1
	1	36	23.51	23.45	23.36		1
	1	74	23.48	23.47	23.39		1
	36	0	22.23	22.25	22.06	0-2	2
	36	18	22.30	22.33	22.16		2
	36	37	22.29	22.30	22.15		2
	75	0	22.28	22.31	22.14		2
64QAM	1	0	22.37	22.48	22.32	0-2	2
	1	36	22.43	22.46	22.25		2
	1	74	22.47	22.45	22.34		2
	36	0	21.26	21.28	21.09	0-3	3
	36	18	21.36	21.34	21.17		3
	36	37	21.35	21.33	21.20		3
	75	0	21.29	21.28	21.11		3

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Table 9-51
LTE Band 25 (PCS) Maximum Conducted Powers - 10 MHz Bandwidth

LTE Band 25 (PCS) 10 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 26090 (1855.0 MHz)	Mid Channel 26365 (1882.5 MHz)	High Channel 26640 (1910.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	24.02	23.94	23.87	0	0
	1	25	23.99	23.95	23.90		0
	1	49	24.01	23.94	23.97		0
	25	0	23.08	23.06	22.97	0-1	1
	25	12	23.09	23.09	23.04		1
	25	25	23.11	23.04	23.05		1
	50	0	23.10	23.07	23.08		1
16QAM	1	0	23.24	23.20	23.17	0-1	1
	1	25	23.19	23.22	23.17		1
	1	49	23.15	23.23	23.31		1
	25	0	22.06	22.04	22.01	0-2	2
	25	12	22.08	22.08	22.06		2
	25	25	22.08	22.06	22.08		2
	50	0	22.07	22.05	22.04		2
64QAM	1	0	22.14	22.25	22.11	0-2	2
	1	25	22.13	22.13	22.13		2
	1	49	22.20	22.20	22.28		2
	25	0	21.09	21.01	20.99	0-3	3
	25	12	21.09	21.07	21.04		3
	25	25	21.09	21.05	21.06		3
	50	0	21.08	21.05	21.04		3

Table 9-52
LTE Band 25 (PCS) Maximum Conducted Powers - 5 MHz Bandwidth

LTE Band 25 (PCS) 5 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 26065 (1852.5 MHz)	Mid Channel 26365 (1882.5 MHz)	High Channel 26665 (1912.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	24.04	24.01	23.90	0	0
	1	12	24.10	24.09	24.00		0
	1	24	24.11	24.13	24.03		0
	12	0	23.16	23.16	23.03	0-1	1
	12	6	23.23	23.18	23.10		1
	12	13	23.20	23.19	23.14		1
	25	0	23.21	23.17	23.07		1
16QAM	1	0	23.35	23.31	23.11	0-1	1
	1	12	23.34	23.35	23.24		1
	1	24	23.30	23.37	23.17		1
	12	0	22.19	22.19	22.06	0-2	2
	12	6	22.22	22.22	22.12		2
	12	13	22.26	22.19	22.08		2
	25	0	22.15	22.17	22.09		2
64QAM	1	0	22.22	22.26	22.08	0-2	2
	1	12	22.31	22.36	22.21		2
	1	24	22.34	22.38	22.26		2
	12	0	21.14	21.15	21.04	0-3	3
	12	6	21.26	21.22	21.12		3
	12	13	21.21	21.25	21.14		3
	25	0	21.18	21.19	21.09		3

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Table 9-53
LTE Band 25 (PCS) Maximum Conducted Powers - 3 MHz Bandwidth

LTE Band 25 (PCS) 3 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 26055 (1851.5 MHz)	Mid Channel 26365 (1882.5 MHz)	High Channel 26675 (1913.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	24.00	23.95	23.87	0	0
	1	7	24.10	24.08	23.99		0
	1	14	24.09	24.08	23.97		0
	8	0	23.14	23.14	22.99	0-1	1
	8	4	23.20	23.21	23.10		1
	8	7	23.18	23.17	23.10		1
	15	0	23.24	23.15	23.13		1
16QAM	1	0	23.21	23.24	23.11	0-1	1
	1	7	23.30	23.41	23.22		1
	1	14	23.38	23.35	23.21		1
	8	0	22.18	22.16	22.06	0-2	2
	8	4	22.27	22.26	22.14		2
	8	7	22.21	22.24	22.11		2
	15	0	22.18	22.14	22.03		2
64QAM	1	0	22.25	22.25	22.09	0-2	2
	1	7	22.27	22.27	22.21		2
	1	14	22.36	22.32	22.30		2
	8	0	21.19	21.15	21.05	0-3	3
	8	4	21.24	21.21	21.11		3
	8	7	21.19	21.20	21.10		3
	15	0	21.17	21.16	21.08		3

Table 9-54
LTE Band 25 (PCS) Maximum Conducted Powers -1.4 MHz Bandwidth

LTE Band 25 (PCS) 1.4 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 26047 (1850.7 MHz)	Mid Channel 26365 (1882.5 MHz)	High Channel 26683 (1914.3 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	23.97	23.91	23.88	0	0
	1	2	24.07	24.03	23.95		0
	1	5	24.01	23.95	23.91		0
	3	0	24.04	23.95	23.93		0
	3	2	24.11	23.98	23.98		0
	3	3	24.01	23.95	23.92		0
	6	0	23.11	23.05	23.04	0-1	1
16QAM	1	0	23.24	23.22	23.13	0-1	1
	1	2	23.35	23.25	23.21		1
	1	5	23.26	23.21	23.20		1
	3	0	23.11	23.02	23.08		1
	3	2	23.17	23.14	23.15		1
	3	3	23.17	23.09	23.09		1
	6	0	22.18	22.11	22.08	0-2	2
64QAM	1	0	22.19	22.18	22.12	0-2	2
	1	2	22.29	22.25	22.23		2
	1	5	22.27	22.23	22.19		2
	3	0	22.18	22.12	22.14		2
	3	2	22.28	22.23	22.19		2
	3	3	22.18	22.20	22.14		2
	6	0	21.11	21.07	21.00	0-3	3

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Table 9-55
LTE Band 25 (PCS) Reduced Conducted Powers - 20 MHz Bandwidth – Hotspot/Grip Sensor Mode Active

LTE Band 25 (PCS) 20 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 26140 (1860.0 MHz)	Mid Channel 26365 (1882.5 MHz)	High Channel 26590 (1905.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	20.65	20.59	20.46	0	0
	1	50	20.64	**20.71**	20.47		0
	1	99	20.60	20.55	20.54		0
	50	0	20.70	20.64	20.55	0-1	0
	50	25	20.74	**20.75**	20.60		0
	50	50	20.72	20.72	20.63		0
	100	0	20.67	20.70	20.56		0
16QAM	1	0	20.80	20.76	20.70	0-1	0
	1	50	20.79	20.88	20.73		0
	1	99	20.75	20.73	20.84		0
	50	0	20.72	20.65	20.52	0-2	0
	50	25	20.77	20.70	20.62		0
	50	50	20.79	20.74	20.63		0
	100	0	20.69	20.76	20.62		0
64QAM	1	0	20.76	20.82	20.72	0-2	0
	1	50	20.84	20.88	20.71		0
	1	99	20.82	20.84	20.85		0
	50	0	20.64	20.70	20.59	0-3	0
	50	25	20.72	20.77	20.66		0
	50	50	20.69	20.75	20.69		0
	100	0	20.67	20.72	20.61		0

Table 9-56
LTE Band 25 (PCS) Reduced Conducted Powers - 15 MHz Bandwidth - Hotspot/Grip Sensor Mode Active

LTE Band 25 (PCS) 15 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 26115 (1857.5 MHz)	Mid Channel 26365 (1882.5 MHz)	High Channel 26615 (1907.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	20.61	20.56	20.47	0	0
	1	36	20.64	20.55	20.43		0
	1	74	20.75	20.46	20.52		0
	36	0	20.79	20.65	20.43	0-1	0
	36	18	20.81	20.68	20.59		0
	36	37	20.84	20.67	20.62		0
	75	0	20.79	20.63	20.56		0
16QAM	1	0	20.94	20.85	20.71	0-1	0
	1	36	20.98	20.87	20.82		0
	1	74	20.93	20.73	20.92		0
	36	0	20.73	20.61	20.51	0-2	0
	36	18	20.83	20.74	20.58		0
	36	37	20.79	20.65	20.61		0
	75	0	20.51	20.67	20.60		0
64QAM	1	0	20.95	20.68	20.72	0-2	0
	1	36	20.85	20.83	20.72		0
	1	74	20.98	20.90	20.84		0
	36	0	20.76	20.70	20.56	0-3	0
	36	18	20.89	20.77	20.63		0
	36	37	20.87	20.78	20.59		0
	75	0	20.80	20.77	20.63		0

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Table 9-57
LTE Band 25 (PCS) Reduced Conducted Powers - 10 MHz Bandwidth - Hotspot/Grip Sensor Mode Active

LTE Band 25 (PCS) 10 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 26090 (1855.0 MHz)	Mid Channel 26365 (1882.5 MHz)	High Channel 26640 (1910.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	20.41	20.46	20.23	0	0
	1	25	20.37	20.40	20.29		0
	1	49	20.44	20.65	20.31		0
	25	0	20.49	20.53	20.42	0-1	0
	25	12	20.58	20.23	20.36		0
	25	25	20.54	20.49	20.42		0
	50	0	20.55	20.52	20.42		0
16QAM	1	0	20.73	20.71	20.48	0-1	0
	1	25	20.73	20.62	20.61		0
	1	49	20.69	20.68	20.55		0
	25	0	20.54	20.46	20.58	0-2	0
	25	12	20.52	20.55	20.39		0
	25	25	20.58	20.52	20.37		0
	50	0	20.56	20.50	20.39		0
64QAM	1	0	20.76	20.75	20.41	0-2	0
	1	25	20.62	20.69	20.42		0
	1	49	20.81	20.42	20.51		0
	25	0	20.47	20.47	20.38	0-3	0
	25	12	20.55	20.58	20.37		0
	25	25	20.58	20.54	20.40		0
	50	0	20.64	20.57	20.39		0

Table 9-58
LTE Band 25 (PCS) Reduced Conducted Powers - 5 MHz Bandwidth - Hotspot/Grip Sensor Mode Active

LTE Band 25 (PCS) 5 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 26065 (1852.5 MHz)	Mid Channel 26365 (1882.5 MHz)	High Channel 26665 (1912.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	20.35	20.39	20.15	0	0
	1	12	20.45	20.39	20.28		0
	1	24	20.44	20.40	20.22		0
	12	0	20.50	20.42	20.26	0-1	0
	12	6	20.50	20.55	20.40		0
	12	13	20.53	20.56	20.41		0
	25	0	20.55	20.49	20.34		0
16QAM	1	0	20.76	20.65	20.50	0-1	0
	1	12	20.55	20.75	20.42		0
	1	24	20.75	20.72	20.84		0
	12	0	20.49	20.49	20.37	0-2	0
	12	6	20.52	20.54	20.36		0
	12	13	20.60	20.64	20.42		0
	25	0	20.51	20.52	20.35		0
64QAM	1	0	20.40	20.56	20.40	0-2	0
	1	12	20.66	20.70	20.59		0
	1	24	20.70	20.47	20.45		0
	12	0	20.61	20.40	20.43	0-3	0
	12	6	20.53	20.51	20.46		0
	12	13	20.67	20.59	20.49		0
	25	0	20.52	20.48	20.40		0

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Table 9-59
LTE Band 25 (PCS) Reduced Conducted Powers - 3 MHz Bandwidth - Hotspot/Grip Sensor Mode Active

LTE Band 25 (PCS) 3 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 26055 (1851.5 MHz)	Mid Channel 26365 (1882.5 MHz)	High Channel 26675 (1913.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	20.35	20.30	20.15	0	0
	1	7	20.40	20.45	20.18		0
	1	14	20.38	20.26	20.26		0
	8	0	20.49	20.42	20.28	0-1	0
	8	4	20.57	20.50	20.39		0
	8	7	20.49	20.54	20.42		0
	15	0	20.51	20.49	20.44		0
16QAM	1	0	20.56	20.62	20.51	0-1	0
	1	7	20.69	20.76	20.53		0
	1	14	20.66	20.54	20.48		0
	8	0	20.58	20.56	20.55	0-2	0
	8	4	20.65	20.57	20.35		0
	8	7	20.58	20.58	20.46		0
	15	0	20.54	20.54	20.52		0
64QAM	1	0	20.36	20.52	20.43	0-2	0
	1	7	20.67	20.69	20.39		0
	1	14	20.77	20.72	20.64		0
	8	0	20.61	20.51	20.62	0-3	0
	8	4	20.62	20.61	20.35		0
	8	7	20.58	20.57	20.44		0
	15	0	20.54	20.56	20.48		0

Table 9-60
LTE Band 25 (PCS) Reduced Conducted Powers -1.4 MHz Bandwidth - Hotspot/Grip Sensor Mode Active

LTE Band 25 (PCS) 1.4 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 26047 (1850.7 MHz)	Mid Channel 26365 (1882.5 MHz)	High Channel 26683 (1914.3 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	20.32	20.33	20.17	0	0
	1	2	20.32	20.37	20.30		0
	1	5	20.42	20.34	20.19		0
	3	0	20.34	20.36	20.21		0
	3	2	20.43	20.35	20.27		0
	3	3	20.42	20.40	20.22		0
	6	0	20.46	20.41	20.41	0-1	0
16QAM	1	0	20.64	20.48	20.47	0-1	0
	1	2	20.52	20.57	20.66		0
	1	5	20.55	20.70	20.42		0
	3	0	20.25	20.48	20.51		0
	3	2	20.60	20.66	20.43		0
	3	3	20.74	20.40	20.40		0
	6	0	20.51	20.47	20.50	0-2	0
64QAM	1	0	20.60	20.62	20.44	0-2	0
	1	2	20.73	20.47	20.40		0
	1	5	20.61	20.58	20.60		0
	3	0	20.49	20.30	20.25		0
	3	2	20.54	20.79	20.66		0
	3	3	20.54	20.52	20.44		0
	6	0	20.54	20.47	20.37	0-3	0

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9.4.9 LTE Band 30

Table 9-61
LTE Band 30 Maximum Conducted Powers - 10 MHz Bandwidth

LTE Band 30 10 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel 27710 (2310.0 MHz) Conducted Power [dBm]	MPR Allowed per 3GPP [dB]	MPR [dB]
QPSK	1	0	**24.28**	0	0
	1	25	24.27		0
	1	49	24.25		0
	25	0	**23.35**	0-1	1
	25	12	23.32		1
	25	25	23.32		1
	50	0	23.34		1
16QAM	1	0	23.78	0-1	1
	1	25	23.74		1
	1	49	23.71		1
	25	0	22.35	0-2	2
	25	12	22.36		2
	25	25	22.32		2
	50	0	22.29		2
64QAM	1	0	22.75	0-2	2
	1	25	22.66		2
	1	49	22.62		2
	25	0	21.36	0-3	3
	25	12	21.32		3
	25	25	21.34		3
	50	0	21.30		3

Table 9-62
LTE Band 30 Maximum Conducted Powers - 5 MHz Bandwidth

LTE Band 30 5 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel 27710 (2310.0 MHz) Conducted Power [dBm]	MPR Allowed per 3GPP [dB]	MPR [dB]
QPSK	1	0	24.20	0	0
	1	12	24.12		0
	1	24	24.08		0
	12	0	23.22	0-1	1
	12	6	23.26		1
	12	13	23.22		1
	25	0	23.27		1
16QAM	1	0	23.37	0-1	1
	1	12	23.31		1
	1	24	23.25		1
	12	0	22.26	0-2	2
	12	6	22.23		2
	12	13	22.18		2
	25	0	22.21		2
64QAM	1	0	22.42	0-2	2
	1	12	22.28		2
	1	24	22.22		2
	12	0	21.24	0-3	3
	12	6	21.29		3
	12	13	21.18		3
	25	0	21.20		3

Note: LTE Band 30 at 5 MHz bandwidth does not support three non-overlapping channels. Per KDB Publication 941225 D05v02, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

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Table 9-63
LTE Band 30 Reduced Conducted Powers - 10 MHz Bandwidth - Hotspot/Grip Sensor Mode Active

LTE Band 30 10 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel 27710 (2310.0 MHz) Conducted Power [dBm]	MPR Allowed per 3GPP [dB]	MPR [dB]
QPSK	1	0	**20.49**	0	0
	1	25	20.32		0
	1	49	20.29		0
	25	0	**20.49**	0-1	0
	25	12	20.34		0
	25	25	20.46		0
	50	0	20.48		0
16QAM	1	0	20.59	0-1	0
	1	25	20.42		0
	1	49	20.54		0
	25	0	20.49	0-2	0
	25	12	20.53		0
	25	25	20.43		0
	50	0	20.41		0
64QAM	1	0	20.58	0-2	0
	1	25	20.49		0
	1	49	20.46		0
	25	0	20.48	0-3	0
	25	12	20.42		0
	25	25	20.44		0
	50	0	20.49		0

Table 9-64
LTE Band 30 Reduced Conducted Powers - 5 MHz Bandwidth - Hotspot/Grip Sensor Mode Active

LTE Band 30 5 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel 27710 (2310.0 MHz) Conducted Power [dBm]	MPR Allowed per 3GPP [dB]	MPR [dB]
QPSK	1	0	20.36	0	0
	1	12	20.37		0
	1	24	20.26		0
	12	0	20.46	0-1	0
	12	6	20.47		0
	12	13	20.41		0
	25	0	20.44		0
16QAM	1	0	20.57	0-1	0
	1	12	20.62		0
	1	24	20.42		0
	12	0	20.50	0-2	0
	12	6	20.48		0
	12	13	20.52		0
	25	0	20.41		0
64QAM	1	0	20.33	0-2	0
	1	12	20.56		0
	1	24	20.25		0
	12	0	20.32	0-3	0
	12	6	20.37		0
	12	13	20.40		0
	25	0	20.42		0

Note: LTE Band 30 at 5 MHz bandwidth does not support three non-overlapping channels. Per KDB Publication 941225 D05v02, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

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9.4.10 LTE Band 7

Table 9-65
LTE Band 7 Maximum Conducted Powers - 20 MHz Bandwidth

LTE Band 7 20 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 20850 (2510.0 MHz)	Mid Channel 21100 (2535.0 MHz)	High Channel 21350 (2560.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	24.38	24.48	24.35	0	0
	1	50	24.58	24.32	24.01		0
	1	99	**24.72**	24.23	24.28		0
	50	0	**23.76**	23.37	23.12	0-1	1
	50	25	23.68	23.48	22.86		1
	50	50	23.72	23.34	23.17		1
	100	0	23.55	23.41	22.82		1
16QAM	1	0	23.66	23.80	23.67	0-1	1
	1	50	23.85	23.66	23.08		1
	1	99	23.92	23.55	23.72		1
	50	0	22.47	22.15	22.20	0-2	2
	50	25	22.68	22.48	21.96		2
	50	50	22.69	22.44	22.22		2
	100	0	22.64	22.43	22.11		2
64QAM	1	0	22.68	22.72	22.70	0-2	2
	1	50	22.75	22.71	22.18		2
	1	99	22.85	22.65	22.70		2
	50	0	21.57	21.46	21.29	0-3	3
	50	25	21.69	21.46	21.05		3
	50	50	21.78	21.37	21.25		3
	100	0	21.67	21.40	21.22		3

Table 9-66
LTE Band 7 Maximum Conducted Powers - 15 MHz Bandwidth

LTE Band 7 15 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 20825 (2507.5 MHz)	Mid Channel 21100 (2535.0 MHz)	High Channel 21375 (2562.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	24.18	24.43	24.36	0	0
	1	36	24.33	24.26	24.10		0
	1	74	24.66	24.18	24.38		0
	36	0	23.18	23.50	23.45	0-1	1
	36	18	23.77	23.51	23.48		1
	36	37	23.76	23.38	23.72		1
	75	0	23.36	23.44	23.63		1
16QAM	1	0	23.49	23.43	23.77	0-1	1
	1	36	23.60	23.51	23.38		1
	1	74	23.92	23.54	23.91		1
	36	0	22.29	22.51	22.44	0-2	2
	36	18	22.39	22.49	22.54		2
	36	37	22.71	22.38	22.74		2
	75	0	22.64	22.46	22.89		2
64QAM	1	0	22.57	22.65	22.69	0-2	2
	1	36	22.62	22.60	22.37		2
	1	74	22.92	22.59	22.81		2
	36	0	21.37	21.57	21.52	0-3	3
	36	18	21.65	21.53	21.47		3
	36	37	21.78	21.43	21.51		3
	75	0	21.68	21.44	21.32		3

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Table 9-67
LTE Band 7 Maximum Conducted Powers - 10 MHz Bandwidth

LTE Band 7 10 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 20800 (2505.0 MHz)	Mid Channel 21100 (2535.0 MHz)	High Channel 21400 (2565.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	24.15	24.50	24.35	0	0
	1	25	24.27	24.39	24.44		0
	1	49	24.68	24.26	24.45		0
	25	0	23.01	23.56	23.37	0-1	1
	25	12	23.20	23.55	23.59		1
	25	25	23.52	23.48	23.68		1
	50	0	23.25	23.51	23.42		1
16QAM	1	0	23.36	23.62	23.32	0-1	1
	1	25	23.67	23.65	23.75		1
	1	49	23.77	23.50	23.78		1
	25	0	22.35	22.58	22.58	0-2	2
	25	12	22.25	22.56	22.62		2
	25	25	22.53	22.47	22.62		2
	50	0	22.15	22.58	22.47		2
64QAM	1	0	22.41	22.67	22.34	0-2	2
	1	25	22.45	22.66	22.77		2
	1	49	22.84	22.52	22.78		2
	25	0	21.46	21.59	21.55	0-3	3
	25	12	21.42	21.55	21.66		3
	25	25	21.58	21.50	21.64		3
	50	0	21.31	21.52	21.61		3

Table 9-68
LTE Band 7 Maximum Conducted Powers - 5 MHz Bandwidth

LTE Band 7 5 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 20775 (2502.5 MHz)	Mid Channel 21100 (2535.0 MHz)	High Channel 21425 (2567.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	24.15	24.47	24.42	0	0
	1	12	24.29	24.40	24.55		0
	1	24	24.47	24.40	24.49		0
	12	0	23.22	23.56	23.26	0-1	1
	12	6	23.16	23.57	23.36		1
	12	13	23.20	23.59	23.36		1
	25	0	22.93	23.56	23.30		1
16QAM	1	0	23.36	23.68	23.61	0-1	1
	1	12	23.39	23.63	23.74		1
	1	24	23.46	23.49	23.71		1
	12	0	22.10	22.59	22.58	0-2	2
	12	6	22.21	22.61	22.51		2
	12	13	22.16	22.63	22.64		2
	25	0	22.06	22.57	22.55		2
64QAM	1	0	22.48	22.67	22.56	0-2	2
	1	12	22.48	22.70	22.59		2
	1	24	22.43	22.65	22.73		2
	12	0	21.11	21.57	21.67	0-3	3
	12	6	21.22	21.65	21.65		3
	12	13	21.34	21.69	21.67		3
	25	0	21.40	21.57	21.57		3

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Table 9-69
LTE Band 7 Reduced Conducted Powers - 20 MHz Bandwidth – Hotspot Mode Active

LTE Band 7 20 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 20850 (2510.0 MHz)	Mid Channel 21100 (2535.0 MHz)	High Channel 21350 (2560.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	20.15	20.11	19.97	0	0
	1	50	20.22	20.09	19.86		0
	1	99	**20.34**	19.98	19.93		0
	50	0	20.31	20.27	20.03	0-1	0
	50	25	20.39	20.24	20.01		0
	50	50	**20.43**	20.19	19.99		0
	100	0	20.33	20.20	19.98		0
16QAM	1	0	20.31	20.07	20.19	0-1	0
	1	50	20.35	20.01	20.11		0
	1	99	20.41	19.95	20.14		0
	50	0	20.29	20.19	20.07	0-2	0
	50	25	20.40	20.15	20.00		0
	50	50	20.45	20.13	20.02		0
	100	0	20.36	20.11	20.00		0
64QAM	1	0	20.27	20.07	20.17	0-2	0
	1	50	20.39	20.14	20.07		0
	1	99	20.50	20.01	20.06		0
	50	0	20.30	20.29	20.12	0-3	0
	50	25	20.40	20.27	20.04		0
	50	50	20.47	20.18	20.01		0
	100	0	20.40	20.20	20.04		0

Table 9-70
LTE Band 7 Reduced Conducted Powers - 15 MHz Bandwidth – Hotspot Mode Active

LTE Band 7 15 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 20825 (2507.5 MHz)	Mid Channel 21100 (2535.0 MHz)	High Channel 21375 (2562.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	20.04	19.84	19.79	0	0
	1	36	20.01	19.83	19.80		0
	1	74	20.16	19.68	20.03		0
	36	0	20.08	20.03	19.95	0-1	0
	36	18	20.12	20.02	19.98		0
	36	37	20.17	20.00	20.01		0
	75	0	20.06	20.02	20.03		0
16QAM	1	0	20.10	20.01	20.09	0-1	0
	1	36	20.24	20.04	20.01		0
	1	74	20.21	20.09	20.10		0
	36	0	20.14	19.99	19.97	0-2	0
	36	18	20.11	20.03	19.99		0
	36	37	20.19	19.96	19.93		0
	75	0	20.19	19.92	19.96		0
64QAM	1	0	20.27	20.22	20.03	0-2	0
	1	36	20.07	20.35	20.24		0
	1	74	20.39	20.29	20.23		0
	36	0	20.14	20.07	20.05	0-3	0
	36	18	20.09	20.14	19.98		0
	36	37	20.13	20.06	20.15		0
	75	0	20.25	20.09	20.02		0

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Table 9-71
LTE Band 7 Reduced Conducted Powers - 10 MHz Bandwidth – Hotspot Mode Active

LTE Band 7 10 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 20800 (2505.0 MHz)	Mid Channel 21100 (2535.0 MHz)	High Channel 21400 (2565.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	19.71	19.89	19.69	0	0
	1	25	19.95	19.85	19.75		0
	1	49	19.85	19.79	19.73		0
	25	0	20.02	19.88	20.01	0-1	0
	25	12	20.03	19.85	19.89		0
	25	25	20.01	19.97	19.81		0
	50	0	19.96	19.72	19.85		0
16QAM	1	0	19.97	20.09	20.01	0-1	0
	1	25	20.07	19.99	19.98		0
	1	49	20.11	20.04	20.05		0
	25	0	20.05	19.90	19.78	0-2	0
	25	12	20.03	19.86	19.84		0
	25	25	20.02	19.98	19.95		0
	50	0	20.04	19.88	19.89		0
64QAM	1	0	20.25	19.75	19.98	0-2	0
	1	25	20.03	20.11	19.79		0
	1	49	20.12	19.97	20.11		0
	25	0	20.03	19.89	19.81	0-3	0
	25	12	20.00	19.95	19.89		0
	25	25	19.99	19.93	19.90		0
	50	0	20.01	19.96	19.98		0

Table 9-72
LTE Band 7 Reduced Conducted Powers - 5 MHz Bandwidth – Hotspot Mode Active

LTE Band 7 5 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 20775 (2502.5 MHz)	Mid Channel 21100 (2535.0 MHz)	High Channel 21425 (2567.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	20.05	19.86	19.79	0	0
	1	12	20.07	19.88	20.05		0
	1	24	20.12	19.92	19.89		0
	12	0	20.10	19.95	19.96	0-1	0
	12	6	20.21	20.01	19.94		0
	12	13	20.12	19.99	20.07		0
	25	0	20.07	20.02	20.13		0
16QAM	1	0	20.15	20.16	20.18	0-1	0
	1	12	20.14	20.25	20.18		0
	1	24	20.16	20.06	20.27		0
	12	0	20.18	20.08	20.01	0-2	0
	12	6	20.19	20.15	20.14		0
	12	13	20.18	20.08	20.12		0
	25	0	20.10	20.03	20.08		0
64QAM	1	0	20.20	20.09	20.14	0-2	0
	1	12	20.25	20.19	20.12		0
	1	24	20.24	20.20	20.18		0
	12	0	20.19	19.96	20.13	0-3	0
	12	6	20.19	20.12	20.12		0
	12	13	20.16	20.15	20.11		0
	25	0	20.03	20.04	20.10		0

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Table 9-73
LTE Band 7 Reduced Conducted Powers - 20 MHz Bandwidth – Grip Mode Active

LTE Band 7 20 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 20850 (2510.0 MHz)	Mid Channel 21100 (2535.0 MHz)	High Channel 21350 (2560.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	19.14	18.87	18.80	0	0
	1	50	19.11	18.79	18.60		0
	1	99	**19.19**	18.61	18.69		0
	50	0	19.21	19.03	18.86	0-1	0
	50	25	19.30	18.95	18.80		0
	50	50	**19.32**	18.84	18.79		0
	100	0	19.17	18.94	18.80		0
16QAM	1	0	19.43	19.10	19.06	0-1	0
	1	50	19.43	19.04	18.81		0
	1	99	19.38	18.85	18.87		0
	50	0	19.22	19.03	18.84	0-2	0
	50	25	19.29	18.92	18.81		0
	50	50	19.32	18.79	18.77		0
	100	0	19.24	18.94	18.80		0
64QAM	1	0	19.39	19.24	19.09	0-2	0
	1	50	19.41	19.15	18.87		0
	1	99	19.47	18.97	19.05		0
	50	0	19.29	19.17	18.90	0-3	0
	50	25	19.37	19.13	18.85		0
	50	50	19.36	19.03	18.78		0
	100	0	19.29	19.11	18.81		0

Table 9-74
LTE Band 7 Reduced Conducted Powers - 15 MHz Bandwidth – Grip Mode Active

LTE Band 7 15 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 20825 (2507.5 MHz)	Mid Channel 21100 (2535.0 MHz)	High Channel 21375 (2562.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	18.95	18.72	18.65	0	0
	1	36	18.93	18.67	18.55		0
	1	74	19.12	18.53	18.70		0
	36	0	19.07	18.91	18.75	0-1	0
	36	18	19.15	18.85	18.73		0
	36	37	19.24	18.74	18.73		0
	75	0	19.12	18.82	18.74		0
16QAM	1	0	19.23	19.03	18.91	0-1	0
	1	36	19.18	18.85	18.87		0
	1	74	19.36	18.86	18.92		0
	36	0	19.07	18.87	18.71	0-2	0
	36	18	19.12	18.87	18.72		0
	36	37	19.15	18.76	18.77		0
	75	0	19.10	18.85	18.77		0
64QAM	1	0	19.21	19.02	18.85	0-2	0
	1	36	19.20	19.05	18.90		0
	1	74	19.29	18.85	18.88		0
	36	0	19.08	18.95	18.71	0-3	0
	36	18	19.14	18.92	18.74		0
	36	37	19.17	18.86	18.74		0
	75	0	19.10	18.88	18.73		0

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Table 9-75
LTE Band 7 Reduced Conducted Powers - 10 MHz Bandwidth – Grip Mode Active

LTE Band 7 10 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 20800 (2505.0 MHz)	Mid Channel 21100 (2535.0 MHz)	High Channel 21400 (2565.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	18.81	18.84	18.37	0	0
	1	25	18.76	18.62	18.43		0
	1	49	18.87	18.52	18.48		0
	25	0	18.93	18.84	18.60	0-1	0
	25	12	18.94	18.79	18.58		0
	25	25	18.93	18.76	18.64		0
	50	0	18.94	18.79	18.60		0
16QAM	1	0	18.98	18.99	18.86	0-1	0
	1	25	19.06	18.87	18.69		0
	1	49	19.12	18.81	18.75		0
	25	0	18.90	18.85	18.55	0-2	0
	25	12	18.93	18.78	18.59		0
	25	25	18.94	18.71	18.57		0
	50	0	18.88	18.77	18.61		0
64QAM	1	0	19.07	18.94	18.63	0-2	0
	1	25	19.09	18.86	18.74		0
	1	49	19.25	18.82	18.90		0
	25	0	18.94	18.83	18.60	0-3	0
	25	12	18.98	18.84	18.62		0
	25	25	18.98	18.77	18.69		0
	50	0	18.94	18.85	18.64		0

Table 9-76
LTE Band 7 Reduced Conducted Powers - 5 MHz Bandwidth – Grip Mode Active

LTE Band 7 5 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 20775 (2502.5 MHz)	Mid Channel 21100 (2535.0 MHz)	High Channel 21425 (2567.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	18.83	18.70	18.54	0	0
	1	12	18.91	18.75	18.61		0
	1	24	18.86	18.70	18.61		0
	12	0	18.94	18.83	18.61	0-1	0
	12	6	19.00	18.87	18.69		0
	12	13	18.94	18.80	18.70		0
	25	0	18.92	18.81	18.70		0
16QAM	1	0	19.08	19.00	18.79	0-1	0
	1	12	19.10	19.01	18.94		0
	1	24	19.06	18.94	18.87		0
	12	0	18.95	18.85	18.67	0-2	0
	12	6	19.02	18.89	18.70		0
	12	13	19.02	18.88	18.68		0
	25	0	18.50	18.83	18.75		0
64QAM	1	0	19.13	19.01	18.79	0-2	0
	1	12	19.21	18.95	18.86		0
	1	24	19.08	18.93	18.88		0
	12	0	18.98	18.89	18.70	0-3	0
	12	6	19.09	18.90	18.81		0
	12	13	19.01	18.91	18.74		0
	25	0	18.94	18.89	18.74		0

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9.4.11 LTE Band 41

Table 9-77
LTE Band 41 PC3 Maximum Conducted Powers - 20 MHz Bandwidth

LTE Band 41 20 MHz Bandwidth									
Modulation	RB Size	RB Offset	Low Channel 39750 (2506.0 MHz)	Low-Mid Channel 40185 (2549.5 MHz)	Mid Channel 40620 (2593.0 MHz)	Mid-High Channel 41055 (2636.5 MHz)	High Channel 41490 (2680.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]						
QPSK	1	0	24.31	24.30	24.22	**24.59**	24.32	0	0
	1	50	24.26	24.23	24.26	24.42	24.38		0
	1	99	24.32	24.34	24.27	24.24	24.58		0
	50	0	23.49	23.38	23.35	**23.59**	23.47	0-1	1
	50	25	23.46	23.40	23.40	23.51	23.54		1
	50	50	23.50	23.36	23.39	23.44	23.52		1
	100	0	23.43	23.37	23.34	23.53	23.51		1
16QAM	1	0	23.58	22.99	22.95	23.66	23.52	0-1	1
	1	50	23.51	22.93	22.97	23.58	23.57		1
	1	99	23.55	22.98	23.00	23.46	23.81		1
	50	0	22.48	22.35	22.35	22.60	22.50	0-2	2
	50	25	22.52	22.40	22.40	22.61	22.60		2
	50	50	22.54	22.37	22.40	22.50	22.64		2
	100	0	22.45	22.36	22.41	22.52	22.56		2
64QAM	1	0	22.09	22.54	22.48	22.18	22.08	0-2	2
	1	50	22.04	22.42	22.53	22.11	22.10		2
	1	99	22.05	22.56	22.55	21.90	22.33		2
	50	0	21.46	21.36	21.34	21.62	21.55	0-3	3
	50	25	21.55	21.38	21.42	21.61	21.65		3
	50	50	21.53	21.36	21.47	21.49	21.63		3
	100	0	21.52	21.38	21.41	21.54	21.65		3

Table 9-78
LTE Band 41 PC3 Maximum Conducted Powers - 15 MHz Bandwidth

LTE Band 41 15 MHz Bandwidth									
Modulation	RB Size	RB Offset	Low Channel 39750 (2506.0 MHz)	Low-Mid Channel 40185 (2549.5 MHz)	Mid Channel 40620 (2593.0 MHz)	Mid-High Channel 41055 (2636.5 MHz)	High Channel 41490 (2680.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]						
QPSK	1	0	24.13	24.03	24.14	24.25	23.97	0	0
	1	36	24.02	24.03	24.09	24.02	24.01		0
	1	74	24.03	23.96	24.11	23.84	24.08		0
	36	0	23.23	23.23	23.30	23.26	23.16	0-1	1
	36	18	23.25	23.26	23.31	23.22	23.24		1
	36	37	23.23	23.18	23.26	23.12	23.23		1
	75	0	23.26	23.21	23.32	23.20	23.21		1
16QAM	1	0	23.22	23.20	23.23	23.31	23.15	0-1	1
	1	36	23.13	23.14	23.21	23.14	23.15		1
	1	74	23.17	23.07	23.18	22.99	23.29		1
	36	0	22.19	22.22	22.27	22.27	22.17	0-2	2
	36	18	22.23	22.21	22.28	22.22	22.23		2
	36	37	22.24	22.15	22.26	22.11	22.23		2
	75	0	22.26	22.20	22.29	22.20	22.22		2
64QAM	1	0	21.82	21.83	21.87	21.96	21.75	0-2	2
	1	36	21.75	21.75	21.85	21.76	21.79		2
	1	74	21.79	21.68	21.80	21.62	21.94		2
	36	0	21.18	21.19	21.26	21.25	21.16	0-3	3
	36	18	21.22	21.20	21.24	21.20	21.19		3
	36	37	21.21	21.14	21.22	21.11	21.22		3
	75	0	21.25	21.21	21.27	21.21	21.24		3

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Table 9-79
LTE Band 41 PC3 Maximum Conducted Powers - 10 MHz Bandwidth

LTE Band 41 10 MHz Bandwidth									
Modulation	RB Size	RB Offset	Low Channel	Low-Mid Channel	Mid Channel	Mid-High Channel	High Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
			39750 (2506.0 MHz)	40185 (2549.5 MHz)	40620 (2593.0 MHz)	41055 (2636.5 MHz)	41490 (2680.0 MHz)		
			Conducted Power [dBm]						
QPSK	1	0	24.00	23.90	24.02	24.12	23.94	0	0
	1	25	23.91	23.95	23.97	24.00	23.97		0
	1	49	23.94	23.80	23.93	23.93	23.83		0
	25	0	23.09	23.13	23.14	23.04	23.12	0-1	1
	25	12	23.08	23.12	23.14	23.01	23.13		1
	25	25	23.04	23.06	23.09	22.94	23.08		1
	50	0	23.11	23.12	23.15	23.12	23.17		1
16QAM	1	0	23.07	23.10	23.15	23.14	23.05	0-1	1
	1	25	22.99	23.03	23.06	23.02	23.07		1
	1	49	23.05	22.99	23.05	22.97	22.97		1
	25	0	22.00	22.06	22.06	22.04	22.04	0-2	2
	25	12	22.00	22.04	22.05	22.03	22.04		2
	25	25	21.97	21.98	22.00	21.97	21.97		2
	50	0	22.12	22.14	22.15	22.11	22.12		2
64QAM	1	0	21.73	21.72	21.78	21.79	21.76	0-2	2
	1	25	21.64	21.65	21.67	21.66	21.68		2
	1	49	21.68	21.65	21.69	21.62	21.67		2
	25	0	21.14	21.15	21.17	21.16	21.14	0-3	3
	25	12	21.12	21.17	21.18	21.16	21.13		3
	25	25	21.09	21.07	21.12	21.09	21.08		3
	50	0	21.08	21.12	21.15	21.12	21.11		3

Table 9-80
LTE Band 41 PC3 Maximum Conducted Powers - 5 MHz Bandwidth

LTE Band 41 5 MHz Bandwidth									
Modulation	RB Size	RB Offset	Low Channel	Low-Mid Channel	Mid Channel	Mid-High Channel	High Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
			39750 (2506.0 MHz)	40185 (2549.5 MHz)	40620 (2593.0 MHz)	41055 (2636.5 MHz)	41490 (2680.0 MHz)		
			Conducted Power [dBm]						
QPSK	1	0	23.98	23.97	23.96	23.99	23.95	0	0
	1	12	23.98	24.02	23.99	24.00	23.99		0
	1	24	23.97	24.00	23.96	23.96	23.97		0
	12	0	23.09	23.12	23.06	23.08	23.06	0-1	1
	12	6	23.09	23.13	23.07	23.09	23.12		1
	12	13	23.08	23.07	23.11	23.08	23.10		1
	25	0	23.08	23.13	23.07	23.03	23.09		1
16QAM	1	0	23.12	23.13	23.13	23.07	23.09	0-1	1
	1	12	23.09	23.11	23.15	23.08	23.11		1
	1	24	23.06	23.10	23.12	23.09	23.11		1
	12	0	22.10	22.12	22.09	22.04	22.07	0-2	2
	12	6	22.11	22.17	22.10	22.09	22.16		2
	12	13	22.13	22.11	22.14	22.10	22.12		2
	25	0	22.04	22.03	22.02	21.93	22.03		2
64QAM	1	0	21.76	21.71	21.74	21.71	22.03	0-2	2
	1	12	21.73	21.75	21.73	21.69	21.72		2
	1	24	21.74	21.74	21.75	21.73	21.76		2
	12	0	21.12	21.16	21.07	21.03	21.08	0-3	3
	12	6	21.15	21.18	21.13	21.07	21.15		3
	12	13	21.16	21.16	21.15	21.12	21.10		3
	25	0	21.14	21.19	21.12	21.07	21.16		3

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Table 9-81
LTE Band 41 PC2 Maximum Conducted Powers - 20 MHz Bandwidth

LTE Band 41 20 MHz Bandwidth									
Modulation	RB Size	RB Offset	Low Channel	Low-Mid Channel	Mid Channel	Mid-High Channel	High Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
			39750 (2506.0 MHz)	40185 (2549.5 MHz)	40620 (2593.0 MHz)	41055 (2636.5 MHz)	41490 (2680.0 MHz)		
			Conducted Power [dBm]						
QPSK	1	0	27.55	27.42	27.57	27.81	27.75	0	0
	1	50	27.35	27.46	27.61	27.68	27.78		0
	1	99	27.36	27.45	27.65	27.61	27.82		0
	50	0	26.12	26.61	26.72	26.86	26.98	0-1	1
	50	25	26.03	26.58	26.79	26.84	26.89		1
	50	50	25.90	26.57	26.80	26.73	26.93		1
	100	0	25.81	26.56	26.77	26.74	26.94		1
16QAM	1	0	26.08	26.59	26.65	26.98	26.95	0-1	1
	1	50	25.83	26.58	26.63	26.95	26.98		1
	1	99	25.88	26.60	26.67	26.80	26.96		1
	50	0	25.25	25.53	25.70	25.86	25.95	0-2	2
	50	25	25.03	25.55	25.73	25.83	25.92		2
	50	50	25.02	25.57	25.74	25.76	25.96		2
	100	0	25.01	25.54	25.72	25.78	25.98		2
64QAM	1	0	25.43	25.86	25.94	25.72	25.92	0-2	2
	1	50	25.51	25.87	25.95	25.63	25.83		2
	1	99	25.51	25.91	25.97	25.55	25.75		2
	50	0	24.35	24.57	24.73	24.77	24.97	0-3	3
	50	25	24.05	24.55	24.72	24.75	24.95		3
	50	50	24.04	24.54	24.74	24.72	24.92		3
	100	0	24.06	24.56	24.73	24.74	24.94		3

Table 9-82
LTE Band 41 PC2 Maximum Conducted Powers - 15 MHz Bandwidth

LTE Band 41 15 MHz Bandwidth									
Modulation	RB Size	RB Offset	Low Channel	Low-Mid Channel	Mid Channel	Mid-High Channel	High Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
			39750 (2506.0 MHz)	40185 (2549.5 MHz)	40620 (2593.0 MHz)	41055 (2636.5 MHz)	41490 (2680.0 MHz)		
			Conducted Power [dBm]						
QPSK	1	0	27.60	27.57	27.61	27.70	27.54	0	0
	1	36	27.41	27.56	27.61	27.56	27.70		0
	1	74	27.55	27.49	27.56	27.40	27.80		0
	36	0	26.44	26.76	26.80	26.81	26.69	0-1	1
	36	18	26.38	26.76	26.84	26.76	26.75		1
	36	37	26.36	26.69	26.81	26.66	26.76		1
	75	0	26.22	26.71	26.82	26.74	26.72		1
16QAM	1	0	26.96	26.92	26.98	27.00	26.63	0-1	1
	1	36	26.79	26.89	26.93	26.86	26.78		1
	1	74	26.92	26.75	26.90	26.70	26.87		1
	36	0	25.57	25.76	25.84	25.84	25.72	0-2	2
	36	18	25.52	25.78	25.82	25.75	25.74		2
	36	37	25.49	25.71	25.81	25.69	25.77		2
	75	0	25.41	25.72	25.83	25.75	25.75		2
64QAM	1	0	25.69	25.66	25.71	25.78	25.73	0-2	2
	1	36	25.61	25.61	25.68	25.65	25.88		2
	1	74	25.66	25.51	25.63	25.44	25.90		2
	36	0	24.63	24.75	24.79	24.82	24.71	0-3	3
	36	18	24.54	24.75	24.78	24.76	24.75		3
	36	37	24.52	24.69	24.78	24.66	24.76		3
	75	0	24.53	24.74	24.81	24.77	24.75		3

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Table 9-83
LTE Band 41 PC2 Maximum Conducted Powers - 10 MHz Bandwidth

LTE Band 41 10 MHz Bandwidth									
Modulation	RB Size	RB Offset	Low Channel	Low-Mid Channel	Mid Channel	Mid-High Channel	High Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
			39750 (2506.0 MHz)	40185 (2549.5 MHz)	40620 (2593.0 MHz)	41055 (2636.5 MHz)	41490 (2680.0 MHz)		
			Conducted Power [dBm]						
QPSK	1	0	27.42	27.41	27.50	27.40	27.34	0	0
	1	25	27.40	27.42	27.47	27.38	27.40		0
	1	49	27.37	27.33	27.38	27.29	27.35		0
	25	0	26.24	26.66	26.63	26.58	26.57	0-1	1
	25	12	26.31	26.64	26.62	26.55	26.56		1
	25	25	26.30	26.59	26.57	26.48	26.52		1
	50	0	26.16	26.65	26.63	26.54	26.53		1
16QAM	1	0	26.76	26.78	26.80	26.80	26.64	0-1	1
	1	25	26.78	26.76	26.76	26.73	26.76		1
	1	49	26.76	26.72	26.72	26.64	26.70		1
	25	0	25.44	25.59	25.58	25.53	25.49	0-2	2
	25	12	25.42	25.58	25.58	25.50	25.50		2
	25	25	25.40	25.53	25.54	25.43	25.47		2
	50	0	25.39	25.63	25.65	25.57	25.58		2
64QAM	1	0	25.55	25.53	25.55	25.55	25.46	0-2	2
	1	25	25.50	25.48	25.50	25.47	25.49		2
	1	49	25.48	25.46	25.46	25.42	25.44		2
	25	0	24.64	24.72	24.72	24.65	24.63	0-3	3
	25	12	24.61	24.68	24.69	24.64	24.64		3
	25	25	24.56	24.67	24.66	24.57	24.59		3
	50	0	24.50	24.66	24.64	24.58	24.59		3

Table 9-84
LTE Band 41 PC2 Maximum Conducted Powers - 5 MHz Bandwidth

LTE Band 41 5 MHz Bandwidth									
Modulation	RB Size	RB Offset	Low Channel	Low-Mid Channel	Mid Channel	Mid-High Channel	High Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
			39750 (2506.0 MHz)	40185 (2549.5 MHz)	40620 (2593.0 MHz)	41055 (2636.5 MHz)	41490 (2680.0 MHz)		
			Conducted Power [dBm]						
QPSK	1	0	27.44	27.46	27.49	27.47	27.44	0	0
	1	12	27.47	27.51	27.53	27.49	27.49		0
	1	24	27.47	27.52	27.51	27.48	27.50		0
	12	0	26.33	26.65	26.64	26.56	26.50	0-1	1
	12	6	26.43	26.69	26.66	26.55	26.61		1
	12	13	26.34	26.63	26.66	26.58	26.59		1
	25	0	26.19	26.66	26.60	26.52	26.58		1
16QAM	1	0	26.81	26.80	26.82	26.84	26.80	0-1	1
	1	12	26.81	26.78	26.84	26.82	26.83		1
	1	24	26.84	26.81	26.80	26.78	26.81		1
	12	0	25.52	25.69	25.67	25.59	25.57	0-2	2
	12	6	25.61	25.69	25.69	25.60	25.65		2
	12	13	25.54	25.65	25.70	25.66	25.63		2
	25	0	25.75	25.61	25.57	25.48	25.52		2
64QAM	1	0	25.48	25.51	25.58	25.52	25.54	0-2	2
	1	12	25.53	25.54	25.58	25.57	25.59		2
	1	24	25.55	25.59	25.59	25.58	25.59		2
	12	0	24.71	24.72	24.66	24.61	24.58	0-3	3
	12	6	24.70	24.76	24.69	24.62	24.66		3
	12	13	24.68	24.74	24.70	24.68	24.63		3
	25	0	24.70	24.74	24.68	24.63	24.67		3

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Table 9-85
LTE Band 41 PC3 Reduced Conducted Powers - 20 MHz Bandwidth – Hotspot Mode Active

LTE Band 41 20 MHz Bandwidth									
Modulation	RB Size	RB Offset	Low Channel	Low-Mid Channel	Mid Channel	Mid-High Channel	High Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
			39750 (2506.0 MHz)	40185 (2549.5 MHz)	40620 (2593.0 MHz)	41055 (2636.5 MHz)	41490 (2680.0 MHz)		
			Conducted Power [dBm]						
QPSK	1	0	21.90	21.91	21.85	**22.18**	21.94	0	0
	1	50	21.86	21.87	21.84	21.91	21.96		0
	1	99	21.92	21.87	21.75	21.77	22.14		0
	50	0	22.08	22.13	22.12	**22.25**	22.13	0-1	0
	50	25	22.10	22.12	22.11	22.14	22.22		0
	50	50	22.15	22.09	22.09	22.03	22.23		0
	100	0	22.09	22.08	22.04	22.17	22.11		0
16QAM	1	0	22.03	22.01	22.01	22.13	21.97	0-1	0
	1	50	21.96	22.00	21.96	21.97	22.04		0
	1	99	22.00	21.98	21.97	21.84	22.29		0
	50	0	22.06	22.13	22.11	22.19	22.10	0-2	0
	50	25	22.13	22.14	22.15	22.10	22.19		0
	50	50	22.13	22.09	22.12	22.00	22.21		0
	100	0	22.13	22.13	22.14	22.11	22.21		0
64QAM	1	0	22.19	22.25	22.20	22.35	22.15	0-2	0
	1	50	22.10	22.17	22.20	22.15	22.29		0
	1	99	22.16	22.16	22.10	21.90	22.44		0
	50	0	21.66	21.73	21.70	21.76	21.70	0-3	1
	50	25	21.70	21.74	21.71	21.68	21.79		1
	50	50	21.72	21.68	21.70	21.59	21.86		1
	100	0	21.73	21.75	21.73	21.69	21.80		1

Table 9-86
LTE Band 41 PC3 Reduced Conducted Powers - 15 MHz Bandwidth – Hotspot Mode Active

LTE Band 41 15 MHz Bandwidth									
Modulation	RB Size	RB Offset	Low Channel	Low-Mid Channel	Mid Channel	Mid-High Channel	High Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
			39750 (2506.0 MHz)	40185 (2549.5 MHz)	40620 (2593.0 MHz)	41055 (2636.5 MHz)	41490 (2680.0 MHz)		
			Conducted Power [dBm]						
QPSK	1	0	21.54	21.63	21.66	21.93	21.89	0	0
	1	36	21.44	21.67	21.63	21.84	21.91		0
	1	74	21.49	21.63	21.56	21.76	22.01		0
	36	0	21.64	21.84	21.86	22.08	22.04	0-1	0
	36	18	21.71	21.88	21.89	22.11	22.06		0
	36	37	21.69	21.82	21.87	22.04	22.06		0
	75	0	21.68	21.85	21.89	22.11	22.06		0
16QAM	1	0	21.60	21.74	21.78	22.09	21.87	0-1	0
	1	36	21.50	21.80	21.63	21.95	21.88		0
	1	74	21.53	21.74	21.67	21.80	22.02		0
	36	0	21.58	21.77	21.79	22.03	21.89	0-2	0
	36	18	21.61	21.79	21.77	22.00	21.94		0
	36	37	21.62	21.79	21.79	21.90	21.96		0
	75	0	21.69	21.82	21.86	22.06	22.01		0
64QAM	1	0	21.60	21.50	21.47	21.72	21.60	0-2	0
	1	36	21.49	21.51	21.44	21.57	21.60		0
	1	74	21.56	21.44	21.42	21.55	21.78		0
	36	0	21.23	21.32	21.41	21.55	21.57	0-3	1
	36	18	21.29	21.28	21.33	21.54	21.50		1
	36	37	21.27	21.44	21.39	21.45	21.52		1
	75	0	21.31	21.38	21.37	21.49	21.49		1

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Table 9-87
LTE Band 41 PC3 Reduced Conducted Powers - 10 MHz Bandwidth – Hotspot Mode Active

LTE Band 41 10 MHz Bandwidth									
Modulation	RB Size	RB Offset	Low Channel	Low-Mid Channel	Mid Channel	Mid-High Channel	High Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
			39750 (2506.0 MHz)	40185 (2549.5 MHz)	40620 (2593.0 MHz)	41055 (2636.5 MHz)	41490 (2680.0 MHz)		
			Conducted Power [dBm]						
QPSK	1	0	21.37	21.53	21.60	21.65	21.69	0	0
	1	25	21.36	21.65	21.70	21.65	21.68		0
	1	49	21.38	21.54	21.59	21.65	21.71		0
	25	0	21.54	21.76	21.79	21.79	21.76	0-1	0
	25	12	21.56	21.80	21.82	21.85	21.89		0
	25	25	21.50	21.77	21.83	21.86	21.90		0
	50	0	21.56	21.81	21.78	21.84	21.93		0
16QAM	1	0	21.43	21.63	21.84	21.64	21.73	0-1	0
	1	25	21.36	21.70	21.54	21.73	21.69		0
	1	49	21.36	21.62	21.58	21.62	21.78		0
	25	0	21.57	21.76	21.50	21.81	21.79	0-2	0
	25	12	21.58	21.81	21.76	21.80	21.88		0
	25	25	21.59	21.85	21.80	21.78	21.92		0
	50	0	21.51	21.79	21.70	21.82	21.88		0
64QAM	1	0	21.20	21.40	21.50	21.31	21.46	0-2	0
	1	25	21.13	21.42	21.42	21.38	21.46		0
	1	49	21.09	21.34	21.46	21.39	21.52		0
	25	0	21.05	21.34	21.38	21.30	21.38	0-3	1
	25	12	21.09	21.32	21.32	21.27	21.45		1
	25	25	21.05	21.29	21.38	21.29	21.41		1
	50	0	21.04	21.34	21.41	21.25	21.40		1

Table 9-88
LTE Band 41 PC3 Reduced Conducted Powers - 5 MHz Bandwidth – Hotspot Mode Active

LTE Band 41 5 MHz Bandwidth									
Modulation	RB Size	RB Offset	Low Channel	Low-Mid Channel	Mid Channel	Mid-High Channel	High Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
			39750 (2506.0 MHz)	40185 (2549.5 MHz)	40620 (2593.0 MHz)	41055 (2636.5 MHz)	41490 (2680.0 MHz)		
			Conducted Power [dBm]						
QPSK	1	0	21.30	21.45	21.59	21.67	21.72	0	0
	1	12	21.34	21.53	21.53	21.69	21.71		0
	1	24	21.31	21.30	21.55	21.67	21.74		0
	12	0	21.52	21.59	21.59	21.75	21.82	0-1	0
	12	6	21.46	21.63	21.64	21.79	21.93		0
	12	13	21.41	21.63	21.65	21.84	21.85		0
	25	0	21.42	21.60	21.60	21.79	21.92		0
16QAM	1	0	21.33	21.55	21.58	21.72	21.85	0-1	0
	1	12	21.33	21.60	21.55	21.78	21.82		0
	1	24	21.46	21.64	21.52	21.76	21.83		0
	12	0	21.33	21.52	21.48	21.64	21.74	0-2	0
	12	6	21.37	21.58	21.55	21.69	21.81		0
	12	13	21.33	21.57	21.61	21.74	21.74		0
	25	0	21.41	21.68	21.60	21.76	21.73		0
64QAM	1	0	21.10	21.30	21.22	21.42	21.65	0-2	0
	1	12	21.11	21.31	21.30	21.45	21.62		0
	1	24	21.06	21.39	21.22	21.43	21.52		0
	12	0	20.96	21.16	21.11	21.26	21.50	0-3	1
	12	6	20.99	21.25	21.13	21.29	21.25		1
	12	13	20.98	21.16	21.22	21.30	21.27		1
	25	0	21.03	21.24	21.13	21.27	21.24		1

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Table 9-89
LTE Band 41 PC3 Reduced Conducted Powers - 20 MHz Bandwidth – Grip Sensor Active

LTE Band 41 20 MHz Bandwidth									
Modulation	RB Size	RB Offset	Low Channel	Low-Mid Channel	Mid Channel	Mid-High Channel	High Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
			39750 (2506.0 MHz)	40185 (2549.5 MHz)	40620 (2593.0 MHz)	41055 (2636.5 MHz)	41490 (2680.0 MHz)		
			Conducted Power [dBm]						
QPSK	1	0	20.38	20.41	20.45	**20.64**	20.41	0	0
	1	50	20.33	20.36	20.44	20.36	20.50		0
	1	99	20.39	20.40	20.36	20.25	20.62		0
	50	0	20.58	20.63	20.66	**20.75**	20.65	0-1	0
	50	25	20.56	20.61	20.65	20.64	20.70		0
	50	50	20.60	20.57	20.63	20.59	20.72		0
	100	0	20.61	20.55	20.62	20.63	20.60		0
16QAM	1	0	20.50	20.56	20.53	20.60	20.48	0-1	0
	1	50	20.42	20.48	20.54	20.54	20.55		0
	1	99	20.52	20.46	20.47	20.33	20.73		0
	50	0	20.56	20.66	20.63	20.67	20.63	0-2	0
	50	25	20.61	20.64	20.67	20.55	20.69		0
	50	50	20.69	20.58	20.66	20.50	20.74		0
	100	0	20.61	20.60	20.68	20.59	20.70		0
64QAM	1	0	20.69	20.71	20.68	20.78	20.62	0-2	0
	1	50	20.61	20.64	20.71	20.58	20.73		0
	1	99	20.66	20.63	20.58	20.46	20.93		0
	50	0	20.62	20.64	20.66	20.71	20.65	0-3	0
	50	25	20.65	20.65	20.67	20.61	20.69		0
	50	50	20.69	20.58	20.67	20.54	20.77		0
	100	0	20.63	20.66	20.64	20.59	20.64		0

Table 9-90
LTE Band 41 PC3 Reduced Conducted Powers - 15 MHz Bandwidth – Grip Sensor Active

LTE Band 41 15 MHz Bandwidth									
Modulation	RB Size	RB Offset	Low Channel	Low-Mid Channel	Mid Channel	Mid-High Channel	High Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
			39750 (2506.0 MHz)	40185 (2549.5 MHz)	40620 (2593.0 MHz)	41055 (2636.5 MHz)	41490 (2680.0 MHz)		
			Conducted Power [dBm]						
QPSK	1	0	20.32	20.34	20.43	20.50	20.28	0	0
	1	36	20.29	20.34	20.42	20.40	20.31		0
	1	74	20.26	20.23	20.36	20.19	20.31		0
	36	0	20.46	20.51	20.56	20.60	20.43	0-1	0
	36	18	20.46	20.50	20.52	20.54	20.47		0
	36	37	20.48	20.48	20.53	20.47	20.46		0
	75	0	20.49	20.51	20.55	20.51	20.46		0
16QAM	1	0	20.66	20.71	20.71	20.82	20.54	0-1	0
	1	36	20.61	20.69	20.72	20.70	20.63		0
	1	74	20.58	20.58	20.65	20.46	20.63		0
	36	0	20.41	20.50	20.56	20.59	20.42	0-2	0
	36	18	20.45	20.52	20.55	20.56	20.41		0
	36	37	20.48	20.51	20.56	20.46	20.48		0
	75	0	20.48	20.50	20.55	20.53	20.42		0
64QAM	1	0	20.41	20.47	20.43	20.61	20.31	0-2	0
	1	36	20.41	20.47	20.47	20.49	20.42		0
	1	74	20.41	20.32	20.41	20.24	20.43		0
	36	0	20.55	20.51	20.57	20.64	20.41	0-3	0
	36	18	20.56	20.52	20.55	20.59	20.46		0
	36	37	20.59	20.49	20.56	20.51	20.47		0
	75	0	20.51	20.52	20.56	20.57	20.47		0

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Table 9-91
LTE Band 41 PC3 Reduced Conducted Powers - 10 MHz Bandwidth – Grip Sensor Active

LTE Band 41 10 MHz Bandwidth									
Modulation	RB Size	RB Offset	Low Channel	Low-Mid Channel	Mid Channel	Mid-High Channel	High Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
			39750 (2506.0 MHz)	40185 (2549.5 MHz)	40620 (2593.0 MHz)	41055 (2636.5 MHz)	41490 (2680.0 MHz)		
			Conducted Power [dBm]						
QPSK	1	0	20.23	20.27	20.35	20.30	20.24	0	0
	1	25	20.21	20.28	20.32	20.24	20.22		0
	1	49	20.19	20.19	20.25	20.13	20.15		0
	25	0	20.38	20.50	20.51	20.48	20.44	0-1	0
	25	12	20.40	20.49	20.48	20.45	20.44		0
	25	25	20.37	20.43	20.45	20.39	20.39		0
	50	0	20.44	20.51	20.49	20.45	20.44		0
16QAM	1	0	20.55	20.63	20.67	20.65	20.62	0-1	0
	1	25	20.53	20.60	20.63	20.59	20.59		0
	1	49	20.55	20.55	20.55	20.49	20.56		0
	25	0	20.37	20.45	20.44	20.39	20.39	0-2	0
	25	12	20.35	20.41	20.39	20.37	20.40		0
	25	25	20.35	20.37	20.37	20.32	20.35		0
	50	0	20.48	20.52	20.50	20.47	20.47		0
64QAM	1	0	20.36	20.39	20.44	20.41	20.37	0-2	0
	1	25	20.32	20.35	20.35	20.33	20.33		0
	1	49	20.33	20.32	20.32	20.26	20.29		0
	25	0	20.53	20.58	20.56	20.55	20.49	0-3	0
	25	12	20.55	20.57	20.56	20.53	20.51		0
	25	25	20.53	20.53	20.50	20.47	20.45		0
	50	0	20.49	20.51	20.51	20.54	20.45		0

Table 9-92
LTE Band 41 PC3 Reduced Conducted Powers - 5 MHz Bandwidth – Grip Sensor Active

LTE Band 41 5 MHz Bandwidth									
Modulation	RB Size	RB Offset	Low Channel	Low-Mid Channel	Mid Channel	Mid-High Channel	High Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
			39750 (2506.0 MHz)	40185 (2549.5 MHz)	40620 (2593.0 MHz)	41055 (2636.5 MHz)	41490 (2680.0 MHz)		
			Conducted Power [dBm]						
QPSK	1	0	20.27	20.36	20.34	20.32	20.21	0	0
	1	12	20.30	20.36	20.39	20.33	20.26		0
	1	24	20.31	20.39	20.38	20.28	20.29		0
	12	0	20.42	20.50	20.44	20.35	20.35	0-1	0
	12	6	20.47	20.52	20.44	20.41	20.43		0
	12	13	20.44	20.49	20.49	20.41	20.41		0
	25	0	20.45	20.51	20.44	20.38	20.42		0
16QAM	1	0	20.59	20.68	20.67	20.62	20.63	0-1	0
	1	12	20.60	20.63	20.67	20.61	20.66		0
	1	24	20.62	20.67	20.66	20.60	20.65		0
	12	0	20.47	20.55	20.51	20.41	20.43	0-2	0
	12	6	20.52	20.56	20.51	20.42	20.50		0
	12	13	20.51	20.53	20.52	20.43	20.48		0
	25	0	20.38	20.43	20.40	20.30	20.39		0
64QAM	1	0	20.32	20.37	20.39	20.36	20.37	0-2	0
	1	12	20.35	20.40	20.44	20.37	20.40		0
	1	24	20.40	20.45	20.44	20.35	20.37		0
	12	0	20.50	20.58	20.50	20.46	20.41	0-3	0
	12	6	20.52	20.57	20.53	20.46	20.52		0
	12	13	20.51	20.55	20.56	20.47	20.53		0
	25	0	20.53	20.58	20.49	20.43	20.47		0

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Table 9-93
LTE Band 41 PC2 Reduced Conducted Powers - 20 MHz Bandwidth – Hotspot Mode Active

LTE Band 41 20 MHz Bandwidth									
Modulation	RB Size	RB Offset	Low Channel	Low-Mid Channel	Mid Channel	Mid-High Channel	High Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
			39750 (2506.0 MHz)	40185 (2549.5 MHz)	40620 (2593.0 MHz)	41055 (2636.5 MHz)	41490 (2680.0 MHz)		
			Conducted Power [dBm]						
QPSK	1	0	21.62	21.61	21.57	21.82	21.78	0	0
	1	50	21.58	21.58	21.56	21.81	21.83		0
	1	99	21.60	21.60	21.62	21.67	21.95		0
	50	0	21.67	21.58	21.63	21.85	21.86	0-1	0
	50	25	21.68	21.57	21.65	21.91	21.92		0
	50	50	21.69	21.58	21.69	21.87	21.90		0
	100	0	21.68	21.55	21.68	21.80	21.88		0
16QAM	1	0	21.73	21.66	21.46	21.84	21.87	0-1	0
	1	50	21.62	21.77	21.41	21.81	21.95		0
	1	99	21.65	21.80	21.45	21.72	22.18		0
	50	0	21.64	21.62	21.65	21.83	21.91	0-2	0
	50	25	21.63	21.59	21.71	21.85	21.87		0
	50	50	21.67	21.56	21.73	21.84	21.92		0
	100	0	21.65	21.56	21.70	21.76	21.94		0
64QAM	1	0	22.02	21.47	21.85	22.12	21.66	0-2	0
	1	50	21.95	21.47	21.90	22.11	21.70		0
	1	99	21.94	21.50	22.01	22.00	21.93		0
	50	0	21.67	21.53	21.80	21.83	21.81	0-3	0
	50	25	21.63	21.54	21.71	21.86	21.77		0
	50	50	21.64	21.52	21.69	21.81	21.89		0
	100	0	21.66	21.54	21.68	21.79	21.92		0

Table 9-94
LTE Band 41 PC2 Reduced Conducted Powers - 15 MHz Bandwidth – Hotspot Mode Active

LTE Band 41 15 MHz Bandwidth									
Modulation	RB Size	RB Offset	Low Channel	Low-Mid Channel	Mid Channel	Mid-High Channel	High Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
			39750 (2506.0 MHz)	40185 (2549.5 MHz)	40620 (2593.0 MHz)	41055 (2636.5 MHz)	41490 (2680.0 MHz)		
			Conducted Power [dBm]						
QPSK	1	0	21.32	21.41	21.55	21.73	21.54	0	0
	1	36	21.39	21.50	21.46	21.64	21.62		0
	1	74	21.30	21.44	21.43	21.55	21.72		0
	36	0	21.55	21.68	21.43	21.87	21.71	0-1	0
	36	18	21.49	21.66	21.63	21.85	21.78		0
	36	37	21.50	21.63	21.68	21.79	21.82		0
	75	0	21.47	21.65	21.64	21.84	21.80		0
16QAM	1	0	21.59	21.73	21.62	21.97	21.81	0-1	0
	1	36	21.47	21.75	21.80	21.84	21.82		0
	1	74	21.48	21.67	21.69	21.82	21.98		0
	36	0	21.43	21.56	21.66	21.81	21.67	0-2	0
	36	18	21.43	21.63	21.58	21.76	21.70		0
	36	37	21.43	21.55	21.66	21.70	21.73		0
	75	0	21.46	21.69	21.65	21.82	21.73		0
64QAM	1	0	21.54	21.54	21.55	21.75	21.62	0-2	0
	1	36	21.31	21.56	21.51	21.68	21.65		0
	1	74	21.32	21.51	21.56	21.55	21.83		0
	36	0	21.46	21.59	21.66	21.84	21.70	0-3	0
	36	18	21.47	21.67	21.67	21.76	21.77		0
	36	37	21.48	21.67	21.62	21.75	21.78		0
	75	0	21.46	21.65	21.67	21.82	21.79		0

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Table 9-95
LTE Band 41 PC2 Reduced Conducted Powers - 10 MHz Bandwidth – Hotspot Mode Active

LTE Band 41 10 MHz Bandwidth									
Modulation	RB Size	RB Offset	Low Channel	Low-Mid Channel	Mid Channel	Mid-High Channel	High Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
			39750 (2506.0 MHz)	40185 (2549.5 MHz)	40620 (2593.0 MHz)	41055 (2636.5 MHz)	41490 (2680.0 MHz)		
			Conducted Power [dBm]						
QPSK	1	0	21.25	21.30	21.33	21.47	21.49	0	0
	1	25	21.27	21.38	21.26	21.46	21.50		0
	1	49	21.22	21.32	21.33	21.38	21.39		0
	25	0	21.36	21.55	21.54	21.69	21.66	0-1	0
	25	12	21.39	21.55	21.54	21.73	21.78		0
	25	25	21.36	21.53	21.47	21.65	21.57		0
	50	0	21.40	21.56	21.55	21.68	21.61		0
16QAM	1	0	21.47	21.65	21.60	21.73	21.71	0-1	0
	1	25	21.45	21.62	21.55	21.79	21.70		0
	1	49	21.40	21.64	21.53	21.68	21.66		0
	25	0	21.50	21.59	21.53	21.67	21.65	0-2	0
	25	12	21.54	21.60	21.54	21.67	21.67		0
	25	25	21.40	21.59	21.48	21.65	21.66		0
	50	0	21.44	21.64	21.51	21.65	21.54		0
64QAM	1	0	21.35	21.53	21.45	21.57	21.60	0-2	0
	1	25	21.38	21.53	21.35	21.55	21.57		0
	1	49	21.29	21.50	21.34	21.46	21.53		0
	25	0	21.42	21.63	21.56	21.68	21.62	0-3	0
	25	12	21.24	21.61	21.49	21.59	21.63		0
	25	25	21.38	21.58	21.47	21.62	21.58		0
	50	0	21.50	21.69	21.58	21.72	21.69		0

Table 9-96
LTE Band 41 PC2 Reduced Conducted Powers - 5 MHz Bandwidth – Hotspot Mode Active

LTE Band 41 5 MHz Bandwidth									
Modulation	RB Size	RB Offset	Low Channel	Low-Mid Channel	Mid Channel	Mid-High Channel	High Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
			39750 (2506.0 MHz)	40185 (2549.5 MHz)	40620 (2593.0 MHz)	41055 (2636.5 MHz)	41490 (2680.0 MHz)		
			Conducted Power [dBm]						
QPSK	1	0	21.24	21.45	21.40	21.55	21.51	0	0
	1	12	21.32	21.52	21.51	21.63	21.53		0
	1	24	21.28	21.52	21.47	21.58	21.53		0
	12	0	21.35	21.64	21.54	21.67	21.60	0-1	0
	12	6	21.42	21.69	21.61	21.71	21.66		0
	12	13	21.36	21.66	21.57	21.78	21.62		0
	25	0	21.39	21.68	21.55	21.67	21.63		0
16QAM	1	0	21.55	21.75	21.67	21.78	21.78	0-1	0
	1	12	21.50	21.81	21.71	21.83	21.81		0
	1	24	21.55	21.84	21.70	21.84	21.84		0
	12	0	21.40	21.68	21.43	21.57	21.62	0-2	0
	12	6	21.42	21.65	21.48	21.60	21.65		0
	12	13	21.41	21.64	21.54	21.68	21.61		0
	25	0	21.48	21.76	21.61	21.66	21.72		0
64QAM	1	0	21.35	21.61	21.48	21.60	21.62	0-2	0
	1	12	21.37	21.72	21.56	21.64	21.68		0
	1	24	21.34	21.63	21.53	21.66	21.73		0
	12	0	21.46	21.61	21.51	21.60	21.63	0-3	0
	12	6	21.45	21.67	21.52	21.67	21.68		0
	12	13	21.44	21.71	21.56	21.71	21.70		0
	25	0	21.46	21.65	21.46	21.63	21.69		0

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Table 9-97
LTE Band 41 PC2 Reduced Conducted Powers - 20 MHz Bandwidth – Grip Sensor Active

LTE Band 41 20 MHz Bandwidth									
Modulation	RB Size	RB Offset	Low Channel	Low-Mid Channel	Mid Channel	Mid-High Channel	High Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
			39750 (2506.0 MHz)	40185 (2549.5 MHz)	40620 (2593.0 MHz)	41055 (2636.5 MHz)	41490 (2680.0 MHz)		
			Conducted Power [dBm]						
QPSK	1	0	20.16	20.17	20.05	20.24	20.31	0	0
	1	50	20.15	20.12	20.07	20.18	20.17		0
	1	99	20.19	20.15	20.08	20.02	20.12		0
	50	0	20.26	20.13	20.17	20.23	20.38	0-1	0
	50	25	20.29	20.15	20.22	20.37	20.27		0
	50	50	20.21	20.14	20.21	20.32	20.34		0
	100	0	20.30	20.10	20.23	20.29	20.30		0
16QAM	1	0	20.23	20.30	20.11	20.33	20.30	0-1	0
	1	50	20.21	20.33	20.15	20.26	20.31		0
	1	99	20.22	20.35	20.15	20.16	20.18		0
	50	0	20.18	20.22	20.12	20.29	20.35	0-2	0
	50	25	20.21	20.15	20.18	20.31	20.34		0
	50	50	20.22	20.12	20.16	20.24	20.27		0
	100	0	20.19	20.13	20.17	20.28	20.30		0
64QAM	1	0	20.56	20.05	20.45	20.44	20.63	0-2	0
	1	50	20.47	20.02	20.48	20.55	20.61		0
	1	99	20.51	20.04	20.47	20.49	20.80		0
	50	0	20.39	20.07	20.22	20.35	20.30	0-3	0
	50	25	20.22	20.11	20.25	20.33	20.33		0
	50	50	20.23	20.10	20.26	20.28	20.41		0
	100	0	20.25	20.12	20.25	20.31	20.39		0

Table 9-98
LTE Band 41 PC2 Reduced Conducted Powers - 15 MHz Bandwidth – Grip Sensor Active

LTE Band 41 15 MHz Bandwidth									
Modulation	RB Size	RB Offset	Low Channel	Low-Mid Channel	Mid Channel	Mid-High Channel	High Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
			39750 (2506.0 MHz)	40185 (2549.5 MHz)	40620 (2593.0 MHz)	41055 (2636.5 MHz)	41490 (2680.0 MHz)		
			Conducted Power [dBm]						
QPSK	1	0	20.02	20.16	20.23	20.37	20.12	0	0
	1	36	19.98	20.19	20.20	20.27	20.20		0
	1	74	19.99	20.10	20.17	20.11	20.24		0
	36	0	20.13	20.23	20.37	20.41	20.32	0-1	0
	36	18	19.78	20.37	20.40	20.43	20.36		0
	36	37	20.21	20.33	20.33	20.37	20.34		0
	75	0	20.16	20.33	20.33	20.45	20.33		0
16QAM	1	0	20.30	20.55	20.44	20.49	20.42	0-1	0
	1	36	20.16	20.50	20.43	20.52	20.43		0
	1	74	20.22	20.41	20.40	20.32	20.52		0
	36	0	20.16	20.27	20.32	20.41	20.23	0-2	0
	36	18	20.12	20.35	20.31	20.39	20.30		0
	36	37	20.12	20.25	20.29	20.31	20.30		0
	75	0	20.14	20.35	20.34	20.42	20.33		0
64QAM	1	0	20.14	20.31	20.35	20.48	20.21	0-2	0
	1	36	20.01	20.30	20.27	20.34	20.27		0
	1	74	20.00	20.21	20.27	20.18	20.32		0
	36	0	20.14	20.34	20.38	20.51	20.31	0-3	0
	36	18	19.86	20.35	20.40	20.42	20.36		0
	36	37	20.05	20.29	20.37	20.42	20.35		0
	75	0	20.26	20.38	20.43	20.48	20.37		0

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Table 9-99
LTE Band 41 PC2 Reduced Conducted Powers - 10 MHz Bandwidth – Grip Sensor Active

LTE Band 41 10 MHz Bandwidth									
Modulation	RB Size	RB Offset	Low Channel	Low-Mid Channel	Mid Channel	Mid-High Channel	High Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
			39750 (2506.0 MHz)	40185 (2549.5 MHz)	40620 (2593.0 MHz)	41055 (2636.5 MHz)	41490 (2680.0 MHz)		
			Conducted Power [dBm]						
QPSK	1	0	19.85	20.07	20.10	20.22	20.10	0	0
	1	25	19.81	20.10	20.06	20.22	20.07		0
	1	49	19.76	20.04	19.94	20.09	19.97		0
	25	0	20.02	20.29	20.27	20.38	20.26	0-1	0
	25	12	20.01	20.29	20.23	20.34	20.20		0
	25	25	19.97	20.23	20.18	20.31	20.17		0
	50	0	20.02	20.29	20.24	20.35	20.25		0
16QAM	1	0	20.08	20.43	20.36	20.45	20.35	0-1	0
	1	25	20.05	20.38	20.30	20.40	20.32		0
	1	49	20.02	20.36	20.27	20.35	20.25		0
	25	0	20.05	20.29	20.30	20.37	20.26	0-2	0
	25	12	20.03	20.34	20.26	20.33	20.24		0
	25	25	20.01	20.25	20.21	20.29	20.20		0
	50	0	19.99	20.30	20.24	20.37	20.23		0
64QAM	1	0	20.01	20.27	20.19	20.29	20.22	0-2	0
	1	25	19.91	20.25	20.15	20.22	20.14		0
	1	49	19.89	20.22	20.04	20.15	20.10		0
	25	0	20.09	20.27	20.32	20.35	20.26	0-3	0
	25	12	20.02	20.29	20.27	20.35	20.23		0
	25	25	19.97	20.25	20.24	20.28	20.19		0
	50	0	20.08	20.31	20.20	20.42	20.28		0

Table 9-100
LTE Band 41 PC2 Reduced Conducted Powers - 5 MHz Bandwidth – Grip Sensor Active

LTE Band 41 5 MHz Bandwidth									
Modulation	RB Size	RB Offset	Low Channel	Low-Mid Channel	Mid Channel	Mid-High Channel	High Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
			39750 (2506.0 MHz)	40185 (2549.5 MHz)	40620 (2593.0 MHz)	41055 (2636.5 MHz)	41490 (2680.0 MHz)		
			Conducted Power [dBm]						
QPSK	1	0	19.78	20.09	20.08	20.09	19.98	0	0
	1	12	19.84	20.14	20.12	20.11	20.01		0
	1	24	19.83	20.11	20.11	20.12	20.03		0
	12	0	19.96	20.21	20.14	20.20	20.10	0-1	0
	12	6	19.99	20.27	20.23	20.19	20.19		0
	12	13	19.96	20.20	20.20	20.26	20.15		0
	25	0	19.97	20.21	20.25	20.24	20.13		0
16QAM	1	0	20.10	20.40	20.38	20.32	20.25	0-1	0
	1	12	20.03	20.39	20.40	20.35	20.27		0
	1	24	20.09	20.36	20.38	20.33	20.29		0
	12	0	19.92	20.18	20.17	20.14	20.00	0-2	0
	12	6	19.93	20.23	20.14	20.12	20.08		0
	12	13	19.96	20.20	20.21	20.17	20.06		0
	25	0	20.13	20.29	20.26	20.27	20.17		0
64QAM	1	0	19.90	20.17	20.18	20.09	20.09	0-2	0
	1	12	19.93	20.24	20.26	20.13	20.10		0
	1	24	20.01	20.28	20.25	20.12	20.04		0
	12	0	20.03	20.23	20.22	20.17	20.09	0-3	0
	12	6	20.06	20.27	20.25	20.18	20.17		0
	12	13	20.00	20.26	20.21	20.21	20.14		0
	25	0	20.04	20.25	20.26	20.23	20.15		0

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9.4.12 LTE Uplink Carrier Aggregation Conducted Powers

Table 9-101
LTE Band 5 Uplink Carrier Aggregation Conducted Powers

	PCC									SCC								Power	
Combination	PCC Band	PCC Bandwidth [MHz]	PCC UL Channel	PCC UL Frequency [MHz]	PCC DL Channel	PCC DL Frequency [MHz]	Modulation	PCC UL# RB	PCC UL RB Offset	SCC Band	SCC Bandwidth [MHz]	SCC UL Channel	SCC UL Frequency [MHz]	SCC DL Channel	SCC DL Frequency [MHz]	Modulation	SCC UL# RB	SCC UL RB Offset	LTE Tx.Power with UL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_5B	LTE B5	10	20525	836.5	2525	881.5	QPSK	1	49	LTE B5	5	20597	843.7	2597	888.7	QPSK	1	0	24.54	24.63

Table 9-102
LTE Band 66 Maximum Uplink Carrier Aggregation Conducted Powers

	PCC									SCC								Power	
Combination	PCC Band	PCC Bandwidth [MHz]	PCC UL Channel	PCC UL Frequency [MHz]	PCC DL Channel	PCC DL Frequency [MHz]	Modulation	PCC UL# RB	PCC UL RB Offset	SCC Band	SCC Bandwidth [MHz]	SCC UL Channel	SCC UL Frequency [MHz]	SCC DL Channel	SCC DL Frequency [MHz]	Modulation	SCC UL# RB	SCC UL RB Offset	LTE Tx.Power with UL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_66C	LTE B66	20	132072	1720.0	66536	2120.0	QPSK	1	99	LTE B66	20	132270	1739.8	66734	2139.8	QPSK	1	0	24.05	24.22
CA_66B	LTE B66	10	132022	1715.0	66486	2115.0	QPSK	1	49	LTE B66	10	132121	1724.9	66585	2124.9	QPSK	1	0	24.50	24.26

Table 9-103
LTE Band 66 Reduced Uplink Carrier Aggregation Conducted Powers -Hotspot Mode Active

	PCC									SCC								Power	
Combination	PCC Band	PCC Bandwidth [MHz]	PCC UL Channel	PCC UL Frequency [MHz]	PCC DL Channel	PCC DL Frequency [MHz]	Modulation	PCC UL# RB	PCC UL RB Offset	SCC Band	SCC Bandwidth [MHz]	SCC UL Channel	SCC UL Frequency [MHz]	SCC DL Channel	SCC DL Frequency [MHz]	Modulation	SCC UL# RB	SCC UL RB Offset	LTE Tx.Power with UL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_66C	LTE B66	20	132072	1720.0	66536	2120.0	QPSK	100	0	LTE B66	20	132270	1739.8	66734	2139.8	QPSK	100	0	20.49	20.04
CA_66B	LTE B66	10	132022	1715.0	66486	2115.0	QPSK	50	0	LTE B66	10	132121	1724.9	66585	2124.9	QPSK	50	0	20.13	19.83

Table 9-104
LTE Band 66 Reduced Uplink Carrier Aggregation Conducted Powers -Grip Sensor Active

	PCC									SCC								Power	
Combination	PCC Band	PCC Bandwidth [MHz]	PCC UL Channel	PCC UL Frequency [MHz]	PCC DL Channel	PCC DL Frequency [MHz]	Modulation	PCC UL# RB	PCC UL RB Offset	SCC Band	SCC Bandwidth [MHz]	SCC UL Channel	SCC UL Frequency [MHz]	SCC DL Channel	SCC DL Frequency [MHz]	Modulation	SCC UL# RB	SCC UL RB Offset	LTE Tx.Power with UL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_66C	LTE B66	20	132572	1770.0	67036	2170.0	QPSK	50	0	LTE B66	20	132374	1750.2	66838	2150.2	QPSK	50	50	19.81	18.97
CA_66B	LTE B66	10	132622	1775.0	67086	2175.0	QPSK	25	0	LTE B66	10	132523	1765.1	66987	2165.1	QPSK	25	25	19.40	19.09

Table 9-105
LTE Band 41 PC3 Maximum Uplink Carrier Aggregation Conducted Powers

	PCC							SCC							Power	
Combination	PCC Band	PCC Bandwidth [MHz]	PCC (UL/DL) Channel	PCC (UL/DL) Frequency [MHz]	Modulation	PCC UL# RB	PCC UL RB Offset	SCC Band	SCC Bandwidth [MHz]	SCC (UL/DL) Channel	SCC (UL/DL) Frequency [MHz]	Modulation	SCC UL# RB	SCC UL RB Offset	LTE Tx.Power with UL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_41C	LTE B41	20	41055	2636.5	QPSK	1	0	LTE B41	20	40857	2616.7	QPSK	1	99	24.64	24.59

Table 9-106
LTE Band 41 PC2 Maximum Uplink Carrier Aggregation Conducted Powers

	PCC							SCC							Power	
Combination	PCC Band	PCC Bandwidth [MHz]	PCC (UL/DL) Channel	PCC (UL/DL) Frequency [MHz]	Modulation	PCC UL# RB	PCC UL RB Offset	SCC Band	SCC Bandwidth [MHz]	SCC (UL/DL) Channel	SCC (UL/DL) Frequency [MHz]	Modulation	SCC UL# RB	SCC UL RB Offset	LTE Tx.Power with UL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_41C	LTE B41 PC2	20	41055	2636.5	QPSK	1	0	LTE B41 PC2	20	40857	2616.7	QPSK	1	99	27.96	27.81

Table 9-107
LTE Band 41 PC3 Reduced Uplink Carrier Aggregation Conducted Powers – Hotspot Mode Active

	PCC							SCC							Power	
Combination	PCC Band	PCC Bandwidth [MHz]	PCC (UL/DL) Channel	PCC (UL/DL) Frequency [MHz]	Modulation	PCC UL# RB	PCC UL RB Offset	SCC Band	SCC Bandwidth [MHz]	SCC (UL/DL) Channel	SCC (UL/DL) Frequency [MHz]	Modulation	SCC UL# RB	SCC UL RB Offset	LTE Tx.Power with UL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_41C	LTE B41	20	39750	2506.0	QPSK	50	50	LTE B41	20	39948	2525.8	QPSK	50	0	22.51	22.15

Table 9-108
LTE Band 41 PC2 Reduced Uplink Carrier Aggregation Conducted Powers – Hotspot Mode Active

	PCC							SCC							Power	
Combination	PCC Band	PCC Bandwidth [MHz]	PCC (UL/DL) Channel	PCC (UL/DL) Frequency [MHz]	Modulation	PCC UL# RB	PCC UL RB Offset	SCC Band	SCC Bandwidth [MHz]	SCC (UL/DL) Channel	SCC (UL/DL) Frequency [MHz]	Modulation	SCC UL# RB	SCC UL RB Offset	LTE Tx.Power with UL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_41C	LTE B41 PC2	20	39750	2506.0	QPSK	50	50	LTE B41 PC2	20	39948	2525.8	QPSK	50	0	22.15	21.69

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Table 9-109
LTE Band 41 PC3 Reduced Uplink Carrier Aggregation Conducted Powers – Grip Sensor Active

	PCC							SCC							Power	
Combination	PCC Band	PCC Bandwidth [MHz]	PCC (UL/DL) Channel	PCC (UL/DL) Frequency [MHz]	Modulation	PCC UL# RB	PCC UL RB Offset	SCC Band	SCC Bandwidth [MHz]	SCC (UL/DL) Channel	SCC (UL/DL) Frequency [MHz]	Modulation	SCC UL# RB	SCC UL RB Offset	LTE Tx.Power with UL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_41C	LTE B41	20	39750	2506.0	QPSK	1	99	LTE B41	20	39948	2525.8	QPSK	1	0	20.88	20.39
CA_41C	LTE B41	20	40185	2549.5	QPSK	1	0	LTE B41	20	39987	2529.7	QPSK	1	99	20.99	20.41
CA_41C	LTE B41	20	40620	2593.0	QPSK	1	0	LTE B41	20	40422	2573.2	QPSK	1	99	21.00	20.45
CA_41C	LTE B41	20	41055	2636.5	QPSK	1	0	LTE B41	20	40857	2616.7	QPSK	1	99	21.08	20.64
CA_41C	LTE B41	20	41490	2680.0	QPSK	1	0	LTE B41	20	41292	2660.2	QPSK	1	99	21.17	20.41
CA_41C	LTE B41	20	39750	2506.0	QPSK	50	50	LTE B41	20	39948	2525.8	QPSK	50	0	21.09	20.60
CA_41C	LTE B41	20	40185	2549.5	QPSK	50	0	LTE B41	20	39987	2529.7	QPSK	50	50	21.23	20.63
CA_41C	LTE B41	20	40620	2593.0	QPSK	50	0	LTE B41	20	40422	2573.2	QPSK	50	50	21.18	20.66
CA_41C	LTE B41	20	41055	2636.5	QPSK	50	0	LTE B41	20	40857	2616.7	QPSK	50	50	21.13	20.75
CA_41C	LTE B41	20	41490	2680.0	QPSK	50	0	LTE B41	20	41292	2660.2	QPSK	50	50	21.20	20.65

Table 9-110
LTE Band 41 PC2 Reduced Uplink Carrier Aggregation Conducted Powers – Grip Sensor Active

	PCC							SCC							Power	
Combination	PCC Band	PCC Bandwidth [MHz]	PCC (UL/DL) Channel	PCC (UL/DL) Frequency [MHz]	Modulation	PCC UL# RB	PCC UL RB Offset	SCC Band	SCC Bandwidth [MHz]	SCC (UL/DL) Channel	SCC (UL/DL) Frequency [MHz]	Modulation	SCC UL# RB	SCC UL RB Offset	LTE Tx.Power with UL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_41C	LTE B41 PC2	20	39750	2506.0	QPSK	1	99	LTE B41 PC2	20	39948	2525.8	QPSK	1	0	20.80	20.19

Notes:

1. This device supports uplink carrier aggregation for LTE CA_5B, LTE CA_66C, LTE CA_66B, and LTE CA_41C with a maximum of two component carriers. For intraband contiguous carrier aggregation scenarios, 3GPP 36.101 Table 6.2.2A-1 specifies that the aggregate maximum allowed output power is equivalent to the single carrier scenario. 3GPP 36.101 6.2.3A allows for several dB of MPR to be applied when non-contiguous RB allocation is implemented. The conducted powers and MPR settings in this device are permanently implemented per the above 3GPP requirements.
2. Per FCC Guidance, the output power with uplink CA active was measured for the configuration with the highest reported SAR with single carrier for each exposure condition. The power was measured with wideband signal integration over both component carriers.



Figure 9-4
Power Measurement Setup

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9.5 WLAN Conducted Powers

Table 9-111
2.4 GHz WLAN Maximum Average RF Power – Ant 1

2.4GHz Conducted Power [dBm]					
Freq [MHz]	Channel	IEEE Transmission Mode			
		802.11b	802.11g	802.11n	802.11ax(SU)
		Average	Average	Average	Average
2412	1	**19.97**	17.91	17.70	13.18
2437	6	19.92	17.91	17.85	16.67
2452	9	N/A	17.47	17.96	16.63
2462	11	19.72	15.10	15.48	14.48

Table 9-112
2.4 GHz WLAN Maximum Average RF Power – Ant 2

2.4GHz Conducted Power [dBm]					
Freq [MHz]	Channel	IEEE Transmission Mode			
		802.11b	802.11g	802.11n	802.11ax(SU)
		Average	Average	Average	Average
2412	1	**19.98**	17.97	17.95	16.54
2437	6	19.95	17.66	17.89	16.60
2452	9	N/A	17.38	17.85	16.98
2462	11	19.75	15.10	15.45	16.91

Table 9-113
2.4 GHz WLAN Maximum Average RF Power – MIMO

2.4GHz 802.11n Conducted Power [dBm]				
Freq [MHz]	Channel	ANT1	ANT2	MIMO
2412	1	17.70	17.95	20.84
2437	6	17.85	17.89	20.88
2452	9	**17.96**	**17.85**	20.92
2462	11	15.48	15.45	18.48

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Table 9-114
5 GHz WLAN Maximum Average RF Power – Ant 1

5GHz (20MHz) Conducted Power [dBm]					
Freq [MHz]	Channel	IEEE Transmission Mode			
		802.11a	802.11n	802.11ac	802.11ax(SU)
		Average	Average	Average	Average
5180	36	17.98	17.94	17.96	15.68
5200	40	17.99	17.98	17.69	15.76
5220	44	17.58	17.99	17.64	15.72
5240	48	17.68	17.68	17.67	15.75
5260	52	17.75	17.76	17.71	15.61
5280	56	17.80	17.90	17.79	15.73
5300	60	17.87	17.89	17.91	15.70
5320	64	**17.91**	17.77	17.76	15.72
5500	100	**17.94**	17.94	17.98	15.64
5600	120	17.74	17.66	17.75	15.82
5620	124	17.68	17.72	17.81	15.79
5720	144	17.83	17.82	17.82	15.72
5745	149	17.94	17.89	17.96	15.97
5785	157	**17.97**	17.91	17.99	15.99
5825	165	17.95	17.93	17.56	15.79

Table 9-115
5 GHz WLAN Maximum Average RF Power – Ant 2

5GHz (20MHz) Conducted Power [dBm]					
Freq [MHz]	Channel	IEEE Transmission Mode			
		802.11a	802.11n	802.11ac	802.11ax(SU)
		Average	Average	Average	Average
5180	36	17.79	17.76	17.73	15.62
5200	40	17.85	17.88	17.94	15.67
5220	44	17.92	17.95	17.97	15.77
5240	48	17.98	17.98	17.99	15.96
5260	52	17.87	17.91	17.89	15.74
5280	56	**17.99**	17.99	17.98	15.83
5300	60	17.68	17.69	17.66	15.98
5320	64	17.65	17.62	17.97	15.94
5500	100	17.84	17.86	17.82	15.71
5600	120	17.68	17.74	17.73	15.89
5620	124	17.76	17.71	17.69	15.92
5720	144	**17.98**	17.96	17.98	15.84
5745	149	17.73	17.66	17.81	15.97
5785	157	**17.86**	17.84	17.78	15.64
5825	165	17.76	17.77	17.76	15.98

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Table 9-116
5 GHz WLAN Maximum Average RF Power – MIMO

5GHz (20MHz) 802.11n Conducted Power [dBm]				
Freq [MHz]	Channel	ANT1	ANT2	MIMO
5180	36	17.94	17.76	20.86
5200	40	17.98	17.88	20.94
5220	44	17.99	17.95	20.98
5240	48	17.68	17.98	20.84
5260	52	17.76	17.91	20.85
5280	56	**17.90**	**17.99**	20.96
5300	60	17.89	17.69	20.80
5320	64	17.77	17.62	20.71
5500	100	**17.94**	**17.86**	20.91
5600	120	17.66	17.74	20.71
5620	124	17.72	17.71	20.73
5720	144	17.82	17.96	20.90
5745	149	17.89	17.66	20.79
5785	157	**17.91**	**17.84**	20.89
5825	165	17.93	17.77	20.86

Table 9-117
Maximum Output Powers During Conditions with 2.4 GHz and 5 GHz WLAN

2.4GHz 802.11n Conducted Power [dBm]			
Freq [MHz]	Channel	ANT1	ANT2
2412	1	16.43	16.55
2437	6	16.60	16.75
2457	10	**16.76**	**16.62**
2462	11	15.48	15.45
5GHz (40MHz) 802.11n Conducted Power [dBm]			
Freq [MHz]	Channel	ANT1	ANT2
5190	38	13.63	13.65
5230	46	13.68	13.74
5270	54	13.76	13.92
5310	62	**13.87**	**13.94**
5GHz (80MHz) 802.11ac Conducted Power [dBm]			
Freq [MHz]	Channel	ANT1	ANT2
5530	106	**12.86**	**12.80**
5610	122	12.78	12.86
5690	138	12.82	12.36
5775	155	**12.58**	**12.85**

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Table 9-118
2.4 GHz WLAN Reduced Average RF Power – Ant 1

2.4GHz Conducted Power [dBm]					
Freq [MHz]	Channel	IEEE Transmission Mode			
		802.11b	802.11g	802.11n	802.11ax(SU)
		Average	Average	Average	Average
2412	1	16.79	16.22	16.43	13.18
2437	6	16.68	16.46	16.60	16.72
2462	11	**16.85**	15.10	15.48	14.48

Table 9-119
2.4 GHz WLAN Reduced Average RF Power – Ant 2

2.4GHz Conducted Power [dBm]					
Freq [MHz]	Channel	IEEE Transmission Mode			
		802.11b	802.11g	802.11n	802.11ax(SU)
		Average	Average	Average	Average
2412	1	16.68	16.61	16.55	16.81
2437	6	16.55	16.84	16.75	16.93
2462	11	**16.82**	15.10	15.45	16.75

Table 9-120
5 GHz WLAN Reduced Average RF Power – Ant 1

5GHz (40MHz) Conducted Power [dBm]				
Freq [MHz]	Channel	IEEE Transmission Mode		
		802.11n	802.11ac	802.11ax(SU)
		Average	Average	Average
5190	38	13.63	13.63	13.97
5230	46	13.68	13.65	13.60
5270	54	13.76	13.64	13.75
5310	62	**13.87**	13.84	13.71

5GHz (80MHz) Conducted Power [dBm]			
Freq [MHz]	Channel	IEEE Transmission Mode	
		802.11ac	802.11ax(SU)
		Average	Average
5530	106	**12.86**	12.75
5610	122	12.78	12.55
5690	138	12.82	12.72
5775	155	**12.58**	12.83

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Table 9-121
5 GHz WLAN Reduced Average RF Power – Ant 2

5GHz (40MHz) Conducted Power [dBm]				
Freq [MHz]	Channel	IEEE Transmission Mode		
		802.11n	802.11ac	802.11ax(SU)
		Average	Average	Average
5190	38	13.65	13.60	13.95
5230	46	13.74	13.76	13.64
5270	54	13.92	13.55	13.76
5310	62	**13.94**	13.95	13.61

5GHz (80MHz) Conducted Power [dBm]			
Freq [MHz]	Channel	IEEE Transmission Mode	
		802.11ac	802.11ax(SU)
		Average	Average
5530	106	12.80	12.56
5610	122	**12.86**	12.47
5690	138	12.36	12.68
5775	155	**12.85**	12.79

Justification for test configurations for WLAN per KDB Publication 248227 D01v02r02:

- Power measurements were performed for the transmission mode configuration with the highest maximum output power specified for production units.
- For transmission modes with the same maximum output power specification, powers were measured for the largest channel bandwidth, lowest order modulation and lowest data rate.
- For transmission modes with identical maximum specified output power, channel bandwidth, modulation and data rates, power measurements were required for all identical configurations.
- For each transmission mode configuration, powers were measured for the highest and lowest channels; and at the mid-band channel(s) when there were at least 3 channels supported. For configurations with multiple mid-band channels, due to an even number of channels, both channels were measured.
- The bolded data rate and channel above were tested for SAR.

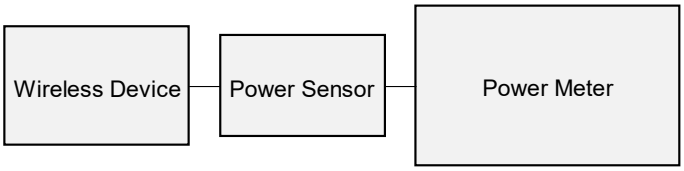


Figure 9-5
Power Measurement Setup

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9.6 Bluetooth Conducted Powers

Table 9-122
Bluetooth Average RF Power

Frequency [MHz]	Data Rate [Mbps]	Mod.	Channel No.	Avg Conducted Power	
				[dBm]	[mW]
2402	1.0	GFSK	0	**16.18**	41.479
2441	1.0	GFSK	39	16.13	40.997
2480	1.0	GFSK	78	14.88	30.781
2402	2.0	π/4-DQPSK	0	9.42	8.742
2441	2.0	π/4-DQPSK	39	9.30	8.509
2480	2.0	π/4-DQPSK	78	8.43	6.964
2402	3.0	8DPSK	0	9.49	8.883
2441	3.0	8DPSK	39	9.39	8.688
2480	3.0	8DPSK	78	8.53	7.136

Note: The bolded data rates and channel above were tested for SAR.

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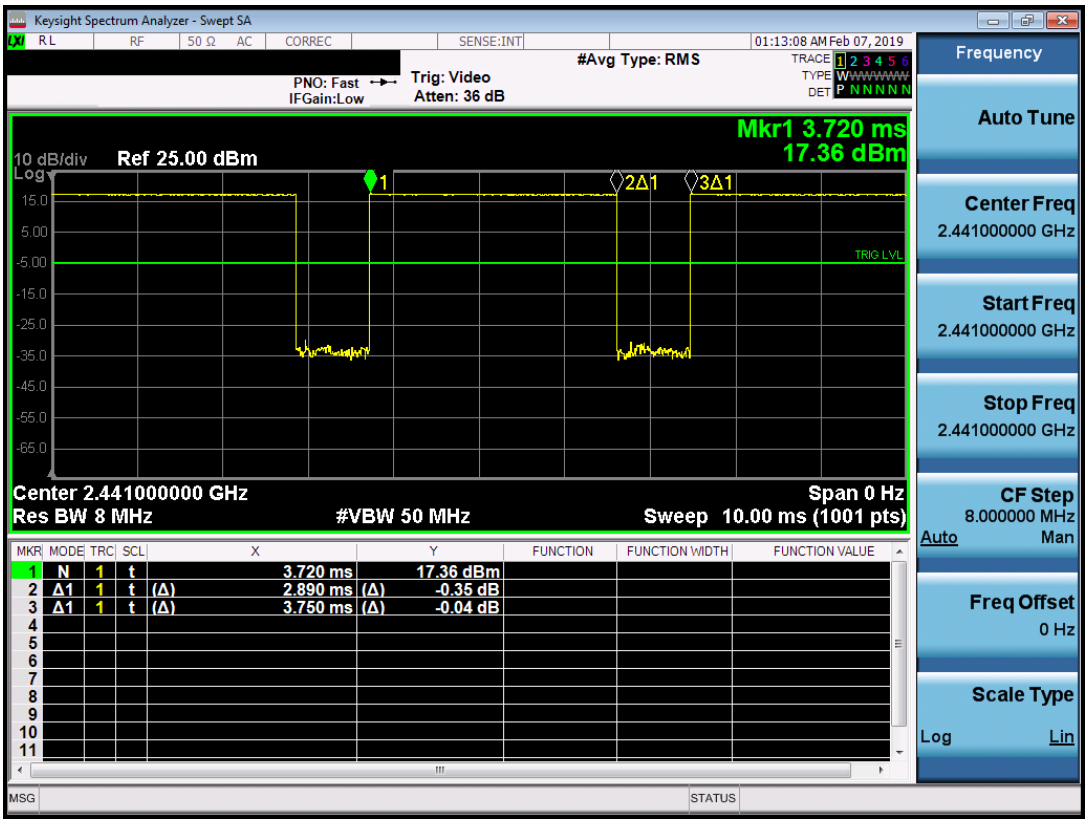


Figure 9-6
Bluetooth Transmission Plot

Equation 9-1
Bluetooth Duty Cycle Calculation

$$Duty\ Cycle = \frac{Pulse\ Width}{Period} * 100\% = \frac{2.89ms}{3.75ms} * 100\% = 77.10\%$$

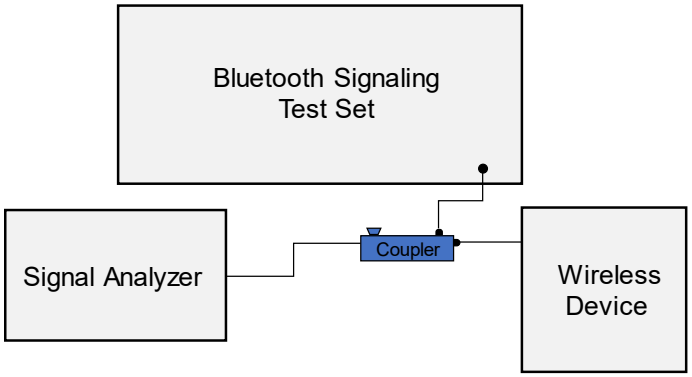


Figure 9-7
Power Measurement Setup

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10 SYSTEM VERIFICATION

10.1 Tissue Verification

Table 10-1
Measured Tissue Properties - Head

Calibrated for Tests Performed on:	Tissue Type	Tissue Temp During Calibration (°C)	Measured Frequency (MHz)	Measured Conductivity, σ (S/m)	Measured Dielectric Constant, ε	TARGET Conductivity, σ (S/m)	TARGET Dielectric Constant, ε	% dev σ	% dev ε
1/28/2019	750H	20.8	680	0.854	42.480	0.888	42.305	-3.83%	0.41%
			695	0.859	42.436	0.889	42.227	-3.37%	0.49%
			700	0.861	42.418	0.889	42.201	-3.15%	0.51%
			710	0.864	42.381	0.890	42.149	-2.92%	0.55%
			740	0.875	42.294	0.893	41.994	-2.02%	0.71%
			755	0.880	42.241	0.894	41.916	-1.57%	0.78%
			770	0.885	42.187	0.895	41.838	-1.12%	0.83%
			785	0.890	42.131	0.896	41.760	-0.67%	0.89%
2/14/2019	750H	20.7	740	0.897	41.952	0.893	41.994	0.45%	-0.10%
			755	0.899	41.906	0.894	41.916	0.56%	-0.02%
			785	0.911	41.869	0.896	41.760	1.67%	0.26%
			800	0.917	41.791	0.897	41.682	2.23%	0.26%
1/23/2019	835H	21.2	820	0.938	40.599	0.899	41.578	4.34%	-2.35%
			835	0.942	40.568	0.900	41.500	4.67%	-2.25%
			850	0.946	40.539	0.916	41.500	3.28%	-2.32%
1/25/2019	835H	21.3	820	0.918	41.438	0.899	41.578	2.11%	-0.34%
			835	0.924	41.393	0.900	41.500	2.67%	-0.26%
			850	0.929	41.336	0.916	41.500	1.42%	-0.40%
2/1/2019	835H	21.1	820	0.922	41.042	0.899	41.578	2.56%	-1.29%
			835	0.928	40.992	0.900	41.500	3.11%	-1.22%
			850	0.933	40.934	0.916	41.500	1.86%	-1.36%
3/13/2019	835H	20.9	820	0.920	41.806	0.899	41.578	2.34%	0.55%
			835	0.925	41.763	0.900	41.500	2.78%	0.63%
			850	0.930	41.727	0.916	41.500	1.53%	0.55%
2/4/2019	1750H	21.1	1710	1.366	41.930	1.348	40.142	1.34%	4.45%
			1750	1.387	41.854	1.371	40.079	1.17%	4.43%
			1790	1.410	41.786	1.394	40.016	1.15%	4.42%
2/6/2019	1900H	21.5	1850	1.401	39.085	1.400	40.000	0.07%	-2.29%
			1880	1.418	39.011	1.400	40.000	1.29%	-2.47%
			1910	1.435	38.956	1.400	40.000	2.50%	-2.61%
1/29/2019	2450H	21.1	2300	1.710	38.733	1.670	39.500	2.40%	-1.94%
			2310	1.718	38.713	1.679	39.480	2.32%	-1.94%
			2320	1.727	38.696	1.687	39.460	2.37%	-1.94%
			2400	1.790	38.607	1.756	39.289	1.94%	-1.74%
			2450	1.830	38.536	1.800	39.200	1.67%	-1.69%
			2500	1.864	38.478	1.855	39.136	0.49%	-1.68%
			2550	1.899	38.411	1.909	39.073	-0.52%	-1.69%
			2600	1.932	38.324	1.964	39.009	-1.63%	-1.76%
			2650	1.966	38.254	2.018	38.945	-2.58%	-1.77%
			2700	2.003	38.165	2.073	38.882	-3.38%	-1.84%
2/5/2019	2450H	22.4	2400	1.757	38.298	1.756	39.289	0.06%	-2.52%
			2450	1.792	38.231	1.800	39.200	-0.44%	-2.47%
			2500	1.828	38.162	1.855	39.136	-1.46%	-2.49%
2/11/2019	2450H	21.1	2400	1.810	39.292	1.756	39.289	3.08%	0.01%
			2450	1.849	39.238	1.800	39.200	2.72%	0.10%
			2500	1.888	39.156	1.855	39.136	1.78%	0.05%
3/2/2019	2450H	21.9	2400	1.833	41.198	1.756	39.289	4.38%	4.86%
			2450	1.876	41.135	1.800	39.200	4.22%	4.94%
			2500	1.915	41.031	1.855	39.136	3.23%	4.84%
			2550	1.954	40.957	1.909	39.073	2.36%	4.82%
			2600	1.994	40.858	1.964	39.009	1.53%	4.74%
			2650	2.031	40.765	2.018	38.945	0.64%	4.67%
			2700	2.075	40.651	2.073	38.882	0.10%	4.55%
01/28/2019	5200H-5800H	19.7	5180	4.620	36.123	4.635	36.009	-0.32%	0.32%
			5200	4.651	36.096	4.655	35.986	-0.09%	0.31%
			5220	4.674	36.100	4.676	35.963	-0.04%	0.38%
			5240	4.689	36.050	4.696	35.940	-0.15%	0.31%
			5260	4.710	36.011	4.717	35.917	-0.15%	0.26%
			5280	4.729	35.992	4.737	35.894	-0.17%	0.27%
			5300	4.753	35.960	4.758	35.871	-0.11%	0.25%
			5320	4.761	35.934	4.778	35.849	-0.36%	0.24%
			5500	4.952	35.663	4.963	35.643	-0.22%	0.06%
			5520	4.985	35.632	4.983	35.620	0.04%	0.03%
			5540	4.996	35.606	5.004	35.597	-0.16%	0.03%
			5560	5.037	35.574	5.024	35.574	0.26%	0.00%
			5580	5.052	35.559	5.045	35.551	0.14%	0.02%
			5600	5.063	35.531	5.065	35.529	-0.04%	0.01%
			5620	5.098	35.477	5.086	35.506	0.24%	-0.08%
			5640	5.123	35.469	5.106	35.483	0.33%	-0.04%
			5660	5.145	35.454	5.127	35.460	0.35%	-0.02%
			5680	5.168	35.401	5.147	35.437	0.41%	-0.10%
			5700	5.184	35.362	5.168	35.414	0.31%	-0.15%
			5745	5.242	35.361	5.214	35.363	0.54%	-0.01%
			5765	5.268	35.275	5.234	35.340	0.65%	-0.18%
			5785	5.292	35.261	5.255	35.317	0.70%	-0.16%
			5800	5.308	35.247	5.270	35.300	0.72%	-0.15%
			5805	5.311	35.247	5.275	35.294	0.68%	-0.13%
			5825	5.328	35.245	5.296	35.271	0.60%	-0.07%

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Table 10-2
Measured Tissue Properties - Body

Calibrated for Tests Performed on:	Tissue Type	Tissue Temp During Calibration (°C)	Measured Frequency (MHz)	Measured Conductivity, σ (S/m)	Measured Dielectric Constant, ε	TARGET Conductivity, σ (S/m)	TARGET Dielectric Constant, ε	% dev σ	% dev ε
2/11/2019	750B	21.1	680	0.950	53.395	0.958	55.804	-0.84%	-4.32%
			695	0.955	53.354	0.959	55.745	-0.42%	-4.29%
			700	0.957	53.339	0.959	55.726	-0.21%	-4.28%
			710	0.961	53.313	0.960	55.687	0.10%	-4.26%
			740	0.973	53.221	0.963	55.570	1.04%	-4.23%
			755	0.978	53.179	0.964	55.512	1.45%	-4.20%
			770	0.984	53.136	0.965	55.453	1.97%	-4.18%
			785	0.989	53.089	0.966	55.395	2.38%	-4.16%
			800	0.994	53.052	0.967	55.336	2.79%	-4.13%
2/13/2019	750B	20.7	680	0.941	53.657	0.958	55.804	-1.77%	-3.85%
			695	0.946	53.632	0.959	55.745	-1.36%	-3.79%
			700	0.948	53.626	0.959	55.726	-1.15%	-3.77%
			710	0.952	53.610	0.960	55.687	-0.83%	-3.73%
			740	0.964	53.535	0.963	55.570	0.10%	-3.66%
			755	0.969	53.494	0.964	55.512	0.52%	-3.64%
			770	0.975	53.455	0.965	55.453	1.04%	-3.60%
			785	0.981	53.413	0.966	55.395	1.55%	-3.58%
			800	0.986	53.374	0.967	55.336	1.96%	-3.55%
3/5/2019	750B	20.5	680	0.931	54.253	0.958	55.804	-2.82%	-2.78%
			695	0.936	54.201	0.959	55.745	-2.40%	-2.77%
			700	0.938	54.185	0.959	55.726	-2.19%	-2.77%
			710	0.942	54.156	0.960	55.687	-1.88%	-2.75%
			740	0.953	54.078	0.963	55.570	-1.04%	-2.68%
			755	0.957	54.033	0.964	55.512	-0.73%	-2.66%
2/6/2019	835B	21.8	820	0.955	53.883	0.969	55.258	-1.44%	-2.49%
			835	0.967	53.744	0.970	55.200	-0.31%	-2.64%
			850	0.982	53.569	0.988	55.154	-0.61%	-2.87%
2/11/2019	835B	20.8	820	0.952	53.129	0.969	55.258	-1.75%	-3.85%
			835	0.968	52.959	0.970	55.200	-0.21%	-4.06%
			850	0.984	52.797	0.988	55.154	-0.40%	-4.27%
2/13/2019	835B	21.3	820	0.962	54.334	0.969	55.258	-0.72%	-1.67%
			835	0.978	54.177	0.970	55.200	0.82%	-1.85%
			850	0.994	54.014	0.988	55.154	0.61%	-2.07%
2/18/2019	835B	20.0	820	0.959	53.939	0.969	55.258	-1.03%	-2.39%
			835	0.975	53.775	0.970	55.200	0.52%	-2.58%
			850	0.991	53.611	0.988	55.154	0.30%	-2.80%
3/10/2019	835B	21.0	820	0.982	53.903	0.969	55.258	1.34%	-2.45%
			835	0.988	53.868	0.970	55.200	1.86%	-2.41%
			850	0.994	53.833	0.988	55.154	0.61%	-2.40%
1/24/2019	1750B	20.2	1710	1.488	51.095	1.463	53.537	1.71%	-4.56%
			1750	1.518	51.068	1.488	53.432	2.02%	-4.42%
			1790	1.551	51.006	1.514	53.326	2.44%	-4.35%
1/28/2019	1750B	20.9	1710	1.458	51.265	1.463	53.537	-0.34%	-4.24%
			1750	1.487	51.249	1.488	53.432	-0.07%	-4.09%
			1790	1.517	51.187	1.514	53.326	0.20%	-4.01%
2/22/2019	1750B	20.8	1710	1.466	51.675	1.463	53.537	0.21%	-3.48%
			1750	1.508	51.531	1.488	53.432	1.34%	-3.56%
			1790	1.556	51.337	1.514	53.326	2.77%	-3.73%
2/24/2019	1750B	21.9	1710	1.467	51.337	1.463	53.537	0.27%	-4.11%
			1750	1.510	51.247	1.488	53.432	1.48%	-4.09%
			1790	1.550	51.102	1.514	53.326	2.38%	-4.17%
2/26/2019	1750B	22.3	1710	1.463	51.392	1.463	53.537	0.00%	-4.01%
			1750	1.507	51.260	1.488	53.432	1.28%	-4.06%
			1790	1.547	51.084	1.514	53.326	2.18%	-4.20%
1/31/2019	1900B	21.2	1850	1.518	54.058	1.520	53.300	-0.13%	1.42%
			1880	1.554	53.932	1.520	53.300	2.24%	1.19%
			1910	1.587	53.812	1.520	53.300	4.41%	0.96%
2/4/2019	1900B	22.3	1850	1.515	54.298	1.520	53.300	-0.33%	1.87%
			1880	1.548	54.206	1.520	53.300	1.84%	1.70%
			1910	1.582	54.092	1.520	53.300	4.08%	1.49%
2/20/2019	1900B	22.0	1850	1.508	52.765	1.520	53.300	-0.79%	-1.00%
			1880	1.540	52.674	1.520	53.300	1.32%	-1.17%
			1910	1.573	52.536	1.520	53.300	3.49%	-1.43%
2/24/2019	1900B	22.0	1850	1.497	51.158	1.520	53.300	-1.51%	-4.02%
			1880	1.532	51.019	1.520	53.300	0.79%	-4.28%
			1910	1.573	50.936	1.520	53.300	3.49%	-4.44%

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Table 10-3
Measured Tissue Properties - Body

Calibrated for Tests Performed on:	Tissue Type	Tissue Temp During Calibration (°C)	Measured Frequency (MHz)	Measured Conductivity, σ (S/m)	Measured Dielectric Constant, ε	TARGET Conductivity, σ (S/m)	TARGET Dielectric Constant, ε	% dev σ	% dev ε
1/29/2019	2450B	20.5	2400	1.979	50.802	1.902	52.767	4.05%	-3.72%
			2450	2.035	50.649	1.950	52.700	4.36%	-3.89%
			2500	2.095	50.512	2.021	52.636	3.66%	-4.04%
			2550	2.156	50.347	2.092	52.573	3.06%	-4.23%
			2600	2.218	50.199	2.163	52.509	2.54%	-4.40%
			2650	2.280	50.052	2.234	52.445	2.06%	-4.56%
			2700	2.341	49.905	2.305	52.382	1.56%	-4.73%
2/2/2019	2450B	23.0	2400	1.986	51.712	1.902	52.767	4.42%	-2.00%
			2450	2.041	51.597	1.950	52.700	4.67%	-2.09%
			2500	2.093	51.470	2.021	52.636	3.56%	-2.22%
			2550	2.150	51.337	2.092	52.573	2.77%	-2.35%
			2600	2.211	51.155	2.163	52.509	2.22%	-2.58%
			2650	2.269	50.975	2.234	52.445	1.57%	-2.80%
			2700	2.337	50.761	2.305	52.382	1.39%	-3.06%
2/7/2019	2450B	22.7	2300	1.858	52.369	1.809	52.900	2.71%	-1.00%
			2310	1.871	52.334	1.816	52.887	3.03%	-1.05%
			2320	1.882	52.297	1.826	52.873	3.07%	-1.09%
2/11/2019	2450B	22.8	2400	1.979	52.094	1.902	52.767	4.05%	-1.28%
			2450	2.037	51.969	1.950	52.700	4.46%	-1.39%
			2500	2.094	51.812	2.021	52.636	3.61%	-1.57%
2/13/2019	2450B	22.2	2400	1.973	52.148	1.902	52.767	3.73%	-1.17%
			2450	2.034	52.017	1.950	52.700	4.31%	-1.30%
			2500	2.093	51.855	2.021	52.636	3.56%	-1.48%
			2550	2.151	51.694	2.092	52.573	2.82%	-1.67%
			2600	2.212	51.534	2.163	52.509	2.27%	-1.86%
			2650	2.269	51.380	2.234	52.445	1.57%	-2.03%
			2700	2.331	51.220	2.305	52.382	1.13%	-2.22%
2/18/2019	2450B	22.8	2300	1.867	52.942	1.809	52.900	3.21%	0.08%
			2310	1.878	52.916	1.816	52.887	3.41%	0.05%
			2320	1.889	52.889	1.826	52.873	3.45%	0.03%
			2400	1.980	52.672	1.902	52.767	4.10%	-0.18%
			2450	2.035	52.525	1.950	52.700	4.36%	-0.33%
			2500	2.091	52.368	2.021	52.636	3.46%	-0.51%
			2550	2.154	52.224	2.092	52.573	2.96%	-0.66%
			2600	2.216	52.048	2.163	52.509	2.45%	-0.88%
			2650	2.276	51.867	2.234	52.445	1.88%	-1.10%
			2700	2.340	51.720	2.305	52.382	1.52%	-1.26%
2/20/2019	2450B	23.8	2400	1.974	51.228	1.902	52.767	3.79%	-2.92%
			2450	2.031	51.064	1.950	52.700	4.15%	-3.10%
			2500	2.086	50.946	2.021	52.636	3.22%	-3.21%
			2550	2.147	50.773	2.092	52.573	2.63%	-3.42%
			2600	2.201	50.608	2.163	52.509	1.76%	-3.62%
			2650	2.265	50.446	2.234	52.445	1.39%	-3.81%
			2700	2.319	50.314	2.305	52.382	0.61%	-3.95%
2/27/2019	2450B	24.3	2400	1.969	51.561	1.902	52.767	3.52%	-2.29%
			2450	2.023	51.412	1.950	52.700	3.74%	-2.44%
			2500	2.080	51.277	2.021	52.636	2.92%	-2.58%
			2550	2.141	51.129	2.092	52.573	2.34%	-2.75%
			2600	2.199	50.976	2.163	52.509	1.66%	-2.92%
			2650	2.262	50.840	2.234	52.445	1.25%	-3.06%
			2700	2.320	50.692	2.305	52.382	0.65%	-3.23%
3/4/2019	2450B	22.6	2400	1.980	51.546	1.902	52.767	4.10%	-2.31%
			2450	2.039	51.413	1.950	52.700	4.56%	-2.44%
			2500	2.099	51.271	2.021	52.636	3.86%	-2.59%
			2550	2.161	51.118	2.092	52.573	3.30%	-2.77%
			2600	2.222	50.963	2.163	52.509	2.73%	-2.94%
			2650	2.283	50.803	2.234	52.445	2.19%	-3.13%
			2700	2.343	50.644	2.305	52.382	1.65%	-3.32%
01/21/2019	5200B-5800B	19.3	5180	5.367	47.870	5.276	49.041	1.72%	-2.39%
			5200	5.394	47.807	5.299	49.014	1.79%	-2.46%
			5220	5.430	47.789	5.323	48.987	2.01%	-2.45%
			5240	5.466	47.711	5.346	48.960	2.24%	-2.55%
			5260	5.486	47.681	5.369	48.933	2.18%	-2.56%
			5280	5.504	47.640	5.393	48.906	2.06%	-2.59%
			5300	5.539	47.621	5.416	48.879	2.27%	-2.57%
			5320	5.574	47.559	5.439	48.851	2.48%	-2.64%
			5500	5.819	47.231	5.650	48.607	2.99%	-2.83%
			5520	5.851	47.140	5.673	48.580	3.14%	-2.96%
			5540	5.884	47.108	5.696	48.553	3.30%	-2.98%
			5560	5.919	47.083	5.720	48.526	3.48%	-2.97%
			5580	5.952	47.066	5.743	48.499	3.64%	-2.95%
			5600	5.977	47.026	5.766	48.471	3.66%	-2.98%
			5620	6.007	46.923	5.790	48.444	3.75%	-3.14%
			5640	6.030	46.895	5.813	48.417	3.73%	-3.14%
			5660	6.065	46.893	5.837	48.390	3.91%	-3.09%
			5680	6.102	46.867	5.860	48.363	4.13%	-3.09%
			5700	6.121	46.851	5.883	48.336	4.05%	-3.07%
			5745	6.193	46.707	5.936	48.275	4.33%	-3.25%
			5765	6.242	46.679	5.959	48.248	4.75%	-3.25%
			5785	6.280	46.665	5.982	48.220	4.65%	-3.22%
			5800	6.278	46.620	6.000	48.200	4.63%	-3.28%
			5805	6.288	46.614	6.006	48.193	4.70%	-3.28%
			5825	6.322	46.579	6.029	48.166	4.86%	-3.29%
01/29/2019	5200B-5800B	22.6	5180	5.346	48.256	5.276	49.041	1.33%	-1.60%
			5200	5.360	48.201	5.299	49.014	1.15%	-1.66%
			5220	5.399	48.181	5.323	48.987	1.43%	-1.65%
			5240	5.432	48.148	5.346	48.960	1.61%	-1.66%
			5260	5.465	48.093	5.369	48.933	1.79%	-1.72%
			5280	5.493	48.056	5.393	48.906	1.85%	-1.74%
			5300	5.508	48.015	5.416	48.879	1.70%	-1.77%
			5320	5.537	47.984	5.439	48.851	1.80%	-1.77%
			5500	5.804	47.619	5.650	48.607	2.73%	-2.03%
			5520	5.825	47.624	5.673	48.580	2.68%	-1.97%
			5540	5.865	47.578	5.696	48.553	2.97%	-2.01%
			5560	5.907	47.576	5.720	48.526	3.27%	-1.96%
			5580	5.945	47.470	5.743	48.499	3.52%	-2.12%
			5600	5.969	47.449	5.766	48.471	3.52%	-2.11%
			5620	5.994	47.447	5.790	48.444	3.52%	-2.06%
			5640	6.018	47.396	5.813	48.417	3.53%	-2.11%
			5660	6.055	47.379	5.837	48.390	3.73%	-2.09%
			5680	6.100	47.298	5.860	48.363	4.10%	-2.20%
			5700	6.124	47.262	5.883	48.336	4.10%	-2.22%
			5745	6.169	47.177	5.936	48.275	3.93%	-2.27%
			5765	6.217	47.153	5.959	48.248	4.33%	-2.27%
			5785	6.256	47.069	5.982	48.220	4.58%	-2.39%
			5800	6.271	47.061	6.000	48.200	4.52%	-2.36%
			5805	6.284	47.060	6.006	48.193	4.63%	-2.35%
			5825	6.320	47.011	6.029	48.166	4.83%	-2.40%

The above measured tissue parameters were used in the DASY software. The DASY software was used to perform interpolation to determine the dielectric parameters at the SAR test device frequencies (per KDB Publication 865664 D01v01r04 and IEEE 1528-2013 6.6.1.2). The tissue parameters listed in the SAR test plots may slightly differ from the table above due to significant digit rounding in the software.

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10.2 Test System Verification

Prior to SAR assessment, the system is verified to ±10% of the SAR measurement on the reference dipole at the time of calibration by the calibration facility. Full system validation status and result summary can be found in Appendix E.

Table 10-4
System Verification Results – 1g

System Verification TARGET & MEASURED												
SAR System #	Tissue Frequency (MHz)	Tissue Type	Date	Amb. Temp (°C)	Liquid Temp (°C)	Input Power (W)	Source SN	Probe SN	Measured SAR_{1g} (W/kg)	1 W Target SAR_{1g} (W/kg)	1 W Normalized SAR_{1g} (W/kg)	$Deviation_{1g}$ (%)
G	750	HEAD	01/28/2019	21.5	20.8	0.200	1161	7410	1.610	8.030	8.050	0.25%
G	750	HEAD	02/14/2019	22.9	20.7	0.200	1054	7410	1.710	8.370	8.550	2.15%
G	835	HEAD	01/23/2019	23.5	21.2	0.200	4d133	7410	1.990	9.430	9.950	5.51%
G	835	HEAD	01/25/2019	23.5	21.3	0.200	4d133	7410	1.950	9.430	9.750	3.39%
G	835	HEAD	02/01/2019	22.6	21.1	0.200	4d047	7410	2.000	9.470	10.000	5.60%
H	835	HEAD	03/13/2019	21.6	20.6	0.200	4d133	7409	2.000	9.430	10.000	6.04%
H	1750	HEAD	02/04/2019	22.3	21.1	0.100	1008	7409	3.790	36.200	37.900	4.70%
G	1900	HEAD	02/06/2019	22.6	21.5	0.100	5d149	7410	4.090	39.300	40.900	4.07%
G	2300	HEAD	01/29/2019	23.2	21.1	0.100	1073	7410	4.800	49.200	48.000	-2.44%
G	2450	HEAD	01/29/2019	23.2	21.1	0.100	981	7410	5.190	52.300	51.900	-0.76%
G	2450	HEAD	02/05/2019	24.0	22.4	0.100	981	7410	5.130	52.300	51.300	-1.91%
H	2450	HEAD	02/11/2019	20.9	21.1	0.100	797	7409	5.470	52.700	54.700	3.80%
E	2450	HEAD	03/02/2019	20.5	20.3	0.100	981	3589	5.320	52.300	53.200	1.72%
G	2600	HEAD	01/29/2019	23.2	21.1	0.100	1004	7410	5.530	55.900	55.300	-1.07%
E	2600	HEAD	03/02/2019	20.5	20.3	0.100	1004	3589	5.830	55.900	58.300	4.29%
H	5250	HEAD	01/28/2019	19.8	19.5	0.050	1191	7409	3.790	78.900	75.800	-3.93%
H	5600	HEAD	01/28/2019	19.8	19.5	0.050	1191	7409	4.010	83.600	80.200	-4.07%
H	5750	HEAD	01/28/2019	19.8	19.5	0.050	1191	7409	3.890	79.100	77.800	-1.64%
E	750	BODY	02/11/2019	21.9	21.1	0.200	1003	3589	1.720	8.580	8.600	0.23%
E	750	BODY	02/13/2019	22.9	21.0	0.200	1003	3589	1.710	8.580	8.550	-0.35%
J	750	BODY	03/05/2019	21.7	20.7	0.200	1161	7488	1.670	8.430	8.350	-0.95%
D	835	BODY	02/06/2019	22.2	21.8	0.200	4d047	7357	2.080	9.710	10.400	7.11%
D	835	BODY	02/11/2019	21.9	20.8	0.200	4d047	7357	2.020	9.710	10.100	4.02%
D	835	BODY	02/13/2019	21.9	21.3	0.200	4d047	7357	2.050	9.710	10.250	5.56%
D	835	BODY	02/18/2019	21.5	20.0	0.200	4d047	7357	2.050	9.710	10.250	5.56%
J	835	BODY	03/10/2019	20.7	21.0	0.200	4d133	7488	1.910	9.750	9.550	-2.05%
J	1750	BODY	01/24/2019	20.8	20.2	0.100	1150	3347	3.800	36.600	38.000	3.83%
J	1750	BODY	01/28/2019	20.3	20.4	0.100	1150	3347	3.640	36.600	36.400	-0.55%
G	1750	BODY	02/22/2019	23.2	20.8	0.100	1150	7410	3.820	36.600	38.200	4.37%
G	1750	BODY	02/26/2019	22.4	21.3	0.100	1150	7410	3.950	36.600	39.500	7.92%
E	1900	BODY	01/31/2019	23.3	21.2	0.100	5d149	3332	4.200	39.400	42.000	6.60%
E	1900	BODY	02/04/2019	23.3	22.3	0.100	5d080	3332	4.140	39.200	41.400	5.61%
J	1900	BODY	02/20/2019	20.3	22.0	0.100	5d149	7488	4.200	39.400	42.000	6.60%
J	1900	BODY	02/24/2019	21.7	21.5	0.100	5d149	7488	4.180	39.400	41.800	6.09%
K	2300	BODY	02/07/2019	21.8	21.7	0.100	1073	3319	4.740	47.700	47.400	-0.63%
K	2300	BODY	02/18/2019	21.9	22.8	0.100	1073	3319	4.890	47.700	48.900	2.52%
K	2450	BODY	01/29/2019	22.6	20.5	0.100	981	3319	5.060	50.900	50.600	-0.59%
K	2450	BODY	02/02/2019	21.7	21.6	0.100	981	3319	4.900	50.900	49.000	-3.73%
K	2450	BODY	02/11/2019	21.9	21.1	0.100	981	3319	5.080	50.900	50.800	-0.20%
K	2450	BODY	02/13/2019	21.9	21.1	0.100	981	3319	5.110	50.900	51.100	0.39%
K	2450	BODY	02/18/2019	21.9	22.8	0.100	981	3319	5.100	50.900	51.000	0.20%
K	2450	BODY	02/27/2019	23.1	23.0	0.100	981	3319	5.140	50.900	51.400	0.98%
K	2450	BODY	03/04/2019	21.9	20.9	0.100	981	3319	5.160	50.900	51.600	1.38%
K	2600	BODY	01/29/2019	22.6	20.5	0.100	1004	3319	5.290	54.800	52.900	-3.47%
K	2600	BODY	02/02/2019	21.7	21.6	0.100	1004	3319	5.300	54.800	53.000	-3.28%
K	2600	BODY	02/13/2019	21.9	21.1	0.100	1004	3319	5.480	54.800	54.800	0.00%
K	2600	BODY	02/18/2019	21.9	22.8	0.100	1004	3319	5.510	54.800	55.100	0.55%
K	2600	BODY	02/27/2019	23.1	23.0	0.100	1004	3319	5.570	54.800	55.700	1.64%
K	2600	BODY	03/04/2019	23.1	20.9	0.100	1064	3319	5.640	54.700	56.400	3.11%
L	5250	BODY	01/21/2019	20.6	20.7	0.050	1057	7308	3.730	75.900	74.600	-1.71%
L	5600	BODY	01/21/2019	20.6	20.7	0.050	1057	7308	4.060	79.900	81.200	1.63%
L	5750	BODY	01/21/2019	20.6	20.7	0.050	1057	7308	3.650	76.700	73.000	-4.82%
L	5250	BODY	01/29/2019	22.0	22.6	0.050	1191	7308	3.500	77.000	70.000	-9.09%
L	5600	BODY	01/29/2019	22.0	22.6	0.050	1191	7308	3.740	79.200	74.800	-5.56%
L	5750	BODY	01/29/2019	22.0	22.6	0.050	1191	7308	3.470	76.100	69.400	-8.80%

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Table 10-5
System Verification Results – 10g

System Verification TARGET & MEASURED												
SAR System #	Tissue Frequency (MHz)	Tissue Type	Date	Amb. Temp (°C)	Liquid Temp (°C)	Input Power (W)	Source SN	Probe SN	Measured SAR_{10g} (W/kg)	1 W Target SAR_{10g} (W/kg)	1 W Normalized SAR_{10g} (W/kg)	$Deviation_{10g}$ (%)
E	750	BODY	02/13/2019	22.9	21.0	0.200	1003	3589	1.130	5.710	5.650	-1.05%
D	835	BODY	02/06/2019	22.2	21.8	0.200	4d047	7357	1.370	6.360	6.850	7.70%
D	835	BODY	02/13/2019	21.9	21.3	0.200	4d047	7357	1.350	6.360	6.750	6.13%
D	835	BODY	02/18/2019	21.5	20.0	0.200	4d047	7357	1.350	6.360	6.750	6.13%
J	1750	BODY	01/28/2019	20.3	20.4	0.100	1150	3347	1.950	19.400	19.500	0.52%
G	1750	BODY	02/24/2019	21.3	21.3	0.100	1150	7410	2.000	19.400	20.000	3.09%
E	1900	BODY	01/31/2019	23.3	21.2	0.100	5d149	3332	2.190	20.700	21.900	5.80%
E	1900	BODY	02/04/2019	23.3	22.3	0.100	5d080	3332	2.160	20.600	21.600	4.85%
J	1900	BODY	02/20/2019	20.3	22.0	0.100	5d149	7488	2.140	20.700	21.400	3.38%
J	1900	BODY	02/24/2019	21.7	21.5	0.100	5d149	7488	2.120	20.700	21.200	2.42%
K	2300	BODY	02/07/2019	21.8	21.7	0.100	1073	3319	2.280	23.200	22.800	-1.72%
K	2300	BODY	02/18/2019	21.9	22.8	0.100	1073	3319	2.340	23.200	23.400	0.86%
K	2450	BODY	01/29/2019	22.6	20.5	0.100	981	3319	2.300	24.200	23.000	-4.96%
K	2450	BODY	02/02/2019	21.7	21.6	0.100	981	3319	2.250	24.200	22.500	-7.02%
K	2450	BODY	02/13/2019	21.9	21.1	0.100	981	3319	2.350	24.200	23.500	-2.89%
K	2450	BODY	02/20/2019	22.3	23.8	0.100	981	3319	2.330	24.200	23.300	-3.72%
K	2450	BODY	02/27/2019	23.1	23.0	0.100	981	3319	2.330	24.200	23.300	-3.72%
K	2450	BODY	03/04/2019	21.9	20.9	0.100	981	3319	2.360	24.200	23.600	-2.48%
K	2600	BODY	02/20/2019	22.3	23.8	0.100	1004	3319	2.410	24.700	24.100	-2.43%
K	2600	BODY	02/27/2019	23.1	23.0	0.100	1004	3319	2.430	24.700	24.300	-1.62%
K	2600	BODY	03/04/2019	21.9	20.9	0.100	1064	3319	2.470	24.400	24.700	1.23%
L	5250	BODY	01/21/2019	20.6	20.7	0.050	1057	7308	1.030	21.100	20.600	-2.37%
L	5600	BODY	01/21/2019	20.6	20.7	0.050	1057	7308	1.120	22.300	22.400	0.45%
L	5750	BODY	01/21/2019	20.6	20.7	0.050	1057	7308	1.020	21.200	20.400	-3.77%

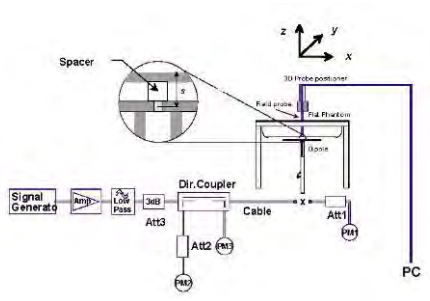


Figure 10-1
System Verification Setup Diagram



Figure 10-2
System Verification Setup Photo

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11 SAR DATA SUMMARY

11.1 Standalone Head SAR Data

Table 11-1
CDMA BC10 (§90S) Head SAR

MEASUREMENT RESULTS															
FREQUENCY		Mode/Band	Service	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Side	Test Position	Ant State	Device Serial Number	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.											(W/kg)		(W/kg)	
820.10	564	CDMA BC10 (§90S)	RC3 / SO55	26.0	24.99	-0.05	Right	Cheek	16	0004M	1:1	0.291	1.262	0.367	
820.10	564	CDMA BC10 (§90S)	RC3 / SO55	26.0	24.99	-0.16	Right	Tilt	16	0004M	1:1	0.104	1.262	0.131	
820.10	564	CDMA BC10 (§90S)	RC3 / SO55	26.0	24.99	0.08	Left	Cheek	16	0004M	1:1	0.229	1.262	0.289	
820.10	564	CDMA BC10 (§90S)	RC3 / SO55	26.0	24.99	0.03	Left	Tilt	16	0004M	1:1	0.113	1.262	0.143	
820.10	564	CDMA BC10 (§90S)	EVDO Rev. A	26.0	24.96	-0.01	Right	Cheek	16	0004M	1:1	0.326	1.271	**0.414**	A1
820.10	564	CDMA BC10 (§90S)	EVDO Rev. A	26.0	24.96	0.06	Right	Tilt	16	0004M	1:1	0.134	1.271	0.170	
820.10	564	CDMA BC10 (§90S)	EVDO Rev. A	26.0	24.96	-0.01	Left	Cheek	16	0004M	1:1	0.254	1.271	0.323	
820.10	564	CDMA BC10 (§90S)	EVDO Rev. A	26.0	24.96	-0.09	Left	Tilt	16	0004M	1:1	0.126	1.271	0.160	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population							Head 1.6 W/kg (mW/g) averaged over 1 gram								

Table 11-2
CDMA BC0 (§22H) Head SAR

MEASUREMENT RESULTS															
FREQUENCY		Mode/Band	Service	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Side	Test Position	Ant State	Device Serial Number	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.											(W/kg)		(W/kg)	
836.52	384	CDMA BC0 (§22H)	RC3 / SO55	26.0	25.06	0.07	Right	Cheek	77	0049M	1:1	0.328	1.242	**0.407**	A2
836.52	384	CDMA BC0 (§22H)	RC3 / SO55	26.0	25.06	-0.05	Right	Tilt	77	0049M	1:1	0.142	1.242	0.176	
836.52	384	CDMA BC0 (§22H)	RC3 / SO55	26.0	25.06	0.02	Left	Cheek	77	0049M	1:1	0.209	1.242	0.260	
836.52	384	CDMA BC0 (§22H)	RC3 / SO55	26.0	25.06	0.09	Left	Tilt	77	0049M	1:1	0.063	1.242	0.078	
836.52	384	CDMA BC0 (§22H)	EVDO Rev. A	26.0	25.09	-0.07	Right	Cheek	77	0049M	1:1	0.325	1.233	0.401	
836.52	384	CDMA BC0 (§22H)	EVDO Rev. A	26.0	25.09	0.00	Right	Tilt	77	0049M	1:1	0.124	1.233	0.153	
836.52	384	CDMA BC0 (§22H)	EVDO Rev. A	26.0	25.09	-0.02	Left	Cheek	77	0049M	1:1	0.222	1.233	0.274	
836.52	384	CDMA BC0 (§22H)	EVDO Rev. A	26.0	25.09	-0.01	Left	Tilt	77	0049M	1:1	0.121	1.233	0.149	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population							Head 1.6 W/kg (mW/g) averaged over 1 gram								

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Table 11-3
PCS CDMA Head SAR

MEASUREMENT RESULTS														
FREQUENCY		Mode/Band	Service	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Side	Test Position	Device Serial Number	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.										(W/kg)		(W/kg)	
1880.00	600	PCS CDMA	RC3 / SO55	26.0	24.53	0.17	Right	Cheek	0020M	1:1	0.119	1.403	0.167	
1880.00	600	PCS CDMA	RC3 / SO55	26.0	24.53	0.04	Right	Tilt	0020M	1:1	0.160	1.403	0.224	
1880.00	600	PCS CDMA	RC3 / SO55	26.0	24.53	-0.13	Left	Cheek	0020M	1:1	0.162	1.403	0.227	
1880.00	600	PCS CDMA	RC3 / SO55	26.0	24.53	0.15	Left	Tilt	0020M	1:1	0.169	1.403	0.237	A3
1880.00	600	PCS CDMA	EVDO Rev. A	26.0	24.54	0.06	Right	Cheek	0020M	1:1	0.100	1.400	0.140	
1880.00	600	PCS CDMA	EVDO Rev. A	26.0	24.54	0.13	Right	Tilt	0020M	1:1	0.156	1.400	0.218	
1880.00	600	PCS CDMA	EVDO Rev. A	26.0	24.54	0.10	Left	Cheek	0020M	1:1	0.130	1.400	0.182	
1880.00	600	PCS CDMA	EVDO Rev. A	26.0	24.54	0.12	Left	Tilt	0020M	1:1	0.152	1.400	0.213	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population							Head 1.6 W/kg (mW/g) averaged over 1 gram							

Table 11-4
GSM 850 Head SAR

MEASUREMENT RESULTS														
FREQUENCY		Mode/Band	Service	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Side	Test Position	Device Serial Number	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.										(W/kg)		(W/kg)	
836.60	190	GSM 850	GSM	34.0	32.62	-0.03	Right	Cheek	0001M	1:8.3	0.216	1.374	0.297	A4
836.60	190	GSM 850	GSM	34.0	32.62	-0.13	Right	Tilt	0001M	1:8.3	0.100	1.374	0.137	
836.60	190	GSM 850	GSM	34.0	32.62	-0.12	Left	Cheek	0001M	1:8.3	0.141	1.374	0.194	
836.60	190	GSM 850	GSM	34.0	32.62	-0.21	Left	Tilt	0001M	1:8.3	0.070	1.374	0.096	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population							Head 1.6 W/kg (mW/g) averaged over 1 gram							

Table 11-5
GSM 1900 Head SAR

MEASUREMENT RESULTS														
FREQUENCY		Mode/Band	Service	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Side	Test Position	Device Serial Number	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.										(W/kg)		(W/kg)	
1880.00	661	GSM 1900	GSM	31.5	30.55	0.13	Right	Cheek	0003M	1:8.3	0.055	1.245	0.068	
1880.00	661	GSM 1900	GSM	31.5	30.55	0.13	Right	Tilt	0003M	1:8.3	0.082	1.245	0.102	
1880.00	661	GSM 1900	GSM	31.5	30.55	0.07	Left	Cheek	0003M	1:8.3	0.076	1.245	0.095	
1880.00	661	GSM 1900	GSM	31.5	30.55	0.06	Left	Tilt	0003M	1:8.3	0.091	1.245	0.113	A5
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population							Head 1.6 W/kg (mW/g) averaged over 1 gram							

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Table 11-6
UMTS 850 Head SAR

MEASUREMENT RESULTS															
FREQUENCY		Mode/Band	Service	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Side	Test Position	Ant State	Device Serial Number	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.											(W/kg)		(W/kg)	
836.60	4183	UMTS 850	RMC	25.5	24.45	-0.02	Right	Cheek	77	0001M	1:1	0.283	1.274	0.361	A6
836.60	4183	UMTS 850	RMC	25.5	24.45	0.03	Right	Tilt	77	0001M	1:1	0.157	1.274	0.200	
836.60	4183	UMTS 850	RMC	25.5	24.45	-0.12	Left	Cheek	77	0001M	1:1	0.205	1.274	0.261	
836.60	4183	UMTS 850	RMC	25.5	24.45	-0.07	Left	Tilt	77	0001M	1:1	0.140	1.274	0.178	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population							Head 1.6 W/kg (mW/g) averaged over 1 gram								

Table 11-7
UMTS 1750 Head SAR

MEASUREMENT RESULTS														
FREQUENCY		Mode/Band	Service	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Side	Test Position	Device Serial Number	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.										(W/kg)		(W/kg)	
1732.40	1412	UMTS 1750	RMC	25.5	24.33	0.05	Right	Cheek	0039M	1:1	0.140	1.309	0.183	
1732.40	1412	UMTS 1750	RMC	25.5	24.33	0.00	Right	Tilt	0039M	1:1	0.115	1.309	0.151	
1732.40	1412	UMTS 1750	RMC	25.5	24.33	-0.03	Left	Cheek	0039M	1:1	0.203	1.309	0.266	A7
1732.40	1412	UMTS 1750	RMC	25.5	24.33	0.00	Left	Tilt	0039M	1:1	0.110	1.309	0.144	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population							Head 1.6 W/kg (mW/g) averaged over 1 gram							

Table 11-8
UMTS 1900 Head SAR

MEASUREMENT RESULTS														
FREQUENCY		Mode/Band	Service	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Side	Test Position	Device Serial Number	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.										(W/kg)		(W/kg)	
1880.00	9400	UMTS 1900	RMC	25.5	24.24	0.21	Right	Cheek	0003M	1:1	0.154	1.337	0.206	
1880.00	9400	UMTS 1900	RMC	25.5	24.24	0.13	Right	Tilt	0003M	1:1	0.173	1.337	0.231	
1880.00	9400	UMTS 1900	RMC	25.5	24.24	0.06	Left	Cheek	0003M	1:1	0.175	1.337	0.234	
1880.00	9400	UMTS 1900	RMC	25.5	24.24	0.05	Left	Tilt	0003M	1:1	0.178	1.337	0.238	A8
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population							Head 1.6 W/kg (mW/g) averaged over 1 gram							

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Table 11-9
LTE Band 71 Head SAR

MEASUREMENT RESULTS																				
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Side	Test Position	Ant State	Modulation	RB Size	RB Offset	Device Serial Number	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.																(W/kg)		(W/kg)	
680.50	133297	Mid	LTE Band 71	20	25.5	24.80	-0.03	0	Right	Cheek	0	QPSK	1	0	0001M	1:1	0.181	1.175	0.213	A9
680.50	133297	Mid	LTE Band 71	20	24.5	24.04	0.03	1	Right	Cheek	0	QPSK	50	25	0001M	1:1	0.133	1.112	0.148	
680.50	133297	Mid	LTE Band 71	20	25.5	24.80	0.03	0	Right	Tilt	0	QPSK	1	0	0001M	1:1	0.124	1.175	0.146	
680.50	133297	Mid	LTE Band 71	20	24.5	24.04	0.01	1	Right	Tilt	0	QPSK	50	25	0001M	1:1	0.077	1.112	0.086	
680.50	133297	Mid	LTE Band 71	20	25.5	24.80	-0.05	0	Left	Cheek	0	QPSK	1	0	0001M	1:1	0.113	1.175	0.133	
680.50	133297	Mid	LTE Band 71	20	24.5	24.04	0.05	1	Left	Cheek	0	QPSK	50	25	0001M	1:1	0.107	1.112	0.119	
680.50	133297	Mid	LTE Band 71	20	25.5	24.80	0.15	0	Left	Tilt	0	QPSK	1	0	0001M	1:1	0.091	1.175	0.107	
680.50	133297	Mid	LTE Band 71	20	24.5	24.04	-0.12	1	Left	Tilt	0	QPSK	50	25	0001M	1:1	0.072	1.112	0.080	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																	Head 1.6 W/kg (mW/g) averaged over 1 gram			

Table 11-10
LTE Band 12 Head SAR

MEASUREMENT RESULTS																				
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Side	Test Position	Ant State	Modulation	RB Size	RB Offset	Device Serial Number	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.																(W/kg)		(W/kg)	
707.50	23095	Mid	LTE Band 12	10	25.5	24.51	-0.19	0	Right	Cheek	33	QPSK	1	25	0001M	1:1	0.147	1.256	0.185	A10
707.50	23095	Mid	LTE Band 12	10	24.5	23.84	0.05	1	Right	Cheek	33	QPSK	25	25	0001M	1:1	0.108	1.164	0.126	
707.50	23095	Mid	LTE Band 12	10	25.5	24.51	0.08	0	Right	Tilt	33	QPSK	1	25	0001M	1:1	0.084	1.256	0.106	
707.50	23095	Mid	LTE Band 12	10	24.5	23.84	0.03	1	Right	Tilt	33	QPSK	25	25	0001M	1:1	0.063	1.164	0.073	
707.50	23095	Mid	LTE Band 12	10	25.5	24.51	0.07	0	Left	Cheek	33	QPSK	1	25	0001M	1:1	0.114	1.256	0.143	
707.50	23095	Mid	LTE Band 12	10	24.5	23.84	-0.02	1	Left	Cheek	33	QPSK	25	25	0001M	1:1	0.091	1.164	0.106	
707.50	23095	Mid	LTE Band 12	10	25.5	24.51	0.02	0	Left	Tilt	33	QPSK	1	25	0001M	1:1	0.070	1.256	0.088	
707.50	23095	Mid	LTE Band 12	10	24.5	23.84	0.05	1	Left	Tilt	33	QPSK	25	25	0001M	1:1	0.056	1.164	0.065	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																	Head 1.6 W/kg (mW/g) averaged over 1 gram			

Table 11-11
LTE Band 13 Head SAR

MEASUREMENT RESULTS																				
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Side	Test Position	Ant State	Modulation	RB Size	RB Offset	Device Serial Number	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.																(W/kg)		(W/kg)	
782.00	23230	Mid	LTE Band 13	10	25.5	24.77	0.01	0	Right	Cheek	76	QPSK	1	49	0001M	1:1	0.204	1.183	0.241	A11
782.00	23230	Mid	LTE Band 13	10	24.5	23.88	-0.02	1	Right	Cheek	76	QPSK	25	25	0001M	1:1	0.178	1.153	0.205	
782.00	23230	Mid	LTE Band 13	10	25.5	24.77	0.03	0	Right	Tilt	76	QPSK	1	49	0001M	1:1	0.115	1.183	0.136	
782.00	23230	Mid	LTE Band 13	10	24.5	23.88	0.05	1	Right	Tilt	76	QPSK	25	25	0001M	1:1	0.095	1.153	0.110	
782.00	23230	Mid	LTE Band 13	10	25.5	24.77	0.01	0	Left	Cheek	76	QPSK	1	49	0001M	1:1	0.150	1.183	0.177	
782.00	23230	Mid	LTE Band 13	10	24.5	23.88	0.06	1	Left	Cheek	76	QPSK	25	25	0001M	1:1	0.124	1.153	0.143	
782.00	23230	Mid	LTE Band 13	10	25.5	24.77	-0.15	0	Left	Tilt	76	QPSK	1	49	0001M	1:1	0.086	1.183	0.102	
782.00	23230	Mid	LTE Band 13	10	24.5	23.88	0.00	1	Left	Tilt	76	QPSK	25	25	0001M	1:1	0.073	1.153	0.084	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																	Head 1.6 W/kg (mW/g) averaged over 1 gram			

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Table 11-12
LTE Band 14 Head SAR

MEASUREMENT RESULTS																					
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Side	Test Position	Ant State	Modulation	RB Size	RB Offset	Device Serial Number	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.																(W/kg)		(W/kg)	
793.00	23330	Mid	LTE Band 14	10	25.5	24.80	0.10	0	Right	Cheek	76	QPSK	1	25	0039M	1:1	0.202	1.175	0.237	A12
793.00	23330	Mid	LTE Band 14	10	24.5	24.05	0.13	1	Right	Cheek	76	QPSK	25	0	0039M	1:1	0.165	1.109	0.183	
793.00	23330	Mid	LTE Band 14	10	25.5	24.80	-0.07	0	Right	Tilt	76	QPSK	1	25	0039M	1:1	0.136	1.175	0.160	
793.00	23330	Mid	LTE Band 14	10	24.5	24.05	0.00	1	Right	Tilt	76	QPSK	25	0	0039M	1:1	0.109	1.109	0.121	
793.00	23330	Mid	LTE Band 14	10	25.5	24.80	-0.06	0	Left	Cheek	76	QPSK	1	25	0039M	1:1	0.157	1.175	0.184	
793.00	23330	Mid	LTE Band 14	10	24.5	24.05	0.03	1	Left	Cheek	76	QPSK	25	0	0039M	1:1	0.119	1.109	0.132	
793.00	23330	Mid	LTE Band 14	10	25.5	24.80	-0.06	0	Left	Tilt	76	QPSK	1	25	0039M	1:1	0.110	1.175	0.129	
793.00	23330	Mid	LTE Band 14	10	24.5	24.05	0.11	1	Left	Tilt	76	QPSK	25	0	0039M	1:1	0.091	1.109	0.101	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population										Head 1.6 W/kg (mW/g) averaged over 1 gram											

Table 11-13
LTE Band 26 (Cell) Head SAR

MEASUREMENT RESULTS																					
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Side	Test Position	Ant State	Modulation	RB Size	RB Offset	Device Serial Number	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.																(W/kg)		(W/kg)	
831.50	26865	Mid	LTE Band 26 (Cell)	15	25.5	24.62	-0.06	0	Right	Cheek	77	QPSK	1	36	0025M	1:1	0.253	1.225	0.310	A13
831.50	26865	Mid	LTE Band 26 (Cell)	15	24.5	23.93	0.01	1	Right	Cheek	77	QPSK	36	18	0025M	1:1	0.229	1.140	0.261	
831.50	26865	Mid	LTE Band 26 (Cell)	15	25.5	24.62	-0.01	0	Right	Tilt	77	QPSK	1	36	0025M	1:1	0.097	1.225	0.119	
831.50	26865	Mid	LTE Band 26 (Cell)	15	24.5	23.93	0.05	1	Right	Tilt	77	QPSK	36	18	0025M	1:1	0.088	1.140	0.100	
831.50	26865	Mid	LTE Band 26 (Cell)	15	25.5	24.62	-0.09	0	Left	Cheek	77	QPSK	1	36	0025M	1:1	0.191	1.225	0.234	
831.50	26865	Mid	LTE Band 26 (Cell)	15	24.5	23.93	-0.21	1	Left	Cheek	77	QPSK	36	18	0025M	1:1	0.164	1.140	0.187	
831.50	26865	Mid	LTE Band 26 (Cell)	15	25.5	24.62	-0.06	0	Left	Tilt	77	QPSK	1	36	0025M	1:1	0.087	1.225	0.107	
831.50	26865	Mid	LTE Band 26 (Cell)	15	24.5	23.93	0.00	1	Left	Tilt	77	QPSK	36	18	0025M	1:1	0.078	1.140	0.089	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population										Head 1.6 W/kg (mW/g) averaged over 1 gram											

Table 11-14
LTE Band 5 (Cell) Head SAR

MEASUREMENT RESULTS																							
1CC Uplink | 2CC Uplink	Component Carrier	FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Side	Test Position	Ant State	Modulation	RB Size	RB Offset	Device Serial Number	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
		MHz	Ch.																(W/kg)		(W/kg)	
1 CC Uplink	N/A	836.50	20525	Mid	LTE Band 5 (Cell)	10	25.5	24.63	0.03	0	Right	Cheek	77	QPSK	1	49	0039M	1:1	0.264	1.222	0.323	A14
1 CC Uplink	N/A	836.50	20525	Mid	LTE Band 5 (Cell)	10	24.5	23.81	-0.02	1	Right	Cheek	77	QPSK	25	0	0039M	1:1	0.239	1.172	0.280	
2 CC Uplink	PCC	836.50	20525	Mid	LTE Band 5 (Cell)	10	25.5	24.54	0.00	0	Right	Cheek	77	QPSK	1	49	0039M	1:1	0.249	1.247	0.311	
	SCC	843.70	20597			5									1	0						
1 CC Uplink	N/A	836.50	20525	Mid	LTE Band 5 (Cell)	10	25.5	24.63	-0.07	0	Right	Tilt	77	QPSK	1	49	0039M	1:1	0.127	1.222	0.155	
1 CC Uplink	N/A	836.50	20525	Mid	LTE Band 5 (Cell)	10	24.5	23.81	0.02	1	Right	Tilt	77	QPSK	25	0	0039M	1:1	0.109	1.172	0.128	
1 CC Uplink	N/A	836.50	20525	Mid	LTE Band 5 (Cell)	10	25.5	24.63	0.09	0	Left	Cheek	77	QPSK	1	49	0039M	1:1	0.159	1.222	0.194	
1 CC Uplink	N/A	836.50	20525	Mid	LTE Band 5 (Cell)	10	24.5	23.81	0.01	1	Left	Cheek	77	QPSK	25	0	0039M	1:1	0.149	1.172	0.175	
1 CC Uplink	N/A	836.50	20525	Mid	LTE Band 5 (Cell)	10	25.5	24.63	-0.21	0	Left	Tilt	77	QPSK	1	49	0039M	1:1	0.096	1.222	0.117	
1 CC Uplink	N/A	836.50	20525	Mid	LTE Band 5 (Cell)	10	24.5	23.81	0.18	1	Left	Tilt	77	QPSK	25	0	0039M	1:1	0.088	1.172	0.103	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population												Head 1.6 W/kg (mW/g) averaged over 1 gram										

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Table 11-15
LTE Band 66 (AWS) Head SAR

MEASUREMENT RESULTS																						
1CC Uplink | 2CC Uplink	Component Carrier	FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Side	Test Position	Modulation	RB Size	RB Offset	Device Serial Number	Duty Cycle	SAR (1g) (W/kg)	Scaling Factor	Reported SAR (1g) (W/kg)	Plot #
		MHz	Ch.																		
1 CC Uplink	N/A	1720.00	132072	Low	LTE Band 66 (AWS)	20	25.0	24.41	-0.10	0	Right	Cheek	QPSK	1	0	0039M	1:1	0.157	1.146	0.180	
1 CC Uplink	N/A	1720.00	132072	Low	LTE Band 66 (AWS)	20	24.0	23.39	-0.05	1	Right	Cheek	QPSK	50	0	0039M	1:1	0.148	1.151	0.170	
1 CC Uplink	N/A	1720.00	132072	Low	LTE Band 66 (AWS)	20	25.0	24.41	0.04	0	Right	Tilt	QPSK	1	0	0039M	1:1	0.135	1.146	0.155	
1 CC Uplink	N/A	1720.00	132072	Low	LTE Band 66 (AWS)	20	24.0	23.39	0.03	1	Right	Tilt	QPSK	50	0	0039M	1:1	0.124	1.151	0.143	
1 CC Uplink	N/A	1720.00	132072	Low	LTE Band 66 (AWS)	20	25.0	24.41	0.06	0	Left	Cheek	QPSK	1	0	0039M	1:1	0.229	1.146	0.262	A15
1 CC Uplink	N/A	1720.00	132072	Low	LTE Band 66 (AWS)	20	25.0	24.22	0.11	0	Left	Cheek	QPSK	1	99	0039M	1:1	0.195	1.197	0.233	
1 CC Uplink	N/A	1715.00	132022	Low	LTE Band 66 (AWS)	10	25.0	24.26	-0.08	0	Left	Cheek	QPSK	1	49	0039M	1:1	0.187	1.186	0.222	
1 CC Uplink	N/A	1720.00	132072	Low	LTE Band 66 (AWS)	20	24.0	23.39	0.06	1	Left	Cheek	QPSK	50	0	0039M	1:1	0.190	1.151	0.219	
2 CC Uplink CA_66C	PCC	1720.00	132072	Low	LTE Band 66 (AWS)	20	25.0	24.05	0.08	0	Left	Cheek	QPSK	1	99	0039M	1:1	0.193	1.245	0.240	
	SCC	1739.80	132270			20								1	0						
2 CC Uplink CA_66B	PCC	1715.00	132022	Low	LTE Band 66 (AWS)	10	25.0	24.50	0.02	0	Left	Cheek	QPSK	1	49	0039M	1:1	0.200	1.122	0.224	
	SCC	1724.90	132121			10								1	0						
1 CC Uplink	N/A	1720.00	132072	Low	LTE Band 66 (AWS)	20	25.0	24.41	-0.09	0	Left	Tilt	QPSK	1	0	0039M	1:1	0.137	1.146	0.157	
1 CC Uplink	N/A	1720.00	132072	Low	LTE Band 66 (AWS)	20	24.0	23.39	0.07	1	Left	Tilt	QPSK	50	0	0039M	1:1	0.126	1.151	0.145	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population														Head 1.6 W/kg (mW/g) averaged over 1 gram							

Table 11-16
LTE Band 25 (PCS) Head SAR

MEASUREMENT RESULTS																		
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Side	Test Position	Modulation	RB Size	RB Offset	Device Serial Number	Duty Cycle	SAR (1g) (W/kg)	Scaling Factor	Reported SAR (1g) (W/kg)	Plot #
MHz	Ch.																		
1860.00	26140	Low	LTE Band 25 (PCS)	20	25.0	24.51	0.04	0	Right	Cheek	QPSK	1	50	0041M	1:1	0.091	1.119	0.102	
1860.00	26140	Low	LTE Band 25 (PCS)	20	24.0	23.64	0.07	1	Right	Cheek	QPSK	50	25	0041M	1:1	0.072	1.086	0.078	
1860.00	26140	Low	LTE Band 25 (PCS)	20	25.0	24.51	-0.06	0	Right	Tilt	QPSK	1	50	0041M	1:1	0.107	1.119	0.120	
1860.00	26140	Low	LTE Band 25 (PCS)	20	24.0	23.64	0.10	1	Right	Tilt	QPSK	50	25	0041M	1:1	0.069	1.086	0.075	
1860.00	26140	Low	LTE Band 25 (PCS)	20	25.0	24.51	-0.15	0	Left	Cheek	QPSK	1	50	0041M	1:1	0.123	1.119	0.138	A16
1860.00	26140	Low	LTE Band 25 (PCS)	20	24.0	23.64	0.00	1	Left	Cheek	QPSK	50	25	0041M	1:1	0.098	1.086	0.106	
1860.00	26140	Low	LTE Band 25 (PCS)	20	25.0	24.51	-0.03	0	Left	Tilt	QPSK	1	50	0041M	1:1	0.093	1.119	0.104	
1860.00	26140	Low	LTE Band 25 (PCS)	20	24.0	23.64	0.00	1	Left	Tilt	QPSK	50	25	0041M	1:1	0.077	1.086	0.084	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population												Head 1.6 W/kg (mW/g) averaged over 1 gram							

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Table 11-17
LTE Band 30 Head SAR

MEASUREMENT RESULTS																				
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Side	Test Position	Modulation	RB Size	RB Offset	Device Serial Number	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.															(W/kg)		(W/kg)	
2310.00	27710	Mid	LTE Band 30	10	25.0	24.28	0.15	0	Right	Cheek	QPSK	1	0	0039M	1:1	0.141	1.180	0.166	
2310.00	27710	Mid	LTE Band 30	10	24.0	23.35	0.12	1	Right	Cheek	QPSK	25	0	0039M	1:1	0.119	1.161	0.138	
2310.00	27710	Mid	LTE Band 30	10	25.0	24.28	0.13	0	Right	Tilt	QPSK	1	0	0039M	1:1	0.096	1.180	0.113	
2310.00	27710	Mid	LTE Band 30	10	24.0	23.35	0.09	1	Right	Tilt	QPSK	25	0	0039M	1:1	0.083	1.161	0.096	
2310.00	27710	Mid	LTE Band 30	10	25.0	24.28	0.10	0	Left	Cheek	QPSK	1	0	0039M	1:1	0.196	1.180	0.231	A17
2310.00	27710	Mid	LTE Band 30	10	24.0	23.35	0.11	1	Left	Cheek	QPSK	25	0	0039M	1:1	0.155	1.161	0.180	
2310.00	27710	Mid	LTE Band 30	10	25.0	24.28	-0.12	0	Left	Tilt	QPSK	1	0	0039M	1:1	0.054	1.180	0.064	
2310.00	27710	Mid	LTE Band 30	10	24.0	23.35	0.06	1	Left	Tilt	QPSK	25	0	0039M	1:1	0.042	1.161	0.049	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population											Head 1.6 W/kg (mW/g) averaged over 1 gram									

Table 11-18
LTE Band 7 Head SAR

MEASUREMENT RESULTS																				
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Side	Test Position	Modulation	RB Size	RB Offset	Device Serial Number	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.															(W/kg)		(W/kg)	
2510.00	20850	Low	LTE Band 7	20	25.0	24.72	0.09	0	Right	Cheek	QPSK	1	99	0039M	1:1	0.146	1.067	0.156	
2510.00	20850	Low	LTE Band 7	20	24.0	23.76	0.14	1	Right	Cheek	QPSK	50	0	0039M	1:1	0.120	1.057	0.127	
2510.00	20850	Low	LTE Band 7	20	25.0	24.72	-0.08	0	Right	Tilt	QPSK	1	99	0039M	1:1	0.087	1.067	0.093	
2510.00	20850	Low	LTE Band 7	20	24.0	23.76	0.12	1	Right	Tilt	QPSK	50	0	0039M	1:1	0.063	1.057	0.067	
2510.00	20850	Low	LTE Band 7	20	25.0	24.72	-0.04	0	Left	Cheek	QPSK	1	99	0039M	1:1	0.313	1.067	0.334	A18
2510.00	20850	Low	LTE Band 7	20	24.0	23.76	0.07	1	Left	Cheek	QPSK	50	0	0039M	1:1	0.236	1.057	0.249	
2510.00	20850	Low	LTE Band 7	20	25.0	24.72	0.16	0	Left	Tilt	QPSK	1	99	0039M	1:1	0.088	1.067	0.094	
2510.00	20850	Low	LTE Band 7	20	24.0	23.76	0.17	1	Left	Tilt	QPSK	50	0	0039M	1:1	0.058	1.057	0.061	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population											Head 1.6 W/kg (mW/g) averaged over 1 gram									

Table 11-19
LTE Band 41 Head SAR

MEASUREMENT RESULTS																						
1 CC Uplink | 2 CC Uplink, Power Class	Component Carrier	FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Side	Test Position	Modulation	RB Size	RB Offset	Device Serial Number	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
		MHz	Ch.															(W/kg)		(W/kg)	
1 CC Uplink - Power Class 3	N/A	2636.50	41055	Mid-High	LTE Band 41	20	25.0	24.59	-0.10	0	Right	Cheek	QPSK	1	0	0039M	1:1.58	0.055	1.099	0.060	
1 CC Uplink - Power Class 3	N/A	2636.50	41055	Mid-High	LTE Band 41	20	24.0	23.59	-0.05	1	Right	Cheek	QPSK	50	0	0039M	1:1.58	0.046	1.099	0.051	
1 CC Uplink - Power Class 3	N/A	2636.50	41055	Mid-High	LTE Band 41	20	25.0	24.59	0.15	0	Right	Tilt	QPSK	1	0	0039M	1:1.58	0.032	1.099	0.035	
1 CC Uplink - Power Class 3	N/A	2636.50	41055	Mid-High	LTE Band 41	20	24.0	23.59	0.02	1	Right	Tilt	QPSK	50	0	0039M	1:1.58	0.024	1.099	0.026	
1 CC Uplink - Power Class 3	N/A	2636.50	41055	Mid-High	LTE Band 41	20	25.0	24.59	0.00	0	Left	Cheek	QPSK	1	0	0039M	1:1.58	0.078	1.099	0.086	
1 CC Uplink - Power Class 3	N/A	2636.50	41055	Mid-High	LTE Band 41	20	24.0	23.59	0.15	1	Left	Cheek	QPSK	50	0	0039M	1:1.58	0.062	1.099	0.068	
1 CC Uplink - Power Class 2	N/A	2636.50	41055	Mid-High	LTE Band 41	20	28.0	27.81	0.12	0	Left	Cheek	QPSK	1	0	0039M	1:2.31	0.116	1.045	0.121	
2 CC Uplink - Power Class 3	PCC	2636.50	41055	Mid-High	LTE Band 41	20	25.0	24.64	0.06	0	Left	Cheek	QPSK	1	0	0039M	1:1.58	0.082	1.086	0.089	
	SCC	2616.70	40857											1	99						
2 CC Uplink - Power Class 2	PCC	2636.50	41055	Mid-High	LTE Band 41	20	28.0	27.96	0.08	0	Left	Cheek	QPSK	1	0	0039M	1:2.31	0.124	1.009	0.125	A19
	SCC	2616.70	40857											1	99						
1 CC Uplink - Power Class 3	N/A	2636.50	41055	Mid-High	LTE Band 41	20	25.0	24.59	0.12	0	Left	Tilt	QPSK	1	0	0039M	1:1.58	0.048	1.099	0.053	
1 CC Uplink - Power Class 3	N/A	2636.50	41055	Mid-High	LTE Band 41	20	24.0	23.59	0.15	1	Left	Tilt	QPSK	50	0	0039M	1:1.58	0.041	1.099	0.045	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population													Head 1.6 W/kg (mW/g) averaged over 1 gram								

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Table 11-20
DTS Head SAR

MEASUREMENT RESULTS																			
FREQUENCY		Mode	Service	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Side	Test Position	Antenna Config.	Device Serial Number	Data Rate (Mbps)	Duty Cycle (%)	Peak SAR of Area Scan	SAR (1g)	Scaling Factor (Power)	Scaling Factor (Duty Cycle)	Reported SAR (1g)	Plot #
MHz	Ch.													W/kg	(W/kg)			(W/kg)	
2462	11	802.11b	DSSS	22	17.0	16.85	0.17	Right	Cheek	1	0003M	1	99.9	0.074	-	1.035	1.001	-	
2462	11	802.11b	DSSS	22	17.0	16.85	0.17	Right	Tilt	1	0003M	1	99.9	0.108	0.073	1.035	1.001	0.076	
2462	11	802.11b	DSSS	22	17.0	16.85	0.13	Left	Cheek	1	0003M	1	99.9	0.053	-	1.035	1.001	-	
2462	11	802.11b	DSSS	22	17.0	16.85	0.16	Left	Tilt	1	0003M	1	99.9	0.067	-	1.035	1.001	-	
2462	11	802.11b	DSSS	22	17.0	16.82	0.15	Right	Cheek	2	0003M	1	99.9	0.137	-	1.042	1.001	-	
2462	11	802.11b	DSSS	22	17.0	16.82	0.13	Right	Tilt	2	0003M	1	99.9	0.152	0.090	1.042	1.001	**0.094**	A20
2462	11	802.11b	DSSS	22	17.0	16.82	0.19	Left	Cheek	2	0003M	1	99.9	0.074	-	1.042	1.001	-	
2462	11	802.11b	DSSS	22	17.0	16.82	0.12	Left	Tilt	2	0003M	1	99.9	0.086	-	1.042	1.001	-	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT **Spatial Peak** **Uncontrolled Exposure/General Population**								**Head** **1.6 W/kg (mW/g)** averaged over 1 gram											

Table 11-21
NII Head SAR

MEASUREMENT RESULTS																			
FREQUENCY		Mode	Service	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Side	Test Position	Antenna Config.	Device Serial Number	Data Rate (Mbps)	Duty Cycle (%)	Peak SAR of Area Scan	SAR (1g)	Scaling Factor (Power)	Scaling Factor (Duty Cycle)	Reported SAR (1g)	Plot #
MHz	Ch.													W/kg	(W/kg)			(W/kg)	
5310	62	802.11n	OFDM	40	14.0	13.87	-0.15	Right	Cheek	1	0037M	13.5	97.2	0.194	0.093	1.030	1.029	**0.099**	A21
5310	62	802.11n	OFDM	40	14.0	13.87	-0.13	Right	Tilt	1	0037M	13.5	97.2	0.146	-	1.030	1.029	-	
5310	62	802.11n	OFDM	40	14.0	13.87	0.17	Left	Cheek	1	0037M	13.5	97.2	0.081	-	1.030	1.029	-	
5310	62	802.11n	OFDM	40	14.0	13.87	0.17	Left	Tilt	1	0037M	13.5	97.2	0.100	-	1.030	1.029	-	
5310	62	802.11n	OFDM	40	14.0	13.94	0.13	Right	Cheek	2	0037M	13.5	97.2	0.076	-	1.014	1.029	-	
5310	62	802.11n	OFDM	40	14.0	13.94	0.08	Right	Tilt	2	0037M	13.5	97.2	0.109	0.040	1.014	1.029	0.042	
5310	62	802.11n	OFDM	40	14.0	13.94	-0.04	Left	Cheek	2	0037M	13.5	97.2	0.044	-	1.014	1.029	-	
5310	62	802.11n	OFDM	40	14.0	13.94	-0.11	Left	Tilt	2	0037M	13.5	97.2	0.068	-	1.014	1.029	-	
5530	106	802.11ac	OFDM	80	14.0	12.86	0.19	Right	Cheek	1	0037M	29.3	94.5	0.092	0.018	1.300	1.058	0.025	
5530	106	802.11ac	OFDM	80	14.0	12.86	0.18	Right	Tilt	1	0037M	29.3	94.5	0.077	-	1.300	1.058	-	
5530	106	802.11ac	OFDM	80	14.0	12.86	0.00	Left	Cheek	1	0037M	29.3	94.5	0.049	-	1.300	1.058	-	
5530	106	802.11ac	OFDM	80	14.0	12.86	-0.19	Left	Tilt	1	0037M	29.3	94.5	0.085	-	1.300	1.058	-	
5610	122	802.11ac	OFDM	80	14.0	12.86	-0.15	Right	Cheek	2	0037M	29.3	96.2	0.049	-	1.300	1.040	-	
5610	122	802.11ac	OFDM	80	14.0	12.86	-0.14	Right	Tilt	2	0037M	29.3	96.2	0.082	0.016	1.300	1.040	0.022	
5610	122	802.11ac	OFDM	80	14.0	12.86	-0.19	Left	Cheek	2	0037M	29.3	96.2	0.042	-	1.300	1.040	-	
5610	122	802.11ac	OFDM	80	14.0	12.86	-0.19	Left	Tilt	2	0037M	29.3	96.2	0.040	-	1.300	1.040	-	
5775	155	802.11ac	OFDM	80	14.0	12.58	0.08	Right	Cheek	1	0037M	29.3	94.5	0.132	-	1.387	1.058	-	
5775	155	802.11ac	OFDM	80	14.0	12.58	0.16	Right	Tilt	1	0037M	29.3	94.5	0.137	-	1.387	1.058	-	
5775	155	802.11ac	OFDM	80	14.0	12.58	0.19	Left	Cheek	1	0037M	29.3	94.5	0.100	-	1.387	1.058	-	
5775	155	802.11ac	OFDM	80	14.0	12.58	0.19	Left	Tilt	1	0037M	29.3	94.5	0.144	0.053	1.387	1.058	0.078	
5775	155	802.11ac	OFDM	80	14.0	12.85	-0.18	Right	Cheek	2	0037M	29.3	96.2	0.042	-	1.303	1.040	-	
5775	155	802.11ac	OFDM	80	14.0	12.85	0.17	Right	Tilt	2	0037M	29.3	96.2	0.063	-	1.303	1.040	-	
5775	155	802.11ac	OFDM	80	14.0	12.85	0.18	Left	Cheek	2	0037M	29.3	96.2	0.059	-	1.303	1.040	-	
5775	155	802.11ac	OFDM	80	14.0	12.85	0.19	Left	Tilt	2	0037M	29.3	96.2	0.065	0.022	1.303	1.040	0.030	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT **Spatial Peak** **Uncontrolled Exposure/General Population**								**Head** **1.6 W/kg (mW/g)** averaged over 1 gram											

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Table 11-22
DSS Head SAR

MEASUREMENT RESULTS																
FREQUENCY		Mode	Service	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Side	Test Position	Device Serial Number	Data Rate (Mbps)	Duty Cycle (%)	SAR (1g)	Scaling Factor (Cond Power)	Scaling Factor (Duty Cycle)	Reported SAR (1g)	Plot #
MHz	Ch.											(W/kg)			(W/kg)	
2402.00	0	Bluetooth	FHSS	16.5	16.18	0.14	Right	Cheek	0025M	1	77.1	0.038	1.076	1.297	0.053	
2402.00	0	Bluetooth	FHSS	16.5	16.18	0.12	Right	Tilt	0025M	1	77.1	0.044	1.076	1.297	**0.061**	A22
2402.00	0	Bluetooth	FHSS	16.5	16.18	0.17	Left	Cheek	0025M	1	77.1	0.020	1.076	1.297	0.028	
2402.00	0	Bluetooth	FHSS	16.5	16.18	0.12	Left	Tilt	0025M	1	77.1	0.027	1.076	1.297	0.038	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT **Spatial Peak** **Uncontrolled Exposure/General Population**								**Head** **1.6 W/kg (mW/g)** averaged over 1 gram								

11.2 Standalone Body-Worn SAR Data

Table 11-23
GSM/UMTS/CDMA Body-Worn SAR Data

MEASUREMENT RESULTS																
FREQUENCY		Mode	Service	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Spacing	Ant State	Device Serial Number	# of Time Slots	Duty Cycle	Side	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.												(W/kg)		(W/kg)	
820.10	564	CDMA BC10 (§90S)	TDSO / SO32	26.0	24.90	-0.11	15 mm	0	0039M	N/A	1:1	back	0.213	1.288	0.274	A23
836.52	384	CDMA BC0 (§22H)	TDSO / SO32	26.0	25.07	0.02	15 mm	1	0039M	N/A	1:1	back	0.200	1.239	0.248	A25
1880.00	600	PCS CDMA	TDSO / SO32	26.0	24.54	-0.06	15 mm	N/A	0037M	N/A	1:1	back	0.376	1.400	0.526	A27
836.60	190	GSM 850	GSM	34.0	32.62	0.03	15 mm	N/A	0039M	1	1:8.3	back	0.164	1.374	0.225	A29
1880.00	661	GSM 1900	GSM	31.5	30.55	-0.03	15 mm	N/A	0023M	1	1:8.3	back	0.195	1.245	0.243	A31
836.60	4183	UMTS 850	RMC	25.5	24.45	-0.01	15 mm	0	0039M	N/A	1:1	back	0.157	1.274	0.200	A33
1712.40	1312	UMTS 1750	RMC	25.5	24.31	-0.08	15 mm	N/A	0003M	N/A	1:1	back	0.469	1.315	0.617	
1732.40	1412	UMTS 1750	RMC	25.5	24.33	-0.06	15 mm	N/A	0003M	N/A	1:1	back	0.488	1.309	0.639	
1752.60	1513	UMTS 1750	RMC	25.5	24.22	-0.17	15 mm	N/A	0003M	N/A	1:1	back	0.493	1.343	**0.662**	A35
1880.00	9400	UMTS 1900	RMC	25.5	24.24	-0.04	15 mm	N/A	0020M	N/A	1:1	back	0.432	1.337	0.578	A37
ANSI / IEEE C95.1 1992 - SAFETY LIMIT **Spatial Peak** **Uncontrolled Exposure/General Population**												**Body** **1.6 W/kg (mW/g)** averaged over 1 gram				

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Table 11-24
LTE Body-Worn SAR

MEASUREMENT RESULTS																						
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Ant State	Device Serial Number	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.																(W/kg)		(W/kg)	
680.50	133297	Mid	LTE Band 71	20	25.5	24.80	-0.09	0	76	0004M	QPSK	1	0	15 mm	back	1:1	0.274	1.175	0.322	A39
680.50	133297	Mid	LTE Band 71	20	24.5	24.04	0.04	1	76	0004M	QPSK	50	25	15 mm	back	1:1	0.210	1.112	0.234	
707.50	23095	Mid	LTE Band 12	10	25.5	24.51	-0.01	0	33	0004M	QPSK	1	25	15 mm	back	1:1	0.223	1.256	0.280	A41
707.50	23095	Mid	LTE Band 12	10	24.5	23.84	-0.04	1	33	0004M	QPSK	25	25	15 mm	back	1:1	0.171	1.164	0.199	
782.00	23230	Mid	LTE Band 13	10	25.5	24.77	0.04	0	76	0004M	QPSK	1	49	15 mm	back	1:1	0.174	1.183	0.206	A43
782.00	23230	Mid	LTE Band 13	10	24.5	23.88	0.06	1	76	0004M	QPSK	25	25	15 mm	back	1:1	0.143	1.153	0.165	
793.00	23330	Mid	LTE Band 14	10	25.5	24.80	-0.14	0	76	0020M	QPSK	1	25	15 mm	back	1:1	0.201	1.175	0.236	A45
793.00	23330	Mid	LTE Band 14	10	24.5	24.05	0.01	1	76	0020M	QPSK	25	0	15 mm	back	1:1	0.165	1.109	0.183	
831.50	26865	Mid	LTE Band 26 (Cell)	15	25.5	24.62	0.04	0	0	0025M	QPSK	1	36	15 mm	back	1:1	0.172	1.225	0.211	A47
831.50	26865	Mid	LTE Band 26 (Cell)	15	24.5	23.93	0.03	1	0	0025M	QPSK	36	18	15 mm	back	1:1	0.146	1.140	0.166	
836.50	20525	Mid	LTE Band 5 (Cell)	10	25.5	24.63	0.05	0	1	0039M	QPSK	1	49	15 mm	back	1:1	0.171	1.222	0.209	A49
836.50	20525	Mid	LTE Band 5 (Cell)	10	24.5	23.81	0.00	1	1	0039M	QPSK	25	0	15 mm	back	1:1	0.157	1.172	0.184	
1720.00	132072	Low	LTE Band 66 (AWS)	20	25.0	24.41	-0.02	0	N/A	0003M	QPSK	1	0	15 mm	back	1:1	0.477	1.146	0.547	A51
1720.00	132072	Low	LTE Band 66 (AWS)	20	24.0	23.39	-0.05	1	N/A	0003M	QPSK	50	0	15 mm	back	1:1	0.402	1.151	0.463	
1860.00	26140	Low	LTE Band 25 (PCS)	20	25.0	24.51	-0.08	0	N/A	0020M	QPSK	1	50	15 mm	back	1:1	0.484	1.119	0.542	A53
1860.00	26140	Low	LTE Band 25 (PCS)	20	24.0	23.64	-0.03	1	N/A	0020M	QPSK	50	25	15 mm	back	1:1	0.403	1.086	0.438	
2310.00	27710	Mid	LTE Band 30	10	25.0	24.28	-0.02	0	N/A	0007M	QPSK	1	0	15 mm	back	1:1	0.343	1.180	0.405	A55
2310.00	27710	Mid	LTE Band 30	10	24.0	23.35	-0.01	1	N/A	0007M	QPSK	25	0	15 mm	back	1:1	0.287	1.161	0.333	
2510.00	20850	Low	LTE Band 7	20	25.0	24.72	-0.07	0	N/A	0025M	QPSK	1	99	15 mm	back	1:1	0.231	1.067	0.246	A57
2510.00	20850	Low	LTE Band 7	20	24.0	23.76	-0.05	1	N/A	0025M	QPSK	50	0	15 mm	back	1:1	0.189	1.057	0.200	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population															Body 1.6 W/kg (mW/g) averaged over 1 gram							

Table 11-25
LTE Band 41 Body-Worn SAR

MEASUREMENT RESULTS																					
1 CC Uplink | 2 CC Uplink, Power Class	FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Device Serial Number	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
	MHz	Ch.															(W/kg)		(W/kg)	
1 CC Uplink - Power Class 3	2636.50	41055	Mid-High	LTE Band 41	20	25.0	24.59	0.06	0	0045M	QPSK	1	0	15 mm	back	1:1.58	0.169	1.099	0.186	A59
1 CC Uplink - Power Class 3	2636.50	41055	Mid-High	LTE Band 41	20	24.0	23.59	-0.03	1	0045M	QPSK	50	0	15 mm	back	1:1.58	0.134	1.099	0.147	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population															Body 1.6 W/kg (mW/g) averaged over 1 gram						

Table 11-26
DTS Body-Worn SAR

MEASUREMENT RESULTS																			
FREQUENCY		Mode	Service	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Spacing	Antenna Config.	Device Serial Number	Data Rate (Mbps)	Side	Duty Cycle (%)	Peak SAR of Area Scan	SAR (1g)	Scaling Factor (Power)	Scaling Factor (Duty Cycle)	Reported SAR (1g)	Plot #
MHz	Ch.													W/kg	(W/kg)			(W/kg)	
2412	1	802.11b	DSSS	22	20.0	19.97	0.14	15 mm	1	0001M	1	back	99.9	0.129	0.111	1.007	1.001	**0.112**	A61
2412	1	802.11b	DSSS	22	20.0	19.98	0.09	15 mm	2	0001M	1	back	99.9	0.067	0.055	1.005	1.001	0.055	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population														Body 1.6 W/kg (mW/g) averaged over 1 gram					

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Table 11-27
NII Body-Worn SAR

MEASUREMENT RESULTS																			
FREQUENCY		Mode	Service	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Spacing	Antenna Config.	Device Serial Number	Data Rate (Mbps)	Side	Duty Cycle (%)	Peak SAR of Area Scan	SAR (1g)	Scaling Factor (Power)	Scaling Factor (Duty Cycle)	Reported SAR (1g)	Plot #
MHz	Ch.													W/kg	(W/kg)			(W/kg)	
5320	64	802.11a	OFDM	20	18.0	17.91	-0.08	15 mm	1	0003M	6	back	98.8	0.617	0.284	1.021	1.012	0.293	
5280	56	802.11a	OFDM	20	18.0	17.99	0.19	15 mm	2	0003M	6	back	98.7	0.091	0.036	1.002	1.013	0.037	
5500	100	802.11a	OFDM	20	18.0	17.94	-0.05	15 mm	1	0003M	6	back	98.8	0.875	0.395	1.014	1.012	**0.405**	A63
5720	144	802.11a	OFDM	20	18.0	17.98	0.17	15 mm	2	0003M	6	back	98.7	0.081	0.026	1.005	1.013	0.026	
5785	157	802.11a	OFDM	20	18.0	17.97	0.06	15 mm	1	0003M	6	back	98.8	0.394	0.163	1.007	1.012	0.166	
5785	157	802.11a	OFDM	20	18.0	17.86	-0.07	15 mm	2	0003M	6	back	98.7	0.076	0.026	1.033	1.013	0.027	

ANSI / IEEE C95.1 1992 - SAFETY LIMIT	Body
Spatial Peak Uncontrolled Exposure/General Population	1.6 W/kg (mW/g) averaged over 1 gram

Table 11-28
DSS Body-Worn SAR

MEASUREMENT RESULTS																
FREQUENCY		Mode	Service	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Spacing	Device Serial Number	Data Rate (Mbps)	Side	Duty Cycle (%)	SAR (1g)	Scaling Factor (Cond Power)	Scaling Factor (Duty Cycle)	Reported SAR (1g)	Plot #
MHz	Ch.											(W/kg)			(W/kg)	
2402	0	Bluetooth	FHSS	16.5	16.18	-0.12	15 mm	0025M	1	back	77.1	0.012	1.076	1.297	**0.017**	A65

ANSI / IEEE C95.1 1992 - SAFETY LIMIT	Body
Spatial Peak Uncontrolled Exposure/General Population	1.6 W/kg (mW/g) averaged over 1 gram

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11.3 Standalone Hotspot SAR Data

Table 11-29
GPRS/UMTS/CDMA Hotspot SAR Data

MEASUREMENT RESULTS																
FREQUENCY		Mode	Service	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Spacing	Ant State	Device Serial Number	# of GPRS Slots	Duty Cycle	Side	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.												(W/kg)		(W/kg)	
820.10	564	CDMA BC10 (§90S)	EVDO Rev. 0	26.0	24.95	-0.15	10 mm	0	0039M	N/A	1:1	back	0.424	1.274	0.540	A24
820.10	564	CDMA BC10 (§90S)	EVDO Rev. 0	26.0	24.95	0.01	10 mm	0	0039M	N/A	1:1	front	0.210	1.274	0.268	
820.10	564	CDMA BC10 (§90S)	EVDO Rev. 0	26.0	24.95	0.01	10 mm	0	0039M	N/A	1:1	bottom	0.248	1.274	0.316	
820.10	564	CDMA BC10 (§90S)	EVDO Rev. 0	26.0	24.95	0.00	10 mm	0	0039M	N/A	1:1	right	0.416	1.274	0.530	
836.52	384	CDMA BC0 (§22H)	EVDO Rev. 0	26.0	25.10	-0.07	10 mm	1	0039M	N/A	1:1	back	0.447	1.230	0.550	
836.52	384	CDMA BC0 (§22H)	EVDO Rev. 0	26.0	25.10	0.05	10 mm	1	0039M	N/A	1:1	front	0.191	1.230	0.235	
836.52	384	CDMA BC0 (§22H)	EVDO Rev. 0	26.0	25.10	-0.01	10 mm	1	0039M	N/A	1:1	bottom	0.232	1.230	0.285	
836.52	384	CDMA BC0 (§22H)	EVDO Rev. 0	26.0	25.10	-0.03	10 mm	1	0039M	N/A	1:1	right	0.462	1.230	0.568	A26
1880.00	600	PCS CDMA	EVDO Rev. 0	21.5	21.48	-0.01	10 mm	N/A	0023M	N/A	1:1	back	0.449	1.005	0.451	
1880.00	600	PCS CDMA	EVDO Rev. 0	21.5	21.48	0.07	10 mm	N/A	0023M	N/A	1:1	front	0.257	1.005	0.258	
1851.25	25	PCS CDMA	EVDO Rev. 0	21.5	21.47	0.00	10 mm	N/A	0023M	N/A	1:1	bottom	0.969	1.007	0.976	
1880.00	600	PCS CDMA	EVDO Rev. 0	21.5	21.48	0.01	10 mm	N/A	0023M	N/A	1:1	bottom	1.180	1.005	1.186	A28
1908.75	1175	PCS CDMA	EVDO Rev. 0	21.5	21.40	-0.07	10 mm	N/A	0023M	N/A	1:1	bottom	1.170	1.023	**1.197**	
1880.00	600	PCS CDMA	EVDO Rev. 0	21.5	21.48	-0.05	10 mm	N/A	0023M	N/A	1:1	right	0.170	1.005	0.171	
1880.00	600	PCS CDMA	EVDO Rev. 0	21.5	21.48	-0.06	10 mm	N/A	0023M	N/A	1:1	left	0.123	1.005	0.124	
1880.00	600	PCS CDMA	EVDO Rev. 0	21.5	21.48	-0.03	10 mm	N/A	0023M	N/A	1:1	bottom	1.110	1.005	1.116	
836.60	190	GSM 850	GPRS	31.0	29.98	-0.04	10 mm	N/A	0039M	3	1:2.76	back	0.384	1.265	0.486	A30
836.60	190	GSM 850	GPRS	31.0	29.98	-0.16	10 mm	N/A	0039M	3	1:2.76	front	0.152	1.265	0.192	
836.60	190	GSM 850	GPRS	31.0	29.98	0.09	10 mm	N/A	0039M	3	1:2.76	bottom	0.250	1.265	0.316	
836.60	190	GSM 850	GPRS	31.0	29.98	-0.10	10 mm	N/A	0039M	3	1:2.76	right	0.374	1.265	0.473	
1880.00	661	GSM 1900	GPRS	28.5	28.34	-0.03	10 mm	N/A	0023M	2	1:4.15	back	0.282	1.038	0.293	
1880.00	661	GSM 1900	GPRS	28.5	28.34	-0.02	10 mm	N/A	0023M	2	1:4.15	front	0.197	1.038	0.204	
1850.20	512	GSM 1900	GPRS	28.5	28.07	-0.03	10 mm	N/A	0023M	2	1:4.15	bottom	0.844	1.104	0.932	
1880.00	661	GSM 1900	GPRS	28.5	28.34	-0.06	10 mm	N/A	0023M	2	1:4.15	bottom	0.857	1.038	0.890	
1909.80	810	GSM 1900	GPRS	28.5	28.05	0.03	10 mm	N/A	0023M	2	1:4.15	bottom	0.924	1.109	1.025	A32
1880.00	661	GSM 1900	GPRS	28.5	28.34	0.10	10 mm	N/A	0023M	2	1:4.15	right	0.126	1.038	0.131	
1880.00	661	GSM 1900	GPRS	28.5	28.34	-0.09	10 mm	N/A	0023M	2	1:4.15	left	0.126	1.038	0.131	
836.60	4183	UMTS 850	RMC	25.5	24.45	-0.04	10 mm	0	0039M	N/A	1:1	back	0.364	1.274	0.464	
836.60	4183	UMTS 850	RMC	25.5	24.45	-0.02	10 mm	0	0039M	N/A	1:1	front	0.153	1.274	0.195	
836.60	4183	UMTS 850	RMC	25.5	24.45	-0.02	10 mm	0	0039M	N/A	1:1	bottom	0.245	1.274	0.312	
836.60	4183	UMTS 850	RMC	25.5	24.45	-0.01	10 mm	0	0039M	N/A	1:1	right	0.372	1.274	0.474	A34
1732.40	1412	UMTS 1750	RMC	21.0	20.26	-0.09	10 mm	N/A	0045M	N/A	1:1	back	0.424	1.186	0.503	
1732.40	1412	UMTS 1750	RMC	21.0	20.26	0.06	10 mm	N/A	0045M	N/A	1:1	front	0.203	1.186	0.241	
1712.40	1312	UMTS 1750	RMC	21.0	20.21	-0.05	10 mm	N/A	0045M	N/A	1:1	bottom	0.761	1.199	0.912	
1732.40	1412	UMTS 1750	RMC	21.0	20.26	-0.05	10 mm	N/A	0045M	N/A	1:1	bottom	0.770	1.186	0.913	A36
1752.60	1513	UMTS 1750	RMC	21.0	20.01	-0.11	10 mm	N/A	0045M	N/A	1:1	bottom	0.758	1.256	0.952	
1732.40	1412	UMTS 1750	RMC	21.0	20.26	-0.04	10 mm	N/A	0045M	N/A	1:1	right	0.108	1.186	0.128	
1732.40	1412	UMTS 1750	RMC	21.0	20.26	-0.05	10 mm	N/A	0045M	N/A	1:1	left	0.104	1.186	0.123	
1880.00	9400	UMTS 1900	RMC	21.5	20.74	-0.03	10 mm	N/A	0045M	N/A	1:1	back	0.315	1.191	0.375	
1880.00	9400	UMTS 1900	RMC	21.5	20.74	-0.11	10 mm	N/A	0045M	N/A	1:1	front	0.182	1.191	0.217	
1852.40	9262	UMTS 1900	RMC	21.5	20.86	-0.11	10 mm	N/A	0045M	N/A	1:1	bottom	0.642	1.159	0.744	
1880.00	9400	UMTS 1900	RMC	21.5	20.74	-0.07	10 mm	N/A	0045M	N/A	1:1	bottom	0.692	1.191	0.824	
1907.60	9538	UMTS 1900	RMC	21.5	20.65	-0.10	10 mm	N/A	0045M	N/A	1:1	bottom	0.741	1.216	0.901	A38
1880.00	9400	UMTS 1900	RMC	21.5	20.74	-0.06	10 mm	N/A	0045M	N/A	1:1	right	0.087	1.191	0.104	
1880.00	9400	UMTS 1900	RMC	21.5	20.74	-0.07	10 mm	N/A	0045M	N/A	1:1	left	0.087	1.191	0.104	
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Note: Blue entry represents variability measurement.

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Table 11-30
LTE Band 71 Hotspot SAR

MEASUREMENT RESULTS																					
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Ant State	Device Serial Number	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.																(W/kg)		(W/kg)	
680.50	133297	Mid	LTE Band 71	20	25.5	24.80	0.03	0	76	0025M	QPSK	1	0	10 mm	back	1:1	0.318	1.175	0.374	
680.50	133297	Mid	LTE Band 71	20	24.5	24.04	0.02	1	76	0025M	QPSK	50	25	10 mm	back	1:1	0.255	1.112	0.284	
680.50	133297	Mid	LTE Band 71	20	25.5	24.80	-0.06	0	76	0025M	QPSK	1	0	10 mm	front	1:1	0.217	1.175	0.255	
680.50	133297	Mid	LTE Band 71	20	24.5	24.04	0.02	1	76	0025M	QPSK	50	25	10 mm	front	1:1	0.168	1.112	0.187	
680.50	133297	Mid	LTE Band 71	20	25.5	24.80	-0.09	0	76	0025M	QPSK	1	0	10 mm	bottom	1:1	0.204	1.175	0.240	
680.50	133297	Mid	LTE Band 71	20	24.5	24.04	-0.04	1	76	0025M	QPSK	50	25	10 mm	bottom	1:1	0.164	1.112	0.182	
680.50	133297	Mid	LTE Band 71	20	25.5	24.80	-0.06	0	76	0025M	QPSK	1	0	10 mm	right	1:1	0.466	1.175	0.548	A40
680.50	133297	Mid	LTE Band 71	20	24.5	24.04	-0.08	1	76	0025M	QPSK	50	25	10 mm	right	1:1	0.358	1.112	0.398	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population											Body 1.6 W/kg (mW/g) averaged over 1 gram										

Table 11-31
LTE Band 12 Hotspot SAR

MEASUREMENT RESULTS																				
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Ant State	Device Serial Number	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.																(W/kg)		(W/kg)	
707.50	23095	Mid	LTE Band 12	10	25.5	24.51	-0.04	0	33	0004M	QPSK	1	25	10 mm	back	1:1	0.316	1.256	0.397	
707.50	23095	Mid	LTE Band 12	10	24.5	23.84	-0.07	1	33	0004M	QPSK	25	25	10 mm	back	1:1	0.255	1.164	0.297	
707.50	23095	Mid	LTE Band 12	10	25.5	24.51	0.00	0	33	0004M	QPSK	1	25	10 mm	front	1:1	0.181	1.256	0.227	
707.50	23095	Mid	LTE Band 12	10	24.5	23.84	0.01	1	33	0004M	QPSK	25	25	10 mm	front	1:1	0.136	1.164	0.158	
707.50	23095	Mid	LTE Band 12	10	25.5	24.51	-0.03	0	33	0004M	QPSK	1	25	10 mm	bottom	1:1	0.217	1.256	0.273	
707.50	23095	Mid	LTE Band 12	10	24.5	23.84	-0.01	1	33	0004M	QPSK	25	25	10 mm	bottom	1:1	0.165	1.164	0.192	
707.50	23095	Mid	LTE Band 12	10	25.5	24.51	0.00	0	33	0004M	QPSK	1	25	10 mm	right	1:1	0.378	1.256	0.475	A42
707.50	23095	Mid	LTE Band 12	10	24.5	23.84	-0.02	1	33	0004M	QPSK	25	25	10 mm	right	1:1	0.304	1.164	0.354	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population											Body 1.6 W/kg (mW/g) averaged over 1 gram									

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Table 11-32
LTE Band 13 Hotspot SAR

MEASUREMENT RESULTS																					
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Ant State	Device Serial Number	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.																(W/kg)		(W/kg)	
782.00	23230	Mid	LTE Band 13	10	25.5	24.77	-0.09	0	76	0004M	QPSK	1	49	10 mm	back	1:1	0.383	1.183	0.453	
782.00	23230	Mid	LTE Band 13	10	24.5	23.88	0.10	1	76	0004M	QPSK	25	25	10 mm	back	1:1	0.320	1.153	0.369	
782.00	23230	Mid	LTE Band 13	10	25.5	24.77	-0.06	0	76	0004M	QPSK	1	49	10 mm	front	1:1	0.195	1.183	0.231	
782.00	23230	Mid	LTE Band 13	10	24.5	23.88	-0.02	1	76	0004M	QPSK	25	25	10 mm	front	1:1	0.160	1.153	0.184	
782.00	23230	Mid	LTE Band 13	10	25.5	24.77	0.00	0	76	0004M	QPSK	1	49	10 mm	bottom	1:1	0.233	1.183	0.276	
782.00	23230	Mid	LTE Band 13	10	24.5	23.88	-0.05	1	76	0004M	QPSK	25	25	10 mm	bottom	1:1	0.192	1.153	0.221	
782.00	23230	Mid	LTE Band 13	10	25.5	24.77	0.02	0	76	0004M	QPSK	1	49	10 mm	right	1:1	0.401	1.183	0.474	A44
782.00	23230	Mid	LTE Band 13	10	24.5	23.88	0.02	1	76	0004M	QPSK	25	25	10 mm	right	1:1	0.339	1.153	0.391	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population								Body 1.6 W/kg (mW/g) averaged over 1 gram													

Table 11-33
LTE Band 14 Hotspot SAR

MEASUREMENT RESULTS																					
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Ant State	Device Serial Number	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.																(W/kg)		(W/kg)	
793.00	23330	Mid	LTE Band 14	10	25.5	24.80	0.07	0	76	0020M	QPSK	1	25	10 mm	back	1:1	0.393	1.175	0.462	
793.00	23330	Mid	LTE Band 14	10	24.5	24.05	-0.02	1	76	0020M	QPSK	25	0	10 mm	back	1:1	0.331	1.109	0.367	
793.00	23330	Mid	LTE Band 14	10	25.5	24.80	0.13	0	76	0020M	QPSK	1	25	10 mm	front	1:1	0.226	1.175	0.266	
793.00	23330	Mid	LTE Band 14	10	24.5	24.05	-0.03	1	76	0020M	QPSK	25	0	10 mm	front	1:1	0.182	1.109	0.202	
793.00	23330	Mid	LTE Band 14	10	25.5	24.80	0.12	0	76	0020M	QPSK	1	25	10 mm	bottom	1:1	0.244	1.175	0.287	
793.00	23330	Mid	LTE Band 14	10	24.5	24.05	0.01	1	76	0020M	QPSK	25	0	10 mm	bottom	1:1	0.201	1.109	0.223	
793.00	23330	Mid	LTE Band 14	10	25.5	24.80	-0.11	0	76	0020M	QPSK	1	25	10 mm	right	1:1	0.396	1.175	0.465	A46
793.00	23330	Mid	LTE Band 14	10	24.5	24.05	-0.05	1	76	0020M	QPSK	25	0	10 mm	right	1:1	0.348	1.109	0.386	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population								Body 1.6 W/kg (mW/g) averaged over 1 gram													

Table 11-34
LTE Band 26 (Cell) Hotspot SAR

MEASUREMENT RESULTS																					
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Ant State	Device Serial Number	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.																(W/kg)		(W/kg)	
831.50	26865	Mid	LTE Band 26 (Cell)	15	25.5	24.62	0.01	0	0	0025M	QPSK	1	36	10 mm	back	1:1	0.351	1.225	0.430	
831.50	26865	Mid	LTE Band 26 (Cell)	15	24.5	23.93	0.02	1	0	0025M	QPSK	36	18	10 mm	back	1:1	0.300	1.140	0.342	
831.50	26865	Mid	LTE Band 26 (Cell)	15	25.5	24.62	-0.02	0	0	0025M	QPSK	1	36	10 mm	front	1:1	0.160	1.225	0.196	
831.50	26865	Mid	LTE Band 26 (Cell)	15	24.5	23.93	-0.04	1	0	0025M	QPSK	36	18	10 mm	front	1:1	0.139	1.140	0.158	
831.50	26865	Mid	LTE Band 26 (Cell)	15	25.5	24.62	0.08	0	0	0025M	QPSK	1	36	10 mm	bottom	1:1	0.208	1.225	0.255	
831.50	26865	Mid	LTE Band 26 (Cell)	15	24.5	23.93	0.02	1	0	0025M	QPSK	36	18	10 mm	bottom	1:1	0.179	1.140	0.204	
831.50	26865	Mid	LTE Band 26 (Cell)	15	25.5	24.62	-0.03	0	0	0025M	QPSK	1	36	10 mm	right	1:1	0.410	1.225	0.502	A48
831.50	26865	Mid	LTE Band 26 (Cell)	15	24.5	23.93	-0.03	1	0	0025M	QPSK	36	18	10 mm	right	1:1	0.342	1.140	0.390	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population								Body 1.6 W/kg (mW/g) averaged over 1 gram													

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Table 11-35
LTE Band 5 (Cell) Hotspot SAR

MEASUREMENT RESULTS																					
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Ant State	Device Serial Number	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (1g) (W/kg)	Scaling Factor	Reported SAR (1g) (W/kg)	Plot #
MHz	Ch.																			
836.50	20525	Mid	LTE Band 5 (Cell)	10	25.5	24.63	-0.02	0	1	0039M	QPSK	1	49	10 mm	back	1:1	0.332	1.222	0.406	
836.50	20525	Mid	LTE Band 5 (Cell)	10	24.5	23.81	-0.03	1	1	0039M	QPSK	25	0	10 mm	back	1:1	0.305	1.172	0.357	
836.50	20525	Mid	LTE Band 5 (Cell)	10	25.5	24.63	0.00	0	1	0039M	QPSK	1	49	10 mm	front	1:1	0.173	1.222	0.211	
836.50	20525	Mid	LTE Band 5 (Cell)	10	24.5	23.81	0.05	1	1	0039M	QPSK	25	0	10 mm	front	1:1	0.129	1.172	0.151	
836.50	20525	Mid	LTE Band 5 (Cell)	10	25.5	24.63	0.02	0	1	0039M	QPSK	1	49	10 mm	bottom	1:1	0.201	1.222	0.246	
836.50	20525	Mid	LTE Band 5 (Cell)	10	24.5	23.81	0.04	1	1	0039M	QPSK	25	0	10 mm	bottom	1:1	0.185	1.172	0.217	
836.50	20525	Mid	LTE Band 5 (Cell)	10	25.5	24.63	-0.04	0	1	0039M	QPSK	1	49	10 mm	right	1:1	0.382	1.222	0.467	A50
836.50	20525	Mid	LTE Band 5 (Cell)	10	24.5	23.81	-0.04	1	1	0039M	QPSK	25	0	10 mm	right	1:1	0.347	1.172	0.407	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population											Body 1.6 W/kg (mW/g) averaged over 1 gram										

Table 11-36
LTE Band 66 (AWS) Hotspot SAR

MEASUREMENT RESULTS																					
1CC Uplink | 2CC Uplink	Component Carrier	FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Device Serial Number	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (1g) (W/kg)	Scaling Factor	Reported SAR (1g) (W/kg)	Plot #
		MHz	Ch.																		
1 CC Uplink	N/A	1720.00	132072	Low	LTE Band 66 (AWS)	20	20.5	20.05	-0.03	0	0045M	QPSK	1	0	10 mm	back	1:1	0.386	1.109	0.428	
1 CC Uplink	N/A	1720.00	132072	Low	LTE Band 66 (AWS)	20	20.5	20.14	-0.05	0	0045M	QPSK	50	0	10 mm	back	1:1	0.405	1.086	0.440	
1 CC Uplink	N/A	1720.00	132072	Low	LTE Band 66 (AWS)	20	20.5	20.05	0.04	0	0045M	QPSK	1	0	10 mm	front	1:1	0.185	1.109	0.205	
1 CC Uplink	N/A	1720.00	132072	Low	LTE Band 66 (AWS)	20	20.5	20.14	0.01	0	0045M	QPSK	50	0	10 mm	front	1:1	0.194	1.086	0.211	
1 CC Uplink	N/A	1720.00	132072	Low	LTE Band 66 (AWS)	20	20.5	20.05	-0.08	0	0045M	QPSK	1	0	10 mm	bottom	1:1	0.741	1.109	0.822	
1 CC Uplink	N/A	1745.00	132322	Mid	LTE Band 66 (AWS)	20	20.5	19.91	-0.12	0	0045M	QPSK	1	99	10 mm	bottom	1:1	0.715	1.146	0.819	
1 CC Uplink	N/A	1770.00	132572	High	LTE Band 66 (AWS)	20	20.5	19.89	-0.03	0	0045M	QPSK	1	0	10 mm	bottom	1:1	0.709	1.151	0.816	
1 CC Uplink	N/A	1720.00	132072	Low	LTE Band 66 (AWS)	20	20.5	20.14	-0.08	0	0045M	QPSK	50	0	10 mm	bottom	1:1	0.777	1.086	0.844	
1 CC Uplink	N/A	1745.00	132322	Mid	LTE Band 66 (AWS)	20	20.5	20.05	-0.07	0	0045M	QPSK	50	0	10 mm	bottom	1:1	0.757	1.109	0.840	
1 CC Uplink	N/A	1770.00	132572	High	LTE Band 66 (AWS)	20	20.5	20.01	-0.09	0	0045M	QPSK	50	0	10 mm	bottom	1:1	0.701	1.119	0.784	
1 CC Uplink	N/A	1720.00	132072	Low	LTE Band 66 (AWS)	20	20.5	20.04	-0.06	0	0045M	QPSK	100	0	10 mm	bottom	1:1	0.767	1.112	0.853	
1 CC Uplink	N/A	1715.00	132022	Low	LTE Band 66 (AWS)	10	20.5	19.83	-0.06	0	0045M	QPSK	50	0	10 mm	bottom	1:1	0.684	1.167	0.798	
2 CC Uplink CA_66C	PCC	1720.00	132072	Low	LTE Band 66 (AWS)	20	20.5	20.49	-0.10	0	0045M	QPSK	100	0	10 mm	bottom	1:1	0.834	1.002	0.836	A52
	SCC	1739.80	132270										100	0							
2 CC Uplink CA_66B	PCC	1715.00	132022	Low	LTE Band 66 (AWS)	10	20.5	20.13	-0.05	0	0045M	QPSK	50	0	10 mm	bottom	1:1	0.735	1.089	0.800	
	SCC	1724.90	132121										50	0							
1 CC Uplink	N/A	1720.00	132072	Low	LTE Band 66 (AWS)	20	20.5	20.05	-0.03	0	0045M	QPSK	1	0	10 mm	right	1:1	0.106	1.109	0.118	
1 CC Uplink	N/A	1720.00	132072	Low	LTE Band 66 (AWS)	20	20.5	20.14	-0.02	0	0045M	QPSK	50	0	10 mm	right	1:1	0.110	1.086	0.119	
1 CC Uplink	N/A	1720.00	132072	Low	LTE Band 66 (AWS)	20	20.5	20.05	-0.01	0	0045M	QPSK	1	0	10 mm	left	1:1	0.110	1.109	0.122	
1 CC Uplink	N/A	1720.00	132072	Low	LTE Band 66 (AWS)	20	20.5	20.14	-0.02	0	0045M	QPSK	50	0	10 mm	left	1:1	0.111	1.086	0.121	
2 CC Uplink CA_66C	PCC	1720.00	132072	Low	LTE Band 66 (AWS)	20	20.5	20.49	-0.04	0	0045M	QPSK	100	0	10 mm	bottom	1:1	0.822	1.002	0.824	
	SCC	1739.80	132270			20							100	0							
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population											Body 1.6 W/kg (mW/g) averaged over 1 gram										

Note: Blue entry represents variability measurement.

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Table 11-37
LTE Band 25 (PCS) Hotspot SAR

MEASUREMENT RESULTS																			
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Device Serial Number	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.															(W/kg)		(W/kg)	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	21.0	20.71	-0.03	0	0045M	QPSK	1	50	10 mm	back	1:1	0.328	1.069	0.351	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	21.0	20.75	0.00	0	0045M	QPSK	50	25	10 mm	back	1:1	0.338	1.059	0.358	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	21.0	20.71	-0.03	0	0045M	QPSK	1	50	10 mm	front	1:1	0.179	1.069	0.191	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	21.0	20.75	0.02	0	0045M	QPSK	50	25	10 mm	front	1:1	0.182	1.059	0.193	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	21.0	20.71	0.04	0	0045M	QPSK	1	50	10 mm	bottom	1:1	0.636	1.069	0.680	
1860.00	26140	Low	LTE Band 25 (PCS)	20	21.0	20.74	-0.08	0	0045M	QPSK	50	25	10 mm	bottom	1:1	0.594	1.062	0.631	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	21.0	20.75	-0.08	0	0045M	QPSK	50	25	10 mm	bottom	1:1	0.661	1.059	0.700	A54
1905.00	26590	High	LTE Band 25 (PCS)	20	21.0	20.63	0.00	0	0045M	QPSK	50	50	10 mm	bottom	1:1	0.649	1.089	0.707	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	21.0	20.71	0.00	0	0045M	QPSK	1	50	10 mm	right	1:1	0.098	1.069	0.105	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	21.0	20.75	-0.01	0	0045M	QPSK	50	25	10 mm	right	1:1	0.101	1.059	0.107	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	21.0	20.71	-0.03	0	0045M	QPSK	1	50	10 mm	left	1:1	0.077	1.069	0.082	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	21.0	20.75	0.03	0	0045M	QPSK	50	25	10 mm	left	1:1	0.080	1.059	0.085	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population													Body 1.6 W/kg (mW/g) averaged over 1 gram						

Table 11-38
LTE Band 30 Hotspot SAR

MEASUREMENT RESULTS																			
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Device Serial Number	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.															(W/kg)		(W/kg)	
2310.00	27710	Mid	LTE Band 30	10	21.0	20.49	0.00	0	0045M	QPSK	1	0	10 mm	back	1:1	0.315	1.125	0.354	
2310.00	27710	Mid	LTE Band 30	10	21.0	20.49	-0.03	0	0045M	QPSK	25	0	10 mm	back	1:1	0.324	1.125	0.365	
2310.00	27710	Mid	LTE Band 30	10	21.0	20.49	-0.07	0	0045M	QPSK	1	0	10 mm	front	1:1	0.307	1.125	0.345	
2310.00	27710	Mid	LTE Band 30	10	21.0	20.49	0.02	0	0045M	QPSK	25	0	10 mm	front	1:1	0.322	1.125	0.362	
2310.00	27710	Mid	LTE Band 30	10	21.0	20.49	-0.11	0	0045M	QPSK	1	0	10 mm	bottom	1:1	0.726	1.125	0.817	
2310.00	27710	Mid	LTE Band 30	10	21.0	20.49	-0.05	0	0045M	QPSK	25	0	10 mm	bottom	1:1	0.763	1.125	0.858	
2310.00	27710	Mid	LTE Band 30	10	21.0	20.48	0.01	0	0045M	QPSK	50	0	10 mm	bottom	1:1	0.780	1.127	0.879	A56
2310.00	27710	Mid	LTE Band 30	10	21.0	20.49	0.14	0	0045M	QPSK	1	0	10 mm	right	1:1	0.042	1.125	0.047	
2310.00	27710	Mid	LTE Band 30	10	21.0	20.49	0.13	0	0045M	QPSK	25	0	10 mm	right	1:1	0.044	1.125	0.050	
2310.00	27710	Mid	LTE Band 30	10	21.0	20.49	0.12	0	0045M	QPSK	1	0	10 mm	left	1:1	0.045	1.125	0.051	
2310.00	27710	Mid	LTE Band 30	10	21.0	20.49	0.20	0	0045M	QPSK	25	0	10 mm	left	1:1	0.048	1.125	0.054	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population													Body 1.6 W/kg (mW/g) averaged over 1 gram						

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Table 11-39
LTE Band 7 Hotspot SAR

MEASUREMENT RESULTS																			
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Device Serial Number	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.															(W/kg)		(W/kg)	
2510.00	20850	Low	LTE Band 7	20	20.5	20.34	-0.01	0	0006M	QPSK	1	99	10 mm	back	1:1	0.186	1.038	0.193	
2510.00	20850	Low	LTE Band 7	20	20.5	20.43	-0.02	0	0006M	QPSK	50	50	10 mm	back	1:1	0.198	1.016	0.201	
2510.00	20850	Low	LTE Band 7	20	20.5	20.34	-0.05	0	0006M	QPSK	1	99	10 mm	front	1:1	0.334	1.038	0.347	
2510.00	20850	Low	LTE Band 7	20	20.5	20.43	-0.02	0	0006M	QPSK	50	50	10 mm	front	1:1	0.360	1.016	0.366	
2510.00	20850	Low	LTE Band 7	20	20.5	20.34	-0.02	0	0006M	QPSK	1	99	10 mm	bottom	1:1	0.926	1.038	0.961	
2535.00	21100	Mid	LTE Band 7	20	20.5	20.11	-0.08	0	0006M	QPSK	1	0	10 mm	bottom	1:1	0.850	1.094	0.930	
2560.00	21350	High	LTE Band 7	20	20.5	19.97	-0.08	0	0006M	QPSK	1	0	10 mm	bottom	1:1	0.770	1.130	0.870	
2510.00	20850	Low	LTE Band 7	20	20.5	20.43	-0.02	0	0006M	QPSK	50	50	10 mm	bottom	1:1	0.939	1.016	0.954	
2535.00	21100	Mid	LTE Band 7	20	20.5	20.27	-0.06	0	0006M	QPSK	50	0	10 mm	bottom	1:1	0.861	1.054	0.907	
2560.00	21350	High	LTE Band 7	20	20.5	20.03	-0.11	0	0006M	QPSK	50	0	10 mm	bottom	1:1	0.780	1.114	0.869	
2510.00	20850	Low	LTE Band 7	20	20.5	20.33	-0.01	0	0006M	QPSK	100	0	10 mm	bottom	1:1	0.949	1.040	0.987	A58
2510.00	20850	Low	LTE Band 7	20	20.5	20.34	-0.20	0	0006M	QPSK	1	99	10 mm	right	1:1	0.081	1.038	0.084	
2510.00	20850	Low	LTE Band 7	20	20.5	20.43	-0.07	0	0006M	QPSK	50	50	10 mm	right	1:1	0.073	1.016	0.074	
2510.00	20850	Low	LTE Band 7	20	20.5	20.34	-0.18	0	0006M	QPSK	1	99	10 mm	left	1:1	0.080	1.038	0.083	
2510.00	20850	Low	LTE Band 7	20	20.5	20.43	0.04	0	0006M	QPSK	50	50	10 mm	left	1:1	0.084	1.016	0.085	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population													Body 1.6 W/kg (mW/g) averaged over 1 gram						

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Table 11-40
LTE Band 41 Hotspot SAR

MEASUREMENT RESULTS																						
1 CC Uplink | 2 CC Uplink, Power Class	Component Carrier	FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Device Serial Number	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
		MHz	Ch.															(W/kg)		(W/kg)	
1 CC Uplink - Power Class 3	N/A	2636.50	41055	Mid-High	LTE Band 41	20	23.0	22.18	-0.02	0	0045M	QPSK	1	0	10 mm	back	1:1.58	0.182	1.208	0.220	
1 CC Uplink - Power Class 3	N/A	2636.50	41055	Mid-High	LTE Band 41	20	23.0	22.25	-0.01	0	0045M	QPSK	50	0	10 mm	back	1:1.58	0.191	1.189	0.227	
1 CC Uplink - Power Class 3	N/A	2636.50	41055	Mid-High	LTE Band 41	20	23.0	22.18	0.06	0	0045M	QPSK	1	0	10 mm	front	1:1.58	0.312	1.208	0.377	
1 CC Uplink - Power Class 3	N/A	2636.50	41055	Mid-High	LTE Band 41	20	23.0	22.25	0.04	0	0045M	QPSK	50	0	10 mm	front	1:1.58	0.323	1.189	0.384	
1 CC Uplink - Power Class 3	N/A	2506.00	39750	Low	LTE Band 41	20	23.0	21.92	0.03	0	0045M	QPSK	1	99	10 mm	bottom	1:1.58	0.903	1.282	1.158	
1 CC Uplink - Power Class 3	N/A	2549.50	40185	Low-Mid	LTE Band 41	20	23.0	21.91	0.04	0	0045M	QPSK	1	0	10 mm	bottom	1:1.58	0.780	1.285	1.002	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	23.0	21.85	0.04	0	0045M	QPSK	1	0	10 mm	bottom	1:1.58	0.594	1.303	0.774	
1 CC Uplink - Power Class 3	N/A	2636.50	41055	Mid-High	LTE Band 41	20	23.0	22.18	-0.04	0	0045M	QPSK	1	0	10 mm	bottom	1:1.58	0.670	1.208	0.809	
1 CC Uplink - Power Class 3	N/A	2680.00	41490	High	LTE Band 41	20	23.0	22.14	-0.16	0	0045M	QPSK	1	99	10 mm	bottom	1:1.58	0.714	1.219	0.870	
1 CC Uplink - Power Class 3	N/A	2506.00	39750	Low	LTE Band 41	20	23.0	22.15	0.11	0	0045M	QPSK	50	50	10 mm	bottom	1:1.58	0.963	1.216	1.171	
1 CC Uplink - Power Class 3	N/A	2549.50	40185	Low-Mid	LTE Band 41	20	23.0	22.13	0.00	0	0045M	QPSK	50	0	10 mm	bottom	1:1.58	0.752	1.222	0.919	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	23.0	22.12	-0.01	0	0045M	QPSK	50	0	10 mm	bottom	1:1.58	0.614	1.225	0.752	
1 CC Uplink - Power Class 3	N/A	2636.50	41055	Mid-High	LTE Band 41	20	23.0	22.25	-0.10	0	0045M	QPSK	50	0	10 mm	bottom	1:1.58	0.702	1.189	0.835	
1 CC Uplink - Power Class 3	N/A	2680.00	41490	High	LTE Band 41	20	23.0	22.23	-0.19	0	0045M	QPSK	50	50	10 mm	bottom	1:1.58	0.727	1.194	0.868	
1 CC Uplink - Power Class 3	N/A	2636.50	41055	Mid-High	LTE Band 41	20	23.0	22.17	-0.08	0	0045M	QPSK	100	0	10 mm	bottom	1:1.58	0.705	1.211	0.854	
1 CC Uplink - Power Class 2	N/A	2506.00	39750	Low	LTE Band 41	20	23.0	21.69	-0.06	0	0045M	QPSK	50	50	10 mm	bottom	1:2.31	0.630	1.352	0.852	
2 CC Uplink - Power Class 3	PCC	2506.00	39750	Low	LTE Band 41	20	23.0	22.51	-0.19	0	0045M	QPSK	50	50	10 mm	bottom	1:1.58	1.030	1.119	1.153	A60
	SCC	2525.80	39948										50	0							
2 CC Uplink - Power Class 2	PCC	2506.00	39750	Low	LTE Band 41	20	23.0	22.15	-0.03	0	0045M	QPSK	50	50	10 mm	bottom	1:2.31	0.694	1.216	0.844	
	SCC	2525.80	39948										50	0							
1 CC Uplink - Power Class 3	N/A	2636.50	41055	Mid-High	LTE Band 41	20	23.0	22.18	-0.09	0	0045M	QPSK	1	0	10 mm	right	1:1.58	0.104	1.208	0.126	
1 CC Uplink - Power Class 3	N/A	2636.50	41055	Mid-High	LTE Band 41	20	23.0	22.25	-0.03	0	0045M	QPSK	50	0	10 mm	right	1:1.58	0.109	1.189	0.130	
1 CC Uplink - Power Class 3	N/A	2636.50	41055	Mid-High	LTE Band 41	20	23.0	22.18	-0.09	0	0045M	QPSK	1	0	10 mm	left	1:1.58	0.066	1.208	0.080	
1 CC Uplink - Power Class 3	N/A	2636.50	41055	Mid-High	LTE Band 41	20	23.0	22.25	0.05	0	0045M	QPSK	50	0	10 mm	left	1:1.58	0.069	1.189	0.082	
2 CC Uplink - Power Class 3	PCC	2506.00	39750	Low	LTE Band 41	20	23.0	22.51	-0.07	0	0045M	QPSK	50	50	10 mm	bottom	1:1.58	0.980	1.119	1.097	
	SCC	2525.80	39948										50	0							
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population													Body 1.6 W/kg (mW/g) averaged over 1 gram								

Note: Blue entry represents variability measurement.

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Table 11-41
WLAN Hotspot SAR

MEASUREMENT RESULTS																			
FREQUENCY		Mode	Service	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Spacing	Antenna Config.	Device Serial Number	Data Rate (Mbps)	Side	Duty Cycle (%)	Peak SAR of Area Scan	SAR (1g)	Scaling Factor (Power)	Scaling Factor (Duty Cycle)	Reported SAR (1g)	Plot #
MHz	Ch.													W/kg	(W/kg)			(W/kg)	
2412	1	802.11b	DSSS	22	20.0	19.97	0.19	10 mm	1	0001M	1	back	99.9	0.317	0.278	1.007	1.001	**0.280**	A62
2412	1	802.11b	DSSS	22	20.0	19.97	0.14	10 mm	1	0001M	1	front	99.9	0.074	-	1.007	1.001	-	
2412	1	802.11b	DSSS	22	20.0	19.97	0.14	10 mm	1	0001M	1	top	99.9	0.274	-	1.007	1.001	-	
2412	1	802.11b	DSSS	22	20.0	19.97	0.18	10 mm	1	0001M	1	right	99.9	0.237	-	1.007	1.001	-	
2412	1	802.11b	DSSS	22	20.0	19.98	0.16	10 mm	2	0001M	1	back	99.9	0.187	0.190	1.005	1.001	0.191	
2412	1	802.11b	DSSS	22	20.0	19.98	0.16	10 mm	2	0001M	1	front	99.9	0.052	-	1.005	1.001	-	
2412	1	802.11b	DSSS	22	20.0	19.98	-0.12	10 mm	2	0001M	1	top	99.9	0.111	-	1.005	1.001	-	
2412	1	802.11b	DSSS	22	20.0	19.98	0.14	10 mm	2	0001M	1	left	99.9	0.073	-	1.005	1.001	-	
5785	157	802.11a	OFDM	20	18.0	17.97	-0.07	10 mm	1	0003M	6	back	98.8	0.429	0.207	1.007	1.012	**0.211**	A64
5785	157	802.11a	OFDM	20	18.0	17.97	0.19	10 mm	1	0003M	6	front	98.8	0.076	-	1.007	1.012	-	
5785	157	802.11a	OFDM	20	18.0	17.97	0.15	10 mm	1	0003M	6	top	98.8	0.189	-	1.007	1.012	-	
5785	157	802.11a	OFDM	20	18.0	17.97	0.16	10 mm	1	0003M	6	right	98.8	0.129	-	1.007	1.012	-	
5785	157	802.11a	OFDM	20	18.0	17.86	0.14	10 mm	2	0003M	6	back	98.7	0.132	-	1.033	1.013	-	
5785	157	802.11a	OFDM	20	18.0	17.86	0.19	10 mm	2	0003M	6	front	98.7	0.038	-	1.033	1.013	-	
5785	157	802.11a	OFDM	20	18.0	17.86	-0.13	10 mm	2	0003M	6	top	98.7	0.267	0.108	1.033	1.013	0.113	
5785	157	802.11a	OFDM	20	18.0	17.86	0.00	10 mm	2	0003M	6	left	98.7	0.032	-	1.033	1.013	-	

ANSI / IEEE C95.1 1992 - SAFETY LIMIT	Body
Spatial Peak	1.6 W/kg (mW/g)
Uncontrolled Exposure/General Population	averaged over 1 gram

Table 11-42
DSS Hotspot SAR

MEASUREMENT RESULTS																
FREQUENCY		Mode	Service	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Spacing	Device Serial Number	Data Rate (Mbps)	Side	Duty Cycle (%)	SAR (1g)	Scaling Factor (Cond Power)	Scaling Factor (Duty Cycle)	Reported SAR (1g)	Plot #
MHz	Ch.											(W/kg)			(W/kg)	
2402	0	Bluetooth	FHSS	16.5	16.18	0.07	10 mm	0025M	1	back	77.1	0.032	1.076	1.297	**0.045**	A66
2402	0	Bluetooth	FHSS	16.5	16.18	0.13	10 mm	0025M	1	front	77.1	0.005	1.076	1.297	0.007	
2402	0	Bluetooth	FHSS	16.5	16.18	-0.10	10 mm	0025M	1	top	77.1	0.024	1.076	1.297	0.033	
2402	0	Bluetooth	FHSS	16.5	16.18	0.03	10 mm	0025M	1	right	77.1	0.021	1.076	1.297	0.029	

ANSI / IEEE C95.1 1992 - SAFETY LIMIT	Body
Spatial Peak	1.6 W/kg (mW/g)
Uncontrolled Exposure/General Population	averaged over 1 gram

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11.4 Standalone Phablet SAR Data

Table 11-43
GPRS/UMTS/CDMA Phablet SAR Data

MEASUREMENT RESULTS															
FREQUENCY		Mode	Service	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Spacing	Device Serial Number	# of GPRS Slots	Duty Cycle	Side	SAR (10g)	Scaling Factor	Reported SAR (10g)	Plot #
MHz	Ch.											(W/kg)		(W/kg)	
1880.00	600	PCS CDMA	EVDO Rev. 0	26.0	24.54	-0.13	7 mm	0023M	N/A	1:1	back	0.714	1.400	1.000	
1880.00	600	PCS CDMA	EVDO Rev. 0	26.0	24.54	0.09	0 mm	0023M	N/A	1:1	front	1.170	1.400	1.638	
1880.00	600	PCS CDMA	EVDO Rev. 0	26.0	24.54	-0.02	11 mm	0023M	N/A	1:1	bottom	0.966	1.400	1.352	
1880.00	600	PCS CDMA	EVDO Rev. 0	26.0	24.54	-0.12	0 mm	0023M	N/A	1:1	right	0.631	1.400	0.883	
1880.00	600	PCS CDMA	EVDO Rev. 0	26.0	24.54	0.02	0 mm	0023M	N/A	1:1	left	0.321	1.400	0.449	
1880.00	600	PCS CDMA	EVDO Rev. 0	20.5	20.09	-0.03	0 mm	0023M	N/A	1:1	back	0.983	1.099	1.080	
1851.25	25	PCS CDMA	EVDO Rev. 0	20.5	20.12	-0.12	0 mm	0023M	N/A	1:1	bottom	2.300	1.091	2.509	
1880.00	600	PCS CDMA	EVDO Rev. 0	20.5	20.09	-0.12	0 mm	0023M	N/A	1:1	bottom	2.450	1.099	2.693	A67
1908.75	1175	PCS CDMA	EVDO Rev. 0	20.5	20.08	-0.12	0 mm	0023M	N/A	1:1	bottom	2.370	1.102	2.612	
1880.00	661	GSM 1900	GPRS	30.5	29.56	-0.12	7 mm	0023M	2	1:4.15	back	0.556	1.242	0.691	
1880.00	661	GSM 1900	GPRS	30.5	29.56	-0.10	0 mm	0023M	2	1:4.15	front	0.851	1.242	1.057	
1880.00	661	GSM 1900	GPRS	30.5	29.56	-0.08	11 mm	0023M	2	1:4.15	bottom	0.670	1.242	0.832	
1880.00	661	GSM 1900	GPRS	30.5	29.56	-0.01	0 mm	0023M	2	1:4.15	right	0.447	1.242	0.555	
1880.00	661	GSM 1900	GPRS	30.5	29.56	-0.10	0 mm	0023M	2	1:4.15	left	0.237	1.242	0.294	
1880.00	661	GSM 1900	GPRS	27.5	27.09	-0.06	0 mm	0023M	2	1:4.15	back	1.230	1.099	1.352	
1850.20	512	GSM 1900	GPRS	27.5	27.17	0.01	0 mm	0023M	2	1:4.15	bottom	2.170	1.079	2.341	
1880.00	661	GSM 1900	GPRS	27.5	27.09	-0.15	0 mm	0023M	2	1:4.15	bottom	2.360	1.099	2.594	A68
1909.80	810	GSM 1900	GPRS	27.5	26.89	-0.02	0 mm	0023M	2	1:4.15	bottom	2.130	1.151	2.452	
1732.40	1412	UMTS 1750	RMC	25.5	24.33	-0.12	7 mm	0023M	N/A	1:1	back	1.040	1.309	1.361	
1732.40	1412	UMTS 1750	RMC	25.5	24.33	-0.12	0 mm	0023M	N/A	1:1	front	1.170	1.309	1.532	
1712.40	1312	UMTS 1750	RMC	25.5	24.31	-0.03	11 mm	0023M	N/A	1:1	bottom	1.750	1.315	2.301	
1732.40	1412	UMTS 1750	RMC	25.5	24.33	-0.03	11 mm	0023M	N/A	1:1	bottom	1.780	1.309	2.330	
1752.60	1513	UMTS 1750	RMC	25.5	24.22	-0.04	11 mm	0023M	N/A	1:1	bottom	1.680	1.343	2.256	
1732.40	1412	UMTS 1750	RMC	25.5	24.33	-0.02	0 mm	0023M	N/A	1:1	right	0.672	1.309	0.880	
1732.40	1412	UMTS 1750	RMC	25.5	24.33	0.00	0 mm	0023M	N/A	1:1	left	0.382	1.309	0.500	
1732.40	1412	UMTS 1750	RMC	20.5	19.75	-0.07	0 mm	0023M	N/A	1:1	back	1.310	1.189	1.558	
1712.40	1312	UMTS 1750	RMC	20.5	19.72	-0.08	0 mm	0023M	N/A	1:1	bottom	2.340	1.197	2.801	
1732.40	1412	UMTS 1750	RMC	20.5	19.75	-0.12	0 mm	0023M	N/A	1:1	bottom	2.380	1.189	2.830	A69
1752.60	1513	UMTS 1750	RMC	20.5	19.54	-0.09	0 mm	0023M	N/A	1:1	bottom	2.220	1.247	2.768	
1880.00	9400	UMTS 1900	RMC	25.5	24.24	0.06	7 mm	0020M	N/A	1:1	back	0.884	1.337	1.182	
1880.00	9400	UMTS 1900	RMC	25.5	24.24	0.05	0 mm	0020M	N/A	1:1	front	1.160	1.337	1.551	
1880.00	9400	UMTS 1900	RMC	25.5	24.24	-0.11	11 mm	0020M	N/A	1:1	bottom	0.918	1.337	1.227	
1880.00	9400	UMTS 1900	RMC	25.5	24.24	0.01	0 mm	0020M	N/A	1:1	right	0.577	1.337	0.771	
1880.00	9400	UMTS 1900	RMC	25.5	24.24	-0.12	0 mm	0020M	N/A	1:1	left	0.292	1.337	0.390	
1880.00	9400	UMTS 1900	RMC	21.0	19.73	-0.10	0 mm	0045M	N/A	1:1	back	0.879	1.340	1.178	
1852.40	9262	UMTS 1900	RMC	21.0	19.87	-0.12	0 mm	0045M	N/A	1:1	bottom	1.850	1.297	2.399	
1880.00	9400	UMTS 1900	RMC	21.0	19.73	-0.12	0 mm	0045M	N/A	1:1	bottom	1.940	1.340	2.600	A70
1907.60	9538	UMTS 1900	RMC	21.0	19.68	-0.13	0 mm	0045M	N/A	1:1	bottom	1.900	1.355	2.575	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population								Phablet 4.0 W/kg (mW/g) averaged over 10 grams							

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Table 11-44
LTE Band 66 (AWS) Phablet SAR

MEASUREMENT RESULTS																				
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Device Serial Number	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (10g)	Scaling Factor	Reported SAR (10g)	Plot #
MHz	Ch.															(W/kg)		(W/kg)	
1720.00	132072	Low	LTE Band 66 (AWS)	20	25.0	24.41	-0.07	0	0004M	QPSK	1	0	7 mm	back	1:1	1.030	1.146	1.180	
1720.00	132072	Low	LTE Band 66 (AWS)	20	24.0	23.39	-0.09	1	0004M	QPSK	50	0	7 mm	back	1:1	0.865	1.151	0.996	
1720.00	132072	Low	LTE Band 66 (AWS)	20	25.0	24.41	0.12	0	0004M	QPSK	1	0	0 mm	front	1:1	1.240	1.146	1.421	
1720.00	132072	Low	LTE Band 66 (AWS)	20	24.0	23.39	0.03	1	0004M	QPSK	50	0	0 mm	front	1:1	1.010	1.151	1.163	
1720.00	132072	Low	LTE Band 66 (AWS)	20	25.0	24.41	-0.18	0	0004M	QPSK	1	0	11 mm	bottom	1:1	1.870	1.146	2.143	
1745.00	132322	Mid	LTE Band 66 (AWS)	20	25.0	24.31	-0.06	0	0004M	QPSK	1	0	11 mm	bottom	1:1	1.850	1.172	2.168	
1770.00	132572	High	LTE Band 66 (AWS)	20	25.0	24.38	-0.14	0	0004M	QPSK	1	0	11 mm	bottom	1:1	1.840	1.153	2.122	
1720.00	132072	Low	LTE Band 66 (AWS)	20	24.0	23.39	-0.06	1	0004M	QPSK	50	0	11 mm	bottom	1:1	1.550	1.151	1.784	
1720.00	132072	Low	LTE Band 66 (AWS)	20	24.0	23.37	-0.12	1	0004M	QPSK	100	0	11 mm	bottom	1:1	1.520	1.156	1.757	
1720.00	132072	Low	LTE Band 66 (AWS)	20	25.0	24.41	-0.14	0	0004M	QPSK	1	0	0 mm	right	1:1	0.611	1.146	0.700	
1720.00	132072	Low	LTE Band 66 (AWS)	20	24.0	23.39	-0.14	1	0004M	QPSK	50	0	0 mm	right	1:1	0.519	1.151	0.597	
1720.00	132072	Low	LTE Band 66 (AWS)	20	25.0	24.41	-0.18	0	0004M	QPSK	1	0	0 mm	left	1:1	0.379	1.146	0.434	
1720.00	132072	Low	LTE Band 66 (AWS)	20	24.0	23.39	-0.08	1	0004M	QPSK	50	0	0 mm	left	1:1	0.315	1.151	0.363	
1720.00	132072	Low	LTE Band 66 (AWS)	20	20.0	18.94	-0.21	0	0006M	QPSK	1	99	0 mm	back	1:1	0.953	1.276	1.216	
1720.00	132072	Low	LTE Band 66 (AWS)	20	20.0	19.12	-0.17	0	0006M	QPSK	50	50	0 mm	back	1:1	1.000	1.225	1.225	
1720.00	132072	Low	LTE Band 66 (AWS)	20	20.0	18.94	-0.20	0	0006M	QPSK	1	99	0 mm	bottom	1:1	2.040	1.276	2.603	
1745.00	132322	Mid	LTE Band 66 (AWS)	20	20.0	18.88	-0.19	0	0006M	QPSK	1	99	0 mm	bottom	1:1	2.070	1.294	2.679	
1770.00	132572	High	LTE Band 66 (AWS)	20	20.0	18.85	-0.12	0	0006M	QPSK	1	0	0 mm	bottom	1:1	2.100	1.303	2.736	
1720.00	132072	Low	LTE Band 66 (AWS)	20	20.0	19.12	-0.20	0	0006M	QPSK	50	50	0 mm	bottom	1:1	2.170	1.225	2.658	
1745.00	132322	Mid	LTE Band 66 (AWS)	20	20.0	19.07	-0.18	0	0006M	QPSK	50	50	0 mm	bottom	1:1	2.190	1.239	2.713	
1770.00	132572	High	LTE Band 66 (AWS)	20	20.0	18.99	-0.20	0	0006M	QPSK	50	50	0 mm	bottom	1:1	2.170	1.262	2.739	
1720.00	132072	Low	LTE Band 66 (AWS)	20	20.0	18.93	-0.20	0	0006M	QPSK	100	0	0 mm	bottom	1:1	2.230	1.279	2.852	A71
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																Phablet 4.0 W/kg (mW/g) averaged over 10 grams			

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Table 11-45
LTE Band 25 (PCS) Phablet SAR

MEASUREMENT RESULTS																				
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Device Serial Number	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (10g)	Scaling Factor	Reported SAR (10g)	Plot #
MHz	Ch.															(W/kg)		(W/kg)	
1860.00	26140	Low	LTE Band 25 (PCS)	20	25.0	24.51	-0.05	0	0023M	QPSK	1	50	7 mm	back	1:1	0.710	1.119	0.794	
1860.00	26140	Low	LTE Band 25 (PCS)	20	24.0	23.64	0.00	1	0023M	QPSK	50	25	7 mm	back	1:1	0.577	1.086	0.627	
1860.00	26140	Low	LTE Band 25 (PCS)	20	25.0	24.51	-0.11	0	0023M	QPSK	1	50	0 mm	front	1:1	1.170	1.119	1.309	
1860.00	26140	Low	LTE Band 25 (PCS)	20	24.0	23.64	0.04	1	0023M	QPSK	50	25	0 mm	front	1:1	0.958	1.086	1.040	
1860.00	26140	Low	LTE Band 25 (PCS)	20	25.0	24.51	-0.07	0	0023M	QPSK	1	50	11 mm	bottom	1:1	0.949	1.119	1.062	
1860.00	26140	Low	LTE Band 25 (PCS)	20	24.0	23.64	-0.04	1	0023M	QPSK	50	25	11 mm	bottom	1:1	0.768	1.086	0.834	
1860.00	26140	Low	LTE Band 25 (PCS)	20	25.0	24.51	0.00	0	0023M	QPSK	1	50	0 mm	right	1:1	0.574	1.119	0.642	
1860.00	26140	Low	LTE Band 25 (PCS)	20	24.0	23.64	-0.08	1	0023M	QPSK	50	25	0 mm	right	1:1	0.474	1.086	0.515	
1860.00	26140	Low	LTE Band 25 (PCS)	20	25.0	24.51	-0.08	0	0023M	QPSK	1	50	0 mm	left	1:1	0.355	1.119	0.397	
1860.00	26140	Low	LTE Band 25 (PCS)	20	24.0	23.64	0.00	1	0023M	QPSK	50	25	0 mm	left	1:1	0.286	1.086	0.311	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	21.0	20.71	0.11	0	0045M	QPSK	1	50	0 mm	back	1:1	0.970	1.069	1.037	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	21.0	20.75	0.01	0	0045M	QPSK	50	25	0 mm	back	1:1	1.020	1.059	1.080	
1860.00	26140	Low	LTE Band 25 (PCS)	20	21.0	20.65	0.18	0	0045M	QPSK	1	0	0 mm	bottom	1:1	2.300	1.084	2.493	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	21.0	20.71	0.13	0	0045M	QPSK	1	50	0 mm	bottom	1:1	2.220	1.069	2.373	
1905.00	26590	High	LTE Band 25 (PCS)	20	21.0	20.54	0.04	0	0045M	QPSK	1	99	0 mm	bottom	1:1	2.280	1.112	2.535	
1860.00	26140	Low	LTE Band 25 (PCS)	20	21.0	20.74	0.09	0	0045M	QPSK	50	25	0 mm	bottom	1:1	2.350	1.062	2.496	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	21.0	20.75	0.14	0	0045M	QPSK	50	25	0 mm	bottom	1:1	2.280	1.059	2.415	
1905.00	26590	High	LTE Band 25 (PCS)	20	21.0	20.63	0.07	0	0045M	QPSK	50	50	0 mm	bottom	1:1	2.300	1.089	2.505	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	21.0	20.70	0.06	0	0045M	QPSK	100	0	0 mm	bottom	1:1	2.410	1.072	2.584	A72
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																Phablet 4.0 W/kg (mW/g) averaged over 10 grams			

Table 11-46
LTE Band 30 Phablet SAR

MEASUREMENT RESULTS																				
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Device Serial Number	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (10g)	Scaling Factor	Reported SAR (10g)	Plot #
MHz	Ch.															(W/kg)		(W/kg)	
2310.00	27710	Mid	LTE Band 30	10	25.0	24.28	-0.04	0	0007M	QPSK	1	0	7 mm	back	1:1	0.644	1.180	0.760	
2310.00	27710	Mid	LTE Band 30	10	24.0	23.35	-0.13	1	0007M	QPSK	25	0	7 mm	back	1:1	0.527	1.161	0.612	
2310.00	27710	Mid	LTE Band 30	10	25.0	24.28	-0.12	0	0007M	QPSK	1	0	0 mm	front	1:1	1.500	1.180	1.770	
2310.00	27710	Mid	LTE Band 30	10	24.0	23.35	0.12	1	0007M	QPSK	25	0	0 mm	front	1:1	1.230	1.161	1.428	
2310.00	27710	Mid	LTE Band 30	10	25.0	24.28	-0.04	0	0007M	QPSK	1	0	11 mm	bottom	1:1	0.837	1.180	0.988	
2310.00	27710	Mid	LTE Band 30	10	24.0	23.35	-0.06	1	0007M	QPSK	25	0	11 mm	bottom	1:1	0.692	1.161	0.803	
2310.00	27710	Mid	LTE Band 30	10	25.0	24.28	-0.02	0	0007M	QPSK	1	0	0 mm	right	1:1	0.433	1.180	0.511	
2310.00	27710	Mid	LTE Band 30	10	24.0	23.35	-0.10	1	0007M	QPSK	25	0	0 mm	right	1:1	0.348	1.161	0.404	
2310.00	27710	Mid	LTE Band 30	10	25.0	24.28	-0.13	0	0007M	QPSK	1	0	0 mm	left	1:1	0.283	1.180	0.334	
2310.00	27710	Mid	LTE Band 30	10	24.0	23.35	-0.02	1	0007M	QPSK	25	0	0 mm	left	1:1	0.212	1.161	0.246	
2310.00	27710	Mid	LTE Band 30	10	21.0	20.49	-0.07	0	0045M	QPSK	1	0	0 mm	back	1:1	1.060	1.125	1.193	
2310.00	27710	Mid	LTE Band 30	10	21.0	20.49	-0.09	0	0045M	QPSK	25	0	0 mm	back	1:1	1.110	1.125	1.249	
2310.00	27710	Mid	LTE Band 30	10	21.0	20.49	-0.12	0	0045M	QPSK	1	0	0 mm	bottom	1:1	2.410	1.125	2.711	
2310.00	27710	Mid	LTE Band 30	10	21.0	20.49	-0.04	0	0045M	QPSK	25	0	0 mm	bottom	1:1	2.580	1.125	2.903	A73
2310.00	27710	Mid	LTE Band 30	10	21.0	20.48	-0.10	0	0045M	QPSK	50	0	0 mm	bottom	1:1	2.560	1.127	2.885	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																Phablet 4.0 W/kg (mW/g) averaged over 10 grams			

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Table 11-47
LTE Band 7 Phablet SAR

MEASUREMENT RESULTS																			
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Device Serial Number	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (10g)	Scaling Factor	Reported SAR (10g)	Plot #
MHz	Ch.															(W/kg)		(W/kg)	
2510.00	20850	Low	LTE Band 7	20	25.0	24.72	-0.03	0	0025M	QPSK	1	99	7 mm	back	1:1	0.599	1.067	0.639	
2510.00	20850	Low	LTE Band 7	20	24.0	23.76	-0.11	1	0025M	QPSK	50	0	7 mm	back	1:1	0.469	1.057	0.496	
2510.00	20850	Low	LTE Band 7	20	25.0	24.72	0.01	0	0025M	QPSK	1	99	0 mm	front	1:1	2.700	1.067	2.881	A74
2535.00	21100	Mid	LTE Band 7	20	25.0	24.48	0.03	0	0025M	QPSK	1	0	0 mm	front	1:1	2.590	1.127	**2.919**	
2560.00	21350	High	LTE Band 7	20	25.0	24.35	-0.09	0	0025M	QPSK	1	0	0 mm	front	1:1	2.230	1.161	2.589	
2510.00	20850	Low	LTE Band 7	20	24.0	23.76	-0.06	1	0025M	QPSK	50	0	0 mm	front	1:1	2.200	1.057	2.325	
2535.00	21100	Mid	LTE Band 7	20	24.0	23.48	0.03	1	0025M	QPSK	50	25	0 mm	front	1:1	2.080	1.127	2.344	
2560.00	21350	High	LTE Band 7	20	24.0	23.17	0.02	1	0025M	QPSK	50	50	0 mm	front	1:1	1.870	1.211	2.265	
2510.00	20850	Low	LTE Band 7	20	24.0	23.55	0.00	1	0025M	QPSK	100	0	0 mm	front	1:1	2.240	1.109	2.484	
2510.00	20850	Low	LTE Band 7	20	25.0	24.72	0.06	0	0025M	QPSK	1	99	11 mm	bottom	1:1	1.370	1.067	1.462	
2510.00	20850	Low	LTE Band 7	20	24.0	23.76	-0.01	1	0025M	QPSK	50	0	11 mm	bottom	1:1	1.140	1.057	1.205	
2510.00	20850	Low	LTE Band 7	20	25.0	24.72	-0.19	0	0025M	QPSK	1	99	0 mm	right	1:1	0.910	1.067	0.971	
2510.00	20850	Low	LTE Band 7	20	24.0	23.76	-0.15	1	0025M	QPSK	50	0	0 mm	right	1:1	0.712	1.057	0.753	
2510.00	20850	Low	LTE Band 7	20	25.0	24.72	-0.03	0	0025M	QPSK	1	99	0 mm	left	1:1	0.637	1.067	0.680	
2510.00	20850	Low	LTE Band 7	20	24.0	23.76	-0.03	1	0025M	QPSK	50	0	0 mm	left	1:1	0.478	1.057	0.505	
2510.00	20850	Low	LTE Band 7	20	19.5	19.19	-0.09	0	0006M	QPSK	1	99	0 mm	back	1:1	0.645	1.074	0.693	
2510.00	20850	Low	LTE Band 7	20	19.5	19.32	-0.06	0	0006M	QPSK	50	50	0 mm	back	1:1	0.670	1.042	0.698	
2510.00	20850	Low	LTE Band 7	20	19.5	19.19	0.07	0	0006M	QPSK	1	99	0 mm	bottom	1:1	2.070	1.074	2.223	
2535.00	21100	Mid	LTE Band 7	20	19.5	18.87	0.03	0	0006M	QPSK	1	0	0 mm	bottom	1:1	2.030	1.156	2.347	
2560.00	21350	High	LTE Band 7	20	19.5	18.80	0.01	0	0006M	QPSK	1	0	0 mm	bottom	1:1	2.010	1.175	2.362	
2510.00	20850	Low	LTE Band 7	20	19.5	19.32	0.07	0	0006M	QPSK	50	50	0 mm	bottom	1:1	2.140	1.042	2.230	
2535.00	21100	Mid	LTE Band 7	20	19.5	19.03	0.06	0	0006M	QPSK	50	0	0 mm	bottom	1:1	2.130	1.114	2.373	
2560.00	21350	High	LTE Band 7	20	19.5	18.86	0.00	0	0006M	QPSK	50	0	0 mm	bottom	1:1	2.090	1.159	2.422	
2510.00	20850	Low	LTE Band 7	20	19.5	19.17	0.09	0	0006M	QPSK	100	0	0 mm	bottom	1:1	2.090	1.079	2.255	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT **Spatial Peak** **Uncontrolled Exposure/General Population**																**Phablet** **4.0 W/kg (mW/g)** averaged over 10 grams			

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Table 11-48
LTE Band 41 Phablet SAR

MEASUREMENT RESULTS																						
1 CC Uplink | 2 CC Uplink, Power Class	FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Device Serial Number	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (10g) (W/kg)	Scaling Factor	Reported SAR (10g) (W/kg)	Plot #
	MHz	Ch.																				
1 CC Uplink - Power Class 3	2636.50	41055	Mid-High	LTE Band 41	20	25.0	24.59	-0.13	0	0045M	QPSK	1	0	7 mm	back	1:1.58	0.273	1.099	0.300	
1 CC Uplink - Power Class 3	2636.50	41055	Mid-High	LTE Band 41	20	24.0	23.59	-0.16	1	0045M	QPSK	50	0	7 mm	back	1:1.58	0.219	1.099	0.241	
1 CC Uplink - Power Class 3	2506.00	39750	Low	LTE Band 41	20	25.0	24.32	0.09	0	0045M	QPSK	1	99	0 mm	front	1:1.58	1.850	1.169	2.163	
1 CC Uplink - Power Class 3	2549.50	40185	Low-Mid	LTE Band 41	20	25.0	24.34	0.09	0	0045M	QPSK	1	99	0 mm	front	1:1.58	1.540	1.164	1.793	
1 CC Uplink - Power Class 3	2593.00	40620	Mid	LTE Band 41	20	25.0	24.27	0.05	0	0045M	QPSK	1	99	0 mm	front	1:1.58	1.430	1.183	1.692	
1 CC Uplink - Power Class 3	2636.50	41055	Mid-High	LTE Band 41	20	25.0	24.59	0.08	0	0045M	QPSK	1	0	0 mm	front	1:1.58	1.610	1.099	1.769	
1 CC Uplink - Power Class 3	2680.00	41490	High	LTE Band 41	20	25.0	24.58	0.02	0	0045M	QPSK	1	99	0 mm	front	1:1.58	1.780	1.102	1.962	
1 CC Uplink - Power Class 3	2636.50	41055	Mid-High	LTE Band 41	20	24.0	23.59	0.02	1	0045M	QPSK	50	0	0 mm	front	1:1.58	1.350	1.099	1.484	
1 CC Uplink - Power Class 3	2636.50	41055	Mid-High	LTE Band 41	20	24.0	23.53	0.09	1	0045M	QPSK	100	0	0 mm	front	1:1.58	1.310	1.114	1.459	
1 CC Uplink - Power Class 3	2636.50	41055	Mid-High	LTE Band 41	20	25.0	24.59	-0.05	0	0045M	QPSK	1	0	11 mm	bottom	1:1.58	0.495	1.099	0.544	
1 CC Uplink - Power Class 3	2636.50	41055	Mid-High	LTE Band 41	20	24.0	23.59	-0.05	1	0045M	QPSK	50	0	11 mm	bottom	1:1.58	0.416	1.099	0.457	
1 CC Uplink - Power Class 3	2636.50	41055	Mid-High	LTE Band 41	20	25.0	24.59	0.19	0	0045M	QPSK	1	0	0 mm	right	1:1.58	0.526	1.099	0.578	
1 CC Uplink - Power Class 3	2636.50	41055	Mid-High	LTE Band 41	20	24.0	23.59	-0.06	1	0045M	QPSK	50	0	0 mm	right	1:1.58	0.440	1.099	0.484	
1 CC Uplink - Power Class 3	2636.50	41055	Mid-High	LTE Band 41	20	25.0	24.59	-0.12	0	0045M	QPSK	1	0	0 mm	left	1:1.58	0.434	1.099	0.477	
1 CC Uplink - Power Class 3	2636.50	41055	Mid-High	LTE Band 41	20	24.0	23.59	-0.14	1	0045M	QPSK	50	0	0 mm	left	1:1.58	0.284	1.099	0.312	
1 CC Uplink - Power Class 3	2636.50	41055	Mid-High	LTE Band 41	20	21.5	20.64	-0.13	0	0045M	QPSK	1	0	0 mm	back	1:1.58	0.510	1.219	0.622	
1 CC Uplink - Power Class 3	2636.50	41055	Mid-High	LTE Band 41	20	21.5	20.75	-0.12	0	0045M	QPSK	50	0	0 mm	back	1:1.58	0.520	1.189	0.618	
1 CC Uplink - Power Class 3	2506.00	39750	Low	LTE Band 41	20	21.5	20.39	0.00	0	0045M	QPSK	1	99	0 mm	bottom	1:1.58	1.960	1.291	2.530	
1 CC Uplink - Power Class 3	2549.50	40185	Low-Mid	LTE Band 41	20	21.5	20.41	-0.06	0	0045M	QPSK	1	0	0 mm	bottom	1:1.58	1.800	1.285	2.313	
1 CC Uplink - Power Class 3	2593.00	40620	Mid	LTE Band 41	20	21.5	20.45	-0.14	0	0045M	QPSK	1	0	0 mm	bottom	1:1.58	1.530	1.274	1.949	
1 CC Uplink - Power Class 3	2636.50	41055	Mid-High	LTE Band 41	20	21.5	20.64	0.01	0	0045M	QPSK	1	0	0 mm	bottom	1:1.58	1.910	1.219	2.328	
1 CC Uplink - Power Class 3	2680.00	41490	High	LTE Band 41	20	21.5	20.62	-0.12	0	0045M	QPSK	1	99	0 mm	bottom	1:1.58	1.970	1.225	2.413	
1 CC Uplink - Power Class 3	2506.00	39750	Low	LTE Band 41	20	21.5	20.60	0.06	0	0045M	QPSK	50	50	0 mm	bottom	1:1.58	2.090	1.230	2.571	A75
1 CC Uplink - Power Class 3	2549.50	40185	Low-Mid	LTE Band 41	20	21.5	20.63	-0.02	0	0045M	QPSK	50	0	0 mm	bottom	1:1.58	1.820	1.222	2.224	
1 CC Uplink - Power Class 3	2593.00	40620	Mid	LTE Band 41	20	21.5	20.66	-0.15	0	0045M	QPSK	50	0	0 mm	bottom	1:1.58	1.600	1.213	1.941	
1 CC Uplink - Power Class 3	2636.50	41055	Mid-High	LTE Band 41	20	21.5	20.75	-0.01	0	0045M	QPSK	50	0	0 mm	bottom	1:1.58	2.030	1.189	2.414	
1 CC Uplink - Power Class 3	2680.00	41490	High	LTE Band 41	20	21.5	20.72	-0.13	0	0045M	QPSK	50	50	0 mm	bottom	1:1.58	1.980	1.197	2.370	
1 CC Uplink - Power Class 3	2636.50	41055	Mid-High	LTE Band 41	20	21.5	20.63	-0.20	0	0045M	QPSK	100	0	0 mm	bottom	1:1.58	1.770	1.222	2.163	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																	Phablet 4.0 W/kg (mW/g) averaged over 10 grams			

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Table 11-49
WLAN Phablet SAR

MEASUREMENT RESULTS																			
FREQUENCY		Mode	Service	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Spacing	Antenna Config.	Device Serial Number	Data Rate (Mbps)	Side	Duty Cycle (%)	Peak SAR of Area Scan	SAR (10g)	Scaling Factor (Power)	Scaling Factor (Duty Cycle)	Reported SAR (10g)	Plot #
MHz	Ch.													W/kg	(W/kg)			(W/kg)	
5320	64	802.11a	OFDM	20	18.0	17.91	0.00	0 mm	1	0003M	6	back	98.8	4.538	0.728	1.021	1.012	0.752	A76
5320	64	802.11a	OFDM	20	18.0	17.91	0.19	0 mm	1	0003M	6	front	98.8	0.158	0.027	1.021	1.012	0.028	
5320	64	802.11a	OFDM	20	18.0	17.91	-0.04	0 mm	1	0003M	6	top	98.8	1.978	-	1.021	1.012	-	
5320	64	802.11a	OFDM	20	18.0	17.91	0.13	0 mm	1	0003M	6	right	98.8	0.808	-	1.021	1.012	-	
5280	56	802.11a	OFDM	20	18.0	17.99	-0.04	0 mm	2	0003M	6	back	98.7	1.263	-	1.002	1.013	-	
5280	56	802.11a	OFDM	20	18.0	17.99	0.00	0 mm	2	0003M	6	front	98.7	0.309	0.046	1.002	1.013	0.047	
5280	56	802.11a	OFDM	20	18.0	17.99	0.12	0 mm	2	0003M	6	top	98.7	3.954	0.441	1.002	1.013	0.448	
5280	56	802.11a	OFDM	20	18.0	17.99	0.11	0 mm	2	0003M	6	left	98.7	0.861	-	1.002	1.013	-	
5500	100	802.11a	OFDM	20	18.0	17.94	-0.12	0 mm	1	0003M	6	back	98.8	4.025	-	1.014	1.012	-	
5500	100	802.11a	OFDM	20	18.0	17.94	0.00	0 mm	1	0003M	6	front	98.8	0.137	0.021	1.014	1.012	0.022	
5500	100	802.11a	OFDM	20	18.0	17.94	0.15	0 mm	1	0003M	6	top	98.8	4.769	0.296	1.014	1.012	0.304	
5500	100	802.11a	OFDM	20	18.0	17.94	0.18	0 mm	1	0003M	6	right	98.8	0.740	-	1.014	1.012	-	
5720	144	802.11a	OFDM	20	18.0	17.98	0.20	0 mm	2	0003M	6	back	98.7	1.245	-	1.005	1.013	-	
5720	144	802.11a	OFDM	20	18.0	17.98	0.00	0 mm	2	0003M	6	front	98.7	0.277	0.029	1.005	1.013	0.030	
5720	144	802.11a	OFDM	20	18.0	17.98	0.14	0 mm	2	0003M	6	top	98.7	3.643	0.429	1.005	1.013	0.437	
5720	144	802.11a	OFDM	20	18.0	17.98	0.19	0 mm	2	0003M	6	left	98.7	0.269	-	1.005	1.013	-	

ANSI / IEEE C95.1 1992 - SAFETY LIMIT	Phablet
Spatial Peak	4.0 W/kg (mW/g)
Uncontrolled Exposure/General Population	averaged over 10 grams

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11.5 Standalone UMPC Body SAR

Table 11-50
GPRS/UMTS/CDMA UMPC Body SAR Data

MEASUREMENT RESULTS																	
FREQUENCY		Mode	Service	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Spacing	Ant State	Device Serial Number	# of GPRS Slots	Duty Cycle	Side	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.												(W/kg)		(W/kg)	
820.10	564	CDMA BC10 (§90S)	EVDO Rev. 0	26.0	24.95	0.03	10 mm	0	0049M	N/A	1:1	back	0.588	1.274	0.749	
820.10	564	CDMA BC10 (§90S)	EVDO Rev. 0	26.0	24.95	0.00	10 mm	0	0049M	N/A	1:1	front	0.619	1.274	0.789	A77
820.10	564	CDMA BC10 (§90S)	EVDO Rev. 0	26.0	24.95	0.01	10 mm	0	0049M	N/A	1:1	bottom	0.380	1.274	0.484	
820.10	564	CDMA BC10 (§90S)	EVDO Rev. 0	26.0	24.95	-0.01	10 mm	0	0049M	N/A	1:1	right	0.371	1.274	0.473	
836.52	384	CDMA BC0 (§22H)	EVDO Rev. 0	26.0	25.10	0.06	10 mm	1	0049M	N/A	1:1	back	0.590	1.230	0.726	
824.70	1013	CDMA BC0 (§22H)	EVDO Rev. 0	26.0	24.96	0.02	10 mm	1	0049M	N/A	1:1	front	0.628	1.271	0.798	A78
836.52	384	CDMA BC0 (§22H)	EVDO Rev. 0	26.0	25.10	0.00	10 mm	1	0049M	N/A	1:1	front	0.624	1.230	0.768	
848.31	777	CDMA BC0 (§22H)	EVDO Rev. 0	26.0	25.20	0.04	10 mm	1	0049M	N/A	1:1	front	0.589	1.202	0.708	
836.52	384	CDMA BC0 (§22H)	EVDO Rev. 0	26.0	25.10	-0.05	10 mm	1	0049M	N/A	1:1	bottom	0.412	1.230	0.507	
836.52	384	CDMA BC0 (§22H)	EVDO Rev. 0	26.0	25.10	-0.03	10 mm	1	0049M	N/A	1:1	right	0.401	1.230	0.493	
1880.00	600	PCS CDMA	EVDO Rev. 0	26.0	24.54	-0.04	10 mm	N/A	0037M	N/A	1:1	back	0.481	1.400	0.673	
1880.00	600	PCS CDMA	EVDO Rev. 0	26.0	24.54	-0.03	10 mm	N/A	0037M	N/A	1:1	front	0.477	1.400	0.668	
1851.25	25	PCS CDMA	EVDO Rev. 0	26.0	24.53	-0.03	13 mm	N/A	0037M	N/A	1:1	bottom	0.650	1.403	0.912	
1880.00	600	PCS CDMA	EVDO Rev. 0	26.0	24.54	0.01	13 mm	N/A	0037M	N/A	1:1	bottom	0.730	1.400	1.022	
1908.75	1175	PCS CDMA	EVDO Rev. 0	26.0	24.40	0.00	13 mm	N/A	0037M	N/A	1:1	bottom	0.812	1.445	1.173	A79
1880.00	600	PCS CDMA	EVDO Rev. 0	20.5	20.09	-0.01	10 mm	N/A	0023M	N/A	1:1	bottom	0.523	1.099	0.575	
1880.00	600	PCS CDMA	EVDO Rev. 0	26.0	24.54	-0.09	10 mm	N/A	0037M	N/A	1:1	right	0.151	1.400	0.211	
836.60	190	GSM 850	GPRS	31.0	29.98	-0.02	10 mm	N/A	0039M	3	1:2.76	back	0.380	1.265	0.481	
836.60	190	GSM 850	GPRS	31.0	29.98	0.01	10 mm	N/A	0039M	3	1:2.76	front	0.390	1.265	0.493	A80
836.60	190	GSM 850	GPRS	31.0	29.98	0.03	10 mm	N/A	0039M	3	1:2.76	bottom	0.290	1.265	0.367	
836.60	190	GSM 850	GPRS	31.0	29.98	0.05	10 mm	N/A	0039M	3	1:2.76	right	0.305	1.265	0.386	
1880.00	661	GSM 1900	GPRS	30.5	29.56	-0.06	10 mm	N/A	0023M	2	1:4.15	back	0.446	1.242	0.554	
1880.00	661	GSM 1900	GPRS	30.5	29.56	0.01	10 mm	N/A	0023M	2	1:4.15	front	0.484	1.242	0.601	
1850.20	512	GSM 1900	GPRS	30.5	29.80	-0.10	13 mm	N/A	0023M	2	1:4.15	bottom	0.564	1.175	0.663	
1880.00	661	GSM 1900	GPRS	30.5	29.56	0.13	13 mm	N/A	0023M	2	1:4.15	bottom	0.609	1.242	0.756	
1909.80	810	GSM 1900	GPRS	30.5	29.44	-0.09	13 mm	N/A	0023M	2	1:4.15	bottom	0.718	1.276	0.916	A81
1880.00	661	GSM 1900	GPRS	27.5	27.09	0.01	10 mm	N/A	0023M	2	1:4.15	bottom	0.532	1.099	0.585	
1880.00	661	GSM 1900	GPRS	30.5	29.56	-0.04	10 mm	N/A	0023M	2	1:4.15	right	0.136	1.242	0.169	
836.60	4183	UMTS 850	RMC	25.5	24.45	-0.10	10 mm	0	0025M	N/A	1:1	back	0.395	1.274	0.503	
826.40	4132	UMTS 850	RMC	25.5	24.43	-0.01	10 mm	0	0025M	N/A	1:1	front	0.496	1.279	0.634	
836.60	4183	UMTS 850	RMC	25.5	24.45	-0.02	10 mm	0	0025M	N/A	1:1	front	0.562	1.274	0.716	A82
846.60	4233	UMTS 850	RMC	25.5	24.50	0.01	10 mm	0	0025M	N/A	1:1	front	0.553	1.259	0.696	
836.60	4183	UMTS 850	RMC	25.5	24.45	-0.03	10 mm	0	0025M	N/A	1:1	bottom	0.299	1.274	0.381	
836.60	4183	UMTS 850	RMC	25.5	24.45	-0.01	10 mm	0	0025M	N/A	1:1	right	0.326	1.274	0.415	
1712.40	1312	UMTS 1750	RMC	25.5	24.31	0.01	10 mm	N/A	0045M	N/A	1:1	back	0.585	1.315	0.769	
1732.40	1412	UMTS 1750	RMC	25.5	24.33	0.00	10 mm	N/A	0045M	N/A	1:1	back	0.624	1.309	0.817	
1752.60	1513	UMTS 1750	RMC	25.5	24.22	0.02	10 mm	N/A	0045M	N/A	1:1	back	0.574	1.343	0.771	
1732.40	1412	UMTS 1750	RMC	25.5	24.33	0.05	10 mm	N/A	0045M	N/A	1:1	front	0.575	1.309	0.753	
1712.40	1312	UMTS 1750	RMC	25.5	24.31	-0.06	13 mm	N/A	0045M	N/A	1:1	bottom	0.676	1.315	0.889	
1732.40	1412	UMTS 1750	RMC	25.5	24.33	-0.04	13 mm	N/A	0045M	N/A	1:1	bottom	0.718	1.309	0.940	
1752.60	1513	UMTS 1750	RMC	25.5	24.22	-0.03	13 mm	N/A	0045M	N/A	1:1	bottom	0.720	1.343	0.967	A83
1732.40	1412	UMTS 1750	RMC	20.5	19.75	-0.09	10 mm	N/A	0045M	N/A	1:1	bottom	0.409	1.189	0.486	
1732.40	1412	UMTS 1750	RMC	25.5	24.33	-0.04	10 mm	N/A	0045M	N/A	1:1	right	0.171	1.309	0.224	
1852.40	9262	UMTS 1900	RMC	25.5	24.41	0.03	10 mm	N/A	0023M	N/A	1:1	back	0.578	1.285	0.743	
1880.00	9400	UMTS 1900	RMC	25.5	24.24	-0.09	10 mm	N/A	0023M	N/A	1:1	back	0.649	1.337	0.868	
1907.60	9538	UMTS 1900	RMC	25.5	24.21	-0.01	10 mm	N/A	0023M	N/A	1:1	back	0.692	1.346	0.931	
1852.40	9262	UMTS 1900	RMC	25.5	24.41	-0.13	10 mm	N/A	0023M	N/A	1:1	front	0.598	1.285	0.768	
1880.00	9400	UMTS 1900	RMC	25.5	24.24	0.03	10 mm	N/A	0023M	N/A	1:1	front	0.650	1.337	0.869	
1907.60	9538	UMTS 1900	RMC	25.5	24.21	0.03	10 mm	N/A	0023M	N/A	1:1	front	0.677	1.346	0.911	
1852.40	9262	UMTS 1900	RMC	25.5	24.41	0.03	13 mm	N/A	0023M	N/A	1:1	bottom	0.738	1.285	0.948	
1880.00	9400	UMTS 1900	RMC	25.5	24.24	-0.05	13 mm	N/A	0023M	N/A	1:1	bottom	0.889	1.337	1.189	
1907.60	9538	UMTS 1900	RMC	25.5	24.21	0.01	13 mm	N/A	0023M	N/A	1:1	bottom	1.030	1.346	**1.386**	A84
1880.00	9400	UMTS 1900	RMC	21.0	19.73	-0.15	10 mm	N/A	0023M	N/A	1:1	bottom	0.549	1.340	0.736	
1880.00	9400	UMTS 1900	RMC	25.5	24.24	-0.06	10 mm	N/A	0023M	N/A	1:1	right	0.183	1.337	0.245	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population													**UMPC Body 1.6 W/kg (mW/g) averaged over 1 gram**			

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Table 11-51
LTE Band 71 UMPC Body SAR

MEASUREMENT RESULTS																					
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Ant State	Device Serial Number	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.																(W/kg)		(W/kg)	
680.50	133297	Mid	LTE Band 71	20	25.5	24.80	-0.09	0	76	0007M	QPSK	1	0	10 mm	back	1:1	0.325	1.175	0.382	
680.50	133297	Mid	LTE Band 71	20	24.5	24.04	-0.08	1	76	0007M	QPSK	50	25	10 mm	back	1:1	0.272	1.112	0.302	
680.50	133297	Mid	LTE Band 71	20	25.5	24.80	0.02	0	76	0007M	QPSK	1	0	10 mm	front	1:1	0.323	1.175	0.380	
680.50	133297	Mid	LTE Band 71	20	24.5	24.04	0.01	1	76	0007M	QPSK	50	25	10 mm	front	1:1	0.269	1.112	0.299	
680.50	133297	Mid	LTE Band 71	20	25.5	24.80	0.01	0	76	0007M	QPSK	1	0	10 mm	bottom	1:1	0.286	1.175	0.336	
680.50	133297	Mid	LTE Band 71	20	24.5	24.04	0.00	1	76	0007M	QPSK	50	25	10 mm	bottom	1:1	0.234	1.112	0.260	
680.50	133297	Mid	LTE Band 71	20	25.5	24.80	-0.03	0	76	0007M	QPSK	1	0	10 mm	right	1:1	0.442	1.175	0.519	A85
680.50	133297	Mid	LTE Band 71	20	24.5	24.04	-0.02	1	76	0007M	QPSK	50	25	10 mm	right	1:1	0.394	1.112	0.438	

ANSI / IEEE C95.1 1992 - SAFETY LIMIT	UMPC Body
Spatial Peak	1.6 W/kg (mW/g)
Uncontrolled Exposure/General Population	averaged over 1 gram

Table 11-52
LTE Band 12 UMPC Body SAR

MEASUREMENT RESULTS																					
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Ant State	Device Serial Number	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.																(W/kg)		(W/kg)	
707.50	23095	Mid	LTE Band 12	10	25.5	24.51	-0.17	0	33	0007M	QPSK	1	25	10 mm	back	1:1	0.306	1.256	0.384	
707.50	23095	Mid	LTE Band 12	10	24.5	23.84	-0.12	1	33	0007M	QPSK	25	25	10 mm	back	1:1	0.249	1.164	0.290	
707.50	23095	Mid	LTE Band 12	10	25.5	24.51	-0.03	0	33	0007M	QPSK	1	25	10 mm	front	1:1	0.310	1.256	0.389	
707.50	23095	Mid	LTE Band 12	10	24.5	23.84	0.04	1	33	0007M	QPSK	25	25	10 mm	front	1:1	0.253	1.164	0.294	
707.50	23095	Mid	LTE Band 12	10	25.5	24.51	-0.02	0	33	0007M	QPSK	1	25	10 mm	bottom	1:1	0.257	1.256	0.323	
707.50	23095	Mid	LTE Band 12	10	24.5	23.84	-0.06	1	33	0007M	QPSK	25	25	10 mm	bottom	1:1	0.213	1.164	0.248	
707.50	23095	Mid	LTE Band 12	10	25.5	24.51	0.17	0	33	0007M	QPSK	1	25	10 mm	right	1:1	0.315	1.256	0.396	A86
707.50	23095	Mid	LTE Band 12	10	24.5	23.84	-0.12	1	33	0007M	QPSK	25	25	10 mm	right	1:1	0.257	1.164	0.299	

ANSI / IEEE C95.1 1992 - SAFETY LIMIT	UMPC Body
Spatial Peak	1.6 W/kg (mW/g)
Uncontrolled Exposure/General Population	averaged over 1 gram

Table 11-53
LTE Band 13 UMPC Body SAR

MEASUREMENT RESULTS																					
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Ant State	Device Serial Number	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.																(W/kg)		(W/kg)	
782.00	23230	Mid	LTE Band 13	10	25.5	24.77	-0.05	0	76	0007M	QPSK	1	49	10 mm	back	1:1	0.385	1.183	0.455	
782.00	23230	Mid	LTE Band 13	10	24.5	23.88	-0.10	1	76	0007M	QPSK	25	25	10 mm	back	1:1	0.324	1.153	0.374	
782.00	23230	Mid	LTE Band 13	10	25.5	24.77	-0.16	0	76	0007M	QPSK	1	49	10 mm	front	1:1	0.420	1.183	0.497	A87
782.00	23230	Mid	LTE Band 13	10	24.5	23.88	0.17	1	76	0007M	QPSK	25	25	10 mm	front	1:1	0.353	1.153	0.407	
782.00	23230	Mid	LTE Band 13	10	25.5	24.77	-0.02	0	76	0007M	QPSK	1	49	10 mm	bottom	1:1	0.326	1.183	0.386	
782.00	23230	Mid	LTE Band 13	10	24.5	23.88	0.05	1	76	0007M	QPSK	25	25	10 mm	bottom	1:1	0.267	1.153	0.308	
782.00	23230	Mid	LTE Band 13	10	25.5	24.77	-0.02	0	76	0007M	QPSK	1	49	10 mm	right	1:1	0.322	1.183	0.381	
782.00	23230	Mid	LTE Band 13	10	24.5	23.88	-0.07	1	76	0007M	QPSK	25	25	10 mm	right	1:1	0.265	1.153	0.306	

ANSI / IEEE C95.1 1992 - SAFETY LIMIT	UMPC Body
Spatial Peak	1.6 W/kg (mW/g)
Uncontrolled Exposure/General Population	averaged over 1 gram

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Table 11-54
LTE Band 14 UMPC Body SAR

MEASUREMENT RESULTS																					
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Ant State	Device Serial Number	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.																(W/kg)		(W/kg)	
793.00	23330	Mid	LTE Band 14	10	25.5	24.80	-0.10	0	76	0007M	QPSK	1	25	10 mm	back	1:1	0.397	1.175	0.466	
793.00	23330	Mid	LTE Band 14	10	24.5	24.05	-0.10	1	76	0007M	QPSK	25	0	10 mm	back	1:1	0.336	1.109	0.373	
793.00	23330	Mid	LTE Band 14	10	25.5	24.80	0.00	0	76	0007M	QPSK	1	25	10 mm	front	1:1	0.405	1.175	0.476	A88
793.00	23330	Mid	LTE Band 14	10	24.5	24.05	0.03	1	76	0007M	QPSK	25	0	10 mm	front	1:1	0.342	1.109	0.379	
793.00	23330	Mid	LTE Band 14	10	25.5	24.80	-0.02	0	76	0007M	QPSK	1	25	10 mm	bottom	1:1	0.351	1.175	0.412	
793.00	23330	Mid	LTE Band 14	10	24.5	24.05	-0.03	1	76	0007M	QPSK	25	0	10 mm	bottom	1:1	0.293	1.109	0.325	
793.00	23330	Mid	LTE Band 14	10	25.5	24.80	0.01	0	76	0007M	QPSK	1	25	10 mm	right	1:1	0.284	1.175	0.334	
793.00	23330	Mid	LTE Band 14	10	24.5	24.05	-0.03	1	76	0007M	QPSK	25	0	10 mm	right	1:1	0.238	1.109	0.264	

ANSI / IEEE C95.1 1992 - SAFETY LIMIT	UMPC Body
Spatial Peak	1.6 W/kg (mW/g)
Uncontrolled Exposure/General Population	averaged over 1 gram

Table 11-55
LTE Band 26 (Cell) UMPC Body SAR

MEASUREMENT RESULTS																					
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Ant State	Device Serial Number	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.																(W/kg)		(W/kg)	
831.50	26865	Mid	LTE Band 26 (Cell)	15	25.5	24.62	-0.12	0	0	0025M	QPSK	1	36	10 mm	back	1:1	0.549	1.225	0.673	A89
831.50	26865	Mid	LTE Band 26 (Cell)	15	24.5	23.93	-0.14	1	0	0025M	QPSK	36	18	10 mm	back	1:1	0.442	1.140	0.504	
831.50	26865	Mid	LTE Band 26 (Cell)	15	25.5	24.62	-0.10	0	0	0025M	QPSK	1	36	10 mm	front	1:1	0.539	1.225	0.660	
831.50	26865	Mid	LTE Band 26 (Cell)	15	24.5	23.93	0.01	1	0	0025M	QPSK	36	18	10 mm	front	1:1	0.442	1.140	0.504	
831.50	26865	Mid	LTE Band 26 (Cell)	15	25.5	24.62	-0.13	0	0	0025M	QPSK	1	36	10 mm	bottom	1:1	0.372	1.225	0.456	
831.50	26865	Mid	LTE Band 26 (Cell)	15	24.5	23.93	0.03	1	0	0025M	QPSK	36	18	10 mm	bottom	1:1	0.311	1.140	0.355	
831.50	26865	Mid	LTE Band 26 (Cell)	15	25.5	24.62	-0.13	0	0	0025M	QPSK	1	36	10 mm	right	1:1	0.377	1.225	0.462	
831.50	26865	Mid	LTE Band 26 (Cell)	15	24.5	23.93	-0.06	1	0	0025M	QPSK	36	18	10 mm	right	1:1	0.316	1.140	0.360	

ANSI / IEEE C95.1 1992 - SAFETY LIMIT	UMPC Body
Spatial Peak	1.6 W/kg (mW/g)
Uncontrolled Exposure/General Population	averaged over 1 gram

Table 11-56
LTE Band 5 (Cell) UMPC Body SAR

MEASUREMENT RESULTS																							
1CC Uplink | 2CC Uplink	Component Carrier	FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Ant State	Device Serial Number	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
		MHz	Ch.																(W/kg)		(W/kg)	
1 CC Uplink	N/A	836.50	20525	Mid	LTE Band 5 (Cell)	10	25.5	24.63	-0.17	0	1	0039M	QPSK	1	49	10 mm	back	1:1	0.543	1.222	0.664	A90
1 CC Uplink	N/A	836.50	20525	Mid	LTE Band 5 (Cell)	10	24.5	23.81	-0.11	1	1	0039M	QPSK	25	0	10 mm	back	1:1	0.438	1.172	0.513	
2 CC Uplink	PCC	836.50	20525	Mid	LTE Band 5 (Cell)	10	25.5	24.54	-0.05	0	1	0039M	QPSK	1	49	10 mm	back	1:1	0.518	1.247	0.646	
	SCC	843.70	20597			5								1	0							
1 CC Uplink	N/A	836.50	20525	Mid	LTE Band 5 (Cell)	10	25.5	24.63	0.02	0	1	0039M	QPSK	1	49	10 mm	front	1:1	0.426	1.222	0.521	
1 CC Uplink	N/A	836.50	20525	Mid	LTE Band 5 (Cell)	10	24.5	23.81	-0.03	1	1	0039M	QPSK	25	0	10 mm	front	1:1	0.343	1.172	0.402	
1 CC Uplink	N/A	836.50	20525	Mid	LTE Band 5 (Cell)	10	25.5	24.63	0.02	0	1	0039M	QPSK	1	49	10 mm	bottom	1:1	0.329	1.222	0.402	
1 CC Uplink	N/A	836.50	20525	Mid	LTE Band 5 (Cell)	10	24.5	23.81	0.00	1	1	0039M	QPSK	25	0	10 mm	bottom	1:1	0.266	1.172	0.312	
1 CC Uplink	N/A	836.50	20525	Mid	LTE Band 5 (Cell)	10	25.5	24.63	0.03	0	1	0039M	QPSK	1	49	10 mm	right	1:1	0.335	1.222	0.409	
1 CC Uplink	N/A	836.50	20525	Mid	LTE Band 5 (Cell)	10	24.5	23.81	0.01	1	1	0039M	QPSK	25	0	10 mm	right	1:1	0.268	1.172	0.314	

ANSI / IEEE C95.1 1992 - SAFETY LIMIT	UMPC Body
Spatial Peak	1.6 W/kg (mW/g)
Uncontrolled Exposure/General Population	averaged over 1 gram

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Table 11-57
LTE Band 66 (AWS) UMPC Body SAR

MEASUREMENT RESULTS																				
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Device Serial Number	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.															(W/kg)		(W/kg)	
1720.00	132072	Low	LTE Band 66 (AWS)	20	25.0	24.41	-0.05	0	0004M	QPSK	1	0	10 mm	back	1:1	0.733	1.146	0.840	A91
1745.00	132322	Mid	LTE Band 66 (AWS)	20	25.0	24.31	-0.06	0	0004M	QPSK	1	0	10 mm	back	1:1	0.662	1.172	0.776	
1770.00	132572	High	LTE Band 66 (AWS)	20	25.0	24.38	-0.07	0	0004M	QPSK	1	0	10 mm	back	1:1	0.728	1.153	0.839	
1720.00	132072	Low	LTE Band 66 (AWS)	20	24.0	23.39	-0.04	1	0004M	QPSK	50	0	10 mm	back	1:1	0.598	1.151	0.688	
1720.00	132072	Low	LTE Band 66 (AWS)	20	24.0	23.37	-0.05	1	0004M	QPSK	100	0	10 mm	back	1:1	0.586	1.156	0.677	
1720.00	132072	Low	LTE Band 66 (AWS)	20	25.0	24.41	-0.01	0	0004M	QPSK	1	0	10 mm	front	1:1	0.508	1.146	0.582	
1720.00	132072	Low	LTE Band 66 (AWS)	20	24.0	23.39	-0.01	1	0004M	QPSK	50	0	10 mm	front	1:1	0.419	1.151	0.482	
1720.00	132072	Low	LTE Band 66 (AWS)	20	25.0	24.41	0.02	0	0045M	QPSK	1	0	13 mm	bottom	1:1	0.639	1.146	0.732	
1720.00	132072	Low	LTE Band 66 (AWS)	20	24.0	23.39	-0.11	1	0045M	QPSK	50	0	13 mm	bottom	1:1	0.566	1.151	0.651	
1720.00	132072	Low	LTE Band 66 (AWS)	20	20.0	18.94	-0.13	0	0045M	QPSK	1	99	10 mm	bottom	1:1	0.392	1.276	0.500	
1720.00	132072	Low	LTE Band 66 (AWS)	20	20.0	19.12	-0.10	0	0045M	QPSK	50	50	10 mm	bottom	1:1	0.409	1.225	0.501	
1720.00	132072	Low	LTE Band 66 (AWS)	20	25.0	24.41	-0.15	0	0004M	QPSK	1	0	10 mm	right	1:1	0.206	1.146	0.236	
1720.00	132072	Low	LTE Band 66 (AWS)	20	24.0	23.39	-0.02	1	0004M	QPSK	50	0	10 mm	right	1:1	0.170	1.151	0.196	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population													UMPC Body 1.6 W/kg (mW/g) averaged over 1 gram						

Table 11-58
LTE Band 25 (PCS) UMPC Body SAR

MEASUREMENT RESULTS																			
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Device Serial Number	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.															(W/kg)		(W/kg)	
1860.00	26140	Low	LTE Band 25 (PCS)	20	25.0	24.51	-0.03	0	0023M	QPSK	1	50	10 mm	back	1:1	0.558	1.119	0.624	
1860.00	26140	Low	LTE Band 25 (PCS)	20	24.0	23.64	-0.07	1	0023M	QPSK	50	25	10 mm	back	1:1	0.452	1.086	0.491	
1860.00	26140	Low	LTE Band 25 (PCS)	20	25.0	24.51	0.01	0	0023M	QPSK	1	50	10 mm	front	1:1	0.698	1.119	0.781	
1860.00	26140	Low	LTE Band 25 (PCS)	20	24.0	23.64	-0.06	1	0023M	QPSK	50	25	10 mm	front	1:1	0.568	1.086	0.617	
1860.00	26140	Low	LTE Band 25 (PCS)	20	25.0	24.51	-0.09	0	0023M	QPSK	1	50	13 mm	bottom	1:1	0.859	1.119	0.961	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	25.0	24.44	-0.04	0	0023M	QPSK	1	50	13 mm	bottom	1:1	0.966	1.138	1.099	
1905.00	26590	High	LTE Band 25 (PCS)	20	25.0	24.38	-0.03	0	0023M	QPSK	1	99	13 mm	bottom	1:1	1.130	1.153	1.303	A92
1860.00	26140	Low	LTE Band 25 (PCS)	20	24.0	23.64	-0.09	1	0023M	QPSK	50	25	13 mm	bottom	1:1	0.709	1.086	0.770	
1860.00	26140	Low	LTE Band 25 (PCS)	20	24.0	23.62	-0.11	1	0023M	QPSK	100	0	13 mm	bottom	1:1	0.703	1.091	0.767	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	21.0	20.71	-0.06	0	0023M	QPSK	1	50	10 mm	bottom	1:1	0.624	1.069	0.667	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	21.0	20.75	-0.01	0	0023M	QPSK	50	25	10 mm	bottom	1:1	0.642	1.059	0.680	
1860.00	26140	Low	LTE Band 25 (PCS)	20	25.0	24.51	0.06	0	0023M	QPSK	1	50	10 mm	right	1:1	0.197	1.119	0.220	
1860.00	26140	Low	LTE Band 25 (PCS)	20	24.0	23.64	-0.02	1	0023M	QPSK	50	25	10 mm	right	1:1	0.158	1.086	0.172	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population													UMPC Body 1.6 W/kg (mW/g) averaged over 1 gram						

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Table 11-59
LTE Band 30 UMPC Body SAR

MEASUREMENT RESULTS																			
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Device Serial Number	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.															(W/kg)		(W/kg)	
2310.00	27710	Mid	LTE Band 30	10	25.0	24.28	0.03	0	0045M	QPSK	1	0	10 mm	back	1:1	0.732	1.180	0.864	
2310.00	27710	Mid	LTE Band 30	10	24.0	23.35	0.01	1	0045M	QPSK	25	0	10 mm	back	1:1	0.617	1.161	0.716	
2310.00	27710	Mid	LTE Band 30	10	24.0	23.34	-0.01	1	0045M	QPSK	50	0	10 mm	back	1:1	0.617	1.164	0.718	
2310.00	27710	Mid	LTE Band 30	10	25.0	24.28	-0.07	0	0045M	QPSK	1	0	10 mm	front	1:1	0.857	1.180	1.011	
2310.00	27710	Mid	LTE Band 30	10	24.0	23.35	0.01	1	0045M	QPSK	25	0	10 mm	front	1:1	0.709	1.161	0.823	
2310.00	27710	Mid	LTE Band 30	10	24.0	23.34	-0.02	1	0045M	QPSK	50	0	10 mm	front	1:1	0.715	1.164	0.832	
2310.00	27710	Mid	LTE Band 30	10	25.0	24.28	-0.07	0	0045M	QPSK	1	0	13 mm	bottom	1:1	1.180	1.180	**1.392**	A93
2310.00	27710	Mid	LTE Band 30	10	24.0	23.35	-0.06	1	0045M	QPSK	25	0	13 mm	bottom	1:1	0.975	1.161	1.132	
2310.00	27710	Mid	LTE Band 30	10	24.0	23.34	-0.05	1	0045M	QPSK	50	0	13 mm	bottom	1:1	0.949	1.164	1.105	
2310.00	27710	Mid	LTE Band 30	10	21.0	20.49	-0.08	0	0045M	QPSK	1	0	10 mm	bottom	1:1	0.711	1.125	0.800	
2310.00	27710	Mid	LTE Band 30	10	21.0	20.49	-0.05	0	0045M	QPSK	25	0	10 mm	bottom	1:1	0.742	1.125	0.835	
2310.00	27710	Mid	LTE Band 30	10	21.0	20.48	-0.03	0	0045M	QPSK	50	0	10 mm	bottom	1:1	0.754	1.127	0.850	
2310.00	27710	Mid	LTE Band 30	10	25.0	24.28	-0.12	0	0045M	QPSK	1	0	10 mm	right	1:1	0.266	1.180	0.314	
2310.00	27710	Mid	LTE Band 30	10	24.0	23.35	-0.05	1	0045M	QPSK	25	0	10 mm	right	1:1	0.223	1.161	0.259	
2310.00	27710	Mid	LTE Band 30	10	25.0	24.28	-0.02	0	0045M	QPSK	1	0	13 mm	bottom	1:1	1.140	1.180	1.345	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT **Spatial Peak** **Uncontrolled Exposure/General Population**													**UMPC Body** **1.6 W/kg (mW/g)** averaged over 1 gram						

Note: Blue entry represents variability measurement.

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Table 11-60
LTE Band 7 UMPC Body SAR

MEASUREMENT RESULTS																			
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Device Serial Number	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.															(W/kg)		(W/kg)	
2510.00	20850	Low	LTE Band 7	20	25.0	24.72	-0.01	0	0045M	QPSK	1	99	10 mm	back	1:1	0.797	1.067	0.850	
2535.00	21100	Mid	LTE Band 7	20	25.0	24.48	-0.01	0	0045M	QPSK	1	0	10 mm	back	1:1	0.778	1.127	0.877	
2560.00	21350	High	LTE Band 7	20	25.0	24.35	-0.15	0	0045M	QPSK	1	0	10 mm	back	1:1	0.649	1.161	0.753	
2510.00	20850	Low	LTE Band 7	20	24.0	23.76	0.14	1	0045M	QPSK	50	0	10 mm	back	1:1	0.448	1.057	0.474	
2510.00	20850	Low	LTE Band 7	20	24.0	23.55	0.10	1	0045M	QPSK	100	0	10 mm	back	1:1	0.469	1.109	0.520	
2510.00	20850	Low	LTE Band 7	20	25.0	24.72	0.01	0	0045M	QPSK	1	99	10 mm	front	1:1	0.847	1.067	0.904	
2535.00	21100	Mid	LTE Band 7	20	25.0	24.48	-0.01	0	0045M	QPSK	1	0	10 mm	front	1:1	0.817	1.127	0.921	
2560.00	21350	High	LTE Band 7	20	25.0	24.35	0.05	0	0045M	QPSK	1	0	10 mm	front	1:1	0.700	1.161	0.813	
2510.00	20850	Low	LTE Band 7	20	24.0	23.76	0.05	1	0045M	QPSK	50	0	10 mm	front	1:1	0.476	1.057	0.503	
2510.00	20850	Low	LTE Band 7	20	24.0	23.55	-0.11	1	0045M	QPSK	100	0	10 mm	front	1:1	0.495	1.109	0.549	
2510.00	20850	Low	LTE Band 7	20	25.0	24.72	-0.18	0	0045M	QPSK	1	99	13 mm	bottom	1:1	0.956	1.067	1.020	A94
2535.00	21100	Mid	LTE Band 7	20	25.0	24.48	-0.18	0	0045M	QPSK	1	0	13 mm	bottom	1:1	0.911	1.127	1.027	
2560.00	21350	High	LTE Band 7	20	25.0	24.35	-0.15	0	0045M	QPSK	1	0	13 mm	bottom	1:1	0.816	1.161	0.947	
2510.00	20850	Low	LTE Band 7	20	24.0	23.76	-0.06	1	0045M	QPSK	50	0	13 mm	bottom	1:1	0.550	1.057	0.581	
2510.00	20850	Low	LTE Band 7	20	24.0	23.55	-0.17	1	0045M	QPSK	100	0	13 mm	bottom	1:1	0.565	1.109	0.627	
2510.00	20850	Low	LTE Band 7	20	19.5	19.19	-0.06	0	0045M	QPSK	1	99	10 mm	bottom	1:1	0.385	1.074	0.413	
2510.00	20850	Low	LTE Band 7	20	19.5	19.32	-0.06	0	0045M	QPSK	50	50	10 mm	bottom	1:1	0.405	1.042	0.422	
2510.00	20850	Low	LTE Band 7	20	25.0	24.72	-0.16	0	0045M	QPSK	1	99	10 mm	right	1:1	0.343	1.067	0.366	
2510.00	20850	Low	LTE Band 7	20	24.0	23.76	0.01	1	0045M	QPSK	50	0	10 mm	right	1:1	0.180	1.057	0.190	
2535.00	21100	Mid	LTE Band 7	20	25.0	24.48	-0.01	0	0045M	QPSK	1	0	13 mm	bottom	1:1	0.899	1.127	1.013	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population										UMPC Body 1.6 W/kg (mW/g) averaged over 1 gram									

Note: Blue entry represents variability measurement.

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Table 11-61
LTE Band 41 UMPC Body SAR

MEASUREMENT RESULTS																					
1 CC Uplink | 2 CC Uplink, Power Class	FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Device Serial Number	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (1g) (W/kg)	Scaling Factor	Reported SAR (1g) (W/kg)	Plot #
	MHz	Ch.																			
1 CC Uplink - Power Class 3	2506.00	39750	Low	LTE Band 41	20	25.0	24.32	0.02	0	0045M	QPSK	1	99	10 mm	back	1:1.58	0.803	1.169	0.939	
1 CC Uplink - Power Class 3	2549.50	40185	Low-Mid	LTE Band 41	20	25.0	24.34	-0.04	0	0045M	QPSK	1	99	10 mm	back	1:1.58	0.669	1.164	0.779	
1 CC Uplink - Power Class 3	2593.00	40620	Mid	LTE Band 41	20	25.0	24.27	0.02	0	0045M	QPSK	1	99	10 mm	back	1:1.58	0.607	1.183	0.718	
1 CC Uplink - Power Class 3	2636.50	41055	Mid-High	LTE Band 41	20	25.0	24.59	0.05	0	0045M	QPSK	1	0	10 mm	back	1:1.58	0.668	1.099	0.734	
1 CC Uplink - Power Class 3	2680.00	41490	High	LTE Band 41	20	25.0	24.58	0.00	0	0045M	QPSK	1	99	10 mm	back	1:1.58	0.779	1.102	0.858	
1 CC Uplink - Power Class 3	2506.00	39750	Low	LTE Band 41	20	24.0	23.50	0.01	1	0045M	QPSK	50	50	10 mm	back	1:1.58	0.658	1.122	0.738	
1 CC Uplink - Power Class 3	2549.50	40185	Low-Mid	LTE Band 41	20	24.0	23.40	0.01	1	0045M	QPSK	50	25	10 mm	back	1:1.58	0.563	1.148	0.646	
1 CC Uplink - Power Class 3	2593.00	40620	Mid	LTE Band 41	20	24.0	23.40	0.03	1	0045M	QPSK	50	25	10 mm	back	1:1.58	0.499	1.148	0.573	
1 CC Uplink - Power Class 3	2636.50	41055	Mid-High	LTE Band 41	20	24.0	23.59	0.04	1	0045M	QPSK	50	0	10 mm	back	1:1.58	0.560	1.099	0.615	
1 CC Uplink - Power Class 3	2680.00	41490	High	LTE Band 41	20	24.0	23.54	0.01	1	0045M	QPSK	50	25	10 mm	back	1:1.58	0.603	1.112	0.671	
1 CC Uplink - Power Class 3	2636.50	41055	Mid-High	LTE Band 41	20	24.0	23.53	0.06	1	0045M	QPSK	100	0	10 mm	back	1:1.58	0.549	1.114	0.612	
1 CC Uplink - Power Class 3	2506.00	39750	Low	LTE Band 41	20	25.0	24.32	0.05	0	0045M	QPSK	1	99	10 mm	front	1:1.58	0.714	1.169	0.835	
1 CC Uplink - Power Class 3	2549.50	40185	Low-Mid	LTE Band 41	20	25.0	24.34	0.03	0	0045M	QPSK	1	99	10 mm	front	1:1.58	0.600	1.164	0.698	
1 CC Uplink - Power Class 3	2593.00	40620	Mid	LTE Band 41	20	25.0	24.27	0.05	0	0045M	QPSK	1	99	10 mm	front	1:1.58	0.550	1.183	0.651	
1 CC Uplink - Power Class 3	2636.50	41055	Mid-High	LTE Band 41	20	25.0	24.59	0.05	0	0045M	QPSK	1	0	10 mm	front	1:1.58	0.602	1.099	0.662	
1 CC Uplink - Power Class 3	2680.00	41490	High	LTE Band 41	20	25.0	24.58	0.02	0	0045M	QPSK	1	99	10 mm	front	1:1.58	0.750	1.102	0.827	
1 CC Uplink - Power Class 3	2636.50	41055	Mid-High	LTE Band 41	20	24.0	23.59	0.06	1	0045M	QPSK	50	0	10 mm	front	1:1.58	0.498	1.099	0.547	
1 CC Uplink - Power Class 3	2636.50	41055	Mid-High	LTE Band 41	20	24.0	23.53	0.03	1	0045M	QPSK	100	0	10 mm	front	1:1.58	0.493	1.114	0.549	
1 CC Uplink - Power Class 3	2506.00	39750	Low	LTE Band 41	20	25.0	24.32	-0.03	0	0045M	QPSK	1	99	13 mm	bottom	1:1.58	0.828	1.169	0.968	
1 CC Uplink - Power Class 3	2549.50	40185	Low-Mid	LTE Band 41	20	25.0	24.34	-0.07	0	0045M	QPSK	1	99	13 mm	bottom	1:1.58	0.683	1.164	0.795	
1 CC Uplink - Power Class 3	2593.00	40620	Mid	LTE Band 41	20	25.0	24.27	-0.02	0	0045M	QPSK	1	99	13 mm	bottom	1:1.58	0.648	1.183	0.767	
1 CC Uplink - Power Class 3	2636.50	41055	Mid-High	LTE Band 41	20	25.0	24.59	-0.01	0	0045M	QPSK	1	0	13 mm	bottom	1:1.58	0.743	1.099	0.817	
1 CC Uplink - Power Class 3	2680.00	41490	High	LTE Band 41	20	25.0	24.58	-0.01	0	0045M	QPSK	1	99	13 mm	bottom	1:1.58	0.894	1.102	0.985	A95
1 CC Uplink - Power Class 3	2506.00	39750	Low	LTE Band 41	20	24.0	23.50	-0.03	1	0045M	QPSK	50	50	13 mm	bottom	1:1.58	0.696	1.122	0.781	
1 CC Uplink - Power Class 3	2549.50	40185	Low-Mid	LTE Band 41	20	24.0	23.40	-0.04	1	0045M	QPSK	50	25	13 mm	bottom	1:1.58	0.581	1.148	0.667	
1 CC Uplink - Power Class 3	2593.00	40620	Mid	LTE Band 41	20	24.0	23.40	-0.05	1	0045M	QPSK	50	25	13 mm	bottom	1:1.58	0.513	1.148	0.589	
1 CC Uplink - Power Class 3	2636.50	41055	Mid-High	LTE Band 41	20	24.0	23.59	-0.05	1	0045M	QPSK	50	0	13 mm	bottom	1:1.58	0.614	1.099	0.675	
1 CC Uplink - Power Class 3	2680.00	41490	High	LTE Band 41	20	24.0	23.54	-0.03	1	0045M	QPSK	50	25	13 mm	bottom	1:1.58	0.688	1.112	0.765	
1 CC Uplink - Power Class 3	2636.50	41055	Mid-High	LTE Band 41	20	24.0	23.53	-0.01	1	0045M	QPSK	100	0	13 mm	bottom	1:1.58	0.605	1.114	0.674	
1 CC Uplink - Power Class 3	2506.00	39750	Low	LTE Band 41	20	21.5	20.39	-0.12	0	0045M	QPSK	1	99	10 mm	bottom	1:1.58	0.591	1.291	0.763	
1 CC Uplink - Power Class 3	2549.50	40185	Low-Mid	LTE Band 41	20	21.5	20.41	-0.12	0	0045M	QPSK	1	0	10 mm	bottom	1:1.58	0.520	1.285	0.668	
1 CC Uplink - Power Class 3	2593.00	40620	Mid	LTE Band 41	20	21.5	20.45	-0.19	0	0045M	QPSK	1	0	10 mm	bottom	1:1.58	0.439	1.274	0.559	
1 CC Uplink - Power Class 3	2636.50	41055	Mid-High	LTE Band 41	20	21.5	20.64	-0.06	0	0045M	QPSK	1	0	10 mm	bottom	1:1.58	0.509	1.219	0.620	
1 CC Uplink - Power Class 3	2680.00	41490	High	LTE Band 41	20	21.5	20.62	-0.18	0	0045M	QPSK	1	99	10 mm	bottom	1:1.58	0.604	1.225	0.740	
1 CC Uplink - Power Class 3	2506.00	39750	Low	LTE Band 41	20	21.5	20.60	-0.12	0	0045M	QPSK	50	50	10 mm	bottom	1:1.58	0.628	1.230	0.772	
1 CC Uplink - Power Class 3	2549.50	40185	Low-Mid	LTE Band 41	20	21.5	20.63	-0.12	0	0045M	QPSK	50	0	10 mm	bottom	1:1.58	0.513	1.222	0.627	
1 CC Uplink - Power Class 3	2593.00	40620	Mid	LTE Band 41	20	21.5	20.66	-0.12	0	0045M	QPSK	50	0	10 mm	bottom	1:1.58	0.448	1.213	0.543	
1 CC Uplink - Power Class 3	2636.50	41055	Mid-High	LTE Band 41	20	21.5	20.75	-0.04	0	0045M	QPSK	50	0	10 mm	bottom	1:1.58	0.526	1.189	0.625	
1 CC Uplink - Power Class 3	2680.00	41490	High	LTE Band 41	20	21.5	20.72	-0.13	0	0045M	QPSK	50	50	10 mm	bottom	1:1.58	0.607	1.197	0.727	
1 CC Uplink - Power Class 3	2636.50	41055	Mid-High	LTE Band 41	20	21.5	20.63	-0.01	0	0045M	QPSK	100	0	10 mm	bottom	1:1.58	0.521	1.222	0.637	
1 CC Uplink - Power Class 3	2636.50	41055	Mid-High	LTE Band 41	20	25.0	24.59	0.04	0	0045M	QPSK	1	0	10 mm	right	1:1.58	0.375	1.099	0.412	
1 CC Uplink - Power Class 3	2636.50	41055	Mid-High	LTE Band 41	20	24.0	23.59	-0.06	1	0045M	QPSK	50	0	10 mm	right	1:1.58	0.329	1.099	0.362	

ANSI / IEEE C95.1 1992 - SAFETY LIMIT	UMPC Body
Spatial Peak	1.6 W/kg (mW/g)
Uncontrolled Exposure/General Population	averaged over 1 gram

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Table 11-62
WLAN UMPC Body SAR

MEASUREMENT RESULTS																			
FREQUENCY		Mode	Service	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Spacing	Antenna Config.	Device Serial Number	Data Rate (Mbps)	Side	Duty Cycle (%)	Peak SAR of Area Scan	SAR (1g)	Scaling Factor (Power)	Scaling Factor (Duty Cycle)	Reported SAR (1g)	Plot #
MHz	Ch.													W/kg	(W/kg)			(W/kg)	
2412	1	802.11b	DSSS	22	20.0	19.97	-0.14	10 mm	1	0025M	1	back	99.9	0.449	0.359	1.007	1.001	0.362	
2412	1	802.11b	DSSS	22	20.0	19.97	-0.12	10 mm	1	0025M	1	front	99.9	0.477	0.392	1.007	1.001	0.395	
2412	1	802.11b	DSSS	22	20.0	19.97	0.07	10 mm	1	0025M	1	top	99.9	0.564	0.457	1.007	1.001	**0.461**	A96
2412	1	802.11b	DSSS	22	20.0	19.97	0.11	10 mm	1	0025M	1	right	99.9	0.371	-	1.007	1.001	-	
2412	1	802.11b	DSSS	22	20.0	19.98	0.11	10 mm	2	0001M	1	back	99.9	0.206	0.146	1.005	1.001	0.147	
2412	1	802.11b	DSSS	22	20.0	19.98	0.12	10 mm	2	0001M	1	front	99.9	0.073	-	1.005	1.001	-	
2412	1	802.11b	DSSS	22	20.0	19.98	0.18	10 mm	2	0001M	1	top	99.9	0.069	-	1.005	1.001	-	
5320	64	802.11a	OFDM	20	18.0	17.91	-0.03	10 mm	1	0003M	6	back	98.8	1.062	0.466	1.021	1.012	0.481	
5320	64	802.11a	OFDM	20	18.0	17.91	0.16	10 mm	1	0003M	6	front	98.8	0.138	0.052	1.021	1.012	0.054	
5320	64	802.11a	OFDM	20	18.0	17.91	0.14	10 mm	1	0003M	6	top	98.8	0.354	0.161	1.021	1.012	0.166	
5320	64	802.11a	OFDM	20	18.0	17.91	-0.16	10 mm	1	0003M	6	right	98.8	0.097	-	1.021	1.012	-	
5280	56	802.11a	OFDM	20	18.0	17.99	0.16	10 mm	2	0003M	6	back	98.7	0.115	0.040	1.002	1.013	0.041	
5280	56	802.11a	OFDM	20	18.0	17.99	0.00	10 mm	2	0003M	6	front	98.7	0.032	-	1.002	1.013	-	
5280	56	802.11a	OFDM	20	18.0	17.99	0.15	10 mm	2	0003M	6	top	98.7	0.076	-	1.002	1.013	-	
5500	100	802.11a	OFDM	20	18.0	17.94	-0.07	10 mm	1	0003M	6	back	98.8	1.698	0.710	1.014	1.012	**0.729**	A97
5600	120	802.11a	OFDM	20	18.0	17.74	0.09	10 mm	1	0003M	6	back	98.8	1.473	0.593	1.062	1.012	0.637	
5720	144	802.11a	OFDM	20	18.0	17.83	0.19	10 mm	1	0003M	6	back	98.8	0.760	0.345	1.040	1.012	0.363	
5500	100	802.11a	OFDM	20	18.0	17.94	-0.13	10 mm	1	0003M	6	front	98.8	0.308	0.131	1.014	1.012	0.134	
5500	100	802.11a	OFDM	20	18.0	17.94	0.03	10 mm	1	0003M	6	top	98.8	0.342	0.162	1.014	1.012	0.166	
5500	100	802.11a	OFDM	20	18.0	17.94	-0.13	10 mm	1	0003M	6	right	98.8	0.117	-	1.014	1.012	-	
5720	144	802.11a	OFDM	20	18.0	17.98	0.13	10 mm	2	0003M	6	back	98.7	0.175	0.070	1.005	1.013	0.071	
5720	144	802.11a	OFDM	20	18.0	17.98	0.12	10 mm	2	0003M	6	front	98.7	0.135	-	1.005	1.013	-	
5720	144	802.11a	OFDM	20	18.0	17.98	0.16	10 mm	2	0003M	6	top	98.7	0.173	-	1.005	1.013	-	
5785	157	802.11a	OFDM	20	18.0	17.97	0.08	10 mm	1	0003M	6	back	98.8	0.665	0.314	1.007	1.012	0.320	
5785	157	802.11a	OFDM	20	18.0	17.97	-0.08	10 mm	1	0003M	6	front	98.8	0.383	0.149	1.007	1.012	0.152	
5785	157	802.11a	OFDM	20	18.0	17.97	0.12	10 mm	1	0003M	6	top	98.8	0.245	-	1.007	1.012	-	
5785	157	802.11a	OFDM	20	18.0	17.97	-0.08	10 mm	1	0003M	6	right	98.8	0.150	-	1.007	1.012	-	
5785	157	802.11a	OFDM	20	18.0	17.86	0.15	10 mm	2	0003M	6	back	98.7	0.172	0.065	1.033	1.013	0.068	
5785	157	802.11a	OFDM	20	18.0	17.86	-0.12	10 mm	2	0003M	6	front	98.7	0.154	-	1.033	1.013	-	
5785	157	802.11a	OFDM	20	18.0	17.86	0.13	10 mm	2	0003M	6	top	98.7	0.193	0.073	1.033	1.013	0.076	

ANSI / IEEE C95.1 1992 - SAFETY LIMIT	**UMPC Body**
Spatial Peak	**1.6 W/kg (mW/g)**
Uncontrolled Exposure/General Population	averaged over 1 gram

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Table 11-63
DTS WLAN MIMO UMPC Body SAR

MEASUREMENT RESULTS																							
FREQUENCY		Mode	Service	Bandwidth [MHz]	Maximum Allowed Power (Ant 1) [dBm]	Conducted Power (Ant 1) [dBm]	Maximum Allowed Power (Ant 2) [dBm]	Conducted Power (Ant 2) [dBm]	Power Drift [dB]	Spacing	Ant State	Device Serial Number	Data Rate (Mbps)	Side	Duty Cycle (%)	Peak SAR of Area Scan	SAR (1g)	Scaling Factor (Power)	Scaling Factor (Duty Cycle)	Reported SAR (1g)	Plot #
MHz	Ch.															W/kg	(W/kg)			(W/kg)	
2452	9	802.11n	OFDM	20	18.0	17.96	18.0	17.85	-0.08	10 mm	MIMO	0001M	13	back	98.7	0.480	0.398	1.035	1.013	0.417	
2452	9	802.11n	OFDM	20	18.0	17.96	18.0	17.85	0.13	10 mm	MIMO	0001M	13	front	98.7	0.298	0.268	1.035	1.013	0.281	
2452	9	802.11n	OFDM	20	18.0	17.96	18.0	17.85	0.18	10 mm	MIMO	0001M	13	top	98.7	0.530	0.403	1.035	1.013	0.423	
2452	9	802.11n	OFDM	20	18.0	17.96	18.0	17.85	0.13	10 mm	MIMO	0001M	13	right	98.7	0.274	-	1.035	1.013	-	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																UMPC Body 1.6 W/kg (mW/g) averaged over 1 gram					

Note: To achieve the 21.0 dBm maximum allowed MIMO power shown in the documentation, each antenna transmits at a maximum allowed power of 18.0 dBm.

Table 11-64
NII WLAN MIMO UMPC Body SAR

MEASUREMENT RESULTS																							
FREQUENCY		Mode	Service	Bandwidth [MHz]	Maximum Allowed Power (Ant 1) [dBm]	Conducted Power (Ant 1) [dBm]	Maximum Allowed Power (Ant 2) [dBm]	Conducted Power (Ant 2) [dBm]	Power Drift [dB]	Spacing	Ant State	Device Serial Number	Data Rate (Mbps)	Side	Duty Cycle (%)	Peak SAR of Area Scan	SAR (1g)	Scaling Factor (Power)	Scaling Factor (Duty Cycle)	Reported SAR (1g)	Plot #
MHz	Ch.															W/kg	(W/kg)			(W/kg)	
5280	56	802.11n	OFDM	20	18.0	17.90	18.0	17.99	-0.13	10 mm	MIMO	0003M	13	back	98.6	0.863	0.433	1.023	1.014	0.449	
5280	56	802.11n	OFDM	20	18.0	17.90	18.0	17.99	-0.10	10 mm	MIMO	0003M	13	front	98.6	0.213	0.076	1.023	1.014	0.079	
5280	56	802.11n	OFDM	20	18.0	17.90	18.0	17.99	-0.12	10 mm	MIMO	0003M	13	top	98.6	0.410	0.173	1.023	1.014	0.179	
5280	56	802.11n	OFDM	20	18.0	17.90	18.0	17.99	0.14	10 mm	MIMO	0003M	13	right	98.6	0.103	-	1.023	1.014	-	
5500	100	802.11n	OFDM	20	18.0	17.94	18.0	17.86	0.03	10 mm	MIMO	0003M	13	back	98.6	1.231	0.578	1.033	1.014	0.605	
5600	120	802.11n	OFDM	20	18.0	17.66	18.0	17.74	-0.07	10 mm	MIMO	0003M	13	back	98.6	1.145	0.506	1.081	1.014	0.555	
5720	144	802.11n	OFDM	20	18.0	17.82	18.0	17.96	-0.03	10 mm	MIMO	0003M	13	back	98.6	0.600	0.284	1.042	1.014	0.300	
5500	100	802.11n	OFDM	20	18.0	17.94	18.0	17.86	0.01	10 mm	MIMO	0003M	13	front	98.6	0.334	0.139	1.033	1.014	0.146	
5500	100	802.11n	OFDM	20	18.0	17.94	18.0	17.86	0.12	10 mm	MIMO	0003M	13	top	98.6	0.420	0.179	1.033	1.014	0.187	
5500	100	802.11n	OFDM	20	18.0	17.94	18.0	17.86	0.14	10 mm	MIMO	0003M	13	right	98.6	0.107	-	1.033	1.014	-	
5785	157	802.11n	OFDM	20	18.0	17.91	18.0	17.84	-0.07	10 mm	MIMO	0003M	13	back	98.6	0.887	0.395	1.038	1.014	0.416	
5785	157	802.11n	OFDM	20	18.0	17.91	18.0	17.84	0.02	10 mm	MIMO	0003M	13	front	98.6	0.492	0.184	1.038	1.014	0.194	
5785	157	802.11n	OFDM	20	18.0	17.91	18.0	17.84	0.05	10 mm	MIMO	0003M	13	top	98.6	0.496	0.206	1.038	1.014	0.217	
5785	157	802.11n	OFDM	20	18.0	17.91	18.0	17.84	0.13	10 mm	MIMO	0003M	13	right	98.6	0.151	-	1.038	1.014	-	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																UMPC Body 1.6 W/kg (mW/g) averaged over 1 gram					

Note: To achieve the 21.0 dBm maximum allowed MIMO power shown in the documentation, each antenna transmits at a maximum allowed power of 18.0 dBm.

Table 11-65
2.4 GHz WLAN UMPC Body SAR with 2.4 GHz and 5 GHz WLAN SAR

MEASUREMENT RESULTS																							
FREQUENCY		Mode	Service	Bandwidth [MHz]	Maximum Allowed Power (Ant 1) [dBm]	Conducted Power (Ant 1) [dBm]	Maximum Allowed Power (Ant 2) [dBm]	Conducted Power (Ant 2) [dBm]	Power Drift [dB]	Spacing	Ant State	Device Serial Number	Data Rate (Mbps)	Side	Duty Cycle (%)	Peak SAR of Area Scan	SAR (1g)	Scaling Factor (Power)	Scaling Factor (Duty Cycle)	Reported SAR (1g)	Plot #
MHz	Ch.															W/kg	(W/kg)			(W/kg)	
2457	10	802.11n	OFDM	20	17.0	16.76	17.0	16.62	-0.13	10 mm	MIMO	0001M	13	back	98.7	0.425	0.275	1.091	1.013	0.304	
2457	10	802.11n	OFDM	20	17.0	16.76	17.0	16.62	-0.15	10 mm	MIMO	0001M	13	front	98.7	0.318	0.223	1.091	1.013	0.246	
2457	10	802.11n	OFDM	20	17.0	16.76	17.0	16.62	0.10	10 mm	MIMO	0001M	13	top	98.7	0.449	0.291	1.091	1.013	0.322	
2457	10	802.11n	OFDM	20	17.0	16.76	17.0	16.62	0.00	10 mm	MIMO	0001M	13	right	98.7	0.325	-	1.091	1.013	-	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																UMPC Body 1.6 W/kg (mW/g) averaged over 1 gram					

Note: DTS MIMO was additionally evaluated at the maximum allowed output power during operations with Simultaneous 2.4 GHz and 5 GHz WLAN. 5 GHz WIFI was not transmitting during the above evaluations.

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Table 11-66
5 GHz WLAN UMPC Body SAR with 2.4 GHz and 5 GHz WLAN SAR

MEASUREMENT RESULTS																					
FREQUENCY		Mode	Service	Bandwidth [MHz]	Maximum Allowed Power (Ant 1) [dBm]	Conducted Power (Ant 1) [dBm]	Maximum Allowed Power (Ant 2) [dBm]	Conducted Power (Ant 2) [dBm]	Power Drift [dB]	Spacing	Ant State	Device Serial Number	Data Rate (Mbps)	Side	Duty Cycle (%)	Peak SAR of Area Scan	SAR (1g)	Scaling Factor (Power)	Scaling Factor (Duty Cycle)	Reported SAR (1g)	Plot #
MHz	Ch.															W/kg	(W/kg)			(W/kg)	
5310	62	802.11n	OFDM	40	14.0	13.87	14.0	13.94	-0.17	10 mm	MIMO	0003M	27	back	97.3	0.436	0.203	1.030	1.028	0.215	
5310	62	802.11n	OFDM	40	14.0	13.87	14.0	13.94	-0.19	10 mm	MIMO	0003M	27	front	97.3	0.074	0.020	1.030	1.028	0.021	
5310	62	802.11n	OFDM	40	14.0	13.87	14.0	13.94	0.17	10 mm	MIMO	0003M	27	top	97.3	0.145	-	1.030	1.028	-	
5310	62	802.11n	OFDM	40	14.0	13.87	14.0	13.94	0.18	10 mm	MIMO	0003M	27	right	97.3	0.042	-	1.030	1.028	-	
5530	106	802.11ac	OFDM	80	14.0	12.86	14.0	12.80	-0.01	10 mm	MIMO	0003M	58.5	back	90.7	0.516	0.223	1.318	1.103	0.324	
5530	106	802.11ac	OFDM	80	14.0	12.86	14.0	12.80	0.05	10 mm	MIMO	0003M	58.5	front	90.7	0.105	0.040	1.318	1.103	0.058	
5530	106	802.11ac	OFDM	80	14.0	12.86	14.0	12.80	-0.19	10 mm	MIMO	0003M	58.5	top	90.7	0.127	-	1.318	1.103	-	
5530	106	802.11ac	OFDM	80	14.0	12.86	14.0	12.80	-0.14	10 mm	MIMO	0003M	58.5	right	90.7	0.033	-	1.318	1.103	-	
5775	155	802.11ac	OFDM	80	14.0	12.58	14.0	12.85	0.17	10 mm	MIMO	0003M	58.5	back	90.7	0.295	0.120	1.387	1.103	0.184	
5775	155	802.11ac	OFDM	80	14.0	12.58	14.0	12.85	-0.15	10 mm	MIMO	0003M	58.5	front	90.7	0.106	0.031	1.387	1.103	0.047	
5775	155	802.11ac	OFDM	80	14.0	12.58	14.0	12.85	0.18	10 mm	MIMO	0003M	58.5	top	90.7	0.094	-	1.387	1.103	-	
5775	155	802.11ac	OFDM	80	14.0	12.58	14.0	12.85	-0.12	10 mm	MIMO	0003M	58.5	right	90.7	0.034	-	1.387	1.103	-	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																UMPC Body 1.6 W/kg (mW/g) averaged over 1 gram					

Note: NII MIMO was additionally evaluated at the maximum allowed output power during operations with Simultaneous 2.4 GHz and 5 GHz WLAN. 2.4 GHz WIFI was not transmitting during the above evaluations.

Table 11-67
DSS UMPC Body SAR

MEASUREMENT RESULTS															
FREQUENCY		Mode	Service	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Spacing	Device Serial Number	Data Rate (Mbps)	Side	Duty Cycle (%)	SAR (1g)	Scaling Factor (Cond Power)	Scaling Factor (Duty Cycle)	Reported SAR (1g)	Plot #
MHz	Ch.											(W/kg)			(W/kg)	
2402	0	Bluetooth	FHSS	16.5	16.18	0.20	10 mm	0020M	1	back	77.1	0.075	1.076	1.297	0.105	
2402	0	Bluetooth	FHSS	16.5	16.18	0.17	10 mm	0020M	1	front	77.1	0.091	1.076	1.297	**0.127**	A98
2402	0	Bluetooth	FHSS	16.5	16.18	0.12	10 mm	0020M	1	top	77.1	0.089	1.076	1.297	0.124	
2402	0	Bluetooth	FHSS	16.5	16.18	-0.06	10 mm	0020M	1	right	77.1	0.081	1.076	1.297	0.113	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population												UMPC Body 1.6 W/kg (mW/g) averaged over 1 gram				

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11.6 Standalone UMPC Extremity SAR

Table 11-68
GPRS/UMTS/CDMA UMPC Extremity SAR Data

MEASUREMENT RESULTS																
FREQUENCY		Mode	Service	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Spacing	Ant State	Device Serial Number	# of GPRS Slots	Duty Cycle	Side	SAR (10g)	Scaling Factor	Reported SAR (10g)	Plot #
MHz	Ch.												(W/kg)		(W/kg)	
820.10	564	CDMA BC10 (§90S)	EVDO Rev. 0	26.0	24.95	-0.14	0 mm	0	0049M	N/A	1:1	back	1.160	1.274	1.478	A99
820.10	564	CDMA BC10 (§90S)	EVDO Rev. 0	26.0	24.95	0.02	0 mm	0	0049M	N/A	1:1	front	1.120	1.274	1.427	
820.10	564	CDMA BC10 (§90S)	EVDO Rev. 0	26.0	24.95	-0.21	0 mm	0	0049M	N/A	1:1	bottom	0.718	1.274	0.915	
820.10	564	CDMA BC10 (§90S)	EVDO Rev. 0	26.0	24.95	-0.10	0 mm	0	0049M	N/A	1:1	right	0.474	1.274	0.604	
836.52	384	CDMA BC0 (§22H)	EVDO Rev. 0	26.0	25.10	-0.19	0 mm	1	0049M	N/A	1:1	back	1.120	1.230	1.378	A100
836.52	384	CDMA BC0 (§22H)	EVDO Rev. 0	26.0	25.10	0.02	0 mm	1	0049M	N/A	1:1	front	1.090	1.230	1.341	
836.52	384	CDMA BC0 (§22H)	EVDO Rev. 0	26.0	25.10	-0.12	0 mm	1	0049M	N/A	1:1	bottom	0.664	1.230	0.817	
836.52	384	CDMA BC0 (§22H)	EVDO Rev. 0	26.0	25.10	-0.16	0 mm	1	0049M	N/A	1:1	right	0.501	1.230	0.616	
1880.00	600	PCS CDMA	EVDO Rev. 0	26.0	24.54	0.00	8 mm	N/A	0037M	N/A	1:1	back	0.344	1.400	0.482	
1880.00	600	PCS CDMA	EVDO Rev. 0	26.0	24.54	0.02	8 mm	N/A	0037M	N/A	1:1	front	0.333	1.400	0.466	
1880.00	600	PCS CDMA	EVDO Rev. 0	26.0	24.54	0.01	13 mm	N/A	0037M	N/A	1:1	bottom	0.392	1.400	0.549	
1880.00	600	PCS CDMA	EVDO Rev. 0	26.0	24.54	-0.08	0 mm	N/A	0037M	N/A	1:1	right	0.409	1.400	0.573	
1880.00	600	PCS CDMA	EVDO Rev. 0	20.5	20.09	-0.03	0 mm	N/A	0023M	N/A	1:1	back	0.871	1.099	0.957	
1880.00	600	PCS CDMA	EVDO Rev. 0	20.5	20.09	-0.02	0 mm	N/A	0023M	N/A	1:1	front	1.260	1.099	1.385	
1851.25	25	PCS CDMA	EVDO Rev. 0	20.5	20.12	-0.07	0 mm	N/A	0023M	N/A	1:1	bottom	2.310	1.091	2.520	
1880.00	600	PCS CDMA	EVDO Rev. 0	20.5	20.09	-0.04	0 mm	N/A	0023M	N/A	1:1	bottom	2.450	1.099	2.693	A101
1908.75	1175	PCS CDMA	EVDO Rev. 0	20.5	20.08	-0.02	0 mm	N/A	0023M	N/A	1:1	bottom	2.440	1.102	2.689	
836.60	190	GSM 850	GPRS	31.0	29.98	-0.12	0 mm	N/A	0039M	3	1:2.76	back	0.731	1.265	0.925	A102
836.60	190	GSM 850	GPRS	31.0	29.98	-0.01	0 mm	N/A	0039M	3	1:2.76	front	0.600	1.265	0.759	
836.60	190	GSM 850	GPRS	31.0	29.98	-0.18	0 mm	N/A	0039M	3	1:2.76	bottom	0.465	1.265	0.588	
836.60	190	GSM 850	GPRS	31.0	29.98	-0.02	0 mm	N/A	0039M	3	1:2.76	right	0.318	1.265	0.402	
1880.00	661	GSM 1900	GPRS	30.5	29.56	0.06	8 mm	N/A	0023M	2	1:4.15	back	0.342	1.242	0.425	
1880.00	661	GSM 1900	GPRS	30.5	29.56	-0.01	8 mm	N/A	0023M	2	1:4.15	front	0.293	1.242	0.364	
1880.00	661	GSM 1900	GPRS	30.5	29.56	0.13	13 mm	N/A	0023M	2	1:4.15	bottom	0.324	1.242	0.402	
1880.00	661	GSM 1900	GPRS	30.5	29.56	-0.12	0 mm	N/A	0023M	2	1:4.15	right	0.469	1.242	0.582	
1880.00	661	GSM 1900	GPRS	27.5	27.09	0.09	0 mm	N/A	0023M	2	1:4.15	back	0.927	1.099	1.019	
1880.00	661	GSM 1900	GPRS	27.5	27.09	0.02	0 mm	N/A	0023M	2	1:4.15	front	1.200	1.099	1.319	
1850.20	512	GSM 1900	GPRS	27.5	27.17	-0.12	0 mm	N/A	0023M	2	1:4.15	bottom	2.000	1.079	2.158	
1880.00	661	GSM 1900	GPRS	27.5	27.09	-0.07	0 mm	N/A	0023M	2	1:4.15	bottom	2.340	1.099	2.572	A103
1909.80	810	GSM 1900	GPRS	27.5	26.89	-0.12	0 mm	N/A	0023M	2	1:4.15	bottom	2.120	1.151	2.440	
836.60	4183	UMTS 850	RMC	25.5	24.45	-0.13	0 mm	0	0039M	N/A	1:1	back	0.830	1.274	1.057	A104
836.60	4183	UMTS 850	RMC	25.5	24.45	0.02	0 mm	0	0039M	N/A	1:1	front	0.829	1.274	1.056	
836.60	4183	UMTS 850	RMC	25.5	24.45	-0.12	0 mm	0	0039M	N/A	1:1	bottom	0.483	1.274	0.615	
836.60	4183	UMTS 850	RMC	25.5	24.45	-0.13	0 mm	0	0039M	N/A	1:1	right	0.503	1.274	0.641	
1732.40	1412	UMTS 1750	RMC	25.5	24.33	-0.11	8 mm	N/A	0004M	N/A	1:1	back	0.667	1.309	0.873	
1732.40	1412	UMTS 1750	RMC	25.5	24.33	-0.03	8 mm	N/A	0004M	N/A	1:1	front	0.632	1.309	0.827	
1732.40	1412	UMTS 1750	RMC	25.5	24.33	-0.11	13 mm	N/A	0004M	N/A	1:1	bottom	0.532	1.309	0.696	
1732.40	1412	UMTS 1750	RMC	25.5	24.33	0.06	0 mm	N/A	0004M	N/A	1:1	right	0.472	1.309	0.618	
1732.40	1412	UMTS 1750	RMC	20.5	19.75	-0.12	0 mm	N/A	0006M	N/A	1:1	back	0.992	1.189	1.179	
1732.40	1412	UMTS 1750	RMC	20.5	19.75	0.04	0 mm	N/A	0006M	N/A	1:1	front	1.230	1.189	1.462	
1712.40	1312	UMTS 1750	RMC	20.5	19.72	-0.11	0 mm	N/A	0006M	N/A	1:1	bottom	2.350	1.197	2.813	
1732.40	1412	UMTS 1750	RMC	20.5	19.75	-0.03	0 mm	N/A	0006M	N/A	1:1	bottom	2.440	1.189	2.901	A105
1752.60	1513	UMTS 1750	RMC	20.5	19.54	-0.04	0 mm	N/A	0006M	N/A	1:1	bottom	2.320	1.247	2.893	
1880.00	9400	UMTS 1900	RMC	25.5	24.24	-0.04	8 mm	N/A	0023M	N/A	1:1	back	0.475	1.337	0.635	
1880.00	9400	UMTS 1900	RMC	25.5	24.24	0.12	8 mm	N/A	0023M	N/A	1:1	front	0.490	1.337	0.655	
1880.00	9400	UMTS 1900	RMC	25.5	24.24	-0.05	13 mm	N/A	0023M	N/A	1:1	bottom	0.471	1.337	0.630	
1880.00	9400	UMTS 1900	RMC	25.5	24.24	-0.08	0 mm	N/A	0023M	N/A	1:1	right	0.594	1.337	0.794	
1880.00	9400	UMTS 1900	RMC	21.0	19.73	-0.13	0 mm	N/A	0023M	N/A	1:1	back	0.862	1.340	1.155	
1880.00	9400	UMTS 1900	RMC	21.0	19.73	-0.09	0 mm	N/A	0023M	N/A	1:1	front	1.170	1.340	1.568	
1852.40	9262	UMTS 1900	RMC	21.0	19.87	-0.13	0 mm	N/A	0023M	N/A	1:1	bottom	2.330	1.297	3.022	
1880.00	9400	UMTS 1900	RMC	21.0	19.73	-0.14	0 mm	N/A	0023M	N/A	1:1	bottom	2.460	1.340	**3.296**	A106
1907.60	9538	UMTS 1900	RMC	21.0	19.68	-0.12	0 mm	N/A	0023M	N/A	1:1	bottom	2.430	1.355	3.293	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population													UMPC Extremity 4.0 W/kg (mW/g) averaged over 10 grams			

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Table 11-69
LTE Band 71 UMPC Extremity SAR

MEASUREMENT RESULTS																					
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Ant State	Device Serial Number	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (10g)	Scaling Factor	Reported SAR (10g)	Plot #
MHz	Ch.																(W/kg)		(W/kg)	
680.50	133297	Mid	LTE Band 71	20	25.5	24.80	0.04	0	76	0007M	QPSK	1	0	0 mm	back	1:1	1.020	1.175	1.199	
680.50	133297	Mid	LTE Band 71	20	24.5	24.04	0.04	1	76	0007M	QPSK	50	25	0 mm	back	1:1	0.806	1.112	0.896	
680.50	133297	Mid	LTE Band 71	20	25.5	24.80	0.00	0	76	0007M	QPSK	1	0	0 mm	front	1:1	1.230	1.175	1.445	A107
680.50	133297	Mid	LTE Band 71	20	24.5	24.04	-0.02	1	76	0007M	QPSK	50	25	0 mm	front	1:1	0.956	1.112	1.063	
680.50	133297	Mid	LTE Band 71	20	25.5	24.80	0.12	0	76	0007M	QPSK	1	0	0 mm	bottom	1:1	0.949	1.175	1.115	
680.50	133297	Mid	LTE Band 71	20	24.5	24.04	0.12	1	76	0007M	QPSK	50	25	0 mm	bottom	1:1	0.759	1.112	0.844	
680.50	133297	Mid	LTE Band 71	20	25.5	24.80	-0.21	0	76	0007M	QPSK	1	0	0 mm	right	1:1	0.956	1.175	1.123	
680.50	133297	Mid	LTE Band 71	20	24.5	24.04	-0.20	1	76	0007M	QPSK	50	25	0 mm	right	1:1	0.766	1.112	0.852	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population											UMPC Extremity 4.0 W/kg (mW/g) averaged over 10 grams										

Table 11-70
LTE Band 12 UMPC Extremity SAR

MEASUREMENT RESULTS																					
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Ant State	Device Serial Number	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (10g)	Scaling Factor	Reported SAR (10g)	Plot #
MHz	Ch.																(W/kg)		(W/kg)	
707.50	23095	Mid	LTE Band 12	10	25.5	24.51	0.04	0	33	0004M	QPSK	1	25	0 mm	back	1:1	0.986	1.256	1.238	
707.50	23095	Mid	LTE Band 12	10	24.5	23.84	0.04	1	33	0004M	QPSK	25	25	0 mm	back	1:1	0.830	1.164	0.966	
707.50	23095	Mid	LTE Band 12	10	25.5	24.51	0.01	0	33	0004M	QPSK	1	25	0 mm	front	1:1	1.050	1.256	1.319	A108
707.50	23095	Mid	LTE Band 12	10	24.5	23.84	-0.02	1	33	0004M	QPSK	25	25	0 mm	front	1:1	0.857	1.164	0.998	
707.50	23095	Mid	LTE Band 12	10	25.5	24.51	-0.10	0	33	0004M	QPSK	1	25	0 mm	bottom	1:1	0.779	1.256	0.978	
707.50	23095	Mid	LTE Band 12	10	24.5	23.84	-0.09	1	33	0004M	QPSK	25	25	0 mm	bottom	1:1	0.630	1.164	0.733	
707.50	23095	Mid	LTE Band 12	10	25.5	24.51	-0.14	0	33	0004M	QPSK	1	25	0 mm	right	1:1	0.727	1.256	0.913	
707.50	23095	Mid	LTE Band 12	10	24.5	23.84	-0.08	1	33	0004M	QPSK	25	25	0 mm	right	1:1	0.601	1.164	0.700	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population											UMPC Extremity 4.0 W/kg (mW/g) averaged over 10 grams										

Table 11-71
LTE Band 13 UMPC Extremity SAR

MEASUREMENT RESULTS																					
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Ant State	Device Serial Number	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (10g)	Scaling Factor	Reported SAR (10g)	Plot #
MHz	Ch.																(W/kg)		(W/kg)	
782.00	23230	Mid	LTE Band 13	10	25.5	24.77	0.09	0	76	0004M	QPSK	1	49	0 mm	back	1:1	1.010	1.183	1.195	
782.00	23230	Mid	LTE Band 13	10	24.5	23.88	0.08	1	76	0004M	QPSK	25	25	0 mm	back	1:1	0.835	1.153	0.963	
782.00	23230	Mid	LTE Band 13	10	25.5	24.77	0.00	0	76	0004M	QPSK	1	49	0 mm	front	1:1	1.060	1.183	1.254	A109
782.00	23230	Mid	LTE Band 13	10	24.5	23.88	-0.04	1	76	0004M	QPSK	25	25	0 mm	front	1:1	0.888	1.153	1.024	
782.00	23230	Mid	LTE Band 13	10	25.5	24.77	0.11	0	76	0004M	QPSK	1	49	0 mm	bottom	1:1	0.670	1.183	0.793	
782.00	23230	Mid	LTE Band 13	10	24.5	23.88	0.06	1	76	0004M	QPSK	25	25	0 mm	bottom	1:1	0.558	1.153	0.643	
782.00	23230	Mid	LTE Band 13	10	25.5	24.77	-0.14	0	76	0004M	QPSK	1	49	0 mm	right	1:1	0.646	1.183	0.764	
782.00	23230	Mid	LTE Band 13	10	24.5	23.88	-0.08	1	76	0004M	QPSK	25	25	0 mm	right	1:1	0.508	1.153	0.586	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population											UMPC Extremity 4.0 W/kg (mW/g) averaged over 10 grams										

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Table 11-72
LTE Band 14 UMPC Extremity SAR

MEASUREMENT RESULTS																					
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Ant State	Device Serial Number	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (10g)	Scaling Factor	Reported SAR (10g)	Plot #
MHz	Ch.																(W/kg)		(W/kg)	
793.00	23330	Mid	LTE Band 14	10	25.5	24.80	-0.16	0	76	0007M	QPSK	1	25	0 mm	back	1:1	0.819	1.175	0.962	
793.00	23330	Mid	LTE Band 14	10	24.5	24.05	-0.16	1	76	0007M	QPSK	25	0	0 mm	back	1:1	0.736	1.109	0.816	
793.00	23330	Mid	LTE Band 14	10	25.5	24.80	-0.01	0	76	0007M	QPSK	1	25	0 mm	front	1:1	0.825	1.175	0.969	A110
793.00	23330	Mid	LTE Band 14	10	24.5	24.05	0.03	1	76	0007M	QPSK	25	0	0 mm	front	1:1	0.702	1.109	0.779	
793.00	23330	Mid	LTE Band 14	10	25.5	24.80	0.04	0	76	0007M	QPSK	1	25	0 mm	bottom	1:1	0.674	1.175	0.792	
793.00	23330	Mid	LTE Band 14	10	24.5	24.05	0.21	1	76	0007M	QPSK	25	0	0 mm	bottom	1:1	0.573	1.109	0.635	
793.00	23330	Mid	LTE Band 14	10	25.5	24.80	-0.20	0	76	0007M	QPSK	1	25	0 mm	right	1:1	0.398	1.175	0.468	
793.00	23330	Mid	LTE Band 14	10	24.5	24.05	-0.19	1	76	0007M	QPSK	25	0	0 mm	right	1:1	0.335	1.109	0.372	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population											UMPC Extremity 4.0 W/kg (mW/g) averaged over 10 grams										

Table 11-73
LTE Band 26 (Cell) UMPC Extremity SAR

MEASUREMENT RESULTS																					
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Ant State	Device Serial Number	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (10g)	Scaling Factor	Reported SAR (10g)	Plot #
MHz	Ch.																(W/kg)		(W/kg)	
831.50	26865	Mid	LTE Band 26 (Cell)	15	25.5	24.62	-0.12	0	0	0025M	QPSK	1	36	0 mm	back	1:1	1.030	1.225	1.262	A111
831.50	26865	Mid	LTE Band 26 (Cell)	15	24.5	23.93	-0.13	1	0	0025M	QPSK	36	18	0 mm	back	1:1	0.843	1.140	0.961	
831.50	26865	Mid	LTE Band 26 (Cell)	15	25.5	24.62	0.02	0	0	0025M	QPSK	1	36	0 mm	front	1:1	0.947	1.225	1.160	
831.50	26865	Mid	LTE Band 26 (Cell)	15	24.5	23.93	0.00	1	0	0025M	QPSK	36	18	0 mm	front	1:1	0.834	1.140	0.951	
831.50	26865	Mid	LTE Band 26 (Cell)	15	25.5	24.62	-0.05	0	0	0025M	QPSK	1	36	0 mm	bottom	1:1	0.665	1.225	0.815	
831.50	26865	Mid	LTE Band 26 (Cell)	15	24.5	23.93	-0.03	1	0	0025M	QPSK	36	18	0 mm	bottom	1:1	0.547	1.140	0.624	
831.50	26865	Mid	LTE Band 26 (Cell)	15	25.5	24.62	-0.06	0	0	0025M	QPSK	1	36	0 mm	right	1:1	0.477	1.225	0.584	
831.50	26865	Mid	LTE Band 26 (Cell)	15	24.5	23.93	-0.11	1	0	0025M	QPSK	36	18	0 mm	right	1:1	0.454	1.140	0.518	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population											UMPC Extremity 4.0 W/kg (mW/g) averaged over 10 grams										

Table 11-74
LTE Band 5 (Cell) UMPC Extremity SAR

MEASUREMENT RESULTS																						
1CC Uplink | 2CC Uplink	Component Carrier	FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Ant State	Device Serial Number	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (10g)	Scaling Factor	Reported SAR (10g)	Plot #
		MHz	Ch.																(W/kg)		(W/kg)	
1 CC Uplink	N/A	836.50	20525	Mid	LTE Band 5 (Cell)	10	25.5	24.63	-0.15	0	1	0039M	QPSK	1	49	0 mm	back	1:1	0.948	1.222	1.158	A112
1 CC Uplink	N/A	836.50	20525	Mid	LTE Band 5 (Cell)	10	24.5	23.81	-0.14	1	1	0039M	QPSK	25	0	0 mm	back	1:1	0.764	1.172	0.895	
2 CC Uplink	PCC	836.50	20525	Mid	LTE Band 5 (Cell)	10	25.5	24.54	-0.05	0	1	0039M	QPSK	1	49	0 mm	back	1:1	0.906	1.247	1.130	
	SCC	843.70	20597			5					1			1	0							
1 CC Uplink	N/A	836.50	20525	Mid	LTE Band 5 (Cell)	10	25.5	24.63	0.02	0	1	0039M	QPSK	1	49	0 mm	front	1:1	0.877	1.222	1.072	
1 CC Uplink	N/A	836.50	20525	Mid	LTE Band 5 (Cell)	10	24.5	23.81	-0.02	1	1	0039M	QPSK	25	0	0 mm	front	1:1	0.711	1.172	0.833	
1 CC Uplink	N/A	836.50	20525	Mid	LTE Band 5 (Cell)	10	25.5	24.63	-0.05	0	1	0039M	QPSK	1	49	0 mm	bottom	1:1	0.590	1.222	0.721	
1 CC Uplink	N/A	836.50	20525	Mid	LTE Band 5 (Cell)	10	24.5	23.81	-0.09	1	1	0039M	QPSK	25	0	0 mm	bottom	1:1	0.472	1.172	0.553	
1 CC Uplink	N/A	836.50	20525	Mid	LTE Band 5 (Cell)	10	25.5	24.63	-0.13	0	1	0039M	QPSK	1	49	0 mm	right	1:1	0.528	1.222	0.645	
1 CC Uplink	N/A	836.50	20525	Mid	LTE Band 5 (Cell)	10	24.5	23.81	-0.14	1	1	0039M	QPSK	25	0	0 mm	right	1:1	0.432	1.172	0.506	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population												UMPC Extremity 4.0 W/kg (mW/g) averaged over 10 grams										

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Table 11-75
LTE Band 66 (AWS) UMPC Extremity SAR

MEASUREMENT RESULTS																						
1CC Uplink | 2CC Uplink	Component Carrier	FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Device Serial Number	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (10g)	Scaling Factor	Reported SAR (10g)	Plot #
		MHz	Ch.															(W/kg)		(W/kg)	
1 CC Uplink	N/A	1720.00	132072	Low	LTE Band 66 (AWS)	20	25.0	24.41	-0.08	0	0004M	QPSK	1	0	8 mm	back	1:1	0.722	1.146	0.827	
1 CC Uplink	N/A	1720.00	132072	Low	LTE Band 66 (AWS)	20	24.0	23.39	-0.11	1	0004M	QPSK	50	0	8 mm	back	1:1	0.606	1.151	0.698	
1 CC Uplink	N/A	1720.00	132072	Low	LTE Band 66 (AWS)	20	25.0	24.41	-0.01	0	0004M	QPSK	1	0	8 mm	front	1:1	0.638	1.146	0.731	
1 CC Uplink	N/A	1720.00	132072	Low	LTE Band 66 (AWS)	20	24.0	23.39	0.02	1	0004M	QPSK	50	0	8 mm	front	1:1	0.529	1.151	0.609	
1 CC Uplink	N/A	1720.00	132072	Low	LTE Band 66 (AWS)	20	25.0	24.41	-0.09	0	0004M	QPSK	1	0	13 mm	bottom	1:1	0.515	1.146	0.590	
1 CC Uplink	N/A	1720.00	132072	Low	LTE Band 66 (AWS)	20	24.0	23.39	-0.10	1	0004M	QPSK	50	0	13 mm	bottom	1:1	0.427	1.151	0.491	
1 CC Uplink	N/A	1720.00	132072	Low	LTE Band 66 (AWS)	20	25.0	24.41	-0.18	0	0004M	QPSK	1	0	0 mm	right	1:1	0.392	1.146	0.449	
1 CC Uplink	N/A	1720.00	132072	Low	LTE Band 66 (AWS)	20	24.0	23.39	-0.11	1	0004M	QPSK	50	0	0 mm	right	1:1	0.343	1.151	0.395	
1 CC Uplink	N/A	1720.00	132072	Low	LTE Band 66 (AWS)	20	20.0	18.94	-0.19	0	0006M	QPSK	1	99	0 mm	back	1:1	1.030	1.276	1.314	
1 CC Uplink	N/A	1720.00	132072	Low	LTE Band 66 (AWS)	20	20.0	19.12	-0.19	0	0006M	QPSK	50	50	0 mm	back	1:1	1.080	1.225	1.323	
1 CC Uplink	N/A	1720.00	132072	Low	LTE Band 66 (AWS)	20	20.0	18.94	-0.09	0	0006M	QPSK	1	99	0 mm	front	1:1	1.090	1.276	1.391	
1 CC Uplink	N/A	1720.00	132072	Low	LTE Band 66 (AWS)	20	20.0	19.12	0.04	0	0006M	QPSK	50	50	0 mm	front	1:1	1.150	1.225	1.409	
1 CC Uplink	N/A	1720.00	132072	Low	LTE Band 66 (AWS)	20	20.0	18.94	-0.14	0	0006M	QPSK	1	99	0 mm	bottom	1:1	2.020	1.276	2.578	
1 CC Uplink	N/A	1745.00	132322	Mid	LTE Band 66 (AWS)	20	20.0	18.88	-0.13	0	0006M	QPSK	1	99	0 mm	bottom	1:1	2.130	1.294	2.756	
1 CC Uplink	N/A	1770.00	132572	High	LTE Band 66 (AWS)	20	20.0	18.85	-0.10	0	0006M	QPSK	1	0	0 mm	bottom	1:1	2.200	1.303	2.867	
1 CC Uplink	N/A	1720.00	132072	Low	LTE Band 66 (AWS)	20	20.0	19.12	-0.09	0	0006M	QPSK	50	50	0 mm	bottom	1:1	2.160	1.225	2.646	
1 CC Uplink	N/A	1745.00	132322	Mid	LTE Band 66 (AWS)	20	20.0	19.07	-0.06	0	0006M	QPSK	50	50	0 mm	bottom	1:1	2.240	1.239	2.775	
1 CC Uplink	N/A	1770.00	132572	High	LTE Band 66 (AWS)	20	20.0	18.97	0.11	0	0006M	QPSK	50	0	0 mm	bottom	1:1	2.480	1.268	3.145	
1 CC Uplink	N/A	1770.00	132572	High	LTE Band 66 (AWS)	20	20.0	18.99	-0.15	0	0006M	QPSK	50	50	0 mm	bottom	1:1	2.310	1.262	2.915	
1 CC Uplink	N/A	1775.00	132622	High	LTE Band 66 (AWS)	10	20.0	19.09	-0.06	0	0006M	QPSK	25	0	0 mm	bottom	1:1	2.450	1.233	3.021	
1 CC Uplink	N/A	1720.00	132072	Low	LTE Band 66 (AWS)	20	20.0	18.93	-0.08	0	0006M	QPSK	100	0	0 mm	bottom	1:1	2.180	1.279	2.788	
2 CC Uplink CA_66C	PCC	1770.00	132572	High	LTE Band 66 (AWS)	20	20.0	19.81	-0.04	0	0006M	QPSK	50	0	0 mm	bottom	1:1	2.860	1.045	2.989	A113
	SCC	1750.20	132374										50	50							
2 CC Uplink CA_66B	PCC	1775.00	132622	High	LTE Band 66 (AWS)	10	20.0	19.40	-0.05	0	0006M	QPSK	25	0	0 mm	bottom	1:1	2.580	1.148	2.962	
	SCC	1765.10	132523										25	25							
2 CC Uplink CA_66C	PCC	1770.00	132572	High	LTE Band 66 (AWS)	20	20.0	19.81	-0.08	0	0006M	QPSK	50	0	0 mm	bottom	1:1	2.790	1.045	2.916	
	SCC	1750.20	132374										50	50							
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population													UMPC Extremity 4.0 W/kg (mW/g) averaged over 10 grams								

Note: Blue entry represents variability measurement.

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Table 11-76
LTE Band 25 (PCS) UMPC Extremity SAR

MEASUREMENT RESULTS																			
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Device Serial Number	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (10g)	Scaling Factor	Reported SAR (10g)	Plot #
MHz	Ch.															(W/kg)		(W/kg)	
1860.00	26140	Low	LTE Band 25 (PCS)	20	25.0	24.51	0.00	0	0023M	QPSK	1	50	8 mm	back	1:1	0.456	1.119	0.510	
1860.00	26140	Low	LTE Band 25 (PCS)	20	24.0	23.64	-0.10	1	0023M	QPSK	50	25	8 mm	back	1:1	0.368	1.086	0.400	
1860.00	26140	Low	LTE Band 25 (PCS)	20	25.0	24.51	-0.01	0	0023M	QPSK	1	50	8 mm	front	1:1	0.501	1.119	0.561	
1860.00	26140	Low	LTE Band 25 (PCS)	20	24.0	23.64	-0.08	1	0023M	QPSK	50	25	8 mm	front	1:1	0.410	1.086	0.445	
1860.00	26140	Low	LTE Band 25 (PCS)	20	25.0	24.51	-0.09	0	0023M	QPSK	1	50	13 mm	bottom	1:1	0.459	1.119	0.514	
1860.00	26140	Low	LTE Band 25 (PCS)	20	24.0	23.64	-0.09	1	0023M	QPSK	50	25	13 mm	bottom	1:1	0.378	1.086	0.411	
1860.00	26140	Low	LTE Band 25 (PCS)	20	25.0	24.51	0.05	0	0023M	QPSK	1	50	0 mm	right	1:1	0.663	1.119	0.742	
1860.00	26140	Low	LTE Band 25 (PCS)	20	24.0	23.64	-0.02	1	0023M	QPSK	50	25	0 mm	right	1:1	0.529	1.086	0.574	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	21.0	20.71	-0.11	0	0023M	QPSK	1	50	0 mm	back	1:1	1.160	1.069	1.240	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	21.0	20.75	-0.08	0	0023M	QPSK	50	25	0 mm	back	1:1	1.180	1.059	1.250	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	21.0	20.71	0.08	0	0023M	QPSK	1	50	0 mm	front	1:1	1.230	1.069	1.315	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	21.0	20.75	0.00	0	0023M	QPSK	50	25	0 mm	front	1:1	1.280	1.059	1.356	
1860.00	26140	Low	LTE Band 25 (PCS)	20	21.0	20.65	-0.10	0	0023M	QPSK	1	0	0 mm	bottom	1:1	2.750	1.084	2.981	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	21.0	20.71	-0.05	0	0023M	QPSK	1	50	0 mm	bottom	1:1	2.800	1.069	2.993	
1905.00	26590	High	LTE Band 25 (PCS)	20	21.0	20.54	-0.11	0	0023M	QPSK	1	99	0 mm	bottom	1:1	2.710	1.112	3.014	
1860.00	26140	Low	LTE Band 25 (PCS)	20	21.0	20.74	-0.14	0	0023M	QPSK	50	25	0 mm	bottom	1:1	2.840	1.062	3.016	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	21.0	20.75	-0.12	0	0023M	QPSK	50	25	0 mm	bottom	1:1	2.900	1.059	3.071	
1905.00	26590	High	LTE Band 25 (PCS)	20	21.0	20.63	-0.08	0	0023M	QPSK	50	50	0 mm	bottom	1:1	2.840	1.089	3.093	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	21.0	20.70	-0.05	0	0023M	QPSK	100	0	0 mm	bottom	1:1	2.940	1.072	3.152	A114
1882.50	26365	Mid	LTE Band 25 (PCS)	20	21.0	20.70	-0.10	0	0023M	QPSK	100	0	0 mm	bottom	1:1	2.910	1.072	3.120	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population													UMPC Extremity 4.0 W/kg (mW/g) averaged over 10 grams						

Note: Blue entry represents variability measurement.

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Table 11-77
LTE Band 30 UMPC Extremity SAR

MEASUREMENT RESULTS																			
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Device Serial Number	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (10g)	Scaling Factor	Reported SAR (10g)	Plot #
MHz	Ch.															(W/kg)		(W/kg)	
2310.00	27710	Mid	LTE Band 30	10	25.0	24.28	0.00	0	0045M	QPSK	1	0	8 mm	back	1:1	0.988	1.180	1.166	
2310.00	27710	Mid	LTE Band 30	10	24.0	23.35	0.01	1	0045M	QPSK	25	0	8 mm	back	1:1	0.805	1.161	0.935	
2310.00	27710	Mid	LTE Band 30	10	25.0	24.28	0.01	0	0045M	QPSK	1	0	8 mm	front	1:1	0.801	1.180	0.945	
2310.00	27710	Mid	LTE Band 30	10	24.0	23.35	-0.04	1	0045M	QPSK	25	0	8 mm	front	1:1	0.663	1.161	0.770	
2310.00	27710	Mid	LTE Band 30	10	25.0	24.28	-0.07	0	0045M	QPSK	1	0	13 mm	bottom	1:1	0.589	1.180	0.695	
2310.00	27710	Mid	LTE Band 30	10	24.0	23.35	-0.06	1	0045M	QPSK	25	0	13 mm	bottom	1:1	0.486	1.161	0.564	
2310.00	27710	Mid	LTE Band 30	10	25.0	24.28	-0.07	0	0045M	QPSK	1	0	0 mm	right	1:1	0.643	1.180	0.759	
2310.00	27710	Mid	LTE Band 30	10	24.0	23.35	-0.16	1	0045M	QPSK	25	0	0 mm	right	1:1	0.543	1.161	0.630	
2310.00	27710	Mid	LTE Band 30	10	21.0	20.49	-0.08	0	0045M	QPSK	1	0	0 mm	back	1:1	1.090	1.125	1.226	
2310.00	27710	Mid	LTE Band 30	10	21.0	20.49	0.06	0	0045M	QPSK	25	0	0 mm	back	1:1	1.130	1.125	1.271	
2310.00	27710	Mid	LTE Band 30	10	21.0	20.49	-0.01	0	0045M	QPSK	1	0	0 mm	front	1:1	1.230	1.125	1.384	
2310.00	27710	Mid	LTE Band 30	10	21.0	20.49	0.05	0	0045M	QPSK	25	0	0 mm	front	1:1	1.330	1.125	1.496	
2310.00	27710	Mid	LTE Band 30	10	21.0	20.49	0.05	0	0045M	QPSK	1	0	0 mm	bottom	1:1	2.750	1.125	3.094	
2310.00	27710	Mid	LTE Band 30	10	21.0	20.49	-0.12	0	0045M	QPSK	25	0	0 mm	bottom	1:1	2.850	1.125	3.206	
2310.00	27710	Mid	LTE Band 30	10	21.0	20.48	-0.13	0	0045M	QPSK	50	0	0 mm	bottom	1:1	2.920	1.127	3.291	A115
2310.00	27710	Mid	LTE Band 30	10	21.0	20.48	-0.19	0	0045M	QPSK	50	0	0 mm	bottom	1:1	2.920	1.127	3.291	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																UMPC Extremity 4.0 W/kg (mW/g) averaged over 10 grams			

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Table 11-78
LTE Band 7 UMPC Extremity SAR

MEASUREMENT RESULTS																			
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Device Serial Number	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (10g)	Scaling Factor	Reported SAR (10g)	Plot #
MHz	Ch.															(W/kg)		(W/kg)	
2510.00	20850	Low	LTE Band 7	20	25.0	24.72	0.01	0	0045M	QPSK	1	99	8 mm	back	1:1	0.516	1.067	0.551	
2510.00	20850	Low	LTE Band 7	20	24.0	23.76	0.10	1	0045M	QPSK	50	0	8 mm	back	1:1	0.295	1.057	0.312	
2510.00	20850	Low	LTE Band 7	20	25.0	24.72	-0.02	0	0045M	QPSK	1	99	8 mm	front	1:1	0.486	1.067	0.519	
2510.00	20850	Low	LTE Band 7	20	24.0	23.76	0.05	1	0045M	QPSK	50	0	8 mm	front	1:1	0.269	1.057	0.284	
2510.00	20850	Low	LTE Band 7	20	25.0	24.72	-0.18	0	0045M	QPSK	1	99	13 mm	bottom	1:1	0.456	1.067	0.487	
2510.00	20850	Low	LTE Band 7	20	24.0	23.76	-0.06	1	0045M	QPSK	50	0	13 mm	bottom	1:1	0.261	1.057	0.276	
2510.00	20850	Low	LTE Band 7	20	25.0	24.72	-0.08	0	0045M	QPSK	1	99	0 mm	right	1:1	0.898	1.067	0.958	
2510.00	20850	Low	LTE Band 7	20	24.0	23.76	0.03	1	0045M	QPSK	50	0	0 mm	right	1:1	0.501	1.057	0.530	
2510.00	20850	Low	LTE Band 7	20	19.5	19.19	-0.01	0	0045M	QPSK	1	99	0 mm	back	1:1	0.584	1.074	0.627	
2510.00	20850	Low	LTE Band 7	20	19.5	19.32	-0.03	0	0045M	QPSK	50	50	0 mm	back	1:1	0.612	1.042	0.638	
2510.00	20850	Low	LTE Band 7	20	19.5	19.19	0.08	0	0045M	QPSK	1	99	0 mm	front	1:1	0.933	1.074	1.002	
2510.00	20850	Low	LTE Band 7	20	19.5	19.32	0.07	0	0045M	QPSK	50	50	0 mm	front	1:1	0.984	1.042	1.025	
2510.00	20850	Low	LTE Band 7	20	19.5	19.19	-0.11	0	0045M	QPSK	1	99	0 mm	bottom	1:1	1.920	1.074	2.062	
2535.00	21100	Mid	LTE Band 7	20	19.5	18.87	-0.06	0	0045M	QPSK	1	0	0 mm	bottom	1:1	1.850	1.156	2.139	
2560.00	21350	High	LTE Band 7	20	19.5	18.80	-0.12	0	0045M	QPSK	1	0	0 mm	bottom	1:1	1.610	1.175	1.892	
2510.00	20850	Low	LTE Band 7	20	19.5	19.32	-0.08	0	0045M	QPSK	50	50	0 mm	bottom	1:1	2.050	1.042	2.136	A116
2535.00	21100	Mid	LTE Band 7	20	19.5	19.03	-0.09	0	0045M	QPSK	50	0	0 mm	bottom	1:1	1.900	1.114	2.117	
2560.00	21350	High	LTE Band 7	20	19.5	18.86	-0.06	0	0045M	QPSK	50	0	0 mm	bottom	1:1	1.660	1.159	1.924	
2510.00	20850	Low	LTE Band 7	20	19.5	19.17	-0.09	0	0045M	QPSK	100	0	0 mm	bottom	1:1	2.010	1.079	2.169	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population													UMPC Extremity 4.0 W/kg (mW/g) averaged over 10 grams						

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Table 11-79
LTE Band 41 UMPC Extremity SAR

MEASUREMENT RESULTS																						
1 CC Uplink | 2 CC Uplink, Power Class	Component Carrier	FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Device Serial Number	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (10g)	Scaling Factor	Reported SAR (10g)	Plot #
		MHz	Ch.															(W/kg)		(W/kg)	
1 CC Uplink - Power Class 3	N/A	2636.50	41055	Mid-High	LTE Band 41	20	25.0	24.59	-0.02	0	0045M	QPSK	1	0	8 mm	back	1:1.58	0.351	1.099	0.386	
1 CC Uplink - Power Class 3	N/A	2636.50	41055	Mid-High	LTE Band 41	20	24.0	23.59	-0.06	1	0045M	QPSK	50	0	8 mm	back	1:1.58	0.289	1.099	0.318	
1 CC Uplink - Power Class 3	N/A	2636.50	41055	Mid-High	LTE Band 41	20	25.0	24.59	-0.06	0	0045M	QPSK	1	0	8 mm	front	1:1.58	0.360	1.099	0.396	
1 CC Uplink - Power Class 3	N/A	2636.50	41055	Mid-High	LTE Band 41	20	24.0	23.59	-0.07	1	0045M	QPSK	50	0	8 mm	front	1:1.58	0.296	1.099	0.325	
1 CC Uplink - Power Class 3	N/A	2636.50	41055	Mid-High	LTE Band 41	20	25.0	24.59	-0.01	0	0045M	QPSK	1	0	13 mm	bottom	1:1.58	0.347	1.099	0.381	
1 CC Uplink - Power Class 3	N/A	2636.50	41055	Mid-High	LTE Band 41	20	24.0	23.59	-0.05	1	0045M	QPSK	50	0	13 mm	bottom	1:1.58	0.286	1.099	0.314	
1 CC Uplink - Power Class 3	N/A	2636.50	41055	Mid-High	LTE Band 41	20	25.0	24.59	-0.18	0	0045M	QPSK	1	0	0 mm	right	1:1.58	0.908	1.099	0.998	
1 CC Uplink - Power Class 3	N/A	2636.50	41055	Mid-High	LTE Band 41	20	24.0	23.59	-0.15	1	0045M	QPSK	50	0	0 mm	right	1:1.58	0.764	1.099	0.840	
1 CC Uplink - Power Class 3	N/A	2636.50	41055	Mid-High	LTE Band 41	20	21.5	20.64	0.06	0	0045M	QPSK	1	0	0 mm	back	1:1.58	0.816	1.219	0.995	
1 CC Uplink - Power Class 3	N/A	2636.50	41055	Mid-High	LTE Band 41	20	21.5	20.75	0.04	0	0045M	QPSK	50	0	0 mm	back	1:1.58	0.850	1.189	1.011	
1 CC Uplink - Power Class 3	N/A	2636.50	41055	Mid-High	LTE Band 41	20	21.5	20.64	0.06	0	0045M	QPSK	1	0	0 mm	front	1:1.58	1.120	1.219	1.365	
1 CC Uplink - Power Class 3	N/A	2636.50	41055	Mid-High	LTE Band 41	20	21.5	20.75	0.10	0	0045M	QPSK	50	0	0 mm	front	1:1.58	1.170	1.189	1.391	
1 CC Uplink - Power Class 3	N/A	2506.00	39750	Low	LTE Band 41	20	21.5	20.39	0.14	0	0045M	QPSK	1	99	0 mm	bottom	1:1.58	2.490	1.291	3.215	
1 CC Uplink - Power Class 3	N/A	2549.50	40185	Low-Mid	LTE Band 41	20	21.5	20.41	0.14	0	0045M	QPSK	1	0	0 mm	bottom	1:1.58	2.290	1.285	2.943	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	21.5	20.45	0.13	0	0045M	QPSK	1	0	0 mm	bottom	1:1.58	1.990	1.274	2.535	
1 CC Uplink - Power Class 3	N/A	2636.50	41055	Mid-High	LTE Band 41	20	21.5	20.64	-0.19	0	0045M	QPSK	1	0	0 mm	bottom	1:1.58	2.170	1.219	2.645	
1 CC Uplink - Power Class 3	N/A	2680.00	41490	High	LTE Band 41	20	21.5	20.41	0.14	0	0045M	QPSK	1	0	0 mm	bottom	1:1.58	2.330	1.285	2.994	
1 CC Uplink - Power Class 3	N/A	2680.00	41490	High	LTE Band 41	20	21.5	20.62	-0.21	0	0045M	QPSK	1	99	0 mm	bottom	1:1.58	2.540	1.225	3.112	
1 CC Uplink - Power Class 3	N/A	2506.00	39750	Low	LTE Band 41	20	21.5	20.60	0.14	0	0045M	QPSK	50	50	0 mm	bottom	1:1.58	2.660	1.230	3.272	
1 CC Uplink - Power Class 3	N/A	2549.50	40185	Low-Mid	LTE Band 41	20	21.5	20.63	0.14	0	0045M	QPSK	50	0	0 mm	bottom	1:1.58	2.340	1.222	2.859	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	21.5	20.66	0.14	0	0045M	QPSK	50	0	0 mm	bottom	1:1.58	2.060	1.213	2.499	
1 CC Uplink - Power Class 3	N/A	2636.50	41055	Mid-High	LTE Band 41	20	21.5	20.75	-0.15	0	0045M	QPSK	50	0	0 mm	bottom	1:1.58	2.300	1.189	2.735	
1 CC Uplink - Power Class 3	N/A	2680.00	41490	High	LTE Band 41	20	21.5	20.65	0.13	0	0045M	QPSK	50	0	0 mm	bottom	1:1.58	2.590	1.216	3.149	
1 CC Uplink - Power Class 3	N/A	2680.00	41490	High	LTE Band 41	20	21.5	20.72	-0.17	0	0045M	QPSK	50	50	0 mm	bottom	1:1.58	2.570	1.197	3.076	
1 CC Uplink - Power Class 3	N/A	2636.50	41055	Mid-High	LTE Band 41	20	21.5	20.63	-0.17	0	0045M	QPSK	100	0	0 mm	bottom	1:1.58	2.260	1.222	2.762	
1 CC Uplink - Power Class 2	N/A	2506.00	39750	Low	LTE Band 41	20	21.5	20.21	0.12	0	0045M	QPSK	50	50	0 mm	bottom	1:2.31	1.740	1.346	2.342	
2 CC Uplink - Power Class 3	PCC	2506.00	39750	Low	LTE Band 41	20	21.5	20.88	0.14	0	0045M	QPSK	1	99	0 mm	bottom	1:1.58	2.850	1.153	3.286	
	SCC	2525.80	39948										1	0							
2 CC Uplink - Power Class 3	PCC	2549.50	40185	Low-Mid	LTE Band 41	20	21.5	20.99	0.13	0	0045M	QPSK	1	0	0 mm	bottom	1:1.58	2.740	1.125	3.083	
	SCC	2529.70	39987										1	99							
2 CC Uplink - Power Class 3	PCC	2593.00	40620	Mid	LTE Band 41	20	21.5	21.00	0.12	0	0045M	QPSK	1	0	0 mm	bottom	1:1.58	2.290	1.122	2.569	
	SCC	2573.20	40422										1	99							
2 CC Uplink - Power Class 3	PCC	2636.50	41055	Mid-High	LTE Band 41	20	21.5	21.08	0.12	0	0045M	QPSK	1	0	0 mm	bottom	1:1.58	2.520	1.102	2.777	
	SCC	2616.70	40857										1	99							
2 CC Uplink - Power Class 3	PCC	2680.00	41490	High	LTE Band 41	20	21.5	21.17	0.14	0	0045M	QPSK	1	0	0 mm	bottom	1:1.58	2.890	1.079	3.118	
	SCC	2660.20	41292										1	99							
2 CC Uplink - Power Class 3	PCC	2506.00	39750	Low	LTE Band 41	20	21.5	21.09	0.14	0	0045M	QPSK	50	50	0 mm	bottom	1:1.58	2.980	1.099	3.275	
	SCC	2525.80	39948										50	0							
2 CC Uplink - Power Class 3	PCC	2549.50	40185	Low-Mid	LTE Band 41	20	21.5	21.23	0.16	0	0045M	QPSK	50	0	0 mm	bottom	1:1.58	2.820	1.064	3.000	
	SCC	2529.70	39987										50	50							
2 CC Uplink - Power Class 3	PCC	2593.00	40620	Mid	LTE Band 41	20	21.5	21.18	0.13	0	0045M	QPSK	50	0	0 mm	bottom	1:1.58	2.380	1.076	2.561	
	SCC	2573.20	40422										50	50							
2 CC Uplink - Power Class 3	PCC	2636.50	41055	Mid-High	LTE Band 41	20	21.5	21.13	0.14	0	0045M	QPSK	50	0	0 mm	bottom	1:1.58	2.620	1.089	2.853	
	SCC	2616.70	40857										50	50							
2 CC Uplink - Power Class 3	PCC	2680.00	41490	High	LTE Band 41	20	21.5	21.20	0.14	0	0045M	QPSK	50	0	0 mm	bottom	1:1.58	3.060	1.072	3.280	A117
	SCC	2660.20	41292										50	50							
2 CC Uplink - Power Class 2	PCC	2506.00	39750	Low	LTE Band 41	20	21.5	20.80	0.12	0	0045M	QPSK	1	99	0 mm	bottom	1:2.31	1.920	1.175	2.256	
	SCC	2525.80	39948										1	0							
2 CC Uplink - Power Class 3	PCC	2506.00	39750	Low	LTE Band 41	20	21.5	21.09	-0.06	0	0045M	QPSK	50	50	0 mm	bottom	1:1.58	3.000	1.099	**3.297**	
	SCC	2525.80	39948										50	0							
2 CC Uplink - Power Class 3	PCC	2680.00	41490	High	LTE Band 41	20	21.5	21.20	-0.07	0	0045M	QPSK	50	0	0 mm	bottom	1:1.58	3.020	1.072	3.237	
	SCC	2660.20	41292										50	50							

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Note: Blue entry represents variability measurement.

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Table 11-80
WLAN UMPC Extremity SAR

MEASUREMENT RESULTS																			
FREQUENCY		Mode	Service	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Spacing	Antenna Config.	Device Serial Number	Data Rate (Mbps)	Side	Duty Cycle (%)	Peak SAR of Area Scan	SAR (10g)	Scaling Factor (Power)	Scaling Factor (Duty Cycle)	Reported SAR (10g)	Plot #
MHz	Ch.													W/kg	(W/kg)			(W/kg)	
2412	1	802.11b	DSSS	22	20.0	19.97	0.12	0 mm	1	0025M	1	back	99.9	3.970	1.640	1.007	1.001	1.653	
2412	1	802.11b	DSSS	22	20.0	19.97	0.16	0 mm	1	0025M	1	front	99.9	10.719	2.680	1.007	1.001	2.701	A118
2437	6	802.11b	DSSS	22	20.0	19.92	0.19	0 mm	1	0025M	1	front	99.9	4.662	1.590	1.019	1.001	1.622	
2462	11	802.11b	DSSS	22	20.0	19.72	0.19	0 mm	1	0025M	1	front	99.9	4.805	1.550	1.067	1.001	1.656	
2412	1	802.11b	DSSS	22	20.0	19.97	0.02	0 mm	1	0025M	1	top	99.9	7.893	1.960	1.007	1.001	1.976	
2412	1	802.11b	DSSS	22	20.0	19.97	0.15	0 mm	1	0025M	1	right	99.9	3.701	-	1.007	1.001	-	
2412	1	802.11b	DSSS	22	20.0	19.98	-0.13	0 mm	2	0001M	1	back	99.9	6.838	1.130	1.005	1.001	1.137	
2412	1	802.11b	DSSS	22	20.0	19.98	-0.01	0 mm	2	0001M	1	front	99.9	0.848	-	1.005	1.001	-	
2412	1	802.11b	DSSS	22	20.0	19.98	0.18	0 mm	2	0001M	1	top	99.9	2.978	0.558	1.005	1.001	0.561	
5320	64	802.11a	OFDM	20	18.0	17.91	0.02	0 mm	1	0003M	6	back	98.8	11.016	0.643	1.021	1.012	0.664	
5320	64	802.11a	OFDM	20	18.0	17.91	0.19	0 mm	1	0003M	6	front	98.8	2.517	-	1.021	1.012	-	
5320	64	802.11a	OFDM	20	18.0	17.91	0.19	0 mm	1	0003M	6	top	98.8	3.596	-	1.021	1.012	-	
5320	64	802.11a	OFDM	20	18.0	17.91	-0.14	0 mm	1	0003M	6	right	98.8	0.856	-	1.021	1.012	-	
5280	56	802.11a	OFDM	20	18.0	17.99	-0.13	0 mm	2	0003M	6	back	98.7	2.702	0.356	1.002	1.013	0.361	
5280	56	802.11a	OFDM	20	18.0	17.99	-0.19	0 mm	2	0003M	6	front	98.7	0.452	-	1.002	1.013	-	
5280	56	802.11a	OFDM	20	18.0	17.99	0.17	0 mm	2	0003M	6	top	98.7	0.824	-	1.002	1.013	-	
5500	100	802.11a	OFDM	20	18.0	17.94	-0.14	0 mm	1	0003M	6	back	98.8	5.439	0.737	1.014	1.012	0.756	
5500	100	802.11a	OFDM	20	18.0	17.94	-0.19	0 mm	1	0003M	6	front	98.8	4.198	-	1.014	1.012	-	
5500	100	802.11a	OFDM	20	18.0	17.94	0.18	0 mm	1	0003M	6	top	98.8	5.368	-	1.014	1.012	-	
5500	100	802.11a	OFDM	20	18.0	17.94	0.12	0 mm	1	0003M	6	right	98.8	0.767	-	1.014	1.012	-	
5720	144	802.11a	OFDM	20	18.0	17.98	-0.07	0 mm	2	0003M	6	back	98.7	3.283	0.391	1.005	1.013	0.398	
5720	144	802.11a	OFDM	20	18.0	17.98	-0.19	0 mm	2	0003M	6	front	98.7	0.987	-	1.005	1.013	-	
5720	144	802.11a	OFDM	20	18.0	17.98	0.03	0 mm	2	0003M	6	top	98.7	2.013	-	1.005	1.013	-	
5785	157	802.11a	OFDM	20	18.0	17.97	-0.08	0 mm	1	0003M	6	back	98.8	8.627	0.877	1.007	1.012	0.894	A119
5785	157	802.11a	OFDM	20	18.0	17.97	-0.15	0 mm	1	0003M	6	front	98.8	4.127	-	1.007	1.012	-	
5785	157	802.11a	OFDM	20	18.0	17.97	0.04	0 mm	1	0003M	6	top	98.8	3.674	-	1.007	1.012	-	
5785	157	802.11a	OFDM	20	18.0	17.97	0.12	0 mm	1	0003M	6	right	98.8	0.740	-	1.007	1.012	-	
5785	157	802.11a	OFDM	20	18.0	17.86	-0.13	0 mm	2	0003M	6	back	98.7	3.120	0.367	1.033	1.013	0.384	
5785	157	802.11a	OFDM	20	18.0	17.86	0.06	0 mm	2	0003M	6	front	98.7	1.153	-	1.033	1.013	-	
5785	157	802.11a	OFDM	20	18.0	17.86	0.12	0 mm	2	0003M	6	top	98.7	2.998	-	1.033	1.013	-	

ANSI / IEEE C95.1 1992 - SAFETY LIMIT	UMPC Extremity
Spatial Peak	4.0 W/kg (mW/g)
Uncontrolled Exposure/General Population	averaged over 10 grams

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Table 11-81
DTS WLAN MIMO UMPC Extremity SAR

MEASUREMENT RESULTS																						
FREQUENCY		Mode	Service	Bandwidth [MHz]	Maximum Allowed Power (Ant 1) [dBm]	Conducted Power (Ant 1) [dBm]	Maximum Allowed Power (Ant 2) [dBm]	Conducted Power (Ant 2) [dBm]	Power Drift [dB]	Spacing	Antenna Config.	Device Serial Number	Data Rate (Mbps)	Side	Duty Cycle (%)	Peak SAR of Area Scan	SAR (10g)	Scaling Factor (Power)	Scaling Factor (Duty Cycle)	Reported SAR (10g)	Plot #
MHz	Ch.															W/kg	(W/kg)			(W/kg)	
2452	9	802.11n	OFDM	20	18.0	17.96	18.0	17.85	-0.14	0 mm	MIMO	0001M	13	back	98.7	2.859	0.980	1.035	1.013	1.027	
2412	1	802.11n	OFDM	20	18.0	17.70	18.0	17.95	0.14	0 mm	MIMO	0001M	13	front	98.7	4.145	1.130	1.072	1.013	1.227	
2437	6	802.11n	OFDM	20	18.0	17.85	18.0	17.89	0.09	0 mm	MIMO	0001M	13	front	98.7	3.517	0.788	1.035	1.013	0.826	
2452	9	802.11n	OFDM	20	18.0	17.96	18.0	17.85	0.08	0 mm	MIMO	0001M	13	front	98.7	3.806	1.800	1.035	1.013	1.887	
2452	9	802.11n	OFDM	20	18.0	17.96	18.0	17.85	0.16	0 mm	MIMO	0001M	13	top	98.7	4.850	1.360	1.035	1.013	1.426	
2452	9	802.11n	OFDM	20	18.0	17.96	18.0	17.85	-0.13	0 mm	MIMO	0001M	13	right	98.7	2.679	-	1.035	1.013	-	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																UMPC Extremity 4.0 W/kg (mW/g) averaged over 10 grams					

Note: To achieve the 21.0 dBm maximum allowed MIMO power shown in the documentation, each antenna transmits at a maximum allowed power of 18.0 dBm.

Table 11-82
5 GHz WLAN UMPC Extremity SAR with 2.4 GHz and 5 GHz WLAN SAR

MEASUREMENT RESULTS																						
FREQUENCY		Mode	Service	Bandwidth [MHz]	Maximum Allowed Power (Ant 1) [dBm]	Conducted Power (Ant 1) [dBm]	Maximum Allowed Power (Ant 2) [dBm]	Conducted Power (Ant 2) [dBm]	Power Drift [dB]	Spacing	Antenna Config.	Device Serial Number	Data Rate (Mbps)	Side	Duty Cycle (%)	Peak SAR of Area Scan	SAR (10g)	Scaling Factor (Power)	Scaling Factor (Duty Cycle)	Reported SAR (10g)	Plot #
MHz	Ch.															W/kg	(W/kg)			(W/kg)	
5310	62	802.11n	OFDM	40	14.0	13.87	14.0	13.94	0.12	0 mm	MIMO	0003M	27	back	97.3	2.965	0.357	1.030	1.028	0.378	
5310	62	802.11n	OFDM	40	14.0	13.87	14.0	13.94	0.14	0 mm	MIMO	0003M	27	front	97.3	1.331	0.192	1.030	1.028	0.203	
5310	62	802.11n	OFDM	40	14.0	13.87	14.0	13.94	0.16	0 mm	MIMO	0003M	27	top	97.3	2.205	-	1.030	1.028	-	
5310	62	802.11n	OFDM	40	14.0	13.87	14.0	13.94	0.15	0 mm	MIMO	0003M	27	right	97.3	0.443	-	1.030	1.028	-	
5530	106	802.11ac	OFDM	80	14.0	12.86	14.0	12.80	-0.18	0 mm	MIMO	0003M	58.5	back	90.7	3.222	0.454	1.318	1.103	0.660	
5530	106	802.11ac	OFDM	80	14.0	12.86	14.0	12.80	0.15	0 mm	MIMO	0003M	58.5	front	90.7	1.743	0.227	1.318	1.103	0.330	
5530	106	802.11ac	OFDM	80	14.0	12.86	14.0	12.80	-0.17	0 mm	MIMO	0003M	58.5	top	90.7	2.808	-	1.318	1.103	-	
5530	106	802.11ac	OFDM	80	14.0	12.86	14.0	12.80	0.16	0 mm	MIMO	0003M	58.5	right	90.7	0.371	-	1.318	1.103	-	
5775	155	802.11ac	OFDM	80	14.0	12.58	14.0	12.85	0.04	0 mm	MIMO	0003M	58.5	back	90.7	2.664	0.401	1.387	1.103	0.613	
5775	155	802.11ac	OFDM	80	14.0	12.58	14.0	12.85	0.13	0 mm	MIMO	0003M	58.5	front	90.7	1.788	0.224	1.387	1.103	0.343	
5775	155	802.11ac	OFDM	80	14.0	12.58	14.0	12.85	-0.17	0 mm	MIMO	0003M	58.5	top	90.7	2.179	-	1.387	1.103	-	
5775	155	802.11ac	OFDM	80	14.0	12.58	14.0	12.85	-0.13	0 mm	MIMO	0003M	58.5	right	90.7	0.263	-	1.387	1.103	-	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																UMPC Extremity 4.0 W/kg (mW/g) averaged over 10 grams					

Note: NII MIMO was additionally evaluated at the maximum allowed output power during operations with Simultaneous 2.4 GHz and 5 GHz WLAN. 2.4 GHz WIFI was not transmitting during the above evaluations.

Table 11-83
DSS UMPC Extremity SAR

MEASUREMENT RESULTS															
FREQUENCY		Mode	Service	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Spacing	Device Serial Number	Data Rate (Mbps)	Side	Duty Cycle (%)	SAR (10g)	Scaling Factor (Cond Power)	Scaling Factor (Duty Cycle)	Reported SAR (10g)	Plot #
MHz	Ch.											(W/kg)			(W/kg)	
2402	0	Bluetooth	FHSS	16.5	16.18	0.01	0 mm	0020M	1	back	77.1	0.327	1.076	1.297	0.456	
2402	0	Bluetooth	FHSS	16.5	16.18	-0.13	0 mm	0020M	1	front	77.1	0.668	1.076	1.297	0.932	A120
2402	0	Bluetooth	FHSS	16.5	16.18	-0.14	0 mm	0020M	1	top	77.1	0.427	1.076	1.297	0.596	
2402	0	Bluetooth	FHSS	16.5	16.18	0.15	0 mm	0020M	1	right	77.1	0.202	1.076	1.297	0.282	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population												UMPC Extremity 4.0 W/kg (mW/g) averaged over 10 grams				

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11.7 SAR Test Notes

General Notes:

1. The test data reported are the worst-case SAR values according to test procedures specified in IEEE 1528-2013, and FCC KDB Publication 447498 D01v06.
2. Batteries are fully charged at the beginning of the SAR measurements.
3. Liquid tissue depth was at least 15.0 cm for all frequencies.
4. The manufacturer has confirmed that the device(s) tested have the same physical, mechanical and thermal characteristics and are within operational tolerances expected for production units.
5. SAR results were scaled to the maximum allowed power to demonstrate compliance per FCC KDB Publication 447498 D01v06.
6. Device was tested using a fixed spacing for body-worn accessory testing. A separation distance of 15 mm was considered because the manufacturer has determined that there will be body-worn accessories available in the marketplace for users to support this separation distance.
7. Per FCC KDB Publication 648474 D04v01r03, body-worn SAR was evaluated without a headset connected to the device. Since the standalone reported body-worn SAR was ≤ 1.2 W/kg, no additional body-worn SAR evaluations using a headset cable were required.
8. Per FCC KDB 865664 D01v01r04, variability SAR tests were performed when the measured SAR results for a frequency band were greater than or equal to 0.8 W/kg. Repeated SAR measurements are highlighted in the tables above for clarity. Please see Section 13 for variability analysis.
9. During SAR Testing for the Wireless Router conditions per FCC KDB Publication 941225 D06v02r01, the actual Portable Hotspot operation (with actual simultaneous transmission of a transmitter with WIFI) was not activated (See Section 6.7 for more details).
10. Per FCC KDB Publication 648474 D04v01r03, this device is considered a "phablet" when it is in closed configuration since the diagonal dimension is > 160 mm and < 200 mm. Therefore, phablet SAR tests are required when wireless router mode does not apply or if wireless router 1g SAR > 1.2 W/kg. Additional SAR tests for phablet SAR were evaluated per KDB 616217 Section 6 (See Section 6.9 for more information)
11. This device supports dynamic antenna tuning for some bands. Per FCC Guidance, SAR was measured according to the normally required SAR measurement configurations with tuner active. The auto-tune state determined by the device was verified before and after each SAR measurement and is listed in tables above. Please see Section 14 for supplemental data.
12. This device utilizes power reduction for some wireless modes and technologies, as outlined in Section 1.3. The maximum output power allowed for each transmitter and exposure condition was evaluated for SAR compliance based on expected use conditions and simultaneous transmission scenarios.
13. Unless otherwise noted, when 10g SAR measurement is considered, a factor of 2.5 is applied to the thresholds below.
14. Per FCC KDB Publication 941225 D07v01r02, this device is considered a "UMPC mini-tablet" when it is in open configuration. UMPC body 1g SAR tests are required on all surfaces and edges ≤ 25 mm from a transmitting antenna. Therefore, to address hand exposure, UMPC extremity 10g SAR tests are required at a test separation distance of 0 mm for all measured 1g SAR (at 10 mm) configurations.

GSM Test Notes:

1. Body-Worn accessory testing is typically associated with voice operations. Therefore, GSM voice was evaluated for body-worn SAR.
2. Justification for reduced test configurations per KDB Publication 941225 D01v03r01 and October 2013 TCB Workshop Notes: The source-based frame-averaged output power was evaluated for all GPRS/EDGE slot configurations. The configuration with the highest target frame averaged output power was evaluated for hotspot SAR. When the maximum frame-averaged powers are equivalent across two or more slots (within 0.25 dB), the configuration with the most number of time slots was tested.
3. Per FCC KDB Publication 447498 D01v06, if the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is ≤ 0.8 W/kg for 1g evaluations then testing at the other channels is not required for such test configuration(s). When the maximum output power

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variation across the required test channels is > ½ dB, instead of the middle channel, the highest output power channel was used.

CDMA Notes:

1. Head SAR for CDMA2000 mode was tested under RC3/SO55 per FCC KDB Publication 941225 D01v03r01.
2. Body-Worn SAR was tested with 1x RTT with TDSO / SO32 FCH Only. EVDO Rev0 and RevA and TDSO / SO32 FCH+SCH SAR tests were not required per the 3G SAR Test Reduction Procedure in FCC KDB Publication 941225 D01v03r01.
3. CDMA Wireless Router SAR is measured using Subtype 0/1 Physical Layer configurations for Rev. 0 according to KDB 941225 D01v03r01 procedures for data devices. Wireless Router SAR tests for Subtype 2 of Rev.A and 1x RTT configurations were not required per the 3G SAR Test Reduction Policy in KDB Publication 941225 D01v03r01.
4. Head SAR was additionally evaluated using EVDO Rev. A to determine compliance for VoIP operations.
5. Per FCC KDB Publication 447498 D01v06, if the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is ≤ 0.8 W/kg for 1g evaluations then testing at the other channels is not required for such test configuration(s). When the maximum output power variation across the required test channels is > ½ dB, instead of the middle channel, the highest output power channel was used.
6. CDMA 1X Advanced technology was not required for SAR since the maximum allowed output powers for 1X Advanced was not more than 0.25 dB higher than the maximum powers for 1X.

UMTS Notes:

1. UMTS mode in was tested under RMC 12.2 kbps with HSPA Inactive per KDB Publication 941225 D01v03r01. AMR and HSPA SAR was not required per the 3G Test Reduction Procedure in KDB Publication 941225 D01v03r01.
2. Per FCC KDB Publication 447498 D01v06, if the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is ≤ 0.8 W/kg for 1g evaluations then testing at the other channels is not required for such test configuration(s). When the maximum output power variation across the required test channels is > ½ dB, instead of the middle channel, the highest output power channel was used.

LTE Notes:

1. LTE Considerations: LTE test configurations are determined according to SAR Evaluation Considerations for LTE Devices in FCC KDB Publication 941225 D05v02r04. The general test procedures used for testing can be found in Section 8.6.4.
2. MPR is permanently implemented for this device by the manufacturer. The specific manufacturer target MPR is indicated alongside the SAR results. MPR is enabled for this device, according to 3GPP TS36.101 Section 6.2.3 – 6.2.5 under Table 6.2.3-1.
3. A-MPR was disabled for all SAR tests by setting NS=01 and MCC=001 on the base station simulator. SAR tests were performed with the same number of RB and RB offsets transmitting on all TTI frames (maximum TTI).
4. Per FCC KDB Publication 447498 D01v06, when the reported LTE Band 41 SAR measured at the highest output power channel in a given a test configuration was > 0.6 W/kg for 1g evaluations, testing at the other channels was required for such test configurations.
5. TDD LTE was tested per the guidance provided in FCC KDB Publication 941225 D05v02r04. Testing was performed using UL-DL configuration 0 with 6 UL subframes and 2 S subframes using extended cyclic prefix only and special subframe configuration 6. SAR tests were performed at maximum output power and worst-case transmission duty factor in extended cyclic prefix. Per 3GPP 36.211 Section 4, the duty factor for special subframe configuration 6 using extended cyclic prefix is 0.633.

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6. Per KDB Publication 941225 D05Av01r02, SAR for downlink only LTE CA operations was not needed since the maximum average output power in LTE CA mode was not >0.25 dB higher than the maximum output power when downlink carrier aggregation was inactive.
7. This device supports Power Class 2 and Power Class 3 operations for LTE Band 41. The highest available duty cycle for Power Class 2 operations is 43.3 % using UL-DL configuration 1. Per FCC Guidance, all SAR tests were performed using Power Class 3. SAR with power class 2 at the available duty factor was additionally performed for the power class 3 configuration with the highest SAR configuration for each exposure conditions. Please see Section 14 for linearity results.
8. This device supports ULCA active with Power Class 2. Highest SAR test configuration for each exposure condition in Power Class 3 with ULCA active was repeated with Power Class 2 with ULCA active.
9. For LTE Band 5, LTE Band 66, and LTE Band 41, per FCC guidance, SAR was first measured with only a single carrier active in the uplink (carrier aggregation not active). For each exposure condition, the uplink CA scenario with two component carriers was additionally tested for the configuration with the highest SAR when carrier aggregation was not active. The SCC was configured with the closest available contiguous channel. The two component carriers were configured so the resource blocks are physically allocated side by side to achieve the maximum output power.

WLAN Notes:

1. For held-to-ear, hotspot, phablet, and UMPC mini-tablet operations, the initial test position procedures were applied. When reported SAR for the initial test position is ≤ 0.4 W/kg for 1g evaluations, no additional testing for the remaining test positions was required. Otherwise, SAR is evaluated at the subsequent highest peak SAR positions until the reported SAR result is ≤ 0.8 W/kg or all test positions are measured.
2. Justification for test configurations for WLAN per KDB Publication 248227 D01v02r02 for 2.4 GHz WIFI single transmission chain operations, the highest measured maximum output power channel for DSSS was selected for SAR measurement. SAR for OFDM modes (2.4 GHz 802.11g/n/ax) was not required due to the maximum allowed powers and the highest reported DSSS SAR. See Section 8.7.5 for more information.
3. Justification for test configurations for WLAN per KDB Publication 248227 D01v02r02 for 5 GHz WIFI single transmission chain operations, the initial test configuration was selected according to the transmission mode with the highest maximum allowed powers. Other transmission modes were not investigated since the highest reported SAR for initial test configuration adjusted by the ratio of maximum output powers is less than 1.2 W/kg for 1g evaluations. See Section 8.7.6 for more information.
4. Per KDB Publication 248227 D01v02r02, SAR for MIMO was evaluated by following the simultaneous SAR provisions from KDB Publication 447498 D01v06 by either evaluating the sum of the 1g SAR values of each antenna transmitting independently or making a SAR measurement with both antennas transmitting simultaneously. Please see Section 12 for complete analysis.
5. When the maximum reported 1g averaged SAR is ≤0.8 W/kg, SAR testing on additional channels was not required. Otherwise, SAR for the next highest output power channel was required until the reported SAR result was ≤ 1.20 W/kg for 1g evaluations or all test channels were measured.
6. The device was configured to transmit continuously at the required data rate, channel bandwidth and signal modulation, using the highest transmission duty factor supported by the test mode tools. The reported SAR was scaled to the 100% transmission duty factor to determine compliance. Procedures used to measure the duty factor are identical to that in the associated EMC test reports.
7. When 10g SAR measurement is considered, a factor of 2.5 is applied to the thresholds above.

Bluetooth Notes

1. Bluetooth SAR was measured with the device connected to a call box with hopping disabled with DH5 operation and Tx Tests test mode type. Per October 2016 TCB Workshop Notes, the reported SAR was scaled to the 100% transmission duty factor to determine compliance. See Section 9.6 for the time domain plot and calculation for the duty factor of the device.

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12 FCC MULTI-TX AND ANTENNA SAR CONSIDERATIONS

12.1 Introduction

The following procedures adopted from FCC KDB Publication 447498 D01v06 are applicable to devices with built-in unlicensed transmitters such as 802.11 and Bluetooth devices which may simultaneously transmit with the licensed transmitter.

12.2 Simultaneous Transmission Procedures

This device contains transmitters that may operate simultaneously. Therefore, simultaneous transmission analysis is required. Per FCC KDB Publication 447498 D01v06 4.3.2 and IEEE 1528-2013 Section 6.3.4.1.2, simultaneous transmission SAR test exclusion may be applied when the sum of the 1g SAR for all the simultaneous transmitting antennas in a specific a physical test configuration is ≤1.6 W/kg. The different test positions in an exposure condition may be considered collectively to determine SAR test exclusion according to the sum of 1g or 10g SAR.

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12.3 Head SAR Simultaneous Transmission Analysis

Table 12-1
Simultaneous Transmission Scenario with 2.4 GHz WLAN (Held to Ear)

Exposure Condition	Mode	2G/3G/4G SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		
		1	2	3	1+2	1+3	1+2+3
Head SAR	CDMA/EVDO BC10 (§90S)	0.414	0.076	0.094	0.490	0.508	**0.584**
	CDMA/EVDO BC0 (§22H)	0.407	0.076	0.094	0.483	0.501	0.577
	PCS CDMA/EVDO	0.237	0.076	0.094	0.313	0.331	0.407
	GSM 850	0.297	0.076	0.094	0.373	0.391	0.467
	GSM 1900	0.113	0.076	0.094	0.189	0.207	0.283
	UMTS 850	0.361	0.076	0.094	0.437	0.455	0.531
	UMTS 1750	0.266	0.076	0.094	0.342	0.360	0.436
	UMTS 1900	0.238	0.076	0.094	0.314	0.332	0.408
	LTE Band 71	0.213	0.076	0.094	0.289	0.307	0.383
	LTE Band 12	0.185	0.076	0.094	0.261	0.279	0.355
	LTE Band 13	0.241	0.076	0.094	0.317	0.335	0.411
	LTE Band 14	0.237	0.076	0.094	0.313	0.331	0.407
	LTE Band 26 (Cell)	0.310	0.076	0.094	0.386	0.404	0.480
	LTE Band 5 (Cell)	0.323	0.076	0.094	0.399	0.417	0.493
	LTE Band 66 (AWS)	0.262	0.076	0.094	0.338	0.356	0.432
	LTE Band 25 (PCS)	0.138	0.076	0.094	0.214	0.232	0.308
	LTE Band 30	0.231	0.076	0.094	0.307	0.325	0.401
	LTE Band 7	0.334	0.076	0.094	0.410	0.428	0.504
	LTE Band 41	0.125	0.076	0.094	0.201	0.219	0.295

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Table 12-2
Simultaneous Transmission Scenario with 5 GHz WLAN (Held to Ear)

Exposure Condition	Mode	2G/3G/4G SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		
		1	2	3	1+2	1+3	1+2+3
Head SAR	CDMA/EVDO BC10 (§90S)	0.414	0.099	0.042	0.513	0.456	**0.555**
	CDMA/EVDO BC0 (§22H)	0.407	0.099	0.042	0.506	0.449	0.548
	PCS CDMA/EVDO	0.237	0.099	0.042	0.336	0.279	0.378
	GSM 850	0.297	0.099	0.042	0.396	0.339	0.438
	GSM 1900	0.113	0.099	0.042	0.212	0.155	0.254
	UMTS 850	0.361	0.099	0.042	0.460	0.403	0.502
	UMTS 1750	0.266	0.099	0.042	0.365	0.308	0.407
	UMTS 1900	0.238	0.099	0.042	0.337	0.280	0.379
	LTE Band 71	0.213	0.099	0.042	0.312	0.255	0.354
	LTE Band 12	0.185	0.099	0.042	0.284	0.227	0.326
	LTE Band 13	0.241	0.099	0.042	0.340	0.283	0.382
	LTE Band 14	0.237	0.099	0.042	0.336	0.279	0.378
	LTE Band 26 (Cell)	0.310	0.099	0.042	0.409	0.352	0.451
	LTE Band 5 (Cell)	0.323	0.099	0.042	0.422	0.365	0.464
	LTE Band 66 (AWS)	0.262	0.099	0.042	0.361	0.304	0.403
	LTE Band 25 (PCS)	0.138	0.099	0.042	0.237	0.180	0.279
	LTE Band 30	0.231	0.099	0.042	0.330	0.273	0.372
	LTE Band 7	0.334	0.099	0.042	0.433	0.376	0.475
	LTE Band 41	0.125	0.099	0.042	0.224	0.167	0.266

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Table 12-3
Simultaneous Transmission Scenario with 2.4 GHz WLAN MIMO and 5 GHz WLAN MIMO (Held to Ear)

Exposure Condition	Mode	2G/3G/4G SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	5	1+2+3+4+5
Head SAR	CDMA/EVDO BC10 (§90S)	0.414	0.076	0.094	0.099	0.042	**0.725**
	CDMA/EVDO BC0 (§22H)	0.407	0.076	0.094	0.099	0.042	0.718
	PCS CDMA/EVDO	0.237	0.076	0.094	0.099	0.042	0.548
	GSM 850	0.297	0.076	0.094	0.099	0.042	0.608
	GSM 1900	0.113	0.076	0.094	0.099	0.042	0.424
	UMTS 850	0.361	0.076	0.094	0.099	0.042	0.672
	UMTS 1750	0.266	0.076	0.094	0.099	0.042	0.577
	UMTS 1900	0.238	0.076	0.094	0.099	0.042	0.549
	LTE Band 71	0.213	0.076	0.094	0.099	0.042	0.524
	LTE Band 12	0.185	0.076	0.094	0.099	0.042	0.496
	LTE Band 13	0.241	0.076	0.094	0.099	0.042	0.552
	LTE Band 14	0.237	0.076	0.094	0.099	0.042	0.548
	LTE Band 26 (Cell)	0.310	0.076	0.094	0.099	0.042	0.621
	LTE Band 5 (Cell)	0.323	0.076	0.094	0.099	0.042	0.634
	LTE Band 66 (AWS)	0.262	0.076	0.094	0.099	0.042	0.573
	LTE Band 25 (PCS)	0.138	0.076	0.094	0.099	0.042	0.449
	LTE Band 30	0.231	0.076	0.094	0.099	0.042	0.542
	LTE Band 7	0.334	0.076	0.094	0.099	0.042	0.645
	LTE Band 41	0.125	0.076	0.094	0.099	0.042	0.436

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Table 12-4
Simultaneous Transmission Scenario with Bluetooth (Held to Ear)

Exposure Condition	Mode	2G/3G/4G SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2
Head SAR	CDMA/EVDO BC10 (§90S)	0.414	0.061	**0.475**
	CDMA/EVDO BC0 (§22H)	0.407	0.061	0.468
	PCS CDMA/EVDO	0.237	0.061	0.298
	GSM 850	0.297	0.061	0.358
	GSM 1900	0.113	0.061	0.174
	UMTS 850	0.361	0.061	0.422
	UMTS 1750	0.266	0.061	0.327
	UMTS 1900	0.238	0.061	0.299
	LTE Band 71	0.213	0.061	0.274
	LTE Band 12	0.185	0.061	0.246
	LTE Band 13	0.241	0.061	0.302
	LTE Band 14	0.237	0.061	0.298
	LTE Band 26 (Cell)	0.310	0.061	0.371
	LTE Band 5 (Cell)	0.323	0.061	0.384
	LTE Band 66 (AWS)	0.262	0.061	0.323
	LTE Band 25 (PCS)	0.138	0.061	0.199
	LTE Band 30	0.231	0.061	0.292
	LTE Band 7	0.334	0.061	0.395
	LTE Band 41	0.125	0.061	0.186

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Table 12-5
Simultaneous Transmission Scenario with Bluetooth and 5 GHz WLAN Antenna 1(Held to Ear)

Exposure Condition	Mode	2G/3G/4G SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Head SAR	CDMA/EVDO BC10 (§90S)	0.414	0.061	0.099	**0.574**
	CDMA/EVDO BC0 (§22H)	0.407	0.061	0.099	0.567
	PCS CDMA/EVDO	0.237	0.061	0.099	0.397
	GSM 850	0.297	0.061	0.099	0.457
	GSM 1900	0.113	0.061	0.099	0.273
	UMTS 850	0.361	0.061	0.099	0.521
	UMTS 1750	0.266	0.061	0.099	0.426
	UMTS 1900	0.238	0.061	0.099	0.398
	LTE Band 71	0.213	0.061	0.099	0.373
	LTE Band 12	0.185	0.061	0.099	0.345
	LTE Band 13	0.241	0.061	0.099	0.401
	LTE Band 14	0.237	0.061	0.099	0.397
	LTE Band 26 (Cell)	0.310	0.061	0.099	0.470
	LTE Band 5 (Cell)	0.323	0.061	0.099	0.483
	LTE Band 66 (AWS)	0.262	0.061	0.099	0.422
	LTE Band 25 (PCS)	0.138	0.061	0.099	0.298
	LTE Band 30	0.231	0.061	0.099	0.391
	LTE Band 7	0.334	0.061	0.099	0.494
	LTE Band 41	0.125	0.061	0.099	0.285

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Table 12-6
Simultaneous Transmission Scenario with Bluetooth and 5 GHz WLAN Antenna 2(Held to Ear)

Exposure Condition	Mode	2G/3G/4G SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Head SAR	CDMA/EVDO BC10 (§90S)	0.414	0.061	0.042	**0.517**
	CDMA/EVDO BC0 (§22H)	0.407	0.061	0.042	0.510
	PCS CDMA/EVDO	0.237	0.061	0.042	0.340
	GSM 850	0.297	0.061	0.042	0.400
	GSM 1900	0.113	0.061	0.042	0.216
	UMTS 850	0.361	0.061	0.042	0.464
	UMTS 1750	0.266	0.061	0.042	0.369
	UMTS 1900	0.238	0.061	0.042	0.341
	LTE Band 71	0.213	0.061	0.042	0.316
	LTE Band 12	0.185	0.061	0.042	0.288
	LTE Band 13	0.241	0.061	0.042	0.344
	LTE Band 14	0.237	0.061	0.042	0.340
	LTE Band 26 (Cell)	0.310	0.061	0.042	0.413
	LTE Band 5 (Cell)	0.323	0.061	0.042	0.426
	LTE Band 66 (AWS)	0.262	0.061	0.042	0.365
	LTE Band 25 (PCS)	0.138	0.061	0.042	0.241
	LTE Band 30	0.231	0.061	0.042	0.334
	LTE Band 7	0.334	0.061	0.042	0.437
	LTE Band 41	0.125	0.061	0.042	0.228

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Table 12-7
Simultaneous Transmission Scenario with Bluetooth and 5 GHz WLAN MIMO(Held to Ear)

Exposure Condition	Mode	2G/3G/4G SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4
Head SAR	CDMA/EVDO BC10 (§90S)	0.414	0.061	0.099	0.042	**0.616**
	CDMA/EVDO BC0 (§22H)	0.407	0.061	0.099	0.042	0.609
	PCS CDMA/EVDO	0.237	0.061	0.099	0.042	0.439
	GSM 850	0.297	0.061	0.099	0.042	0.499
	GSM 1900	0.113	0.061	0.099	0.042	0.315
	UMTS 850	0.361	0.061	0.099	0.042	0.563
	UMTS 1750	0.266	0.061	0.099	0.042	0.468
	UMTS 1900	0.238	0.061	0.099	0.042	0.440
	LTE Band 71	0.213	0.061	0.099	0.042	0.415
	LTE Band 12	0.185	0.061	0.099	0.042	0.387
	LTE Band 13	0.241	0.061	0.099	0.042	0.443
	LTE Band 14	0.237	0.061	0.099	0.042	0.439
	LTE Band 26 (Cell)	0.310	0.061	0.099	0.042	0.512
	LTE Band 5 (Cell)	0.323	0.061	0.099	0.042	0.525
	LTE Band 66 (AWS)	0.262	0.061	0.099	0.042	0.464
	LTE Band 25 (PCS)	0.138	0.061	0.099	0.042	0.340
	LTE Band 30	0.231	0.061	0.099	0.042	0.433
	LTE Band 7	0.334	0.061	0.099	0.042	0.536
	LTE Band 41	0.125	0.061	0.099	0.042	0.327

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12.4 Body-Worn Simultaneous Transmission Analysis

Table 12-8
Simultaneous Transmission Scenario with 2.4 GHz WLAN (Body-Worn at 1.5 cm)

Exposure Condition	Mode	2G/3G/4G SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		
		1	2	3	1+2	1+3	1+2+3
Body-Worn	CDMA BC10 (§90S)	0.274	0.112	0.055	0.386	0.329	0.441
	CDMA BC0 (§22H)	0.248	0.112	0.055	0.360	0.303	0.415
	PCS CDMA	0.526	0.112	0.055	0.638	0.581	0.693
	GSM 850	0.225	0.112	0.055	0.337	0.280	0.392
	GSM 1900	0.243	0.112	0.055	0.355	0.298	0.410
	UMTS 850	0.200	0.112	0.055	0.312	0.255	0.367
	UMTS 1750	0.662	0.112	0.055	0.774	0.717	**0.829**
	UMTS 1900	0.578	0.112	0.055	0.690	0.633	0.745
	LTE Band 71	0.322	0.112	0.055	0.434	0.377	0.489
	LTE Band 12	0.280	0.112	0.055	0.392	0.335	0.447
	LTE Band 13	0.206	0.112	0.055	0.318	0.261	0.373
	LTE Band 14	0.236	0.112	0.055	0.348	0.291	0.403
	LTE Band 26 (Cell)	0.211	0.112	0.055	0.323	0.266	0.378
	LTE Band 5 (Cell)	0.209	0.112	0.055	0.321	0.264	0.376
	LTE Band 66 (AWS)	0.547	0.112	0.055	0.659	0.602	0.714
	LTE Band 25 (PCS)	0.542	0.112	0.055	0.654	0.597	0.709
	LTE Band 30	0.405	0.112	0.055	0.517	0.460	0.572
	LTE Band 7	0.246	0.112	0.055	0.358	0.301	0.413
	LTE Band 41	0.186	0.112	0.055	0.298	0.241	0.353

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Table 12-9
Simultaneous Transmission Scenario with 5 GHz WLAN (Body-Worn at 1.5 cm)

Exposure Condition	Mode	2G/3G/4G SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		
		1	2	3	1+2	1+3	1+2+3
Body-Worn	CDMA BC10 (§90S)	0.274	0.405	0.037	0.679	0.311	0.716
	CDMA BC0 (§22H)	0.248	0.405	0.037	0.653	0.285	0.690
	PCS CDMA	0.526	0.405	0.037	0.931	0.563	0.968
	GSM 850	0.225	0.405	0.037	0.630	0.262	0.667
	GSM 1900	0.243	0.405	0.037	0.648	0.280	0.685
	UMTS 850	0.200	0.405	0.037	0.605	0.237	0.642
	UMTS 1750	0.662	0.405	0.037	1.067	0.699	**1.104**
	UMTS 1900	0.578	0.405	0.037	0.983	0.615	1.020
	LTE Band 71	0.322	0.405	0.037	0.727	0.359	0.764
	LTE Band 12	0.280	0.405	0.037	0.685	0.317	0.722
	LTE Band 13	0.206	0.405	0.037	0.611	0.243	0.648
	LTE Band 14	0.236	0.405	0.037	0.641	0.273	0.678
	LTE Band 26 (Cell)	0.211	0.405	0.037	0.616	0.248	0.653
	LTE Band 5 (Cell)	0.209	0.405	0.037	0.614	0.246	0.651
	LTE Band 66 (AWS)	0.547	0.405	0.037	0.952	0.584	0.989
	LTE Band 25 (PCS)	0.542	0.405	0.037	0.947	0.579	0.984
	LTE Band 30	0.405	0.405	0.037	0.810	0.442	0.847
	LTE Band 7	0.246	0.405	0.037	0.651	0.283	0.688
	LTE Band 41	0.186	0.405	0.037	0.591	0.223	0.628

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Table 12-10
Simultaneous Transmission Scenario with 2.4 GHz WLAN MIMO and 5 GHz WLAN MIMO (Body-Worn at 1.5 cm)

Exposure Condition	Mode	2G/3G/4G SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	5	1+2+3+4+5
Body-Worn	CDMA BC10 (§90S)	0.274	0.112	0.055	0.405	0.037	0.883
	CDMA BC0 (§22H)	0.248	0.112	0.055	0.405	0.037	0.857
	PCS CDMA	0.526	0.112	0.055	0.405	0.037	1.135
	GSM 850	0.225	0.112	0.055	0.405	0.037	0.834
	GSM 1900	0.243	0.112	0.055	0.405	0.037	0.852
	UMTS 850	0.200	0.112	0.055	0.405	0.037	0.809
	UMTS 1750	0.662	0.112	0.055	0.405	0.037	**1.271**
	UMTS 1900	0.578	0.112	0.055	0.405	0.037	1.187
	LTE Band 71	0.322	0.112	0.055	0.405	0.037	0.931
	LTE Band 12	0.280	0.112	0.055	0.405	0.037	0.889
	LTE Band 13	0.206	0.112	0.055	0.405	0.037	0.815
	LTE Band 14	0.236	0.112	0.055	0.405	0.037	0.845
	LTE Band 26 (Cell)	0.211	0.112	0.055	0.405	0.037	0.820
	LTE Band 5 (Cell)	0.209	0.112	0.055	0.405	0.037	0.818
	LTE Band 66 (AWS)	0.547	0.112	0.055	0.405	0.037	1.156
	LTE Band 25 (PCS)	0.542	0.112	0.055	0.405	0.037	1.151
	LTE Band 30	0.405	0.112	0.055	0.405	0.037	1.014
	LTE Band 7	0.246	0.112	0.055	0.405	0.037	0.855
	LTE Band 41	0.186	0.112	0.055	0.405	0.037	0.795

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Table 12-11
Simultaneous Transmission Scenario with Bluetooth (Body-Worn at 1.5 cm)

Exposure Condition	Mode	2G/3G/4G SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2
Body-Worn	CDMA BC10 (§90S)	0.274	0.017	0.291
	CDMA BC0 (§22H)	0.248	0.017	0.265
	PCS CDMA	0.526	0.017	0.543
	GSM 850	0.225	0.017	0.242
	GSM 1900	0.243	0.017	0.260
	UMTS 850	0.200	0.017	0.217
	UMTS 1750	0.662	0.017	**0.679**
	UMTS 1900	0.578	0.017	0.595
	LTE Band 71	0.322	0.017	0.339
	LTE Band 12	0.280	0.017	0.297
	LTE Band 13	0.206	0.017	0.223
	LTE Band 14	0.236	0.017	0.253
	LTE Band 26 (Cell)	0.211	0.017	0.228
	LTE Band 5 (Cell)	0.209	0.017	0.226
	LTE Band 66 (AWS)	0.547	0.017	0.564
	LTE Band 25 (PCS)	0.542	0.017	0.559
	LTE Band 30	0.405	0.017	0.422
	LTE Band 7	0.246	0.017	0.263
	LTE Band 41	0.186	0.017	0.203

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Table 12-12
Simultaneous Transmission Scenario with Bluetooth and 5 GHz WLAN Antenna 1 (Body-Worn at 1.5 cm)

Exposure Condition	Mode	2G/3G/4G SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Body-Worn	CDMA BC10 (§90S)	0.274	0.017	0.405	0.696
	CDMA BC0 (§22H)	0.248	0.017	0.405	0.670
	PCS CDMA	0.526	0.017	0.405	0.948
	GSM 850	0.225	0.017	0.405	0.647
	GSM 1900	0.243	0.017	0.405	0.665
	UMTS 850	0.200	0.017	0.405	0.622
	UMTS 1750	0.662	0.017	0.405	**1.084**
	UMTS 1900	0.578	0.017	0.405	1.000
	LTE Band 71	0.322	0.017	0.405	0.744
	LTE Band 12	0.280	0.017	0.405	0.702
	LTE Band 13	0.206	0.017	0.405	0.628
	LTE Band 14	0.236	0.017	0.405	0.658
	LTE Band 26 (Cell)	0.211	0.017	0.405	0.633
	LTE Band 5 (Cell)	0.209	0.017	0.405	0.631
	LTE Band 66 (AWS)	0.547	0.017	0.405	0.969
	LTE Band 25 (PCS)	0.542	0.017	0.405	0.964
	LTE Band 30	0.405	0.017	0.405	0.827
	LTE Band 7	0.246	0.017	0.405	0.668
	LTE Band 41	0.186	0.017	0.405	0.608

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Table 12-13
Simultaneous Transmission Scenario with Bluetooth and 5 GHz WLAN Antenna 2 (Body-Worn at 1.5 cm)

Exposure Condition	Mode	2G/3G/4G SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Body-Worn	CDMA BC10 (§90S)	0.274	0.017	0.037	0.328
	CDMA BC0 (§22H)	0.248	0.017	0.037	0.302
	PCS CDMA	0.526	0.017	0.037	0.580
	GSM 850	0.225	0.017	0.037	0.279
	GSM 1900	0.243	0.017	0.037	0.297
	UMTS 850	0.200	0.017	0.037	0.254
	UMTS 1750	0.662	0.017	0.037	**0.716**
	UMTS 1900	0.578	0.017	0.037	0.632
	LTE Band 71	0.322	0.017	0.037	0.376
	LTE Band 12	0.280	0.017	0.037	0.334
	LTE Band 13	0.206	0.017	0.037	0.260
	LTE Band 14	0.236	0.017	0.037	0.290
	LTE Band 26 (Cell)	0.211	0.017	0.037	0.265
	LTE Band 5 (Cell)	0.209	0.017	0.037	0.263
	LTE Band 66 (AWS)	0.547	0.017	0.037	0.601
	LTE Band 25 (PCS)	0.542	0.017	0.037	0.596
	LTE Band 30	0.405	0.017	0.037	0.459
	LTE Band 7	0.246	0.017	0.037	0.300
	LTE Band 41	0.186	0.017	0.037	0.240

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Table 12-14
Simultaneous Transmission Scenario with Bluetooth and 5 GHz WLAN MIMO (Body-Worn at 1.5 cm)

Exposure Condition	Mode	2G/3G/4G SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4
Body-Worn	CDMA BC10 (§90S)	0.274	0.017	0.405	0.037	0.733
	CDMA BC0 (§22H)	0.248	0.017	0.405	0.037	0.707
	PCS CDMA	0.526	0.017	0.405	0.037	0.985
	GSM 850	0.225	0.017	0.405	0.037	0.684
	GSM 1900	0.243	0.017	0.405	0.037	0.702
	UMTS 850	0.200	0.017	0.405	0.037	0.659
	UMTS 1750	0.662	0.017	0.405	0.037	**1.121**
	UMTS 1900	0.578	0.017	0.405	0.037	1.037
	LTE Band 71	0.322	0.017	0.405	0.037	0.781
	LTE Band 12	0.280	0.017	0.405	0.037	0.739
	LTE Band 13	0.206	0.017	0.405	0.037	0.665
	LTE Band 14	0.236	0.017	0.405	0.037	0.695
	LTE Band 26 (Cell)	0.211	0.017	0.405	0.037	0.670
	LTE Band 5 (Cell)	0.209	0.017	0.405	0.037	0.668
	LTE Band 66 (AWS)	0.547	0.017	0.405	0.037	1.006
	LTE Band 25 (PCS)	0.542	0.017	0.405	0.037	1.001
	LTE Band 30	0.405	0.017	0.405	0.037	0.864
	LTE Band 7	0.246	0.017	0.405	0.037	0.705
	LTE Band 41	0.186	0.017	0.405	0.037	0.645

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12.5 Hotspot SAR Simultaneous Transmission Analysis

Per FCC KDB Publication 941225 D06v02r01, the devices edges with antennas more than 2.5 cm from edge are not required to be evaluated for SAR ("-").

(*) For test positions that were not required to be evaluated for WLAN SAR per FCC KDB publication 248227, the worst case WLAN SAR result for the applicable exposure conditions was used for simultaneous transmission analysis.

Table 12-15
Simultaneous Transmission Scenario with 2.4 GHz WLAN (Hotspot at 1.0 cm)

Exposure Condition	Mode	2G/3G/4G SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		
		1	2	3	1+2	1+3	1+2+3
Hotspot SAR	EVDO BC10 (§90S)	0.540	0.280	0.191	0.820	0.731	1.011
	EVDO BC0 (§22H)	0.568	0.280	0.191	0.848	0.759	1.039
	PCS EVDO	1.197	0.280	0.191	1.477	1.388	See Table Below
	GPRS 850	0.486	0.280	0.191	0.766	0.677	0.957
	GPRS 1900	1.025	0.280	0.191	1.305	1.216	**1.496**
	UMTS 850	0.474	0.280	0.191	0.754	0.665	0.945
	UMTS 1750	0.952	0.280	0.191	1.232	1.143	1.423
	UMTS 1900	0.901	0.280	0.191	1.181	1.092	1.372
	LTE Band 71	0.548	0.280	0.191	0.828	0.739	1.019
	LTE Band 12	0.475	0.280	0.191	0.755	0.666	0.946
	LTE Band 13	0.474	0.280	0.191	0.754	0.665	0.945
	LTE Band 14	0.465	0.280	0.191	0.745	0.656	0.936
	LTE Band 26 (Cell)	0.502	0.280	0.191	0.782	0.693	0.973
	LTE Band 5 (Cell)	0.467	0.280	0.191	0.747	0.658	0.938
	LTE Band 66 (AWS)	0.853	0.280	0.191	1.133	1.044	1.324
	LTE Band 25 (PCS)	0.707	0.280	0.191	0.987	0.898	1.178
	LTE Band 30	0.879	0.280	0.191	1.159	1.070	1.350
	LTE Band 7	0.987	0.280	0.191	1.267	1.178	1.458
	LTE Band 41	1.171	0.280	0.191	1.451	1.362	See Table Below

Simult Tx	Configuration	PCS EVDO SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)			Simult Tx	Configuration	LTE Band 41 SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		
		1	2	3	1+2	1+3	1+2+3			1	2	3	1+2	1+3	1+2+3
Hotspot SAR	Back	0.451	0.280	0.191	0.731	0.642	0.922	Hotspot SAR	Back	0.227	0.280	0.191	0.507	0.418	0.698
	Front	0.258	0.280*	0.191*	0.538	0.449	0.729		Front	0.384	0.280*	0.191*	0.664	0.575	0.855
	Top	-	0.280*	0.191*	0.280	0.191	0.471		Top	-	0.280*	0.191*	0.280	0.191	0.471
	Bottom	1.197	-	-	**1.197**	**1.197**	**1.197**		Bottom	1.171	-	-	**1.171**	**1.171**	**1.171**
	Right	0.171	0.280*	-	0.451	0.171	0.451		Right	0.130	0.280*	-	0.410	0.130	0.410
	Left	0.124	-	0.191*	0.124	0.315	0.315		Left	0.082	-	0.191*	0.082	0.273	0.273

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Table 12-16
Simultaneous Transmission Scenario with 5 GHz WLAN (Hotspot at 1.0 cm)

Exposure Condition	Mode	2G/3G/4G SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		
		1	2	3	1+2	1+3	1+2+3
Hotspot SAR	EVDO BC10 (§90S)	0.540	0.211	0.113	0.751	0.653	0.864
	EVDO BC0 (§22H)	0.568	0.211	0.113	0.779	0.681	0.892
	PCS EVDO	1.197	0.211	0.113	1.408	1.310	**1.521**
	GPRS 850	0.486	0.211	0.113	0.697	0.599	0.810
	GPRS 1900	1.025	0.211	0.113	1.236	1.138	1.349
	UMTS 850	0.474	0.211	0.113	0.685	0.587	0.798
	UMTS 1750	0.952	0.211	0.113	1.163	1.065	1.276
	UMTS 1900	0.901	0.211	0.113	1.112	1.014	1.225
	LTE Band 71	0.548	0.211	0.113	0.759	0.661	0.872
	LTE Band 12	0.475	0.211	0.113	0.686	0.588	0.799
	LTE Band 13	0.474	0.211	0.113	0.685	0.587	0.798
	LTE Band 14	0.465	0.211	0.113	0.676	0.578	0.789
	LTE Band 26 (Cell)	0.502	0.211	0.113	0.713	0.615	0.826
	LTE Band 5 (Cell)	0.467	0.211	0.113	0.678	0.580	0.791
	LTE Band 66 (AWS)	0.853	0.211	0.113	1.064	0.966	1.177
	LTE Band 25 (PCS)	0.707	0.211	0.113	0.918	0.820	1.031
	LTE Band 30	0.879	0.211	0.113	1.090	0.992	1.203
	LTE Band 7	0.987	0.211	0.113	1.198	1.100	1.311
	LTE Band 41	1.171	0.211	0.113	1.382	1.284	1.495

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Table 12-17
Simultaneous Transmission Scenario with 2.4 GHz WLAN MIMO and 5 GHz WLAN MIMO (Hotspot at 1.0 cm)

Exposure Condition	Mode	2G/3G/4G SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	5	1+2+3+4+5
Hotspot SAR	EVDO BC10 (§90S)	0.540	0.280	0.191	0.211	0.113	1.335
	EVDO BC0 (§22H)	0.568	0.280	0.191	0.211	0.113	1.363
	PCS EVDO	1.197	0.280	0.191	0.211	0.113	See Table Below
	GPRS 850	0.486	0.280	0.191	0.211	0.113	1.281
	GPRS 1900	1.025	0.280	0.191	0.211	0.113	See Table Below
	UMTS 850	0.474	0.280	0.191	0.211	0.113	1.269
	UMTS 1750	0.952	0.280	0.191	0.211	0.113	See Table Below
	UMTS 1900	0.901	0.280	0.191	0.211	0.113	See Table Below
	LTE Band 71	0.548	0.280	0.191	0.211	0.113	1.343
	LTE Band 12	0.475	0.280	0.191	0.211	0.113	1.270
	LTE Band 13	0.474	0.280	0.191	0.211	0.113	1.269
	LTE Band 14	0.465	0.280	0.191	0.211	0.113	1.260
	LTE Band 26 (Cell)	0.502	0.280	0.191	0.211	0.113	1.297
	LTE Band 5 (Cell)	0.467	0.280	0.191	0.211	0.113	1.262
	LTE Band 66 (AWS)	0.853	0.280	0.191	0.211	0.113	See Table Below
	LTE Band 25 (PCS)	0.707	0.280	0.191	0.211	0.113	**1.502**
	LTE Band 30	0.879	0.280	0.191	0.211	0.113	See Table Below
	LTE Band 7	0.987	0.280	0.191	0.211	0.113	See Table Below
	LTE Band 41	1.171	0.280	0.191	0.211	0.113	See Table Below

Simult Tx	Configuration	PCS EVDO SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	5	1+2+3+4+5
Hotspot SAR	Back	0.451	0.280	0.191	0.211	0.113*	**1.246**
	Front	0.258	0.280*	0.191*	0.211*	0.113*	1.053
	Top	-	0.280*	0.191*	0.211*	0.113	0.795
	Bottom	1.197	-	-	-	-	1.197
	Right	0.171	0.280*	-	0.211*	-	0.662
	Left	0.124	-	0.191*	-	0.113*	0.428

Simult Tx	Configuration	GPRS 1900 SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	5	1+2+3+4+5
Hotspot SAR	Back	0.293	0.280	0.191	0.211	0.113*	**1.088**
	Front	0.204	0.280*	0.191*	0.211*	0.113*	0.999
	Top	-	0.280*	0.191*	0.211*	0.113	0.795
	Bottom	1.025	-	-	-	-	1.025
	Right	0.131	0.280*	-	0.211*	-	0.622
	Left	0.131	-	0.191*	-	0.113*	0.435

Simult Tx	Configuration	UMTS 1750 SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	5	1+2+3+4+5
Hotspot SAR	Back	0.503	0.280	0.191	0.211	0.113*	**1.298**
	Front	0.241	0.280*	0.191*	0.211*	0.113*	1.036
	Top	-	0.280*	0.191*	0.211*	0.113	0.795
	Bottom	0.952	-	-	-	-	0.952
	Right	0.128	0.280*	-	0.211*	-	0.619
	Left	0.123	-	0.191*	-	0.113*	0.427

Simult Tx	Configuration	UMTS 1900 SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	5	1+2+3+4+5
Hotspot SAR	Back	0.375	0.280	0.191	0.211	0.113*	**1.170**
	Front	0.217	0.280*	0.191*	0.211*	0.113*	1.012
	Top	-	0.280*	0.191*	0.211*	0.113	0.795
	Bottom	0.901	-	-	-	-	0.901
	Right	0.104	0.280*	-	0.211*	-	0.595
	Left	0.104	-	0.191*	-	0.113*	0.408

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Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)	Simult Tx	Configuration	LTE Band 30 SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	5	1+2+3+4+5			1	2	3	4	5	1+2+3+4+5
Hotspot SAR	Back	0.440	0.280	0.191	0.211	0.113*	**1.235**	Hotspot SAR	Back	0.365	0.280	0.191	0.211	0.113*	**1.160**
	Front	0.211	0.280*	0.191*	0.211*	0.113*	1.006		Front	0.362	0.280*	0.191*	0.211*	0.113*	1.157
	Top	-	0.280*	0.191*	0.211*	0.113	0.795		Top	-	0.280*	0.191*	0.211*	0.113	0.795
	Bottom	0.853	-	-	-	-	0.853		Bottom	0.879	-	-	-	-	0.879
	Right	0.119	0.280*	-	0.211*	-	0.610		Right	0.050	0.280*	-	0.211*	-	0.541
	Left	0.122	-	0.191*	-	0.113*	0.426		Left	0.054	-	0.191*	-	0.113*	0.358
Simult Tx	Configuration	LTE Band 7 SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)	Simult Tx	Configuration	LTE Band 41 SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	5	1+2+3+4+5			1	2	3	4	5	1+2+3+4+5
Hotspot SAR	Back	0.201	0.280	0.191	0.211	0.113*	0.996	Hotspot SAR	Back	0.227	0.280	0.191	0.211	0.113*	1.022
	Front	0.366	0.280*	0.191*	0.211*	0.113*	**1.161**		Front	0.384	0.280*	0.191*	0.211*	0.113*	**1.179**
	Top	-	0.280*	0.191*	0.211*	0.113	0.795		Top	-	0.280*	0.191*	0.211*	0.113	0.795
	Bottom	0.987	-	-	-	-	0.987		Bottom	1.171	-	-	-	-	1.171
	Right	0.084	0.280*	-	0.211*	-	0.575		Right	0.130	0.280*	-	0.211*	-	0.621
	Left	0.085	-	0.191*	-	0.113*	0.389		Left	0.082	-	0.191*	-	0.113*	0.386

Table 12-18
Simultaneous Transmission Scenario with Bluetooth (Hotspot at 1.0 cm)

Exposure Condition	Mode	2G/3G/4G SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2
Hotspot SAR	EVDO BC10 (§90S)	0.540	0.045	0.585
	EVDO BC0 (§22H)	0.568	0.045	0.613
	PCS EVDO	1.197	0.045	**1.242**
	GPRS 850	0.486	0.045	0.531
	GPRS 1900	1.025	0.045	1.070
	UMTS 850	0.474	0.045	0.519
	UMTS 1750	0.952	0.045	0.997
	UMTS 1900	0.901	0.045	0.946
	LTE Band 71	0.548	0.045	0.593
	LTE Band 12	0.475	0.045	0.520
	LTE Band 13	0.474	0.045	0.519
	LTE Band 14	0.465	0.045	0.510
	LTE Band 26 (Cell)	0.502	0.045	0.547
	LTE Band 5 (Cell)	0.467	0.045	0.512
	LTE Band 66 (AWS)	0.853	0.045	0.898
	LTE Band 25 (PCS)	0.707	0.045	0.752
	LTE Band 30	0.879	0.045	0.924
	LTE Band 7	0.987	0.045	1.032
	LTE Band 41	1.171	0.045	1.216

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Table 12-19
Simultaneous Transmission Scenario with Bluetooth and 5 GHz WLAN Antenna 1 (Hotspot at 1.0 cm)

Exposure Condition	Mode	2G/3G/4G SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Hotspot SAR	EVDO BC10 (§90S)	0.540	0.045	0.211	0.796
	EVDO BC0 (§22H)	0.568	0.045	0.211	0.824
	PCS EVDO	1.197	0.045	0.211	**1.453**
	GPRS 850	0.486	0.045	0.211	0.742
	GPRS 1900	1.025	0.045	0.211	1.281
	UMTS 850	0.474	0.045	0.211	0.730
	UMTS 1750	0.952	0.045	0.211	1.208
	UMTS 1900	0.901	0.045	0.211	1.157
	LTE Band 71	0.548	0.045	0.211	0.804
	LTE Band 12	0.475	0.045	0.211	0.731
	LTE Band 13	0.474	0.045	0.211	0.730
	LTE Band 14	0.465	0.045	0.211	0.721
	LTE Band 26 (Cell)	0.502	0.045	0.211	0.758
	LTE Band 5 (Cell)	0.467	0.045	0.211	0.723
	LTE Band 66 (AWS)	0.853	0.045	0.211	1.109
	LTE Band 25 (PCS)	0.707	0.045	0.211	0.963
	LTE Band 30	0.879	0.045	0.211	1.135
	LTE Band 7	0.987	0.045	0.211	1.243
	LTE Band 41	1.171	0.045	0.211	1.427

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Table 12-20
Simultaneous Transmission Scenario with Bluetooth and 5 GHz WLAN Antenna 2 (Hotspot at 1.0 cm)

Exposure Condition	Mode	2G/3G/4G SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Hotspot SAR	EVDO BC10 (§90S)	0.540	0.045	0.113	0.698
	EVDO BC0 (§22H)	0.568	0.045	0.113	0.726
	PCS EVDO	1.197	0.045	0.113	**1.355**
	GPRS 850	0.486	0.045	0.113	0.644
	GPRS 1900	1.025	0.045	0.113	1.183
	UMTS 850	0.474	0.045	0.113	0.632
	UMTS 1750	0.952	0.045	0.113	1.110
	UMTS 1900	0.901	0.045	0.113	1.059
	LTE Band 71	0.548	0.045	0.113	0.706
	LTE Band 12	0.475	0.045	0.113	0.633
	LTE Band 13	0.474	0.045	0.113	0.632
	LTE Band 14	0.465	0.045	0.113	0.623
	LTE Band 26 (Cell)	0.502	0.045	0.113	0.660
	LTE Band 5 (Cell)	0.467	0.045	0.113	0.625
	LTE Band 66 (AWS)	0.853	0.045	0.113	1.011
	LTE Band 25 (PCS)	0.707	0.045	0.113	0.865
	LTE Band 30	0.879	0.045	0.113	1.037
	LTE Band 7	0.987	0.045	0.113	1.145
	LTE Band 41	1.171	0.045	0.113	1.329

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Table 12-21
Simultaneous Transmission Scenario with Bluetooth and 5 GHz WLAN MIMO (Hotspot at 1.0 cm)

Exposure Condition	Mode	2G/3G/4G SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4
Hotspot SAR	EVDO BC10 (§90S)	0.540	0.045	0.211	0.113	0.909
	EVDO BC0 (§22H)	0.568	0.045	0.211	0.113	0.937
	PCS EVDO	1.197	0.045	0.211	0.113	**1.566**
	GPRS 850	0.486	0.045	0.211	0.113	0.855
	GPRS 1900	1.025	0.045	0.211	0.113	1.394
	UMTS 850	0.474	0.045	0.211	0.113	0.843
	UMTS 1750	0.952	0.045	0.211	0.113	1.321
	UMTS 1900	0.901	0.045	0.211	0.113	1.270
	LTE Band 71	0.548	0.045	0.211	0.113	0.917
	LTE Band 12	0.475	0.045	0.211	0.113	0.844
	LTE Band 13	0.474	0.045	0.211	0.113	0.843
	LTE Band 14	0.465	0.045	0.211	0.113	0.834
	LTE Band 26 (Cell)	0.502	0.045	0.211	0.113	0.871
	LTE Band 5 (Cell)	0.467	0.045	0.211	0.113	0.836
	LTE Band 66 (AWS)	0.853	0.045	0.211	0.113	1.222
	LTE Band 25 (PCS)	0.707	0.045	0.211	0.113	1.076
	LTE Band 30	0.879	0.045	0.211	0.113	1.248
	LTE Band 7	0.987	0.045	0.211	0.113	1.356
	LTE Band 41	1.171	0.045	0.211	0.113	1.540

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12.6 Phablet Simultaneous Transmission Analysis

Per FCC KDB Publication 941225 D06v02r01, the devices edges with antennas more than 2.5 cm from edge are not required to be evaluated for SAR ("-").

(*) For test positions that were not required to be evaluated for WLAN SAR per FCC KDB publication 248227, the worst case WLAN SAR result for the applicable exposure conditions was used for simultaneous transmission analysis.

For SAR summation, the highest reported SAR across all test distances was used as the most conservative evaluation for simultaneous transmission analysis for each device edge.

Per FCC KDB Publication 648474 D04 Handset SAR, Phablet SAR tests were not required if wireless router 1g SAR (scaled to the maximum output power, including tolerance) < 1.2 W/kg. Therefore no further analysis beyond the tables included in this section was required to determine that possible simultaneous transmission scenarios would not exceed the SAR limit.

Table 12-22
Simultaneous Transmission Scenario with 5 GHz WLAN (Phablet)

Exposure Condition	Mode	2G/3G/4G SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		
		1	2	3	1+2	1+3	1+2+3
Phablet SAR	PCS EVDO	2.693	0.752	0.448	3.445	3.141	**3.893**
	GPRS 1900	2.594	0.752	0.448	3.346	3.042	3.794
	UMTS 1750	2.830	0.752	0.448	3.582	3.278	See Table Below
	UMTS 1900	2.600	0.752	0.448	3.352	3.048	3.800
	LTE Band 66 (AWS)	2.852	0.752	0.448	3.604	3.300	See Table Below
	LTE Band 25 (PCS)	2.584	0.752	0.448	3.336	3.032	3.784
	LTE Band 30	2.903	0.752	0.448	3.655	3.351	See Table Below
	LTE Band 7	2.919	0.752	0.448	3.671	3.367	See Table Below
	LTE Band 41	2.571	0.752	0.448	3.323	3.019	3.771

Simult Tx	Configuration	UMTS 1750 SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)	Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3			1	2	3	1+2+3
Phablet SAR	Back	1.558	0.752	0.448*	2.758	Phablet SAR	Back	1.225	0.752	0.448*	2.425
	Front	1.532	0.028	0.047	1.607		Front	1.421	0.028	0.047	1.496
	Top	-	0.304	0.448	0.752		Top	-	0.304	0.448	0.752
	Bottom	2.830	-	-	**2.830**		Bottom	2.852	-	-	**2.852**
	Right	0.880	0.752*	-	1.632		Right	0.700	0.752*	-	1.452
	Left	0.500	-	0.448*	0.948		Left	0.434	-	0.448*	0.882

Simult Tx	Configuration	LTE Band 30 SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)	Simult Tx	Configuration	LTE Band 7 SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3			1	2	3	1+2+3
Phablet SAR	Back	1.249	0.752	0.448*	2.449	Phablet SAR	Back	0.698	0.752	0.448*	1.898
	Front	1.770	0.028	0.047	1.845		Front	2.919	0.028	0.047	**2.994**
	Top	-	0.304	0.448	0.752		Top	-	0.304	0.448	0.752
	Bottom	2.903	-	-	**2.903**		Bottom	2.422	-	-	2.422
	Right	0.511	0.752*	-	1.263		Right	0.971	0.752*	-	1.723
	Left	0.334	-	0.448*	0.782		Left	0.680	-	0.448*	1.128

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12.7 UMPC Body Simultaneous Transmission Analysis

Per FCC KDB Publication 941225 D06v02r01, the devices edges with antennas more than 2.5 cm from edge are not required to be evaluated for SAR ("-").

(*) For test positions that were not required to be evaluated for WLAN SAR per FCC KDB publication 248227, the worst case WLAN SAR result for the applicable exposure conditions was used for simultaneous transmission analysis.

Table 12-23
Simultaneous Transmission Scenario with 2.4 GHz WLAN (UMPC Body)

Exposure Condition	Mode	2G/3G/4G SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)	
		1	2	3	1+2	1+3
UMPC Body SAR	EVDO BC10 (§90S)	0.789	0.461	0.147	1.250	0.936
	EVDO BC0 (§22H)	0.798	0.461	0.147	1.259	0.945
	PCS EVDO	1.173	0.461	0.147	See Table Below	1.320
	GPRS 850	0.493	0.461	0.147	0.954	0.640
	GPRS 1900	0.916	0.461	0.147	1.377	1.063
	UMTS 850	0.716	0.461	0.147	1.177	0.863
	UMTS 1750	0.967	0.461	0.147	1.428	1.114
	UMTS 1900	1.386	0.461	0.147	See Table Below	1.533
	LTE Band 71	0.519	0.461	0.147	0.980	0.666
	LTE Band 12	0.396	0.461	0.147	0.857	0.543
	LTE Band 13	0.497	0.461	0.147	0.958	0.644
	LTE Band 14	0.476	0.461	0.147	0.937	0.623
	LTE Band 26 (Cell)	0.673	0.461	0.147	1.134	0.820
	LTE Band 5 (Cell)	0.664	0.461	0.147	1.125	0.811
	LTE Band 66 (AWS)	0.840	0.461	0.147	1.301	0.987
	LTE Band 25 (PCS)	1.303	0.461	0.147	See Table Below	1.450
	LTE Band 30	1.392	0.461	0.147	See Table Below	1.539
	LTE Band 7	1.027	0.461	0.147	1.488	1.174
	LTE Band 41	0.985	0.461	0.147	1.446	1.132

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Simult Tx	Configuration	PCS EVDO SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	Σ SAR (W/kg)	Simult Tx	Configuration	UMTS 1900 SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2			1	2	1+2
UMPC Body SAR	Back	0.673	0.362	1.035	UMPC Body SAR	Back	0.931	0.362	1.293
	Front	0.668	0.395	1.063		Front	0.911	0.395	1.306
	Top	-	0.461	0.461		Top	-	0.461	0.461
	Bottom	1.173	-	**1.173**		Bottom	1.386	-	**1.386**
	Right	0.211	0.461*	0.672		Right	0.245	0.461*	0.706
Simult Tx	Configuration	LTE Band 25 (PCS) SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	Σ SAR (W/kg)	Simult Tx	Configuration	LTE Band 30 SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2			1	2	1+2
UMPC Body SAR	Back	0.624	0.362	0.986	UMPC Body SAR	Back	0.864	0.362	1.226
	Front	0.781	0.395	1.176		Front	1.011	0.395	**1.406**
	Top	-	0.461	0.461		Top	-	0.461	0.461
	Bottom	1.303	-	**1.303**		Bottom	1.392	-	1.392
	Right	0.220	0.461*	0.681		Right	0.314	0.461*	0.775

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Table 12-24
Simultaneous Transmission Scenario with 2.4 GHz WLAN MIMO (UMPC Body)

Exposure Condition	Mode	2G/3G/4G SAR (W/kg)	2.4 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2
UMPC Body SAR	EVDO BC10 (§90S)	0.789	0.423	1.212
	EVDO BC0 (§22H)	0.798	0.423	1.221
	PCS EVDO	1.173	0.423	See Table Below
	GPRS 850	0.493	0.423	0.916
	GPRS 1900	0.916	0.423	1.339
	UMTS 850	0.716	0.423	1.139
	UMTS 1750	0.967	0.423	1.390
	UMTS 1900	1.386	0.423	See Table Below
	LTE Band 71	0.519	0.423	0.942
	LTE Band 12	0.396	0.423	0.819
	LTE Band 13	0.497	0.423	0.920
	LTE Band 14	0.476	0.423	0.899
	LTE Band 26 (Cell)	0.673	0.423	1.096
	LTE Band 5 (Cell)	0.664	0.423	1.087
	LTE Band 66 (AWS)	0.840	0.423	1.263
	LTE Band 25 (PCS)	1.303	0.423	See Table Below
	LTE Band 30	1.392	0.423	See Table Below
	LTE Band 7	1.027	0.423	**1.450**
	LTE Band 41	0.985	0.423	1.408

Simult Tx	Configuration	PCS EVDO SAR (W/kg)	2.4 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2
UMPC Body SAR	Back	0.673	0.417	1.090
	Front	0.668	0.281	0.949
	Top	-	0.423	0.423
	Bottom	1.173	-	**1.173**
	Right	0.211	0.423*	0.634

Simult Tx	Configuration	UMTS 1900 SAR (W/kg)	2.4 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2
UMPC Body SAR	Back	0.931	0.417	1.348
	Front	0.911	0.281	1.192
	Top	-	0.423	0.423
	Bottom	1.386	-	**1.386**
	Right	0.245	0.423*	0.668

Simult Tx	Configuration	LTE Band 25 (PCS) SAR (W/kg)	2.4 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2
UMPC Body SAR	Back	0.624	0.417	1.041
	Front	0.781	0.281	1.062
	Top	-	0.423	0.423
	Bottom	1.303	-	**1.303**
	Right	0.220	0.423*	0.643

Simult Tx	Configuration	LTE Band 30 SAR (W/kg)	2.4 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2
UMPC Body SAR	Back	0.864	0.417	1.281
	Front	1.011	0.281	1.292
	Top	-	0.423	0.423
	Bottom	1.392	-	**1.392**
	Right	0.314	0.423*	0.737

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Table 12-25
Simultaneous Transmission Scenario with 5 GHz WLAN (UMPC Body)

Exposure Condition	Mode	2G/3G/4G SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)	
		1	2	3	1+2	1+3
UMPC Body SAR	EVDO BC10 (§90S)	0.789	0.729	0.076	1.518	0.865
	EVDO BC0 (§22H)	0.798	0.729	0.076	1.527	0.874
	PCS EVDO	1.173	0.729	0.076	See Table Below	1.249
	GPRS 850	0.493	0.729	0.076	1.222	0.569
	GPRS 1900	0.916	0.729	0.076	See Table Below	0.992
	UMTS 850	0.716	0.729	0.076	1.445	0.792
	UMTS 1750	0.967	0.729	0.076	See Table Below	1.043
	UMTS 1900	1.386	0.729	0.076	See Table Below	1.462
	LTE Band 71	0.519	0.729	0.076	1.248	0.595
	LTE Band 12	0.396	0.729	0.076	1.125	0.472
	LTE Band 13	0.497	0.729	0.076	1.226	0.573
	LTE Band 14	0.476	0.729	0.076	1.205	0.552
	LTE Band 26 (Cell)	0.673	0.729	0.076	1.402	0.749
	LTE Band 5 (Cell)	0.664	0.729	0.076	1.393	0.740
	LTE Band 66 (AWS)	0.840	0.729	0.076	1.569	0.916
	LTE Band 25 (PCS)	1.303	0.729	0.076	See Table Below	1.379
	LTE Band 30	1.392	0.729	0.076	See Table Below	1.468
	LTE Band 7	1.027	0.729	0.076	See Table Below	1.103
	LTE Band 41	0.985	0.729	0.076	See Table Below	1.061

Simult Tx	Configuration	PCS EVDO SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2
UMPC Body SAR	Back	0.673	0.729	**1.402**
	Front	0.668	0.152	0.820
	Top	-	0.166	0.166
	Bottom	1.173	-	1.173
	Right	0.211	0.729*	0.940

Simult Tx	Configuration	GPRS 1900 SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2
UMPC Body SAR	Back	0.554	0.729	**1.283**
	Front	0.601	0.152	0.753
	Top	-	0.166	0.166
	Bottom	0.916	-	0.916
	Right	0.169	0.729*	0.898

Simult Tx	Configuration	UMTS 1750 SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2
UMPC Body SAR	Back	0.817	0.729	**1.546**
	Front	0.753	0.152	0.905
	Top	-	0.166	0.166
	Bottom	0.967	-	0.967
	Right	0.224	0.729*	0.953

Simult Tx	Configuration	UMTS 1900 SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	Σ SAR (W/kg)	SPLSR
		1	2	1+2	1+2
UMPC Body SAR	Back	0.931	0.729	See Note 1	0.01
	Front	0.911	0.152	1.063	N/A
	Top	-	0.166	0.166	N/A
	Bottom	1.386	-	**1.386**	N/A
	Right	0.245	0.729*	0.974	N/A

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Simult Tx	Configuration	LTE Band 25 (PCS) SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	Σ SAR (W/kg)	Simult Tx	Configuration	LTE Band 30 SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2			1	2	1+2
UMPC Body SAR	Back	0.624	0.729	**1.353**	UMPC Body SAR	Back	0.864	0.729	**1.593**
	Front	0.781	0.152	0.933		Front	1.011	0.152	1.163
	Top	-	0.166	0.166		Top	-	0.166	0.166
	Bottom	1.303	-	1.303		Bottom	1.392	-	1.392
	Right	0.220	0.729*	0.949		Right	0.314	0.729*	1.043

Simult Tx	Configuration	LTE Band 7 SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	Σ SAR (W/kg)	SPLSR	Simult Tx	Configuration	LTE Band 41 SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	Σ SAR (W/kg)	SPLSR
		1	2	1+2	1+2			1	2	1+2	1+2
UMPC Body SAR	Back	0.877	0.729	See Note 1	0.01	UMPC Body SAR	Back	0.939	0.729	See Note 1	0.01
	Front	0.921	0.152	1.073	N/A		Front	0.835	0.152	0.987	N/A
	Top	-	0.166	0.166	N/A		Top	-	0.166	0.166	N/A
	Bottom	1.027	-	1.027	N/A		Bottom	0.985	-	0.985	N/A
	Right	0.366	0.729*	**1.095**	N/A		Right	0.412	0.729*	**1.141**	N/A

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Table 12-26
Simultaneous Transmission Scenario with 5 GHz WLAN MIMO (UMPC Body)

Exposure Condition	Mode	2G/3G/4G SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2
UMPC Body SAR	EVDO BC10 (§90S)	0.789	0.605	1.394
	EVDO BC0 (§22H)	0.798	0.605	1.403
	PCS EVDO	1.173	0.605	See Table Below
	GPRS 850	0.493	0.605	1.098
	GPRS 1900	0.916	0.605	1.521
	UMTS 850	0.716	0.605	1.321
	UMTS 1750	0.967	0.605	1.572
	UMTS 1900	1.386	0.605	See Table Below
	LTE Band 71	0.519	0.605	1.124
	LTE Band 12	0.396	0.605	1.001
	LTE Band 13	0.497	0.605	1.102
	LTE Band 14	0.476	0.605	1.081
	LTE Band 26 (Cell)	0.673	0.605	1.278
	LTE Band 5 (Cell)	0.664	0.605	1.269
	LTE Band 66 (AWS)	0.840	0.605	1.445
	LTE Band 25 (PCS)	1.303	0.605	See Table Below
	LTE Band 30	1.392	0.605	See Table Below
	LTE Band 7	1.027	0.605	See Table Below
	LTE Band 41	0.985	0.605	**1.590**

Simult Tx	Configuration	PCS EVDO SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2
UMPC Body SAR	Back	0.673	0.605	**1.278**
	Front	0.668	0.194	0.862
	Top	-	0.217	0.217
	Bottom	1.173	-	1.173
	Right	0.211	0.605*	0.816

Simult Tx	Configuration	UMTS 1900 SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2
UMPC Body SAR	Back	0.931	0.605	**1.536**
	Front	0.911	0.194	1.105
	Top	-	0.217	0.217
	Bottom	1.386	-	1.386
	Right	0.245	0.605*	0.850

Simult Tx	Configuration	LTE Band 25 (PCS) SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2
UMPC Body SAR	Back	0.624	0.605	1.229
	Front	0.781	0.194	0.975
	Top	-	0.217	0.217
	Bottom	1.303	-	**1.303**
	Right	0.220	0.605*	0.825

Simult Tx	Configuration	LTE Band 30 SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2
UMPC Body SAR	Back	0.864	0.605	**1.469**
	Front	1.011	0.194	1.205
	Top	-	0.217	0.217
	Bottom	1.392	-	1.392
	Right	0.314	0.605*	0.919

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Simult Tx	Configuration	LTE Band 7 SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2
UMPC Body SAR	Back	0.877	0.605	**1.482**
	Front	0.921	0.194	1.115
	Top	-	0.217	0.217
	Bottom	1.027	-	1.027
	Right	0.366	0.605*	0.971

Table 12-27
Simultaneous Transmission Scenario with 2.4 GHz WLAN MIMO and 5 GHz WLAN MIMO (UMPC Body)

Exposure Condition	Mode	2G/3G/4G SAR (W/kg)	2.4 GHz WLAN MIMO at 16 dBm SAR (W/kg)	5 GHz WLAN MIMO at 13 dBm SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
UMPC Body SAR	EVDO BC10 (§90S)	0.789	0.322	0.324	1.435
	EVDO BC0 (§22H)	0.798	0.322	0.324	1.444
	PCS EVDO	1.173	0.322	0.324	See Table Below
	GPRS 850	0.493	0.322	0.324	1.139
	GPRS 1900	0.916	0.322	0.324	**1.562**
	UMTS 850	0.716	0.322	0.324	1.362
	UMTS 1750	0.967	0.322	0.324	See Table Below
	UMTS 1900	1.386	0.322	0.324	See Table Below
	LTE Band 71	0.519	0.322	0.324	1.165
	LTE Band 12	0.396	0.322	0.324	1.042
	LTE Band 13	0.497	0.322	0.324	1.143
	LTE Band 14	0.476	0.322	0.324	1.122
	LTE Band 26 (Cell)	0.673	0.322	0.324	1.319
	LTE Band 5 (Cell)	0.664	0.322	0.324	1.310
	LTE Band 66 (AWS)	0.840	0.322	0.324	1.486
	LTE Band 25 (PCS)	1.303	0.322	0.324	See Table Below
	LTE Band 30	1.392	0.322	0.324	See Table Below
	LTE Band 7	1.027	0.322	0.324	See Table Below
	LTE Band 41	0.985	0.322	0.324	See Table Below

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Simult Tx	Configuration	PCS EVDO SAR (W/kg)	2.4 GHz WLAN MIMO at 16 dBm SAR (W/kg)	5 GHz WLAN MIMO at 13 dBm SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
UMPC Body SAR	Back	0.673	0.304	0.324	**1.301**
	Front	0.668	0.246	0.058	0.972
	Top	-	0.322	0.324*	0.646
	Bottom	1.173	-	-	1.173
	Right	0.211	0.322*	0.324*	0.857

Simult Tx	Configuration	UMTS 1750 SAR (W/kg)	2.4 GHz WLAN MIMO at 16 dBm SAR (W/kg)	5 GHz WLAN MIMO at 13 dBm SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
UMPC Body SAR	Back	0.817	0.304	0.324	**1.445**
	Front	0.753	0.246	0.058	1.057
	Top	-	0.322	0.324*	0.646
	Bottom	0.967	-	-	0.967
	Right	0.224	0.322*	0.324*	0.870

Simult Tx	Configuration	UMTS 1900 SAR (W/kg)	2.4 GHz WLAN MIMO at 16 dBm SAR (W/kg)	5 GHz WLAN MIMO at 13 dBm SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
UMPC Body SAR	Back	0.931	0.304	0.324	**1.559**
	Front	0.911	0.246	0.058	1.215
	Top	-	0.322	0.324*	0.646
	Bottom	1.386	-	-	1.386
	Right	0.245	0.322*	0.324*	0.891

Simult Tx	Configuration	LTE Band 25 (PCS) SAR (W/kg)	2.4 GHz WLAN MIMO at 16 dBm SAR (W/kg)	5 GHz WLAN MIMO at 13 dBm SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
UMPC Body SAR	Back	0.624	0.304	0.324	1.252
	Front	0.781	0.246	0.058	1.085
	Top	-	0.322	0.324*	0.646
	Bottom	1.303	-	-	**1.303**
	Right	0.220	0.322*	0.324*	0.866

Simult Tx	Configuration	LTE Band 30 SAR (W/kg)	2.4 GHz WLAN MIMO at 16 dBm SAR (W/kg)	5 GHz WLAN MIMO at 13 dBm SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
UMPC Body SAR	Back	0.864	0.304	0.324	**1.492**
	Front	1.011	0.246	0.058	1.315
	Top	-	0.322	0.324*	0.646
	Bottom	1.392	-	-	1.392
	Right	0.314	0.322*	0.324*	0.960

Simult Tx	Configuration	LTE Band 7 SAR (W/kg)	2.4 GHz WLAN MIMO at 16 dBm SAR (W/kg)	5 GHz WLAN MIMO at 13 dBm SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
UMPC Body SAR	Back	0.877	0.304	0.324	**1.505**
	Front	0.921	0.246	0.058	1.225
	Top	-	0.322	0.324*	0.646
	Bottom	1.027	-	-	1.027
	Right	0.366	0.322*	0.324*	1.012

Simult Tx	Configuration	LTE Band 41 SAR (W/kg)	2.4 GHz WLAN MIMO at 16 dBm SAR (W/kg)	5 GHz WLAN MIMO at 13 dBm SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
UMPC Body SAR	Back	0.939	0.304	0.324	**1.567**
	Front	0.835	0.246	0.058	1.139
	Top	-	0.322	0.324*	0.646
	Bottom	0.985	-	-	0.985
	Right	0.412	0.322*	0.324*	1.058

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Table 12-28
Simultaneous Transmission Scenario with Bluetooth (UMPC Body)

Exposure Condition	Mode	2G/3G/4G SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2
UMPC Body SAR	EVDO BC10 (§90S)	0.789	0.127	0.916
	EVDO BC0 (§22H)	0.798	0.127	0.925
	PCS EVDO	1.173	0.127	1.300
	GPRS 850	0.493	0.127	0.620
	GPRS 1900	0.916	0.127	1.043
	UMTS 850	0.716	0.127	0.843
	UMTS 1750	0.967	0.127	1.094
	UMTS 1900	1.386	0.127	1.513
	LTE Band 71	0.519	0.127	0.646
	LTE Band 12	0.396	0.127	0.523
	LTE Band 13	0.497	0.127	0.624
	LTE Band 14	0.476	0.127	0.603
	LTE Band 26 (Cell)	0.673	0.127	0.800
	LTE Band 5 (Cell)	0.664	0.127	0.791
	LTE Band 66 (AWS)	0.840	0.127	0.967
	LTE Band 25 (PCS)	1.303	0.127	1.430
	LTE Band 30	1.392	0.127	**1.519**
	LTE Band 7	1.027	0.127	1.154
	LTE Band 41	0.985	0.127	1.112

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Table 12-29
Simultaneous Transmission Scenario with Bluetooth and 5 GHz WLAN Antenna 1 (UMPC Body)

Exposure Condition	Mode	2G/3G/4G SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
UMPC Body SAR	EVDO BC10 (§90S)	0.789	0.127	0.729	See Table Below
	EVDO BC0 (§22H)	0.798	0.127	0.729	See Table Below
	PCS EVDO	1.173	0.127	0.729	See Table Below
	GPRS 850	0.493	0.127	0.729	1.349
	GPRS 1900	0.916	0.127	0.729	See Table Below
	UMTS 850	0.716	0.127	0.729	**1.572**
	UMTS 1750	0.967	0.127	0.729	See Table Below
	UMTS 1900	1.386	0.127	0.729	See Table Below
	LTE Band 71	0.519	0.127	0.729	1.375
	LTE Band 12	0.396	0.127	0.729	1.252
	LTE Band 13	0.497	0.127	0.729	1.353
	LTE Band 14	0.476	0.127	0.729	1.332
	LTE Band 26 (Cell)	0.673	0.127	0.729	1.529
	LTE Band 5 (Cell)	0.664	0.127	0.729	1.520
	LTE Band 66 (AWS)	0.840	0.127	0.729	See Table Below
	LTE Band 25 (PCS)	1.303	0.127	0.729	See Table Below
	LTE Band 30	1.392	0.127	0.729	See Table Below
	LTE Band 7	1.027	0.127	0.729	See Table Below
	LTE Band 41	0.985	0.127	0.729	See Table Below

Simult Tx	Configuration	EVDO BC10 (§90S) SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
UMPC Body SAR	Back	0.749	0.105	0.729	**1.583**
	Front	0.789	0.127	0.152	1.068
	Top	-	0.124	0.166	0.290
	Bottom	0.484	-	-	0.484
	Right	0.473	0.113	0.729*	1.315

Simult Tx	Configuration	EVDO BC0 (§22H) SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
UMPC Body SAR	Back	0.726	0.105	0.729	**1.560**
	Front	0.798	0.127	0.152	1.077
	Top	-	0.124	0.166	0.290
	Bottom	0.507	-	-	0.507
	Right	0.493	0.113	0.729*	1.335

Simult Tx	Configuration	PCS EVDO SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
UMPC Body SAR	Back	0.673	0.105	0.729	**1.507**
	Front	0.668	0.127	0.152	0.947
	Top	-	0.124	0.166	0.290
	Bottom	1.173	-	-	1.173
	Right	0.211	0.113	0.729*	1.053

Simult Tx	Configuration	GPRS 1900 SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
UMPC Body SAR	Back	0.554	0.105	0.729	**1.388**
	Front	0.601	0.127	0.152	0.880
	Top	-	0.124	0.166	0.290
	Bottom	0.916	-	-	0.916
	Right	0.169	0.113	0.729*	1.011

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Simult Tx	Configuration	UMTS 1750 SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	Σ SAR (W/kg)	SPLSR		
		1	2	3	1+2+3	1+2	1+3	2+3
UMPC Body SAR	Back	0.817	0.105	0.729	See Note 1	0.01	0.01	0.04
	Front	0.753	0.127	0.152	1.032	N/A	N/A	N/A
	Top	-	0.124	0.166	0.290	N/A	N/A	N/A
	Bottom	0.967	-	-	0.967	N/A	N/A	N/A
	Right	0.224	0.113	0.729*	1.066	N/A	N/A	N/A

Simult Tx	Configuration	UMTS 1900 SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	Σ SAR (W/kg)	SPLSR		
		1	2	3	1+2+3	1+2	1+3	2+3
UMPC Body SAR	Back	0.931	0.105	0.729	See Note 1	0.01	0.01	0.04
	Front	0.911	0.127	0.152	1.190	N/A	N/A	N/A
	Top	-	0.124	0.166	0.290	N/A	N/A	N/A
	Bottom	1.386	-	-	**1.386**	N/A	N/A	N/A
	Right	0.245	0.113	0.729*	1.087	N/A	N/A	N/A

Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	Σ SAR (W/kg)	SPLSR		
		1	2	3	1+2+3	1+2	1+3	2+3
UMPC Body SAR	Back	0.840	0.105	0.729	See Note 1	0.01	0.01	0.04
	Front	0.582	0.127	0.152	0.861	N/A	N/A	N/A
	Top	-	0.124	0.166	0.290	N/A	N/A	N/A
	Bottom	0.732	-	-	0.732	N/A	N/A	N/A
	Right	0.236	0.113	0.729*	1.078	N/A	N/A	N/A

Simult Tx	Configuration	LTE Band 25 (PCS) SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
UMPC Body SAR	Back	0.624	0.105	0.729	**1.458**
	Front	0.781	0.127	0.152	1.060
	Top	-	0.124	0.166	0.290
	Bottom	1.303	-	-	1.303
	Right	0.220	0.113	0.729*	1.062

Simult Tx	Configuration	LTE Band 30 SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	Σ SAR (W/kg)	SPLSR		
		1	2	3	1+2+3	1+2	1+3	2+3
UMPC Body SAR	Back	0.864	0.105	0.729	See Note 1	0.01	0.01	0.04
	Front	1.011	0.127	0.152	1.290	N/A	N/A	N/A
	Top	-	0.124	0.166	0.290	N/A	N/A	N/A
	Bottom	1.392	-	-	1.392	N/A	N/A	N/A
	Right	0.314	0.113	0.729*	1.156	N/A	N/A	N/A

Simult Tx	Configuration	LTE Band 7 SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	Σ SAR (W/kg)	SPLSR		
		1	2	3	1+2+3	1+2	1+3	2+3
UMPC Body SAR	Back	0.877	0.105	0.729	See Note 1	0.01	0.01	0.04
	Front	0.921	0.127	0.152	1.200	N/A	N/A	N/A
	Top	-	0.124	0.166	0.290	N/A	N/A	N/A
	Bottom	1.027	-	-	1.027	N/A	N/A	N/A
	Right	0.366	0.113	0.729*	**1.208**	N/A	N/A	N/A

Simult Tx	Configuration	LTE Band 41 SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	Σ SAR (W/kg)	SPLSR		
		1	2	3	1+2+3	1+2	1+3	2+3
UMPC Body SAR	Back	0.939	0.105	0.729	See Note 1	0.01	0.01	0.04
	Front	0.835	0.127	0.152	1.114	N/A	N/A	N/A
	Top	-	0.124	0.166	0.290	N/A	N/A	N/A
	Bottom	0.985	-	-	0.985	N/A	N/A	N/A
	Right	0.412	0.113	0.729*	**1.254**	N/A	N/A	N/A

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Table 12-30
Simultaneous Transmission Scenario with Bluetooth and 5 GHz WLAN Antenna 2 (UMPC Body)

Exposure Condition	Mode	2G/3G/4G SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
UMPC Body SAR	EVDO BC10 (§90S)	0.789	0.127	0.076	0.992
	EVDO BC0 (§22H)	0.798	0.127	0.076	1.001
	PCS EVDO	1.173	0.127	0.076	1.376
	GPRS 850	0.493	0.127	0.076	0.696
	GPRS 1900	0.916	0.127	0.076	1.119
	UMTS 850	0.716	0.127	0.076	0.919
	UMTS 1750	0.967	0.127	0.076	1.170
	UMTS 1900	1.386	0.127	0.076	**1.589**
	LTE Band 71	0.519	0.127	0.076	0.722
	LTE Band 12	0.396	0.127	0.076	0.599
	LTE Band 13	0.497	0.127	0.076	0.700
	LTE Band 14	0.476	0.127	0.076	0.679
	LTE Band 26 (Cell)	0.673	0.127	0.076	0.876
	LTE Band 5 (Cell)	0.664	0.127	0.076	0.867
	LTE Band 66 (AWS)	0.840	0.127	0.076	1.043
	LTE Band 25 (PCS)	1.303	0.127	0.076	1.506
	LTE Band 30	1.392	0.127	0.076	See Table Below
	LTE Band 7	1.027	0.127	0.076	1.230
	LTE Band 41	0.985	0.127	0.076	1.188

Simult Tx	Configuration	LTE Band 30 SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
UMPC Body SAR	Back	0.864	0.105	0.071	1.040
	Front	1.011	0.127	0.076*	1.214
	Top	-	0.124	0.076	0.200
	Bottom	1.392	-	-	**1.392**
	Right	0.314	0.113	-	0.427

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Table 12-31
Simultaneous Transmission Scenario with Bluetooth and 5 GHz WLAN MIMO (UMPC Body)

Exposure Condition	Mode	2G/3G/4G SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
UMPC Body SAR	EVDO BC10 (§90S)	0.789	0.127	0.605	1.521
	EVDO BC0 (§22H)	0.798	0.127	0.605	1.530
	PCS EVDO	1.173	0.127	0.605	See Table Below
	GPRS 850	0.493	0.127	0.605	1.225
	GPRS 1900	0.916	0.127	0.605	See Table Below
	UMTS 850	0.716	0.127	0.605	1.448
	UMTS 1750	0.967	0.127	0.605	See Table Below
	UMTS 1900	1.386	0.127	0.605	See Table Below
	LTE Band 71	0.519	0.127	0.605	1.251
	LTE Band 12	0.396	0.127	0.605	1.128
	LTE Band 13	0.497	0.127	0.605	1.229
	LTE Band 14	0.476	0.127	0.605	1.208
	LTE Band 26 (Cell)	0.673	0.127	0.605	1.405
	LTE Band 5 (Cell)	0.664	0.127	0.605	1.396
	LTE Band 66 (AWS)	0.840	0.127	0.605	1.572
	LTE Band 25 (PCS)	1.303	0.127	0.605	See Table Below
	LTE Band 30	1.392	0.127	0.605	See Table Below
	LTE Band 7	1.027	0.127	0.605	See Table Below
	LTE Band 41	0.985	0.127	0.605	See Table Below

Simult Tx	Configuration	PCS EVDO SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
UMPC Body SAR	Back	0.673	0.105	0.605	**1.383**
	Front	0.668	0.127	0.194	0.989
	Top	-	0.124	0.217	0.341
	Bottom	1.173	-	-	1.173
	Right	0.211	0.113	0.605*	0.929

Simult Tx	Configuration	GPRS 1900 SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
UMPC Body SAR	Back	0.554	0.105	0.605	**1.264**
	Front	0.601	0.127	0.194	0.922
	Top	-	0.124	0.217	0.341
	Bottom	0.916	-	-	0.916
	Right	0.169	0.113	0.605*	0.887

Simult Tx	Configuration	UMTS 1750 SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
UMPC Body SAR	Back	0.817	0.105	0.605	**1.527**
	Front	0.753	0.127	0.194	1.074
	Top	-	0.124	0.217	0.341
	Bottom	0.967	-	-	0.967
	Right	0.224	0.113	0.605*	0.942

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Simult Tx	Configuration	UMTS 1900 SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)	SPLSR		
		1	2	3	1+2+3	1+2	1+3	2+3
UMPC Body SAR	Back	0.931	0.105	0.605	See Note 1	0.01	0.01	0.03
	Front	0.911	0.127	0.194	1.232	N/A	N/A	N/A
	Top	-	0.124	0.217	0.341	N/A	N/A	N/A
	Bottom	1.386	-	-	1.386	N/A	N/A	N/A
	Right	0.245	0.113	0.605*	0.963	N/A	N/A	N/A

Simult Tx	Configuration	LTE Band 25 (PCS) SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
UMPC Body SAR	Back	0.624	0.105	0.605	**1.334**
	Front	0.781	0.127	0.194	1.102
	Top	-	0.124	0.217	0.341
	Bottom	1.303	-	-	1.303
	Right	0.220	0.113	0.605*	0.938

Simult Tx	Configuration	LTE Band 30 SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
UMPC Body SAR	Back	0.864	0.105	0.605	**1.574**
	Front	1.011	0.127	0.194	1.332
	Top	-	0.124	0.217	0.341
	Bottom	1.392	-	-	1.392
	Right	0.314	0.113	0.605*	1.032

Simult Tx	Configuration	LTE Band 7 SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
UMPC Body SAR	Back	0.877	0.105	0.605	**1.587**
	Front	0.921	0.127	0.194	1.242
	Top	-	0.124	0.217	0.341
	Bottom	1.027	-	-	1.027
	Right	0.366	0.113	0.605*	1.084

Simult Tx	Configuration	LTE Band 41 SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)	SPLSR		
		1	2	3	1+2+3	1+2	1+3	2+3
UMPC Body SAR	Back	0.939	0.105	0.605	See Note 1	0.01	0.01	0.03
	Front	0.835	0.127	0.194	1.156	N/A	N/A	N/A
	Top	-	0.124	0.217	0.341	N/A	N/A	N/A
	Bottom	0.985	-	-	0.985	N/A	N/A	N/A
	Right	0.412	0.113	0.605*	1.130	N/A	N/A	N/A

Notes:

1. No evaluation was performed to determine the aggregate 1g SAR for these configurations as the SPLS ratio between the antenna pairs was not greater than 0.04 per FCC KDB 447498 D01v06. See Section 12.9 for detailed SPLS ratio analysis.

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12.8 UMPC Extremity Simultaneous Transmission Analysis

Per FCC KDB Publication 941225 D06v02r01, the devices edges with antennas more than 2.5 cm from edge are not required to be evaluated for SAR ("-").

(*) For test positions that were not required to be evaluated for WLAN SAR per FCC KDB publication 248227, the worst case WLAN SAR result for the applicable exposure conditions was used for simultaneous transmission analysis.

Table 12-32
Simultaneous Transmission Scenario with 2.4 GHz WLAN (UMPC Extremity)

Exposure Condition	Mode	2G/3G/4G SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)	
		1	2	3	1+2	1+3
UMPC Extremity SAR	EVDO BC10 (§90S)	1.478	2.701	1.137	See Table Below	2.615
	EVDO BC0 (§22H)	1.378	2.701	1.137	See Table Below	2.515
	PCS EVDO	2.693	2.701	1.137	See Table Below	3.830
	GPRS 850	0.925	2.701	1.137	3.626	2.062
	GPRS 1900	2.572	2.701	1.137	See Table Below	3.709
	UMTS 850	1.057	2.701	1.137	3.758	2.194
	UMTS 1750	2.901	2.701	1.137	See Table Below	See Table Below
	UMTS 1900	3.296	2.701	1.137	See Table Below	See Table Below
	LTE Band 71	1.445	2.701	1.137	See Table Below	2.582
	LTE Band 12	1.319	2.701	1.137	See Table Below	2.456
	LTE Band 13	1.254	2.701	1.137	3.955	2.391
	LTE Band 14	0.969	2.701	1.137	3.670	2.106
	LTE Band 26 (Cell)	1.262	2.701	1.137	**3.963**	2.399
	LTE Band 5 (Cell)	1.158	2.701	1.137	3.859	2.295
	LTE Band 66 (AWS)	3.145	2.701	1.137	See Table Below	See Table Below
	LTE Band 25 (PCS)	3.152	2.701	1.137	See Table Below	See Table Below
	LTE Band 30	3.291	2.701	1.137	See Table Below	See Table Below
	LTE Band 7	2.169	2.701	1.137	See Table Below	3.306
	LTE Band 41	3.297	2.701	1.137	See Table Below	See Table Below

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Simult Tx	Configuration	EVDO BC10 (§90S) SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		SPLSR
		1	2	3	1+2	1+3	1+2
UMPC Extremity SAR	Back	1.478	1.653	1.137	3.131	2.615	N/A
	Front	1.427	2.701	1.137*	See Note 1	2.564	0.07
	Top	-	1.976	0.561	1.976	0.561	N/A
	Bottom	0.915	-	-	0.915	0.915	N/A
	Right	0.604	2.701*	-	**3.305**	0.604	N/A

Simult Tx	Configuration	EVDO BC0 (§22H) SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		SPLSR
		1	2	3	1+2	1+3	1+2
UMPC Extremity SAR	Back	1.378	1.653	1.137	3.031	2.515	N/A
	Front	1.341	2.701	1.137*	See Note 1	2.478	0.07
	Top	-	1.976	0.561	1.976	0.561	N/A
	Bottom	0.817	-	-	0.817	0.817	N/A
	Right	0.616	2.701*	-	**3.317**	0.616	N/A

Simult Tx	Configuration	PCS EVDO SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		SPLSR
		1	2	3	1+2	1+3	1+2
UMPC Extremity SAR	Back	0.957	1.653	1.137	2.610	2.094	N/A
	Front	1.385	2.701	1.137*	See Note 1	2.522	0.05
	Top	-	1.976	0.561	1.976	0.561	N/A
	Bottom	2.693	-	-	2.693	2.693	N/A
	Right	0.573	2.701*	-	3.274	0.573	N/A

Simult Tx	Configuration	GPRS 1900 SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		SPLSR
		1	2	3	1+2	1+3	1+2
UMPC Extremity SAR	Back	1.019	1.653	1.137	2.672	2.156	N/A
	Front	1.319	2.701	1.137*	See Note 1	2.456	0.05
	Top	-	1.976	0.561	1.976	0.561	N/A
	Bottom	2.572	-	-	2.572	2.572	N/A
	Right	0.582	2.701*	-	3.283	0.582	N/A

Simult Tx	Configuration	UMTS 1750 SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		SPLSR
		1	2	3	1+2	1+3	1+2
UMPC Extremity SAR	Back	1.179	1.653	1.137	2.832	2.316	N/A
	Front	1.462	2.701	1.137*	See Note 1	2.599	0.06
	Top	-	1.976	0.561	1.976	0.561	N/A
	Bottom	2.901	-	-	2.901	2.901	N/A
	Right	0.618	2.701*	-	3.319	0.618	N/A

Simult Tx	Configuration	UMTS 1900 SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		SPLSR
		1	2	3	1+2	1+3	1+2
UMPC Extremity SAR	Back	1.155	1.653	1.137	2.808	2.292	N/A
	Front	1.568	2.701	1.137*	See Note 1	2.705	0.06
	Top	-	1.976	0.561	1.976	0.561	N/A
	Bottom	3.296	-	-	3.296	3.296	N/A
	Right	0.794	2.701*	-	3.495	0.794	N/A

Simult Tx	Configuration	LTE Band 71 SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		SPLSR
		1	2	3	1+2	1+3	1+2
UMPC Extremity SAR	Back	1.199	1.653	1.137	2.852	2.336	N/A
	Front	1.445	2.701	1.137*	See Note 1	2.582	0.07
	Top	-	1.976	0.561	1.976	0.561	N/A
	Bottom	1.115	-	-	1.115	1.115	N/A
	Right	1.123	2.701*	-	3.824	1.123	N/A

Simult Tx	Configuration	LTE Band 12 SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		SPLSR
		1	2	3	1+2	1+3	1+2
UMPC Extremity SAR	Back	1.238	1.653	1.137	2.891	2.375	N/A
	Front	1.319	2.701	1.137*	See Note 1	2.456	0.07
	Top	-	1.976	0.561	1.976	0.561	N/A
	Bottom	0.978	-	-	0.978	0.978	N/A
	Right	0.913	2.701*	-	**3.614**	0.913	N/A

Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		SPLSR
		1	2	3	1+2	1+3	1+2
UMPC Extremity SAR	Back	1.323	1.653	1.137	2.976	2.460	N/A
	Front	1.409	2.701	1.137*	See Note 1	2.546	0.05
	Top	-	1.976	0.561	1.976	0.561	N/A
	Bottom	3.145	-	-	3.145	3.145	N/A
	Right	0.449	2.701*	-	**3.150**	0.449	N/A

Simult Tx	Configuration	LTE Band 25 (PCS) SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		SPLSR
		1	2	3	1+2	1+3	1+2
UMPC Extremity SAR	Back	1.250	1.653	1.137	2.903	2.387	N/A
	Front	1.356	2.701	1.137*	See Note 1	2.493	0.05
	Top	-	1.976	0.561	1.976	0.561	N/A
	Bottom	3.152	-	-	3.152	3.152	N/A
	Right	0.742	2.701*	-	**3.443**	0.742	N/A

Simult Tx	Configuration	LTE Band 30 SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		SPLSR
		1	2	3	1+2	1+3	1+2
UMPC Extremity SAR	Back	1.271	1.653	1.137	2.924	2.408	N/A
	Front	1.496	2.701	1.137*	See Note 1	2.633	0.05
	Top	-	1.976	0.561	1.976	0.561	N/A
	Bottom	3.291	-	-	3.291	3.291	N/A
	Right	0.759	2.701*	-	**3.460**	0.759	N/A

Simult Tx	Configuration	LTE Band 7 SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)	
		1	2	3	1+2	1+3
UMPC Extremity SAR	Back	0.638	1.653	1.137	2.291	1.775
	Front	1.025	2.701	1.137*	**3.726**	2.162
	Top	-	1.976	0.561	1.976	0.561
	Bottom	2.169	-	-	2.169	2.169
	Right	0.958	2.701*	-	3.659	0.958

Simult Tx	Configuration	LTE Band 41 SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		SPLSR
		1	2	3	1+2	1+3	1+2
UMPC Extremity SAR	Back	1.011	1.653	1.137	2.664	2.148	N/A
	Front	1.391	2.701	1.137*	See Note 1	2.528	0.05
	Top	-	1.976	0.561	1.976	0.561	N/A
	Bottom	3.297	-	-	3.297	3.297	N/A
	Right	0.998	2.701*	-	3.699	0.998	N/A

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Table 12-33
Simultaneous Transmission Scenario with 2.4 GHz WLAN MIMO (UMPC Extremity)

Exposure Condition	Mode	2G/3G/4G SAR (W/kg)	2.4 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2
UMPC Extremity SAR	EVDO BC10 (§90S)	1.478	1.887	**3.365**
	EVDO BC0 (§22H)	1.378	1.887	3.265
	PCS EVDO	2.693	1.887	See Table Below
	GPRS 850	0.925	1.887	2.812
	GPRS 1900	2.572	1.887	See Table Below
	UMTS 850	1.057	1.887	2.944
	UMTS 1750	2.901	1.887	See Table Below
	UMTS 1900	3.296	1.887	See Table Below
	LTE Band 71	1.445	1.887	3.332
	LTE Band 12	1.319	1.887	3.206
	LTE Band 13	1.254	1.887	3.141
	LTE Band 14	0.969	1.887	2.856
	LTE Band 26 (Cell)	1.262	1.887	3.149
	LTE Band 5 (Cell)	1.158	1.887	3.045
	LTE Band 66 (AWS)	3.145	1.887	See Table Below
	LTE Band 25 (PCS)	3.152	1.887	See Table Below
	LTE Band 30	3.291	1.887	See Table Below
	LTE Band 7	2.169	1.887	See Table Below
	LTE Band 41	3.297	1.887	See Table Below

Simult Tx	Configuration	PCS EVDO SAR (W/kg)	2.4 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2
UMPC Extremity SAR	Back	0.957	1.027	1.984
	Front	1.385	1.887	**3.272**
	Top	-	1.426	1.426
	Bottom	2.693	-	2.693
	Right	0.573	1.887*	2.460

Simult Tx	Configuration	GPRS 1900 SAR (W/kg)	2.4 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2
UMPC Extremity SAR	Back	1.019	1.027	2.046
	Front	1.319	1.887	**3.206**
	Top	-	1.426	1.426
	Bottom	2.572	-	2.572
	Right	0.582	1.887*	2.469

Simult Tx	Configuration	UMTS 1750 SAR (W/kg)	2.4 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2
UMPC Extremity SAR	Back	1.179	1.027	2.206
	Front	1.462	1.887	**3.349**
	Top	-	1.426	1.426
	Bottom	2.901	-	2.901
	Right	0.618	1.887*	2.505

Simult Tx	Configuration	UMTS 1900 SAR (W/kg)	2.4 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2
UMPC Extremity SAR	Back	1.155	1.027	2.182
	Front	1.568	1.887	**3.455**
	Top	-	1.426	1.426
	Bottom	3.296	-	3.296
	Right	0.794	1.887*	2.681

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Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	2.4 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)	Simult Tx	Configuration	LTE Band 25 (PCS) SAR (W/kg)	2.4 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2			1	2	1+2
UMPC Extremity SAR	Back	1.323	1.027	2.350	UMPC Extremity SAR	Back	1.250	1.027	2.277
	Front	1.409	1.887	**3.296**		Front	1.356	1.887	**3.243**
	Top	-	1.426	1.426		Top	-	1.426	1.426
	Bottom	3.145	-	3.145		Bottom	3.152	-	3.152
	Right	0.449	1.887*	2.336		Right	0.742	1.887*	2.629

Simult Tx	Configuration	LTE Band 30 SAR (W/kg)	2.4 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)	Simult Tx	Configuration	LTE Band 7 SAR (W/kg)	2.4 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2			1	2	1+2
UMPC Extremity SAR	Back	1.271	1.027	2.298	UMPC Extremity SAR	Back	0.638	1.027	1.665
	Front	1.496	1.887	**3.383**		Front	1.025	1.887	**2.912**
	Top	-	1.426	1.426		Top	-	1.426	1.426
	Bottom	3.291	-	3.291		Bottom	2.169	-	2.169
	Right	0.759	1.887*	2.646		Right	0.958	1.887*	2.845

Simult Tx	Configuration	LTE Band 41 SAR (W/kg)	2.4 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2
UMPC Extremity SAR	Back	1.011	1.027	2.038
	Front	1.391	1.887	3.278
	Top	-	1.426	1.426
	Bottom	3.297	-	**3.297**
	Right	0.998	1.887*	2.885

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Table 12-34
Simultaneous Transmission Scenario with 5 GHz WLAN (UMPC Extremity)

Exposure Condition	Mode	2G/3G/4G SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		
		1	2	3	1+2	1+3	1+2+3
UMPC Extremity SAR	EVDO BC10 (§90S)	1.478	0.894	0.398	2.372	1.876	2.770
	EVDO BC0 (§22H)	1.378	0.894	0.398	2.272	1.776	2.670
	PCS EVDO	2.693	0.894	0.398	3.587	3.091	**3.985**
	GPRS 850	0.925	0.894	0.398	1.819	1.323	2.217
	GPRS 1900	2.572	0.894	0.398	3.466	2.970	3.864
	UMTS 850	1.057	0.894	0.398	1.951	1.455	2.349
	UMTS 1750	2.901	0.894	0.398	3.795	3.299	See Table Below
	UMTS 1900	3.296	0.894	0.398	See Table Below	3.694	See Table Below
	LTE Band 71	1.445	0.894	0.398	2.339	1.843	2.737
	LTE Band 12	1.319	0.894	0.398	2.213	1.717	2.611
	LTE Band 13	1.254	0.894	0.398	2.148	1.652	2.546
	LTE Band 14	0.969	0.894	0.398	1.863	1.367	2.261
	LTE Band 26 (Cell)	1.262	0.894	0.398	2.156	1.660	2.554
	LTE Band 5 (Cell)	1.158	0.894	0.398	2.052	1.556	2.450
	LTE Band 66 (AWS)	3.145	0.894	0.398	See Table Below	3.543	See Table Below
	LTE Band 25 (PCS)	3.152	0.894	0.398	See Table Below	3.550	See Table Below
	LTE Band 30	3.291	0.894	0.398	See Table Below	3.689	See Table Below
	LTE Band 7	2.169	0.894	0.398	3.063	2.567	3.461
	LTE Band 41	3.297	0.894	0.398	See Table Below	3.695	See Table Below

Simult Tx	Configuration	UMTS 1750 SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
UMPC Extremity SAR	Back	1.179	0.894	0.398	2.471
	Front	1.462	0.894*	0.398*	2.754
	Top	-	0.894*	0.398*	1.292
	Bottom	2.901	-	-	**2.901**
	Right	0.618	0.894*	-	1.512

Simult Tx	Configuration	UMTS 1900 SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)	
		1	2	3	1+2	1+2+3
UMPC Extremity SAR	Back	1.155	0.894	0.398	2.049	2.447
	Front	1.568	0.894*	0.398*	2.462	2.860
	Top	-	0.894*	0.398*	0.894	1.292
	Bottom	3.296	-	-	**3.296**	**3.296**
	Right	0.794	0.894*	-	1.688	1.688

Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)	
		1	2	3	1+2	1+2+3
UMPC Extremity SAR	Back	1.323	0.894	0.398	2.217	2.615
	Front	1.409	0.894*	0.398*	2.303	2.701
	Top	-	0.894*	0.398*	0.894	1.292
	Bottom	3.145	-	-	**3.145**	**3.145**
	Right	0.449	0.894*	-	1.343	1.343

Simult Tx	Configuration	LTE Band 25 (PCS) SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)	
		1	2	3	1+2	1+2+3
UMPC Extremity SAR	Back	1.250	0.894	0.398	2.144	2.542
	Front	1.356	0.894*	0.398*	2.250	2.648
	Top	-	0.894*	0.398*	0.894	1.292
	Bottom	3.152	-	-	**3.152**	**3.152**
	Right	0.742	0.894*	-	1.636	1.636

Simult Tx	Configuration	LTE Band 30 SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)	
		1	2	3	1+2	1+2+3
UMPC Extremity SAR	Back	1.271	0.894	0.398	2.165	2.563
	Front	1.496	0.894*	0.398*	2.390	2.788
	Top	-	0.894*	0.398*	0.894	1.292
	Bottom	3.291	-	-	**3.291**	**3.291**
	Right	0.759	0.894*	-	1.653	1.653

Simult Tx	Configuration	LTE Band 41 SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)	
		1	2	3	1+2	1+2+3
UMPC Extremity SAR	Back	1.011	0.894	0.398	1.905	2.303
	Front	1.391	0.894*	0.398*	2.285	2.683
	Top	-	0.894*	0.398*	0.894	1.292
	Bottom	3.297	-	-	**3.297**	**3.297**
	Right	0.998	0.894*	-	1.892	1.892

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Table 12-35
Simultaneous Transmission Scenario with 2.4 GHz WLAN MIMO and 5 GHz WLAN MIMO (UMPC Extremity)

Exposure Condition	Mode	2G/3G/4G SAR (W/kg)	2.4 GHz WLAN MIMO SAR (W/kg)	5 GHz WLAN MIMO at 13 dBm SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
UMPC Extremity SAR	EVDO BC10 (§90S)	1.478	1.887	0.660	See Table Below
	EVDO BC0 (§22H)	1.378	1.887	0.660	3.925
	PCS EVDO	2.693	1.887	0.660	See Table Below
	GPRS 850	0.925	1.887	0.660	3.472
	GPRS 1900	2.572	1.887	0.660	See Table Below
	UMTS 850	1.057	1.887	0.660	3.604
	UMTS 1750	2.901	1.887	0.660	See Table Below
	UMTS 1900	3.296	1.887	0.660	See Table Below
	LTE Band 71	1.445	1.887	0.660	**3.992**
	LTE Band 12	1.319	1.887	0.660	3.866
	LTE Band 13	1.254	1.887	0.660	3.801
	LTE Band 14	0.969	1.887	0.660	3.516
	LTE Band 26 (Cell)	1.262	1.887	0.660	3.809
	LTE Band 5 (Cell)	1.158	1.887	0.660	3.705
	LTE Band 66 (AWS)	3.145	1.887	0.660	See Table Below
	LTE Band 25 (PCS)	3.152	1.887	0.660	See Table Below
	LTE Band 30	3.291	1.887	0.660	See Table Below
	LTE Band 7	2.169	1.887	0.660	See Table Below
	LTE Band 41	3.297	1.887	0.660	See Table Below

Simult Tx	Configuration	EVDO BC10 (§90S) SAR (W/kg)	2.4 GHz WLAN MIMO SAR (W/kg)	5 GHz WLAN MIMO at 13 dBm SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
UMPC Extremity SAR	Back	1.478	1.027	0.660	3.165
	Front	1.427	1.887	0.343	**3.657**
	Top	-	1.426	0.660*	2.086
	Bottom	0.915	-	-	0.915
	Right	0.604	1.887*	0.660*	3.151

Simult Tx	Configuration	PCS EVDO SAR (W/kg)	2.4 GHz WLAN MIMO SAR (W/kg)	5 GHz WLAN MIMO at 13 dBm SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
UMPC Extremity SAR	Back	0.957	1.027	0.660	2.644
	Front	1.385	1.887	0.343	**3.615**
	Top	-	1.426	0.660*	2.086
	Bottom	2.693	-	-	2.693
	Right	0.573	1.887*	0.660*	3.120

Simult Tx	Configuration	GPRS 1900 SAR (W/kg)	2.4 GHz WLAN MIMO SAR (W/kg)	5 GHz WLAN MIMO at 13 dBm SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
UMPC Extremity SAR	Back	1.019	1.027	0.660	2.706
	Front	1.319	1.887	0.343	**3.549**
	Top	-	1.426	0.660*	2.086
	Bottom	2.572	-	-	2.572
	Right	0.582	1.887*	0.660*	3.129

Simult Tx	Configuration	UMTS 1750 SAR (W/kg)	2.4 GHz WLAN MIMO SAR (W/kg)	5 GHz WLAN MIMO at 13 dBm SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
UMPC Extremity SAR	Back	1.179	1.027	0.660	2.866
	Front	1.462	1.887	0.343	**3.692**
	Top	-	1.426	0.660*	2.086
	Bottom	2.901	-	-	2.901
	Right	0.618	1.887*	0.660*	3.165

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Simult Tx	Configuration	UMTS 1900 SAR (W/kg)	2.4 GHz WLAN MIMO SAR (W/kg)	5 GHz WLAN MIMO at 13 dBm SAR (W/kg)	Σ SAR (W/kg)	Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	2.4 GHz WLAN MIMO SAR (W/kg)	5 GHz WLAN MIMO at 13 dBm SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3			1	2	3	1+2+3
UMPC Extremity SAR	Back	1.155	1.027	0.660	2.842	UMPC Extremity SAR	Back	1.323	1.027	0.660	3.010
	Front	1.568	1.887	0.343	**3.798**		Front	1.409	1.887	0.343	**3.639**
	Top	-	1.426	0.660*	2.086		Top	-	1.426	0.660*	2.086
	Bottom	3.296	-	-	3.296		Bottom	3.145	-	-	3.145
	Right	0.794	1.887*	0.660*	3.341		Right	0.449	1.887*	0.660*	2.996

Simult Tx	Configuration	LTE Band 25 (PCS) SAR (W/kg)	2.4 GHz WLAN MIMO SAR (W/kg)	5 GHz WLAN MIMO at 13 dBm SAR (W/kg)	Σ SAR (W/kg)	Simult Tx	Configuration	LTE Band 30 SAR (W/kg)	2.4 GHz WLAN MIMO SAR (W/kg)	5 GHz WLAN MIMO at 13 dBm SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3			1	2	3	1+2+3
UMPC Extremity SAR	Back	1.250	1.027	0.660	2.937	UMPC Extremity SAR	Back	1.271	1.027	0.660	2.958
	Front	1.356	1.887	0.343	**3.586**		Front	1.496	1.887	0.343	**3.726**
	Top	-	1.426	0.660*	2.086		Top	-	1.426	0.660*	2.086
	Bottom	3.152	-	-	3.152		Bottom	3.291	-	-	3.291
	Right	0.742	1.887*	0.660*	3.289		Right	0.759	1.887*	0.660*	3.306

Simult Tx	Configuration	LTE Band 7 SAR (W/kg)	2.4 GHz WLAN MIMO SAR (W/kg)	5 GHz WLAN MIMO at 13 dBm SAR (W/kg)	Σ SAR (W/kg)	Simult Tx	Configuration	LTE Band 41 SAR (W/kg)	2.4 GHz WLAN MIMO SAR (W/kg)	5 GHz WLAN MIMO at 13 dBm SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3			1	2	3	1+2+3
UMPC Extremity SAR	Back	0.638	1.027	0.660	2.325	UMPC Extremity SAR	Back	1.011	1.027	0.660	2.698
	Front	1.025	1.887	0.343	3.255		Front	1.391	1.887	0.343	**3.621**
	Top	-	1.426	0.660*	2.086		Top	-	1.426	0.660*	2.086
	Bottom	2.169	-	-	2.169		Bottom	3.297	-	-	3.297
	Right	0.958	1.887*	0.660*	**3.505**		Right	0.998	1.887*	0.660*	3.545

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Table 12-36
Simultaneous Transmission Scenario with Bluetooth (UMPC Extremity)

Exposure Condition	Mode	2G/3G/4G SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2
UMPC Extremity SAR	EVDO BC10 (§90S)	1.478	0.932	2.410
	EVDO BC0 (§22H)	1.378	0.932	2.310
	PCS EVDO	2.693	0.932	3.625
	GPRS 850	0.925	0.932	1.857
	GPRS 1900	2.572	0.932	3.504
	UMTS 850	1.057	0.932	1.989
	UMTS 1750	2.901	0.932	**3.833**
	UMTS 1900	3.296	0.932	See Table Below
	LTE Band 71	1.445	0.932	2.377
	LTE Band 12	1.319	0.932	2.251
	LTE Band 13	1.254	0.932	2.186
	LTE Band 14	0.969	0.932	1.901
	LTE Band 26 (Cell)	1.262	0.932	2.194
	LTE Band 5 (Cell)	1.158	0.932	2.090
	LTE Band 66 (AWS)	3.145	0.932	See Table Below
	LTE Band 25 (PCS)	3.152	0.932	See Table Below
	LTE Band 30	3.291	0.932	See Table Below
	LTE Band 7	2.169	0.932	3.101
	LTE Band 41	3.297	0.932	See Table Below

Simult Tx	Configuration	UMTS 1900 SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2
UMPC Extremity SAR	Back	1.155	0.456	1.611
	Front	1.568	0.932	2.500
	Top	-	0.596	0.596
	Bottom	3.296	-	**3.296**
	Right	0.794	0.282	1.076

Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2
UMPC Extremity SAR	Back	1.323	0.456	1.779
	Front	1.409	0.932	2.341
	Top	-	0.596	0.596
	Bottom	3.145	-	**3.145**
	Right	0.449	0.282	0.731

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Simult Tx	Configuration	LTE Band 25 (PCS) SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2
UMPC Extremity SAR	Back	1.250	0.456	1.706
	Front	1.356	0.932	2.288
	Top	-	0.596	0.596
	Bottom	3.152	-	**3.152**
	Right	0.742	0.282	1.024

Simult Tx	Configuration	LTE Band 30 SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2
UMPC Extremity SAR	Back	1.271	0.456	1.727
	Front	1.496	0.932	2.428
	Top	-	0.596	0.596
	Bottom	3.291	-	**3.291**
	Right	0.759	0.282	1.041

Simult Tx	Configuration	LTE Band 41 SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2
UMPC Extremity SAR	Back	1.011	0.456	1.467
	Front	1.391	0.932	2.323
	Top	-	0.596	0.596
	Bottom	3.297	-	**3.297**
	Right	0.998	0.282	1.280

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Table 12-37
Simultaneous Transmission Scenario with Bluetooth and 5 GHz WLAN Antenna 1 (UMPC Extremity)

Exposure Condition	Mode	2G/3G/4G SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
UMPC Extremity SAR	EVDO BC10 (§90S)	1.478	0.932	0.894	3.304
	EVDO BC0 (§22H)	1.378	0.932	0.894	3.204
	PCS EVDO	2.693	0.932	0.894	See Table Below
	GPRS 850	0.925	0.932	0.894	2.751
	GPRS 1900	2.572	0.932	0.894	See Table Below
	UMTS 850	1.057	0.932	0.894	2.883
	UMTS 1750	2.901	0.932	0.894	See Table Below
	UMTS 1900	3.296	0.932	0.894	See Table Below
	LTE Band 71	1.445	0.932	0.894	3.271
	LTE Band 12	1.319	0.932	0.894	3.145
	LTE Band 13	1.254	0.932	0.894	3.080
	LTE Band 14	0.969	0.932	0.894	2.795
	LTE Band 26 (Cell)	1.262	0.932	0.894	3.088
	LTE Band 5 (Cell)	1.158	0.932	0.894	2.984
	LTE Band 66 (AWS)	3.145	0.932	0.894	See Table Below
	LTE Band 25 (PCS)	3.152	0.932	0.894	See Table Below
	LTE Band 30	3.291	0.932	0.894	See Table Below
	LTE Band 7	2.169	0.932	0.894	See Table Below
	LTE Band 41	3.297	0.932	0.894	See Table Below

Simult Tx	Configuration	PCS EVDO SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
UMPC Extremity SAR	Back	0.957	0.456	0.894	2.307
	Front	1.385	0.932	0.894*	**3.211**
	Top	-	0.596	0.894*	1.490
	Bottom	2.693	-	-	2.693
	Right	0.573	0.282	0.894*	1.749

Simult Tx	Configuration	GPRS 1900 SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
UMPC Extremity SAR	Back	1.019	0.456	0.894	2.369
	Front	1.319	0.932	0.894*	**3.145**
	Top	-	0.596	0.894*	1.490
	Bottom	2.572	-	-	2.572
	Right	0.582	0.282	0.894*	1.758

Simult Tx	Configuration	UMTS 1750 SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
UMPC Extremity SAR	Back	1.179	0.456	0.894	2.529
	Front	1.462	0.932	0.894*	**3.288**
	Top	-	0.596	0.894*	1.490
	Bottom	2.901	-	-	2.901
	Right	0.618	0.282	0.894*	1.794

Simult Tx	Configuration	UMTS 1900 SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
UMPC Extremity SAR	Back	1.155	0.456	0.894	2.505
	Front	1.568	0.932	0.894*	**3.394**
	Top	-	0.596	0.894*	1.490
	Bottom	3.296	-	-	3.296
	Right	0.794	0.282	0.894*	1.970

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Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	Σ SAR (W/kg)	Simult Tx	Configuration	LTE Band 25 (PCS) SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3			1	2	3	1+2+3
UMPC Extremity SAR	Back	1.323	0.456	0.894	2.673	UMPC Extremity SAR	Back	1.250	0.456	0.894	2.600
	Front	1.409	0.932	0.894*	**3.235**		Front	1.356	0.932	0.894*	**3.182**
	Top	-	0.596	0.894*	1.490		Top	-	0.596	0.894*	1.490
	Bottom	3.145	-	-	3.145		Bottom	3.152	-	-	3.152
	Right	0.449	0.282	0.894*	1.625		Right	0.742	0.282	0.894*	1.918

Simult Tx	Configuration	LTE Band 30 SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	Σ SAR (W/kg)	Simult Tx	Configuration	LTE Band 7 SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3			1	2	3	1+2+3
UMPC Extremity SAR	Back	1.271	0.456	0.894	2.621	UMPC Extremity SAR	Back	0.638	0.456	0.894	1.988
	Front	1.496	0.932	0.894*	**3.322**		Front	1.025	0.932	0.894*	**2.851**
	Top	-	0.596	0.894*	1.490		Top	-	0.596	0.894*	1.490
	Bottom	3.291	-	-	3.291		Bottom	2.169	-	-	2.169
	Right	0.759	0.282	0.894*	1.935		Right	0.958	0.282	0.894*	2.134

Simult Tx	Configuration	LTE Band 41 SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
UMPC Extremity SAR	Back	1.011	0.456	0.894	2.361
	Front	1.391	0.932	0.894*	3.217
	Top	-	0.596	0.894*	1.490
	Bottom	3.297	-	-	**3.297**
	Right	0.998	0.282	0.894*	2.174

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Table 12-38
Simultaneous Transmission Scenario with Bluetooth and 5 GHz WLAN Antenna 2 (UMPC Extremity)

Exposure Condition	Mode	2G/3G/4G SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
UMPC Extremity SAR	EVDO BC10 (§90S)	1.478	0.932	0.398	2.808
	EVDO BC0 (§22H)	1.378	0.932	0.398	2.708
	PCS EVDO	2.693	0.932	0.398	See Table Below
	GPRS 850	0.925	0.932	0.398	2.255
	GPRS 1900	2.572	0.932	0.398	**3.902**
	UMTS 850	1.057	0.932	0.398	2.387
	UMTS 1750	2.901	0.932	0.398	See Table Below
	UMTS 1900	3.296	0.932	0.398	See Table Below
	LTE Band 71	1.445	0.932	0.398	2.775
	LTE Band 12	1.319	0.932	0.398	2.649
	LTE Band 13	1.254	0.932	0.398	2.584
	LTE Band 14	0.969	0.932	0.398	2.299
	LTE Band 26 (Cell)	1.262	0.932	0.398	2.592
	LTE Band 5 (Cell)	1.158	0.932	0.398	2.488
	LTE Band 66 (AWS)	3.145	0.932	0.398	See Table Below
	LTE Band 25 (PCS)	3.152	0.932	0.398	See Table Below
	LTE Band 30	3.291	0.932	0.398	See Table Below
	LTE Band 7	2.169	0.932	0.398	3.499
	LTE Band 41	3.297	0.932	0.398	See Table Below

Simult Tx	Configuration	PCS EVDO SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)	Simult Tx	Configuration	UMTS 1750 SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3			1	2	3	1+2+3
UMPC Extremity SAR	Back	0.957	0.456	0.398	1.811	UMPC Extremity SAR	Back	1.179	0.456	0.398	2.033
	Front	1.385	0.932	0.398*	**2.715**		Front	1.462	0.932	0.398*	2.792
	Top	-	0.596	0.398*	0.994		Top	-	0.596	0.398*	0.994
	Bottom	2.693	-	-	2.693		Bottom	2.901	-	-	**2.901**
	Right	0.573	0.282	-	0.855		Right	0.618	0.282	-	0.900

Simult Tx	Configuration	UMTS 1900 SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)	Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3			1	2	3	1+2+3
UMPC Extremity SAR	Back	1.155	0.456	0.398	2.009	UMPC Extremity SAR	Back	1.323	0.456	0.398	2.177
	Front	1.568	0.932	0.398*	2.898		Front	1.409	0.932	0.398*	2.739
	Top	-	0.596	0.398*	0.994		Top	-	0.596	0.398*	0.994
	Bottom	3.296	-	-	**3.296**		Bottom	3.145	-	-	**3.145**
	Right	0.794	0.282	-	1.076		Right	0.449	0.282	-	0.731

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Simult Tx	Configuration	LTE Band 25 (PCS) SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)	Simult Tx	Configuration	LTE Band 30 SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3			1	2	3	1+2+3
UMPC Extremity SAR	Back	1.250	0.456	0.398	2.104	UMPC Extremity SAR	Back	1.271	0.456	0.398	2.125
	Front	1.356	0.932	0.398*	2.686		Front	1.496	0.932	0.398*	2.826
	Top	-	0.596	0.398*	0.994		Top	-	0.596	0.398*	0.994
	Bottom	3.152	-	-	**3.152**		Bottom	3.291	-	-	**3.291**
	Right	0.742	0.282	-	1.024		Right	0.759	0.282	-	1.041

Simult Tx	Configuration	LTE Band 41 SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
UMPC Extremity SAR	Back	1.011	0.456	0.398	1.865
	Front	1.391	0.932	0.398*	2.721
	Top	-	0.596	0.398*	0.994
	Bottom	3.297	-	-	**3.297**
	Right	0.998	0.282	-	1.280

Table 12-39
Simultaneous Transmission Scenario with Bluetooth and 5 GHz WLAN MIMO (UMPC Extremity)

Exposure Condition	Mode	2G/3G/4G SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4
UMPC Extremity SAR	EVDO BC10 (§90S)	1.478	0.932	0.894	0.398	3.702
	EVDO BC0 (§22H)	1.378	0.932	0.894	0.398	3.602
	PCS EVDO	2.693	0.932	0.894	0.398	See Table Below
	GPRS 850	0.925	0.932	0.894	0.398	3.149
	GPRS 1900	2.572	0.932	0.894	0.398	See Table Below
	UMTS 850	1.057	0.932	0.894	0.398	3.281
	UMTS 1750	2.901	0.932	0.894	0.398	See Table Below
	UMTS 1900	3.296	0.932	0.894	0.398	See Table Below
	LTE Band 71	1.445	0.932	0.894	0.398	3.669
	LTE Band 12	1.319	0.932	0.894	0.398	3.543
	LTE Band 13	1.254	0.932	0.894	0.398	3.478
	LTE Band 14	0.969	0.932	0.894	0.398	3.193
	LTE Band 26 (Cell)	1.262	0.932	0.894	0.398	3.486
	LTE Band 5 (Cell)	1.158	0.932	0.894	0.398	3.382
	LTE Band 66 (AWS)	3.145	0.932	0.894	0.398	See Table Below
	LTE Band 25 (PCS)	3.152	0.932	0.894	0.398	See Table Below
	LTE Band 30	3.291	0.932	0.894	0.398	See Table Below
	LTE Band 7	2.169	0.932	0.894	0.398	See Table Below
	LTE Band 41	3.297	0.932	0.894	0.398	See Table Below

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Simult Tx	Configuration	PCS EVDO SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)	Simult Tx	Configuration	GPRS 1900 SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4			1	2	3	4	1+2+3+4
UMPC Extremity SAR	Back	0.957	0.456	0.894	0.398	2.705	UMPC Extremity SAR	Back	1.019	0.456	0.894	0.398	2.767
	Front	1.385	0.932	0.894*	0.398*	**3.609**		Front	1.319	0.932	0.894*	0.398*	**3.543**
	Top	-	0.596	0.894*	0.398*	1.888		Top	-	0.596	0.894*	0.398*	1.888
	Bottom	2.693	-	-	-	2.693		Bottom	2.572	-	-	-	2.572
	Right	0.573	0.282	0.894*	-	1.749		Right	0.582	0.282	0.894*	-	1.758

Simult Tx	Configuration	UMTS 1750 SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)	Simult Tx	Configuration	UMTS 1900 SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4			1	2	3	4	1+2+3+4
UMPC Extremity SAR	Back	1.179	0.456	0.894	0.398	2.927	UMPC Extremity SAR	Back	1.155	0.456	0.894	0.398	2.903
	Front	1.462	0.932	0.894*	0.398*	**3.686**		Front	1.568	0.932	0.894*	0.398*	**3.792**
	Top	-	0.596	0.894*	0.398*	1.888		Top	-	0.596	0.894*	0.398*	1.888
	Bottom	2.901	-	-	-	2.901		Bottom	3.296	-	-	-	3.296
	Right	0.618	0.282	0.894*	-	1.794		Right	0.794	0.282	0.894*	-	1.970

Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)	Simult Tx	Configuration	LTE Band 25 (PCS) SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4			1	2	3	4	1+2+3+4
UMPC Extremity SAR	Back	1.323	0.456	0.894	0.398	3.071	UMPC Extremity SAR	Back	1.250	0.456	0.894	0.398	2.998
	Front	1.409	0.932	0.894*	0.398*	**3.633**		Front	1.356	0.932	0.894*	0.398*	**3.580**
	Top	-	0.596	0.894*	0.398*	1.888		Top	-	0.596	0.894*	0.398*	1.888
	Bottom	3.145	-	-	-	3.145		Bottom	3.152	-	-	-	3.152
	Right	0.449	0.282	0.894*	-	1.625		Right	0.742	0.282	0.894*	-	1.918

Simult Tx	Configuration	LTE Band 30 SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)	Simult Tx	Configuration	LTE Band 7 SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4			1	2	3	4	1+2+3+4
UMPC Extremity SAR	Back	1.271	0.456	0.894	0.398	3.019	UMPC Extremity SAR	Back	0.638	0.456	0.894	0.398	2.386
	Front	1.496	0.932	0.894*	0.398*	**3.720**		Front	1.025	0.932	0.894*	0.398*	**3.249**
	Top	-	0.596	0.894*	0.398*	1.888		Top	-	0.596	0.894*	0.398*	1.888
	Bottom	3.291	-	-	-	3.291		Bottom	2.169	-	-	-	2.169
	Right	0.759	0.282	0.894*	-	1.935		Right	0.958	0.282	0.894*	-	2.134

Simult Tx	Configuration	LTE Band 41 SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4
UMPC Extremity SAR	Back	1.011	0.456	0.894	0.398	2.759
	Front	1.391	0.932	0.894*	0.398*	**3.615**
	Top	-	0.596	0.894*	0.398*	1.888
	Bottom	3.297	-	-	-	3.297
	Right	0.998	0.282	0.894*	-	2.174

Notes:

1. No evaluation was performed to determine the aggregate 10g SAR for these configurations as the SPLS ratio between the antenna pairs was not greater than 0.10 per FCC KDB 447498 D01v06. See Section 12.9 for detailed SPLS ratio analysis.

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12.9 SPLSR Evaluation and Analysis

Per FCC KDB Publication 447498 D01v06, when the sum of the standalone transmitters is more than 1.6 W/kg for 1g and 4 W/kg for 10g, the SAR sum to peak locations can be analyzed to determine SAR distribution overlaps. When the SAR peak to location ratio (shown below) for each pair of antennas is ≤ 0.04 for 1g and ≤0.10 for 10g, simultaneous SAR evaluation is not required. The distance between the transmitters was calculated using the following formula.

$$\text{Distance}_{Tx1-Tx2} = R_i = \sqrt{(x_1 - x_2)^2 + (y_1 - y_2)^2} \text{ (Mini-Tablet)}$$

$$\text{SPLS Ratio} = \frac{(SAR_1 + SAR_2)^{1.5}}{R_i}$$

12.9.1 Back Side UMPC Body SPLSR Evaluation and Analysis

Table 12-40
Peak SAR Locations for Back Side UMPC Body

Mode/Band	x (mm)	y (mm)
5 GHz WLAN Ant 1	-44.00	72.00
Bluetooth	-58.80	82.80
5 GHz WLAN MIMO	-44.00	73.00
UMTS 1750	-60.50	-80.00
UMTS 1900	-45.50	-85.50
LTE Band 66 (AWS)	-59.00	-80.00
LTE Band 30	-53.80	-81.60
LTE Band 7	-55.00	-82.20
LTE Band 41	-53.80	-84.00

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Table 12-41
Back Side UMPC Body SAR to Peak Location Separation Ratio Calculations

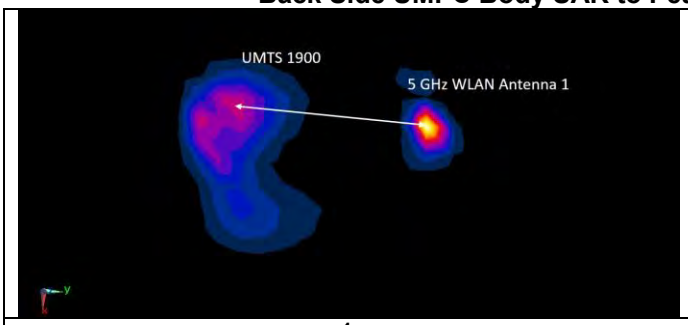
Antenna Pair		Standalone SAR (W/kg)		Standalone SAR Sum (W/kg)	Peak SAR Separation Distance (mm)	SPLS Ratio	Plot Number
Ant "a"	Ant "b"	a	b	a+b	D_{a-b}	$(a+b)^{1.5}/D_{a-b}$	
5 GHz WLAN Ant 1	UMTS 1900	0.729	0.931	1.660	157.51	0.01	1
5 GHz WLAN Ant 1	LTE Band 7	0.729	0.877	1.606	154.59	0.01	2
5 GHz WLAN Ant 1	LTE Band 41	0.729	0.939	1.668	156.31	0.01	3
Bluetooth	UMTS 1750	0.105	0.817	0.922	162.81	0.01	4
5 GHz WLAN Ant 1	UMTS 1750	0.729	0.817	1.546	152.89	0.01	
5 GHz WLAN Ant 1	Bluetooth	0.729	0.105	0.834	18.32	0.04	
Bluetooth	UMTS 1900	0.105	0.931	1.036	168.82	0.01	5
5 GHz WLAN Ant 1	UMTS 1900	0.729	0.931	1.660	157.51	0.01	
5 GHz WLAN Ant 1	Bluetooth	0.729	0.105	0.834	18.32	0.04	
Bluetooth	LTE Band 66 (AWS)	0.105	0.84	0.945	162.80	0.01	6
5 GHz WLAN Ant 1	LTE Band 66 (AWS)	0.729	0.84	1.569	152.74	0.01	
5 GHz WLAN Ant 1	Bluetooth	0.729	0.105	0.834	18.32	0.04	
Bluetooth	LTE Band 30	0.105	0.864	0.969	164.48	0.01	7
5 GHz WLAN Ant 1	LTE Band 30	0.729	0.864	1.593	153.91	0.01	
5 GHz WLAN Ant 1	Bluetooth	0.729	0.105	0.834	18.32	0.04	
Bluetooth	LTE Band 7	0.105	0.877	0.982	165.04	0.01	8
5 GHz WLAN Ant 1	LTE Band 7	0.729	0.877	1.606	154.59	0.01	
5 GHz WLAN Ant 1	Bluetooth	0.729	0.105	0.834	18.32	0.04	
Bluetooth	LTE Band 41	0.105	0.939	1.044	166.87	0.01	9
5 GHz WLAN Ant 1	LTE Band 41	0.729	0.939	1.668	156.31	0.01	
5 GHz WLAN Ant 1	Bluetooth	0.729	0.105	0.834	18.32	0.04	
Bluetooth	UMTS 1900	0.105	0.931	1.036	168.82	0.01	10
5 GHz WLAN MIMO	UMTS 1900	0.605	0.931	1.536	158.51	0.01	
5 GHz WLAN MIMO	Bluetooth	0.605	0.105	0.710	17.75	0.03	
Bluetooth	LTE Band 41	0.105	0.939	1.044	166.87	0.01	11
5 GHz WLAN MIMO	LTE Band 41	0.605	0.939	1.544	157.31	0.01	
5 GHz WLAN MIMO	Bluetooth	0.605	0.105	0.710	17.75	0.03	

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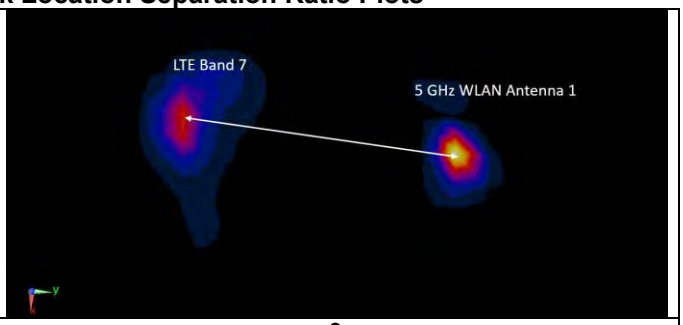
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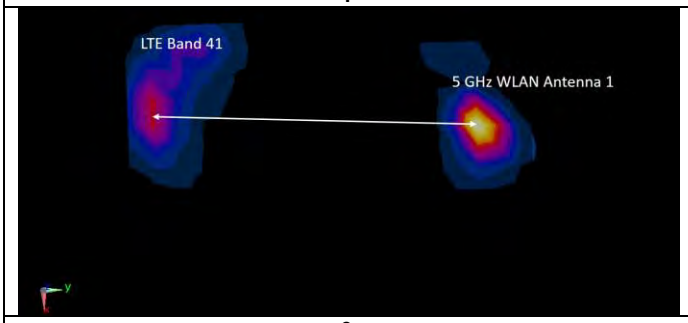
Table 12-42
Back Side UMPC Body SAR to Peak Location Separation Ratio Plots



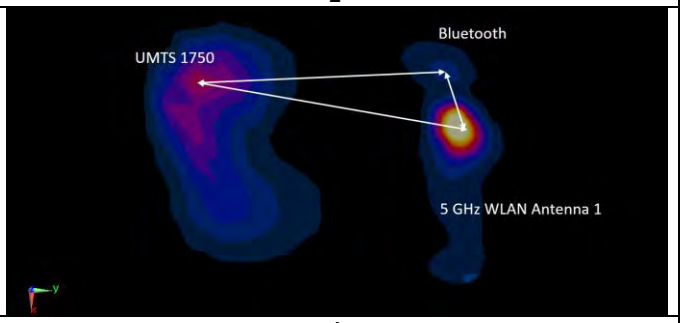
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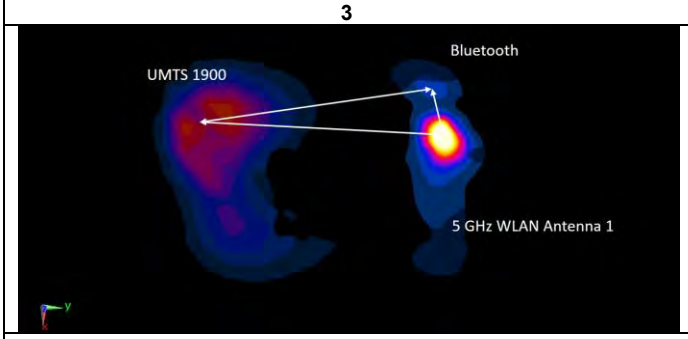
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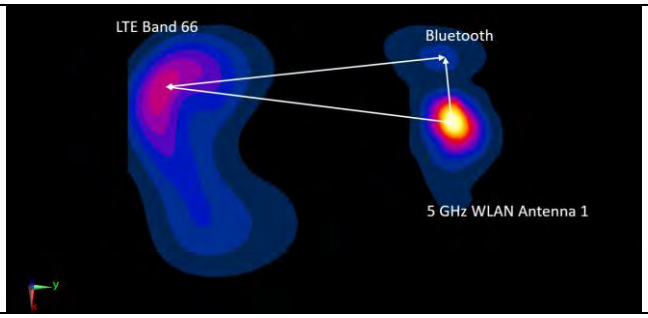
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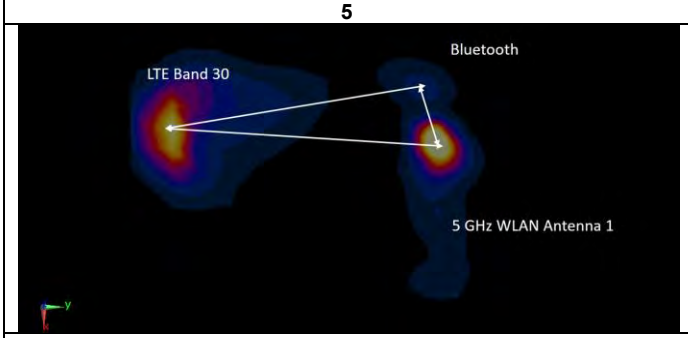
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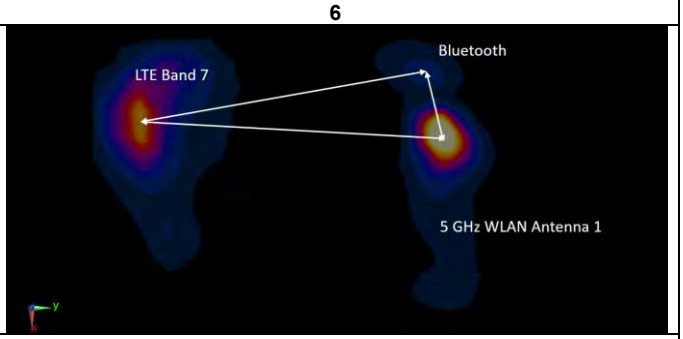
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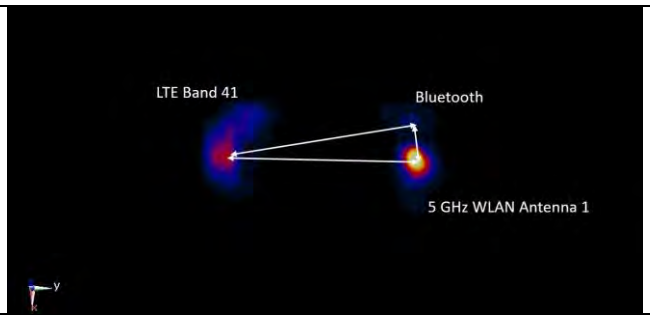
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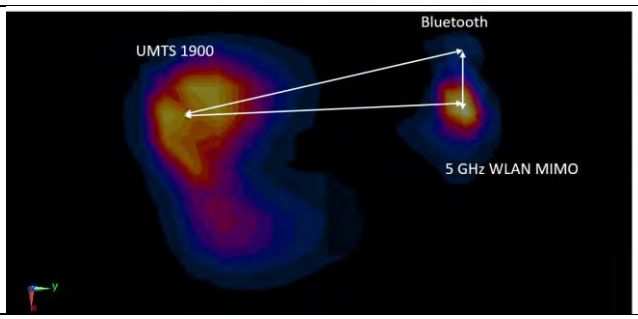
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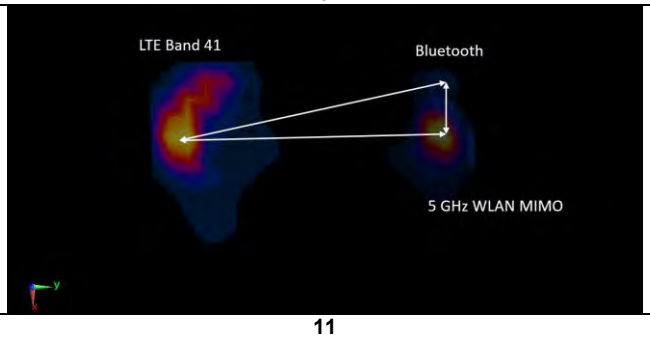
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9



10



11

12.9.2 Front Side UMPC Extremity SPLSR Evaluation and Analysis

Table 12-43
Peak SAR Locations for Front Side UMPC Extremity

Mode/Band	x (mm)	y (mm)
2.4 GHz WLAN Ant 1	18.60	75.60
EVDO BC10 (§90S)	34.00	-47.50
EVDO BC0 (§22H)	35.50	-47.50
PCS EVDO	14.50	-76.50
GPRS 1900	14.50	-75.00
UMTS 1750	0.50	-76.50
UMTS 1900	14.50	-76.50
LTE Band 71	36.50	-48.00
LTE Band 12	38.50	-46.50
LTE Band 66 (AWS)	2.00	-75.00
LTE Band 25 (PCS)	13.00	-75.00
LTE Band 30	-2.80	-87.60
LTE Band 41	-3.00	-82.80

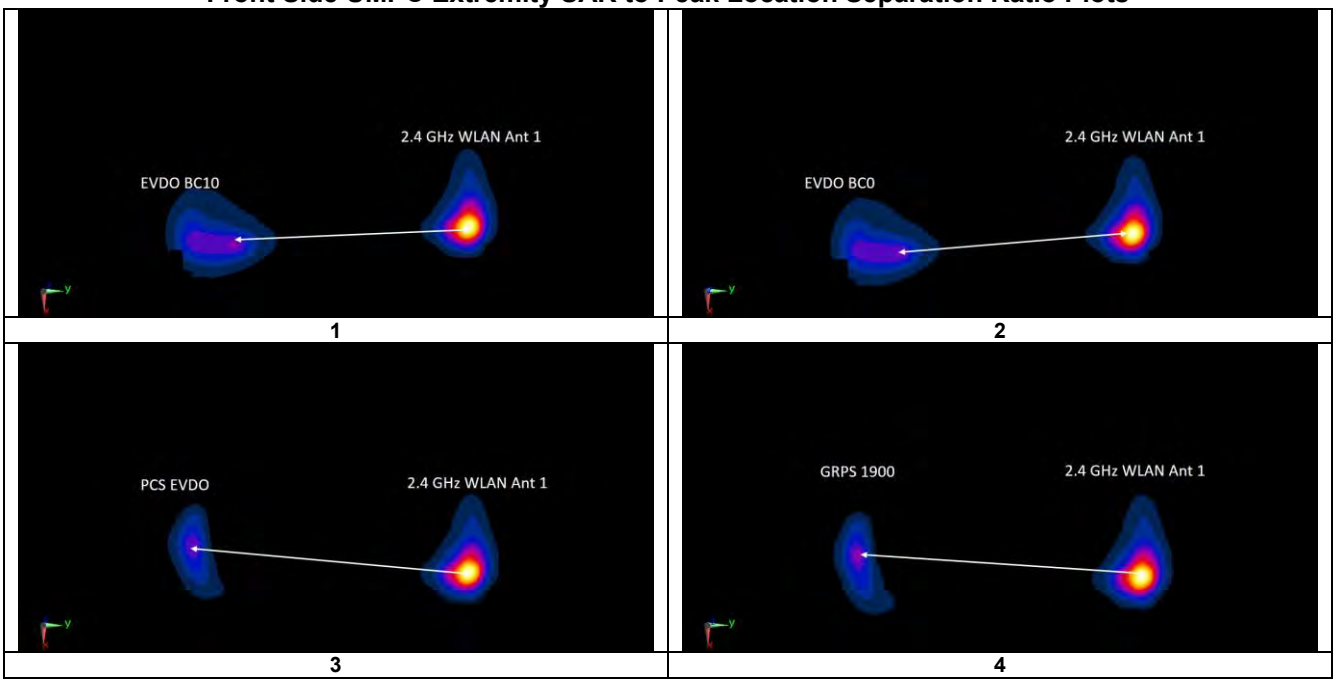
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Table 12-44
Front Side UMPC Extremity SAR to Peak Location Separation Ratio Calculations

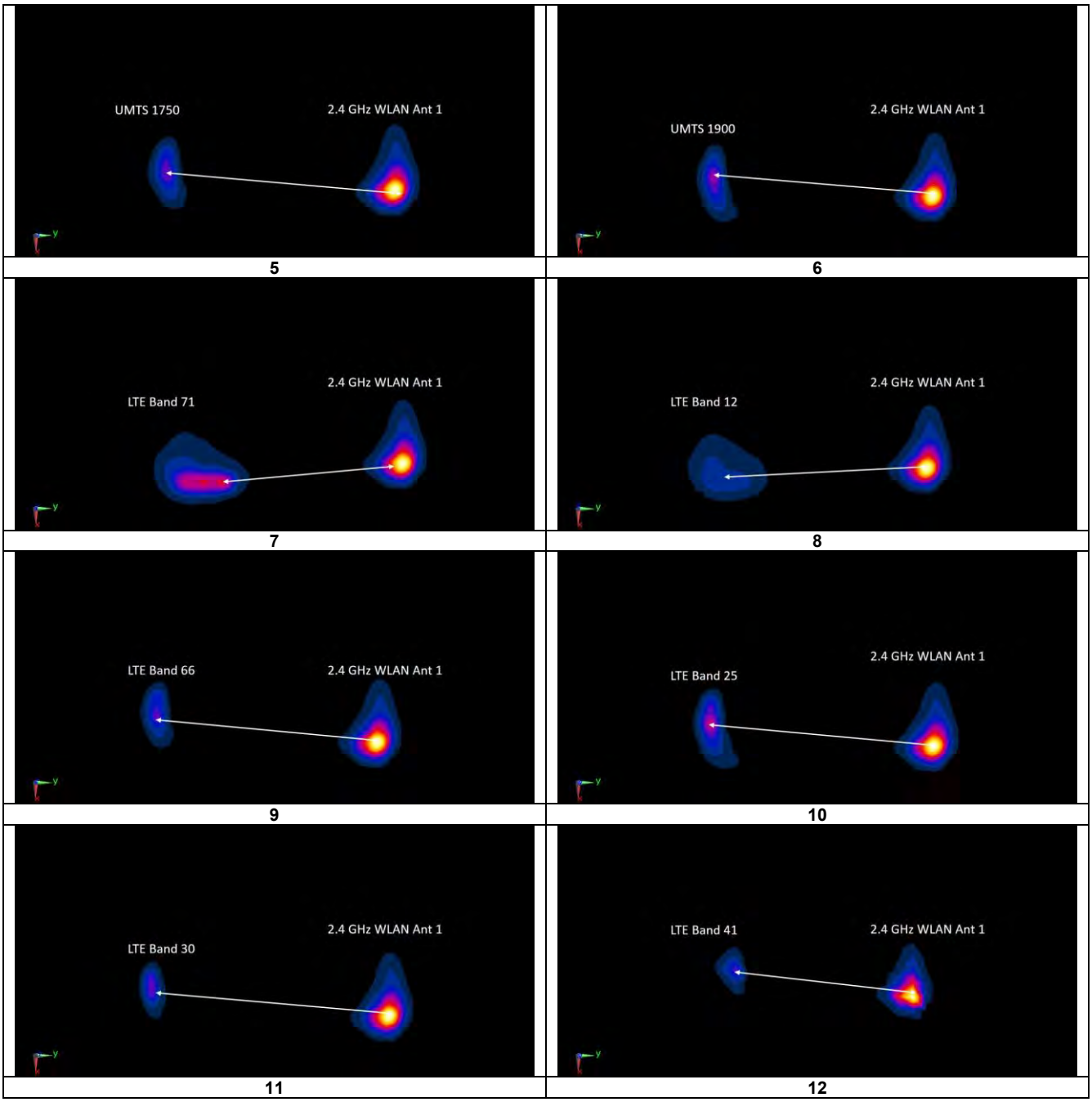
Antenna Pair		Standalone SAR (W/kg)		Standalone SAR Sum (W/kg)	Peak SAR Separation Distance (mm)	SPLS Ratio	Plot Number
Ant "a"	Ant "b"	a	b	a+b	D_{a-b}	$(a+b)^{1.5}/D_{a-b}$	
2.4 GHz WLAN Ant 1	EVDO BC10 (§90S)	2.701	1.427	4.128	124.06	0.07	1
2.4 GHz WLAN Ant 1	EVDO BC0 (§22H)	2.701	1.341	4.042	124.25	0.07	2
2.4 GHz WLAN Ant 1	PCS EVDO	2.701	1.385	4.086	152.16	0.05	3
2.4 GHz WLAN Ant 1	GPRS 1900	2.701	1.319	4.020	150.66	0.05	4
2.4 GHz WLAN Ant 1	UMTS 1750	2.701	1.462	4.163	153.17	0.06	5
2.4 GHz WLAN Ant 1	UMTS 1900	2.701	1.568	4.269	152.16	0.06	6
2.4 GHz WLAN Ant 1	LTE Band 71	2.701	1.445	4.146	124.89	0.07	7
2.4 GHz WLAN Ant 1	LTE Band 12	2.701	1.319	4.020	123.71	0.07	8
2.4 GHz WLAN Ant 1	LTE Band 66 (AWS)	2.701	1.409	4.110	151.51	0.05	9
2.4 GHz WLAN Ant 1	LTE Band 25 (PCS)	2.701	1.356	4.057	150.70	0.05	10
2.4 GHz WLAN Ant 1	LTE Band 30	2.701	1.496	4.197	164.60	0.05	11
2.4 GHz WLAN Ant 1	LTE Band 41	2.701	1.391	4.092	159.87	0.05	12

Table 12-45
Front Side UMPC Extremity SAR to Peak Location Separation Ratio Plots



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12.10 Simultaneous Transmission Conclusion

The above numerical summed SAR results and SPLSR analysis are sufficient to determine that simultaneous transmission cases will not exceed the SAR limit and therefore no measured volumetric simultaneous SAR summation is required per FCC KDB Publication 447498 D01v06 and IEEE 1528- 2013 Section 6.3.4.1.

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13 SAR MEASUREMENT VARIABILITY

13.1 Measurement Variability

Per FCC KDB Publication 865664 D01v01r04, SAR measurement variability was assessed for each frequency band, which was determined by the SAR probe calibration point and tissue-equivalent medium used for the device measurements. When both head and body tissue-equivalent media were required for SAR measurements in a frequency band, the variability measurement procedures were applied to the tissue medium with the highest measured SAR, using the highest measured SAR configuration for that tissue-equivalent medium. These additional measurements were repeated after the completion of all measurements requiring the same head or body tissue-equivalent medium in a frequency band. The test device was returned to ambient conditions (normal room temperature) with the battery fully charged before it was re-mounted on the device holder for the repeated measurement(s) to minimize any unexpected variations in the repeated results.

SAR Measurement Variability was assessed using the following procedures for each frequency band:

1) When the original highest measured SAR is ≥ 0.80 W/kg, the measurement was repeated once.
2) A second repeated measurement was performed only if the ratio of largest to smallest SAR for the original and first repeated measurements was > 1.20 or when the original or repeated measurement was ≥ 1.45 W/kg (~ 10% from the 1g SAR limit).
3) A third repeated measurement was performed only if the original, first or second repeated measurement was ≥ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.
4) Repeated measurements are not required when the original highest measured SAR is < 0.80 W/kg
5) When 10g SAR measurement is considered, a factor of 2.5 is applied to the thresholds above.

Table 13-1
1g Body/1g UMPC Body SAR Measurement Variability Results

BODY VARIABILITY RESULTS														
Band	FREQUENCY		Mode	Service	Configuration	Side	Spacing	Measured SAR (1g)	1st Repeated SAR (1g)	Ratio	2nd Repeated SAR (1g)	Ratio	3rd Repeated SAR (1g)	Ratio
	MHz	Ch.						(W/kg)	(W/kg)		(W/kg)		(W/kg)	
1900	1880.00	600	PCS CDMA	EVDO Rev. 0	Closed	bottom	10 mm	1.180	1.110	1.06	N/A	N/A	N/A	N/A
1750	1720.00	132072	LTE Band 66, ULCA, 20 MHz Bandwidth	QPSK, 100 RB, 0 RB Offset	Closed	bottom	10 mm	0.834	0.822	1.01	N/A	N/A	N/A	N/A
	1739.80	132270		QPSK, 100 RB, 0 RB Offset										
2300	2310.00	27710	LTE Band 30, 10 MHz Bandwidth	QPSK, 1RB, 0 RB Offset	Open	bottom	13 mm	1.180	1.140	1.04	N/A	N/A	N/A	N/A
2600	2535.00	21100	LTE Band 7, 20 MHz Bandwidth	QPSK, 1 RB, 0 RB Offset	Open	bottom	13 mm	0.911	0.899	1.01	N/A	N/A	N/A	N/A
2450	2506.00	39750	LTE Band 41, ULCA, 20 MHz Bandwidth	QPSK, 50 RB, 50 RB Offset	Closed	bottom	10 mm	1.030	0.980	1.05	N/A	N/A	N/A	N/A
	2525.80	39948		QPSK, 50 RB, 0 RB Offset										
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population								Body/UMPC Body 1.6 W/kg (mW/g) averaged over 1 gram						

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Table 13-2
10g Body/10g UMPC Extremity SAR Measurement Variability Results

BODY VARIABILITY RESULTS														
Band	FREQUENCY		Mode	Service	Configuration	Side	Spacing	Measured SAR (10g)	1st Repeated SAR (10g)	Ratio	2nd Repeated SAR (10g)	Ratio	3rd Repeated SAR (10g)	Ratio
	MHz	Ch.						(W/kg)	(W/kg)		(W/kg)		(W/kg)	
1750	1770.00	132572	LTE Band 66, ULCA, 20 MHz Bandwidth	QPSK, 50 RB, 0 RB Offset	Open	bottom	0 mm	2.860	2.790	1.03	N/A	N/A	N/A	N/A
	1750.20	132374		QPSK, 50 RB, 50 RB Offset										
1900	1882.50	26365	LTE Band 25 (PCS), 20 MHz Bandwidth	QPSK, 100 RB, 0 RB Offset	Open	bottom	0 mm	2.940	2.910	1.01	N/A	N/A	N/A	N/A
2300	2310.00	27710	LTE Band 30, 10 MHz Bandwidth	QPSK, 50 RB, 0 RB Offset	Open	bottom	0 mm	2.920	2.920	1.00	N/A	N/A	N/A	N/A
2450	2506.00	39750	LTE Band 41, ULCA, 20 MHz Bandwidth	QPSK, 50 RB, 50 RB Offset	Open	bottom	0 mm	2.980	3.000	1.01	N/A	N/A	N/A	N/A
	2525.80	39948		QPSK, 50 RB, 00 RB Offset										
2600	2680.00	41490	LTE Band 41, ULCA, 20 MHz Bandwidth	QPSK, 50 RB, 0 RB Offset	Open	bottom	0 mm	3.060	3.020	1.01	N/A	N/A	N/A	N/A
	2660.20	41292		QPSK, 50 RB, 50 RB Offset										
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population								Phablet/UMPC Extremity 4.0 W/kg (mW/g) averaged over 10 grams						

13.2 Measurement Uncertainty

The measured SAR was <1.5 W/kg for 1g and <3.75 W/kg for 10g for all frequency bands. Therefore, per KDB Publication 865664 D01v01r04, the extended measurement uncertainty analysis per IEEE 1528-2013 was not required.

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14 ADDITIONAL TESTING PER FCC GUIDANCE

14.1 Tuner Testing

The following test procedures were followed to demonstrate that the SAR results in Section 11 represented the appropriate SAR test conditions. For bands with dynamic tuning implemented, SAR was measured according to the required FCC SAR test procedures with the dynamic tuner active to allow the device to automatically tune to the antenna state for the respective RF exposure test configurations. Additional single point SAR time-sweep measurements were evaluated for other tuner states to determine that the other tuner configurations would result in equivalent or lower SAR values. The additional tuner hardware has no influence on the antenna characteristics, other than impedance matching.

To evaluate all the tuner states, the 80 tuner states were divided among the aggregate band, mode and exposure combinations so that each combination was evaluated for at least 20 tuner states and also so that at least 3 single point SAR measurements were made for every available tuner state. Single point time-sweep measurements were performed at the peak SAR location determined by the zoom scan of the configuration with the highest reported SAR for each combination. The tuner state was able to be established remotely so that the device was not moved for the entire series of single point SAR for the tuner states in each combination. The SAR probe remained stationary at the same position throughout the entire series of single point measurements for each combination. When the single point SAR or 1g SAR was > 1.2 W/kg for a particular band/mode/exposure condition, point SAR measurements were made for all 80 states.

The operational description contains more information about the design and implementation of the dynamic antenna tuning.

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Table 14-1
UMTS/CDMA Supplemental Head SAR Data

Supplemental Head SAR Data					
UMTS 850		CDMA BC10		CDMA BC0	
RMC		EVDO Rev A		RC3/SO55	
Test Position	Right Cheek	Test Position	Right Cheek	Test Position	Right Cheek
Frequency (MHz)	836.60	Frequency (MHz)	820.10	Frequency (MHz)	836.52
Channel	4183	Channel	564	Channel	384
Measured 1g SAR (W/kg)	0.283	Measured 1g SAR (W/kg)	0.326	Measured 1g SAR (W/kg)	0.328
Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)	
Auto-tune (State 77)	0.410	Auto-tune (State 16)	0.430	Auto-tune (State 77)	0.432
Default (State 69)	0.410	Default (State 66)	0.211	Default (State 69)	0.437
State 1	0.321	State 0	0.294	State 2	0.244
State 4	0.242	State 4	0.234	State 3	0.231
State 7	0.193	State 6	0.201	State 5	0.164
State 9	0.144	State 9	0.142	State 8	0.069
State 10	0.110	State 14	0.032	State 11	0.069
State 12	0.055	State 16	0.420	State 15	0.439
State 13	0.042	State 21	0.317	State 18	0.371
State 17	0.410	State 22	0.282	State 24	0.275
State 19	0.335	State 25	0.202	State 29	0.071
State 20	0.327	State 27	0.123	State 34	0.158
State 23	0.272	State 28	0.083	State 36	0.142
State 26	0.171	State 31	0.031	State 39	0.109
State 30	0.053	State 35	0.186	State 44	0.027
State 34	0.178	State 40	0.131	State 49	0.278
State 37	0.157	State 42	0.077	State 53	0.203
State 41	0.091	State 46	0.022	State 54	0.180
State 43	0.051	State 50	0.249	State 55	0.167
State 48	0.306	State 51	0.235	State 57	0.119
State 52	0.228	State 56	0.170	State 58	0.091
State 56	0.172	State 60	0.053	State 59	0.135
State 60	0.052	State 62	0.030	State 61	0.071
State 64	0.304	State 63	0.019	State 70	0.220
State 65	0.381	State 67	0.292	State 71	0.306
State 66	0.218	State 68	0.309	State 72	0.319
State 77	0.411	State 69	0.433	State 75	0.312
State 78	0.218	State 72	0.308	State 77	0.437
State 79	0.289	State 75	0.295	State 78	0.222

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Table 14-2
LTE Supplemental Head SAR Data

Supplemental Head SAR Data												
LTE Band 71		LTE Band 12		LTE Band 13		LTE Band 14		LTE Band 26		LTE Band 5	
QPSK, 20MHz Bandwidth, 1 RB, 0 RB Offsets		QPSK, 10MHz Bandwidth, 1 RB, 25 RB Offsets		QPSK, 10MHz Bandwidth, 1 RB, 49 RB Offsets		QPSK, 10MHz Bandwidth, 1 RB, 25 RB Offsets		QPSK, 15MHz Bandwidth, 1 RB, 36 RB Offsets		QPSK, 10MHz Bandwidth, 1 RB, 49 RB Offsets	
Test Position	Right Cheek	Test Position	Right Cheek	Test Position	Right Cheek	Test Position	Right Cheek	Test Position	Right Cheek	Test Position	Right Cheek
Frequency (MHz)	680.50	Frequency (MHz)	707.50	Frequency (MHz)	782.00	Frequency (MHz)	793.00	Frequency (MHz)	831.50	Frequency (MHz)	836.50
Channel	133297	Channel	23095	Channel	23230	Channel	23330	Channel	26865	Channel	20525
Measured 1g SAR (W/kg)	0.181	Measured 1g SAR (W/kg)	0.147	Measured 1g SAR (W/kg)	0.204	Measured 1g SAR (W/kg)	0.202	Measured 1g SAR (W/kg)	0.253	Measured 1g SAR (W/kg)	0.264
Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)	
Auto-tune (State 0)	0.241	Auto-tune (State 33)	0.196	Auto-tune (State 76)	0.312	Auto-tune (State 76)	0.333	Auto-tune (State 77)	0.399	Auto-tune (State 77)	0.448
Default (State 72)	0.227	Default (State 32)	0.203	Default (State 68)	0.281	Default (State 0)	0.334	Default (State 69)	0.401	Default (State 69)	0.430
State 0	0.236	State 4	0.124	State 0	0.283	State 0	0.334	State 2	0.281	State 1	0.274
State 4	0.167	State 7	0.105	State 2	0.225	State 3	0.263	State 4	0.265	State 2	0.242
State 8	0.133	State 9	0.081	State 9	0.139	State 7	0.219	State 9	0.168	State 3	0.235
State 10	0.089	State 13	0.029	State 15	0.025	State 11	0.117	State 12	0.068	State 7	0.198
State 14	0.031	State 17	0.118	State 16	0.228	State 12	0.086	State 14	0.037	State 12	0.055
State 16	0.129	State 20	0.087	State 17	0.227	State 15	0.034	State 17	0.392	State 17	0.427
State 18	0.091	State 23	0.066	State 19	0.163	State 16	0.236	State 22	0.287	State 20	0.372
State 19	0.085	State 25	0.055	State 21	0.141	State 19	0.187	State 25	0.197	State 22	0.301
State 25	0.048	State 27	0.034	State 27	0.064	State 23	0.149	State 26	0.171	State 28	0.104
State 28	0.020	State 29	0.018	State 29	0.037	State 24	0.141	State 28	0.096	State 31	0.038
State 30	0.011	State 33	0.201	State 30	0.027	State 26	0.096	State 32	0.218	State 32	0.183
State 32	0.233	State 36	0.153	State 32	0.268	State 32	0.297	State 38	0.152	State 34	0.154
State 35	0.230	State 40	0.124	State 37	0.196	State 36	0.237	State 40	0.137	State 37	0.143
State 38	0.225	State 42	0.084	State 39	0.169	State 39	0.202	State 42	0.083	State 40	0.119
State 41	0.189	State 44	0.048	State 42	0.107	State 41	0.157	State 44	0.041	State 43	0.050
State 45	0.078	State 46	0.029	State 43	0.084	State 45	0.057	State 46	0.021	State 48	0.265
State 46	0.059	State 49	0.165	State 45	0.047	State 49	0.298	State 48	0.295	State 52	0.219
State 47	0.039	State 51	0.127	State 47	0.023	State 52	0.227	State 49	0.293	State 53	0.214
State 50	0.187	State 54	0.111	State 48	0.257	State 55	0.194	State 53	0.234	State 59	0.080
State 56	0.146	State 57	0.082	State 55	0.158	State 57	0.152	State 57	0.152	State 62	0.028
State 59	0.081	State 61	0.029	State 57	0.125	State 61	0.058	State 60	0.062	State 63	0.018
State 62	0.036	State 62	0.022	State 63	0.023	State 66	0.305	State 62	0.034	State 66	0.180
State 69	0.131	State 70	0.202	State 64	0.297	State 67	0.307	State 68	0.290	State 69	0.430
State 73	0.128	State 76	0.169	State 65	0.239	State 68	0.340	State 72	0.288	State 70	0.180
State 74	0.209	State 77	0.118	State 74	0.283	State 72	0.346	State 73	0.357	State 71	0.257
State 75	0.208	State 78	0.205	State 76	0.302	State 76	0.330	State 74	0.204	State 74	0.180
State 77	0.131	State 79	0.165	State 79	0.272	State 77	0.264	State 77	0.400	State 77	0.435

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Table 14-3
UMTS/CDMA Supplemental Body SAR Data

Supplemental Body SAR Data					
UMTS 850		CDMA BC10		CDMA BC0	
RMC		EVDO Rev. 0		EVDO Rev. 0	
Test Position	Front Side Open Configuration	Test Position	Front Side Open Configuration	Test Position	Front Side Open Configuration
Spacing	10 mm	Spacing	10 mm	Spacing	10 mm
Frequency (MHz)	836.60	Frequency (MHz)	820.10	Frequency (MHz)	824.70
Channel	4183	Channel	564	Channel	1013
Measured 1g SAR (W/kg)	0.562	Measured 1g SAR (W/kg)	0.619	Measured 1g SAR (W/kg)	0.628
Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)	
Auto-tune (State 0)	0.874	Auto-tune (State 0)	0.860	Auto-tune (State 1)	0.888
Default (State 69)	0.750	Default (State 66)	0.687	Default (State 66)	0.723
State 0	0.877	State 0	0.860	State 1	0.860
State 1	0.865	State 2	0.807	State 4	0.758
State 3	0.893	State 7	0.703	State 5	0.748
State 6	0.890	State 9	0.607	State 6	0.700
State 7	0.861	State 13	0.267	State 11	0.402
State 10	0.591	State 15	0.140	State 15	0.129
State 11	0.460	State 18	0.437	State 18	0.442
State 13	0.240	State 19	0.420	State 22	0.362
State 16	0.754	State 25	0.280	State 24	0.331
State 21	0.614	State 30	0.092	State 26	0.230
State 24	0.544	State 31	0.065	State 28	0.140
State 25	0.484	State 34	0.653	State 29	0.114
State 28	0.291	State 36	0.625	State 32	0.727
State 31	0.145	State 40	0.513	State 37	0.622
State 33	0.529	State 44	0.186	State 40	0.522
State 35	0.483	State 46	0.106	State 48	0.757
State 36	0.471	State 47	0.070	State 50	0.667
State 44	0.104	State 50	0.682	State 51	0.647
State 51	0.804	State 53	0.644	State 52	0.636
State 53	0.787	State 54	0.605	State 56	0.539
State 56	0.703	State 59	0.344	State 58	0.390
State 59	0.396	State 63	0.111	State 60	0.238
State 68	0.860	State 64	0.865	State 65	0.556
State 72	0.850	State 68	0.873	State 66	0.723
State 75	0.761	State 72	0.870	State 67	0.685
State 76	0.863	State 78	0.753	State 72	0.771
State 77	0.705	State 79	0.769	State 76	0.772

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Table 14-4
LTE Supplemental Body SAR Data

Supplemental Body SAR Data												
LTE Band 71		LTE Band 12		LTE Band 13		LTE Band 14		LTE Band 26		LTE Band 5	
QPSK, 20MHz Bandwidth, 1 RB, 0 RB Offsets		QPSK, 10MHz Bandwidth, 1 RB, 25 RB Offsets		QPSK, 10MHz Bandwidth, 1 RB, 49 RB Offsets		QPSK, 10MHz Bandwidth, 1 RB, 0 RB Offsets		QPSK, 15MHz Bandwidth, 1 RB, 36 RB Offsets		QPSK, 10MHz Bandwidth, 1 RB, 0 RB Offsets	
Test Position	Right Edge Closed Configuration	Test Position	Right Edge Closed Configuration	Test Position	Front Side Open Configuration	Test Position	Front Side Open Configuration	Test Position	Back Side Open Configuration	Test Position	Back Side Open Configuration
Spacing	10 mm	Spacing	10 mm	Spacing	10 mm	Spacing	10 mm	Spacing	10 mm	Spacing	10 mm
Frequency (MHz)	680.50	Frequency (MHz)	707.50	Frequency (MHz)	782.00	Frequency (MHz)	793.00	Frequency (MHz)	831.50	Frequency (MHz)	836.50
Channel	133297	Channel	23095	Channel	23230	Channel	23330	Channel	26865	Channel	20525
Measured 1g SAR (W/kg)	0.466	Measured 1g SAR (W/kg)	0.378	Measured 1g SAR (W/kg)	0.420	Measured 1g SAR (W/kg)	0.405	Measured 1g SAR (W/kg)	0.549	Measured 1g SAR (W/kg)	0.543
Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)	
Auto-tune (State 76)	0.654	Auto-tune (State 33)	0.530	Auto-tune (State 76)	0.526	Auto-tune (State 76)	0.636	Auto-tune (State 0)	0.776	Auto-tune (State 1)	0.718
Default (State 72)	0.657	Default (State 32)	0.531	Default (State 68)	0.532	Default (State 0)	0.628	Default (State 69)	0.609	Default (State 69)	0.559
State 2	0.575	State 3	0.413	State 0	0.511	State 1	0.628	State 0	0.774	State 1	0.713
State 7	0.448	State 5	0.398	State 2	0.525	State 5	0.622	State 1	0.600	State 8	0.614
State 8	0.429	State 8	0.331	State 6	0.499	State 8	0.579	State 2	0.742	State 10	0.433
State 14	0.098	State 10	0.223	State 9	0.443	State 9	0.598	State 3	0.744	State 12	0.242
State 15	0.068	State 14	0.079	State 11	0.335	State 10	0.452	State 7	0.704	State 14	0.136
State 18	0.359	State 17	0.407	State 14	0.160	State 15	0.107	State 9	0.590	State 16	0.561
State 25	0.196	State 19	0.325	State 18	0.278	State 17	0.432	State 12	0.245	State 21	0.423
State 27	0.121	State 21	0.311	State 23	0.228	State 19	0.333	State 15	0.081	State 22	0.389
State 30	0.050	State 24	0.252	State 27	0.138	State 21	0.299	State 17	0.606	State 25	0.312
State 32	0.629	State 26	0.169	State 35	0.311	State 27	0.173	State 19	0.521	State 27	0.222
State 36	0.624	State 27	0.133	State 38	0.280	State 32	0.404	State 23	0.468	State 31	0.079
State 39	0.565	State 30	0.057	State 39	0.267	State 34	0.377	State 29	0.225	State 35	0.396
State 41	0.457	State 33	0.521	State 40	0.254	State 37	0.349	State 36	0.321	State 38	0.361
State 44	0.208	State 36	0.425	State 41	0.211	State 40	0.286	State 39	0.274	State 39	0.348
State 46	0.123	State 38	0.384	State 45	0.071	State 43	0.144	State 45	0.055	State 41	0.262
State 51	0.551	State 40	0.346	State 46	0.051	State 44	0.098	State 49	0.554	State 42	0.200
State 53	0.523	State 44	0.140	State 47	0.034	State 48	0.533	State 52	0.643	State 45	0.076
State 57	0.356	State 49	0.497	State 50	0.426	State 49	0.535	State 53	0.636	State 46	0.054
State 58	0.286	State 51	0.408	State 59	0.248	State 51	0.512	State 55	0.589	State 47	0.035
State 59	0.229	State 55	0.342	State 60	0.187	State 56	0.451	State 58	0.402	State 50	0.617
State 62	0.100	State 62	0.077	State 61	0.153	State 61	0.159	State 61	0.168	State 54	0.548
State 67	0.581	State 63	0.052	State 68	0.532	State 69	0.422	State 63	0.078	State 58	0.362
State 68	0.631	State 65	0.507	State 70	0.397	State 72	0.598	State 69	0.609	State 64	0.673
State 69	0.459	State 69	0.503	State 73	0.341	State 76	0.637	State 72	0.614	State 66	0.424
State 70	0.593	State 71	0.525	State 74	0.393	State 77	0.425	State 74	0.372	State 67	0.609
State 73	0.459	State 72	0.542	State 75	0.452	State 78	0.403	State 75	0.561	State 68	0.697
State 76	0.668	State 73	0.504	State 76	0.534	State 79	0.520	State 76	0.622	State 74	0.426

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14.2 LTE Band 41 Power Class 2 and Power Class 3 Linearity

This device supports Power Class 2 and Power Class 3 operations for LTE Band 41. The highest available duty cycle for Power Class 2 operations is 43.3 % using UL-DL configuration 1. Per May 2017 TCB Workshop Notes based on the device behavior, all SAR tests were performed using Power Class 3. SAR with Power Class 2 at the highest power and available duty factor was additionally performed for the Power Class 3 configuration with the highest SAR for each exposure condition. The linearity between the Power Class 2 and Power Class 3 SAR results and the respective frame averaged powers was calculated to determine that the results were linear. When ULCA is active, the linearity between the Power Class 2 with ULCA active and Power Class 3 with ULCA active SAR results and the respective frame averaged powers was calculated to determine that the results were linear. Per May 2017 TCB Workshop, no additional SAR measurements were required since the linearity between power classes was < 10% and all reported SAR values were < 1.4 W/kg for 1g and < 3.5 W/kg for 10g.

LTE Band 41 SAR testing with power class 2 at the highest power and available duty factor was additionally performed for the power class 3 configuration with the highest SAR for each exposure condition.

Table 14-5
LTE Band 41 Standalone Head Linearity Data

	LTE Band 41 PC3	LTE Band 41 PC2
Maximum Allowed Output Power (dBm)	25.00	28.00
Measured Output Power (dBm)	24.59	27.81
Measured SAR (W/kg)	0.078	0.116
Measured Power (mW)	287.74	603.95
Duty Cycle	63.3%	43.3%
Frame Averaged Output Power (mW)	182.14	261.51
% deviation from expected linearity		3.58%

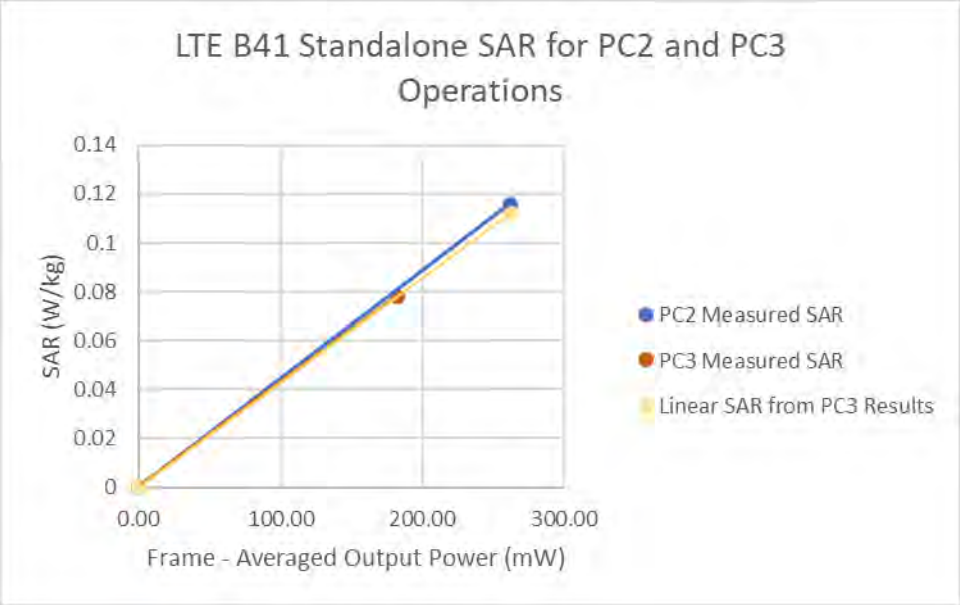


Figure 14-1
LTE Band 41 Standalone Head Linearity

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Table 14-6
LTE Band 41 ULCA Head Linearity Data

	LTE Band 41 PC3	LTE Band 41 PC2
Maximum Allowed Output Power (dBm)	25.00	28.00
Measured Output Power (dBm)	24.64	27.96
Measured SAR (W/kg)	0.0821	0.124
Measured Power (mW)	291.07	625.17
Duty Cycle	63.3%	43.3%
Frame Averaged Output Power (mW)	184.25	270.70
% deviation from expected linearity		2.80%

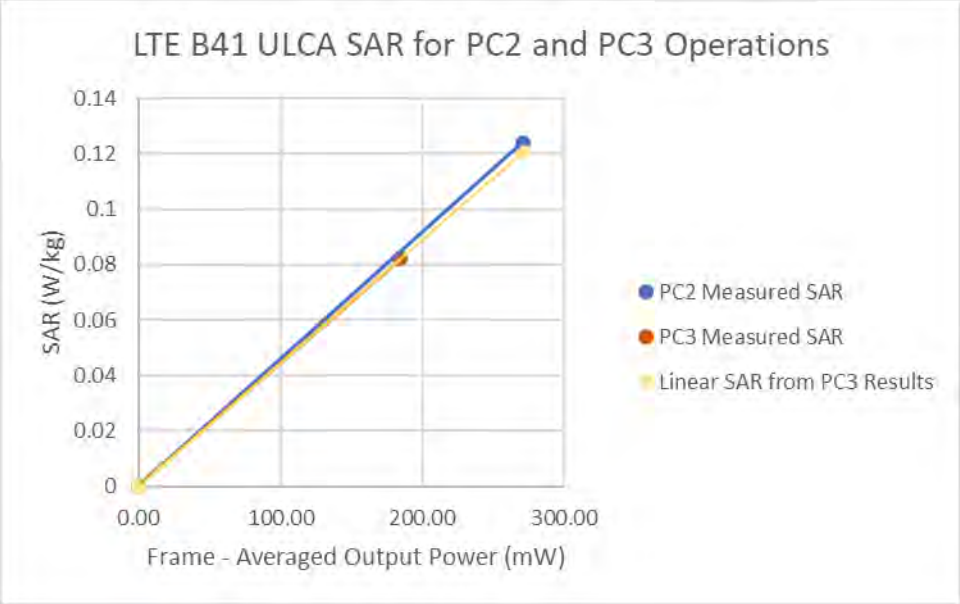


Figure 14-2
LTE Band 41 ULCA Head Linearity

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Table 14-7
LTE Band 41 Standalone 1g Body Linearity Data

	LTE Band 41 PC3	LTE Band 41 PC2
Maximum Allowed Output Power (dBm)	23.00	23.00
Measured Output Power (dBm)	22.15	21.69
Measured SAR (W/kg)	0.963	0.630
Measured Power (mW)	164.06	147.57
Duty Cycle	63.3%	43.3%
Frame Averaged Output Power (mW)	103.85	63.90
% deviation from expected linearity		6.32%

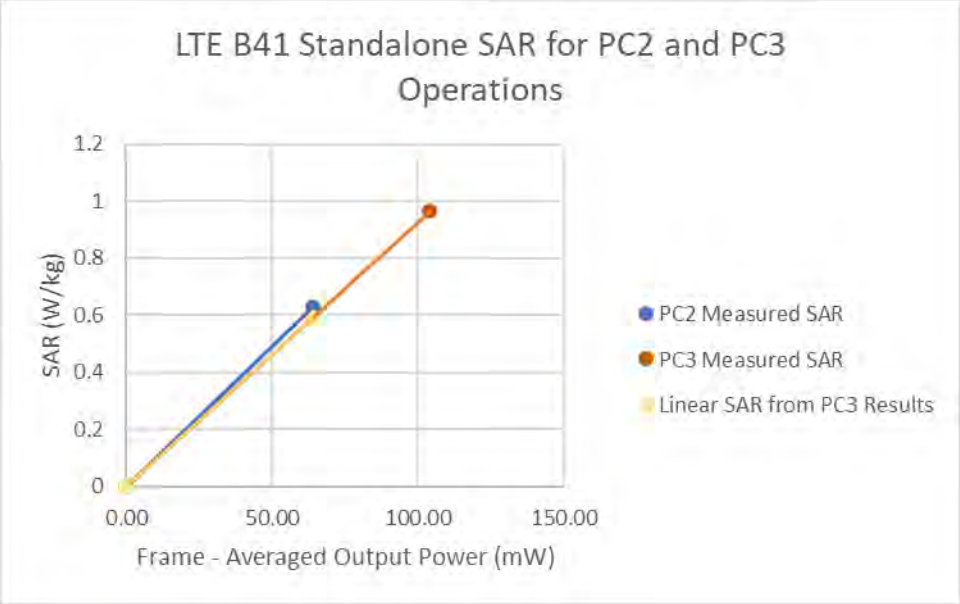


Figure 14-3
LTE Band 41 Standalone 1g Body Linearity

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Table 14-8
LTE Band 41 ULCA 1g Body Linearity Data

	LTE Band 41 PC3	LTE Band 41 PC2
Maximum Allowed Output Power (dBm)	23.00	23.00
Measured Output Power (dBm)	22.51	22.15
Measured SAR (W/kg)	1.03	0.694
Measured Power (mW)	178.24	164.06
Duty Cycle	63.3%	43.3%
Frame Averaged Output Power (mW)	112.82	71.04
% deviation from expected linearity		7.01%

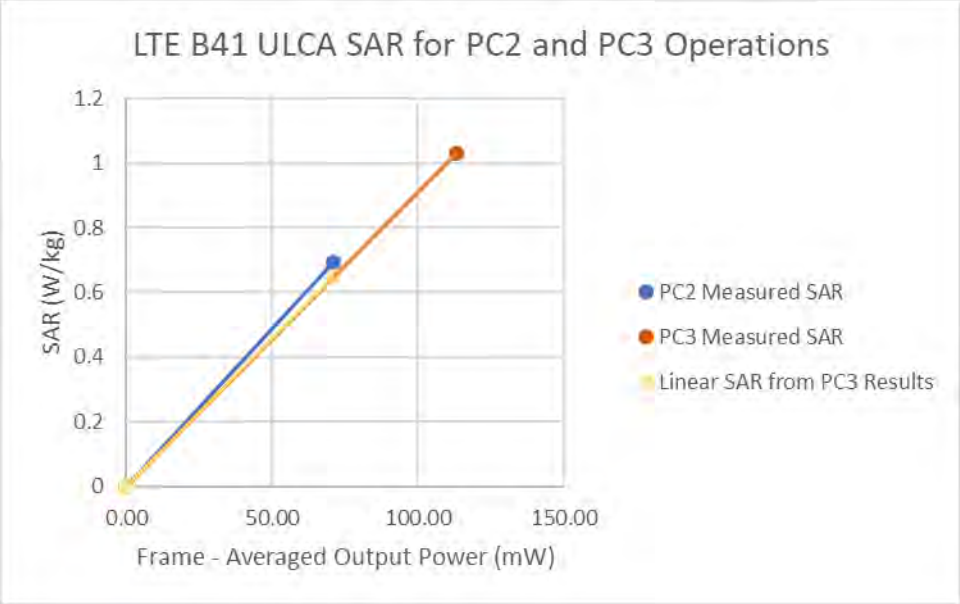


Figure 14-4
LTE Band 41 ULCA 1g Body Linearity

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Table 14-9
LTE Band 41 Standalone 10g Linearity Data

	LTE Band 41 PC3	LTE Band 41 PC2
Maximum Allowed Output Power (dBm)	21.50	21.50
Measured Output Power (dBm)	20.60	20.21
Measured SAR (W/kg)	2.66	1.74
Measured Power (mW)	114.82	104.95
Duty Cycle	63.3%	43.3%
Frame Averaged Output Power (mW)	72.68	45.45
% deviation from expected linearity		4.61%

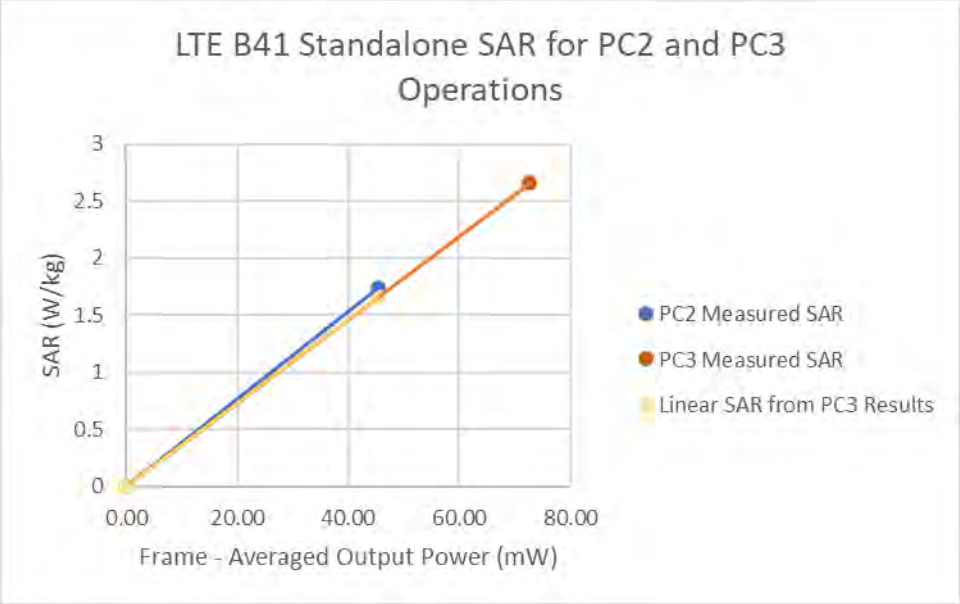


Figure 14-5
LTE Band 41 Standalone 10g Linearity

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Table 14-10
LTE Band 41 ULCA 10g Linearity Data

	LTE Band 41 PC3	LTE Band 41 PC2
Maximum Allowed Output Power (dBm)	21.50	21.50
Measured Output Power (dBm)	20.88	20.80
Measured SAR (W/kg)	2.85	1.92
Measured Power (mW)	122.46	120.23
Duty Cycle	63.3%	43.3%
Frame Averaged Output Power (mW)	77.52	52.06
% deviation from expected linearity		0.32%

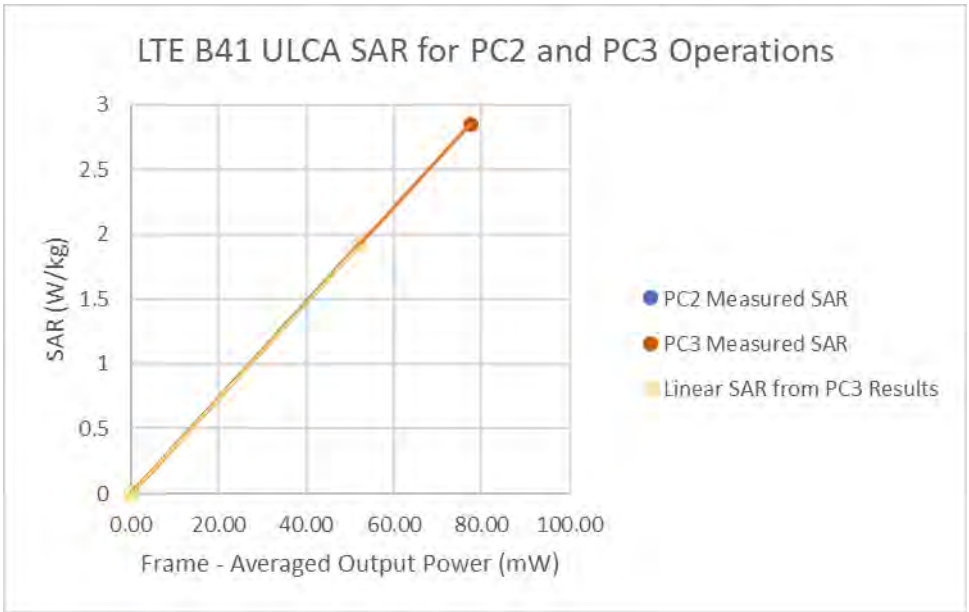


Figure 14-6
LTE Band 41 ULCA 10g Linearity

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15 EQUIPMENT LIST

Manufacturer	Model	Description	Cal Date	Cal Interval	Cal Due	Serial Number
Agilent	85033E	3.5mm Standard Calibration Kit	8/13/2018	Annual	8/13/2019	MY53402352
Agilent	8594A	(9kHz-2.9GHz) Spectrum Analyzer	N/A	N/A	N/A	3051A00187
Agilent	8753E	(30kHz-6GHz) Network Analyzer	9/28/2018	Annual	9/28/2019	JP38020182
Agilent	8753ES	S-Parameter Network Analyzer	7/30/2018	Annual	7/30/2019	MY40000670
Agilent	8753ES	S-Parameter Network Analyzer	10/2/2018	Annual	10/2/2019	US39170118
Agilent	8753ES	S-Parameter Vector Network Analyzer	8/30/2018	Annual	8/30/2019	MY40003841
Agilent	E4432B	ESG-D Series Signal Generator	4/19/2018	Annual	4/19/2019	US40053896
Agilent	E4438C	ESG Vector Signal Generator	3/21/2017	Biennial	3/21/2019	MY45090700
Agilent	E4438C	ESG Vector Signal Generator	3/23/2017	Biennial	3/23/2019	MY42082659
Agilent	E4440A	PSA Series Spectrum Analyzer	11/14/2018	Annual	11/14/2019	MY46186272
Agilent	E5515C	8960 Series 10 Wireless Communications Test Set	12/18/2018	Annual	12/18/2019	GB42230325
Agilent	E5515C	Wireless Communications Test Set	2/28/2018	Biennial	2/28/2020	GB41450275
Agilent	E5515C	Wireless Communications Test Set	5/22/2018	Biennial	5/22/2020	GB43193563
Agilent	N4010A	Wireless Connectivity Test Set	N/A	N/A	N/A	GB46170464
Agilent	N5182A	MXG Vector Signal Generator	4/18/2018	Annual	4/18/2019	MY47420800
Agilent	N5182A	MXG Vector Signal Generator	6/15/2018	Annual	6/15/2019	MY47420837
Agilent	N9030A	PXA Signal Analyzer (44GHz)	5/25/2018	Annual	5/25/2019	MY52350166
Amplifier Research	15S1G6	Amplifier	CBT	N/A	CBT	343972
Amplifier Research	15S1G6	Amplifier	CBT	N/A	CBT	343971
Anritsu	MA24106A	USB Power Sensor	7/17/2018	Annual	7/17/2019	1827527
Anritsu	MA24106A	USB Power Sensor	4/18/2018	Annual	4/18/2019	1344556
Anritsu	MA24106A	USB Power Sensor	4/18/2018	Annual	4/18/2019	1349514
Anritsu	MA24106A	USB Power Sensor	6/5/2018	Annual	6/5/2019	1231538
Anritsu	MA2411B	Pulse Power Sensor	10/30/2018	Annual	10/30/2019	1126066
Anritsu	MA2411B	Pulse Power Sensor	10/30/2018	Annual	10/30/2019	1207470
Anritsu	ML2495A	Power Meter	10/21/2018	Annual	10/21/2019	941001
Anritsu	ML2495A	Power Meter	11/20/2018	Annual	11/20/2019	1039008
Anritsu	ML2496A	Power Meter	5/21/2018	Annual	5/21/2019	1351001
Anritsu	MT8820C	Radio Communication Analyzer	6/27/2018	Annual	6/27/2019	6201240328
Anritsu	MT8821C	Radio Communication Analyzer	7/24/2018	Annual	7/24/2019	6201664756
Anritsu	MT8821C	Radio Communication Analyzer	7/26/2018	Annual	7/26/2019	6201144418
Anritsu	MT8862A	Wireless Connectivity Test Set	7/3/2018	Annual	7/3/2019	6261782395
Control Company	4040	Therm./ Clock/ Humidity Monitor	1/8/2019	Annual	1/8/2020	160473909
Control Company	4040	Therm./ Clock/ Humidity Monitor	1/8/2019	Annual	1/8/2020	160574418
Control Company	4352	Ultra Long Stem Thermometer	5/2/2017	Biennial	5/2/2019	170330144
Control Company	4352	Ultra Long Stem Thermometer	5/2/2017	Biennial	5/2/2019	170330174
Keysight	772D	Dual Directional Coupler	CBT	N/A	CBT	MY52180215
Keysight Technologies	85033E	Standard Mechanical Calibration Kit (DC to 9GHz, 3.5mm)	6/4/2018	Annual	6/4/2019	MY53401181
Keysight Technologies	U3401A	Digital Multimeter	5/17/2018	Annual	5/17/2019	MY57201470
MCL	BW-N6W5+	6dB Attenuator	CBT	N/A	CBT	1139
MiniCircuits	SLP-2400+	Low Pass Filter	CBT	N/A	CBT	R8979500903
MiniCircuits	VLF-6000+	Low Pass Filter	CBT	N/A	CBT	N/A
MiniCircuits	VLF-6000+	Low Pass Filter	CBT	N/A	CBT	N/A
Mini-Circuits	BW-N20W5+	DC to 18 GHz Precision Fixed 20 dB Attenuator	CBT	N/A	CBT	N/A
Mini-Circuits	NLP-1200+	Low Pass Filter DC to 1000 MHz	CBT	N/A	CBT	N/A
Mini-Circuits	NLP-2950+	Low Pass Filter DC to 2700 MHz	CBT	N/A	CBT	N/A
Mitutoyo	CD-6"CSX	Digital Caliper	4/18/2018	Biennial	4/18/2020	13264165
Narda	4014C-6	4 - 8 GHz SMA 6 dB Directional Coupler	CBT	N/A	CBT	N/A
Narda	4772-3	Attenuator (3dB)	CBT	N/A	CBT	9406
Narda	BW-S3W2	Attenuator (3dB)	CBT	N/A	CBT	120
Pasternack	NC-100	Torque Wrench	4/18/2018	Annual	4/18/2019	N/A
Pasternack	NC-100	Torque Wrench	4/18/2018	Annual	4/18/2019	1445
Pasternack	PE2208-6	Bidirectional Coupler	CBT	N/A	CBT	N/A
Pasternack	PE2209-10	Bidirectional Coupler	CBT	N/A	CBT	N/A
Pasternack	PE5011-1	Torque Wrench	7/19/2017	Biennial	7/19/2019	N/A
Rohde & Schwarz	CMU200	Base Station Simulator	5/18/2018	Annual	5/18/2019	109892
Rohde & Schwarz	CMW500	Radio Communication Tester	4/5/2018	Annual	4/5/2019	128633
Rohde & Schwarz	CMW500	Radio Communication Tester	4/20/2018	Annual	4/20/2019	128635
Rohde & Schwarz	CMW500	Wideband Radio Communication Tester	5/29/2018	Annual	5/29/2019	161662
Rohde & Schwarz	CMW500	Wideband Radio Communication Tester	10/30/2018	Annual	10/30/2019	164948
SPEAG	DAK-3.5	Dielectric Assessment Kit	5/15/2018	Annual	5/15/2019	1070
SPEAG	D750V3	750 MHz SAR Dipole	10/19/2018	Annual	10/19/2019	1161
SPEAG	D750V3	750 MHz Dipole	3/7/2017	Biennial	3/7/2019	1054
SPEAG	D835V2	835 MHz SAR Dipole	10/19/2018	Annual	10/19/2019	4d133
SPEAG	D835V2	835 MHz SAR Dipole	10/19/2018	Annual	10/19/2019	4d047
SPEAG	D1765V2	1765 MHz SAR Dipole	5/23/2018	Annual	5/23/2019	1008
SPEAG	D1900V2	1900 MHz SAR Dipole	10/23/2018	Annual	10/23/2019	5d149
SPEAG	D2300V2	2300 MHz SAR Dipole	8/13/2018	Annual	8/13/2019	1073
SPEAG	D2450V2	2450 MHz SAR Dipole	8/16/2018	Annual	8/16/2019	981
SPEAG	D2450V2	2450 MHz SAR Dipole	9/11/2017	Biennial	9/11/2019	797
SPEAG	D2600V2	2600 MHz SAR Dipole	4/11/2018	Annual	4/11/2019	1004
SPEAG	D5GHzV2	5 GHz SAR Dipole	9/21/2016	Triennial	9/21/2019	1191
SPEAG	D750V3	750 MHz SAR Dipole	1/15/2018	Biennial	1/15/2020	1003
SPEAG	D1750V2	1750 MHz SAR Dipole	10/22/2018	Annual	10/22/2019	1150
SPEAG	D1900V2	1900 MHz SAR Dipole	10/23/2018	Annual	10/23/2019	5d080
SPEAG	D2600V2	2600 MHz SAR Dipole	6/7/2017	Biennial	6/7/2019	1064
SPEAG	D5GHzV2	5 GHz SAR Dipole	1/16/2018	Biennial	1/16/2020	1057
SPEAG	EX3DV4	SAR Probe	8/23/2018	Annual	8/23/2019	7308
SPEAG	ES3DV3	SAR Probe	3/13/2018	Annual	3/13/2019	3319
SPEAG	EX3DV4	SAR Probe	1/24/2019	Annual	1/24/2020	7488
SPEAG	ES3DV3	SAR Probe	8/22/2018	Annual	8/22/2019	3332
SPEAG	EX3DV4	SAR Probe	7/20/2018	Annual	7/20/2019	7410
SPEAG	ES3DV3	SAR Probe	3/27/2018	Annual	3/27/2019	3347
SPEAG	EX3DV4	SAR Probe	4/18/2018	Annual	4/18/2019	7357
SPEAG	EX3DV4	SAR Probe	1/25/2019	Annual	1/25/2020	3589
SPEAG	EX3DV4	SAR Probe	6/25/2018	Annual	6/25/2019	7409
SPEAG	DAE4	Dasy Data Acquisition Electronics	7/11/2018	Annual	7/11/2019	1322
SPEAG	DAE4	Dasy Data Acquisition Electronics	6/18/2018	Annual	6/18/2019	1334
SPEAG	DAE4	Dasy Data Acquisition Electronics	8/22/2018	Annual	8/22/2019	1450
SPEAG	DAE4	Dasy Data Acquisition Electronics	1/15/2019	Annual	1/15/2020	1530
SPEAG	DAE4	Dasy Data Acquisition Electronics	4/11/2018	Annual	4/11/2019	1407
SPEAG	DAE4	Dasy Data Acquisition Electronics	2/13/2019	Annual	2/13/2020	665
SPEAG	DAE4	Dasy Data Acquisition Electronics	2/14/2019	Annual	2/14/2020	1272
SPEAG	DAE4	Dasy Data Acquisition Electronics	3/7/2018	Annual	3/7/2019	1368
SPEAG	DAE4	Dasy Data Acquisition Electronics	10/3/2018	Annual	10/3/2019	1558

All equipment was used solely within its calibration period.

Note: CBT (Calibrated Before Testing). Prior to testing, the measurement paths containing a cable, amplifier, attenuator, coupler or filter were connected to a calibrated source (i.e. a signal generator) to determine the losses of the measurement path. The power meter offset was then adjusted to compensate for the measurement system losses. This level offset is stored within the power meter before measurements are made. This calibration verification procedure applies to the system verification and output power measurements. The calibrated reading is then taken directly from the power meter after compensation of the losses for all final power measurements.

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16 MEASUREMENT UNCERTAINTIES

a	c	d	e= f(d,k)	f	g	h = c x f/e	i = c x g/e	k
Uncertainty Component	Tol. (± %)	Prob. Dist.	Div.	c_i 1gm	c_i 10 gms	1gm u_i (± %)	10gms u_i (± %)	v_i
Measurement System								
Probe Calibration	6.55	N	1	1.0	1.0	6.6	6.6	∞
Axial Isotropy	0.25	N	1	0.7	0.7	0.2	0.2	∞
Hemishperical Isotropy	1.3	N	1	0.7	0.7	0.9	0.9	∞
Boundary Effect	2.0	R	1.73	1.0	1.0	1.2	1.2	∞
Linearity	0.3	N	1	1.0	1.0	0.3	0.3	∞
System Detection Limits	0.25	R	1.73	1.0	1.0	0.1	0.1	∞
Readout Electronics	0.3	N	1	1.0	1.0	0.3	0.3	∞
Response Time	0.8	R	1.73	1.0	1.0	0.5	0.5	∞
Integration Time	2.6	R	1.73	1.0	1.0	1.5	1.5	∞
RF Ambient Conditions - Noise	3.0	R	1.73	1.0	1.0	1.7	1.7	∞
RF Ambient Conditions - Reflections	3.0	R	1.73	1.0	1.0	1.7	1.7	∞
Probe Positioner Mechanical Tolerance	0.4	R	1.73	1.0	1.0	0.2	0.2	∞
Probe Positioning w/ respect to Phantom	6.7	R	1.73	1.0	1.0	3.9	3.9	∞
Extrapolation, Interpolation & Integration algorithms for Max. SAR Evaluation	4.0	R	1.73	1.0	1.0	2.3	2.3	∞
Test Sample Related								
Test Sample Positioning	2.7	N	1	1.0	1.0	2.7	2.7	35
Device Holder Uncertainty	1.67	N	1	1.0	1.0	1.7	1.7	5
Output Power Variation - SAR drift measurement	5.0	R	1.73	1.0	1.0	2.9	2.9	∞
SAR Scaling	0.0	R	1.73	1.0	1.0	0.0	0.0	∞
Phantom & Tissue Parameters								
Phantom Uncertainty (Shape & Thickness tolerances)	7.6	R	1.73	1.0	1.0	4.4	4.4	∞
Liquid Conductivity - measurement uncertainty	4.2	N	1	0.78	0.71	3.3	3.0	10
Liquid Permittivity - measurement uncertainty	4.1	N	1	0.23	0.26	1.0	1.1	10
Liquid Conductivity - Temperature Uncertainty	3.4	R	1.73	0.78	0.71	1.5	1.4	∞
Liquid Permittivity - Temperature Unceritainty	0.6	R	1.73	0.23	0.26	0.1	0.1	∞
Liquid Conductivity - deviation from target values	5.0	R	1.73	0.64	0.43	1.8	1.2	∞
Liquid Permittivity - deviation from target values	5.0	R	1.73	0.60	0.49	1.7	1.4	∞
Combined Standard Uncertainty (k=1)		RSS				11.5	11.3	60
Expanded Uncertainty (95% CONFIDENCE LEVEL)		k=2				23.0	22.6	

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17 CONCLUSION

17.1 Measurement Conclusion

The SAR evaluation indicates that the EUT complies with the RF radiation exposure limits of the FCC and Innovation, Science, and Economic Development Canada, with respect to all parameters subject to this test. These measurements were taken to simulate the RF effects of RF exposure under worst-case conditions. Precise laboratory measures were taken to assure repeatability of the tests. The results and statements relate only to the item(s) tested.

Please note that the absorption and distribution of electromagnetic energy in the body are very complex phenomena that depend on the mass, shape, and size of the body, the orientation of the body with respect to the field vectors, and the electrical properties of both the body and the environment. Other variables that may play a substantial role in possible biological effects are those that characterize the environment (e.g. ambient temperature, air velocity, relative humidity, and body insulation) and those that characterize the individual (e.g. age, gender, activity level, debilitation, or disease). Because various factors may interact with one another to vary the specific biological outcome of an exposure to electromagnetic fields, any protection guide should consider maximal amplification of biological effects as a result of field-body interactions, environmental conditions, and physiological variables. [3]

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[24] SAR Measurement Guidance for IEEE 802.11 Transmitters, KDB Publication 248227 D01

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[26] FCC SAR Evaluation Considerations for Laptop, Notebook, Netbook and Tablet Computers, FCC KDB Publication 616217 D04

[27] FCC SAR Measurement and Reporting Requirements for 100MHz – 6 GHz, KDB Publications 865664 D01-D02

[28] FCC General RF Exposure Guidance and SAR Procedures for Dongles, KDB Publication 447498, D01-D02

[29] Anexo à Resolução No. 533, de 10 de Septembro de 2009.

[30] IEC 62209-2, Human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices - Human models, instrumentation, and procedures - Part 2: Procedure to determine the specific absorption rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz), Mar. 2010.

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APPENDIX A: SAR TEST DATA

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PCTEST ENGINEERING LABORATORY, INC.

DUT: A3LSMF900U; Type: Portable Handset; Serial: 0004M

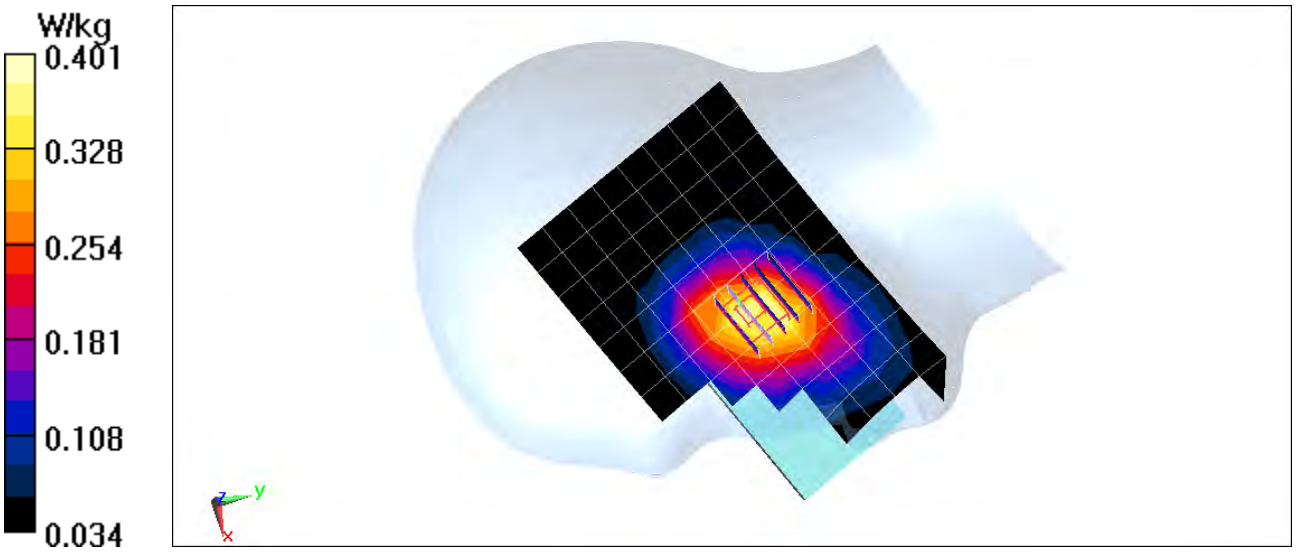
Communication System: UID 0, Cellular CDMA; Frequency: 820.1 MHz; Duty Cycle: 1:1
Medium: 835 Head Medium parameters used (interpolated):
f = 820.1 MHz; σ = 0.92 S/m; ε_r = 41.806; ρ = 1000 kg/m^3
Phantom section: Right Section

Test Date: 03-13-2019; Ambient Temp: 21.6°C; Tissue Temp: 20.6°C

Probe: EX3DV4 - SN7409; ConvF(9.67, 9.67, 9.67) @ 820.1 MHz; Calibrated: 6/25/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1334; Calibrated: 6/18/2018
Phantom: SAM 30 with CRP v5.0 right; Type: QD000P40CD; Serial: TP:1759
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: Cell. EVDO Rev. A, Rule Part 90S, Right Head, Cheek, Mid.ch

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 19.13 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 0.446 W/kg
SAR(1 g) = 0.326 W/kg



PCTEST ENGINEERING LABORATORY, INC.

DUT: A3LSMF900U; Type: Portable Handset; Serial: 0049M

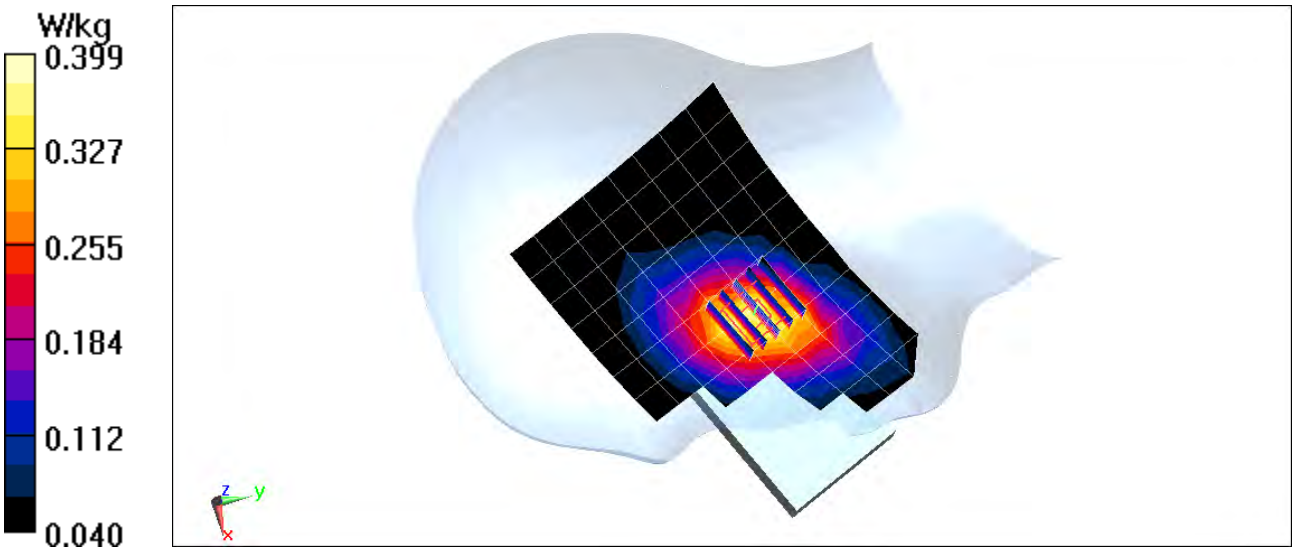
Communication System: UID 0, CDMA; Frequency: 836.52 MHz; Duty Cycle: 1:1
Medium: 835 Head Medium parameters used (interpolated):
f = 836.52 MHz; σ = 0.925 S/m; ε_r = 41.387; ρ = 1000 kg/m^3
Phantom section: Right Section

Test Date: 01-25-2019; Ambient Temp: 23.5°C; Tissue Temp: 21.3°C

Probe: EX3DV4 - SN7410; ConvF(9.81, 9.81, 9.81) @ 836.52 MHz; Calibrated: 7/20/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2018
Phantom: SAM Front; Type: SAM; Serial: 1686
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: Cell. CDMA, Rule Part 22H, Right Head, Cheek, Mid.ch

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 19.36 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 0.438 W/kg
SAR(1 g) = 0.328 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0020M

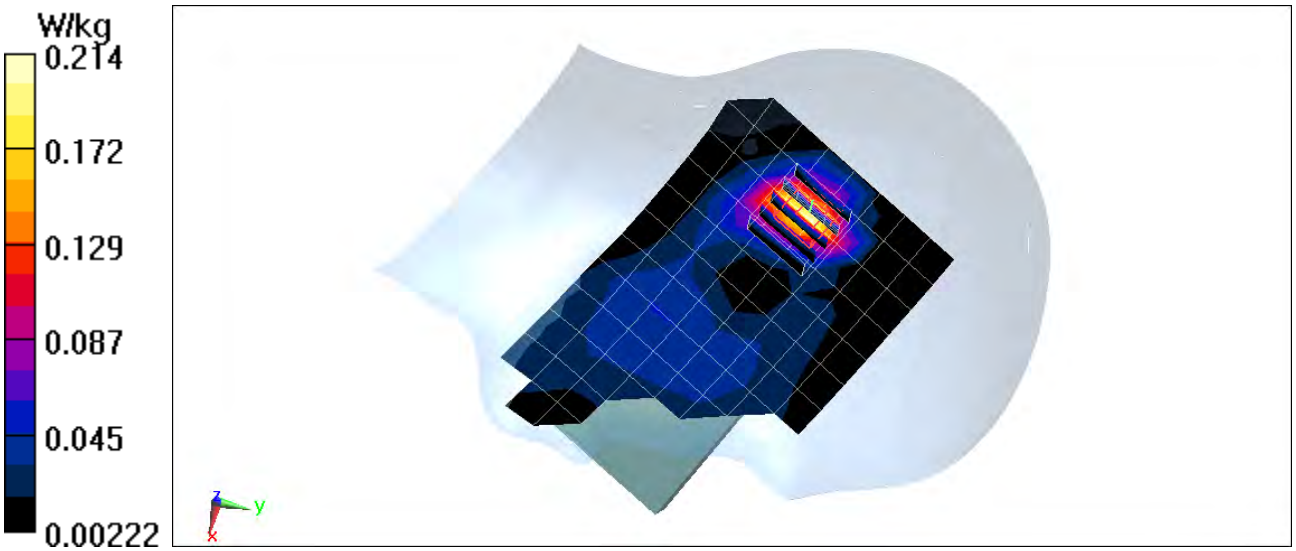
Communication System: UID 0, PCS CDMA; Frequency: 1880 MHz; Duty Cycle: 1:1
Medium: 1900 Head Medium parameters used:
f = 1880 MHz; σ = 1.418 S/m; ε_r = 39.011; ρ = 1000 kg/m^3
Phantom section: Left Section

Test Date: 02-06-2019; Ambient Temp: 22.6°C; Tissue Temp: 21.5°C

Probe: EX3DV4 - SN7410; ConvF(8.16, 8.16, 8.16) @ 1880 MHz; Calibrated: 7/20/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2018
Phantom: SAM Front; Type: SAM; Serial: 1686
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: PCS CDMA, Left Head, Tilt, Mid.ch

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.88 V/m; Power Drift = 0.15 dB
Peak SAR (extrapolated) = 0.272 W/kg
SAR(1 g) = 0.169 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0001M

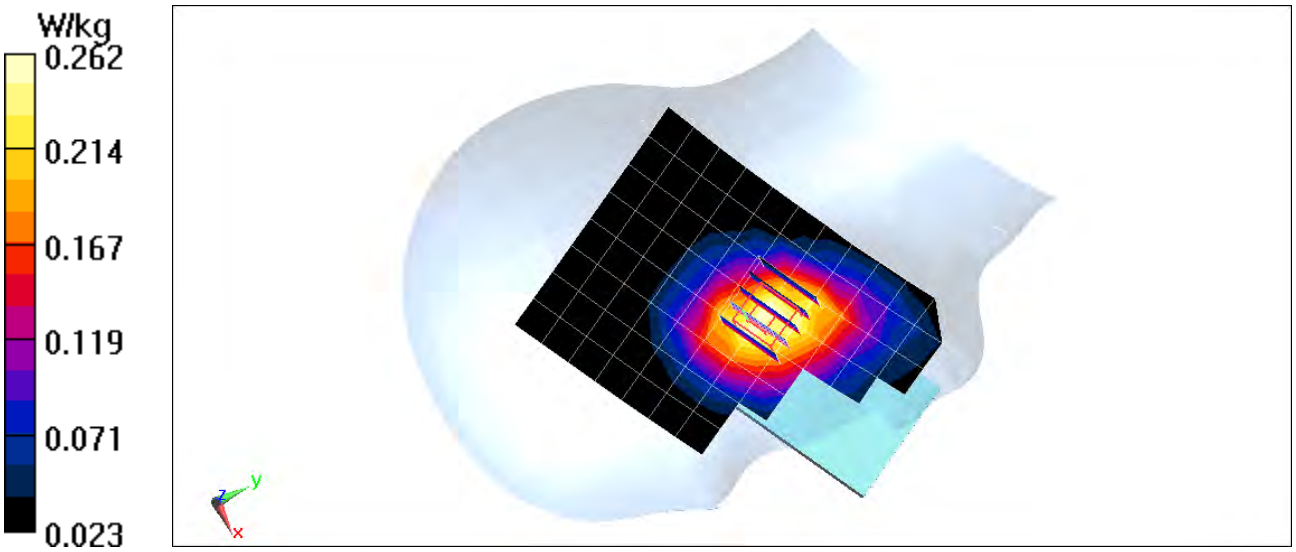
Communication System: UID 0, GSM; Frequency: 836.6 MHz; Duty Cycle: 1:8.3
Medium: 835 Head Medium parameters used (interpolated):
f = 836.6 MHz; σ = 0.925 S/m; ε_r = 41.387; ρ = 1000 kg/m^3
Phantom section: Right Section

Test Date: 01-25-2019; Ambient Temp: 23.5°C; Tissue Temp: 21.3°C

Probe: EX3DV4 - SN7410; ConvF(9.81, 9.81, 9.81) @ 836.6 MHz; Calibrated: 7/20/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2018
Phantom: SAM Front; Type: SAM; Serial: 1686
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: GSM 850, Right Head, Cheek, Mid.ch

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 15.61 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 0.289 W/kg
SAR(1 g) = 0.216 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0003M

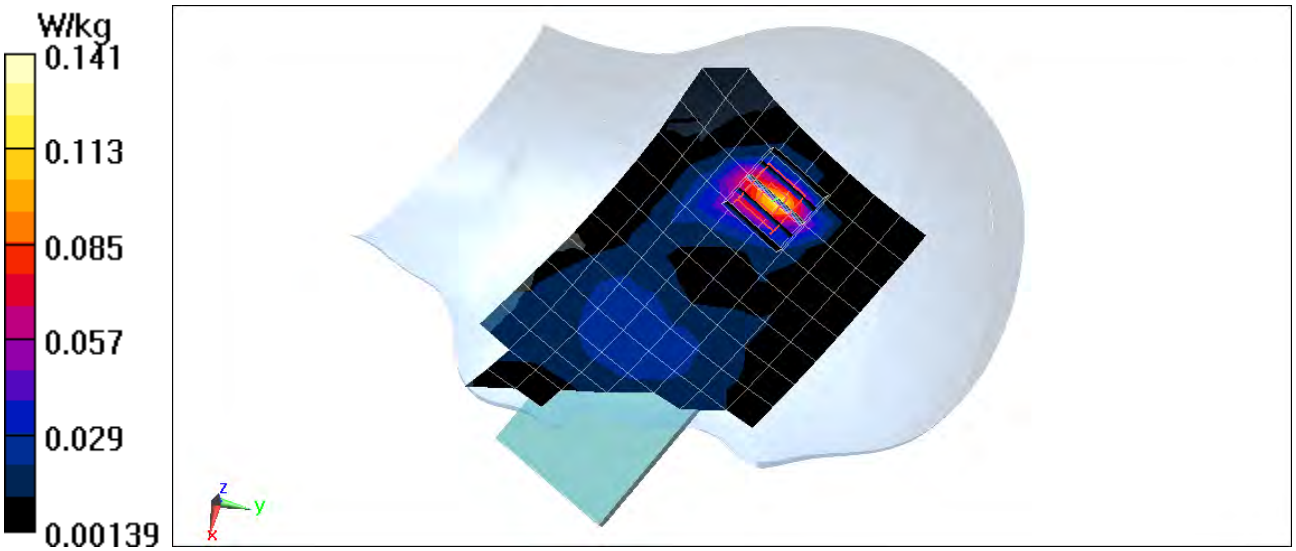
Communication System: UID 0, GSM; Frequency: 1880 MHz; Duty Cycle: 1:8.3
Medium: 1900 Head Medium parameters used:
f = 1880 MHz; σ = 1.418 S/m; ε_r = 39.011; ρ = 1000 kg/m^3
Phantom section: Left Section

Test Date: 02-06-2019; Ambient Temp: 22.6°C; Tissue Temp: 21.5°C

Probe: EX3DV4 - SN7410; ConvF(8.16, 8.16, 8.16) @ 1880 MHz; Calibrated: 7/20/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2018
Phantom: SAM Front; Type: SAM; Serial: 1686
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: GSM 1900, Left Head, Tilt, Mid.ch

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.385 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 0.159 W/kg
SAR(1 g) = 0.091 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0001M

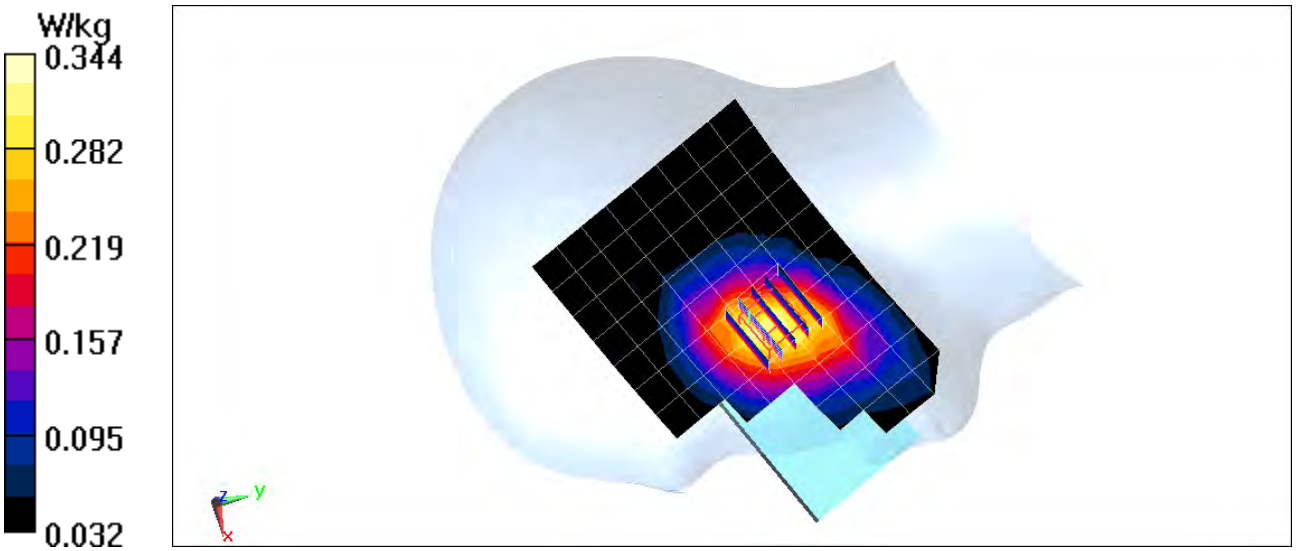
Communication System: UID 0, UMTS; Frequency: 836.6 MHz; Duty Cycle: 1:1
Medium: 835 Head Medium parameters used (interpolated):
f = 836.6 MHz; σ = 0.942 S/m; ε_r = 40.565; ρ = 1000 kg/m^3
Phantom section: Right Section

Test Date: 01-23-2019; Ambient Temp: 23.5°C; Tissue Temp: 21.2°C

Probe: EX3DV4 - SN7410; ConvF(9.81, 9.81, 9.81) @ 836.6 MHz; Calibrated: 7/20/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2018
Phantom: SAM Front; Type: SAM; Serial: 1686
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: UMTS 850, Right Head, Cheek, Mid.ch

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 17.79 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 0.381 W/kg
SAR(1 g) = 0.283 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0039M

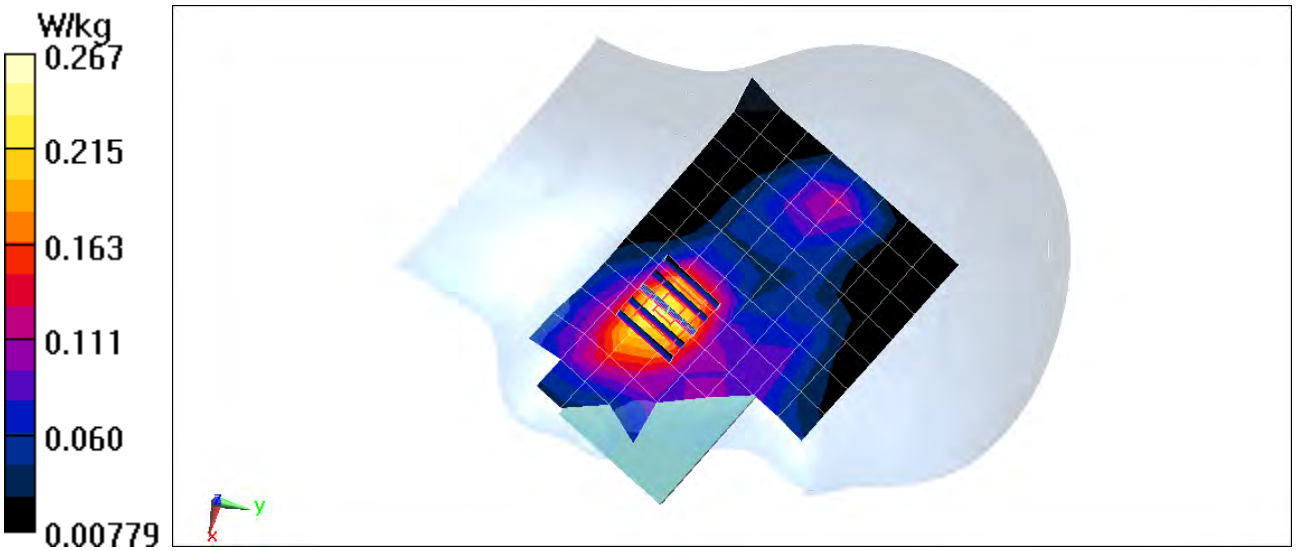
Communication System: UID 0, UMTS; Frequency: 1732.4 MHz; Duty Cycle: 1:1
Medium: 1750 Head Medium parameters used (interpolated):
f = 1732.4 MHz; σ = 1.378 S/m; ε_r = 41.887; ρ = 1000 kg/m^3
Phantom section: Left Section

Test Date: 02-04-2019; Ambient Temp: 22.3°C; Tissue Temp: 21.1°C

Probe: EX3DV4 - SN7409; ConvF(8.43, 8.43, 8.43) @ 1732.4 MHz; Calibrated: 6/25/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1334; Calibrated: 6/18/2018
Phantom: SAM with CRP (Left); Type: SAM; Serial: 1715
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: UMTS 1750, Left Head, Cheek, Mid.ch

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 12.56 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 0.304 W/kg
SAR(1 g) = 0.203 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0003M

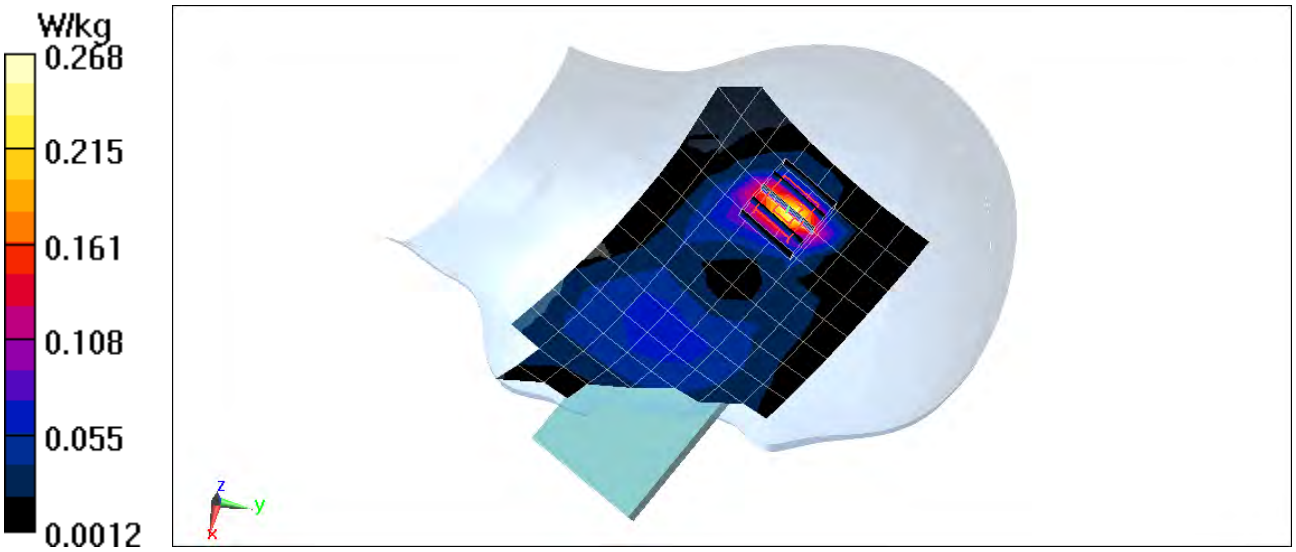
Communication System: UID 0, UMTS; Frequency: 1880 MHz; Duty Cycle: 1:1
Medium: 1900 Head Medium parameters used:
f = 1880 MHz; σ = 1.418 S/m; ε_r = 39.011; ρ = 1000 kg/m^3
Phantom section: Left Section

Test Date: 02-06-2019; Ambient Temp: 22.6°C; Tissue Temp: 21.5°C

Probe: EX3DV4 - SN7410; ConvF(8.16, 8.16, 8.16) @ 1880 MHz; Calibrated: 7/20/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2018
Phantom: SAM Front; Type: SAM; Serial: 1686
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: UMTS 1900, Left Head, Tilt, Mid.ch

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 12.34 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 0.300 W/kg
SAR(1 g) = 0.178 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0001M

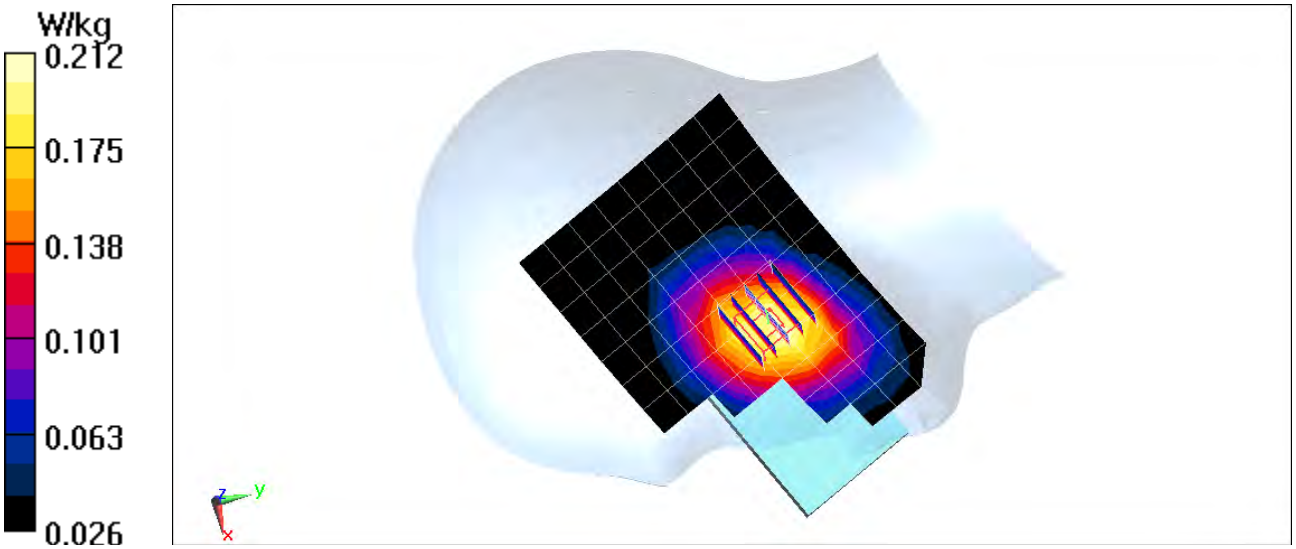
Communication System: UID 0, LTE Band 71; Frequency: 680.5 MHz; Duty Cycle: 1:1
Medium: 750 Head Medium parameters used (interpolated):
f = 680.5 MHz; σ = 0.854 S/m; ε_r = 42.479; ρ = 1000 kg/m^3
Phantom section: Right Section

Test Date: 01-28-2019; Ambient Temp: 21.5°C; Tissue Temp: 20.8°C

Probe: EX3DV4 - SN7410; ConvF(10.13, 10.13, 10.13) @ 680.5 MHz; Calibrated: 7/20/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2018
Phantom: SAM Front; Type: SAM; Serial: 1686
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 71, Right Head, Cheek, Mid.ch,
20 MHz Bandwidth, QPSK, 1 RB, 0 RB Offset

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 15.45 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 0.229 W/kg
SAR(1 g) = 0.181 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0001M

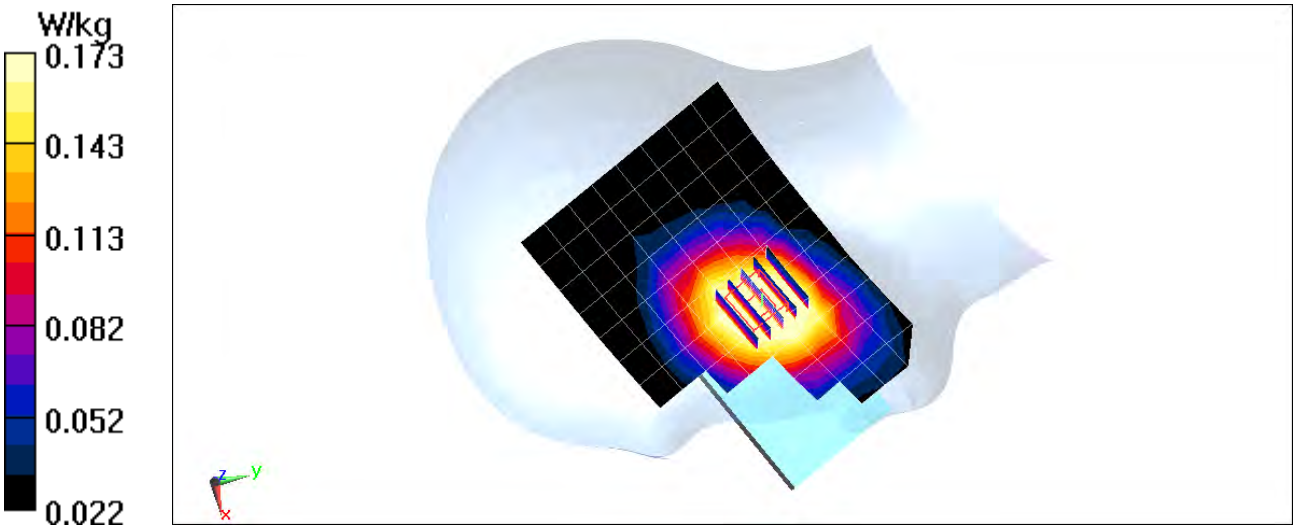
Communication System: UID 0, LTE Band 12; Frequency: 707.5 MHz; Duty Cycle: 1:1
Medium: 750 Head Medium parameters used (interpolated):
f = 707.5 MHz; σ = 0.863 S/m; ε_r = 42.39; ρ = 1000 kg/m^3
Phantom section: Right Section

Test Date: 01-28-2019; Ambient Temp: 21.5°C; Tissue Temp: 20.8°C

Probe: EX3DV4 - SN7410; ConvF(10.13, 10.13, 10.13) @ 707.5 MHz; Calibrated: 7/20/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2018
Phantom: SAM Front; Type: SAM; Serial: 1686
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 12, Right Head, Cheek, Mid.ch,
10 MHz Bandwidth, QPSK, 1 RB, 25 RB Offset

Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 13.74 V/m; Power Drift = -0.19 dB
Peak SAR (extrapolated) = 0.186 W/kg
SAR(1 g) = 0.147 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0001M

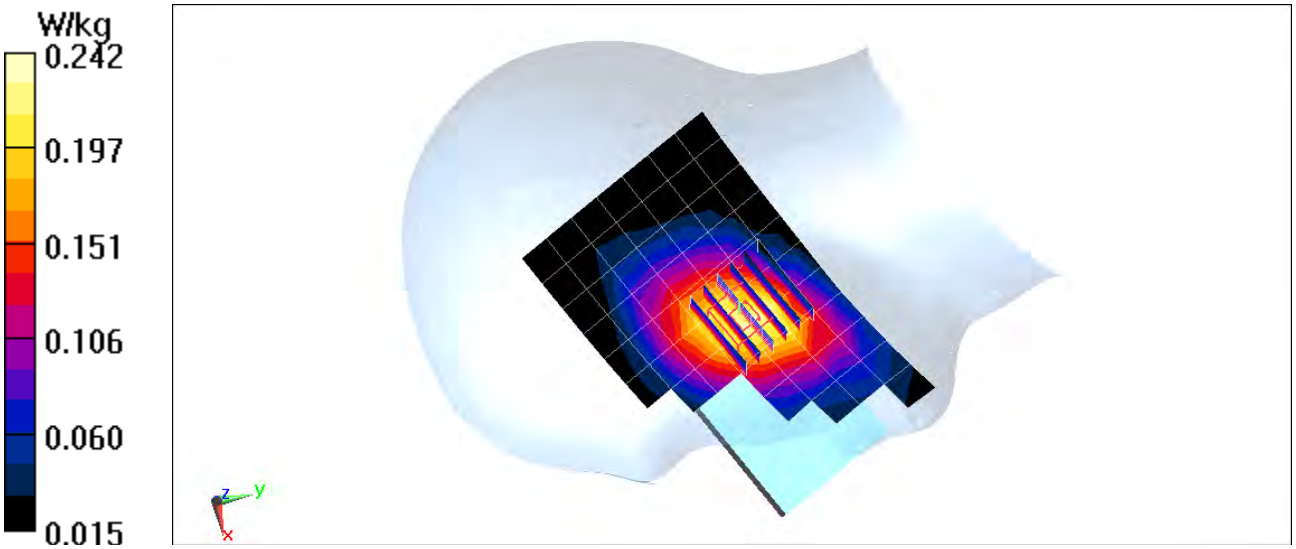
Communication System: UID 0, LTE Band 13; Frequency: 782 MHz; Duty Cycle: 1:1
Medium: 750 Head Medium parameters used (interpolated):
f = 782 MHz; σ = 0.889 S/m; ε_r = 42.142; ρ = 1000 kg/m^3
Phantom section: Right Section

Test Date: 01-28-2019; Ambient Temp: 21.5°C; Tissue Temp: 20.8°C

Probe: EX3DV4 - SN7410; ConvF(10.13, 10.13, 10.13) @ 782 MHz; Calibrated: 7/20/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2018
Phantom: SAM Front; Type: SAM; Serial: 1686
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 13, Right Head, Cheek, Mid.ch,
10 MHz Bandwidth, QPSK, 1 RB, 49 RB Offset

Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 15.73 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 0.263 W/kg
SAR(1 g) = 0.204 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0039M

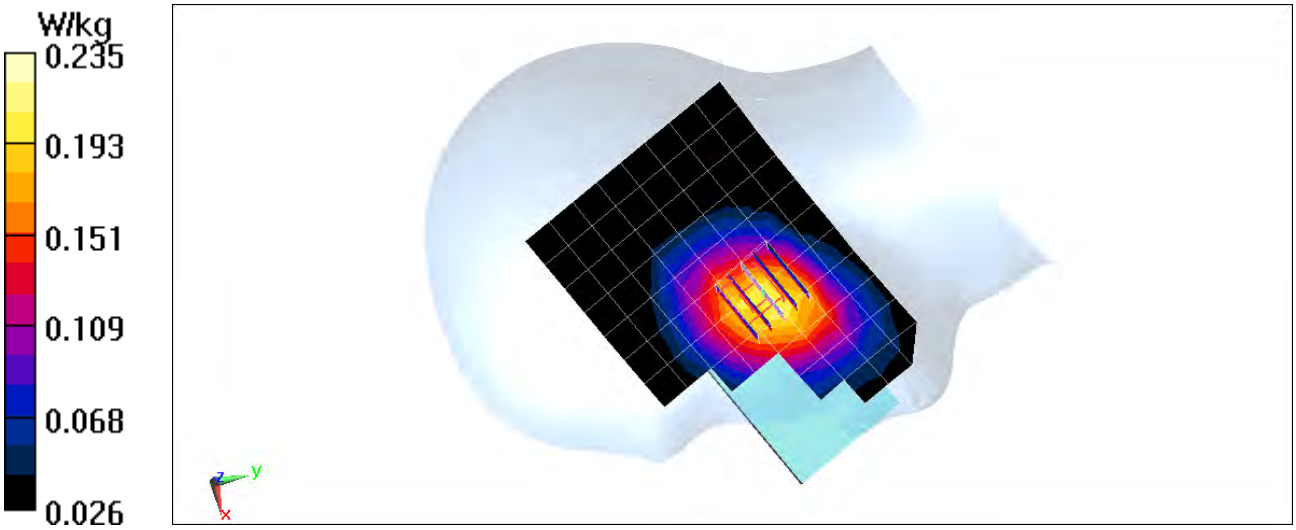
Communication System: UID 0, LTE Band 14; Frequency: 793 MHz; Duty Cycle: 1:1
Medium: 750 Head Medium parameters used (interpolated):
f = 793 MHz; σ = 0.914 S/m; ε_r = 41.827; ρ = 1000 kg/m^3
Phantom section: Right Section

Test Date: 02-14-2019; Ambient Temp: 22.9°C; Tissue Temp: 20.7°C

Probe: EX3DV4 - SN7410; ConvF(10.13, 10.13, 10.13) @ 793 MHz; Calibrated: 7/20/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2018
Phantom: SAM Front; Type: SAM; Serial: 1686
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 14, Right Head, Cheek, Mid.ch,
10 MHz Bandwidth, QPSK, 1 RB, 25 RB Offset

Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 15.70 V/m; Power Drift = 0.10 dB
Peak SAR (extrapolated) = 0.256 W/kg
SAR(1 g) = 0.202 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0025M

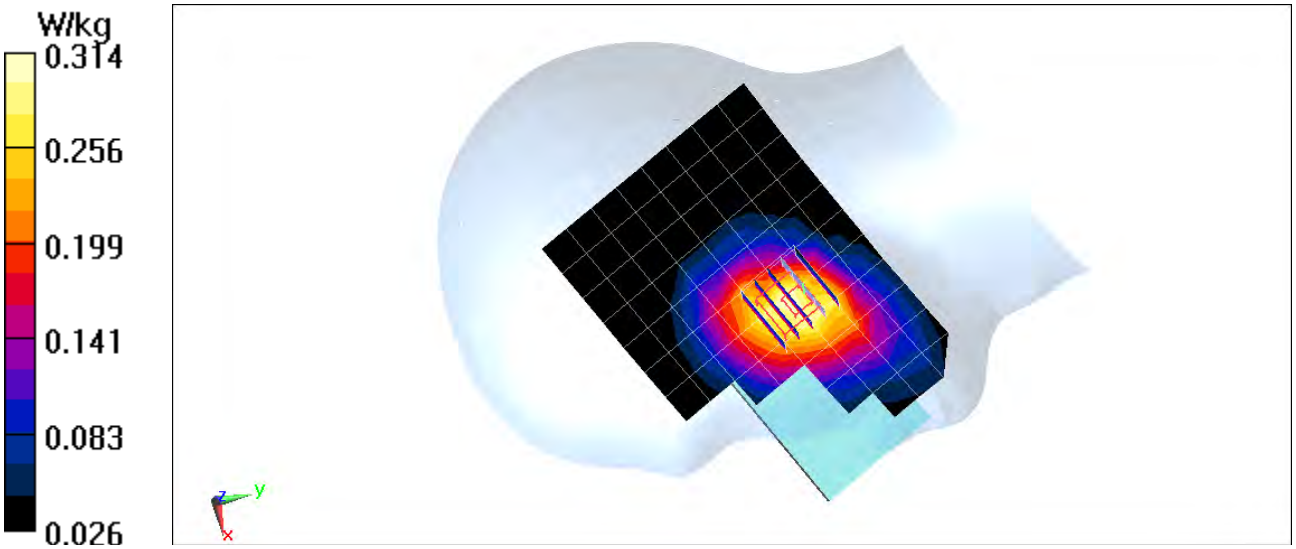
Communication System: UID 0, LTE Band 26; Frequency: 831.5 MHz; Duty Cycle: 1:1
Medium: 835 Head Medium parameters used (interpolated):
f = 831.5 MHz; σ = 0.923 S/m; ε_r = 41.404; ρ = 1000 kg/m^3
Phantom section: Right Section

Test Date: 01-25-2019; Ambient Temp: 23.5°C; Tissue Temp: 21.3°C

Probe: EX3DV4 - SN7410; ConvF(9.81, 9.81, 9.81) @ 831.5 MHz; Calibrated: 7/20/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2018
Phantom: SAM Front; Type: SAM; Serial: 1686
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 26 (Cell.), Right Head, Cheek, Mid.ch,
15 MHz Bandwidth, QPSK, 1 RB, 36 RB Offset

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 17.65 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 0.350 W/kg
SAR(1 g) = 0.253 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0039M

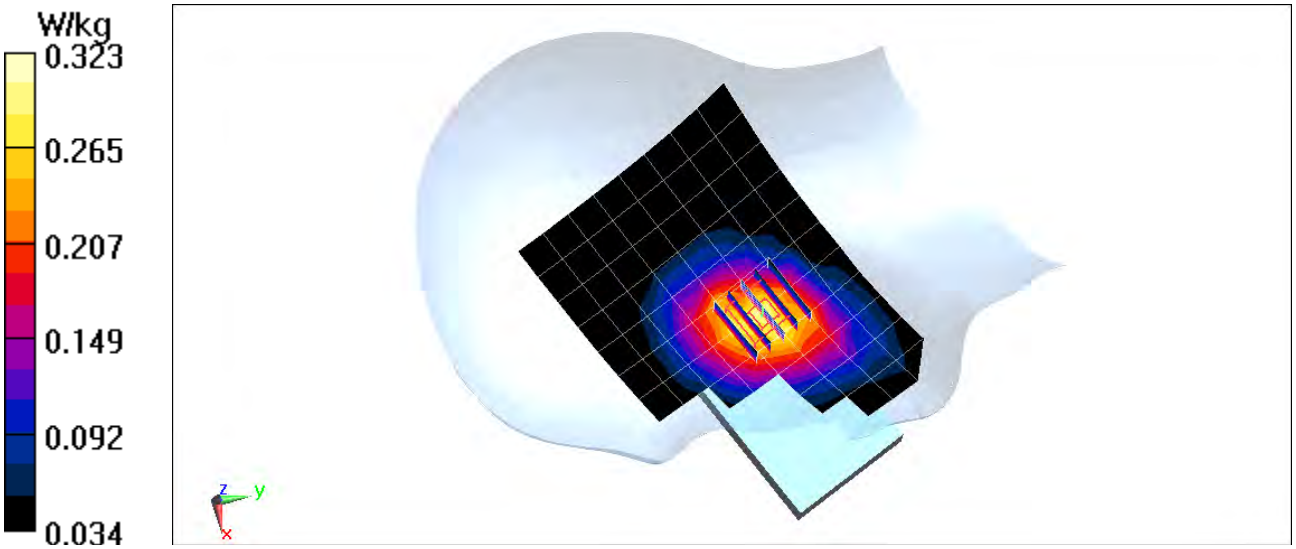
Communication System: UID 0, LTE Band 5 (Cell.); Frequency: 836.5 MHz; Duty Cycle: 1:1
Medium: 835 Head Medium parameters used (interpolated):
$f = 836.5$ MHz; $\sigma = 0.928$ S/m; $\varepsilon_r = 40.986$; $\rho = 1000$ kg/m^3
Phantom section: Right Section

Test Date: 02-01-2019; Ambient Temp: 22.6°C; Tissue Temp: 21.1°C

Probe: EX3DV4 - SN7410; ConvF(9.81, 9.81, 9.81) @ 836.5 MHz; Calibrated: 7/20/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2018
Phantom: SAM Front; Type: SAM; Serial: 1686
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 5 (Cell.), Right Head, Cheek, Mid.ch,
10 MHz Bandwidth, QPSK, 1 RB, 49 RB Offset

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 17.94 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 0.355 W/kg
SAR(1 g) = 0.264 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0039M

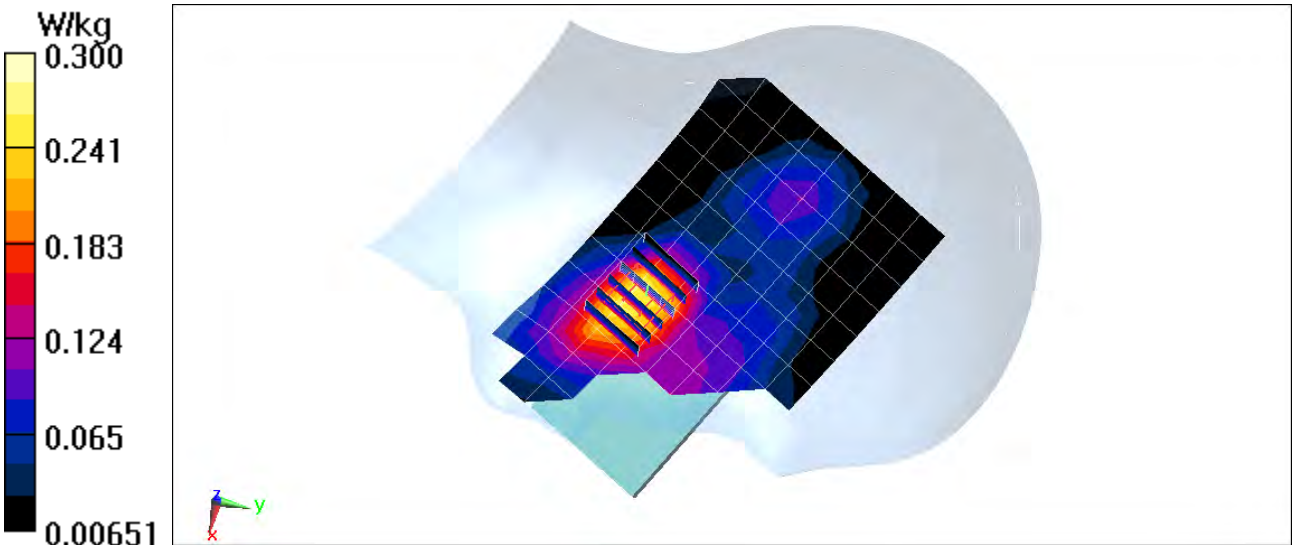
Communication System: UID 0, LTE Band 66 (AWS); Frequency: 1720 MHz; Duty Cycle: 1:1
Medium: 1750 Head Medium parameters used (interpolated):
$f = 1720$ MHz; $\sigma = 1.371$ S/m; $\varepsilon_r = 41.911$; $\rho = 1000$ kg/m^3
Phantom section: Left Section

Test Date: 02-04-2019; Ambient Temp: 22.3°C; Tissue Temp: 21.1°C

Probe: EX3DV4 - SN7409; ConvF(8.43, 8.43, 8.43) @ 1720 MHz; Calibrated: 6/25/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1334; Calibrated: 6/18/2018
Phantom: SAM with CRP (Left); Type: SAM; Serial: 1715
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 66 (AWS), Left Head, Cheek, Low.ch,
20 MHz Bandwidth, QPSK, 1 RB, 0 RB Offset

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 13.86 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 0.346 W/kg
SAR(1 g) = 0.229 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0041M

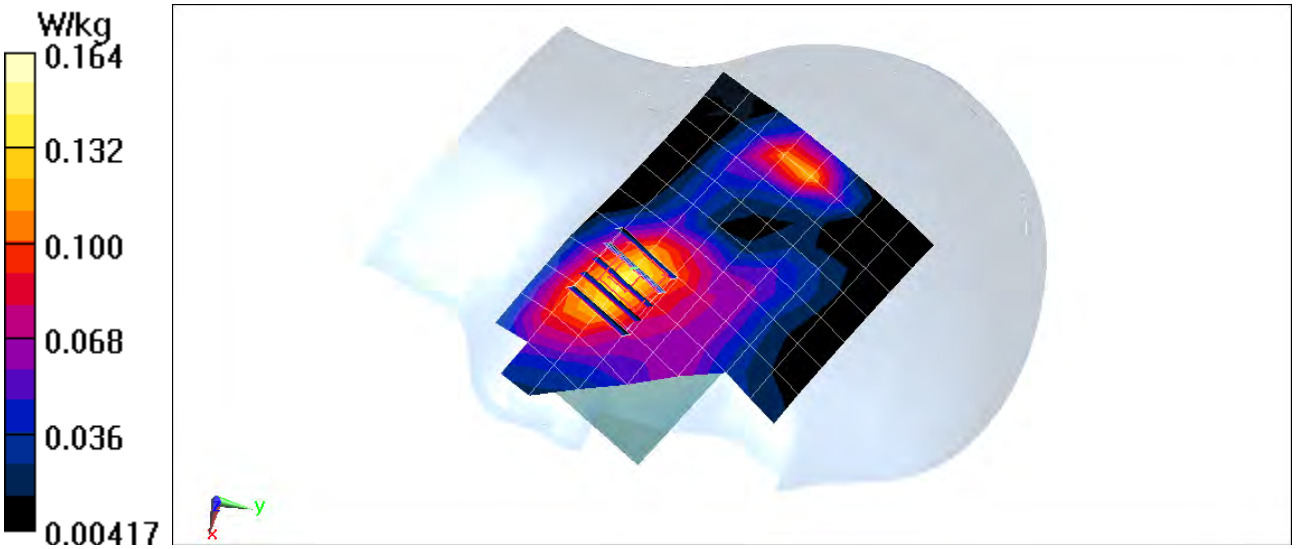
Communication System: UID 0, LTE Band 25 (PCS); Frequency: 1860 MHz; Duty Cycle: 1:1
Medium: 1900 Head Medium parameters used (interpolated):
f = 1860 MHz; σ = 1.407 S/m; ε_r = 39.06; ρ = 1000 kg/m^3
Phantom section: Left Section

Test Date: 02-06-2019; Ambient Temp: 22.6°C; Tissue Temp: 21.5°C

Probe: EX3DV4 - SN7410; ConvF(8.16, 8.16, 8.16) @ 1860 MHz; Calibrated: 7/20/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2018
Phantom: SAM Front; Type: SAM; Serial: 1686
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 25 (PCS), Left Head, Cheek, Low.ch,
20 MHz Bandwidth, QPSK, 1 RB, 50 RB Offset

Area Scan (9x14x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.47 V/m; Power Drift = -0.15 dB
Peak SAR (extrapolated) = 0.186 W/kg
SAR(1 g) = 0.123 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0039M

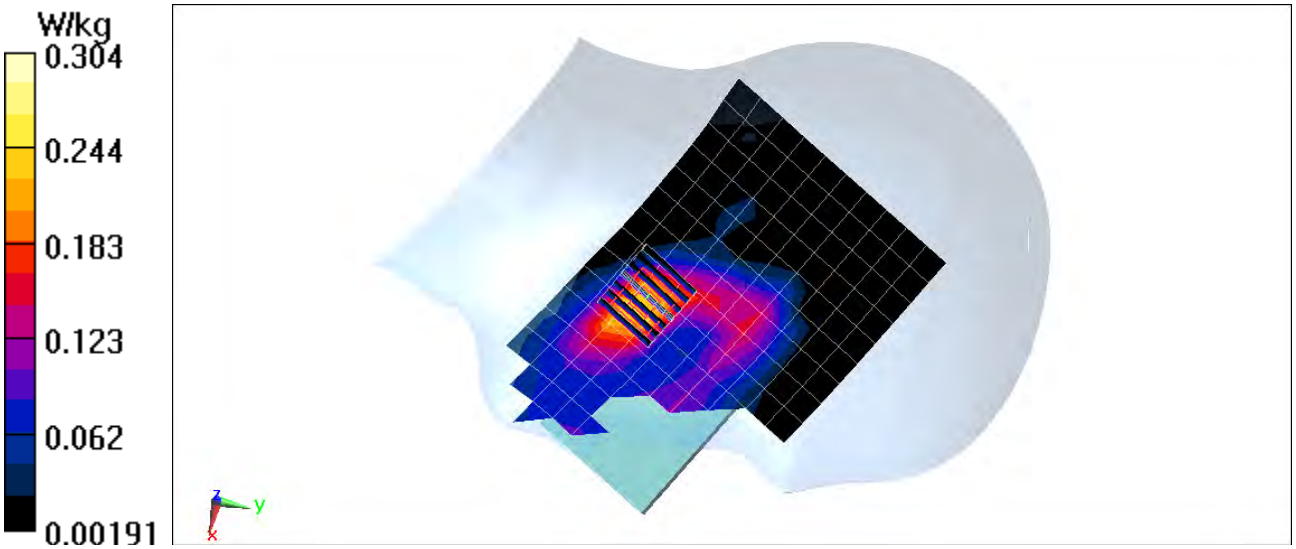
Communication System: UID 0, LTE Band 30; Frequency: 2310 MHz; Duty Cycle: 1:1
Medium: 2450 Head Medium parameters used:
f = 2310 MHz; σ = 1.718 S/m; ε_r = 38.713; ρ = 1000 kg/m^3
Phantom section: Left Section

Test Date: 01-29-2019; Ambient Temp: 23.2°C; Tissue Temp: 21.1°C

Probe: EX3DV4 - SN7410; ConvF(7.78, 7.78, 7.78) @ 2310 MHz; Calibrated: 7/20/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2018
Phantom: SAM Front; Type: SAM; Serial: 1686
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 30, Left Head, Cheek, Mid.ch,
10 MHz Bandwidth, QPSK, 1 RB, 0 RB Offset

Area Scan (11x18x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 11.90 V/m; Power Drift = 0.10 dB
Peak SAR (extrapolated) = 0.367 W/kg
SAR(1 g) = 0.196 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0039M

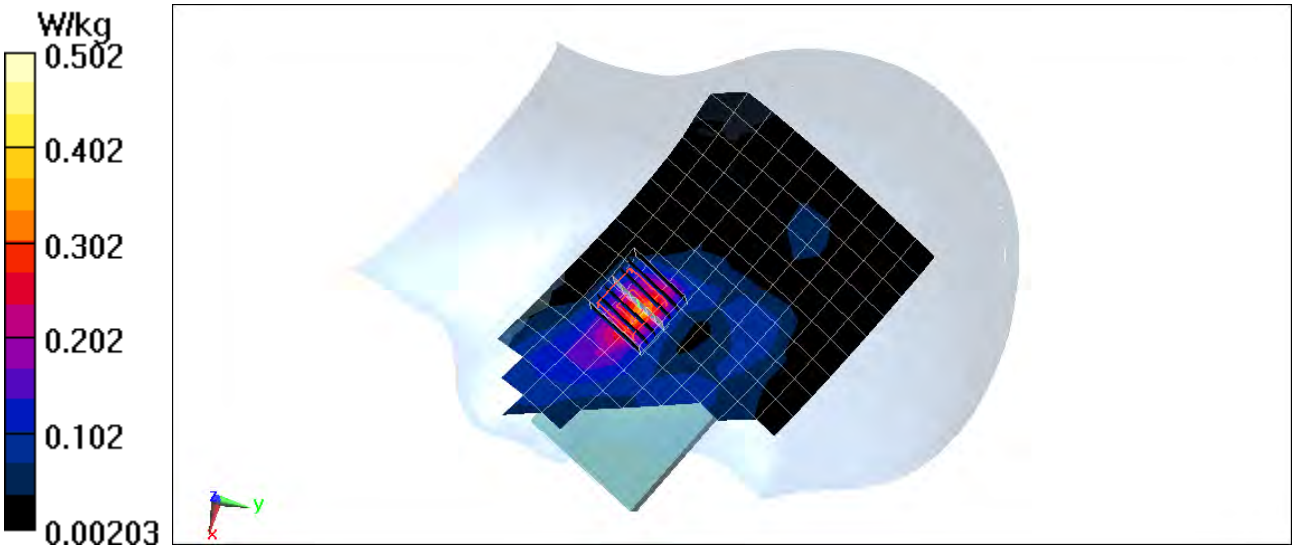
Communication System: UID 0, _LTE Band 7; Frequency: 2510 MHz; Duty Cycle: 1:1
Medium: 2450 Head Medium parameters used (interpolated):
f = 2510 MHz; σ = 1.871 S/m; ε_r = 38.465; ρ = 1000 kg/m^3
Phantom section: Left Section

Test Date: 01-29-2019; Ambient Temp: 23.2°C; Tissue Temp: 21.1°C

Probe: EX3DV4 - SN7410; ConvF(7.5, 7.5, 7.5) @ 2510 MHz; Calibrated: 7/20/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2018
Phantom: SAM Front; Type: SAM; Serial: 1686
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 7, Left Head, Cheek, Low.ch,
QPSK, 20 MHz Bandwidth, 1 RB, 99 RB Offset

Area Scan (11x18x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 14.92 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 0.712 W/kg
SAR(1 g) = 0.313 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0039M

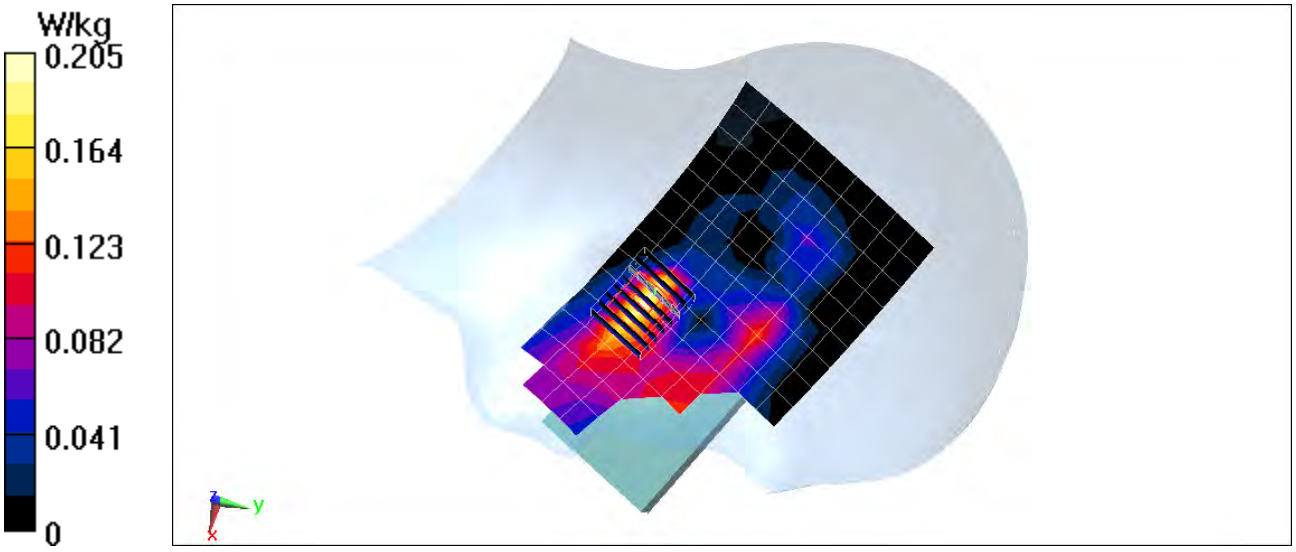
Communication System: UID 0, _LTE Band 41 (Class 2); Frequency: 2636.5 MHz; Duty Cycle: 1:2.31
Medium: 2450 Head Medium parameters used (interpolated):
f = 2636.5 MHz; σ = 2.021 S/m; ε_r = 40.79; ρ = 1000 kg/m^3
Phantom section: Left Section

Test Date: 03-02-2019; Ambient Temp: 20.5°C; Tissue Temp: 20.3°C

Probe: EX3DV4 - SN3589; ConvF(6.25, 6.25, 6.25) @ 2636.5 MHz; Calibrated: 1/25/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1450; Calibrated: 8/22/2018
Phantom: SAM V5.0 Right; Type: QD000P40CD; Serial: 1647
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 41, PC2, ULCA, Left Head, Cheek, Mid-High.ch,
PCC: 20 MHz Bandwidth, QPSK, Ch. 41055, 1 RB, 0 RB Offset
SCC: 20 MHz Bandwidth, QPSK, Ch. 40857, 1 RB, 99 RB Offset

Area Scan (10x17x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (7x8x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 8.896 V/m; Power Drift = 0.08 dB
Peak SAR (extrapolated) = 0.261 W/kg
SAR(1 g) = 0.124 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0003M

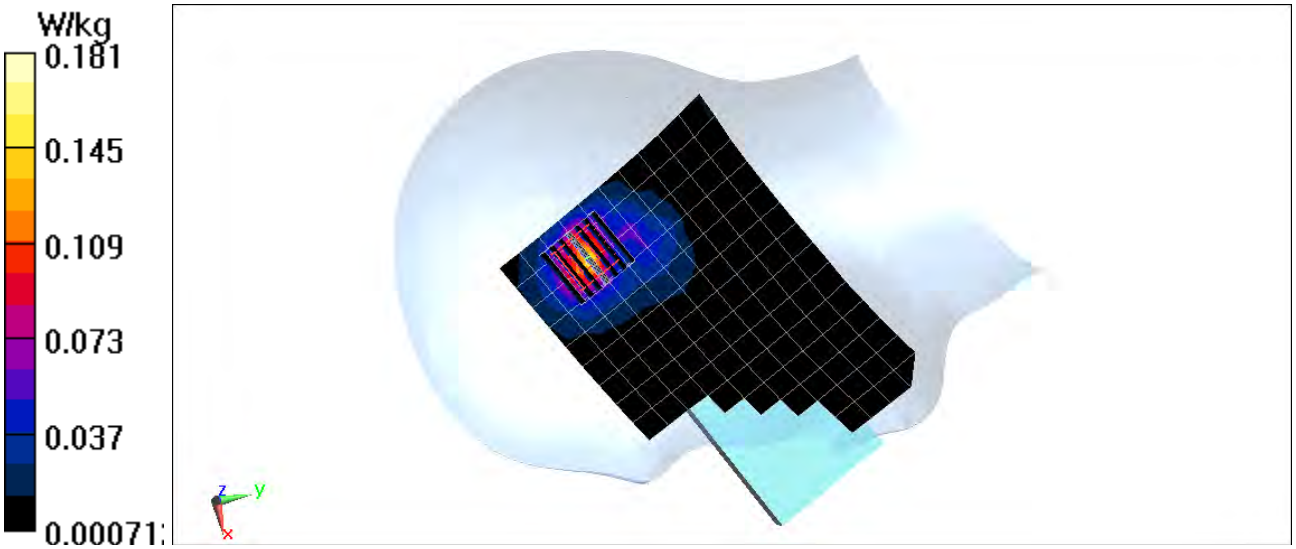
Communication System: UID 0, _IEEE 802.11b; Frequency: 2462 MHz; Duty Cycle: 1:1
Medium: 2300-2600 Head Medium parameters used (interpolated):
f = 2462 MHz; σ = 1.801 S/m; ε_r = 38.214; ρ = 1000 kg/m^3
Phantom section: Right Section

Test Date: 02-05-2019; Ambient Temp: 24.0°C; Tissue Temp: 22.4°C

Probe: EX3DV4 - SN7410; ConvF(7.5, 7.5, 7.5) @ 2462 MHz; Calibrated: 7/20/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2018
Phantom: SAM Front; Type: SAM; Serial: 1686
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: IEEE 802.11b, Antenna 2, 22 MHz Bandwidth,
Right Head, Tilt, Ch 11, 1 Mbps

Area Scan (11x18x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 4.746 V/m; Power Drift = 0.13 dB
Peak SAR (extrapolated) = 0.238 W/kg
SAR(1 g) = 0.090 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0037M

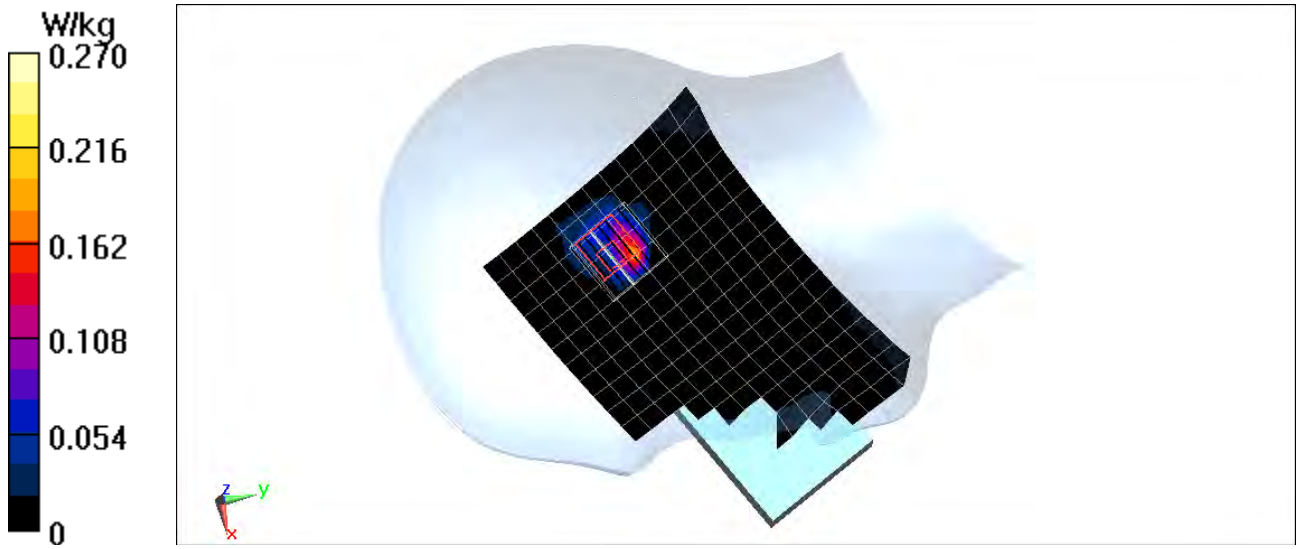
Communication System: UID 0, _IEEE 802.11n; Frequency: 5310 MHz; Duty Cycle: 1:1
Medium: 5GHz Head Medium parameters used (interpolated):
$f = 5310$ MHz; $\sigma = 4.757$ S/m; $\varepsilon_r = 35.947$; $\rho = 1000$ kg/m^3
Phantom section: Right Section

Test Date: 01-28-2019; Ambient Temp: 19.8°C; Tissue Temp: 19.5°C

Probe: EX3DV4 - SN7409; ConvF(5.2, 5.2, 5.2) @ 5310 MHz; Calibrated: 6/25/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1334; Calibrated: 6/18/2018
Phantom: SAM with CRP (Left); Type: SAM; Serial: 1715
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: IEEE 802.11n, U-NII-2A, Antenna 1, 40 MHz Bandwidth,
Right Head, Cheek, Ch 62, 13.5 Mbps

Area Scan (13x20x1): Measurement grid: dx=10mm, dy=10mm
Zoom Scan (9x9x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm; Graded Ratio: 1.4
Reference Value = 5.243 V/m; Power Drift = -0.15 dB
Peak SAR (extrapolated) = 0.399 W/kg
SAR(1 g) = 0.093 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0025M

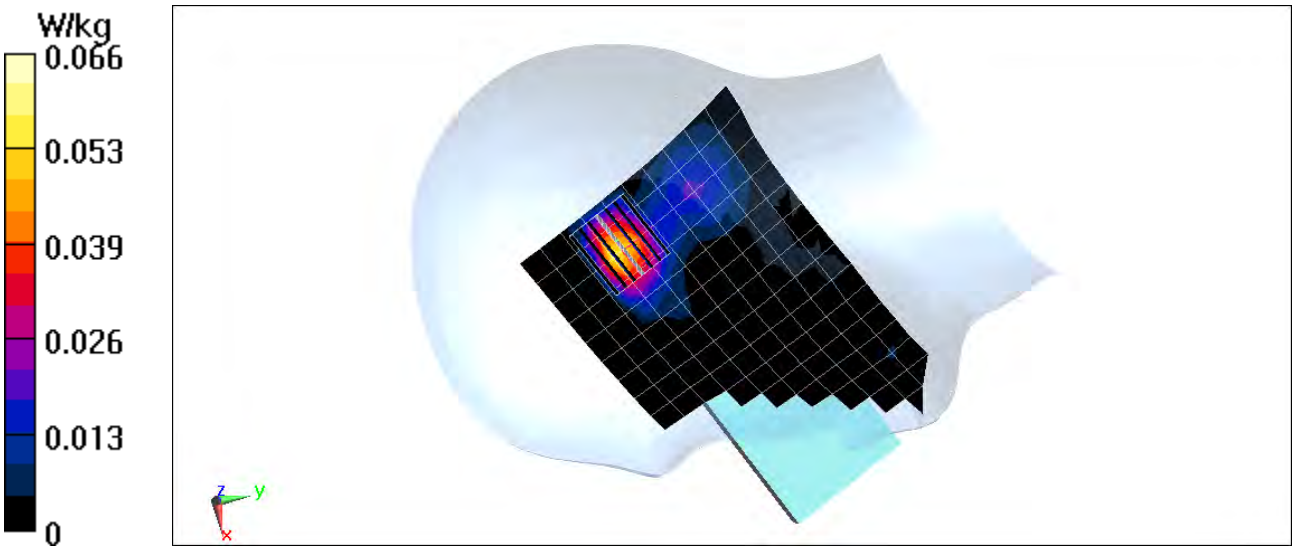
Communication System: UID 0, Bluetooth; Frequency: 2402 MHz; Duty Cycle: 1:1.297
Medium: 2450MHz Head Medium parameters used (interpolated):
f = 2402 MHz; σ = 1.812 S/m; ε_r = 39.29; ρ = 1000 kg/m^3
Phantom section: Right Section

Test Date: 02-11-2019; Ambient Temp: 20.9°C; Tissue Temp: 21.1°C

Probe: EX3DV4 - SN7409; ConvF(7.23, 7.23, 7.23) @ 2402 MHz; Calibrated: 6/25/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1334; Calibrated: 6/18/2018
Phantom: SAM with CRP (Left); Type: SAM; Serial: 1715
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: Bluetooth, Right Head, Tilt, Ch 0, 1 Mbps

Area Scan (11x19x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 4.921 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 0.0930 W/kg
SAR(1 g) = 0.044 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0039M

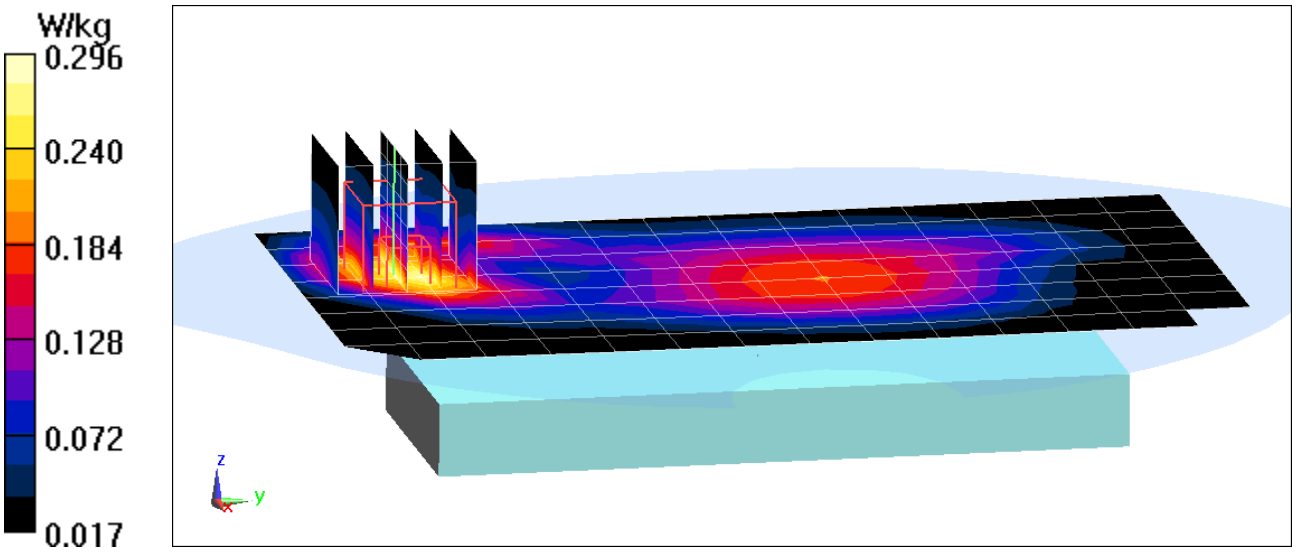
Communication System: UID 0, CDMA; Frequency: 820.1 MHz; Duty Cycle: 1:1
Medium: 835 Body Medium parameters used (interpolated):
$f = 820.1$ MHz; $\sigma = 0.952$ S/m; $\varepsilon_r = 53.128$; $\rho = 1000$ kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 02-11-2019; Ambient Temp: 21.9°C; Tissue Temp: 20.8°C

Probe: EX3DV4 - SN7357; ConvF(10.17, 10.17, 10.17) @ 820.1 MHz; Calibrated: 4/18/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1407; Calibrated: 4/11/2018
Phantom: SAM with CRP v5.0 Front; Type: QD000P40CD; Serial: 1646
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: Cell. CDMA BC10, Rule Part 90S, Body SAR, Back side, Mid.ch

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 15.22 V/m; Power Drift = -0.11 dB
Peak SAR (extrapolated) = 0.349 W/kg
SAR(1 g) = 0.213 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0039M

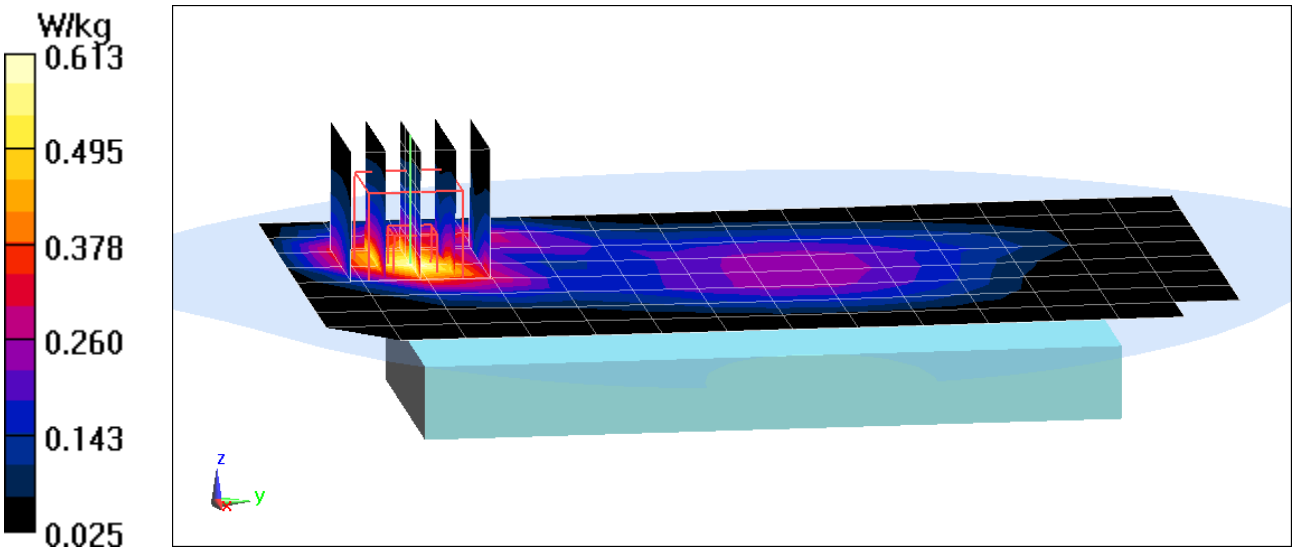
Communication System: UID 0, CDMA; Frequency: 820.1 MHz; Duty Cycle: 1:1
Medium: 835 Body Medium parameters used (interpolated):
f = 820.1 MHz; σ = 0.952 S/m; ε_r = 53.128; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 02-11-2019; Ambient Temp: 21.9°C; Tissue Temp: 20.8°C

Probe: EX3DV4 - SN7357; ConvF(10.17, 10.17, 10.17) @ 820.1 MHz; Calibrated: 4/18/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1407; Calibrated: 4/11/2018
Phantom: SAM with CRP v5.0 Front; Type: QD000P40CD; Serial: 1646
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: Cell. EVDO BC10, Rule Part 90S, Body SAR, Back side, Mid.ch

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 21.72 V/m; Power Drift = -0.15 dB
Peak SAR (extrapolated) = 0.750 W/kg
SAR(1 g) = 0.424 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0039M

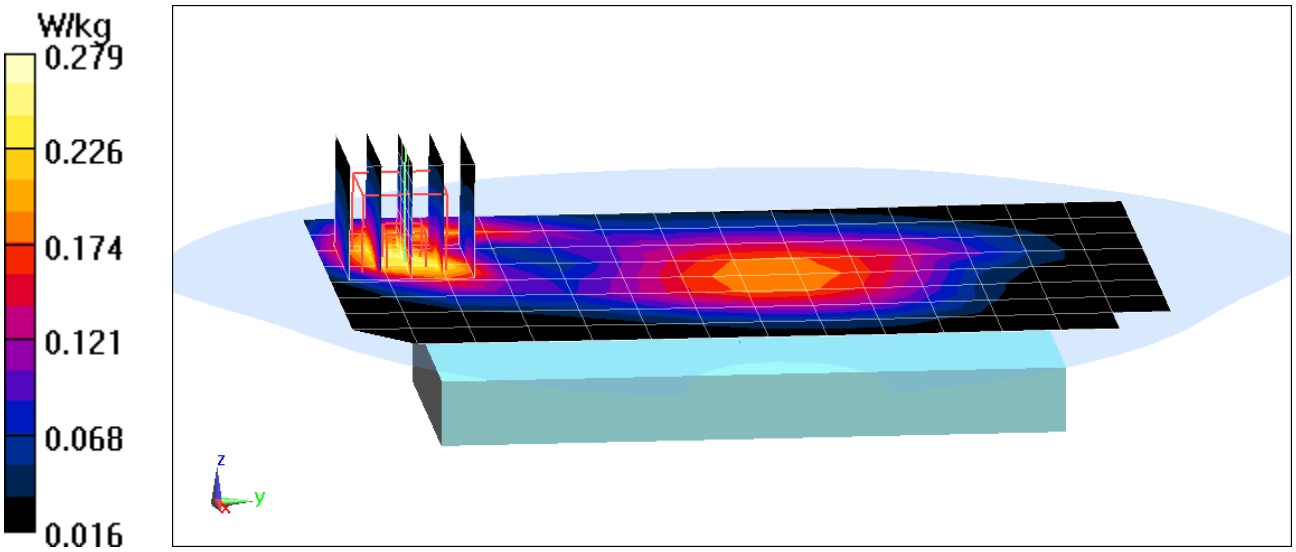
Communication System: UID 0, CDMA; Frequency: 836.52 MHz; Duty Cycle: 1:1
Medium: 835 Body Medium parameters used (interpolated):
f = 836.52 MHz; σ = 0.97 S/m; ε_r = 52.943; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 02-11-2019; Ambient Temp: 21.9°C; Tissue Temp: 20.8°C

Probe: EX3DV4 - SN7357; ConvF(10.17, 10.17, 10.17) @ 836.52 MHz; Calibrated: 4/18/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1407; Calibrated: 4/11/2018
Phantom: SAM with CRP v5.0 Front; Type: QD000P40CD; Serial: 1646
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: Cell. CDMA, Rule Part 22H, Body SAR, Back side, Mid.ch

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 14.95 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 0.324 W/kg
SAR(1 g) = 0.200 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0039M

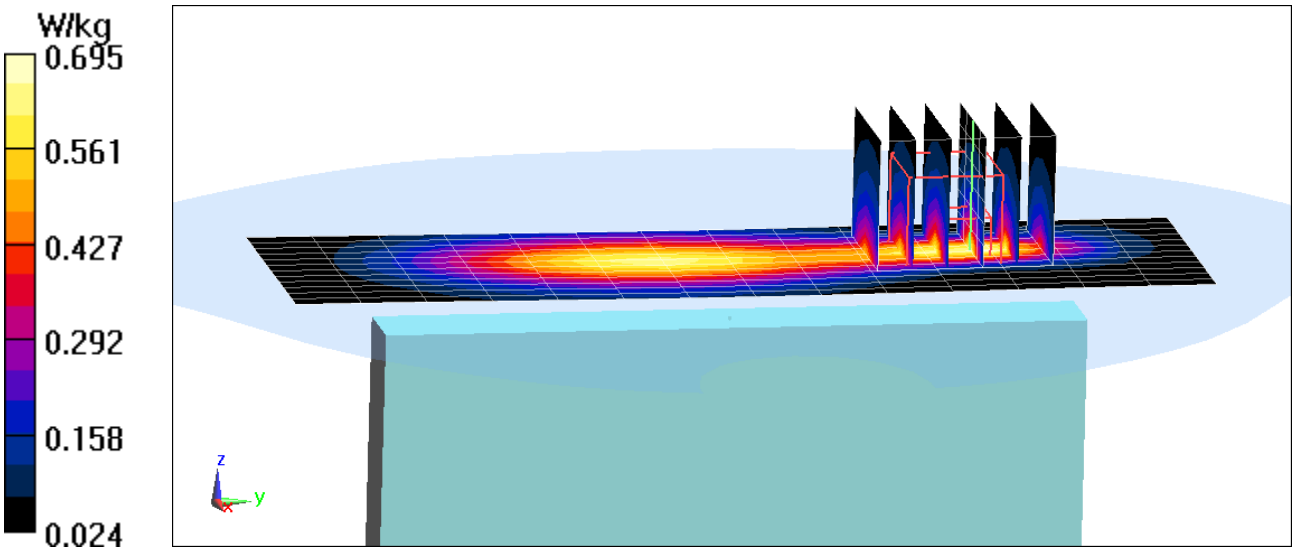
Communication System: UID 0, CDMA; Frequency: 836.52 MHz; Duty Cycle: 1:1
Medium: 835 Body Medium parameters used (interpolated):
f = 836.52 MHz; σ = 0.97 S/m; ε_r = 52.943; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 02-11-2019; Ambient Temp: 21.9°C; Tissue Temp: 20.8°C

Probe: EX3DV4 - SN7357; ConvF(10.17, 10.17, 10.17) @ 836.52 MHz; Calibrated: 4/18/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1407; Calibrated: 4/11/2018
Phantom: SAM with CRP v5.0 Front; Type: QD000P40CD; Serial: 1646
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: Cell. EVDO, Rule Part 22H, Body SAR, Right Edge, Mid.ch

Area Scan (13x15x1): Measurement grid: dx=5mm, dy=15mm
Zoom Scan (5x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 22.80 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 0.834 W/kg
SAR(1 g) = 0.462 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0037M

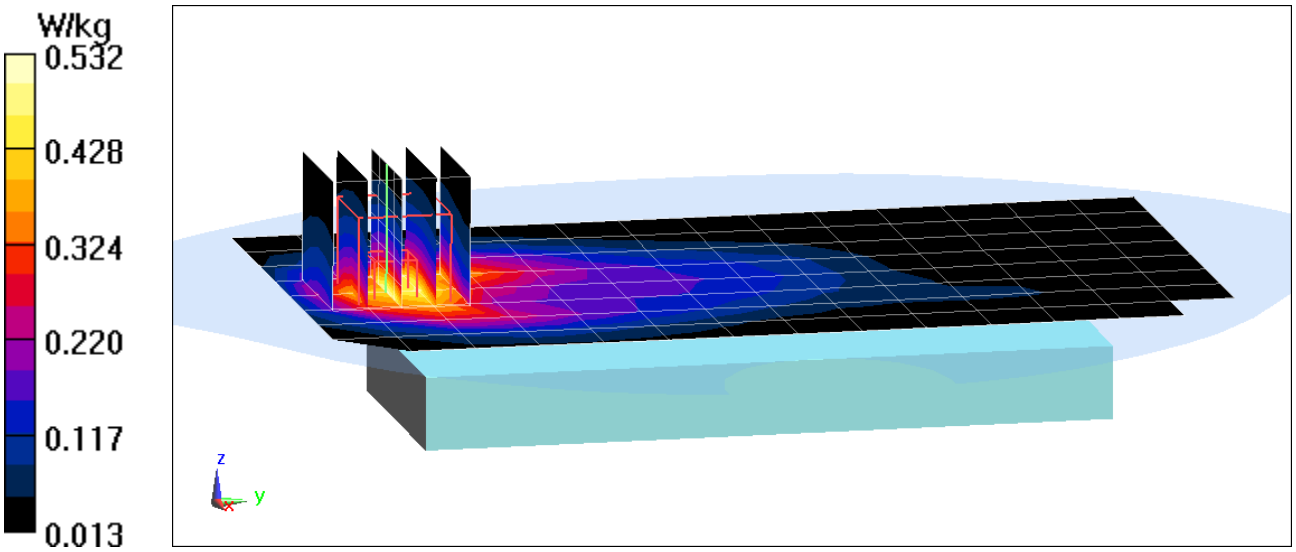
Communication System: UID 0, CDMA; Frequency: 1880 MHz; Duty Cycle: 1:1
Medium: 1900 Body Medium parameters used:
f = 1880 MHz; σ = 1.54 S/m; ε_r = 52.674; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 02-20-2019; Ambient Temp: 20.3°C; Tissue Temp: 22.0°C

Probe: EX3DV4 - SN7488; ConvF(8.37, 8.37, 8.37) @ 1880 MHz; Calibrated: 1/24/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1530; Calibrated: 1/15/2019
Phantom: SAM Left; Type: QD000P40CC; Serial: TP: 1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: PCS CDMA, Body SAR, Back side, Mid.ch

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 16.46 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 0.620 W/kg
SAR(1 g) = 0.376 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0023M

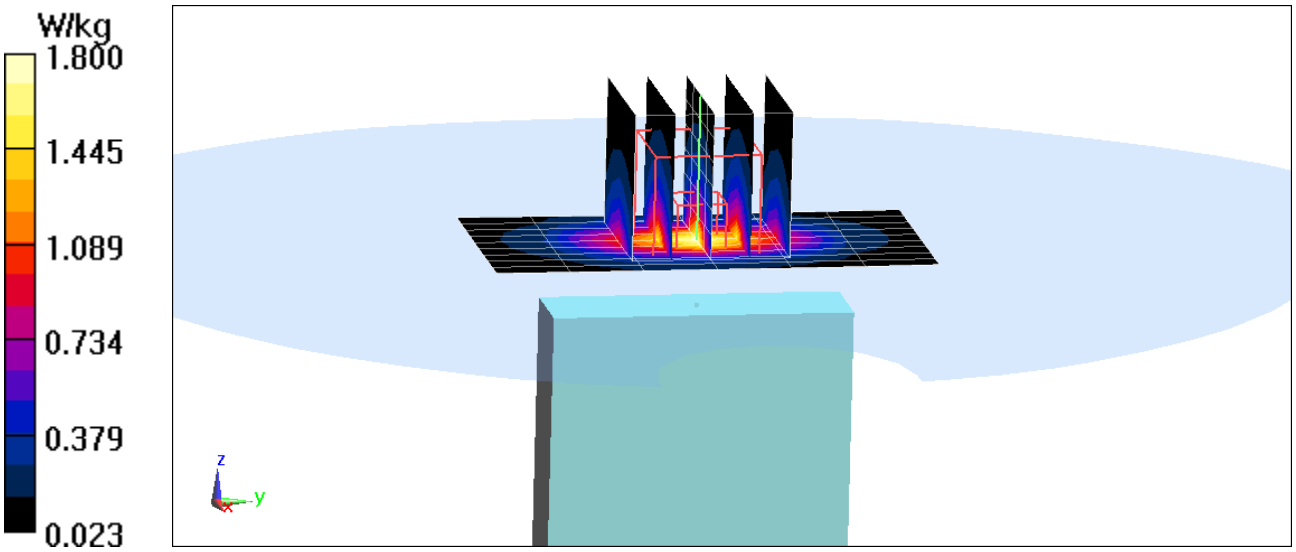
Communication System: UID 0, CDMA; Frequency: 1880 MHz; Duty Cycle: 1:1
Medium: 1900 Body Medium parameters used:
f = 1880 MHz; σ = 1.54 S/m; ε_r = 52.674; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 02-20-2019; Ambient Temp: 20.3°C; Tissue Temp: 22.0°C

Probe: EX3DV4 - SN7488; ConvF(8.37, 8.37, 8.37) @ 1880 MHz; Calibrated: 1/24/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1530; Calibrated: 1/15/2019
Phantom: SAM Left; Type: QD000P40CC; Serial: TP: 1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: PCS EVDO, Body SAR, Bottom Edge, Mid.ch

Area Scan (10x7x1): Measurement grid: dx=5mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 29.19 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 2.12 W/kg
SAR(1 g) = 1.18 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0039M

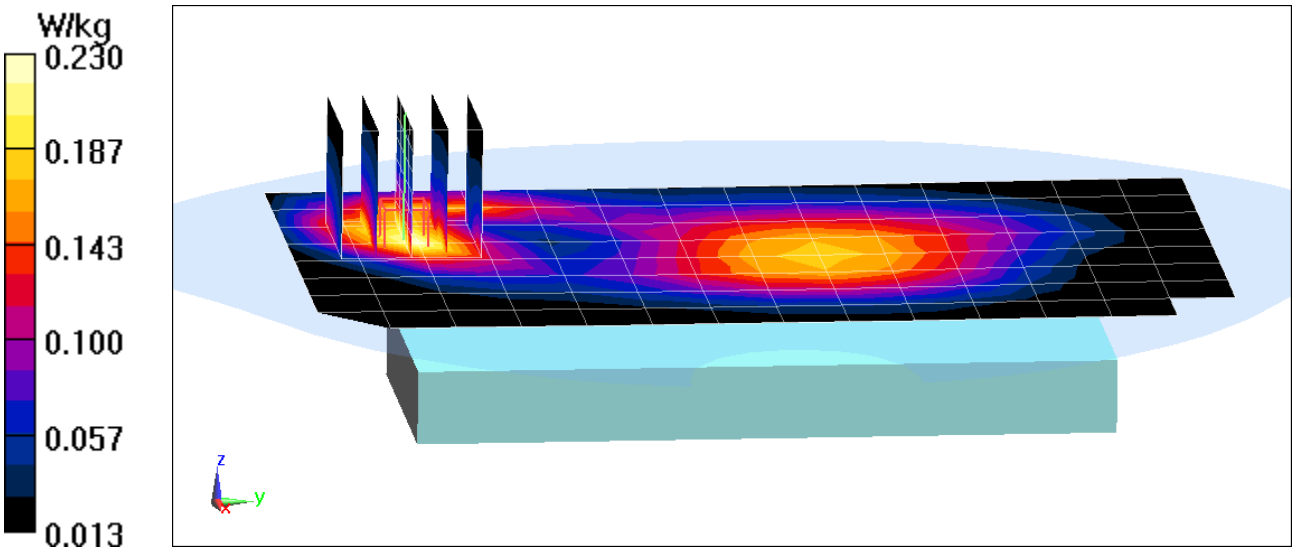
Communication System: UID 0, GSM; Frequency: 836.6 MHz; Duty Cycle: 1:8.3
Medium: 835 Body Medium parameters used (interpolated):
$f = 836.6$ MHz; $\sigma = 0.97$ S/m; $\varepsilon_r = 52.942$; $\rho = 1000$ kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 02-11-2019; Ambient Temp: 21.9°C; Tissue Temp: 20.8°C

Probe: EX3DV4 - SN7357; ConvF(10.17, 10.17, 10.17) @ 836.6 MHz; Calibrated: 4/18/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1407; Calibrated: 4/11/2018
Phantom: SAM with CRP v5.0 Front; Type: QD000P40CD; Serial: 1646
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: GSM 850, Body SAR, Back side, Mid.ch

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 13.50 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 0.265 W/kg
SAR(1 g) = 0.164 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0039M

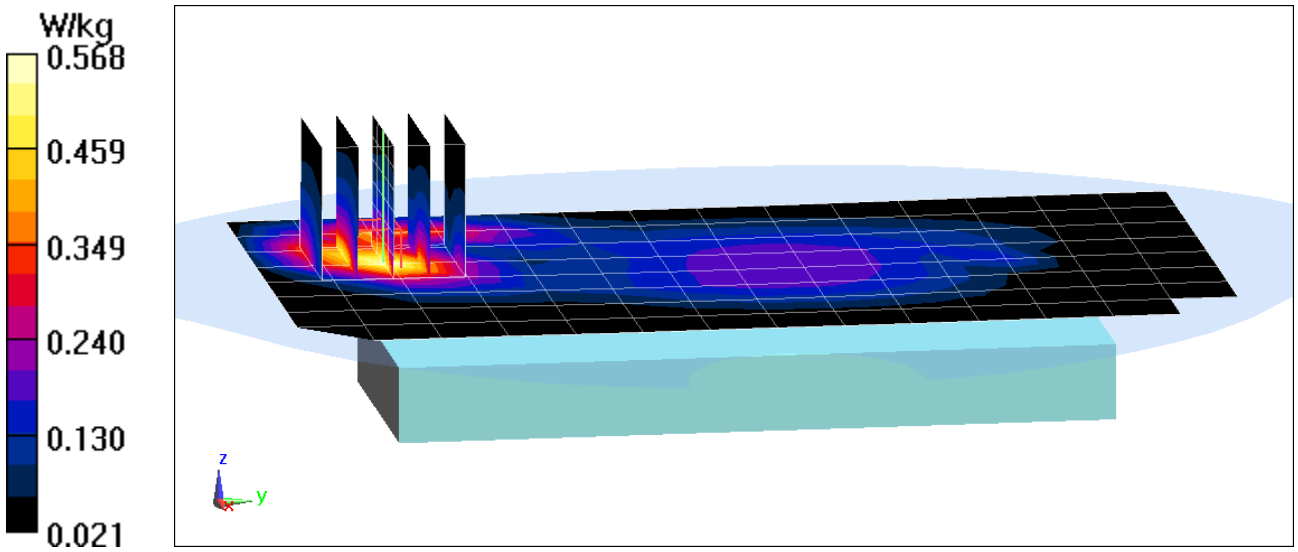
Communication System: UID 0, _GSM GPRS; 3 Tx slots; Frequency: 836.6 MHz; Duty Cycle: 1:2.76
Medium: 835 Body Medium parameters used (interpolated):
f = 836.6 MHz; σ = 0.97 S/m; ε_r = 52.942; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 02-11-2019; Ambient Temp: 21.9°C; Tissue Temp: 20.8°C

Probe: EX3DV4 - SN7357; ConvF(10.17, 10.17, 10.17) @ 836.6 MHz; Calibrated: 4/18/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1407; Calibrated: 4/11/2018
Phantom: SAM with CRP v5.0 Front; Type: QD000P40CD; Serial: 1646
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: GPRS 850, Body SAR, Back side, Mid.ch, 3 Tx Slots

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 20.85 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 0.677 W/kg
SAR(1 g) = 0.384 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0023M

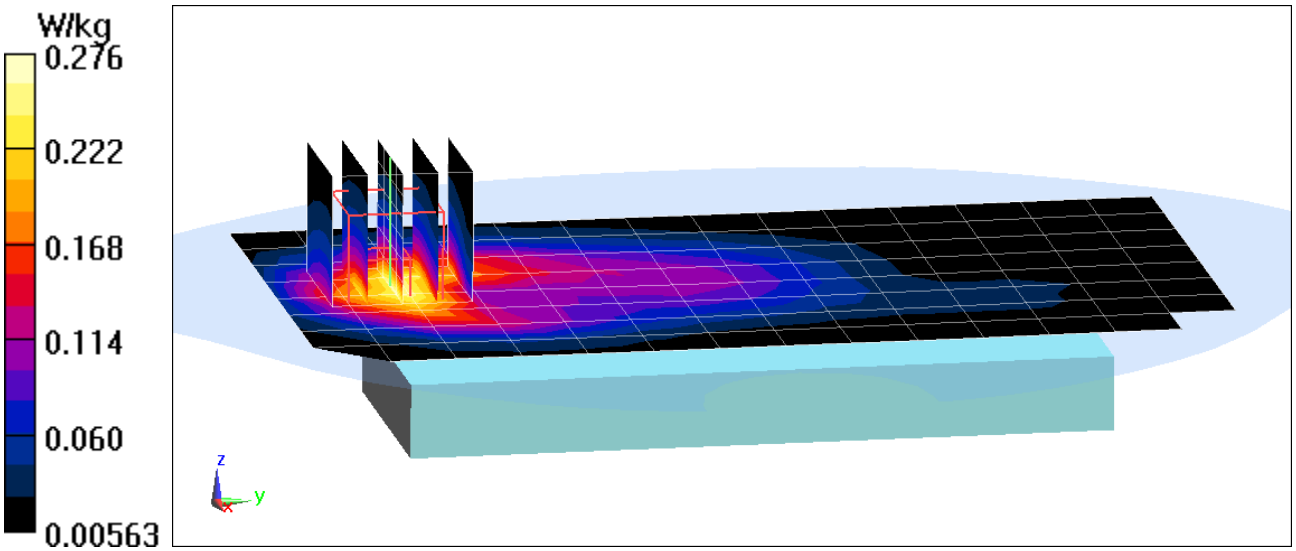
Communication System: UID 0, GSM; Frequency: 1880 MHz; Duty Cycle: 1:8.3
Medium: 1900 Body Medium parameters used:
f = 1880 MHz; σ = 1.54 S/m; ε_r = 52.674; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 02-20-2019; Ambient Temp: 20.3°C; Tissue Temp: 22.0°C

Probe: EX3DV4 - SN7488; ConvF(8.37, 8.37, 8.37) @ 1880 MHz; Calibrated: 1/24/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1530; Calibrated: 1/15/2019
Phantom: SAM Left; Type: QD000P40CC; Serial: TP: 1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: GSM 1900, Body SAR, Back side, Mid.ch

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 11.75 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 0.324 W/kg
SAR(1 g) = 0.195 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0023M

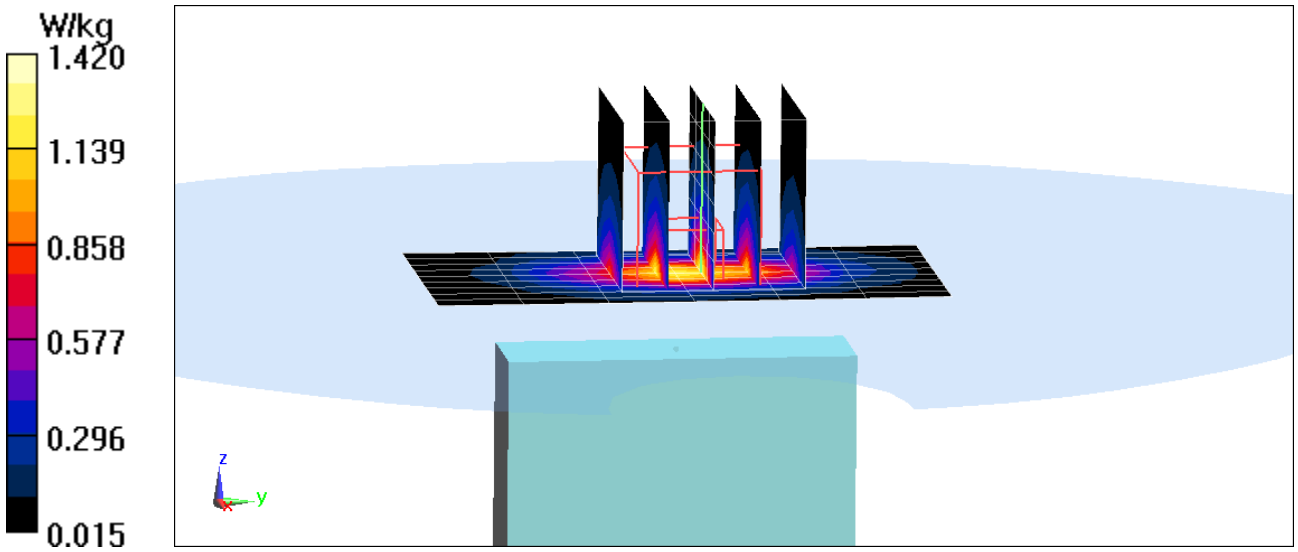
Communication System: UID 0, GSM GPRS; 2 Tx slots; Frequency: 1909.8 MHz; Duty Cycle: 1:4.15
Medium: 1900 Body Medium parameters used:
f = 1910 MHz; σ = 1.573 S/m; ε_r = 52.536; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 02-20-2019; Ambient Temp: 20.3°C; Tissue Temp: 22.0°C

Probe: EX3DV4 - SN7488; ConvF(8.37, 8.37, 8.37) @ 1909.8 MHz; Calibrated: 1/24/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1530; Calibrated: 1/15/2019
Phantom: SAM Left; Type: QD000P40CC; Serial: TP: 1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: GPRS 1900, Body SAR, Bottom Edge, High.ch, 2 Tx Slots

Area Scan (10x7x1): Measurement grid: dx=5mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 25.48 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 1.69 W/kg
SAR(1 g) = 0.924 W/kg



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DUT: A3LSMF900U; Type: Portable Handset; Serial: 0039M

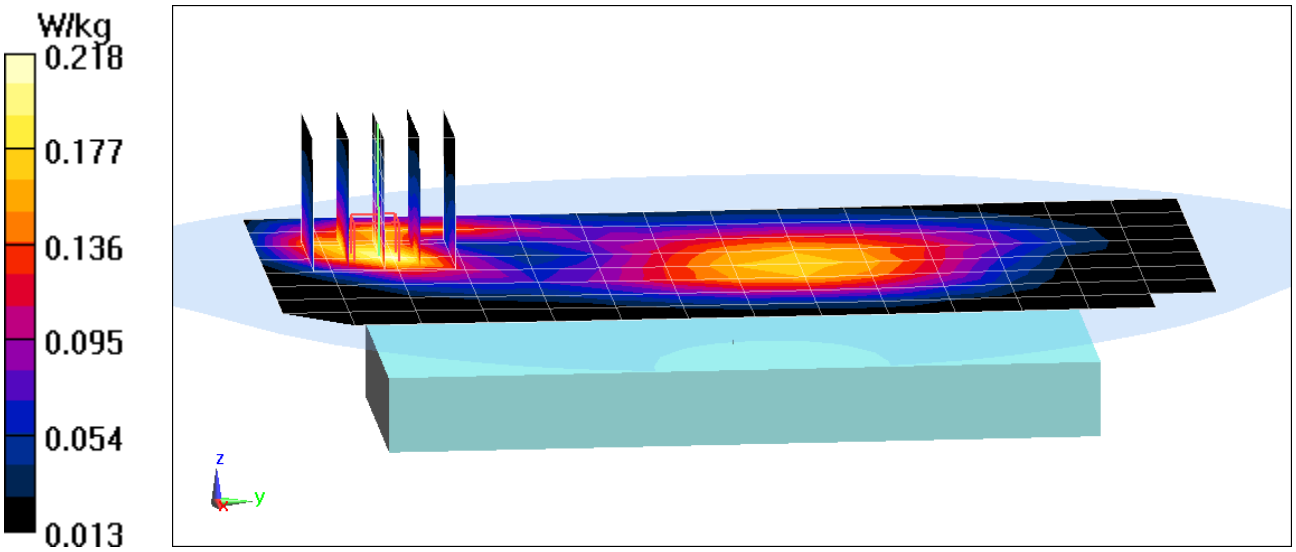
Communication System: UID 0, UMTS; Frequency: 836.6 MHz; Duty Cycle: 1:1
Medium: 835 Body Medium parameters used (interpolated):
f = 836.6 MHz; σ = 0.97 S/m; ε_r = 52.942; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 02-11-2019; Ambient Temp: 21.9°C; Tissue Temp: 20.8°C

Probe: EX3DV4 - SN7357; ConvF(10.17, 10.17, 10.17) @ 836.6 MHz; Calibrated: 4/18/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1407; Calibrated: 4/11/2018
Phantom: SAM with CRP v5.0 Front; Type: QD000P40CD; Serial: 1646
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: UMTS 850, Body SAR, Back side, Mid.ch

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 13.20 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 0.253 W/kg
SAR(1 g) = 0.157 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0039M

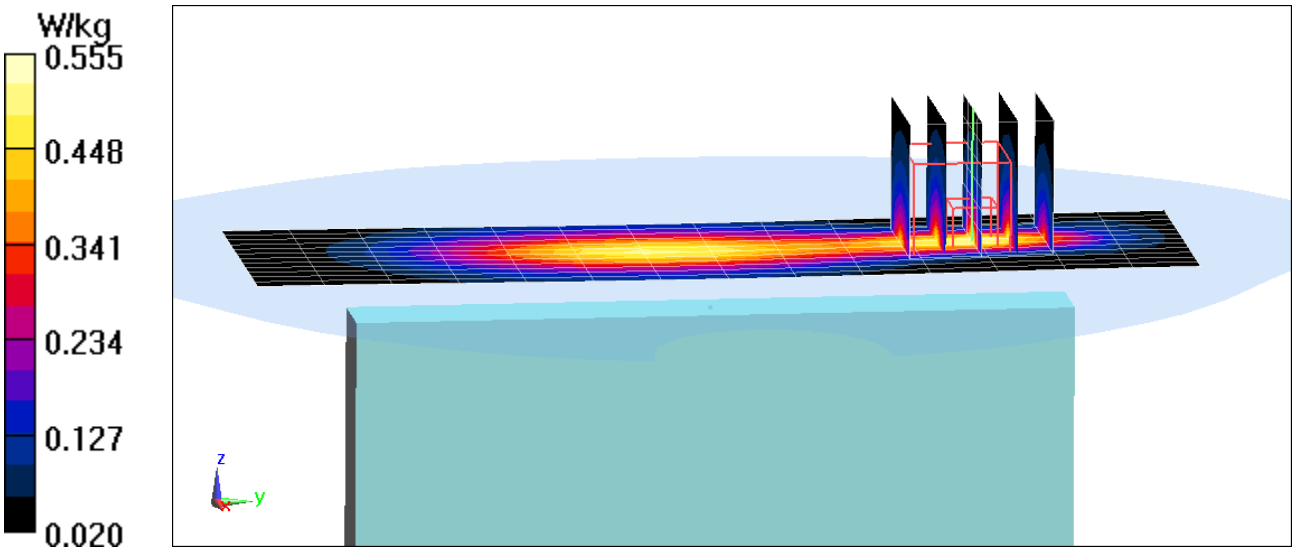
Communication System: UID 0, UMTS; Frequency: 836.6 MHz; Duty Cycle: 1:1
Medium: 835 Body Medium parameters used (interpolated):
f = 836.6 MHz; σ = 0.97 S/m; ε_r = 52.942; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 02-11-2019; Ambient Temp: 21.9°C; Tissue Temp: 20.8°C

Probe: EX3DV4 - SN7357; ConvF(10.17, 10.17, 10.17) @ 836.6 MHz; Calibrated: 4/18/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1407; Calibrated: 4/11/2018
Phantom: SAM with CRP v5.0 Front; Type: QD000P40CD; Serial: 1646
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: UMTS 850, Body SAR, Right Edge, Mid.ch

Area Scan (13x15x1): Measurement grid: dx=5mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 20.46 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 0.671 W/kg
SAR(1 g) = 0.372 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0003M

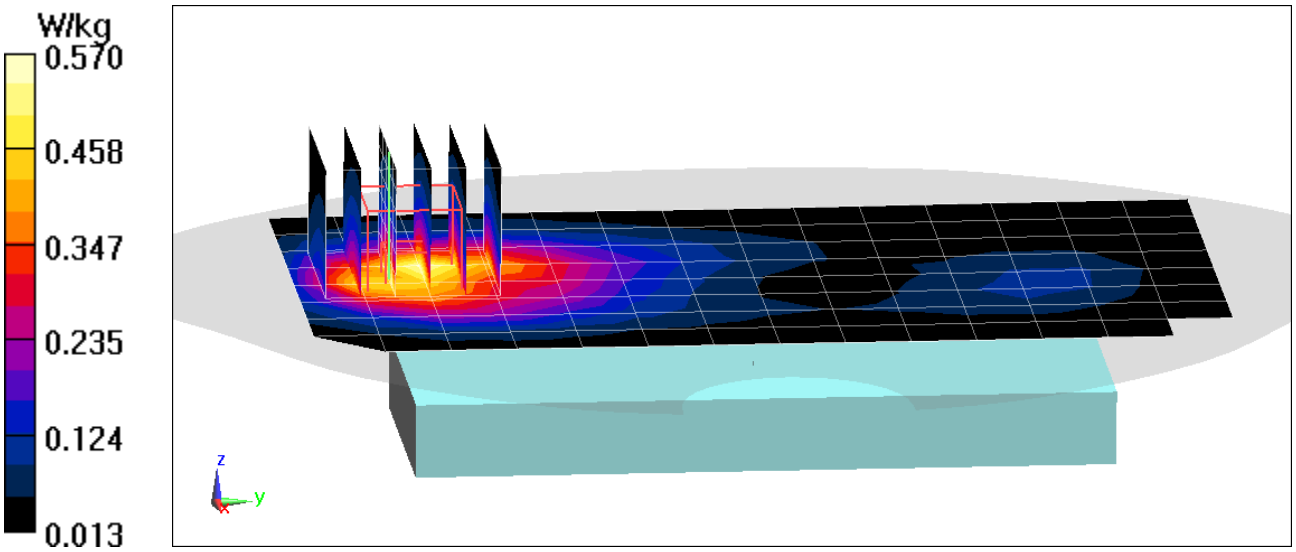
Communication System: UID 0, UMTS; Frequency: 1752.6 MHz; Duty Cycle: 1:1
Medium: 1750 Body Medium parameters used (interpolated):
f = 1752.6 MHz; σ = 1.52 S/m; ε_r = 51.064; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 01-24-2019; Ambient Temp: 20.8°C; Tissue Temp: 20.2°C

Probe: ES3DV3 - SN3347; ConvF(5.17, 5.17, 5.17) @ 1752.6 MHz; Calibrated: 3/27/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn665; Calibrated: 2/15/2018
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1800
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: UMTS 1750, Body SAR, Back side, High.ch

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
/Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 18.73 V/m; Power Drift = -0.17 dB
Peak SAR (extrapolated) = 0.772 W/kg
SAR(1 g) = 0.493 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0045M

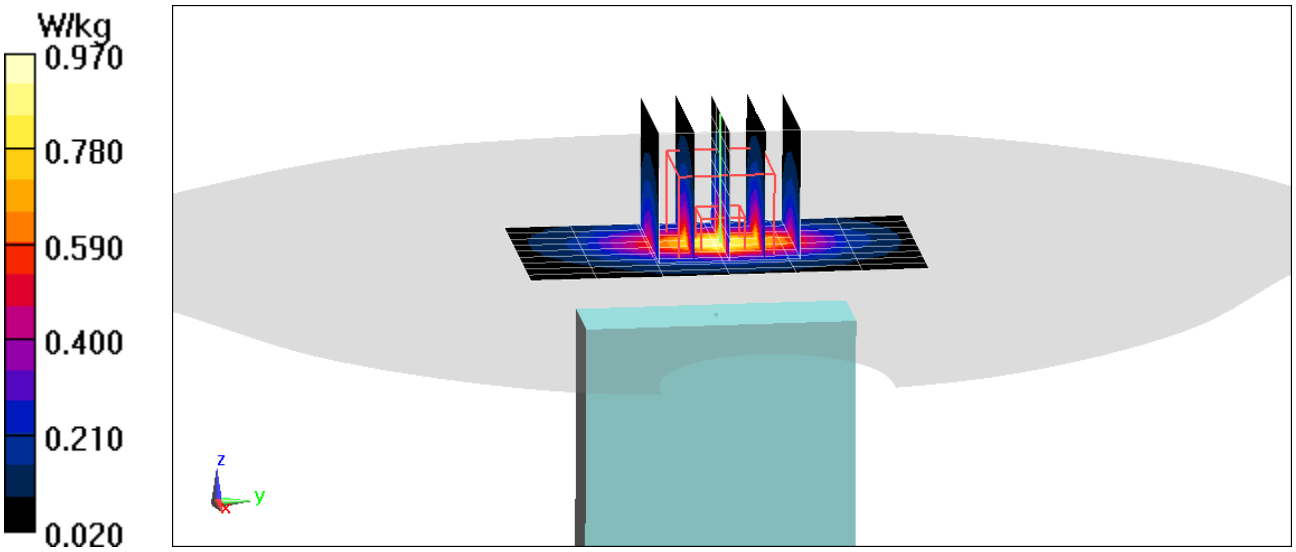
Communication System: UID 0, UMTS; Frequency: 1732.4 MHz; Duty Cycle: 1:1
Medium: 1750 Body Medium parameters used (interpolated):
f = 1732.4 MHz; σ = 1.474 S/m; ε_r = 51.256; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-28-2019; Ambient Temp: 20.3°C; Tissue Temp: 20.4°C

Probe: ES3DV3 - SN3347; ConvF(5.17, 5.17, 5.17) @ 1732.4 MHz; Calibrated: 3/27/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn665; Calibrated: 2/15/2018
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1800
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: UMTS 1750, Body SAR, Bottom Edge, Mid.ch

Area Scan (10x7x1): Measurement grid: dx=5mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 24.89 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 1.29 W/kg
SAR(1 g) = 0.770 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0020M

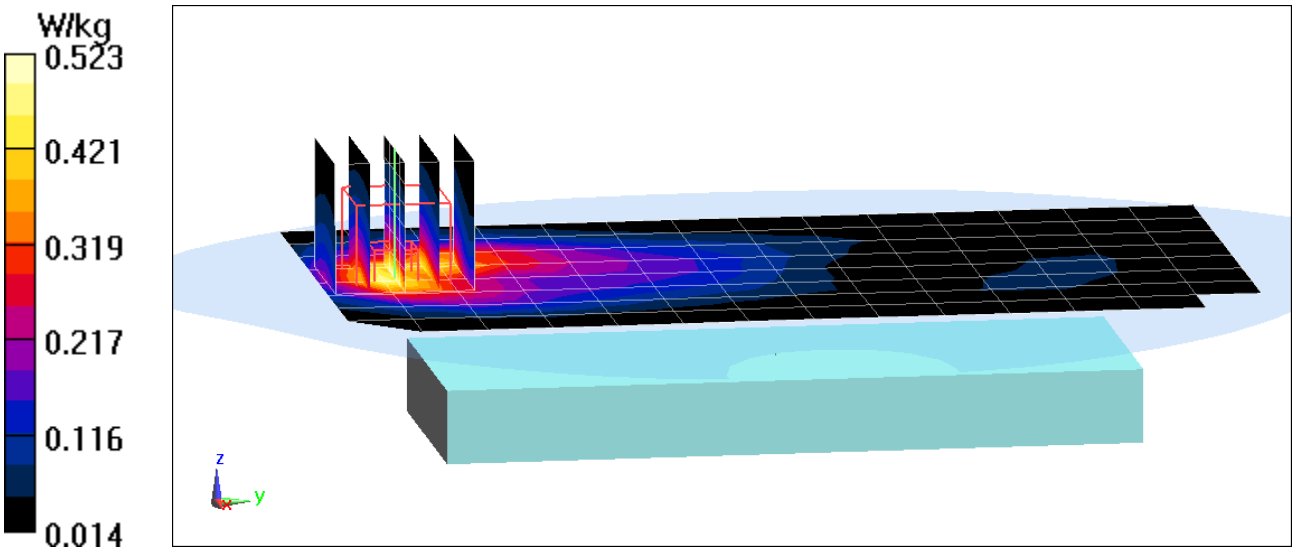
Communication System: UID 0, UMTS; Frequency: 1880 MHz; Duty Cycle: 1:1
Medium: 1900 Body Medium parameters used:
f = 1880 MHz; σ = 1.554 S/m; ε_r = 53.932; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 01-31-2019; Ambient Temp: 23.3°C; Tissue Temp: 21.2°C

Probe: ES3DV3 - SN3332; ConvF(4.77, 4.77, 4.77) @ 1880 MHz; Calibrated: 8/22/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1272; Calibrated: 2/9/2018
Phantom: SAM 5.0 front; Type: QD000P40CD; Serial: 1648
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: UMTS 1900, Body SAR, Back side, Mid.ch

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 17.97 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 0.691 W/kg
SAR(1 g) = 0.432 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0045M

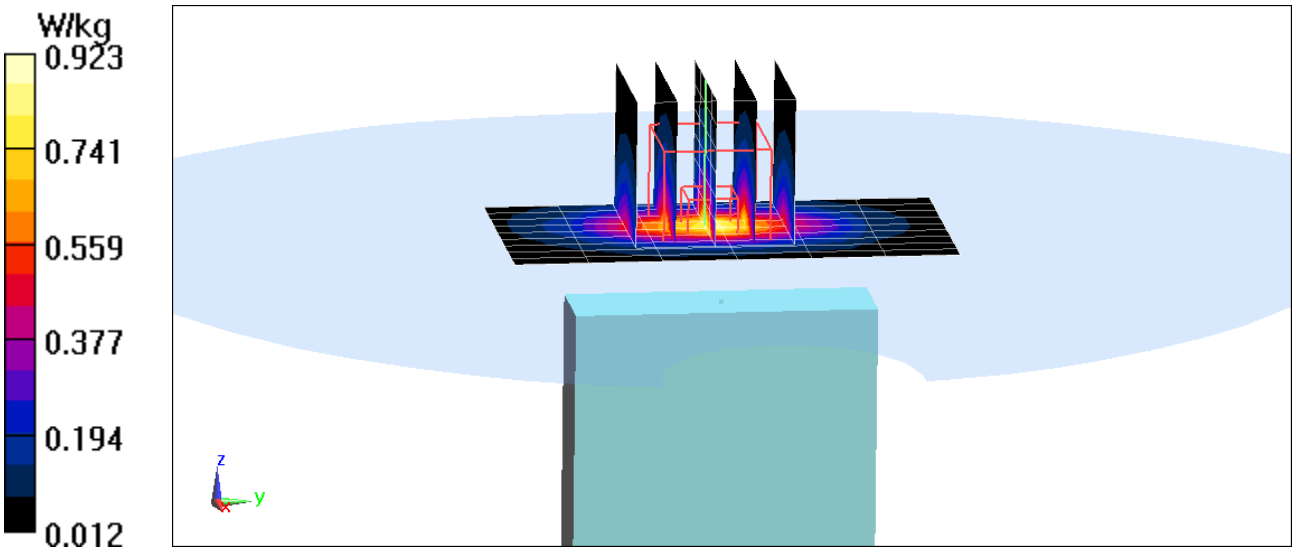
Communication System: UID 0, _UMTS; Frequency: 1907.6 MHz; Duty Cycle: 1:1
Medium: 1900 Body Medium parameters used (interpolated):
f = 1907.6 MHz; σ = 1.584 S/m; ε_r = 53.822; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-31-2019; Ambient Temp: 23.3°C; Tissue Temp: 21.2°C

Probe: ES3DV3 - SN3332; ConvF(4.77, 4.77, 4.77) @ 1907.6 MHz; Calibrated: 8/22/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1272; Calibrated: 2/9/2018
Phantom: SAM 5.0 front; Type: QD000P40CD; Serial: 1648
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: UMTS 1900, Body SAR, Bottom Edge, High.ch

Area Scan (10x7x1): Measurement grid: dx=5mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 23.48 V/m; Power Drift = -0.10 dB
Peak SAR (extrapolated) = 1.27 W/kg
SAR(1 g) = 0.741 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0004M

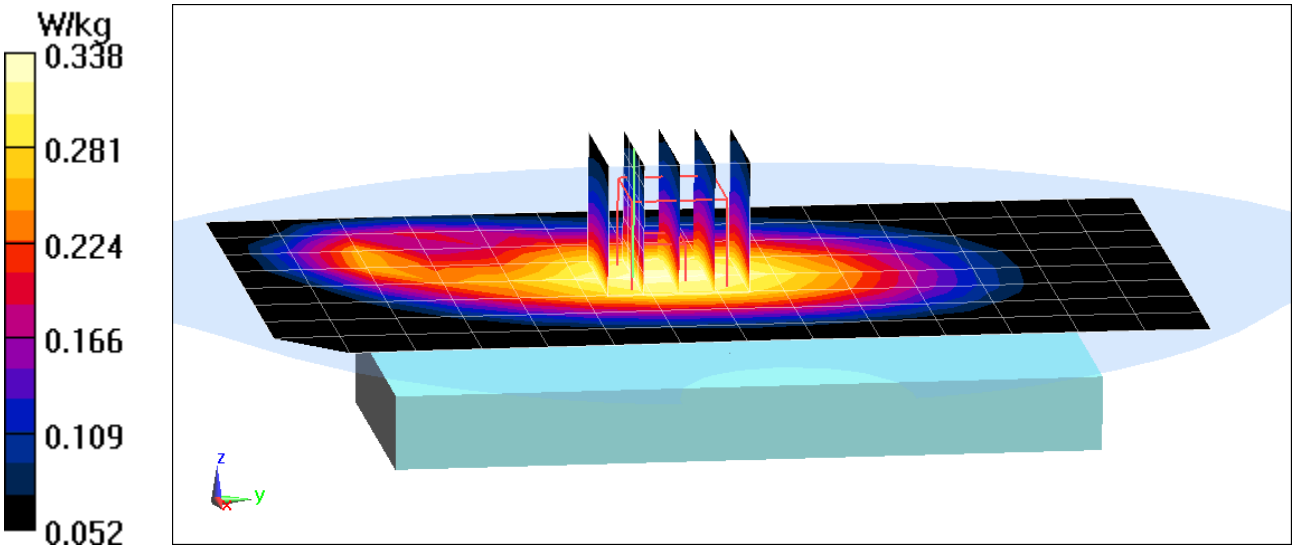
Communication System: UID 0, LTE Band 71; Frequency: 680.5 MHz; Duty Cycle: 1:1
Medium: 750 Body Medium parameters used (interpolated):
f = 680.5 MHz; σ = 0.95 S/m; ε_r = 53.394; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 02-11-2019; Ambient Temp: 21.9°C; Tissue Temp: 21.1°C

Probe: EX3DV4 - SN3589; ConvF(8.34, 8.34, 8.34) @ 680.5 MHz; Calibrated: 1/25/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1450; Calibrated: 8/22/2018
Phantom: SAM 5.0 front; Type: QD000P40CD; Serial: 1648
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 71, Body SAR, Back side, Mid.ch,
20 MHz Bandwidth, QPSK, 1 RB, 0 RB Offset

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 17.19 V/m; Power Drift = -0.09 dB
Peak SAR (extrapolated) = 0.373 W/kg
SAR(1 g) = 0.274 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0025M

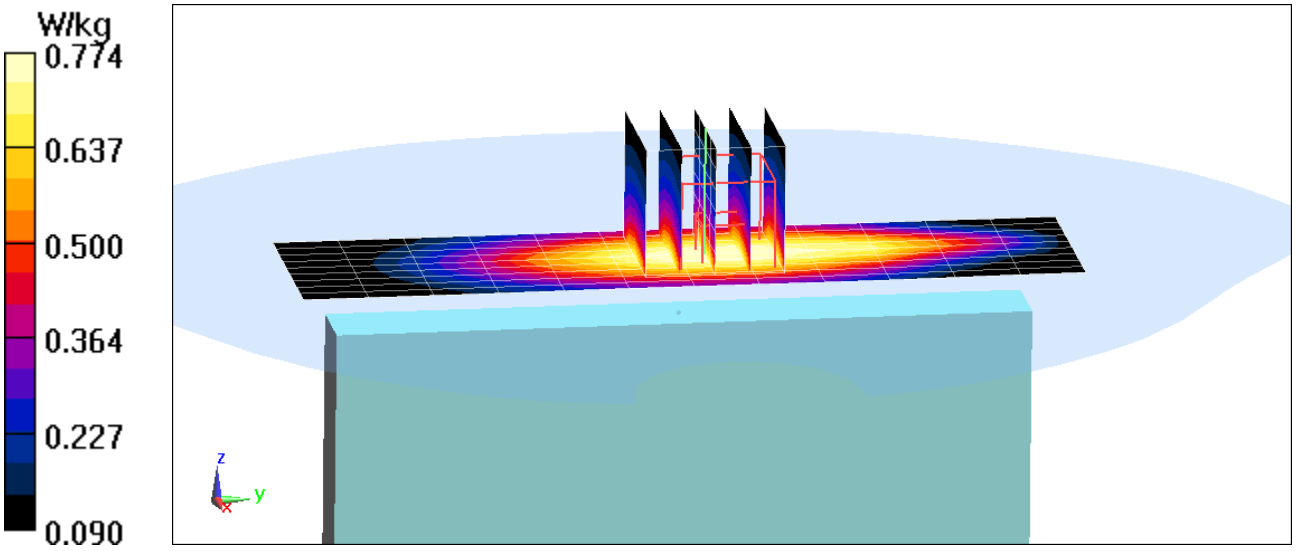
Communication System: UID 0, LTE Band 71; Frequency: 680.5 MHz; Duty Cycle: 1:1
Medium: 750 Body Medium parameters used (interpolated):
f = 680.5 MHz; σ = 0.931 S/m; ε_r = 54.251; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 03-05-2019; Ambient Temp: 21.7°C; Tissue Temp: 20.7°C

Probe: EX3DV4 - SN7488; ConvF(11.28, 11.28, 11.28) @ 680.5 MHz; Calibrated: 1/24/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1530; Calibrated: 1/15/2019
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1800
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 71, Body SAR, Right Edge, Mid.ch,
20 MHz Bandwidth, QPSK, 1 RB, 0 RB Offset

Area Scan (10x7x1): Measurement grid: dx=5mm, dy=15mm
Zoom Scan (5x8x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 22.06 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 0.690 W/kg
SAR(1 g) = 0.466 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0004M

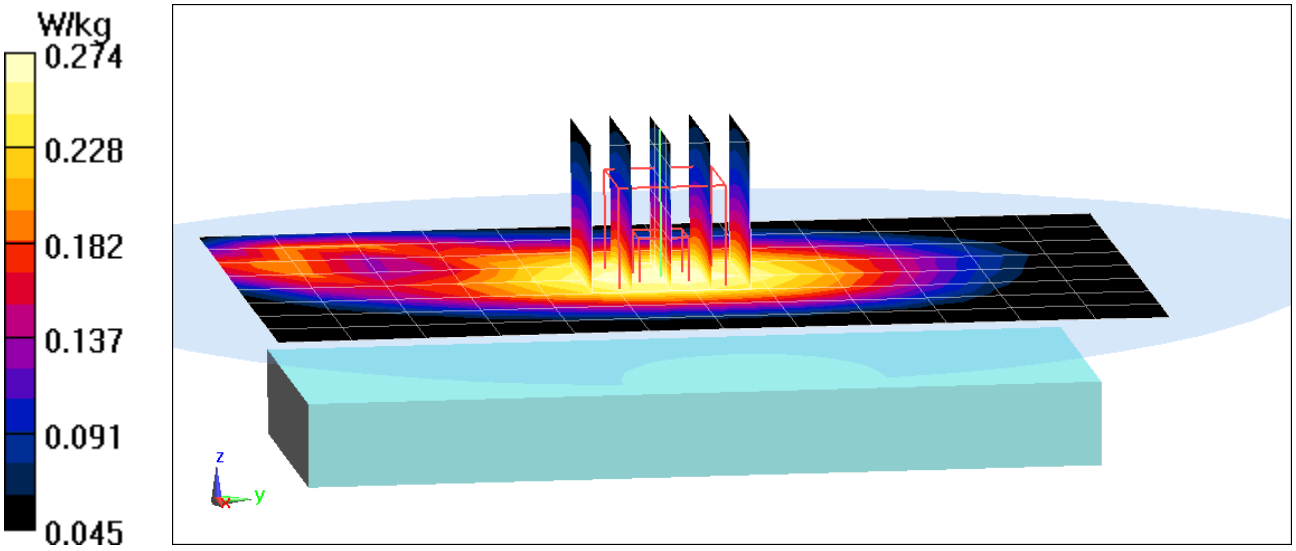
Communication System: UID 0, LTE Band 12; Frequency: 707.5 MHz; Duty Cycle: 1:1
Medium: 750 Body Medium parameters used (interpolated):
f = 707.5 MHz; σ = 0.96 S/m; ε_r = 53.32; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 02-11-2019; Ambient Temp: 21.9°C; Tissue Temp: 21.1°C

Probe: EX3DV4 - SN3589; ConvF(8.34, 8.34, 8.34) @ 707.5 MHz; Calibrated: 1/25/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1450; Calibrated: 8/22/2018
Phantom: SAM 5.0 front; Type: QD000P40CD; Serial: 1648
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 12, Body SAR, Back side, Mid.ch,
10 MHz Bandwidth, QPSK, 1 RB, 25 RB Offset

Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 15.43 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 0.300 W/kg
SAR(1 g) = 0.223 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0004M

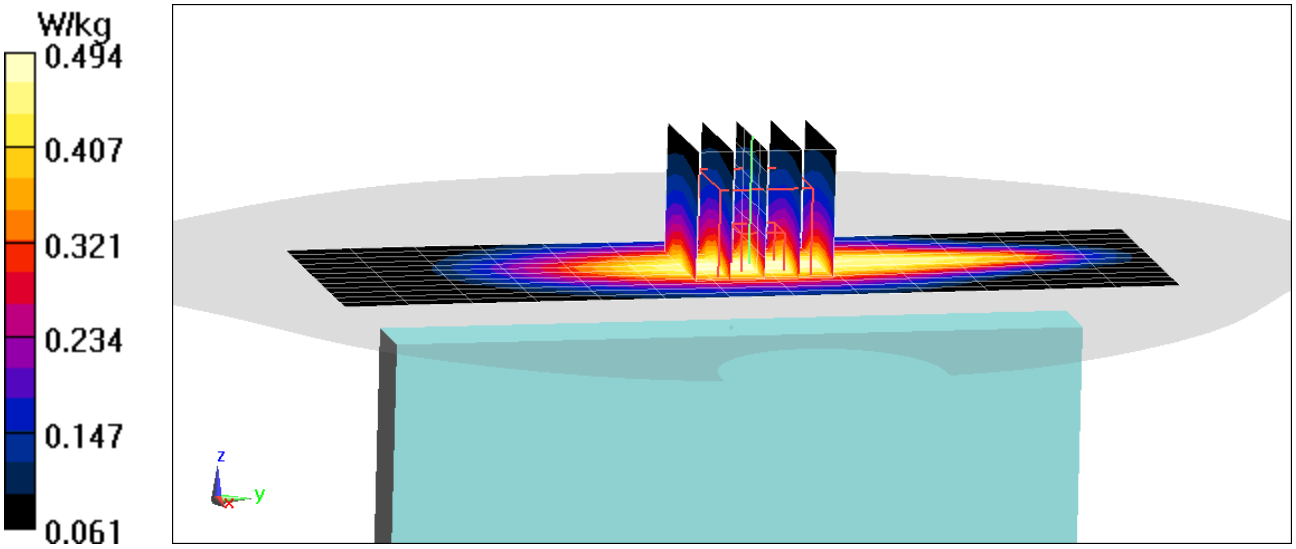
Communication System: UID 0, LTE Band 12; Frequency: 707.5 MHz; Duty Cycle: 1:1
Medium: 750 Body Medium parameters used (interpolated):
f = 707.5 MHz; σ = 0.941 S/m; ε_r = 54.163; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 03-05-2019; Ambient Temp: 21.7°C; Tissue Temp: 20.7°C

Probe: EX3DV4 - SN7488; ConvF(11.28, 11.28, 11.28) @ 707.5 MHz; Calibrated: 1/24/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1530; Calibrated: 1/15/2019
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1800
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 12, Body SAR, Right Edge, Mid.ch,
10 MHz Bandwidth, QPSK, 1 RB, 25 RB Offset

Area Scan (13x14x1): Measurement grid: dx=5mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 20.47 V/m; Power Drift = 0.00 dB
Peak SAR (extrapolated) = 0.558 W/kg
SAR(1 g) = 0.378 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0004M

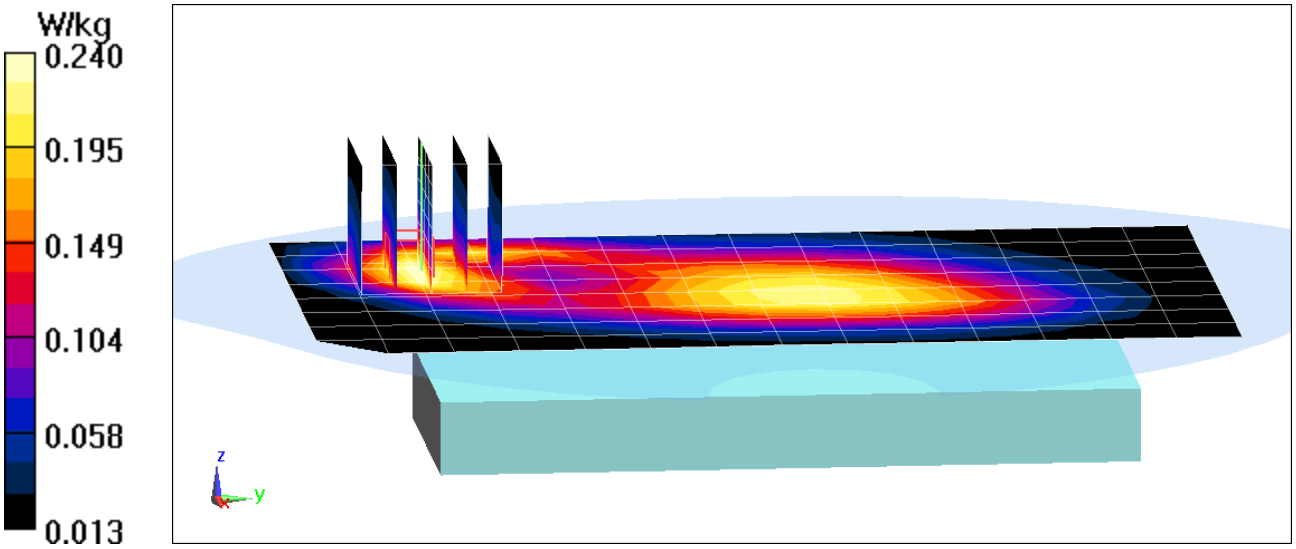
Communication System: UID 0, LTE Band 13; Frequency: 782 MHz; Duty Cycle: 1:1
Medium: 750 Body Medium parameters used (interpolated):
f = 782 MHz; σ = 0.988 S/m; ε_r = 53.098; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 02-11-2019; Ambient Temp: 21.9°C; Tissue Temp: 21.1°C

Probe: EX3DV4 - SN3589; ConvF(8.34, 8.34, 8.34) @ 782 MHz; Calibrated: 1/25/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1450; Calibrated: 8/22/2018
Phantom: SAM 5.0 front; Type: QD000P40CD; Serial: 1648
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 13, Body SAR, Back side, Mid.ch,
10 MHz Bandwidth, QPSK, 1 RB, 49 RB Offset

Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 13.62 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 0.299 W/kg
SAR(1 g) = 0.174 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0004M

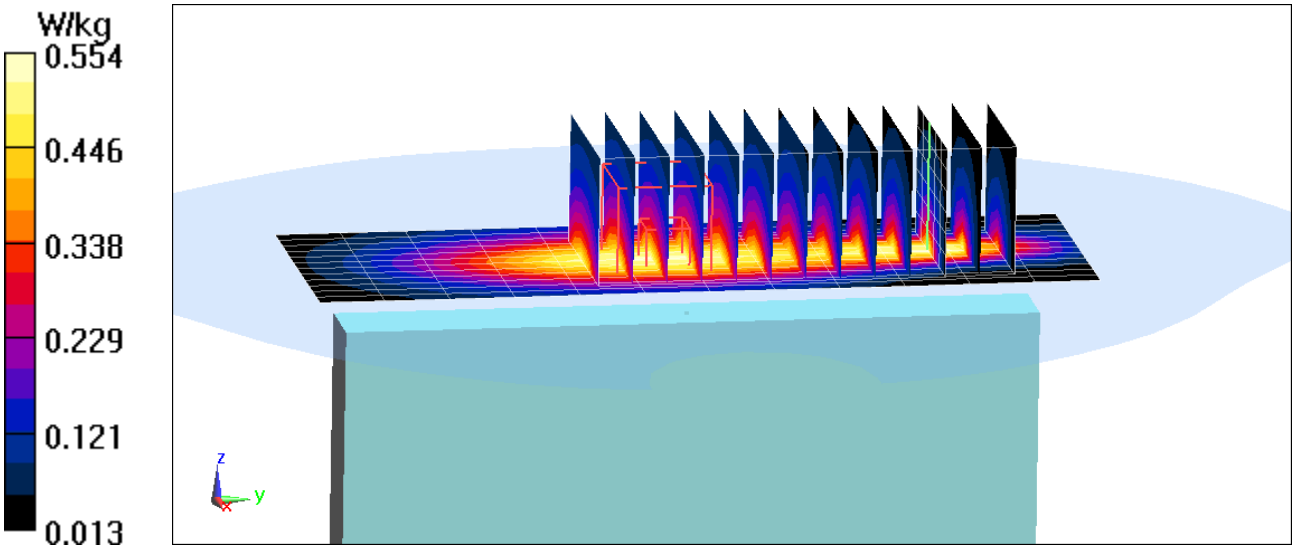
Communication System: UID 0, LTE Band 13; Frequency: 782 MHz; Duty Cycle: 1:1
Medium: 750 Body Medium parameters used (interpolated):
f = 782 MHz; σ = 0.988 S/m; ε_r = 53.098; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 02-11-2019; Ambient Temp: 21.9°C; Tissue Temp: 21.1°C

Probe: EX3DV4 - SN3589; ConvF(8.34, 8.34, 8.34) @ 782 MHz; Calibrated: 1/25/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1450; Calibrated: 8/22/2018
Phantom: SAM 5.0 front; Type: QD000P40CD; Serial: 1648
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 13, Body SAR, Right Edge, Mid.ch,
10 MHz Bandwidth, QPSK, 1 RB, 49 RB Offset

Area Scan (13x13x1): Measurement grid: dx=5mm, dy=15mm
Zoom Scan (6x13x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 20.14 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 0.656 W/kg
SAR(1 g) = 0.401 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0020M

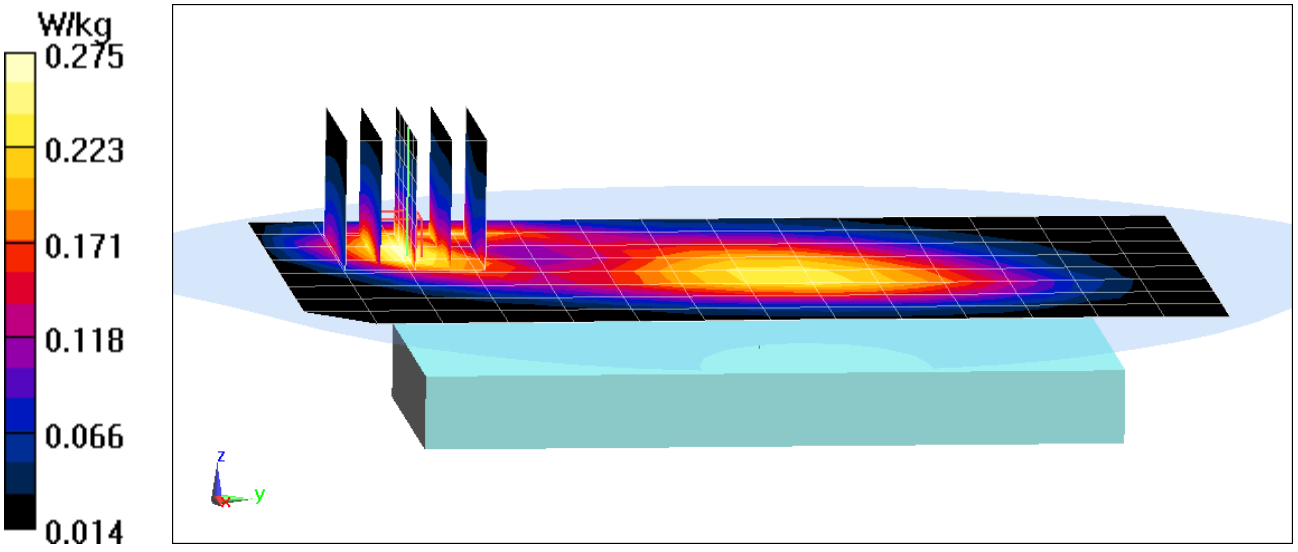
Communication System: UID 0, LTE Band 14; Frequency: 793 MHz; Duty Cycle: 1:1
Medium: 750 Body Medium parameters used (interpolated):
f = 793 MHz; σ = 0.992 S/m; ε_r = 53.069; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 02-11-2019; Ambient Temp: 21.9°C; Tissue Temp: 21.1°C

Probe: EX3DV4 - SN3589; ConvF(8.34, 8.34, 8.34) @ 793 MHz; Calibrated: 1/25/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1450; Calibrated: 8/22/2018
Phantom: SAM 5.0 front; Type: QD000P40CD; Serial: 1648
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 14, Body SAR, Back side, Mid.ch,
10 MHz Bandwidth, QPSK, 1 RB, 25 RB Offset

Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (6x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 14.46 V/m; Power Drift = -0.14 dB
Peak SAR (extrapolated) = 0.344 W/kg
SAR(1 g) = 0.201 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0020M

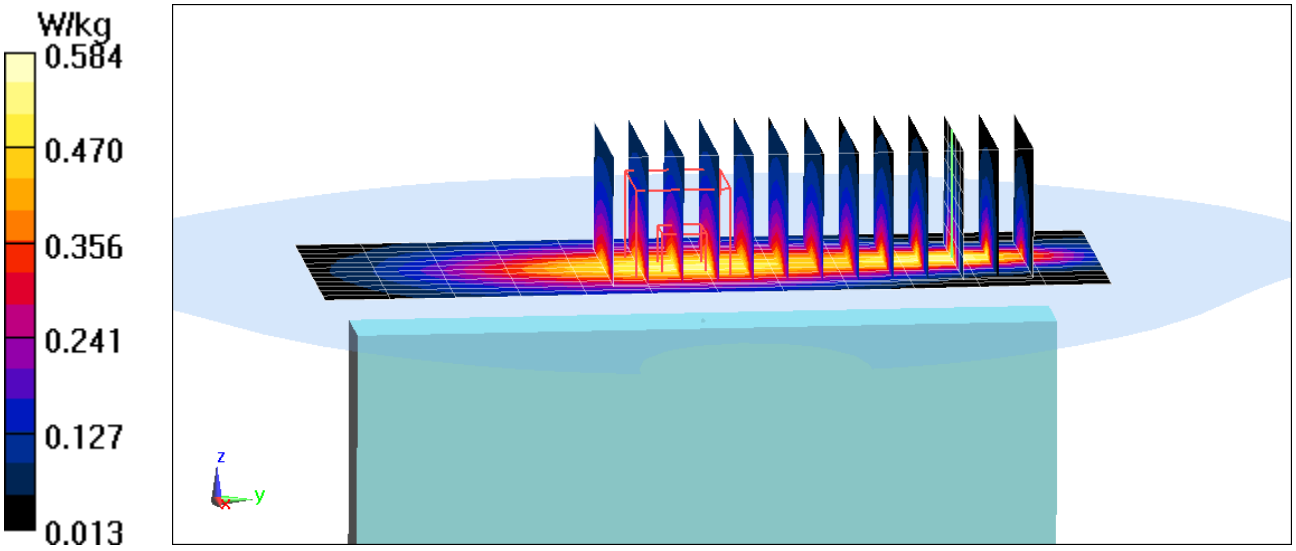
Communication System: UID 0, LTE Band 14; Frequency: 793 MHz; Duty Cycle: 1:1
Medium: 750 Body Medium parameters used (interpolated):
f = 793 MHz; σ = 0.992 S/m; ε_r = 53.069; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 02-11-2019; Ambient Temp: 21.9°C; Tissue Temp: 21.1°C

Probe: EX3DV4 - SN3589; ConvF(8.34, 8.34, 8.34) @ 793 MHz; Calibrated: 1/25/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1450; Calibrated: 8/22/2018
Phantom: SAM 5.0 front; Type: QD000P40CD; Serial: 1648
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 14, Body SAR, Right Edge, Mid.ch,
10 MHz Bandwidth, QPSK, 1 RB, 25 RB Offset

Area Scan (13x13x1): Measurement grid: dx=5mm, dy=15mm
Zoom Scan (6x13x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 20.48 V/m; Power Drift = -0.11 dB
Peak SAR (extrapolated) = 0.706 W/kg
SAR(1 g) = 0.396 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0025M

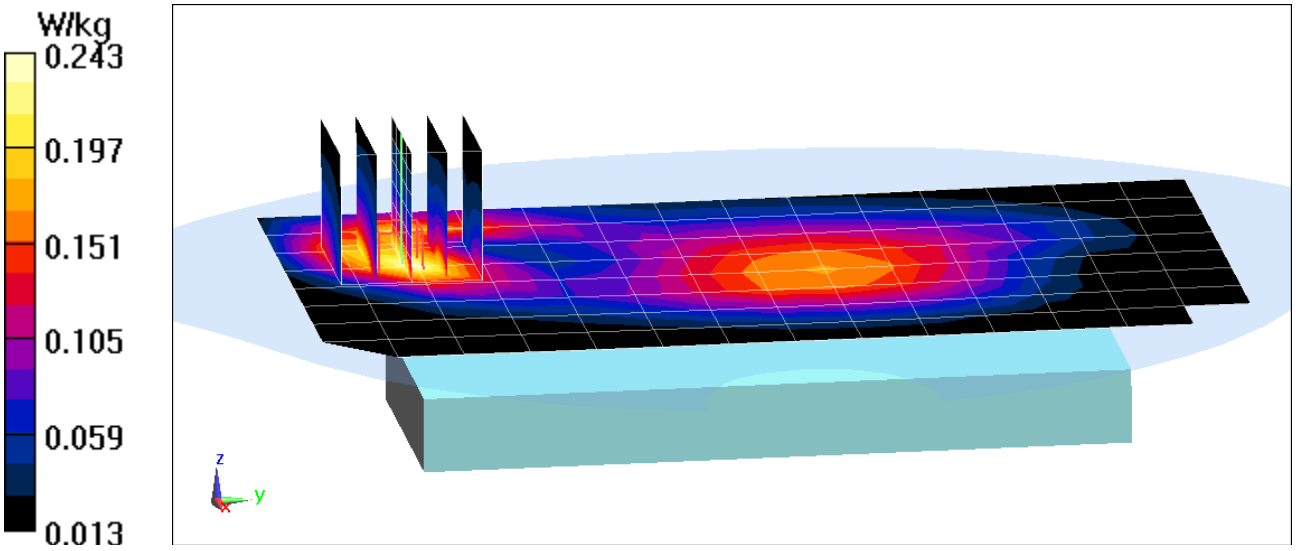
Communication System: UID 0, LTE Band 26; Frequency: 831.5 MHz; Duty Cycle: 1:1
Medium: 835 Body Medium parameters used (interpolated):
f = 831.5 MHz; σ = 0.964 S/m; ε_r = 52.999; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 02-11-2019; Ambient Temp: 21.9°C; Tissue Temp: 20.8°C

Probe: EX3DV4 - SN7357; ConvF(10.17, 10.17, 10.17) @ 831.5 MHz; Calibrated: 4/18/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1407; Calibrated: 4/11/2018
Phantom: SAM with CRP v5.0 Front; Type: QD000P40CD; Serial: 1646
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 26 (Cell.), Body SAR, Back side, Mid.ch,
15 MHz Bandwidth, QPSK, 1 RB, 36 RB Offset

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 13.94 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 0.282 W/kg
SAR(1 g) = 0.172 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0025M

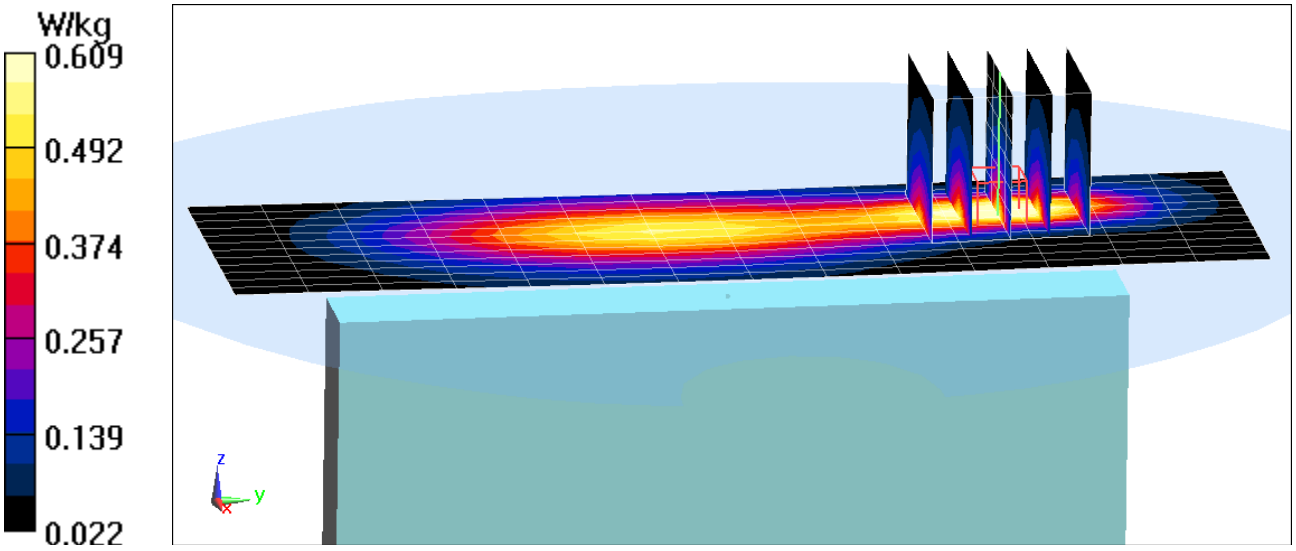
Communication System: UID 0, LTE Band 26; Frequency: 831.5 MHz; Duty Cycle: 1:1
Medium: 835 Body Medium parameters used (interpolated):
f = 831.5 MHz; σ = 0.964 S/m; ε_r = 52.999; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 02-11-2019; Ambient Temp: 21.9°C; Tissue Temp: 20.8°C

Probe: EX3DV4 - SN7357; ConvF(10.17, 10.17, 10.17) @ 831.5 MHz; Calibrated: 4/18/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1407; Calibrated: 4/11/2018
Phantom: SAM with CRP v5.0 Front; Type: QD000P40CD; Serial: 1646
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 26 (Cell.), Body SAR, Right Edge, Mid.ch,
15 MHz Bandwidth, QPSK, 1 RB, 36 RB Offset

Area Scan (13x15x1): Measurement grid: dx=5mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 21.58 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 0.734 W/kg
SAR(1 g) = 0.410 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0039M

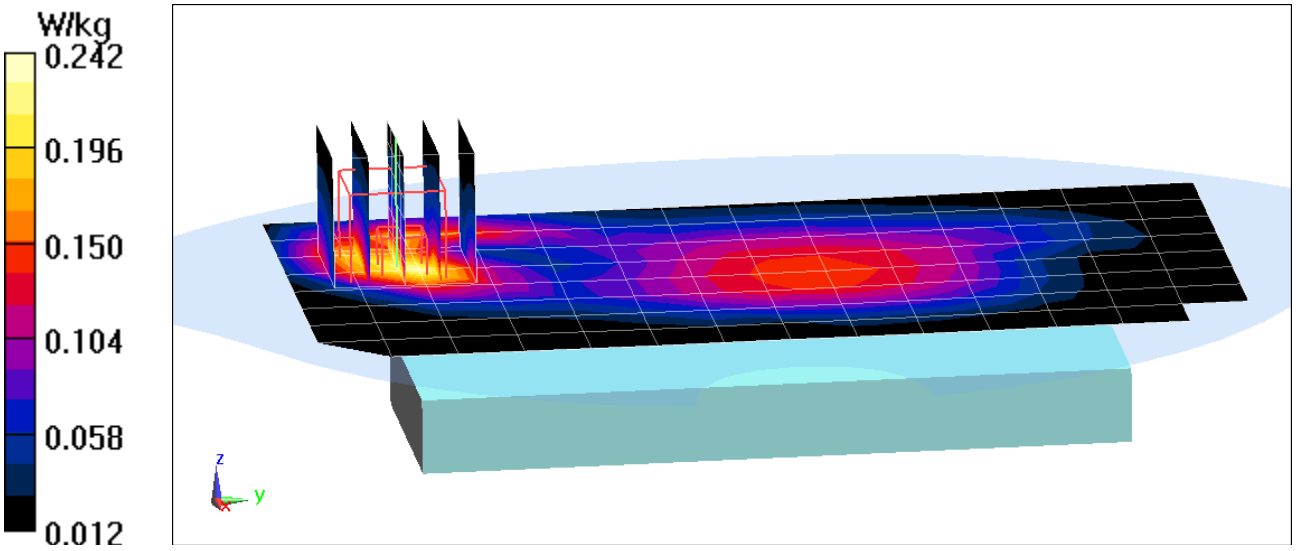
Communication System: UID 0, LTE Band 5; Frequency: 836.5 MHz; Duty Cycle: 1:1
Medium: 835 Body Medium parameters used (interpolated):
f = 836.5 MHz; σ = 0.969 S/m; ε_r = 53.727; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 02-06-2018; Ambient Temp: 22.2°C; Tissue Temp: 21.8°C

Probe: EX3DV4 - SN7357; ConvF(10.17, 10.17, 10.17) @ 836.5 MHz; Calibrated: 4/18/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1407; Calibrated: 4/11/2018
Phantom: SAM with CRP v5.0 Front; Type: QD000P40CD; Serial: 1646
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 5 (Cell.), Body SAR, Back side, Mid.ch,
10 MHz Bandwidth, QPSK, 1 RB, 49 RB Offset

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 13.78 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 0.282 W/kg
SAR(1 g) = 0.171 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0039M

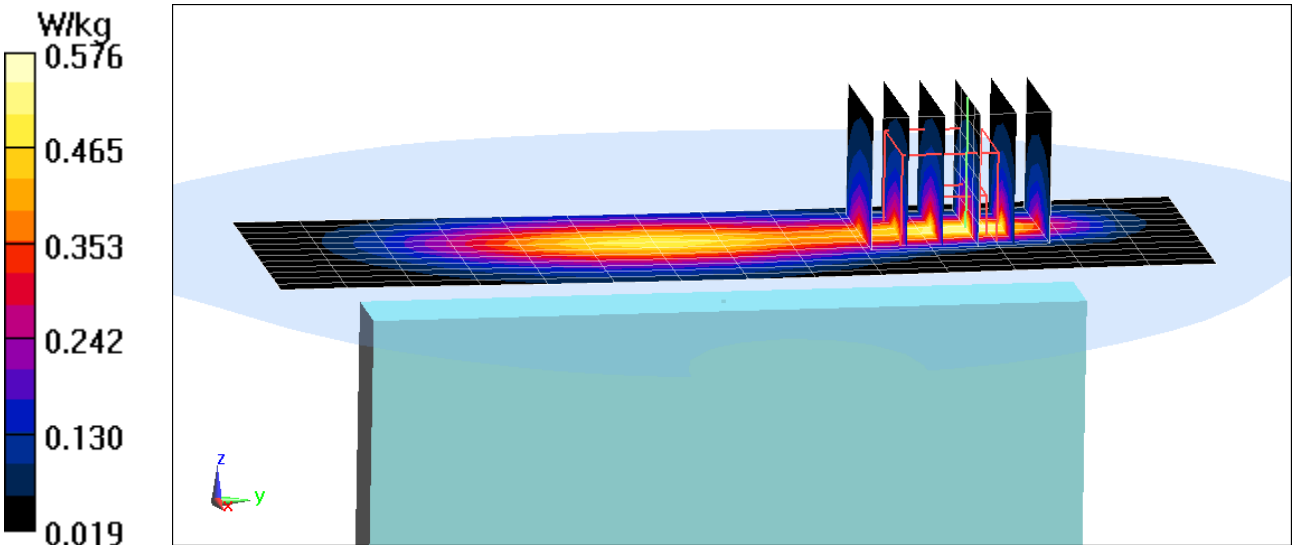
Communication System: UID 0, LTE Band 5 (Cell.); Frequency: 836.5 MHz; Duty Cycle: 1:1
Medium: 835 Body Medium parameters used (interpolated):
f = 836.5 MHz; σ = 0.969 S/m; ε_r = 53.727; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 02-06-2018; Ambient Temp: 22.2°C; Tissue Temp: 21.8°C

Probe: EX3DV4 - SN7357; ConvF(10.17, 10.17, 10.17) @ 836.5 MHz; Calibrated: 4/18/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1407; Calibrated: 4/11/2018
Phantom: SAM with CRP v5.0 Front; Type: QD000P40CD; Serial: 1646
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 5 (Cell.), Body SAR, Right Edge, Mid.ch,
10 MHz Bandwidth, QPSK, 1 RB, 49 RB Offset

Area Scan (13x15x1): Measurement grid: dx=5mm, dy=15mm
Zoom Scan (5x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 20.74 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 0.694 W/kg
SAR(1 g) = 0.382 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0003M

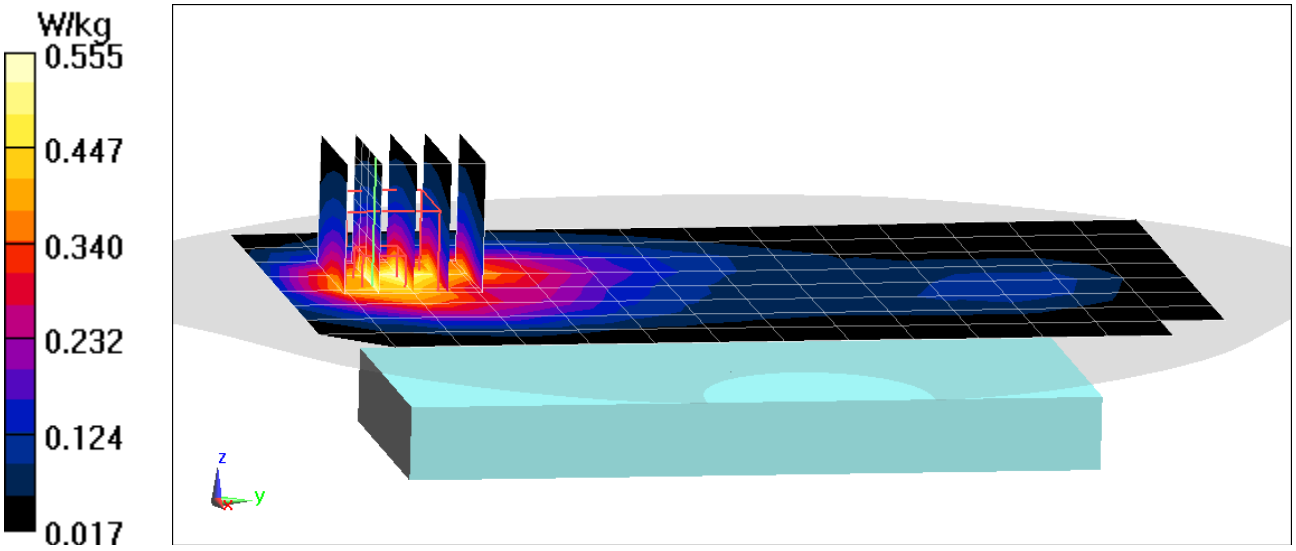
Communication System: UID 0, LTE Band 66 (AWS); Frequency: 1720 MHz; Duty Cycle: 1:1
Medium: 1750 Body Medium parameters used (interpolated):
$f = 1720$ MHz; $\sigma = 1.496$ S/m; $\varepsilon_r = 51.088$; $\rho = 1000$ kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 01-24-2019; Ambient Temp: 20.8°C; Tissue Temp: 20.2°C

Probe: ES3DV3 - SN3347; ConvF(5.17, 5.17, 5.17) @ 1720 MHz; Calibrated: 3/27/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn665; Calibrated: 2/15/2018
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1800
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 66 (AWS), Body SAR, Back side,
Low.ch, 20 MHz Bandwidth, QPSK, 1 RB, 0 RB Offset

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 18.54 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 0.741 W/kg
SAR(1 g) = 0.477 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0045M

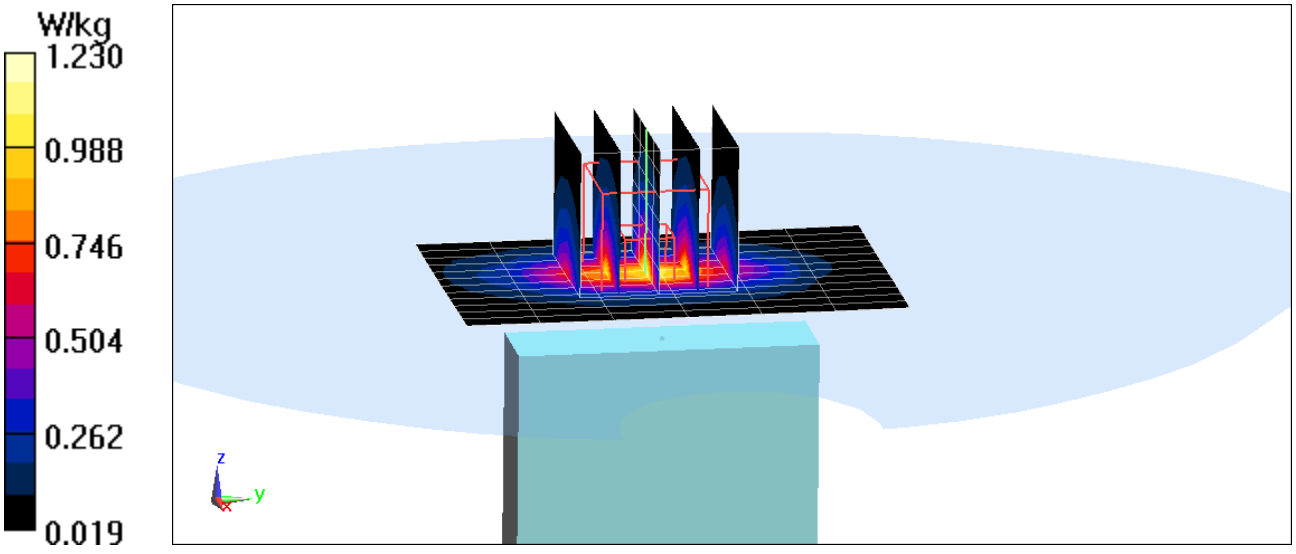
Communication System: UID 0, _LTE Band 66 (AWS); Frequency: 1720 MHz; Duty Cycle: 1:1
Medium: 1750 Body Medium parameters used (interpolated):
f = 1720 MHz; σ = 1.474 S/m; ε_r = 51.359; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 02-26-2019; Ambient Temp: 22.4°C; Tissue Temp: 21.3°C

Probe: EX3DV4 - SN7410; ConvF(8.06, 8.06, 8.06) @ 1720 MHz; Calibrated: 7/20/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2018
Phantom: SAM Left; Type: QD000P40CA; Serial: TP:82355
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 66 (AWS), ULCA, Body SAR, Bottom Edge, Low.ch,
PCC: 20 MHz Bandwidth, QPSK, Ch. 132072, 100 RB, 0 RB Offset
SCC: 20 MHz Bandwidth, QPSK, Ch. 132270, 100 RB, 0 RB Offset

Area Scan (13x7x1): Measurement grid: dx=5mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 25.71 V/m; Power Drift = -0.10 dB
Peak SAR (extrapolated) = 1.45 W/kg
SAR(1 g) = 0.834 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0020M

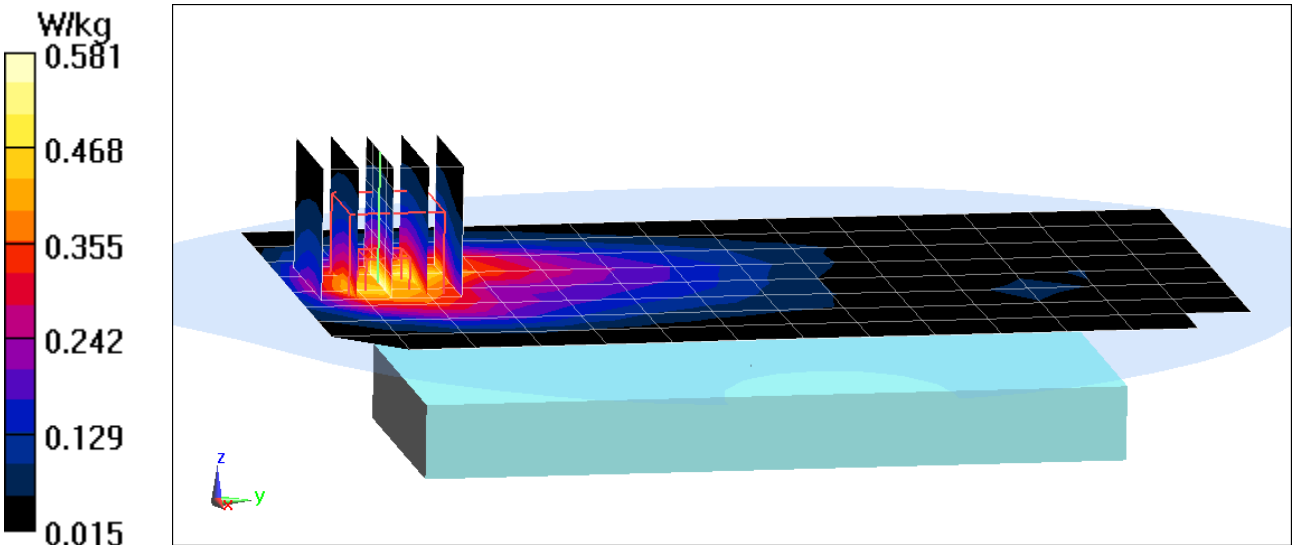
Communication System: UID 0, LTE Band 25 (PCS); Frequency: 1860 MHz; Duty Cycle: 1:1
Medium: 1900 Body Medium parameters used (interpolated):
f = 1860 MHz; σ = 1.526 S/m; ε_r = 54.267; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 02-04-2019; Ambient Temp: 23.3°C; Tissue Temp: 22.3°C

Probe: ES3DV3 - SN3332; ConvF(4.77, 4.77, 4.77) @ 1860 MHz; Calibrated: 8/22/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1272; Calibrated: 2/9/2018
Phantom: SAM 5.0 front; Type: QD000P40CD; Serial: 1648
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 25 (PCS), Body SAR, Back side, Low.ch,
20 MHz Bandwidth, QPSK, 1 RB, 50 RB Offset

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 19.30 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 0.758 W/kg
SAR(1 g) = 0.484 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0045M

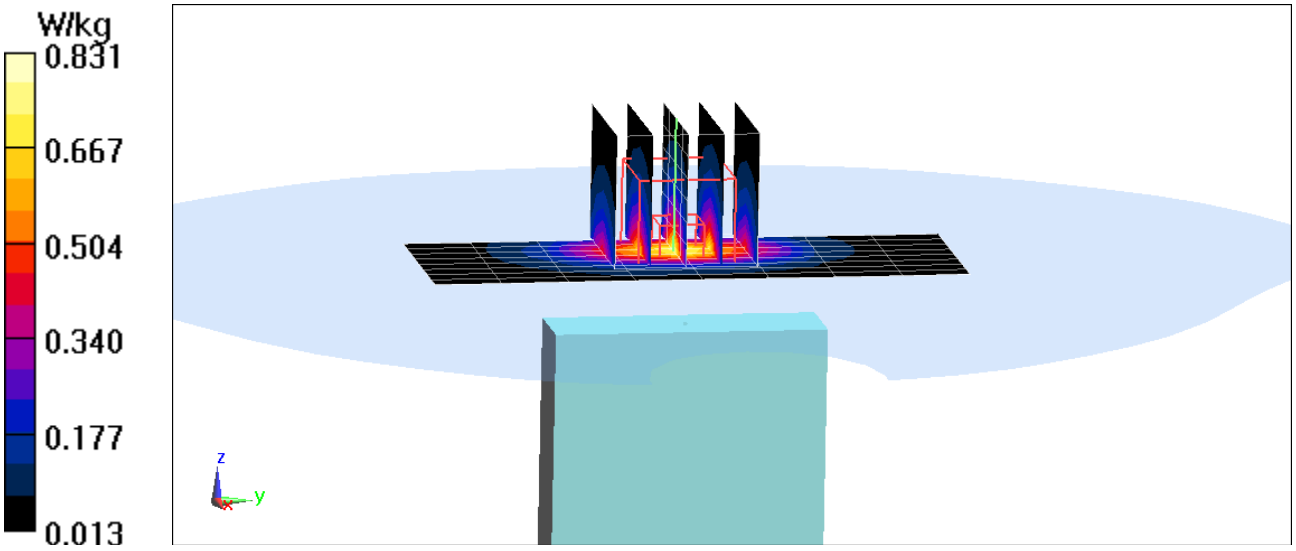
Communication System: UID 0, LTE Band 25 (PCS); Frequency: 1882.5 MHz; Duty Cycle: 1:1
Medium: 1900 Body Medium parameters used (interpolated):
f = 1882.5 MHz; σ = 1.551 S/m; ε_r = 54.197; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 02-04-2019; Ambient Temp: 23.3°C; Tissue Temp: 22.3°C

Probe: ES3DV3 - SN3332; ConvF(4.77, 4.77, 4.77) @ 1882.5 MHz; Calibrated: 8/22/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1272; Calibrated: 2/9/2018
Phantom: SAM 5.0 front; Type: QD000P40CD; Serial: 1648
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 25 (PCS), Body SAR, Bottom Edge,
Mid.ch, 20 MHz Bandwidth, QPSK, 50 RB, 25 RB Offset

Area Scan (9x9x1): Measurement grid: dx=5mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 22.50 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 1.12 W/kg
SAR(1 g) = 0.661 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0007M

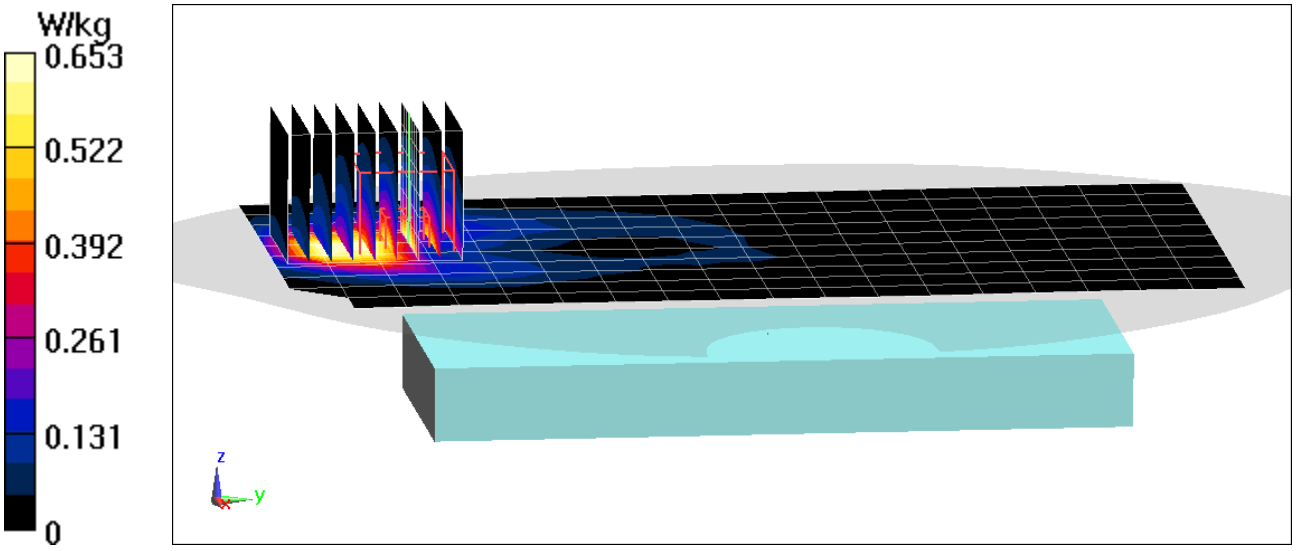
Communication System: UID 0, LTE Band 30; Frequency: 2310 MHz; Duty Cycle: 1:1
Medium: 2450 Body Medium parameters used:
f = 2310 MHz; σ = 1.871 S/m; ε_r = 52.334; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 02-07-2019; Ambient Temp: 21.8°C; Tissue Temp: 21.7°C

Probe: ES3DV3 - SN3319; ConvF(4.63, 4.63, 4.63) @ 2310 MHz; Calibrated: 3/13/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1368; Calibrated: 3/7/2018
Phantom: LeftTwin-SAM V5.0; Type: QD 000 P40 CD; Serial: TP1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 30, Body SAR, Back side, Mid.ch,
10 MHz Bandwidth, QPSK, 1 RB, 0 RB Offset

Area Scan (11x19x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (8x9x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 20.72 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 0.600 W/kg
SAR(1 g) = 0.343 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0045M

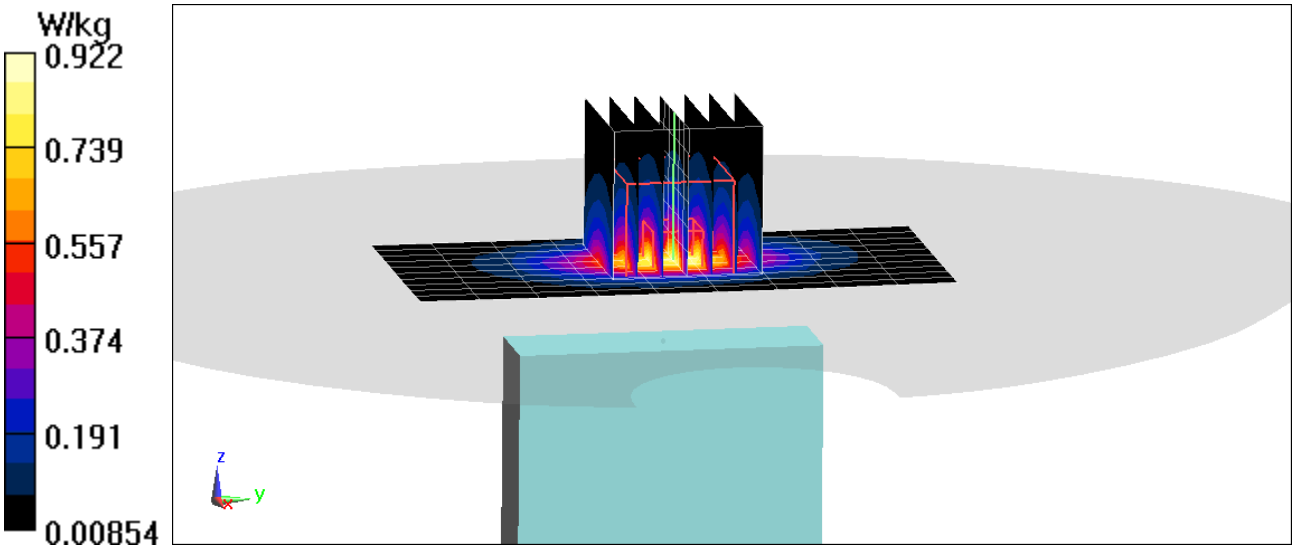
Communication System: UID 0, LTE Band 30; Frequency: 2310 MHz; Duty Cycle: 1:1
Medium: 2450 Body Medium parameters used:
f = 2310 MHz; σ = 1.871 S/m; ε_r = 52.334; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 02-07-2019; Ambient Temp: 21.8°C; Tissue Temp: 21.7°C

Probe: ES3DV3 - SN3319; ConvF(4.63, 4.63, 4.63) @ 2310 MHz; Calibrated: 3/13/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1368; Calibrated: 3/7/2018
Phantom: LeftTwin-SAM V5.0; Type: QD 000 P40 CD; Serial: TP1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 30, Body SAR, Bottom Edge, Mid.ch,
10 MHz Bandwidth, QPSK, 50 RB, 0 RB Offset

Area Scan (11x10x1): Measurement grid: dx=5mm, dy=12mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 22.16 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 1.45 W/kg
SAR(1 g) = 0.780 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0025M

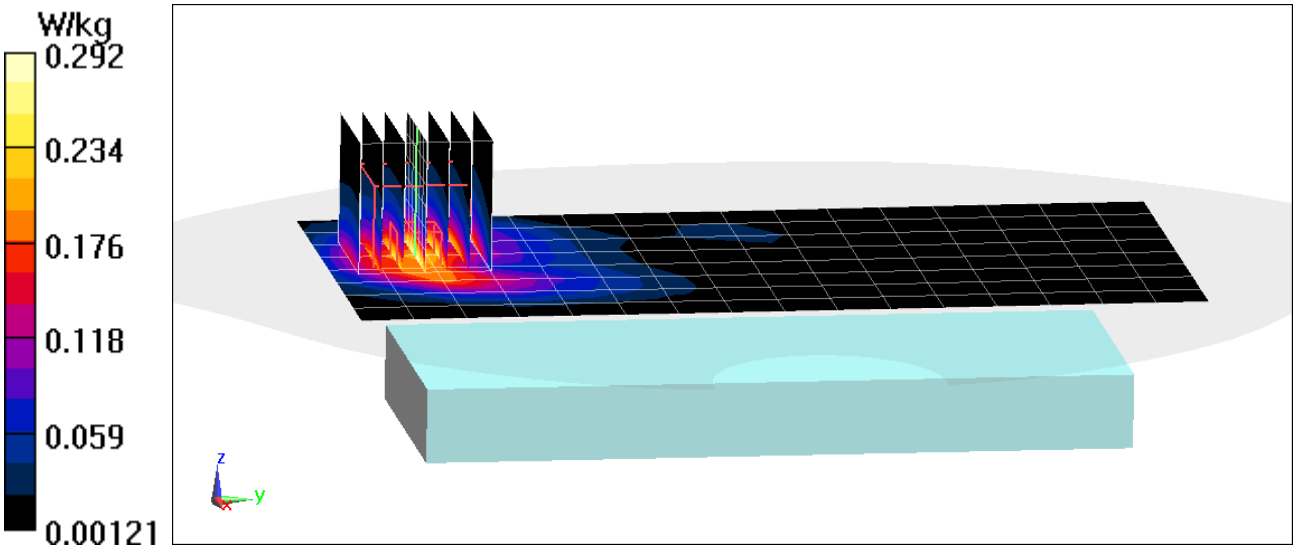
Communication System: UID 0, LTE Band 7; Frequency: 2510 MHz; Duty Cycle: 1:1
Medium: 2450 Body Medium parameters used (interpolated):
$f = 2510$ MHz; $\sigma = 2.107$ S/m; $\varepsilon_r = 50.479$; $\rho = 1000$ kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 01-29-2019; Ambient Temp: 22.6°C; Tissue Temp: 20.5°C

Probe: ES3DV3 - SN3319; ConvF(4.51, 4.51, 4.51) @ 2510 MHz; Calibrated: 3/13/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1368; Calibrated: 3/7/2018
Phantom: LeftTwin-SAM V5.0; Type: QD 000 P40 CD; Serial: TP1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 7, Body SAR, Back side, Low.ch,
20 MHz Bandwidth, QPSK, 1 RB, 99 RB Offset

Area Scan (9x7x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 11.24 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 0.454 W/kg
SAR(1 g) = 0.231 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0006M

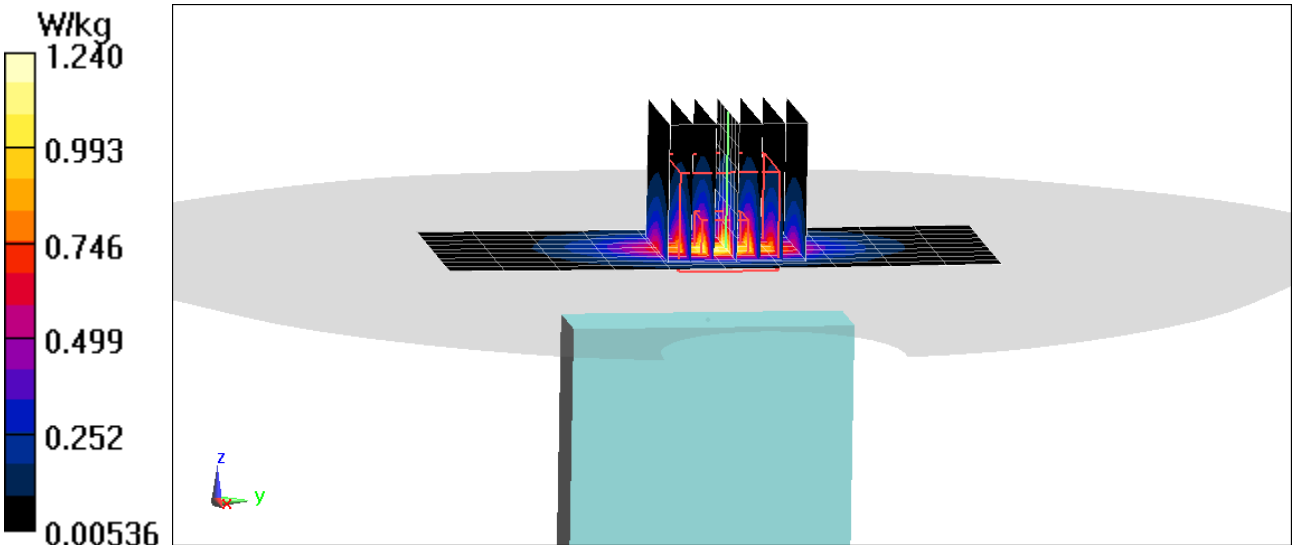
Communication System: UID 0, _LTE Band 7; Frequency: 2510 MHz; Duty Cycle: 1:1
Medium: 2450 Body Medium parameters used (interpolated):
$f = 2510$ MHz; $\sigma = 2.104$ S/m; $\varepsilon_r = 51.443$; $\rho = 1000$ kg/m^3
Phantom section: Flat Section; Space: 1.0cm

Test Date: 02-02-2019; Ambient Temp: 21.7°C; Tissue Temp: 21.6°C

Probe: ES3DV3 - SN3319; ConvF(4.51, 4.51, 4.51) @ 2510 MHz; Calibrated: 3/13/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1368; Calibrated: 3/7/2018
Phantom: LeftTwin-SAM V5.0; Type: QD 000 P40 CD; Serial: TP1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 7, Body SAR, Bottom Edge, Low.ch,
20 MHz Bandwidth, QPSK, 100 RB, 0 RB Offset

Area Scan (10x11x1): Measurement grid: dx=5mm, dy=12mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 23.24 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 1.84 W/kg
SAR(1 g) = 0.949 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0045M

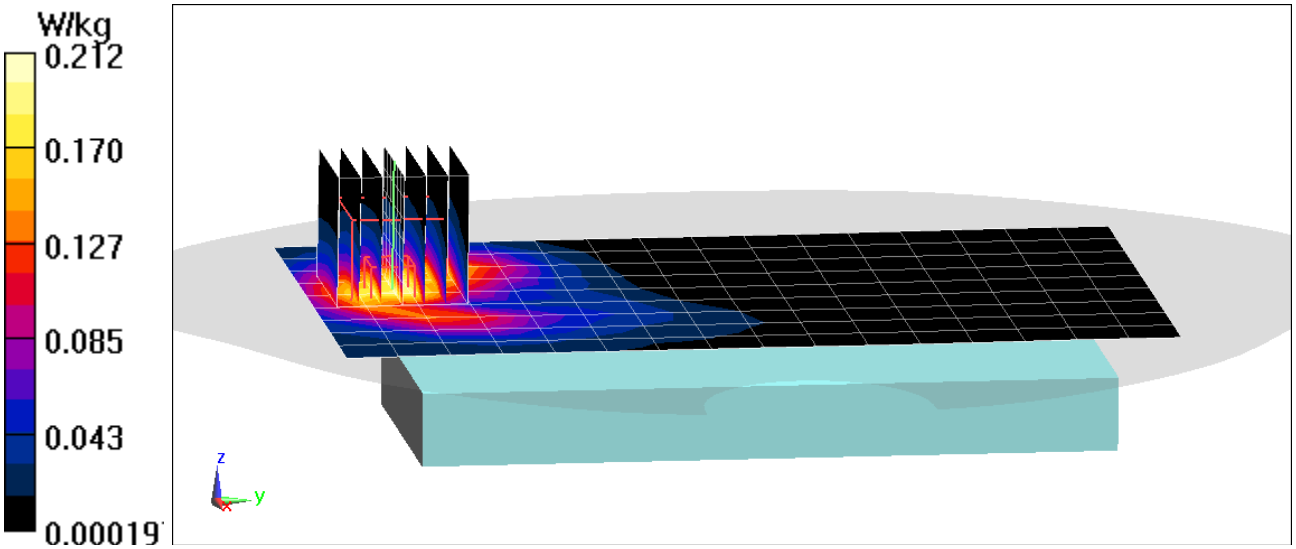
Communication System: UID 0, LTE Band 41 (Class 3); Frequency: 2636.5 MHz; Duty Cycle: 1:1.58
Medium: 2450 Body Medium parameters used (interpolated):
f = 2636.5 MHz; σ = 2.245 S/m; ε_r = 50.877; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 02-27-2019; Ambient Temp: 23.1°C; Tissue Temp: 23.0°C

Probe: ES3DV3 - SN3319; ConvF(4.33, 4.33, 4.33) @ 2636.5 MHz; Calibrated: 3/13/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1368; Calibrated: 3/7/2018
Phantom: LeftTwin-SAM V5.0; Type: QD 000 P40 CD; Serial: TP1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 41, PC3, Body SAR, Back side, Mid-High.ch,
20 MHz Bandwidth, QPSK, 1 RB, 0 RB Offset

Area Scan (10x17x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 9.102 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 0.342 W/kg
SAR(1 g) = 0.169 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0045M

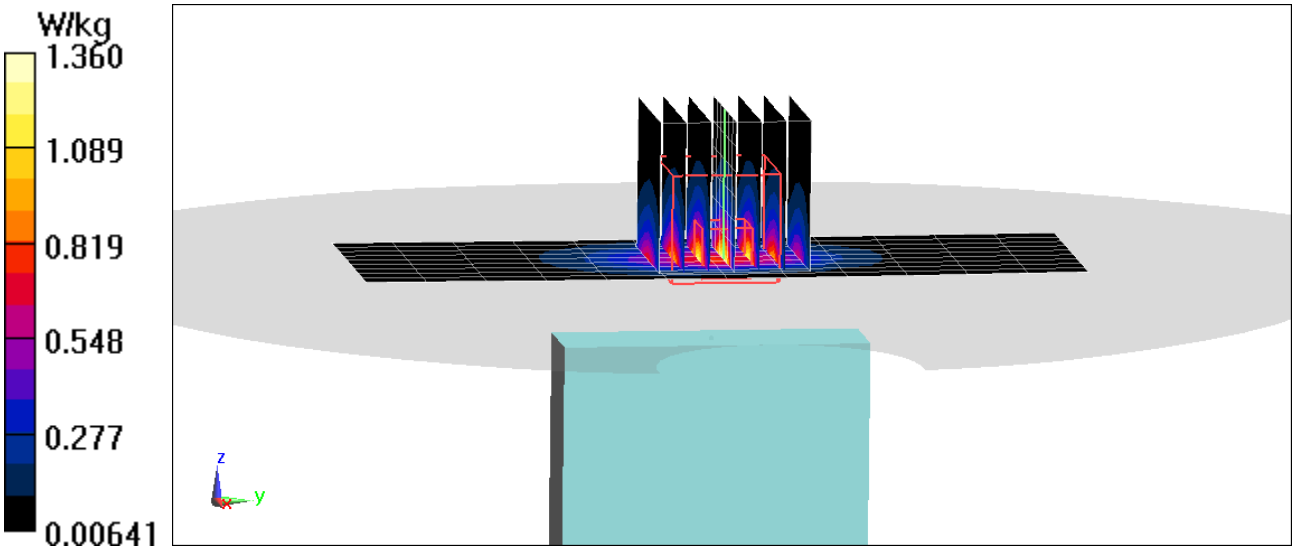
Communication System: UID 0, LTE Band 41 (Class 3); Frequency: 2506 MHz; Duty Cycle: 1:1.58
Medium: 2450 Body Medium parameters used (interpolated):
f = 2506 MHz; σ = 2.106 S/m; ε_r = 51.253; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 03-04-2019; Ambient Temp: 21.9°C; Tissue Temp: 20.9°C

Probe: ES3DV3 - SN3319; ConvF(4.51, 4.51, 4.51) @ 2506 MHz; Calibrated: 3/13/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1368; Calibrated: 3/7/2018
Phantom: LeftTwin-SAM V5.0; Type: QD 000 P40 CD; Serial: TP1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 41, PC3, ULCA, Body SAR, Bottom Edge, Low.ch,
PCC: 20 MHz Bandwidth, QPSK, Ch. 39750, 50 RB, 50 RB Offset
SCC: 20 MHz Bandwidth, QPSK, Ch. 39948, 50 RB, 0 RB Offset

Area Scan (10x13x1): Measurement grid: dx=5mm, dy=12mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 24.23 V/m; Power Drift = -0.19 dB
Peak SAR (extrapolated) = 2.04 W/kg
SAR(1 g) = 1.03 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0001M

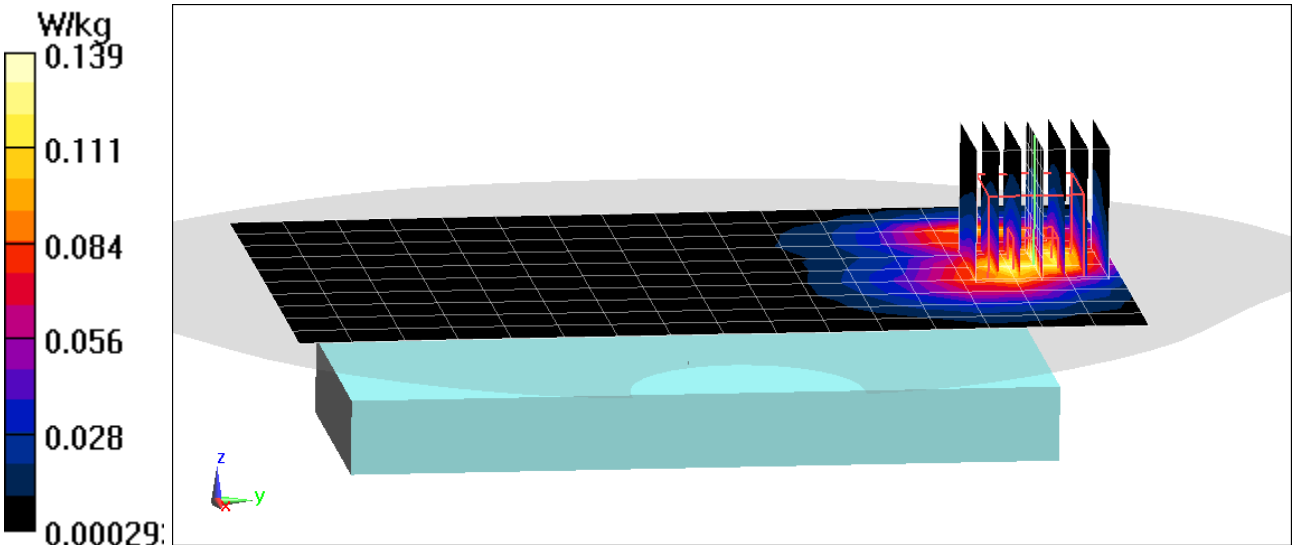
Communication System: UID 0, _IEEE 802.11b; Frequency: 2412 MHz; Duty Cycle: 1:1
Medium: 2450 Body Medium parameters used (interpolated):
f = 2412 MHz; σ = 1.992 S/m; ε_r = 50.765; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 01-29-2019; Ambient Temp: 22.6°C; Tissue Temp: 20.5°C

Probe: ES3DV3 - SN3319; ConvF(4.51, 4.51, 4.51) @ 2412 MHz; Calibrated: 3/13/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1368; Calibrated: 3/7/2018
Phantom: LeftTwin-SAM V5.0; Type: QD 000 P40 CD; Serial: TP1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: IEEE 802.11b, 22 MHz Bandwidth,
Antenna 1, Body SAR, Ch 01, 1 Mbps, Back Side

Area Scan (11x17x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 7.954 V/m; Power Drift = 0.14 dB
Peak SAR (extrapolated) = 0.208 W/kg
SAR(1 g) = 0.111 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0001M

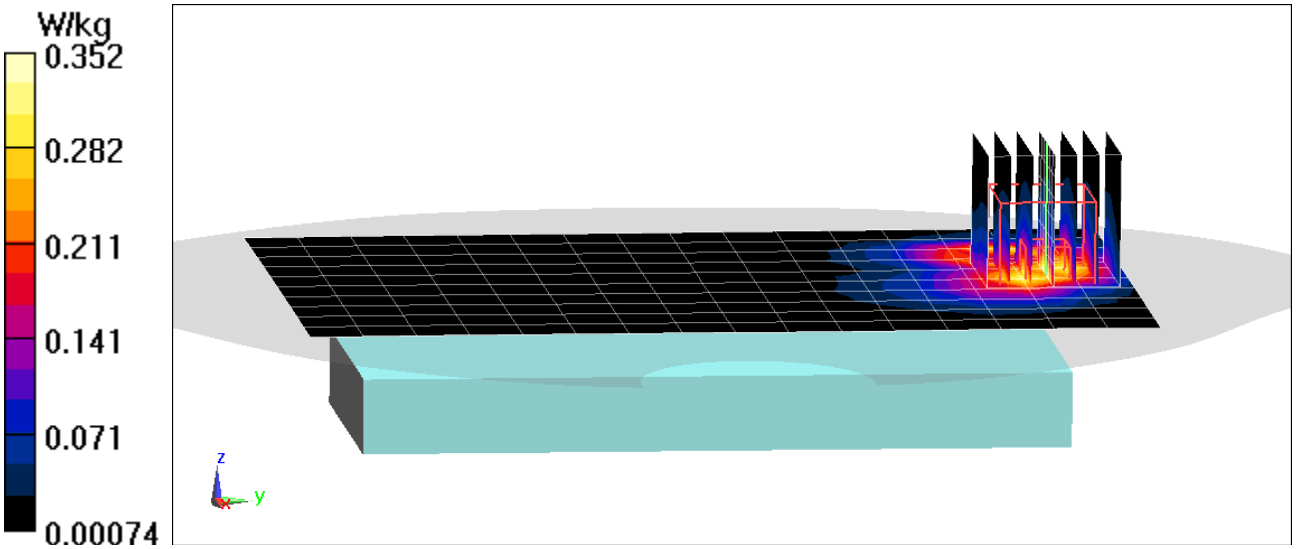
Communication System: UID 0, _IEEE 802.11b; Frequency: 2412 MHz; Duty Cycle: 1:1
Medium: 2450 Body Medium parameters used (interpolated):
f = 2412 MHz; σ = 1.992 S/m; ε_r = 50.765; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-29-2019; Ambient Temp: 22.6°C; Tissue Temp: 20.5°C

Probe: ES3DV3 - SN3319; ConvF(4.51, 4.51, 4.51) @ 2412 MHz; Calibrated: 3/13/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1368; Calibrated: 3/7/2018
Phantom: LeftTwin-SAM V5.0; Type: QD 000 P40 CD; Serial: TP1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: IEEE 802.11b, 22 MHz Bandwidth,
Antenna 1, Body SAR, Ch 01, 1 Mbps, Back Side

Area Scan (11x17x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 0.9290 V/m; Power Drift = 0.19 dB
Peak SAR (extrapolated) = 0.522 W/kg
SAR(1 g) = 0.278 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0003M

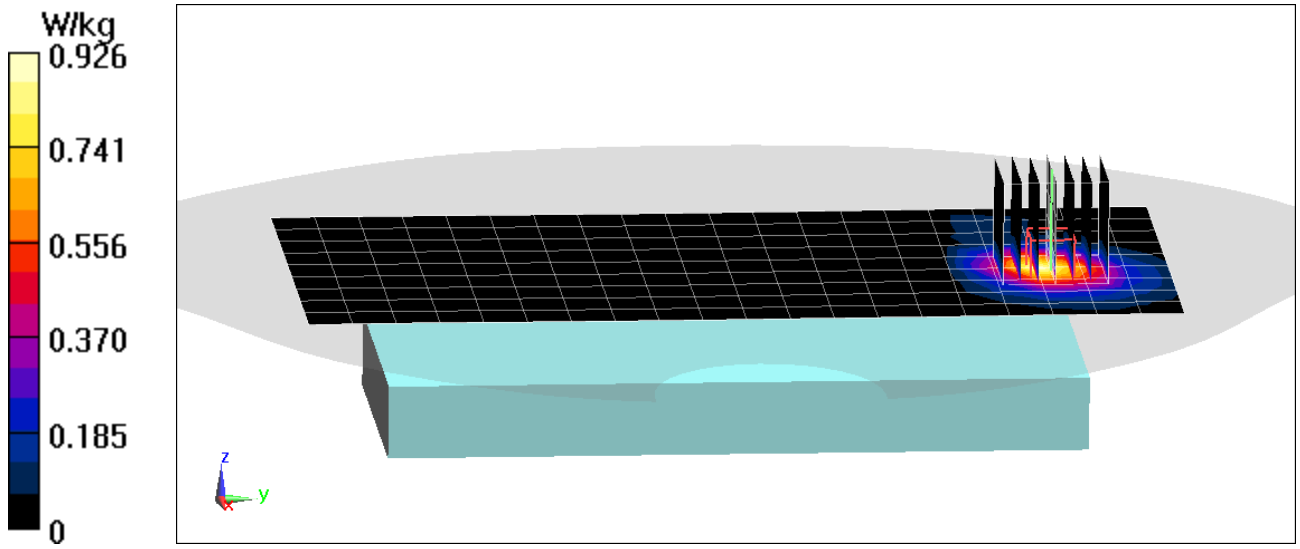
Communication System: UID 0, 802.11a 5.2-5.8 GHz Band; Frequency: 5500 MHz; Duty Cycle: 1:1
Medium: 5 GHz Body Medium parameters used:
f = 5500 MHz; σ = 5.819 S/m; ε_r = 47.231; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 01-21-2019; Ambient Temp: 20.6°C; Tissue Temp: 20.7°C

Probe: EX3DV4 - SN7308; ConvF(4, 4, 4) @ 5500 MHz; Calibrated: 8/23/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1558; Calibrated: 10/3/2018
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1630
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: IEEE 802.11a, UNII-2C, 20 MHz Bandwidth,
Antenna 1, Body SAR, Ch 100, 6 Mbps, Back Side

Area Scan (10x21x1) Measurement grid: dx=10mm, dy=10mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm; Graded Ratio: 1.4
Reference Value = 8.646 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 1.53 W/kg
SAR(1 g) = 0.395 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0003M

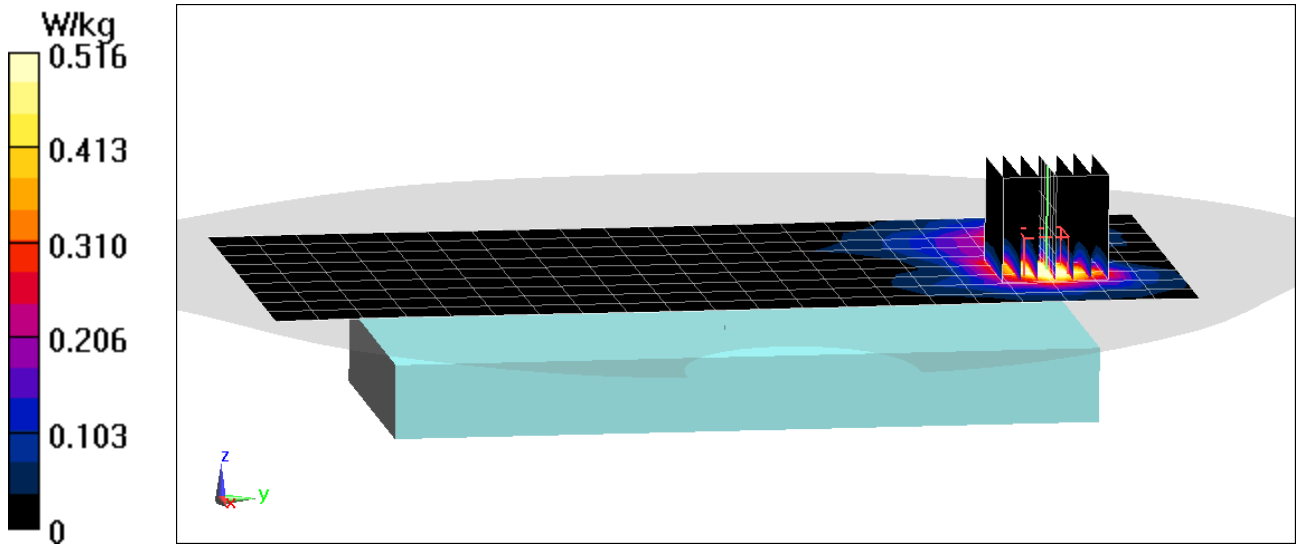
Communication System: UID 0, 802.11a 5.2-5.8 GHz Band; Frequency: 5785 MHz; Duty Cycle: 1:1
Medium: 5 GHz Body Medium parameters used:
f = 5785 MHz; σ = 6.26 S/m; ε_r = 46.665; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-21-2019; Ambient Temp: 20.6°C; Tissue Temp: 20.7°C

Probe: EX3DV4 - SN7308; ConvF(4.18, 4.18, 4.18) @ 5785 MHz; Calibrated: 8/23/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1558; Calibrated: 10/3/2018
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1630
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: IEEE 802.11a, UNII-3, 20 MHz Bandwidth,
Antenna 1, Body SAR, Ch 157, 6 Mbps, Back Side

Area Scan (10x21x1) Measurement grid: dx=10mm, dy=10mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm; Graded Ratio: 1.4
Reference Value = 5.975 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 0.881 W/kg
SAR(1 g) = 0.207 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0025M

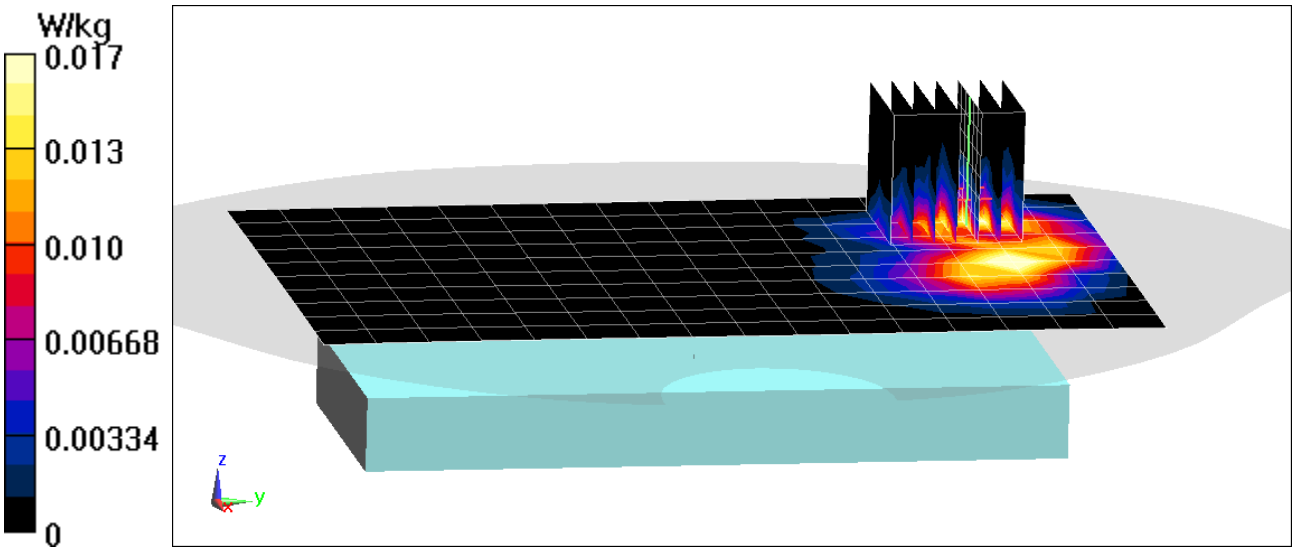
Communication System: UID 0, Bluetooth; Frequency: 2402 MHz; Duty Cycle: 1:1.297
Medium: 2450 Body Medium parameters used (interpolated):
f = 2402 MHz; σ = 1.981 S/m; ε_r = 52.089; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 02-11-2019; Ambient Temp: 21.9°C; Tissue Temp: 21.1°C

Probe: ES3DV3 - SN3319; ConvF(4.51, 4.51, 4.51) @ 2402 MHz; Calibrated: 3/13/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1368; Calibrated: 3/7/2018
Phantom: LeftTwin-SAM V5.0; Type: QD 000 P40 CD; Serial: TP1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: Bluetooth, Body SAR, Ch 0, 1 Mbps, Back Side

Area Scan (11x17x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 2.680 V/m; Power Drift = -0.12 dB
Peak SAR (extrapolated) = 0.0210 W/kg
SAR(1 g) = 0.012 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0025M

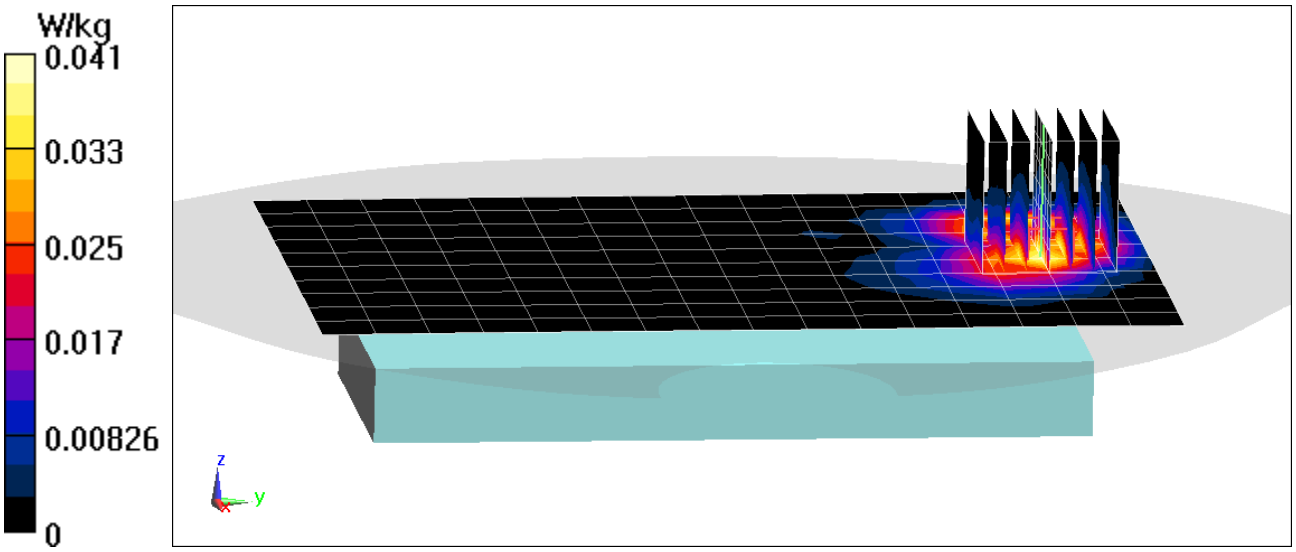
Communication System: UID 0, Bluetooth; Frequency: 2402 MHz; Duty Cycle: 1:1.297
Medium: 2450 Body Medium parameters used (interpolated):
f = 2402 MHz; σ = 1.981 S/m; ε_r = 52.089; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 02-11-2019; Ambient Temp: 21.9°C; Tissue Temp: 21.1°C

Probe: ES3DV3 - SN3319; ConvF(4.51, 4.51, 4.51) @ 2402 MHz; Calibrated: 3/13/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1368; Calibrated: 3/7/2018
Phantom: LeftTwin-SAM V5.0; Type: QD 000 P40 CD; Serial: TP1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: Bluetooth, Body SAR, Ch 0, 1 Mbps, Back Side

Area Scan (11x17x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 4.350 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 0.0600 W/kg
SAR(1 g) = 0.032 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0023M

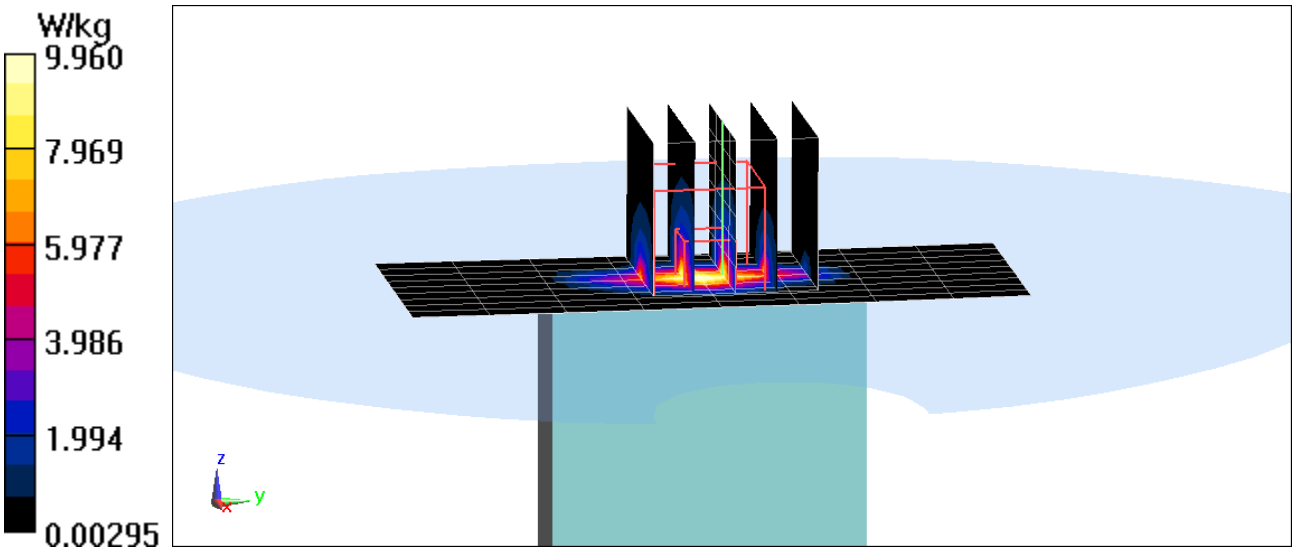
Communication System: UID 0, CDMA; Frequency: 1880 MHz; Duty Cycle: 1:1
Medium: 1900 Body Medium parameters used:
f = 1880 MHz; σ = 1.54 S/m; ε_r = 52.674; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 02-20-2019; Ambient Temp: 20.3°C; Tissue Temp: 22.0°C

Probe: EX3DV4 - SN7488; ConvF(8.37, 8.37, 8.37) @ 1880 MHz; Calibrated: 1/24/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1530; Calibrated: 1/15/2019
Phantom: SAM Left; Type: QD000P40CC; Serial: TP: 1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: PCS EVDO, Phablet SAR, Bottom Edge, Mid.ch

Area Scan (10x9x1): Measurement grid: dx=5mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 62.87 V/m; Power Drift = -0.12 dB
Peak SAR (extrapolated) = 14.2 W/kg
SAR(10 g) = 2.45 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0023M

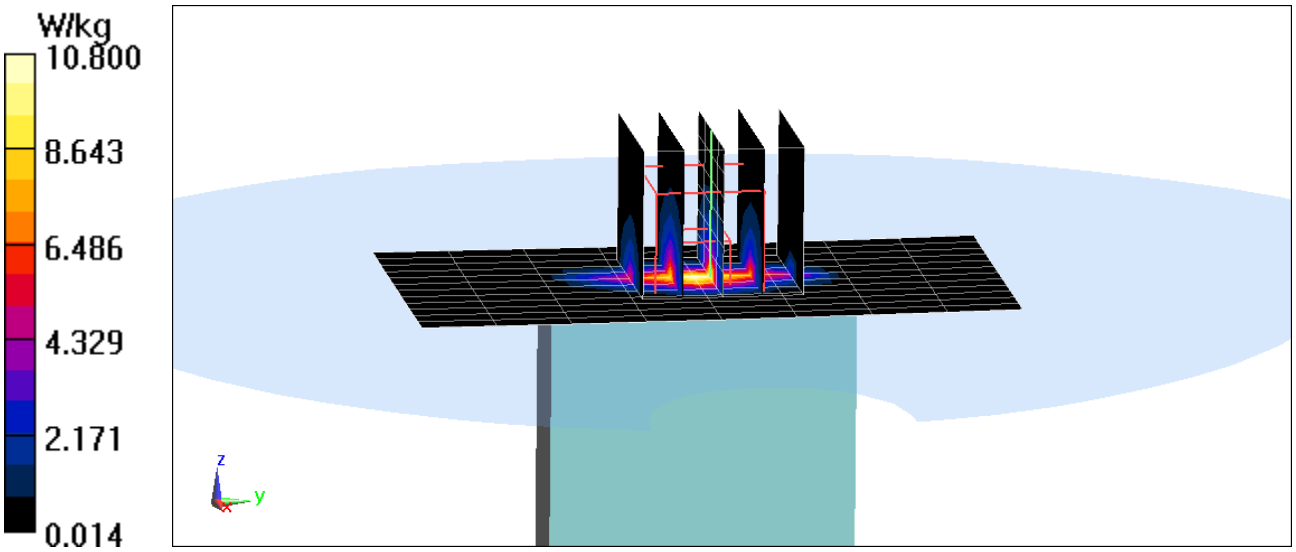
Communication System: UID 0, GSM GPRS; 2 Tx slots; Frequency: 1880 MHz; Duty Cycle: 1:4.15
Medium: 1900 Body Medium parameters used:
f = 1880 MHz; σ = 1.54 S/m; ε_r = 52.674; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 02-20-2019; Ambient Temp: 20.3°C; Tissue Temp: 22.0°C

Probe: EX3DV4 - SN7488; ConvF(8.37, 8.37, 8.37) @ 1880 MHz; Calibrated: 1/24/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1530; Calibrated: 1/15/2019
Phantom: SAM Left; Type: QD000P40CC; Serial: TP: 1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: GPRS 1900, Phablet SAR, Bottom Edge, Mid.ch, 2 Tx Slots

Area Scan (13x9x1): Measurement grid: dx=5mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 65.60 V/m; Power Drift = -0.15 dB
Peak SAR (extrapolated) = 13.2 W/kg
SAR(10 g) = 2.36 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0023M

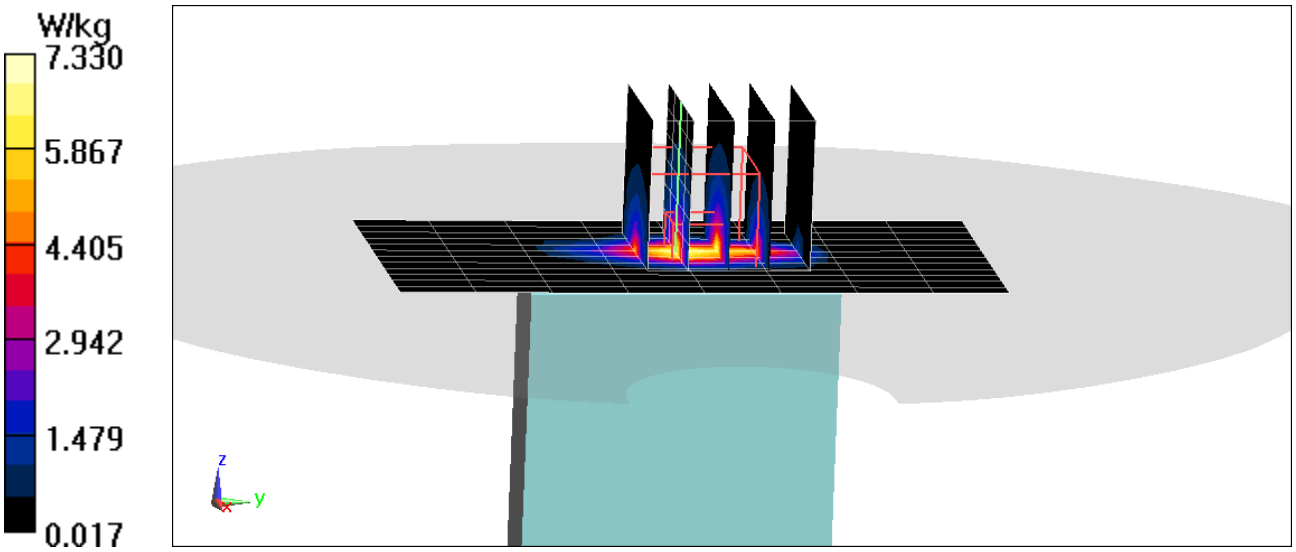
Communication System: UID 0, UMTS; Frequency: 1732.4 MHz; Duty Cycle: 1:1
Medium: 1750 Body Medium parameters used (interpolated):
f = 1732.4 MHz; σ = 1.474 S/m; ε_r = 51.256; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 01-28-2019; Ambient Temp: 20.3°C; Tissue Temp: 20.4°C

Probe: ES3DV3 - SN3347; ConvF(5.17, 5.17, 5.17) @ 1732.4 MHz; Calibrated: 3/27/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn665; Calibrated: 2/15/2018
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1800
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: UMTS 1750, Phablet SAR, Bottom Edge, Mid.ch

Area Scan (13x9x1): Measurement grid: dx=5mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 66.05 V/m; Power Drift = -0.12 dB
Peak SAR (extrapolated) = 11.5 W/kg
SAR(10 g) = 2.38 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0045M

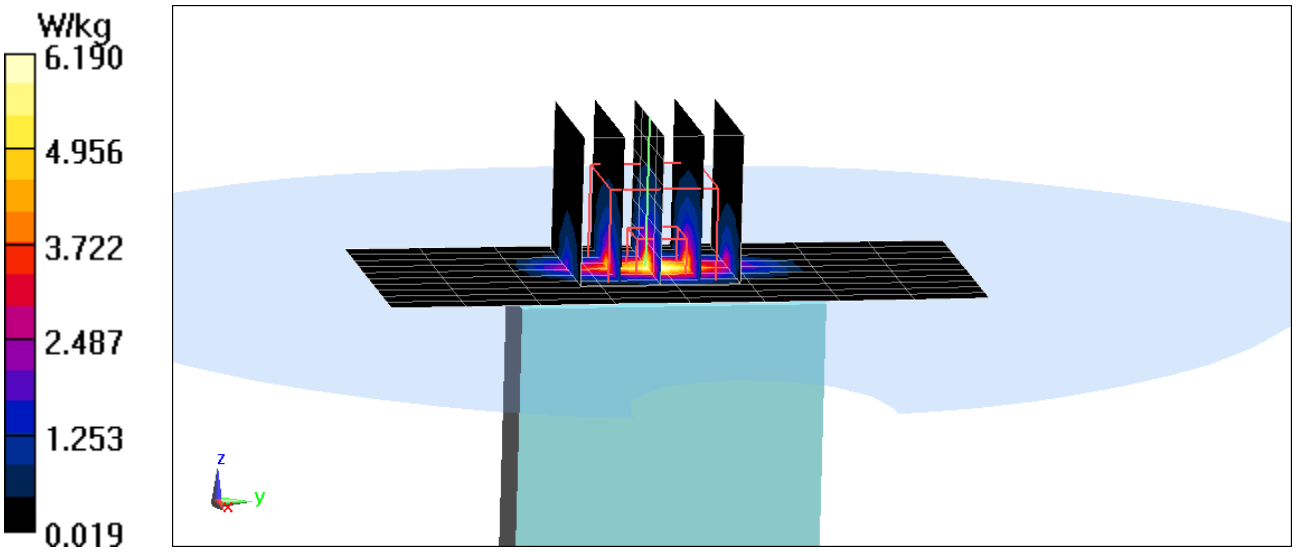
Communication System: UID 0, UMTS; Frequency: 1880 MHz; Duty Cycle: 1:1
Medium: 1900 Body Medium parameters used:
f = 1880 MHz; σ = 1.554 S/m; ε_r = 53.932; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 01-31-2019; Ambient Temp: 23.3°C; Tissue Temp: 21.2°C

Probe: ES3DV3 - SN3332; ConvF(4.77, 4.77, 4.77) @ 1880 MHz; Calibrated: 8/22/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1272; Calibrated: 2/9/2018
Phantom: SAM 5.0 front; Type: QD000P40CD; Serial: 1648
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: UMTS 1900, Phablet SAR, Bottom Edge, Mid.ch

Area Scan (11x9x1): Measurement grid: dx=5mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 59.14 V/m; Power Drift = -0.12 dB
Peak SAR (extrapolated) = 10.4 W/kg
SAR(10 g) = 1.94 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0006M

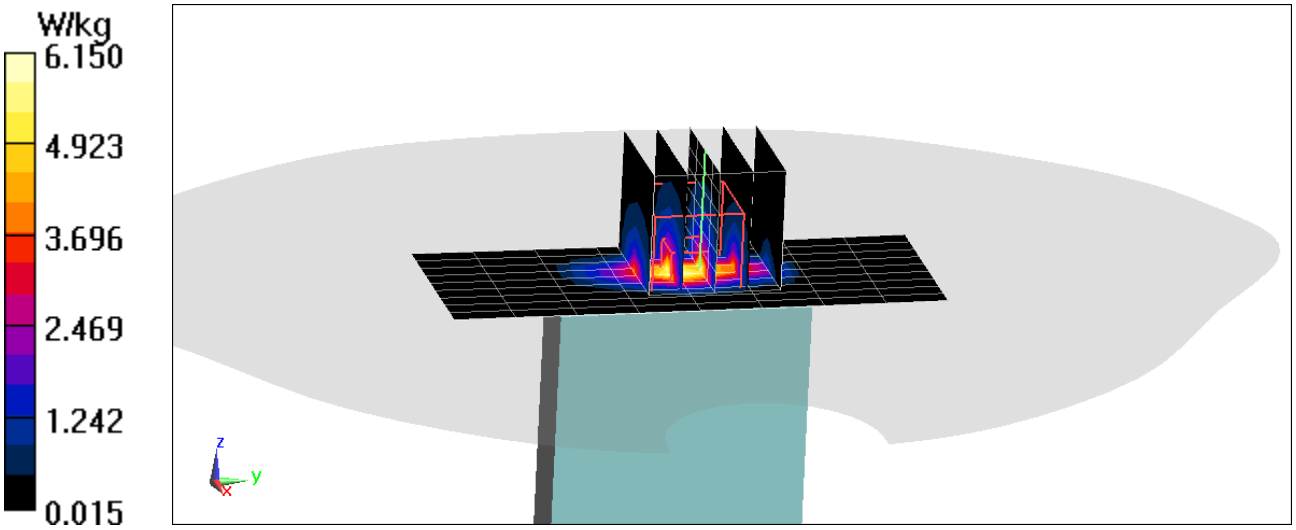
Communication System: UID 0, _LTE Band 66 (AWS); Frequency: 1720 MHz; Duty Cycle: 1:1
Medium: 1750 Body Medium parameters used (interpolated):
f = 1720 MHz; σ = 1.465 S/m; ε_r = 51.261; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 01-28-2019; Ambient Temp: 20.3°C; Tissue Temp: 20.4°C

Probe: ES3DV3 - SN3347; ConvF(5.17, 5.17, 5.17) @ 1720 MHz; Calibrated: 3/27/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn665; Calibrated: 2/15/2018
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1800
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 66 (AWS), Phablet SAR, Bottom Edge, Low.ch, 20 MHz Bandwidth, QPSK, 100 RB, 0 RB Offset

Area Scan (10x9x1): Measurement grid: dx=5mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 64.21 V/m; Power Drift = -0.20 dB
Peak SAR (extrapolated) = 11.2 W/kg
SAR(10 g) = 2.23 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0045M

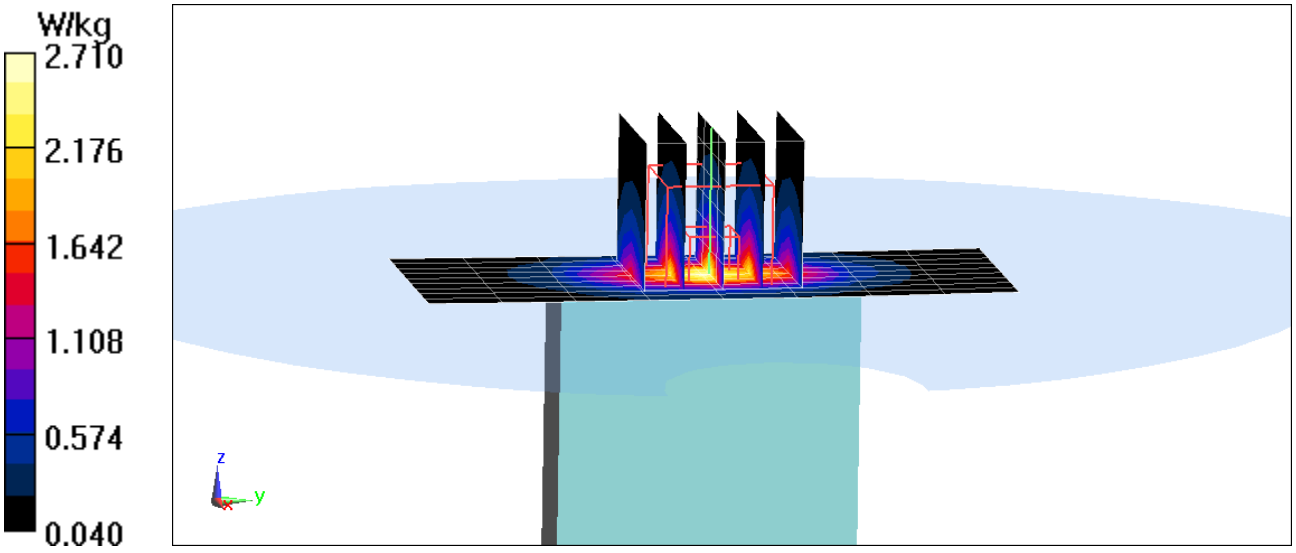
Communication System: UID 0, _LTE Band 25 (PCS); Frequency: 1882.5 MHz; Duty Cycle: 1:1
Medium: 1900 Body Medium parameters used (interpolated):
f = 1882.5 MHz; σ = 1.551 S/m; ε_r = 54.197; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 02-04-2019; Ambient Temp: 23.3°C; Tissue Temp: 22.3°C

Probe: ES3DV3 - SN3332; ConvF(4.77, 4.77, 4.77) @ 1882.5 MHz; Calibrated: 8/22/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1272; Calibrated: 2/9/2018
Phantom: SAM 5.0 front; Type: QD000P40CD; Serial: 1648
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 25 (PCS), Phablet SAR, Bottom Edge, Mid.ch, 20 MHz Bandwidth, QPSK, 100 RB, 0 RB Offset

Area Scan (10x9x1): Measurement grid: dx=5mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 66.38 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 12.3 W/kg
SAR(10 g) = 2.41 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0045M

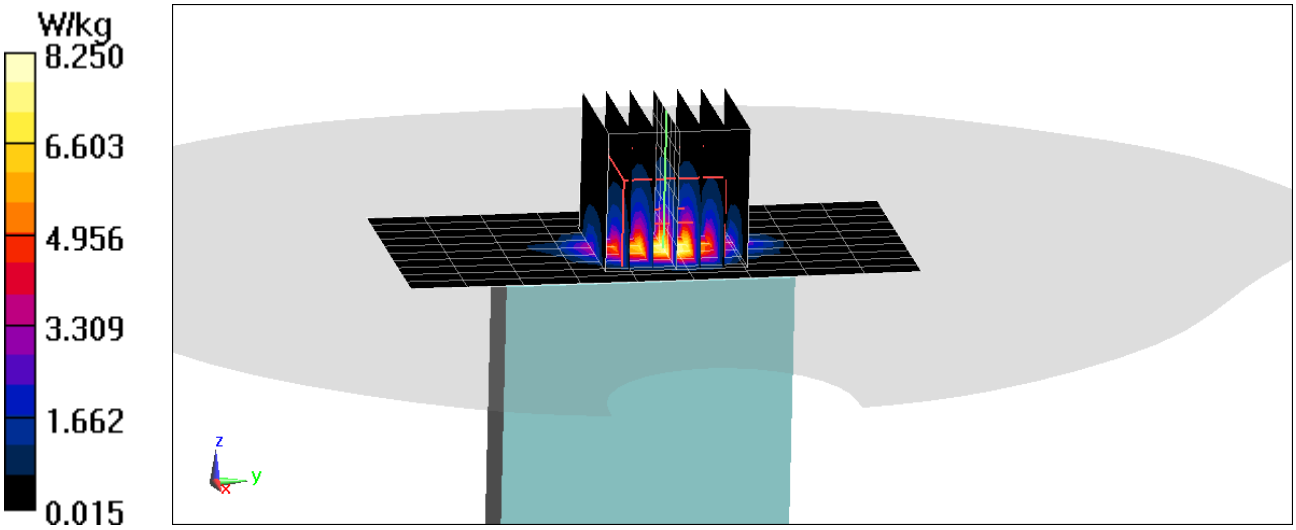
Communication System: UID 0, LTE Band 30; Frequency: 2310 MHz; Duty Cycle: 1:1
Medium: 2450 Body Medium parameters used:
f = 2310 MHz; σ = 1.871 S/m; ε_r = 52.334; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 02-07-2019; Ambient Temp: 21.8°C; Tissue Temp: 21.7°C

Probe: ES3DV3 - SN3319; ConvF(4.63, 4.63, 4.63) @ 2310 MHz; Calibrated: 3/13/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1368; Calibrated: 3/7/2018
Phantom: LeftTwin-SAM V5.0; Type: QD 000 P40 CD; Serial: TP1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 30, Phablet SAR, Bottom Edge, Mid.ch,
10 MHz Bandwidth, QPSK, 25 RB, 0 RB Offset

Area Scan (11x10x1): Measurement grid: dx=5mm, dy=12mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 62.56 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 13.4 W/kg
SAR(10 g) = 2.58 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0025M

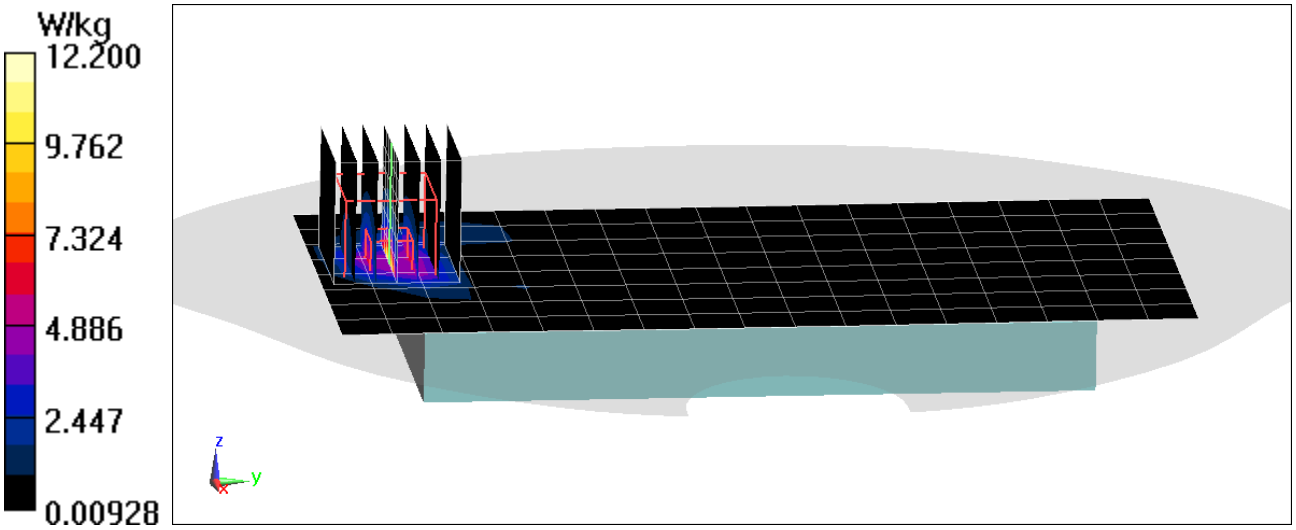
Communication System: UID 0, _LTE Band 7; Frequency: 2510 MHz; Duty Cycle: 1:1
Medium: 2450 Body Medium parameters used (interpolated):
$f = 2510$ MHz; $\sigma = 2.104$ S/m; $\varepsilon_r = 51.443$; $\rho = 1000$ kg/m^3
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 02-02-2019; Ambient Temp: 21.7°C; Tissue Temp: 21.6°C

Probe: ES3DV3 - SN3319; ConvF(4.51, 4.51, 4.51) @ 2510 MHz; Calibrated: 3/13/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1368; Calibrated: 3/7/2018
Phantom: LeftTwin-SAM V5.0; Type: QD 000 P40 CD; Serial: TP1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 7, Phablet SAR, Front side, Low.ch,
20 MHz Bandwidth, QPSK, 1 RB, 99 RB Offset

Area Scan (9x18x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 70.87 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 21.2 W/kg
SAR(10 g) = 2.7 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0045M

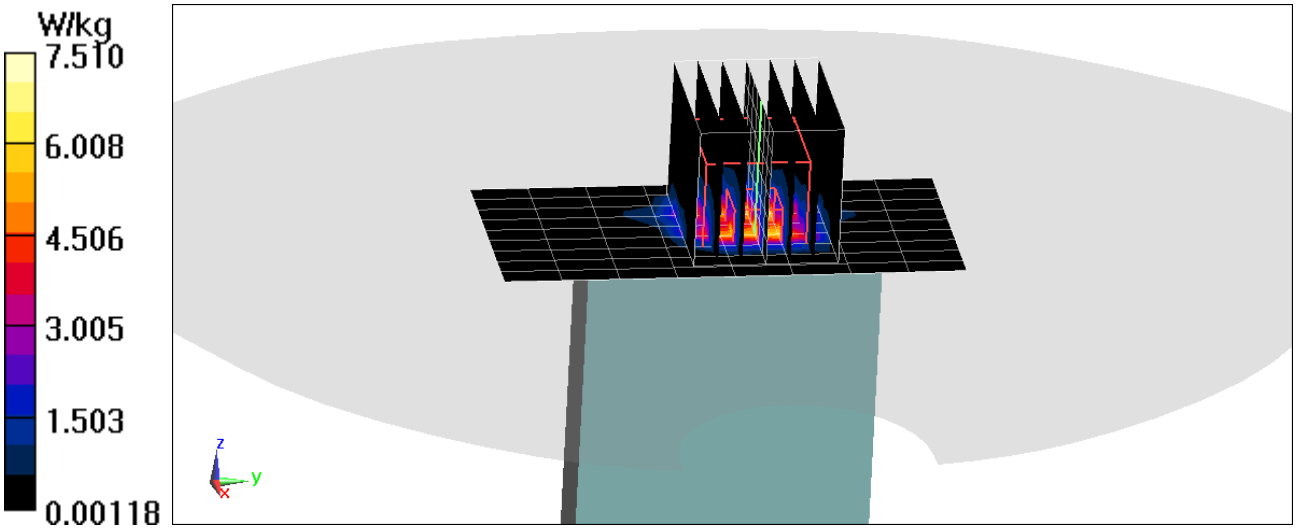
Communication System: UID 0, LTE Band 41 (Class 3); Frequency: 2506 MHz; Duty Cycle: 1:1.58
Medium: 2450 Body Medium parameters used (interpolated):
$f = 2506$ MHz; $\sigma = 2.087$ S/m; $\varepsilon_r = 51.259$; $\rho = 1000$ kg/m^3
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 02-27-2019; Ambient Temp: 23.1°C; Tissue Temp: 23.0°C

Probe: ES3DV3 - SN3319; ConvF(4.51, 4.51, 4.51) @ 2506 MHz; Calibrated: 3/13/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1368; Calibrated: 3/7/2018
Phantom: LeftTwin-SAM V5.0; Type: QD 000 P40 CD; Serial: TP1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 41, PC3, Phablet SAR, Bottom Edge, Low.ch, 20 MHz Bandwidth, QPSK, 50 RB, 50 RB Offset

Area Scan (10x9x1): Measurement grid: dx=5mm, dy=12mm
Zoom Scan (8x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 59.77 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 12.6 W/kg
SAR(10 g) = 2.09 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0003M

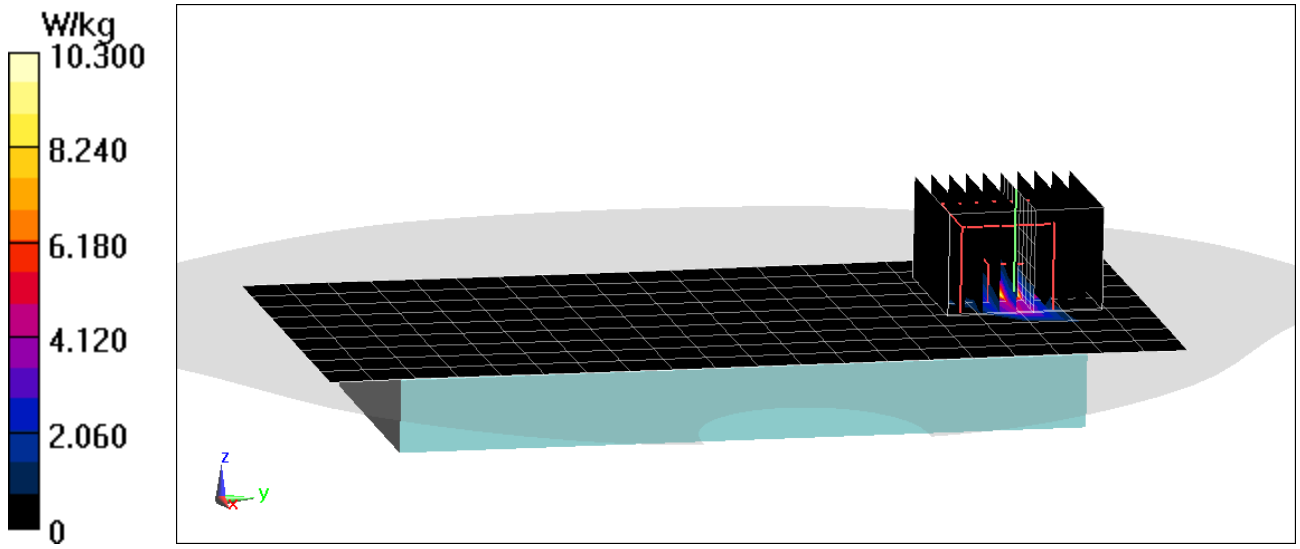
Communication System: UID 0, 802.11a 5.2-5.8 GHz Band; Frequency: 5320 MHz; Duty Cycle: 1:1
Medium: 5 GHz Body Medium parameters used:
f = 5320 MHz; σ = 5.574 S/m; ε_r = 47.559; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 01-21-2019; Ambient Temp: 20.6°C; Tissue Temp: 20.7°C

Probe: EX3DV4 - SN7308; ConvF(4.48, 4.48, 4.48) @ 5320 MHz; Calibrated: 8/23/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1558; Calibrated: 10/3/2018
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1630
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: IEEE 802.11a, U-NII-2A, Antenna 1,
20 MHz Bandwidth, Phablet SAR, Ch 64, 6 Mbps, Back Side

Area Scan (10x21x1): Measurement grid: dx=10mm, dy=10mm
Zoom Scan (10x10x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm; Graded Ratio: 1.4
Reference Value = 20.00 V/m; Power Drift = 0.00 dB
Peak SAR (extrapolated) = 27.6 W/kg
SAR(10 g) = 0.728 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0049M

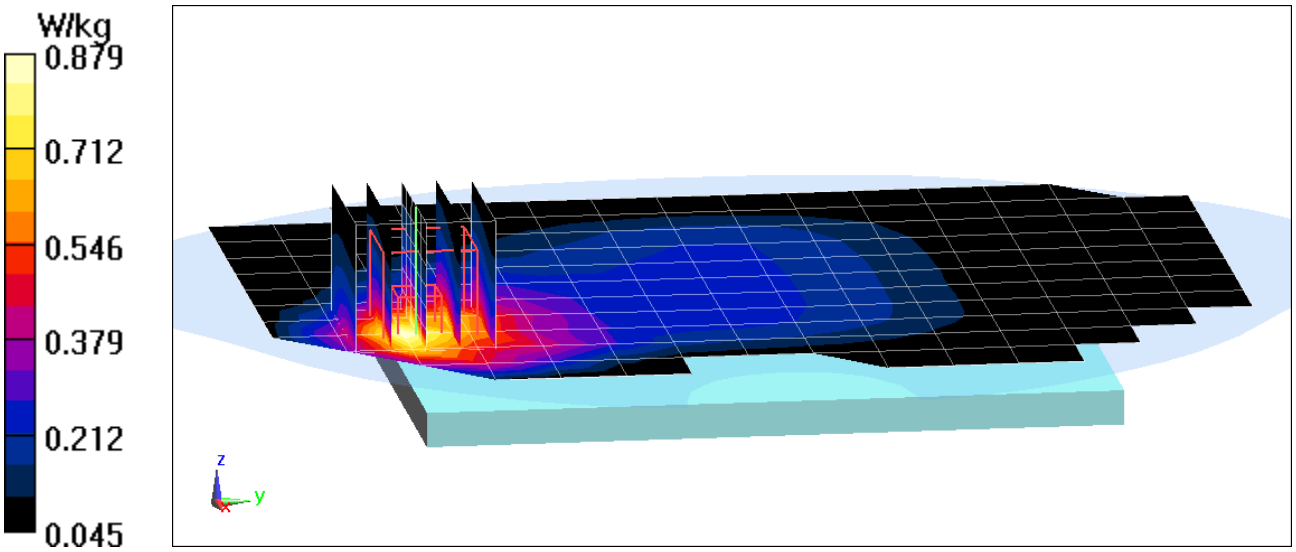
Communication System: UID 0, CDMA; Frequency: 820.1 MHz; Duty Cycle: 1:1
Medium: 835 Body Medium parameters used (interpolated):
f = 820.1 MHz; σ = 0.959 S/m; ε_r = 53.938; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 02-18-2019; Ambient Temp: 21.5°C; Tissue Temp: 20.0°C

Probe: EX3DV4 - SN7357; ConvF(10.17, 10.17, 10.17) @ 820.1 MHz; Calibrated: 4/18/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1407; Calibrated: 4/11/2018
Phantom: SAM with CRP v5.0 Front; Type: QD000P40CD; Serial: 1646
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: Cell. EVDO, Rule Part 90S, UMPC Body SAR, Front side, Mid.ch

Area Scan (12x16x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (6x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 25.76 V/m; Power Drift = 0.00 dB
Peak SAR (extrapolated) = 1.06 W/kg
SAR(1 g) = 0.619 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0049M

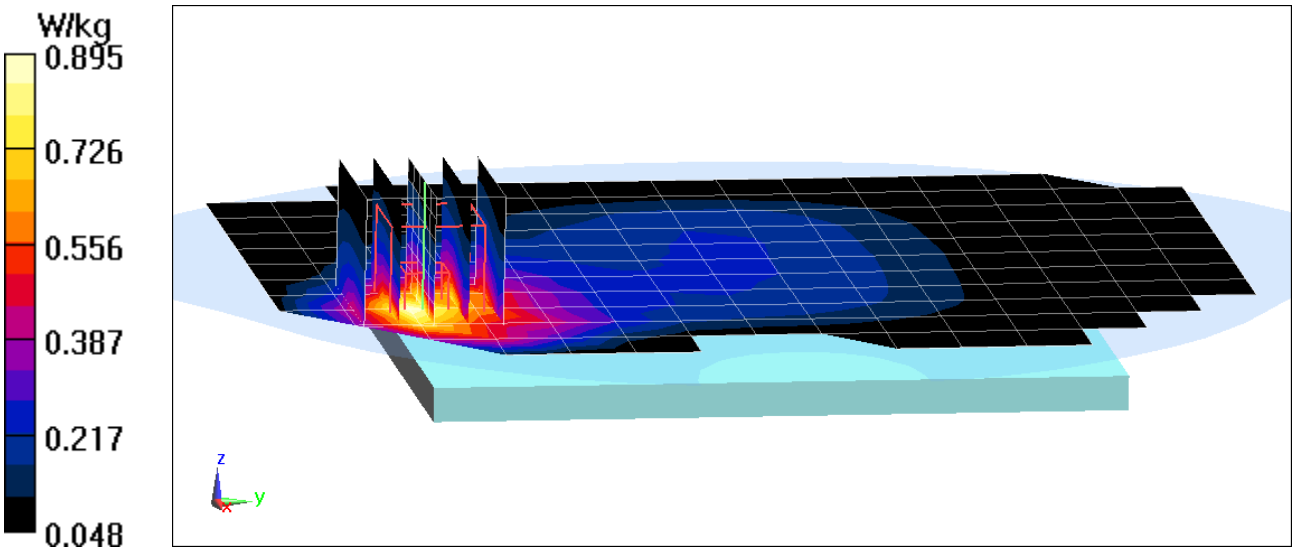
Communication System: UID 0, CDMA; Frequency: 824.7 MHz; Duty Cycle: 1:1
Medium: 835 Body Medium parameters used (interpolated):
f = 824.7 MHz; σ = 0.964 S/m; ε_r = 53.888; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 02-18-2019; Ambient Temp: 21.5°C; Tissue Temp: 20.0°C

Probe: EX3DV4 - SN7357; ConvF(10.17, 10.17, 10.17) @ 824.7 MHz; Calibrated: 4/18/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1407; Calibrated: 4/11/2018
Phantom: SAM with CRP v5.0 Front; Type: QD000P40CD; Serial: 1646
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: Cell. EVDO, Rule Part 22H, UMPC Body SAR, Front side, Low.ch

Area Scan (12x16x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (6x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 25.95 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 1.08 W/kg
SAR(1 g) = 0.628 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0037M

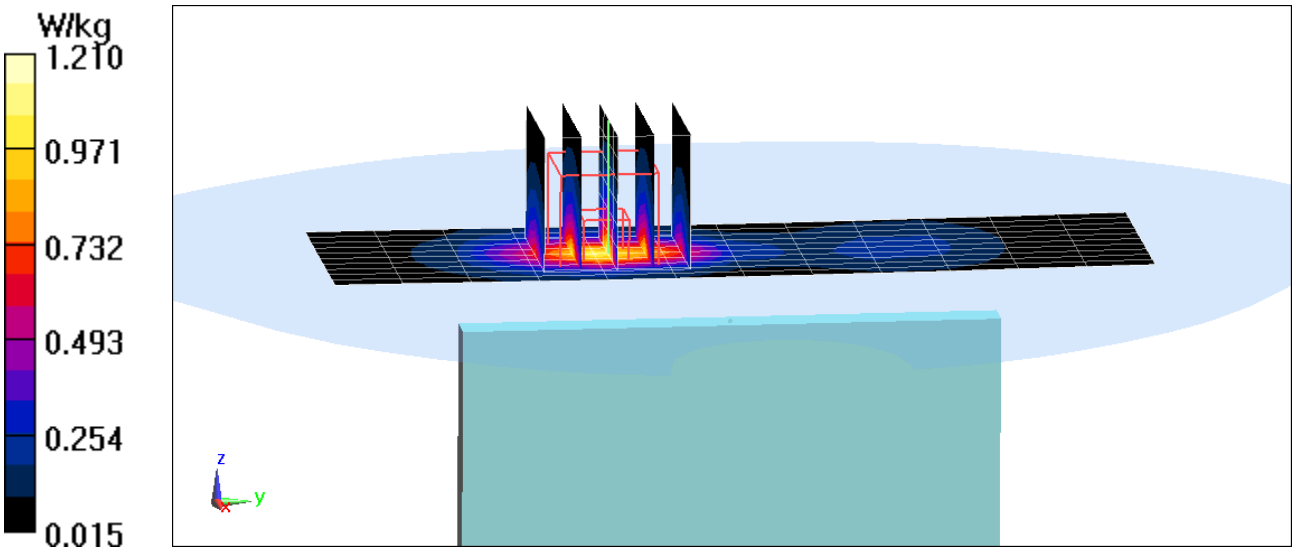
Communication System: UID 0, CDMA; Frequency: 1908.75 MHz; Duty Cycle: 1:1
Medium: 1900 Body Medium parameters used (interpolated):
f = 1908.75 MHz; σ = 1.572 S/m; ε_r = 52.542; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.3 cm

Test Date: 02-20-2019; Ambient Temp: 20.3°C; Tissue Temp: 22.0°C

Probe: EX3DV4 - SN7488; ConvF(8.37, 8.37, 8.37) @ 1908.75 MHz; Calibrated: 1/24/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1530; Calibrated: 1/15/2019
Phantom: SAM Left; Type: QD000P40CC; Serial: TP: 1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: PCS EVDO, UMPC Body SAR, Bottom Edge, High.ch

Area Scan (11x13x1): Measurement grid: dx=5mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 24.14 V/m; Power Drift = 0.00 dB
Peak SAR (extrapolated) = 1.42 W/kg
SAR(1 g) = 0.812 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0039M

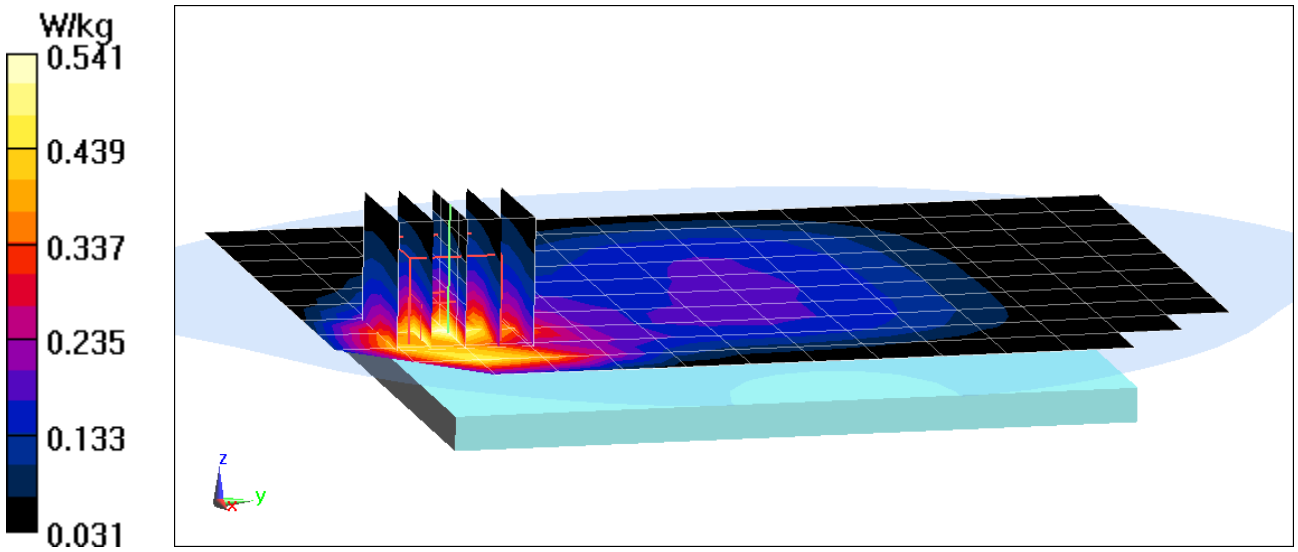
Communication System: UID 0, _GSM GPRS; 3 Tx slots; Frequency: 836.6 MHz; Duty Cycle: 1:2.76
Medium: 835 Body Medium parameters used (interpolated):
f = 836.6 MHz; σ = 0.98 S/m; ε_r = 54.16; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 02-13-2019; Ambient Temp: 21.9°C; Tissue Temp: 21.3°C

Probe: EX3DV4 - SN7357; ConvF(10.17, 10.17, 10.17) @ 836.6 MHz; Calibrated: 4/18/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1407; Calibrated: 4/11/2018
Phantom: SAM with CRP v5.0 Front; Type: QD000P40CD; Serial: 1646
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: GPRS 850, UMPC Body SAR, Front side, Mid.ch, 3 Tx Slots

Area Scan (11x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 20.72 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 0.653 W/kg
SAR(1 g) = 0.390 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0023M

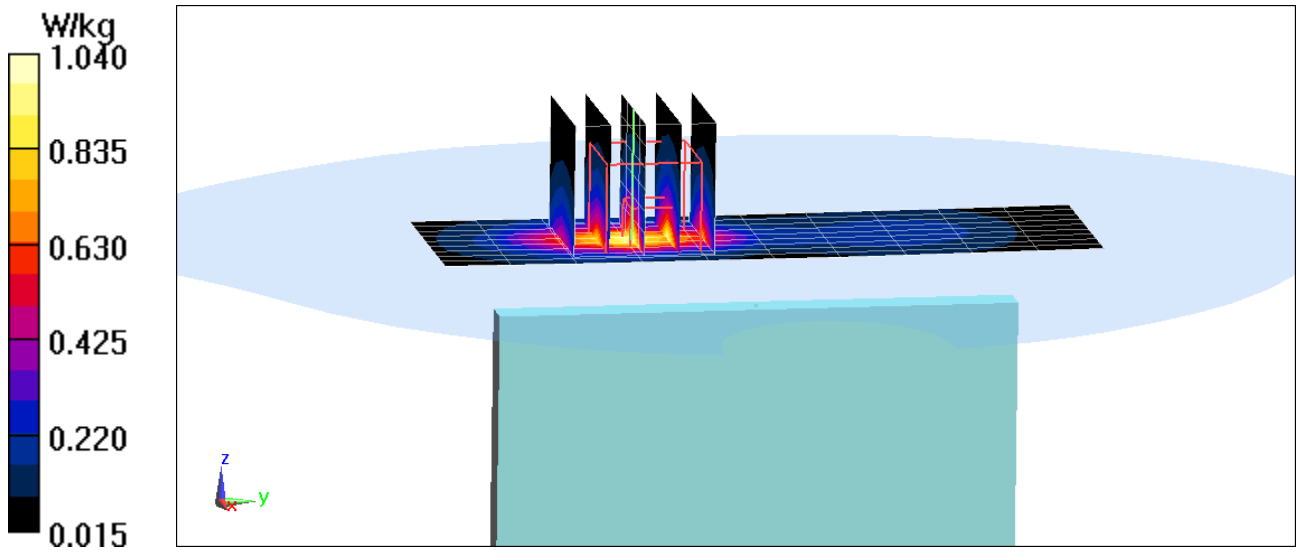
Communication System: UID 0, _GSM GPRS; 2 Tx slots; Frequency: 1909.8 MHz; Duty Cycle: 1:4.15
Medium: 1900 Body Medium parameters used:
f = 1910 MHz; σ = 1.573 S/m; ε_r = 52.536; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.3 cm

Test Date: 02-20-2019; Ambient Temp: 20.3°C; Tissue Temp: 22.0°C

Probe: EX3DV4 - SN7488; ConvF(8.37, 8.37, 8.37) @ 1909.8 MHz; Calibrated: 1/24/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1530; Calibrated: 1/15/2019
Phantom: SAM Left; Type: QD000P40CC; Serial: TP: 1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: GPRS 1900, UMPC Body SAR, Bottom Edge, High.ch, 2 Tx Slots

Area Scan (10x11x1): Measurement grid: dx=5mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 22.33 V/m; Power Drift = -0.09 dB
Peak SAR (extrapolated) = 1.26 W/kg
SAR(1 g) = 0.718 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0025M

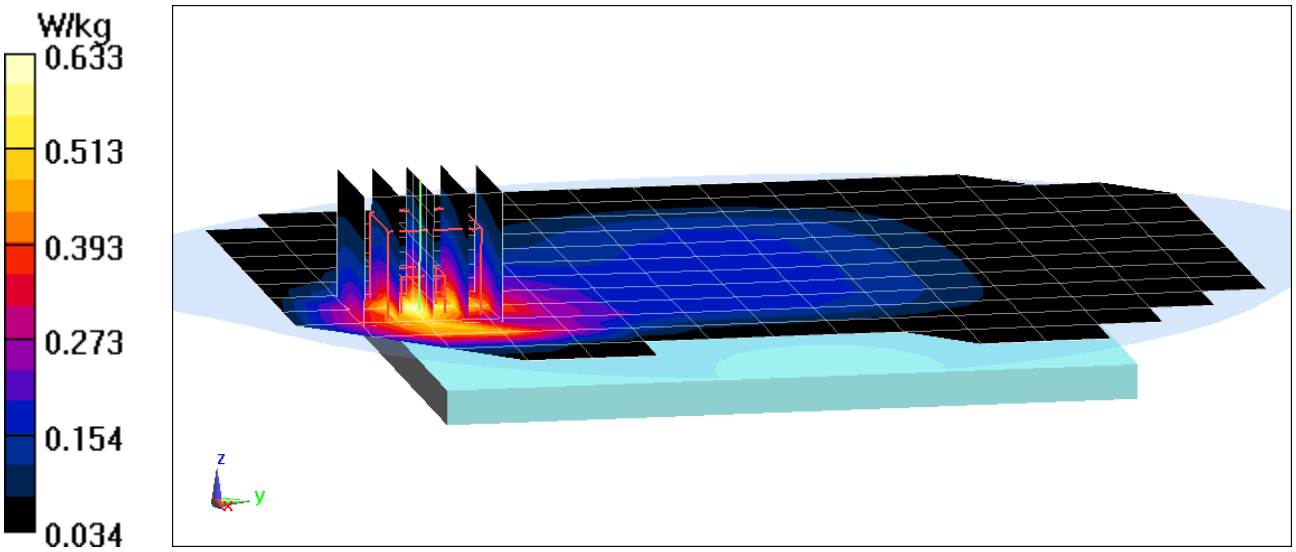
Communication System: UID 0, UMTS; Frequency: 836.6 MHz; Duty Cycle: 1:1
Medium: 835 Body Medium parameters used (interpolated):
f = 836.6 MHz; σ = 0.989 S/m; ε_r = 53.864; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 03-10-2019; Ambient Temp: 20.7°C; Tissue Temp: 21.0°C

Probe: EX3DV4 - SN7488; ConvF(11.03, 11.03, 11.03) @ 836.6 MHz; Calibrated: 1/24/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1530; Calibrated: 1/15/2019
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1800
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: UMTS 850, UMPC Body SAR, Front side, Mid.ch

Area Scan (11x9x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (7x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 23.02 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 0.950 W/kg
SAR(1 g) = 0.562 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0045M

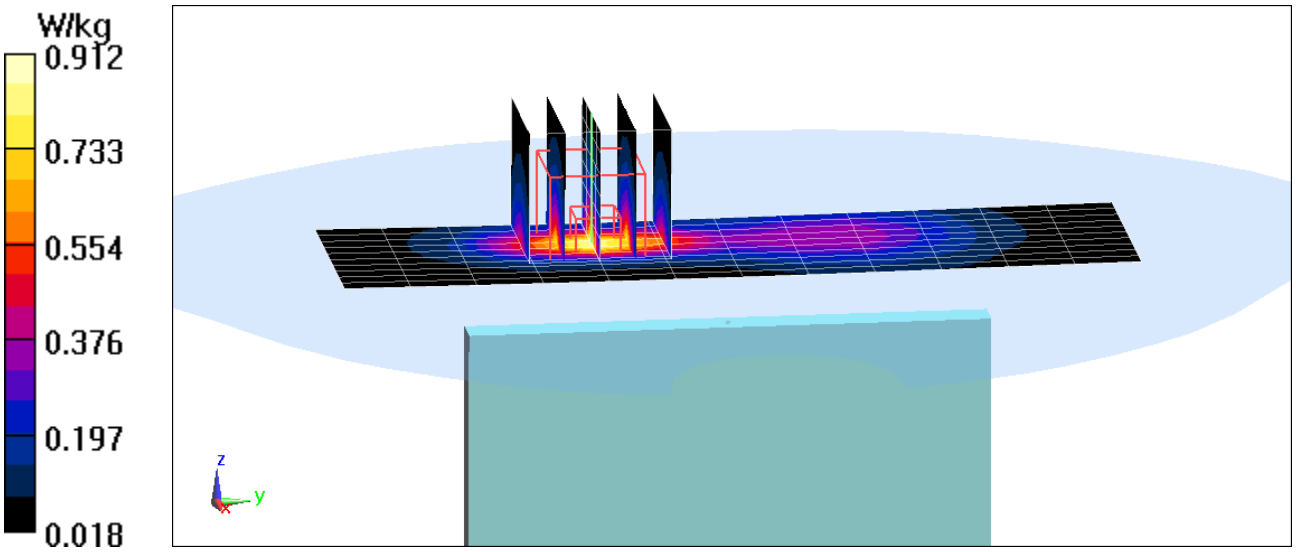
Communication System: UID 0, _UMTS; Frequency: 1752.6 MHz; Duty Cycle: 1:1
Medium: 1750 Body Medium parameters used (interpolated):
f = 1752.6 MHz; σ = 1.511 S/m; ε_r = 51.518; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.3 cm

Test Date: 02-22-2019; Ambient Temp:23.2°C; Tissue Temp: 20.8°C

Probe: EX3DV4 - SN7410; ConvF(8.06, 8.06, 8.06) @ 1752.6 MHz; Calibrated: 7/20/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2018
Phantom: SAM Left; Type: QD000P40CA; Serial: TP:82355
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: UMTS 1750, UMPC Body SAR, Bottom Edge, High.ch

Area Scan (11x13x1): Measurement grid: dx=5mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 23.44 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 1.22 W/kg
SAR(1 g) = 0.720 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0023M

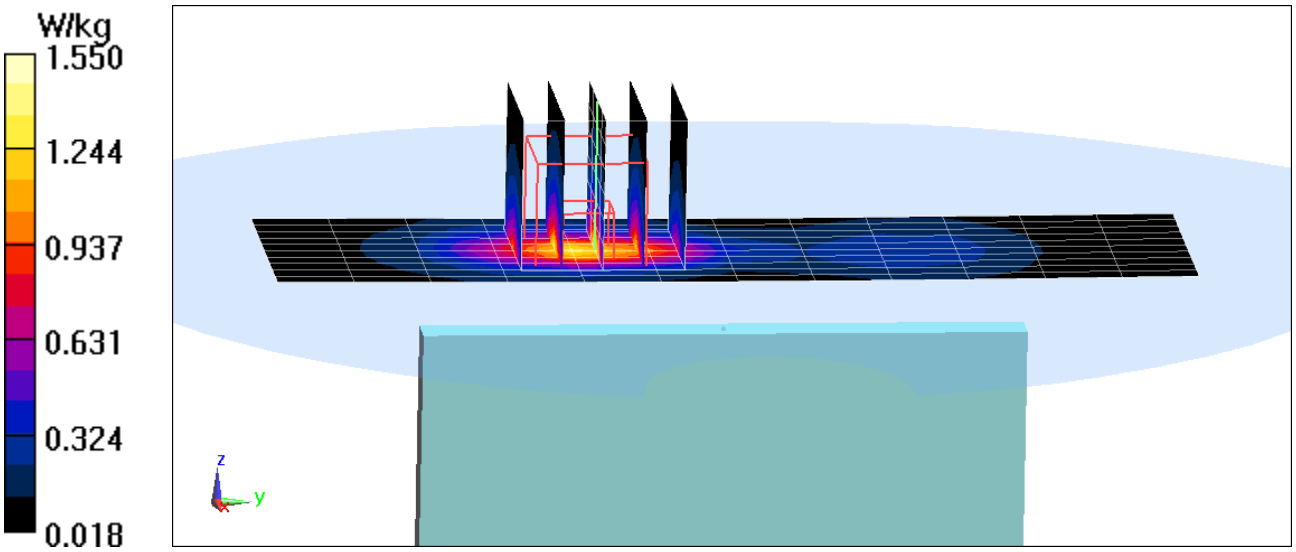
Communication System: UID 0, _UMTS; Frequency: 1907.6 MHz; Duty Cycle: 1:1
Medium: 1900 Body Medium parameters used (interpolated):
f = 1907.6 MHz; σ = 1.57 S/m; ε_r = 50.943; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.3 cm

Test Date: 02-24-2019; Ambient Temp: 21.7°C; Tissue Temp: 21.5°C

Probe: EX3DV4 - SN7488; ConvF(8.37, 8.37, 8.37) @ 1907.6 MHz; Calibrated: 1/24/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1530; Calibrated: 1/15/2019
Phantom: SAM Left; Type: QD000P40CC; Serial: TP: 1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: UMTS 1900, UMPC Body SAR, Bottom Edge, High.ch

Area Scan (11x13x1): Measurement grid: dx=5mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 27.04 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 1.82 W/kg
SAR(1 g) = 1.03 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0007M

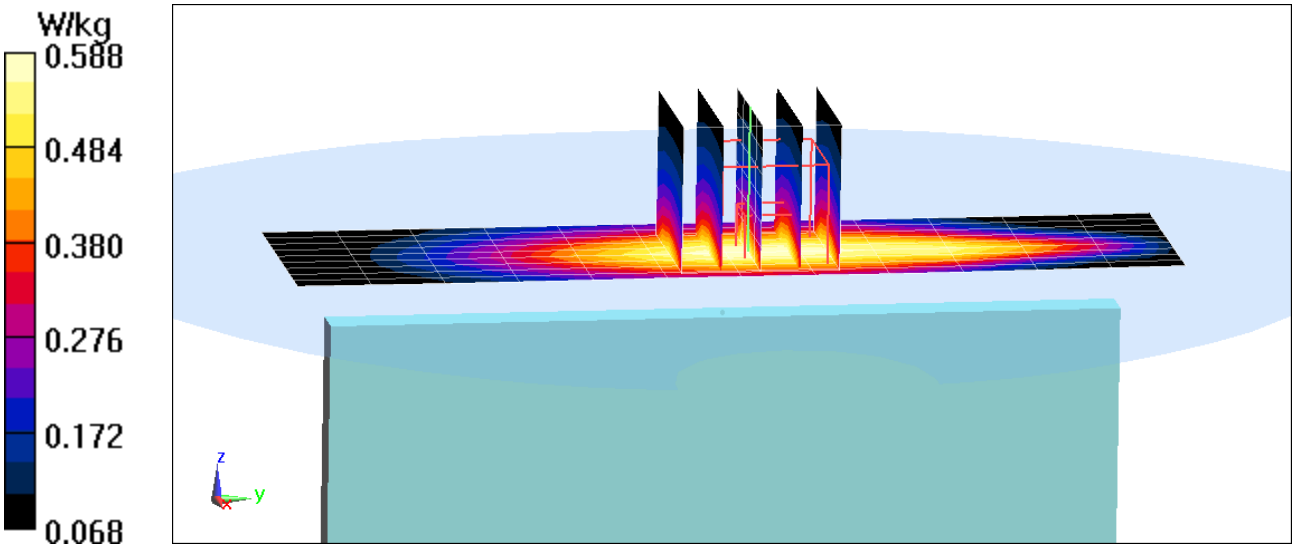
Communication System: UID 0, LTE Band 71; Frequency: 680.5 MHz; Duty Cycle: 1:1
Medium: 750 Body Medium parameters used (interpolated):
f = 680.5 MHz; σ = 0.941 S/m; ε_r = 53.656; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 02-13-2019; Ambient Temp: 22.9°C; Tissue Temp: 21.0°C

Probe: EX3DV4 - SN3589; ConvF(8.34, 8.34, 8.34) @ 680.5 MHz; Calibrated: 1/25/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1450; Calibrated: 8/22/2018
Phantom: SAM 5.0 front; Type: QD000P40CD; Serial: 1648
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 71, UMPC Body SAR, Right Edge, Mid.ch,
20 MHz Bandwidth, QPSK, 1 RB, 0 RB Offset

Area Scan (10x13x1): Measurement grid: dx=5mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 21.97 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 0.676 W/kg
SAR(1 g) = 0.442 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0007M

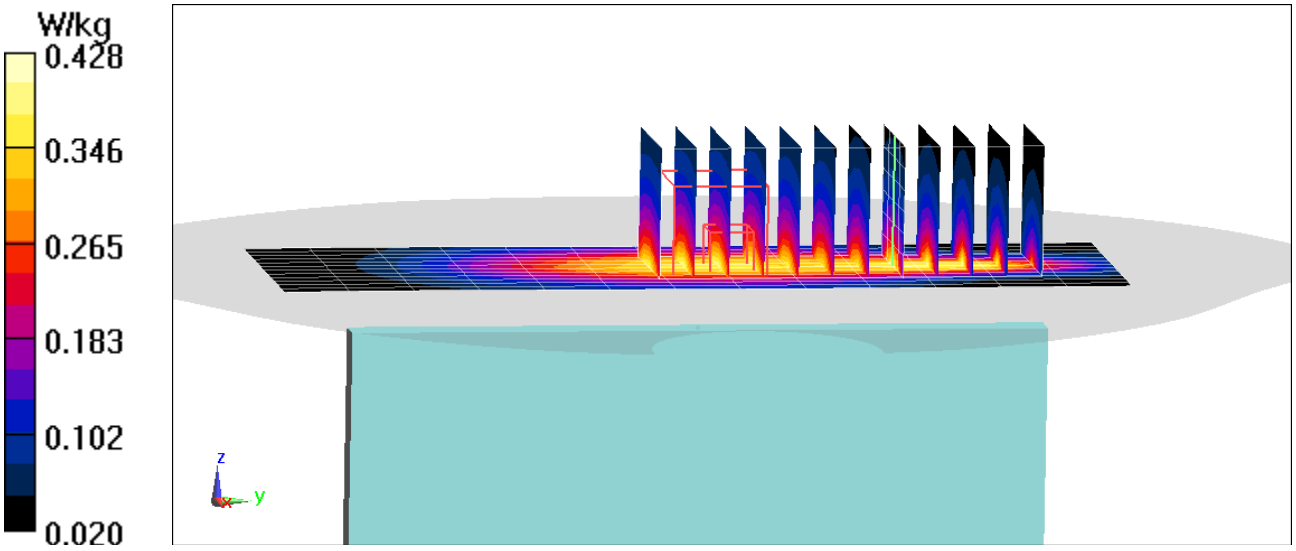
Communication System: UID 0, LTE Band 12; Frequency: 707.5 MHz; Duty Cycle: 1:1
Medium: 750 Body Medium parameters used (interpolated):
f = 707.5 MHz; σ = 0.941 S/m; ε_r = 54.163; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 03-05-2019; Ambient Temp: 21.7°C; Tissue Temp: 20.7°C

Probe: EX3DV4 - SN7488; ConvF(11.28, 11.28, 11.28) @ 707.5 MHz; Calibrated: 1/24/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1530; Calibrated: 1/15/2019
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1800
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 12, UMPC Body SAR, Right Edge, Mid.ch,
10 MHz Bandwidth, QPSK, 1 RB, 25 RB Offset

Area Scan (13x14x1): Measurement grid: dx=5mm, dy=15mm
Zoom Scan (5x12x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 17.42 V/m; Power Drift = 0.17 dB
Peak SAR (extrapolated) = 0.497 W/kg
SAR(1 g) = 0.315 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0007M

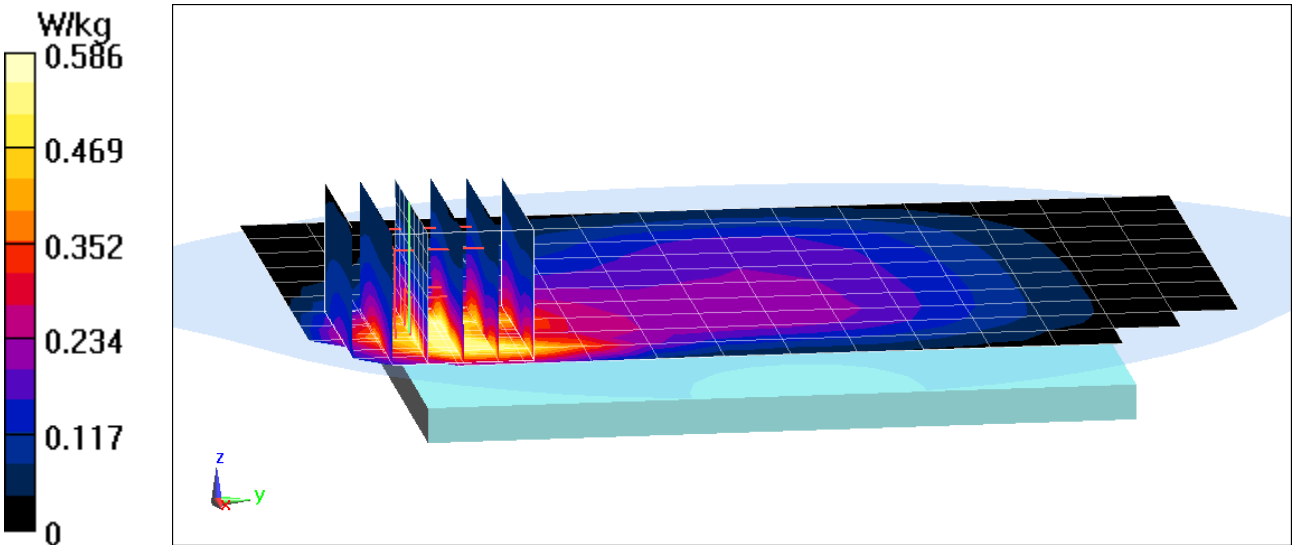
Communication System: UID 0, LTE Band 13; Frequency: 782 MHz; Duty Cycle: 1:1
Medium: 750 Body Medium parameters used (interpolated):
f = 782 MHz; σ = 0.98 S/m; ε_r = 53.421; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 02-13-2019; Ambient Temp: 22.9°C; Tissue Temp: 21.0°C

Probe: EX3DV4 - SN3589; ConvF(8.34, 8.34, 8.34) @ 782 MHz; Calibrated: 1/25/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1450; Calibrated: 8/22/2018
Phantom: SAM 5.0 front; Type: QD000P40CD; Serial: 1648
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 13, UMPC Body SAR, Front side,
Mid.ch, 10 MHz Bandwidth, QPSK, 1 RB, 49 RB Offset

Area Scan (11x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (8x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 19.41 V/m; Power Drift = -0.16 dB
Peak SAR (extrapolated) = 0.741 W/kg
SAR(1 g) = 0.420 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0007M

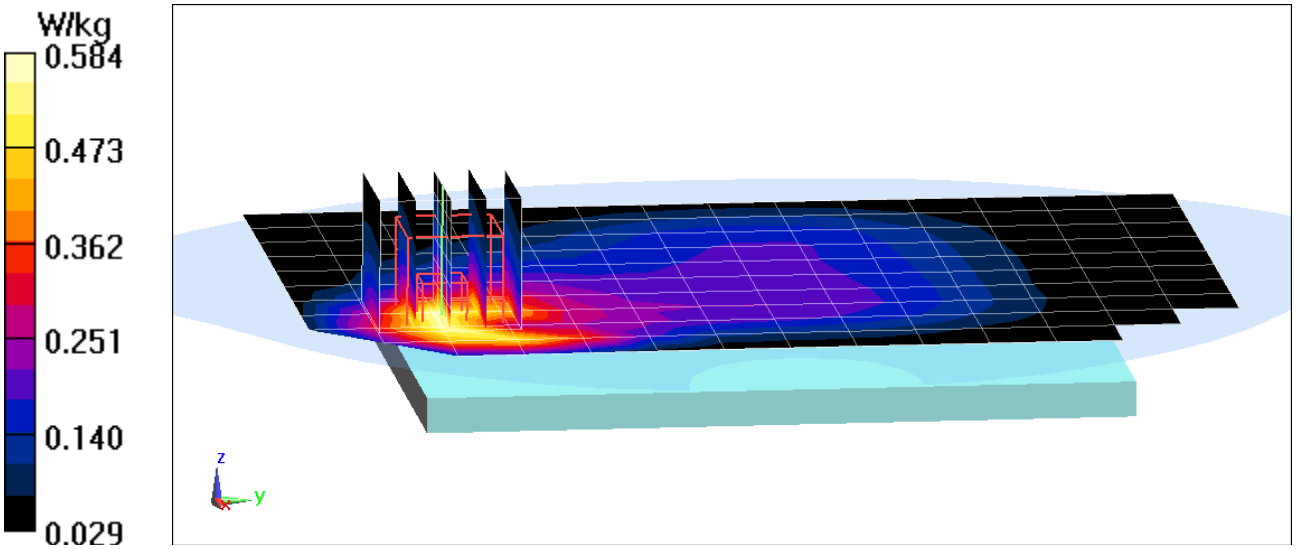
Communication System: UID 0, LTE Band 14; Frequency: 793 MHz; Duty Cycle: 1:1
Medium: 750 Body Medium parameters used (interpolated):
f = 793 MHz; σ = 0.984 S/m; ε_r = 53.392; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 02-13-2019; Ambient Temp: 22.9°C; Tissue Temp: 21.0°C

Probe: EX3DV4 - SN3589; ConvF(8.34, 8.34, 8.34) @ 793 MHz; Calibrated: 1/25/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1450; Calibrated: 8/22/2018
Phantom: SAM 5.0 front; Type: QD000P40CD; Serial: 1648
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 14, UMPC Body SAR, Front side,
Mid.ch, 10 MHz Bandwidth, QPSK, 1 RB, 25 RB Offset

Area Scan (11x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 21.09 V/m; Power Drift = 0.00 dB
Peak SAR (extrapolated) = 0.702 W/kg
SAR(1 g) = 0.405 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0025M

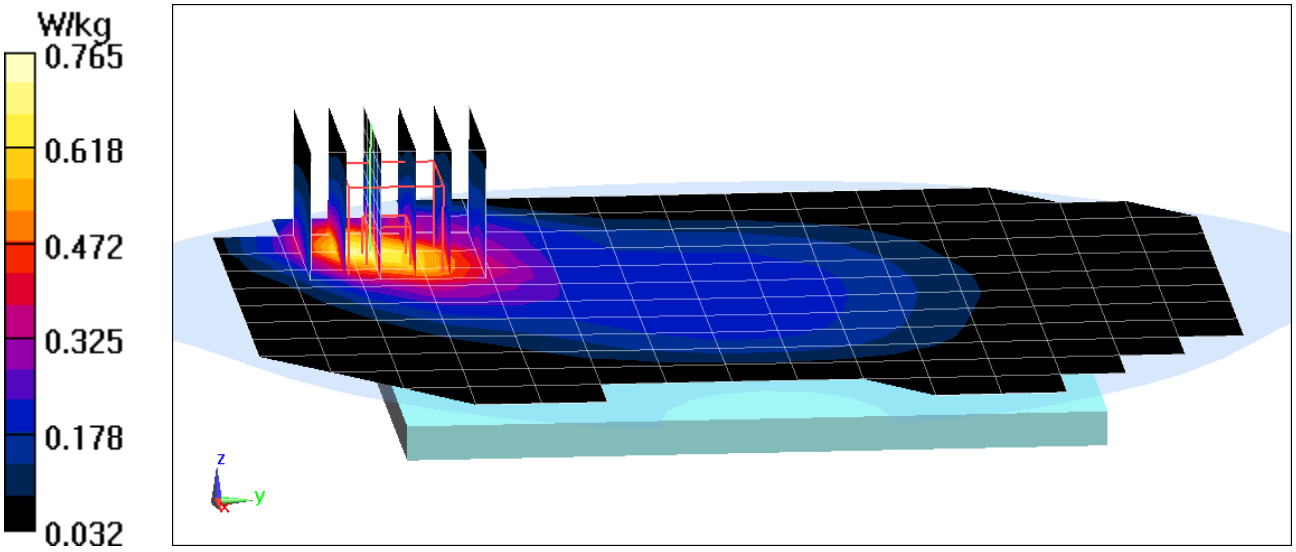
Communication System: UID 0, LTE Band 26; Frequency: 831.5 MHz; Duty Cycle: 1:1
Medium: 835 Body Medium parameters used (interpolated):
f = 831.5 MHz; σ = 0.974 S/m; ε_r = 54.214; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 02-13-2019; Ambient Temp: 21.9°C; Tissue Temp: 21.3°C

Probe: EX3DV4 - SN7357; ConvF(10.17, 10.17, 10.17) @ 831.5 MHz; Calibrated: 4/18/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1407; Calibrated: 4/11/2018
Phantom: SAM with CRP v5.0 Front; Type: QD000P40CD; Serial: 1646
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 26 (Cell.), UMPC Body SAR, Back side,
Mid.ch, 15 MHz Bandwidth, QPSK, 1 RB, 36 RB Offset

Area Scan (13x16x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 24.11 V/m; Power Drift = -0.12 dB
Peak SAR (extrapolated) = 0.931 W/kg
SAR(1 g) = 0.549 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0039M

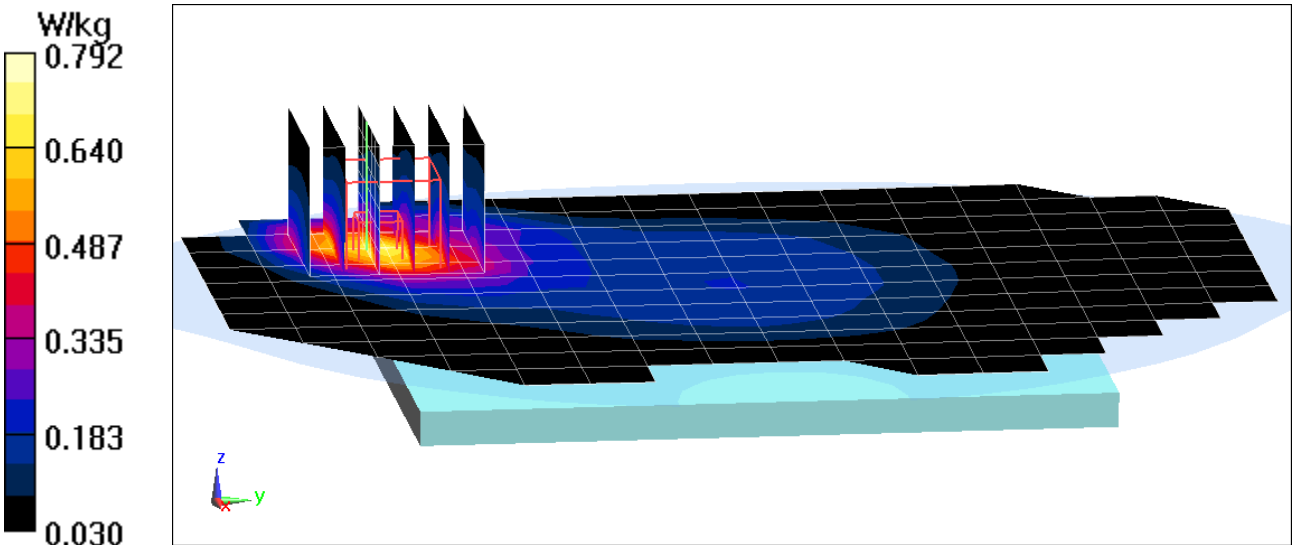
Communication System: UID 0, LTE Band 5 (Cell.); Frequency: 836.5 MHz; Duty Cycle: 1:1
Medium: 835 Body Medium parameters used (interpolated):
f = 836.5 MHz; σ = 0.969 S/m; ε_r = 53.727; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 02-06-2018; Ambient Temp: 22.2°C; Tissue Temp: 21.8°C

Probe: EX3DV4 - SN7357; ConvF(10.17, 10.17, 10.17) @ 836.5 MHz; Calibrated: 4/18/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1407; Calibrated: 4/11/2018
Phantom: SAM with CRP v5.0 Front; Type: QD000P40CD; Serial: 1646
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 5 (Cell.), UMPC Body SAR, Back side,
Mid.ch, 10 MHz Bandwidth, QPSK, 1 RB, 49 RB Offset

Area Scan (13x17x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 24.50 V/m; Power Drift = -0.17 dB
Peak SAR (extrapolated) = 0.945 W/kg
SAR(1 g) = 0.543 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0004M

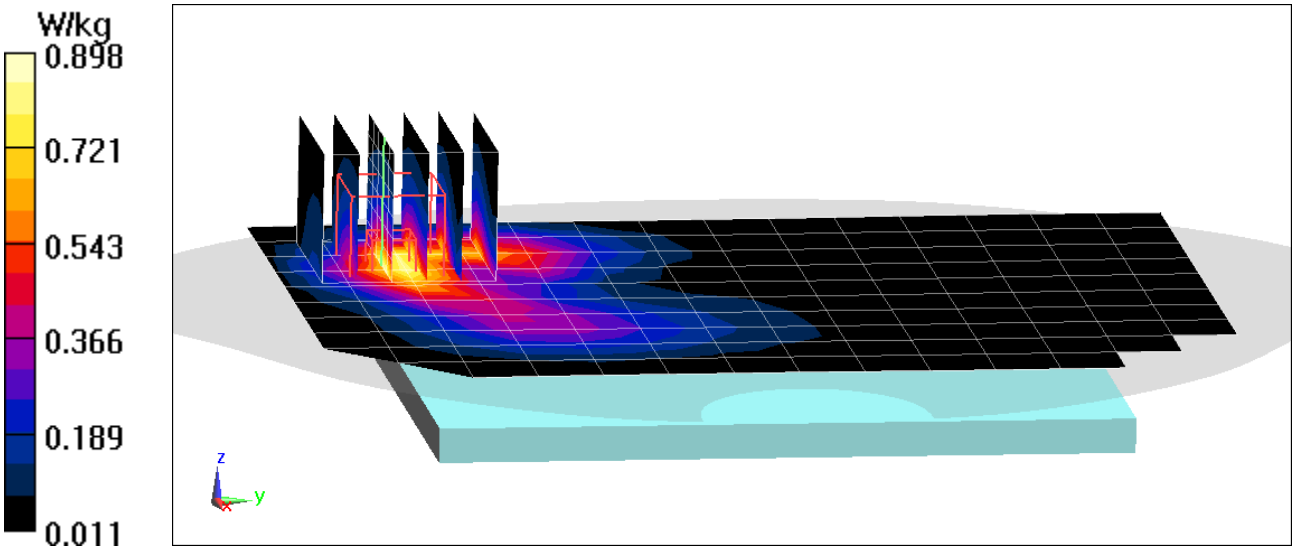
Communication System: UID 0, LTE Band 66 (AWS); Frequency: 1720 MHz; Duty Cycle: 1:1
Medium: 1750 Body Medium parameters used (interpolated):
f = 1720 MHz; σ = 1.496 S/m; ε_r = 51.088; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-24-2019; Ambient Temp: 20.8°C; Tissue Temp: 20.2°C

Probe: ES3DV3 - SN3347; ConvF(5.17, 5.17, 5.17) @ 1720 MHz; Calibrated: 3/27/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn665; Calibrated: 2/15/2018
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1800
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 66 (AWS), UMPC Body SAR, Back side,
Low.ch, 20 MHz Bandwidth, QPSK, 1 RB,0 RB Offset

Area Scan (11x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 22.61 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 1.25 W/kg
SAR(1 g) = 0.733 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0023M

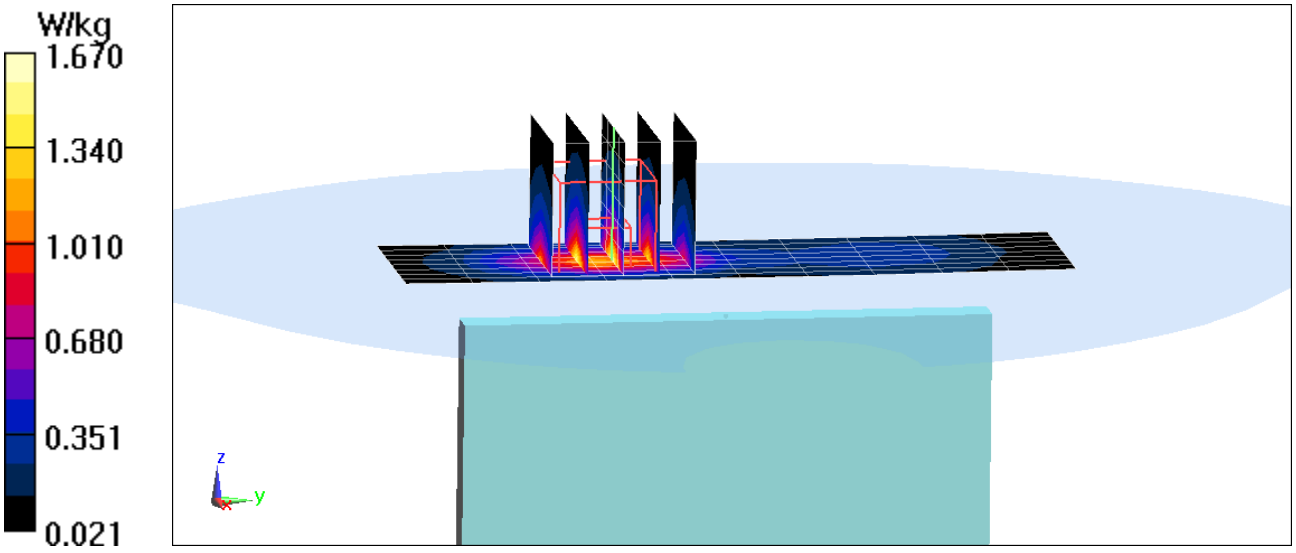
Communication System: UID 0, LTE Band 25 (PCS); Frequency: 1905 MHz; Duty Cycle: 1:1
Medium: 1900 Body Medium parameters used (interpolated):
f = 1905 MHz; σ = 1.566 S/m; ε_r = 50.95; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.3 cm

Test Date: 02-24-2019; Ambient Temp: 21.7°C; Tissue Temp: 21.5°C

Probe: EX3DV4 - SN7488; ConvF(8.37, 8.37, 8.37) @ 1905 MHz; Calibrated: 1/24/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1530; Calibrated: 1/15/2019
Phantom: SAM Left; Type: QD000P40CC; Serial: TP: 1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 25 (PCS), UMPC Body SAR, Bottom Edge, High.ch, 20 MHz Bandwidth, QPSK, 1 RB, 99 RB Offset

Area Scan (9x11x1): Measurement grid: dx=5mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 28.46 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 1.97 W/kg
SAR(1 g) = 1.13 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0045M

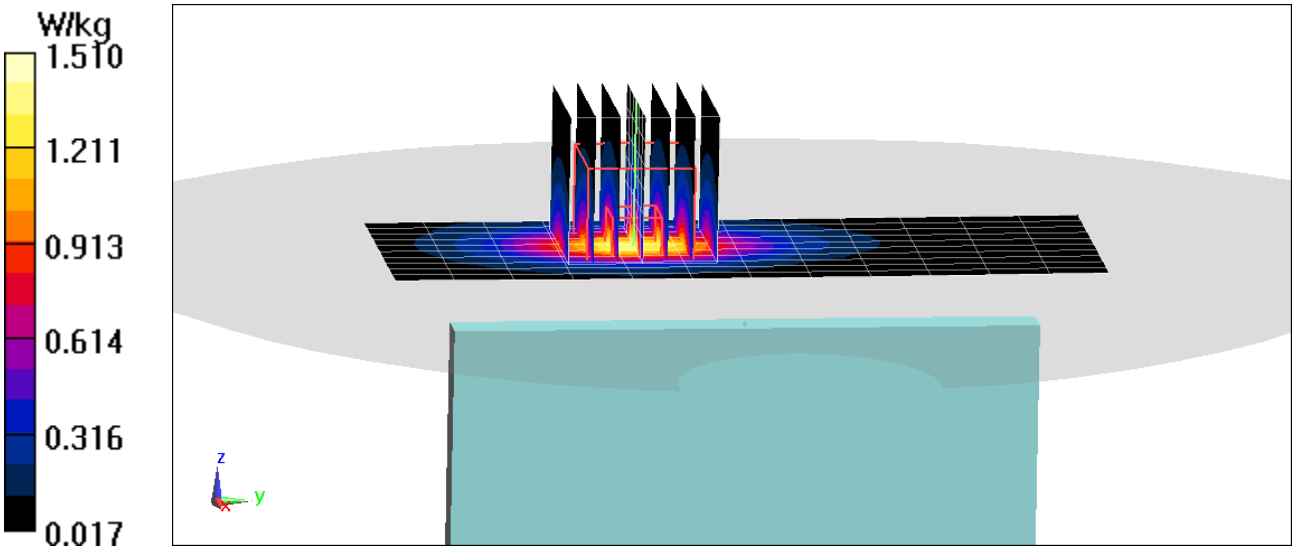
Communication System: UID 0, LTE Band 30; Frequency: 2310 MHz; Duty Cycle: 1:1
Medium: 2450 Body Medium parameters used:
f = 2310 MHz; σ = 1.878 S/m; ε_r = 52.916; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.3 cm

Test Date: 02-18-2019; Ambient Temp: 21.9°C; Tissue Temp: 22.8°C

Probe: ES3DV3 - SN3319; ConvF(4.63, 4.63, 4.63) @ 2310 MHz; Calibrated: 3/13/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1368; Calibrated: 3/7/2018
Phantom: LeftTwin-SAM V5.0; Type: QD 000 P40 CD; Serial: TP1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 30, UMPC Body SAR, Bottom Edge, Mid.ch, 10 MHz Bandwidth, QPSK, 1 RB, 0 RB Offset

Area Scan (11x13x1): Measurement grid: dx=5mm, dy=12mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 27.40 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 2.19 W/kg
SAR(1 g) = 1.18 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0045M

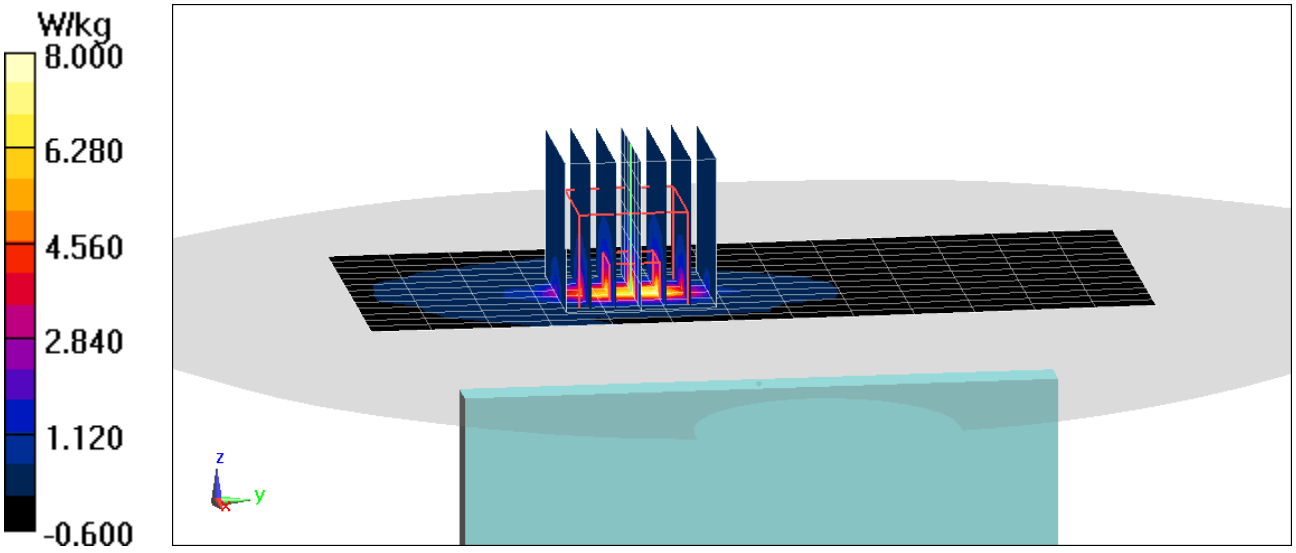
Communication System: UID 0, _LTE Band 7; Frequency: 2510 MHz; Duty Cycle: 1:1
Medium: 2450 Body Medium parameters used (interpolated):
f = 2510 MHz; σ = 2.105 S/m; ε_r = 51.823; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.3 cm

Test Date: 02-13-2019; Ambient Temp: 21.9°C; Tissue Temp: 21.1°C

Probe: ES3DV3 - SN3319; ConvF(4.51, 4.51, 4.51) @ 2510 MHz; Calibrated: 3/13/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1368; Calibrated: 3/7/2018
Phantom: LeftTwin-SAM V5.0; Type: QD 000 P40 CD; Serial: TP1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 7, UMPC Body SAR, Bottom Edge, Low.ch, 20 MHz Bandwidth, QPSK, 1 RB, 99 RB Offset

Area Scan (14x14x1): Measurement grid: dx=5mm, dy=12mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 23.17 V/m; Power Drift = -0.18 dB
Peak SAR (extrapolated) = 1.91 W/kg
SAR(1 g) = 0.956 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0045M

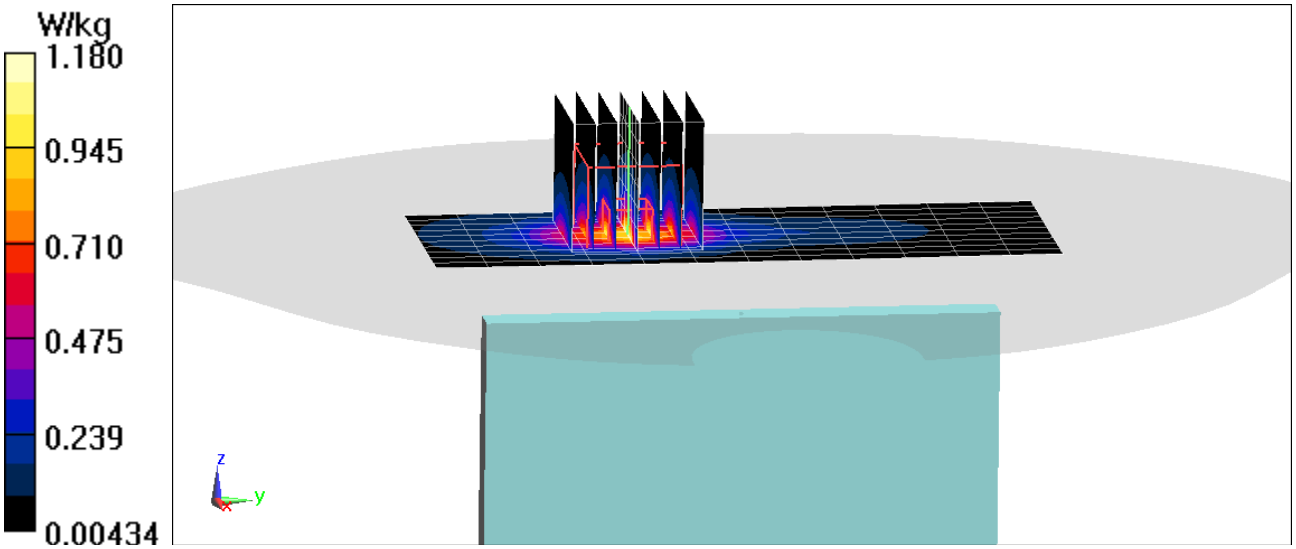
Communication System: UID 0, LTE Band 41 (Class 3); Frequency: 2680 MHz; Duty Cycle: 1:1.58
Medium: 2450 Body Medium parameters used (interpolated):
f = 2680 MHz; σ = 2.314 S/m; ε_r = 51.779; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.3 cm

Test Date: 02-18-2019; Ambient Temp: 21.9°C; Tissue Temp: 22.8°C

Probe: ES3DV3 - SN3319; ConvF(4.33, 4.33, 4.33) @ 2680 MHz; Calibrated: 3/13/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1368; Calibrated: 3/7/2018
Phantom: LeftTwin-SAM V5.0; Type: QD 000 P40 CD; Serial: TP1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 41, PC3, UMPC Body SAR, Bottom Edge, High.ch, 20 MHz Bandwidth, QPSK, 1 RB, 99 RB Offset

Area Scan (11x13x1): Measurement grid: dx=5mm, dy=12mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 21.26 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 1.88 W/kg
SAR(1 g) = 0.894 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0025M

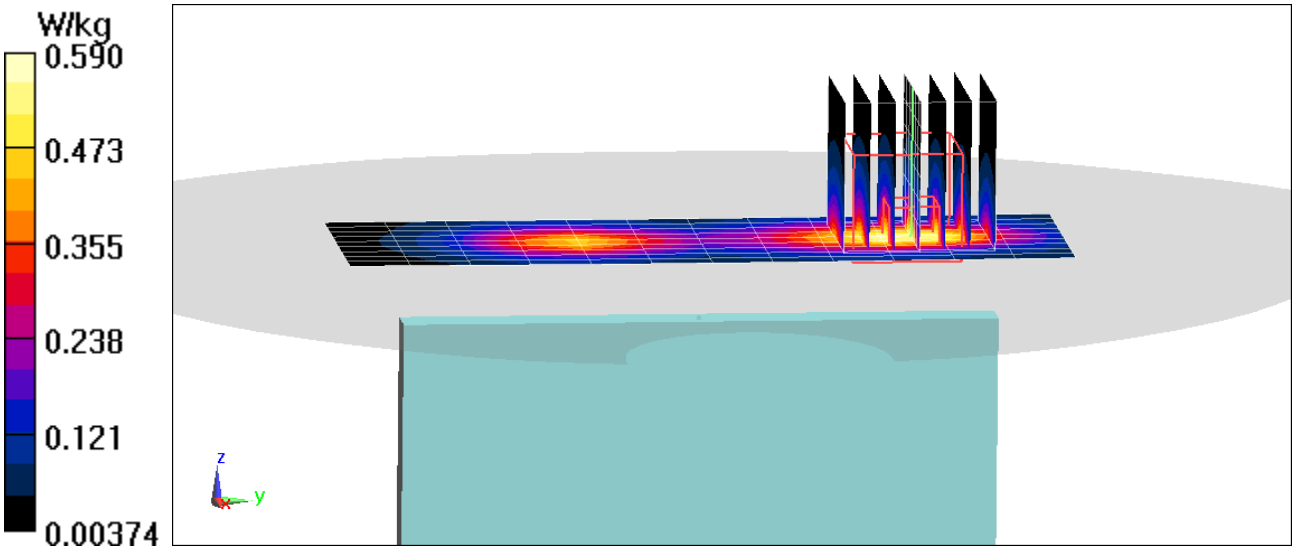
Communication System: UID 0, _IEEE 802.11b; Frequency: 2412 MHz; Duty Cycle: 1:1
Medium: 2450 Body Medium parameters used (interpolated):
f = 2412 MHz; σ = 1.992 S/m; ε_r = 50.765; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-29-2019; Ambient Temp: 22.6°C; Tissue Temp: 20.5°C

Probe: ES3DV3 - SN3319; ConvF(4.51, 4.51, 4.51) @ 2412 MHz; Calibrated: 3/13/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1368; Calibrated: 3/7/2018
Phantom: LeftTwin-SAM V5.0; Type: QD 000 P40 CD; Serial: TP1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: IEEE 802.11b, Antenna 1, 22 MHz Bandwidth,
UMPC Body SAR, Ch 01, 1 Mbps, Top Edge

Area Scan (10x13x1): Measurement grid: dx=5mm, dy=12mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 9.730 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 0.900 W/kg
SAR(1 g) = 0.457 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0003M

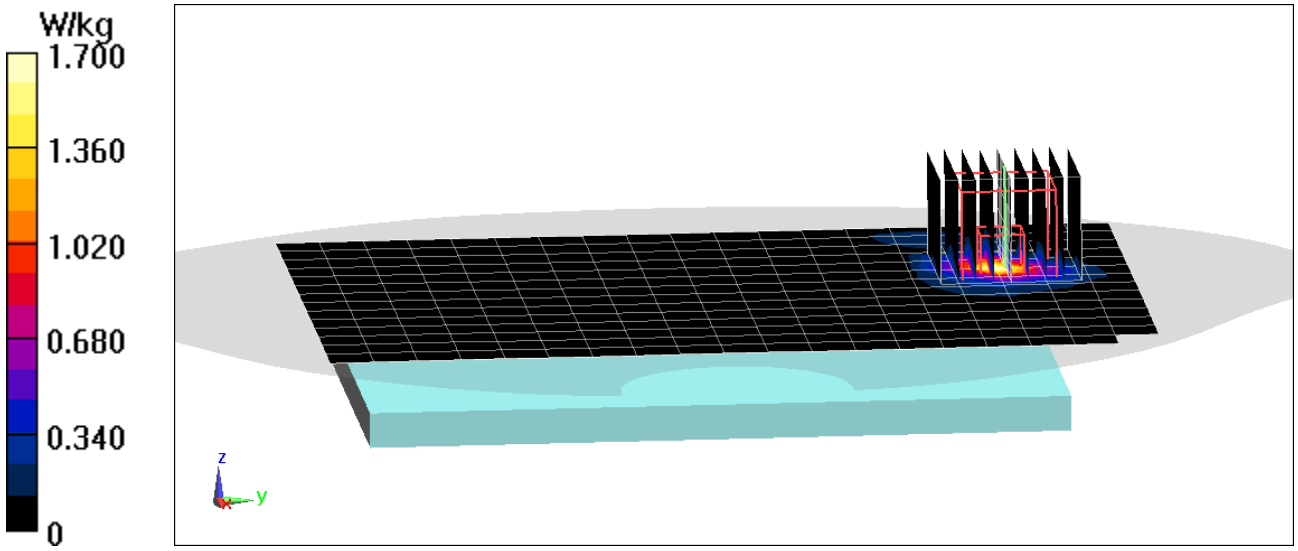
Communication System: UID 0, 802.11a 5.2-5.8 GHz Band; Frequency: 5500 MHz; Duty Cycle: 1:1
Medium: 5 GHz Body Medium parameters used:
f = 5500 MHz; σ = 5.804 S/m; ε_r = 47.619; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-29-2019; Ambient Temp: 22.0°C; Tissue Temp: 22.6°C

Probe: EX3DV4 - SN7308; ConvF(4, 4, 4) @ 5500 MHz; Calibrated: 8/23/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1558; Calibrated: 10/3/2018
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1630
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: IEEE 802.11a, U-NII-2C, 20 MHz Bandwidth,
Antenna 1, UMPC Body SAR, Ch 100, 6 Mbps, Back Side

Area Scan (15x20x1): Measurement grid: dx=10mm, dy=10mm
Zoom Scan (10x9x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm; Graded Ratio: 1.4
Reference Value = 11.82 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 2.80 W/kg
SAR(1 g) = 0.710 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0020M

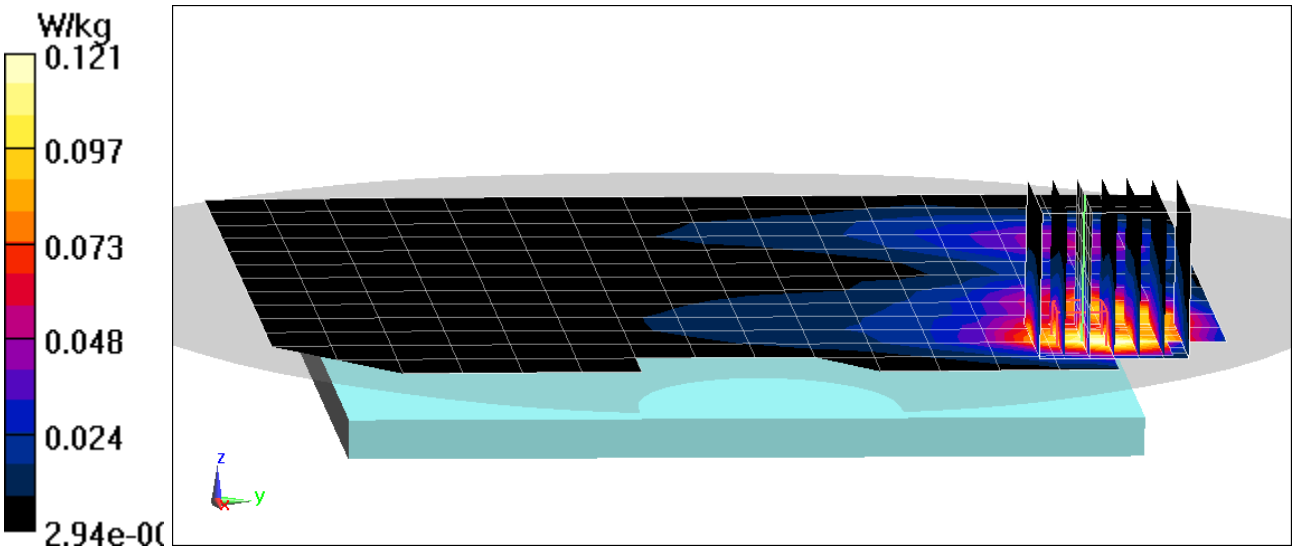
Communication System: UID 0, Bluetooth; Frequency: 2402 MHz; Duty Cycle: 1:1.297
Medium: 2450 Body Medium parameters used (interpolated):
f = 2402 MHz; σ = 1.975 S/m; ε_r = 52.143; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 02-13-2019; Ambient Temp: 21.9°C; Tissue Temp: 21.1°C

Probe: ES3DV3 - SN3319; ConvF(4.51, 4.51, 4.51) @ 2402 MHz; Calibrated: 3/13/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1368; Calibrated: 3/7/2018
Phantom: LeftTwin-SAM V5.0; Type: QD 000 P40 CD; Serial: TP1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: Bluetooth, UMPC Body SAR, Ch 0, 1 Mbps, Front Side

Area Scan (14x17x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 7.217 V/m; Power Drift = 0.17 dB
Peak SAR (extrapolated) = 0.200 W/kg
SAR(1 g) = 0.091 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0049M

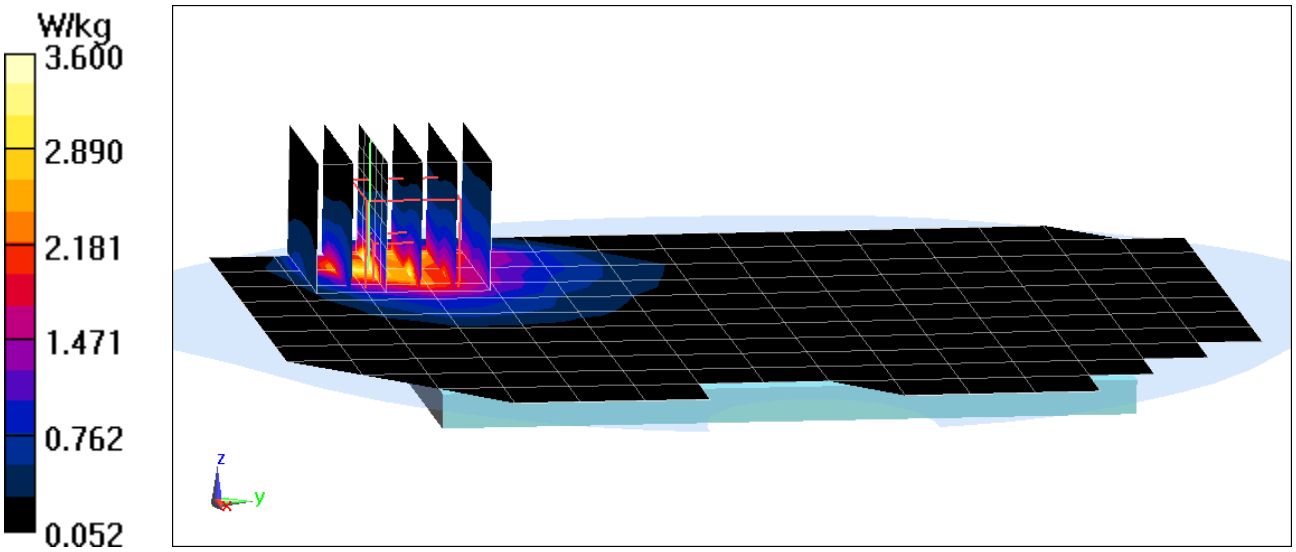
Communication System: UID 0, CDMA; Frequency: 820.1 MHz; Duty Cycle: 1:1
Medium: 835 Body Medium parameters used (interpolated):
f = 820.1 MHz; σ = 0.959 S/m; ε_r = 53.938; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 02-18-2019; Ambient Temp: 21.5°C; Tissue Temp: 20.0°C

Probe: EX3DV4 - SN7357; ConvF(10.17, 10.17, 10.17) @ 820.1 MHz; Calibrated: 4/18/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1407; Calibrated: 4/11/2018
Phantom: SAM with CRP v5.0 Front; Type: QD000P40CD; Serial: 1646
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: Cell. EVDO, Rule Part 90S, UMPC Extremity SAR, Back side, Mid.ch

Area Scan (12x16x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 46.77 V/m; Power Drift = -0.14 dB
Peak SAR (extrapolated) = 4.94 W/kg
SAR(10 g) = 1.16 W/kg



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DUT: A3LSMF900U; Type: Portable Handset; Serial: 0049M

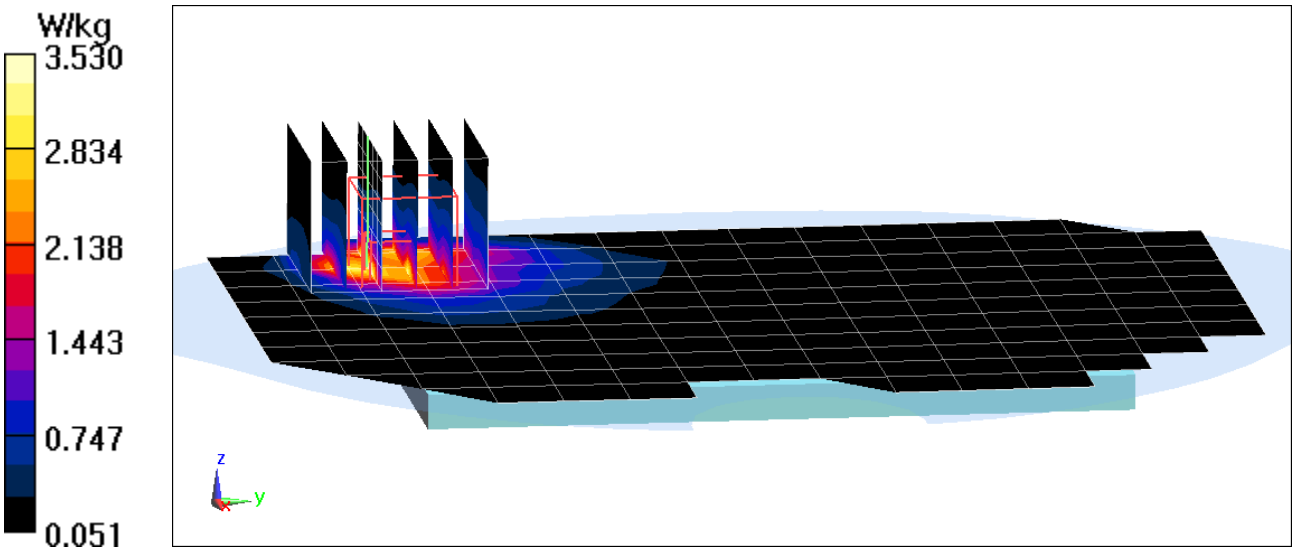
Communication System: UID 0, CDMA; Frequency: 836.52 MHz; Duty Cycle: 1:1
Medium: 835 Body Medium parameters used (interpolated):
f = 836.52 MHz; σ = 0.977 S/m; ε_r = 53.758; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 02-18-2019; Ambient Temp: 21.5°C; Tissue Temp: 20.0°C

Probe: EX3DV4 - SN7357; ConvF(10.17, 10.17, 10.17) @ 836.52 MHz; Calibrated: 4/18/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1407; Calibrated: 4/11/2018
Phantom: SAM with CRP v5.0 Front; Type: QD000P40CD; Serial: 1646
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: Cell. EVDO, Rule Part 22H, UMPC Extremity SAR, Back side, Mid.ch

Area Scan (12x16x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 45.96 V/m; Power Drift = -0.19 dB
Peak SAR (extrapolated) = 4.82 W/kg
SAR(10 g) = 1.12 W/kg



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DUT: A3LSMF900U; Type: Portable Handset; Serial: 0023M

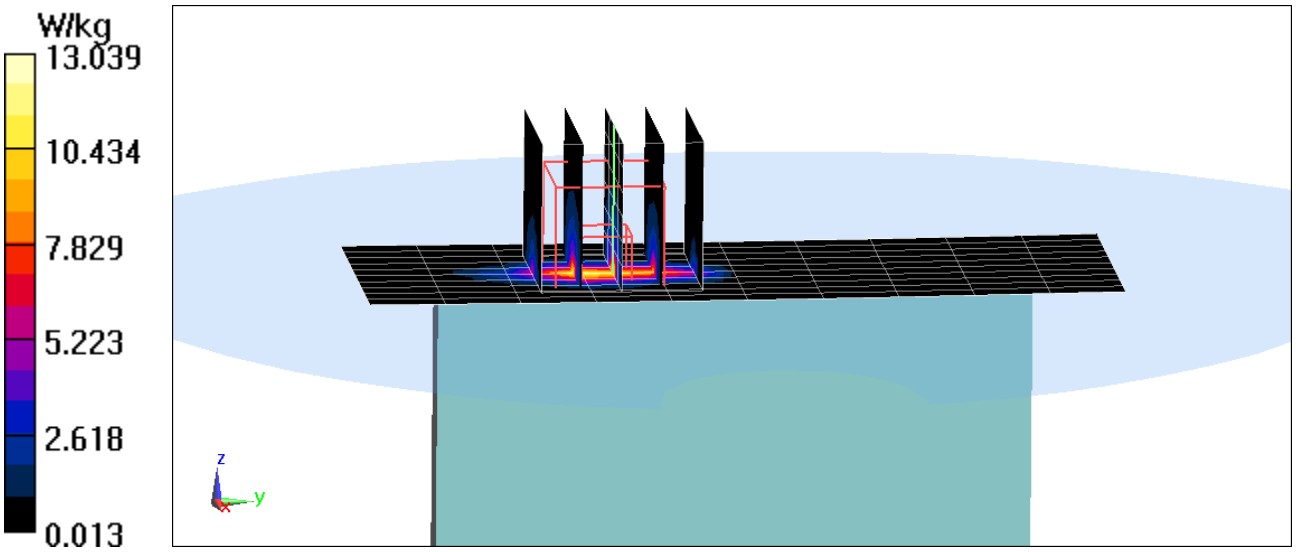
Communication System: UID 0, CDMA; Frequency: 1880 MHz; Duty Cycle: 1:1
Medium: 1900 Body Medium parameters used:
f = 1880 MHz; σ = 1.54 S/m; ε_r = 52.674; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 02-20-2019; Ambient Temp: 20.3°C; Tissue Temp: 22.0°C

Probe: EX3DV4 - SN7488; ConvF(8.37, 8.37, 8.37) @ 1880 MHz; Calibrated: 1/24/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1530; Calibrated: 1/15/2019
Phantom: SAM Left; Type: QD000P40CC; Serial: TP: 1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: PCS EVDO, UMPC Extremity SAR, Bottom Edge, Mid.ch

Area Scan (11x11x1): Measurement grid: dx=5mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 70.80 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 16.0 W/kg
SAR(10 g) = 2.45 W/kg



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DUT: A3LSMF900U; Type: Portable Handset; Serial: 0039M

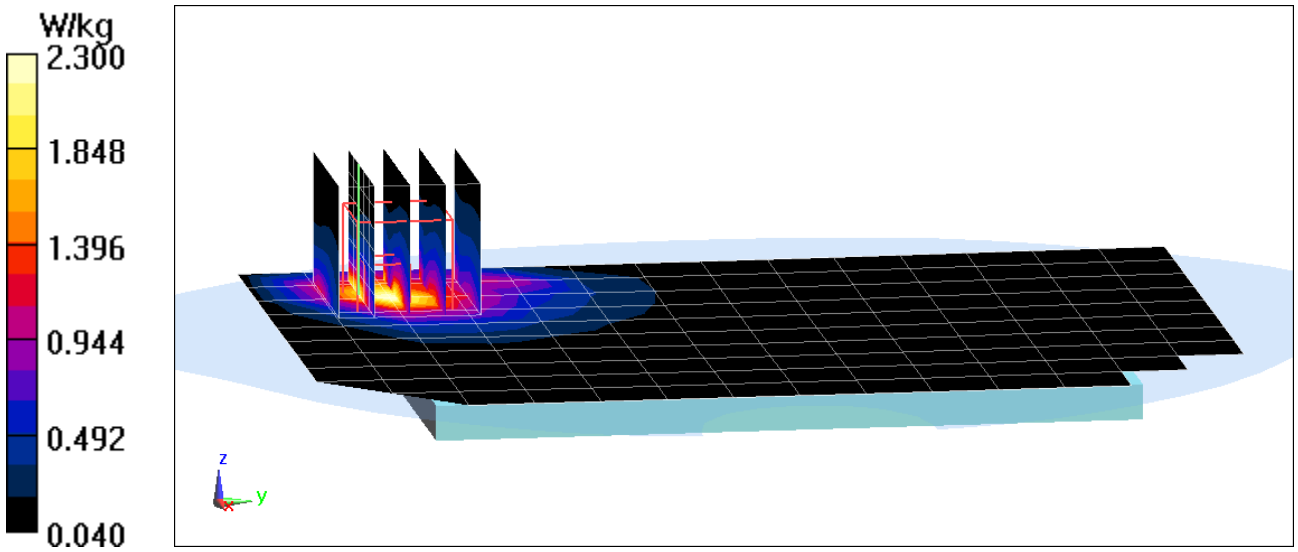
Communication System: UID 0, _GSM GPRS; 3 Tx slots; Frequency: 836.6 MHz; Duty Cycle: 1:2.76
Medium: 835 Body Medium parameters used (interpolated):
f = 836.6 MHz; σ = 0.98 S/m; ε_r = 54.16; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 02-13-2019; Ambient Temp: 21.9°C; Tissue Temp: 21.3°C

Probe: EX3DV4 - SN7357; ConvF(10.17, 10.17, 10.17) @ 836.6 MHz; Calibrated: 4/18/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1407; Calibrated: 4/11/2018
Phantom: SAM with CRP v5.0 Front; Type: QD000P40CD; Serial: 1646
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: GPRS 850, UMPC Extremity SAR, Back side, Mid.ch, 3 Tx Slots

Area Scan (11x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (6x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 37.76 V/m; Power Drift = -0.12 dB
Peak SAR (extrapolated) = 3.05 W/kg
SAR(10 g) = 0.731 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0023M

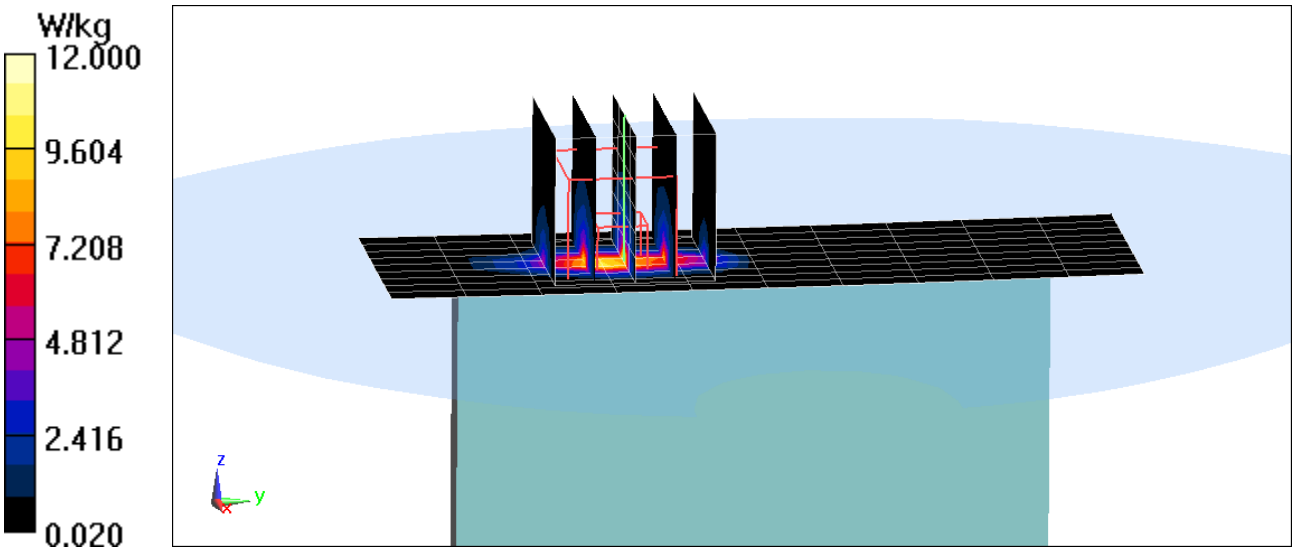
Communication System: UID 0, GSM GPRS; 2 Tx slots; Frequency: 1880 MHz; Duty Cycle: 1:4.15
Medium: 1900 Body Medium parameters used:
f = 1880 MHz; σ = 1.54 S/m; ε_r = 52.674; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 02-20-2019; Ambient Temp: 20.3°C; Tissue Temp: 22.0°C

Probe: EX3DV4 - SN7488; ConvF(8.37, 8.37, 8.37) @ 1880 MHz; Calibrated: 1/24/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1530; Calibrated: 1/15/2019
Phantom: SAM Left; Type: QD000P40CC; Serial: TP: 1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: GPRS 1900, UMPC Extremity SAR, Bottom Edge, Mid.ch, 2 Tx Slots

Area Scan (10x11x1): Measurement grid: dx=5mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 68.61 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 14.6 W/kg
SAR(10 g) = 2.34 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0039M

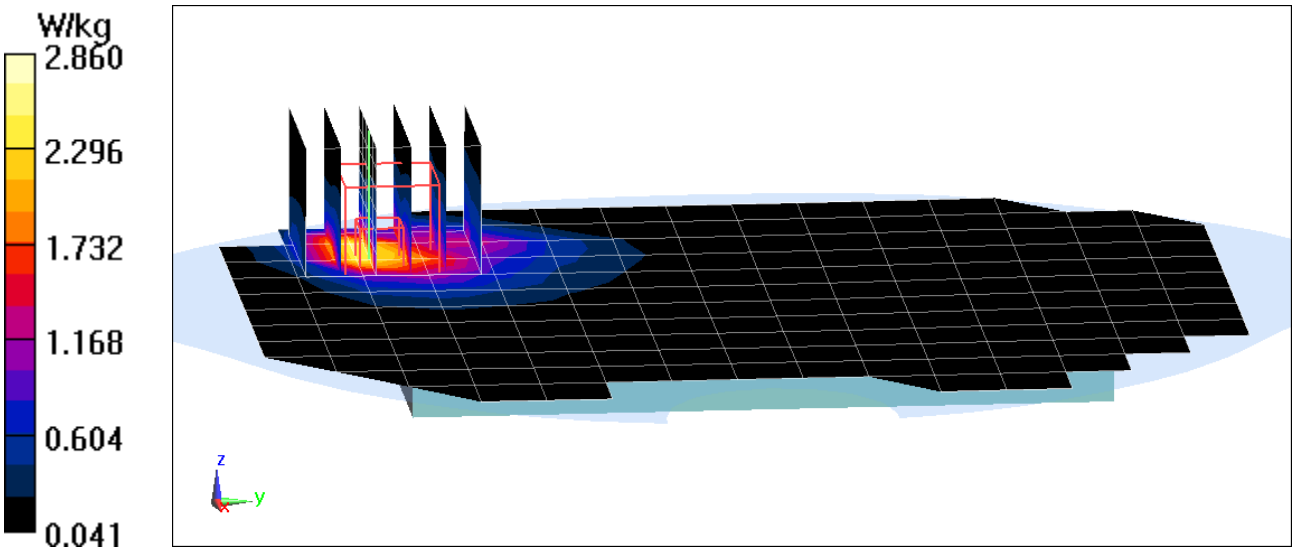
Communication System: UID 0, UMTS; Frequency: 836.6 MHz; Duty Cycle: 1:1
Medium: 835 Body Medium parameters used (interpolated):
f = 836.6 MHz; σ = 0.98 S/m; ε_r = 54.16; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 02-13-2019; Ambient Temp: 21.9°C; Tissue Temp: 21.3°C

Probe: EX3DV4 - SN7357; ConvF(10.17, 10.17, 10.17) @ 836.6 MHz; Calibrated: 4/18/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1407; Calibrated: 4/11/2018
Phantom: SAM with CRP v5.0 Front; Type: QD000P40CD; Serial: 1646
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: UMTS 850, UMPC Extremity SAR, Back side, Mid.ch

Area Scan (13x16x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 36.48 V/m; Power Drift = -0.13 dB
Peak SAR (extrapolated) = 3.62 W/kg
SAR(10 g) = 0.830 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0006M

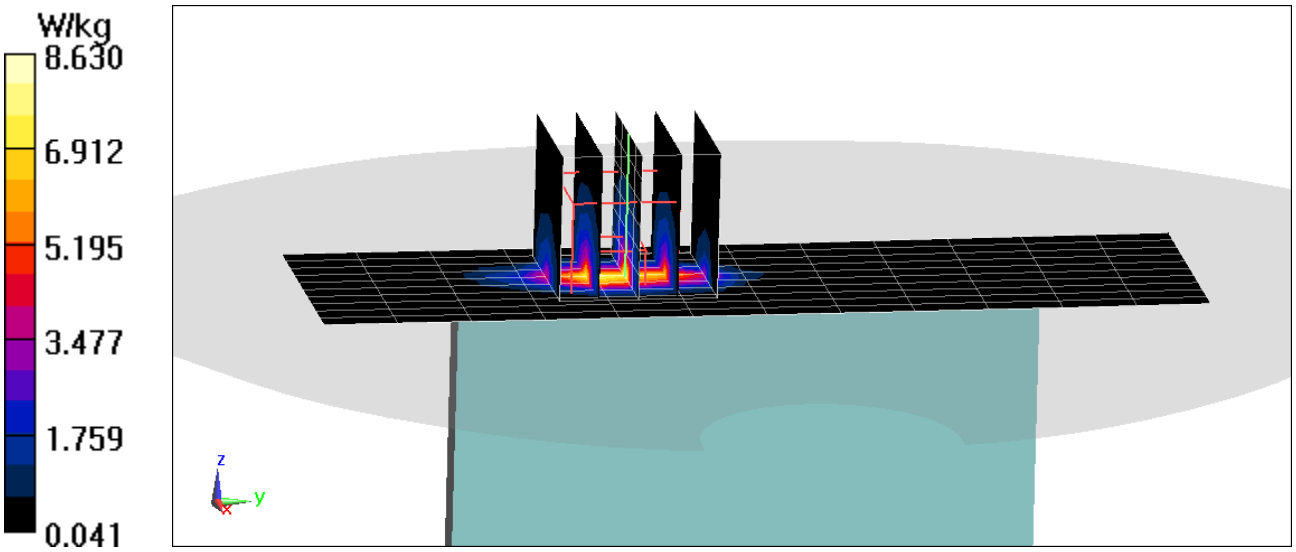
Communication System: UID 0, UMTS; Frequency: 1732.4 MHz; Duty Cycle: 1:1
Medium: 1750 Body Medium parameters used (interpolated):
f = 1732.4 MHz; σ = 1.474 S/m; ε_r = 51.256; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 01-28-2019; Ambient Temp: 20.3°C; Tissue Temp: 20.4°C

Probe: ES3DV3 - SN3347; ConvF(5.17, 5.17, 5.17) @ 1732.4 MHz; Calibrated: 3/27/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn665; Calibrated: 2/15/2018
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1800
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: UMTS 1750, UMPC Extremity SAR, Bottom Edge, Mid.ch

Area Scan (11x13x1): Measurement grid: dx=5mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 71.79 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 13.1 W/kg
SAR(10 g) = 2.44 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0023M

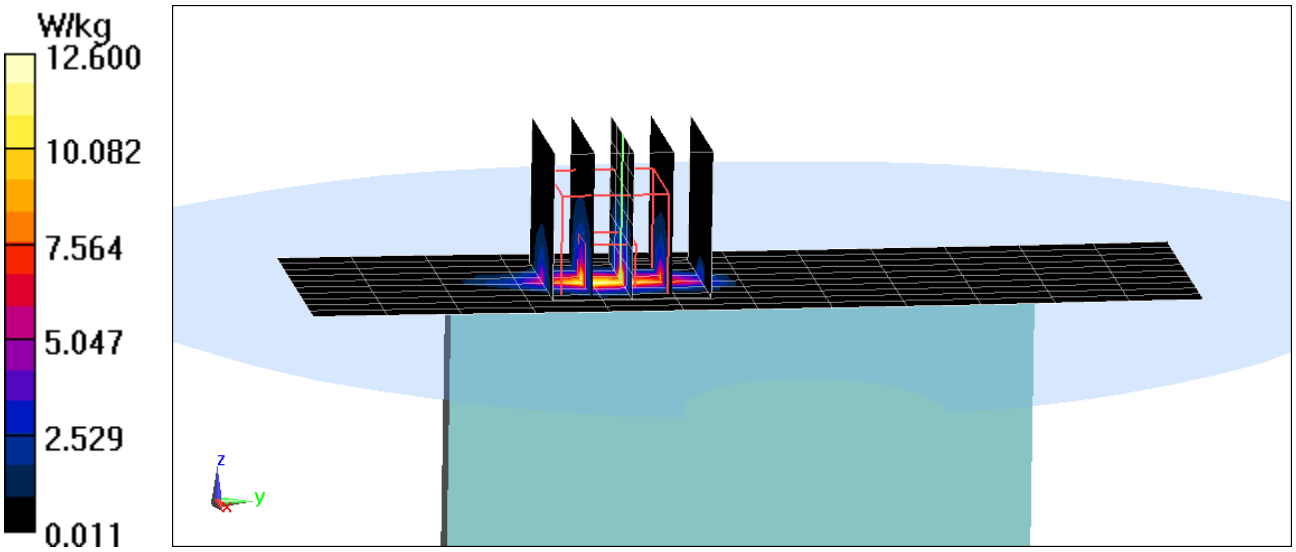
Communication System: UID 0, UMTS; Frequency: 1880 MHz; Duty Cycle: 1:1
Medium: 1900 Body Medium parameters used:
f = 1880 MHz; σ = 1.532 S/m; ε_r = 51.019; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 02-24-2019; Ambient Temp: 21.7°C; Tissue Temp: 21.5°C

Probe: EX3DV4 - SN7488; ConvF(8.37, 8.37, 8.37) @ 1880 MHz; Calibrated: 1/24/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1530; Calibrated: 1/15/2019
Phantom: SAM Left; Type: QD000P40CC; Serial: TP: 1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: UMTS 1900, UMPC Extremity SAR, Bottom Edge, Mid.ch

Area Scan (11x13x1): Measurement grid: dx=5mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 70.65 V/m; Power Drift = -0.14 dB
Peak SAR (extrapolated) = 15.6 W/kg
SAR(10 g) = 2.46 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0007M

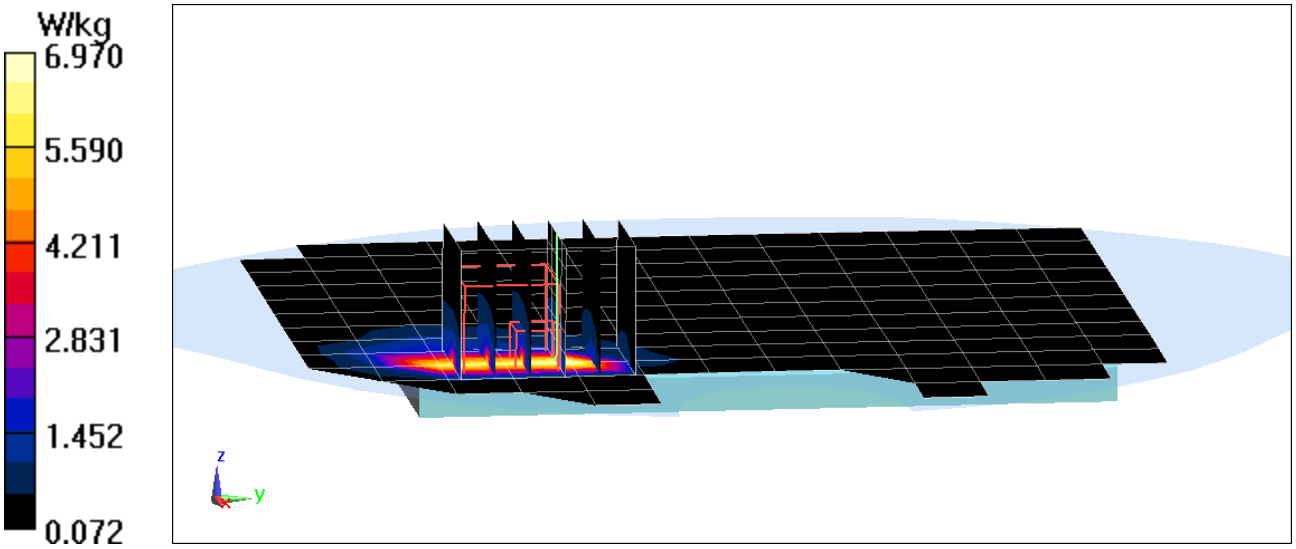
Communication System: UID 0, LTE Band 71; Frequency: 680.5 MHz; Duty Cycle: 1:1
Medium: 750 Body Medium parameters used (interpolated):
f = 680.5 MHz; σ = 0.941 S/m; ε_r = 53.656; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 02-13-2019; Ambient Temp: 22.9°C; Tissue Temp: 21.0°C

Probe: EX3DV4 - SN3589; ConvF(8.34, 8.34, 8.34) @ 680.5 MHz; Calibrated: 1/25/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1450; Calibrated: 8/22/2018
Phantom: SAM 5.0 front; Type: QD000P40CD; Serial: 1648
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 71, UMPC Extremity SAR, Front side,
Mid.ch, 20 MHz Bandwidth, QPSK, 1 RB, 0 RB Offset

Area Scan (13x14x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 52.55 V/m; Power Drift = 0.00 dB
Peak SAR (extrapolated) = 10.5 W/kg
SAR(10 g) = 1.23 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0004M

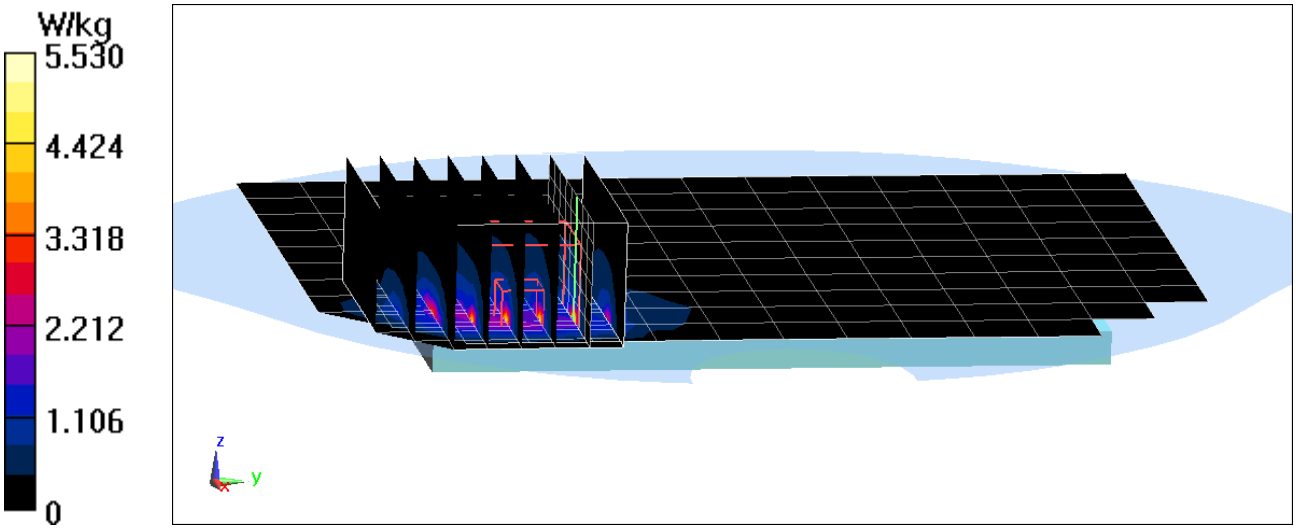
Communication System: UID 0, LTE Band 12; Frequency: 707.5 MHz; Duty Cycle: 1:1
Medium: 750 Body Medium parameters used (interpolated):
f = 707.5 MHz; σ = 0.951 S/m; ε_r = 53.614; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 02-13-2019; Ambient Temp: 22.9°C; Tissue Temp: 21.0°C

Probe: EX3DV4 - SN3589; ConvF(8.34, 8.34, 8.34) @ 707.5 MHz; Calibrated: 1/25/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1450; Calibrated: 8/22/2018
Phantom: SAM 5.0 front; Type: QD000P40CD; Serial: 1648
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 12, UMPC Extremity SAR, Front side,
Mid.ch, 10 MHz Bandwidth, QPSK, 1 RB, 25 RB Offset

Area Scan (11x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (9x8x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 47.48 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 7.68 W/kg
SAR(10 g) = 1.05 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0004M

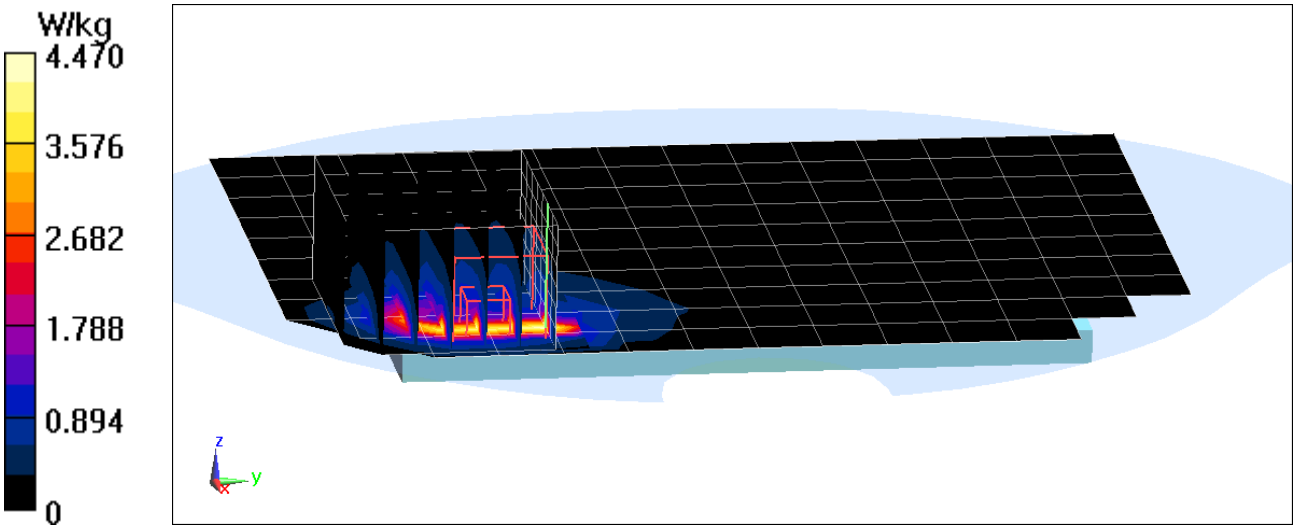
Communication System: UID 0, LTE Band 13; Frequency: 782 MHz; Duty Cycle: 1:1
Medium: 750 Body Medium parameters used (interpolated):
f = 782 MHz; σ = 0.98 S/m; ε_r = 53.421; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 02-13-2019; Ambient Temp: 22.9°C; Tissue Temp: 21.0°C

Probe: EX3DV4 - SN3589; ConvF(8.34, 8.34, 8.34) @ 782 MHz; Calibrated: 1/25/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1450; Calibrated: 8/22/2018
Phantom: SAM 5.0 front; Type: QD000P40CD; Serial: 1648
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 13, UMPC Extremity SAR, Front side,
Mid.ch, 10 MHz Bandwidth, QPSK, 1 RB, 49 RB Offset

Area Scan (11x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (8x7x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 47.38 V/m; Power Drift = 0.00 dB
Peak SAR (extrapolated) = 7.33 W/kg
SAR(10 g) = 1.06 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0007M

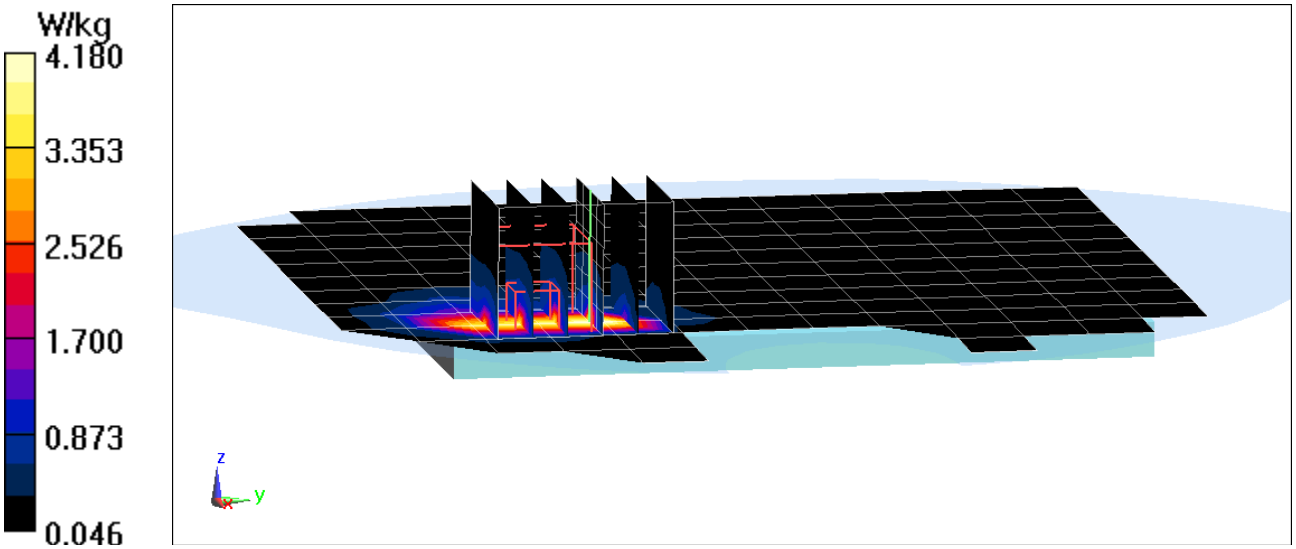
Communication System: UID 0, LTE Band 14; Frequency: 793 MHz; Duty Cycle: 1:1
Medium: 750 Body Medium parameters used (interpolated):
f = 793 MHz; σ = 0.984 S/m; ε_r = 53.392; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 02-13-2019; Ambient Temp: 22.9°C; Tissue Temp: 21.0°C

Probe: EX3DV4 - SN3589; ConvF(8.34, 8.34, 8.34) @ 793 MHz; Calibrated: 1/25/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1450; Calibrated: 8/22/2018
Phantom: SAM 5.0 front; Type: QD000P40CD; Serial: 1648
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 14, UMPC Extremity SAR, Front side,
Mid.ch, 10 MHz Bandwidth, QPSK, 1 RB, 25 RB Offset

Area Scan (13x14x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 41.05 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 6.14 W/kg
SAR(10 g) = 0.825 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0025M

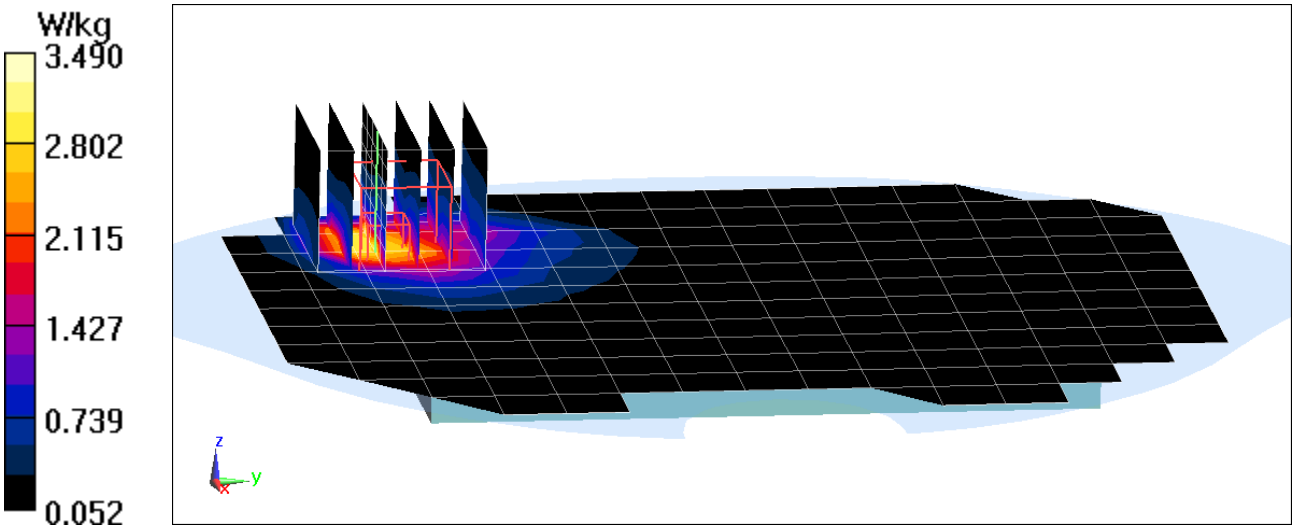
Communication System: UID 0, LTE Band 26; Frequency: 831.5 MHz; Duty Cycle: 1:1
Medium: 835 Body Medium parameters used (interpolated):
f = 831.5 MHz; σ = 0.974 S/m; ε_r = 54.214; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 02-13-2019; Ambient Temp: 21.9°C; Tissue Temp: 21.3°C

Probe: EX3DV4 - SN7357; ConvF(10.17, 10.17, 10.17) @ 831.5 MHz; Calibrated: 4/18/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1407; Calibrated: 4/11/2018
Phantom: SAM with CRP v5.0 Front; Type: QD000P40CD; Serial: 1646
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 26 (Cell.), UMPC Extremity SAR, Back side, Mid.ch, 15 MHz Bandwidth, QPSK, 1 RB, 36 RB Offset

Area Scan (13x16x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 41.22 V/m; Power Drift = -0.12 dB
Peak SAR (extrapolated) = 4.40 W/kg
SAR(10 g) = 1.03 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0039M

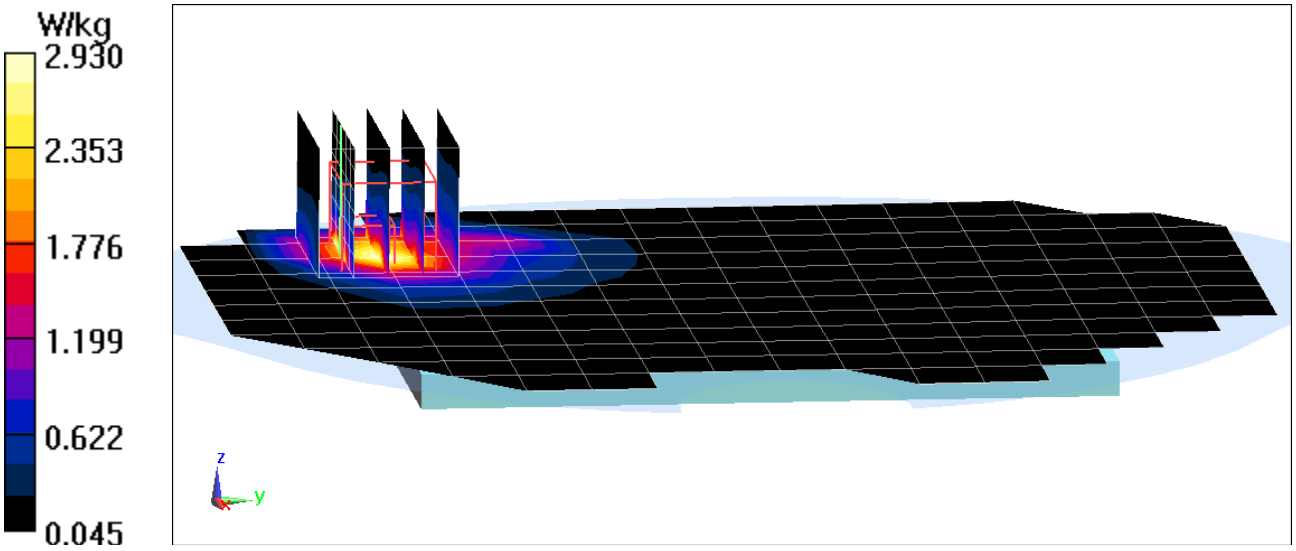
Communication System: UID 0, LTE Band 5 (Cell.); Frequency: 836.5 MHz; Duty Cycle: 1:1
Medium: 835 Body Medium parameters used (interpolated):
f = 836.5 MHz; σ = 0.969 S/m; ε_r = 53.727; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 02-06-2018; Ambient Temp: 22.2°C; Tissue Temp: 21.8°C

Probe: EX3DV4 - SN7357; ConvF(10.17, 10.17, 10.17) @ 836.5 MHz; Calibrated: 4/18/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1407; Calibrated: 4/11/2018
Phantom: SAM with CRP v5.0 Front; Type: QD000P40CD; Serial: 1646
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 5 (Cell.), UMPC Extremity SAR, Back side,
Mid.ch, 10 MHz Bandwidth, QPSK, 1 RB, 49 RB Offset

Area Scan (13x17x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (6x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 41.01 V/m; Power Drift = -0.15 dB
Peak SAR (extrapolated) = 4.22 W/kg
SAR(10 g) = 0.948 W/kg



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DUT: A3LSMF900U; Type: Portable Handset; Serial: 0006M

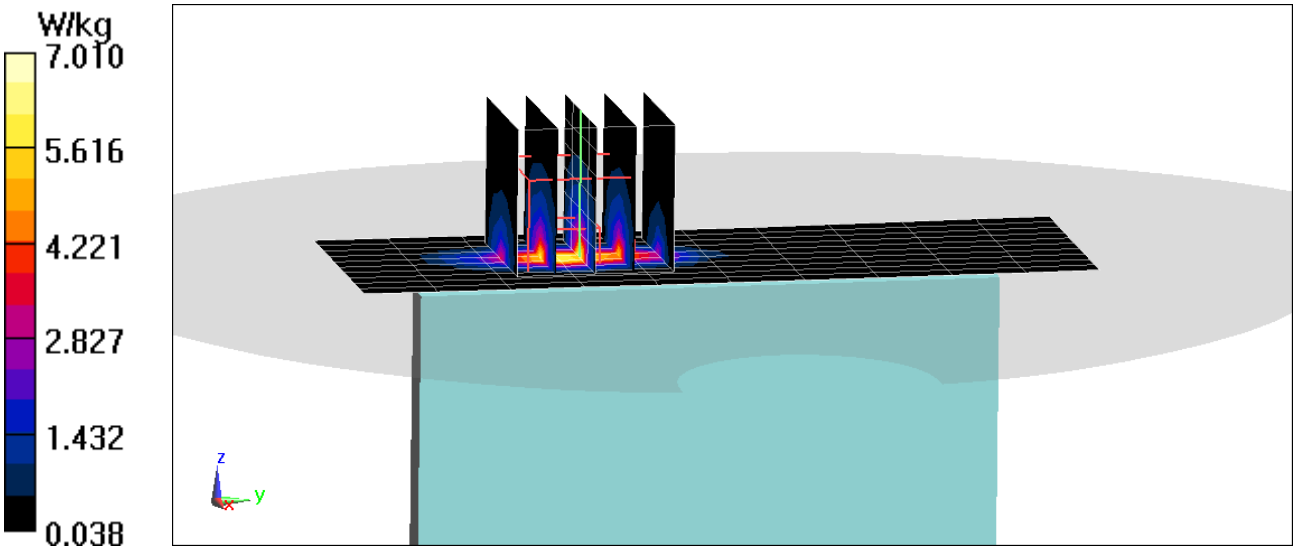
Communication System: UID 0, _LTE Band 66 (AWS); Frequency: 1770 MHz; Duty Cycle: 1:1
Medium: 1750 Body Medium parameters used (interpolated):
$f = 1770$ MHz; $\sigma = 1.53$ S/m; $\varepsilon_r = 51.175$; $\rho = 1000$ kg/m^3
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 02-24-2019; Ambient Temp: 21.3°C; Tissue Temp: 21.3°C

Probe: EX3DV4 - SN7410; ConvF(8.06, 8.06, 8.06) @ 1770 MHz; Calibrated: 7/20/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2018
Phantom: SAM Left; Type: QD000P40CA; Serial: TP:82355
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 66 (AWS), ULCA, UMPC Extremity SAR, Bottom Edge, High.ch,
PCC: 20 MHz Bandwidth, QPSK, Ch. 132572 50 RB, 0 RB Offset
SCC: 20 MHz Bandwidth, QPSK, Ch. 132374 50 RB, 50 RB Offset

Area Scan (11x11x1): Measurement grid: dx=5mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 72.00 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 17.4 W/kg
SAR(10 g) = 2.86 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0023M

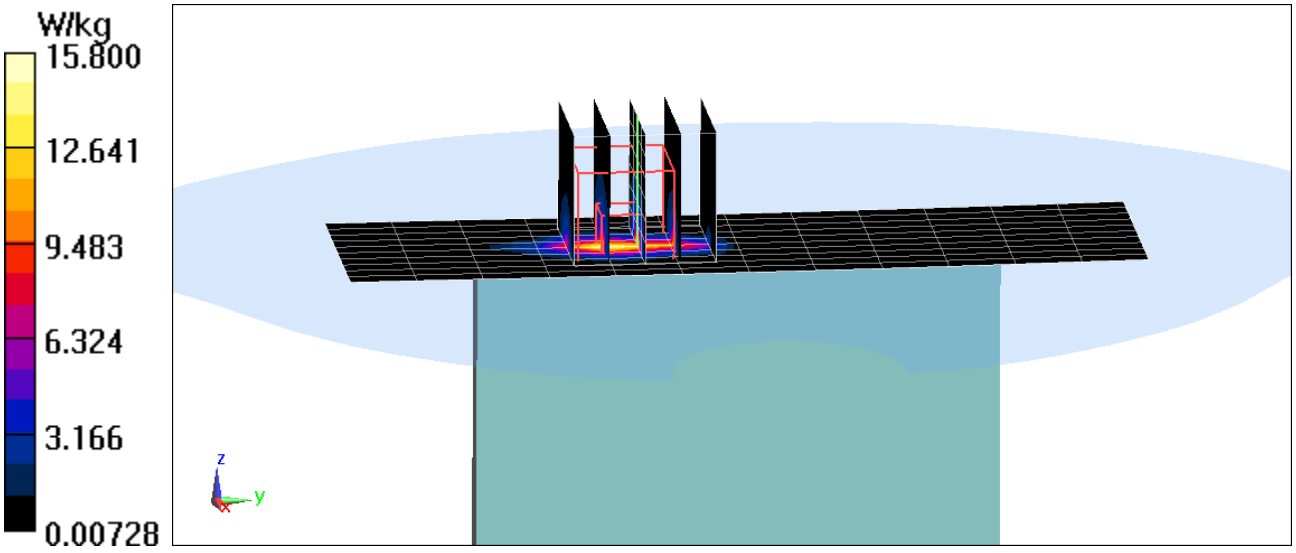
Communication System: UID 0, LTE Band 25 (PCS); Frequency: 1882.5 MHz; Duty Cycle: 1:1
Medium: 1900 Body Medium parameters used (interpolated):
f = 1882.5 MHz; σ = 1.535 S/m; ε_r = 51.012; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 02-24-2019; Ambient Temp: 21.7°C; Tissue Temp: 21.5°C

Probe: EX3DV4 - SN7488; ConvF(8.37, 8.37, 8.37) @ 1882.5 MHz; Calibrated: 1/24/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1530; Calibrated: 1/15/2019
Phantom: SAM Left; Type: QD000P40CC; Serial: TP: 1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 25 (PCS), UMPC Extremity SAR, Bottom Edge, Mid.ch, 20 MHz Bandwidth, QPSK, 100 RB, 0 RB Offset

Area Scan (11x13x1): Measurement grid: dx=5mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 77.44 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 20.0 W/kg
SAR(10 g) = 2.94 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0045M

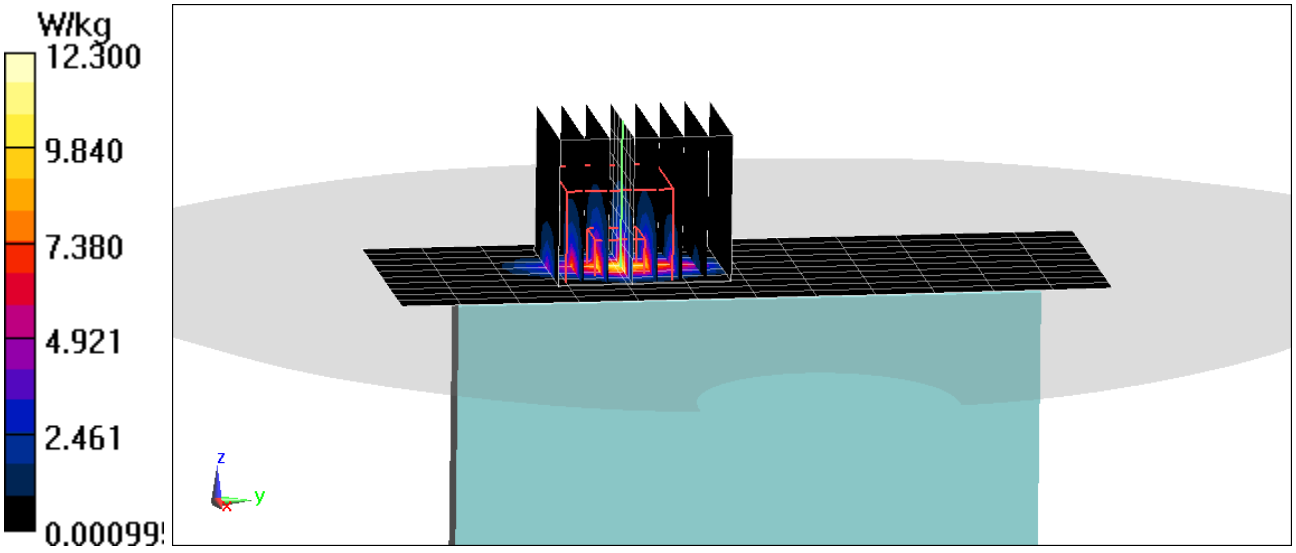
Communication System: UID 0, LTE Band 30; Frequency: 2310 MHz; Duty Cycle: 1:1
Medium: 2450 Body Medium parameters used:
f = 2310 MHz; σ = 1.878 S/m; ε_r = 52.916; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 02-18-2019; Ambient Temp: 21.9°C; Tissue Temp: 22.8°C

Probe: ES3DV3 - SN3319; ConvF(4.63, 4.63, 4.63) @ 2310 MHz; Calibrated: 3/13/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1368; Calibrated: 3/7/2018
Phantom: LeftTwin-SAM V5.0; Type: QD 000 P40 CD; Serial: TP1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 30, UMPC Extremity SAR, Bottom Edge, Mid.ch, 10 MHz Bandwidth, QPSK, 50 RB, 0 RB Offset

Area Scan (11x13x1): Measurement grid: dx=5mm, dy=12mm
Zoom Scan (7x8x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 68.43 V/m; Power Drift = -0.13 dB
Peak SAR (extrapolated) = 22.0 W/kg
SAR(10 g) = 2.92 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0045M

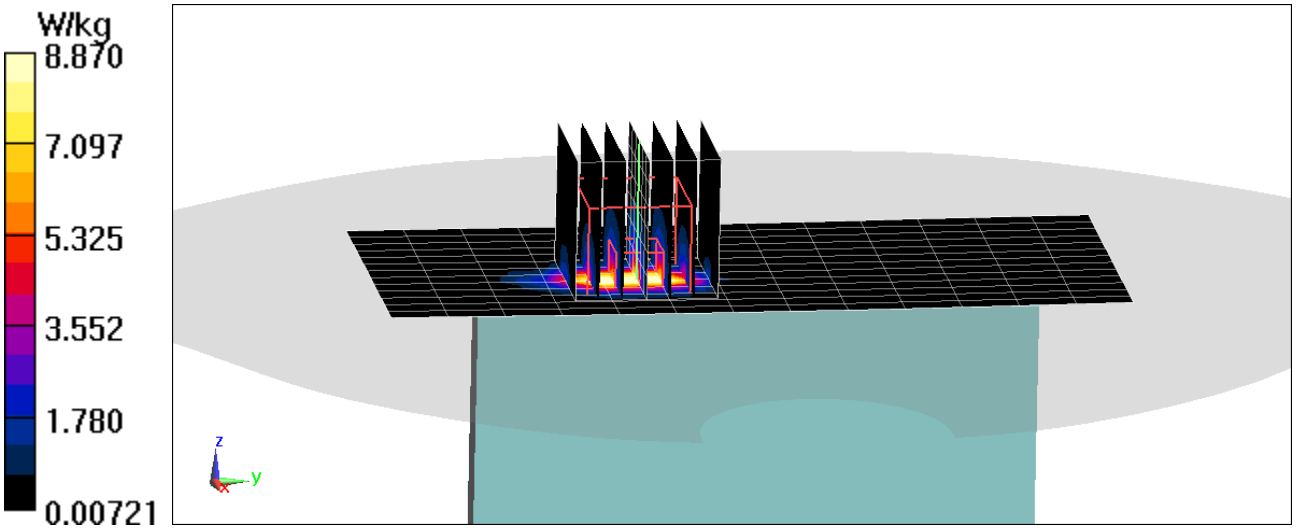
Communication System: UID 0, LTE Band 7; Frequency: 2510 MHz; Duty Cycle: 1:1
Medium: 2450 Body Medium parameters used (interpolated):
f = 2510 MHz; σ = 2.098 S/m; ε_r = 50.911; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 02-20-2019; Ambient Temp: 22.3°C; Tissue Temp: 23.8°C

Probe: ES3DV3 - SN3319; ConvF(4.51, 4.51, 4.51) @ 2510 MHz; Calibrated: 3/13/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1368; Calibrated: 3/7/2018
Phantom: LeftTwin-SAM V5.0; Type: QD 000 P40 CD; Serial: TP1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 7, UMPC Extremity SAR, Bottom Edge, Low.ch, 20 MHz Bandwidth, QPSK, 50 RB, 50 RB Offset

Area Scan (14x14x1): Measurement grid: dx=5mm, dy=12mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 62.90 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 18.2 W/kg
SAR(10 g) = 2.05 W/kg



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DUT: A3LSMF900U; Type: Portable Handset; Serial: 0045M

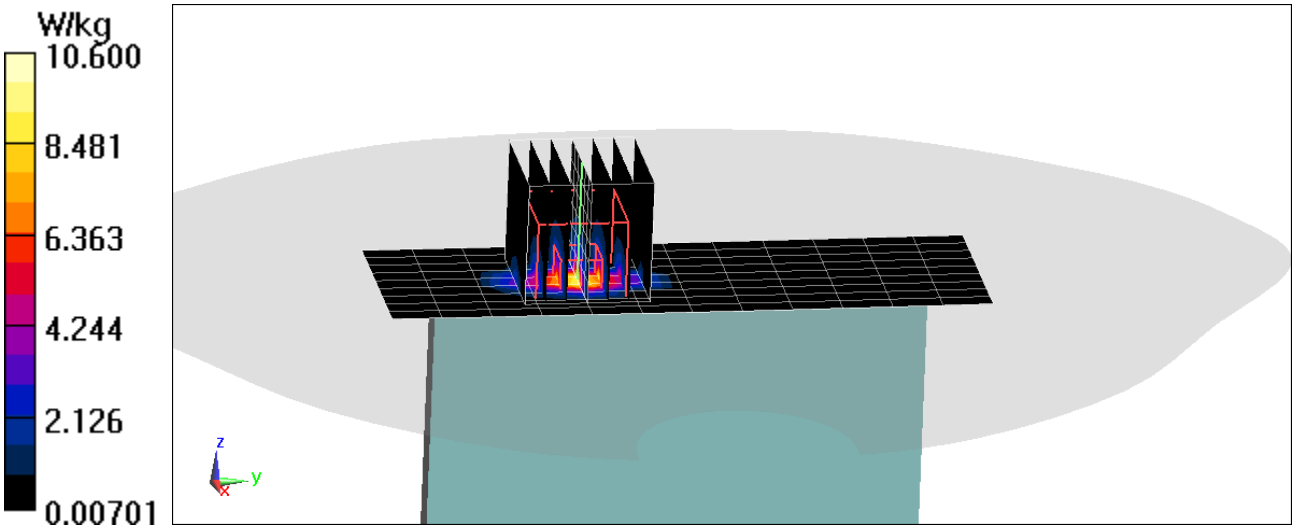
Communication System: UID 0, LTE Band 41 (Class 3); Frequency: 2680 MHz; Duty Cycle: 1:1.58
Medium: 2450 Body Medium parameters used (interpolated):
f = 2680 MHz; σ = 2.319 S/m; ε_r = 50.708; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 03-04-2019; Ambient Temp: 21.9°C; Tissue Temp: 20.9°C

Probe: ES3DV3 - SN3319; ConvF(4.33, 4.33, 4.33) @ 2680 MHz; Calibrated: 3/13/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1368; Calibrated: 3/7/2018
Phantom: LeftTwin-SAM V5.0; Type: QD 000 P40 CD; Serial: TP1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: LTE Band 41, PC3, ULCA, UMPC Extremity SAR, Bottom Edge, High.ch,
PCC: 20 MHz Bandwidth, QPSK, Ch. 41490, 50 RB, 0 RB Offset
SCC: 20 MHz Bandwidth, QPSK, Ch. 41292, 50 RB, 50 RB Offset

Area Scan (10x13x1): Measurement grid: dx=5mm, dy=12mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 69.18 V/m; Power Drift = 0.14 dB
Peak SAR (extrapolated) = 30.7 W/kg
SAR(10 g) = 3.06 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0025M

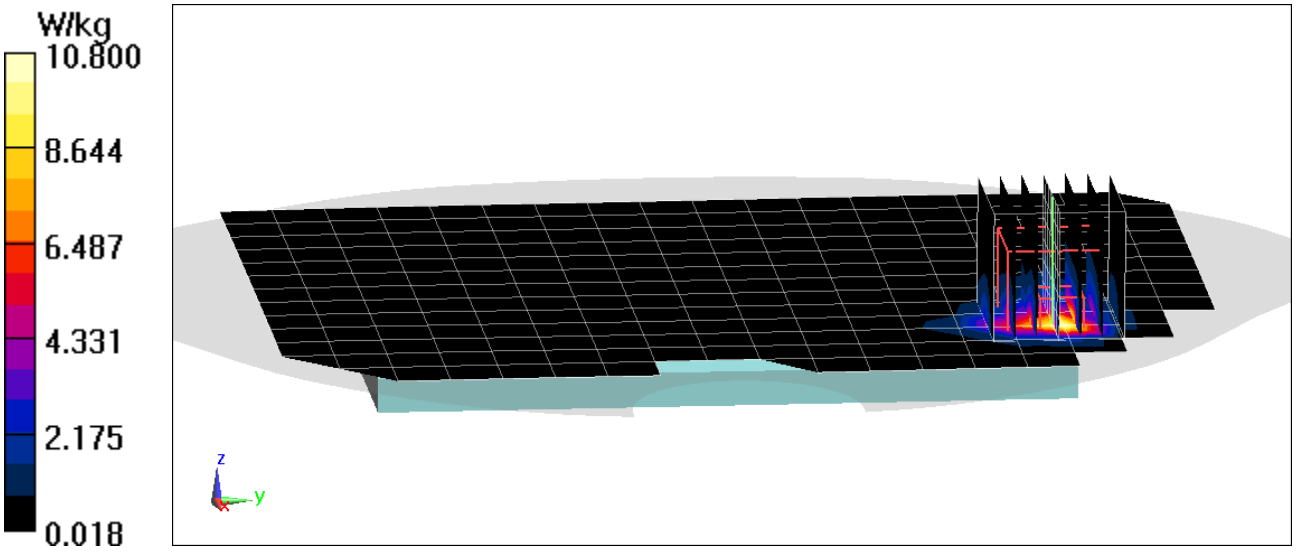
Communication System: UID 0, _IEEE 802.11b; Frequency: 2412 MHz; Duty Cycle: 1:1
Medium: 2450 Body Medium parameters used (interpolated):
f = 2412 MHz; σ = 1.992 S/m; ε_r = 50.765; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 01-29-2019; Ambient Temp: 22.6°C; Tissue Temp: 20.5°C

Probe: ES3DV3 - SN3319; ConvF(4.51, 4.51, 4.51) @ 2412 MHz; Calibrated: 3/13/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1368; Calibrated: 3/7/2018
Phantom: LeftTwin-SAM V5.0; Type: QD 000 P40 CD; Serial: TP1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: IEEE 802.11b, 22 MHz Bandwidth, Antenna 1,
UMPC Extremity SAR, Ch 01, 1 Mbps, Front Side

Area Scan (14x19x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (8x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 0.8220 V/m; Power Drift = 0.16 dB
Peak SAR (extrapolated) = 23.6 W/kg
SAR(10 g) = 2.68 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0003M

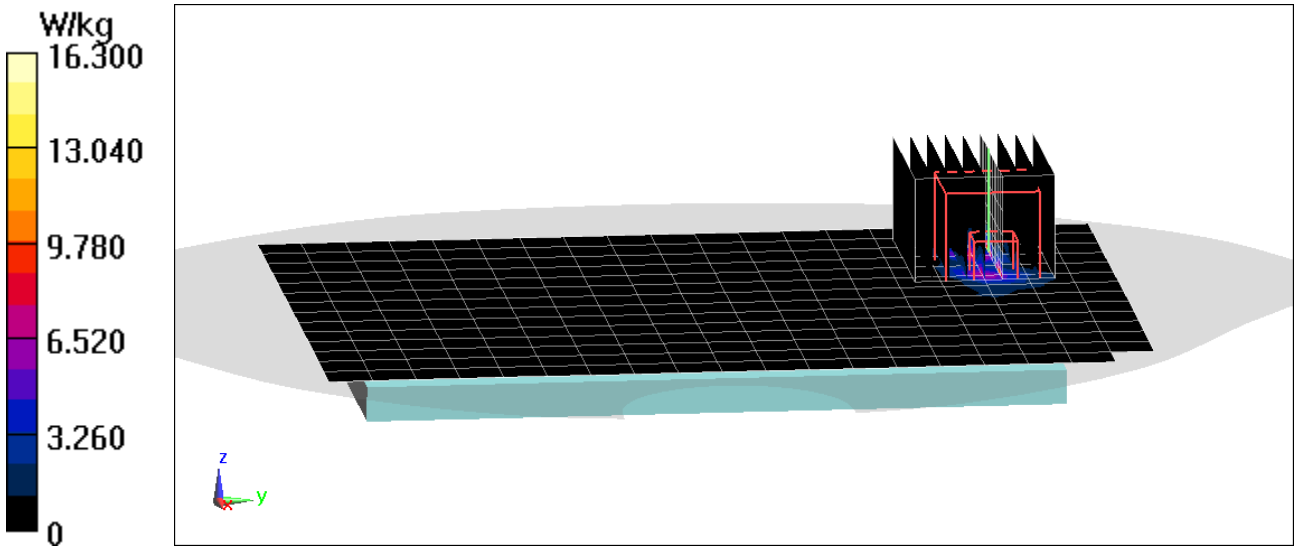
Communication System: UID 0, 802.11a 5.2-5.8 GHz Band; Frequency: 5785 MHz; Duty Cycle: 1:1
Medium: 5 GHz Body Medium parameters used:
f = 5785 MHz; σ = 6.256 S/m; ε_r = 47.069; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 01-29-2019; Ambient Temp: 22.0°C; Tissue Temp: 22.6°C

Probe: EX3DV4 - SN7308; ConvF(4.18, 4.18, 4.18) @ 5785 MHz; Calibrated: 8/23/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1558; Calibrated: 10/3/2018
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1630
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: IEEE 802.11a, U-NII-3, 20 MHz Bandwidth,
Antenna 1, UMPC Extremity SAR, Ch 157, 6 Mbps, Back Side

Area Scan (15x20x1): Measurement grid: dx=10mm, dy=10mm
Zoom Scan (12x9x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm; Graded Ratio: 1.4
Reference Value = 24.28 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 36.9 W/kg
SAR(10 g) = 0.877 W/kg



DUT: A3LSMF900U; Type: Portable Handset; Serial: 0020M

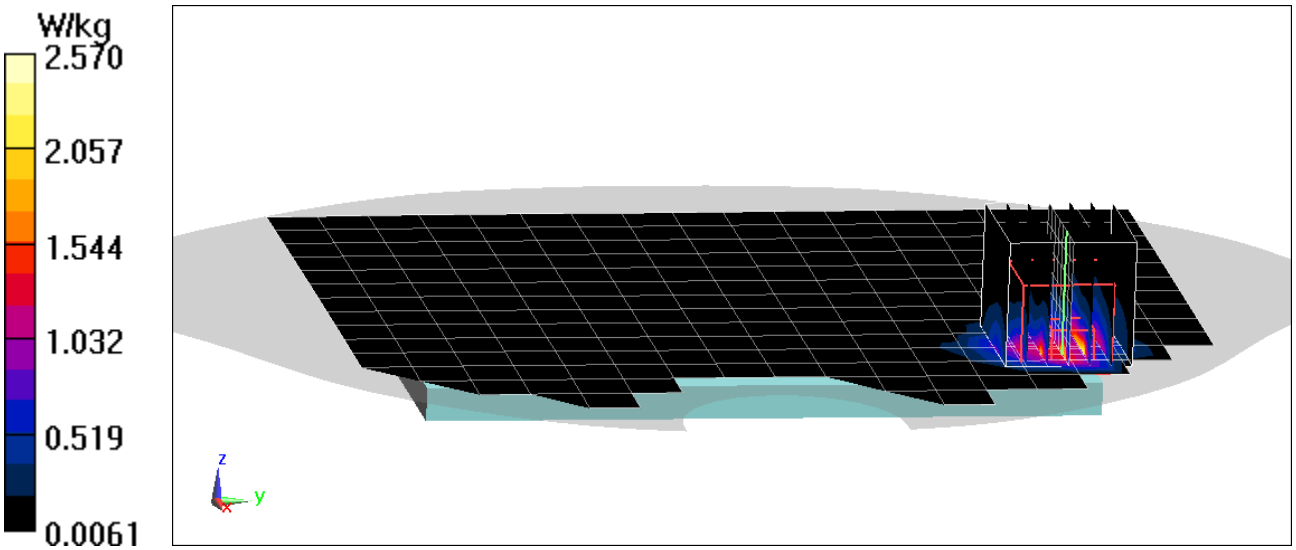
Communication System: UID 0, Bluetooth; Frequency: 2402 MHz; Duty Cycle: 1:1.297
Medium: 2450 Body Medium parameters used (interpolated):
f = 2402 MHz; σ = 1.975 S/m; ε_r = 52.143; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 02-13-2019; Ambient Temp: 21.9°C; Tissue Temp: 21.1°C

Probe: ES3DV3 - SN3319; ConvF(4.51, 4.51, 4.51) @ 2402 MHz; Calibrated: 3/13/2018
Sensor-Surface: 3mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1368; Calibrated: 3/7/2018
Phantom: LeftTwin-SAM V5.0; Type: QD 000 P40 CD; Serial: TP1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

Mode: Bluetooth, UMPC Extremity SAR, Ch 0, 1 Mbps, Front Side

Area Scan (15x18x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (8x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 23.02 V/m; Power Drift = -0.13 dB
Peak SAR (extrapolated) = 5.45 W/kg
SAR(10 g) = 0.668 W/kg



APPENDIX B: SYSTEM VERIFICATION

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DUT: Dipole 750 MHz; Type: D750V3; Serial: 1161

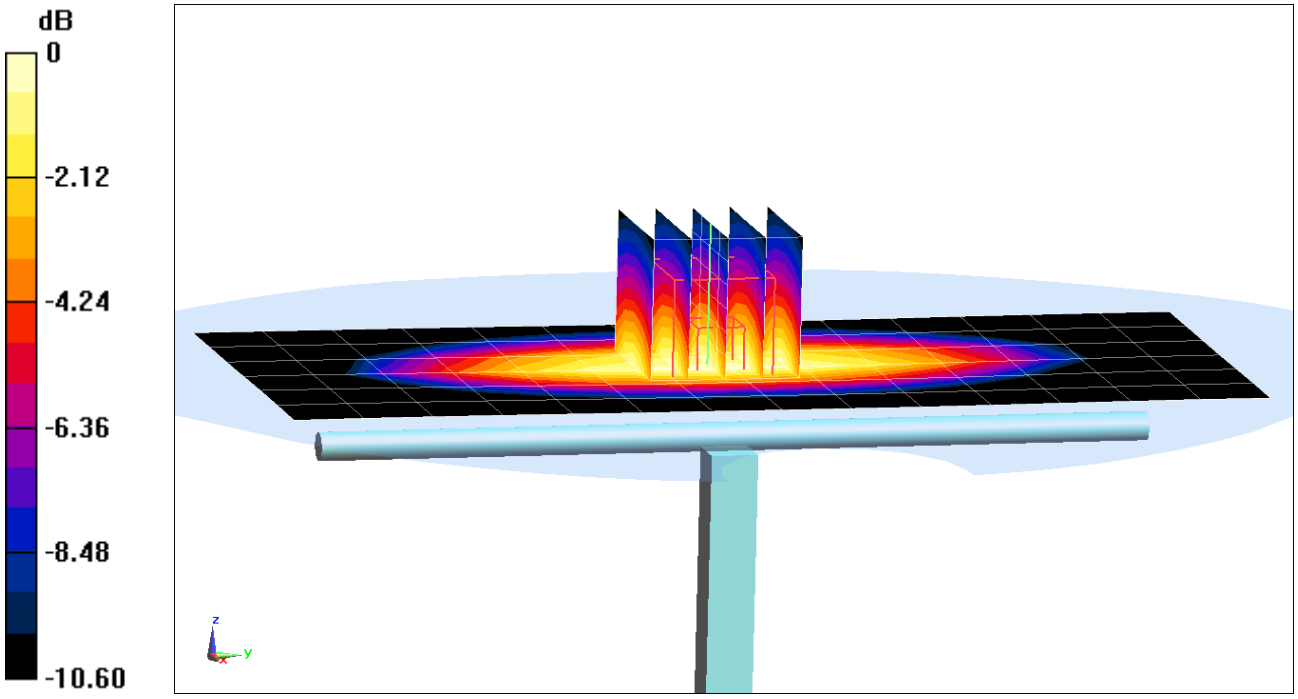
Communication System: UID 0, CW; Frequency: 750 MHz; Duty Cycle: 1:1
Medium: 750 Head Medium parameters used (interpolated):
f = 750 MHz; σ = 0.878 S/m; ε_r = 42.259; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 01-28-2019; Ambient Temp: 21.5°C; Tissue Temp: 20.8°C

Probe: EX3DV4 - SN7410; ConvF(10.13, 10.13, 10.13) @ 750 MHz; Calibrated: 7/20/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2018
Phantom: SAM Front; Type: SAM; Serial: 1686
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

750 MHz System Verification at 23.0 dBm (200 mW)

Area Scan (7x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Peak SAR (extrapolated) = 2.41 W/kg
SAR(1 g) = 1.61 W/kg
Deviation(1 g) = 0.25%



0 dB = 2.15 W/kg = 3.32 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: Dipole 750 MHz; Type: D750V3; Serial: 1054

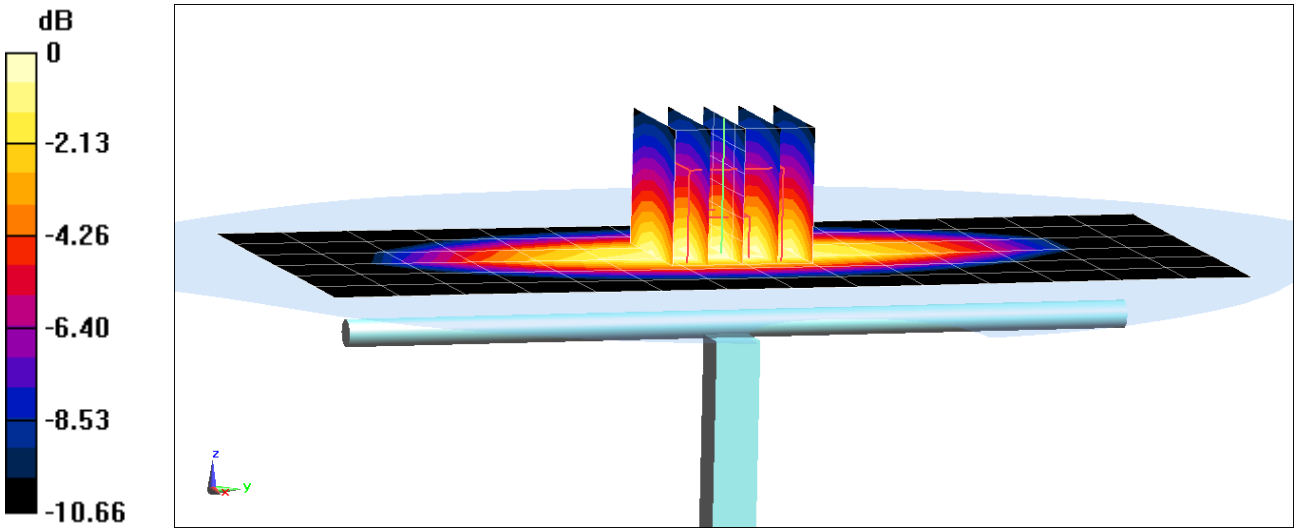
Communication System: UID 0, CW; Frequency: 750 MHz; Duty Cycle: 1:1
Medium: 750 Head Medium parameters used (interpolated):
f = 750 MHz; σ = 0.898 S/m; ε_r = 41.921; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 02-14-2019; Ambient Temp: 22.9°C; Tissue Temp: 20.7°C

Probe: EX3DV4 - SN7410; ConvF(10.13, 10.13, 10.13) @ 750 MHz; Calibrated: 7/20/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2018
Phantom: SAM Front; Type: SAM; Serial: 1686
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

750 MHz System Verification at 23.0 dBm (200 mW)

Area Scan (7x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Peak SAR (extrapolated) = 2.54 W/kg
SAR(1 g) = 1.71 W/kg
Deviation(1 g) = 2.15%



0 dB = 2.27 W/kg = 3.56 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: Dipole 835 MHz; Type: D835V2; Serial: 4d133

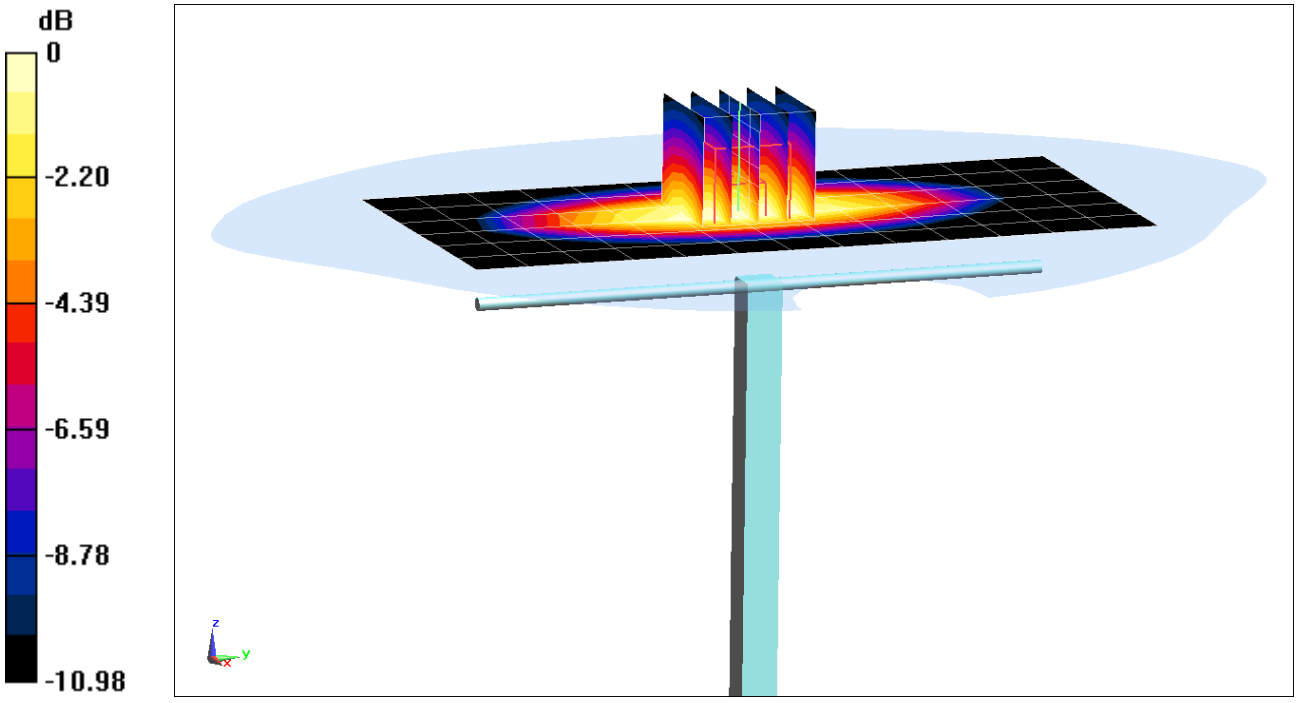
Communication System: UID 0, CW; Frequency: 835 MHz; Duty Cycle: 1:1
Medium: 835 Head Medium parameters used:
f = 835 MHz; σ = 0.942 S/m; ε_r = 40.568; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 01-23-2019; Ambient Temp: 23.5°C; Tissue Temp: 21.2°C

Probe: EX3DV4 - SN7410; ConvF(9.81, 9.81, 9.81) @ 835 MHz; Calibrated: 7/20/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2018
Phantom: SAM Front; Type: SAM; Serial: 1686
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

835 MHz System Verification at 23.0 dBm (200 mW)

Area Scan (7x14x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Peak SAR (extrapolated) = 3.04 W/kg
SAR(1 g) = 1.99 W/kg
Deviation(1 g) = 5.51%



0 dB = 2.69 W/kg = 4.30 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: Dipole 835 MHz; Type: D835V2; Serial: 4d133

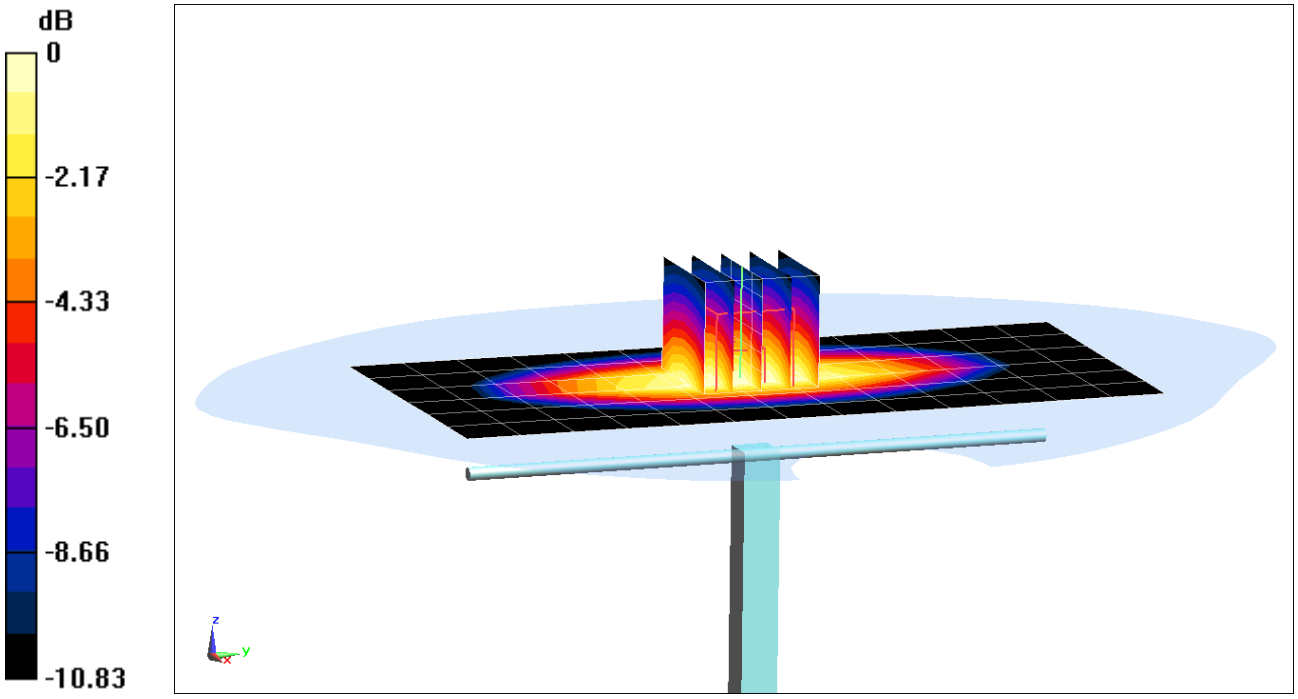
Communication System: UID 0, CW; Frequency: 835 MHz; Duty Cycle: 1:1
Medium: 835 Head Medium parameters used:
f = 835 MHz; σ = 0.924 S/m; ε_r = 41.393; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 01-25-2019; Ambient Temp: 23.5°C; Tissue Temp: 21.3°C

Probe: EX3DV4 - SN7410; ConvF(9.81, 9.81, 9.81) @ 835 MHz; Calibrated: 7/20/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2018
Phantom: SAM Front; Type: SAM; Serial: 1686
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

835 MHz System Verification at 23.0 dBm (200 mW)

Area Scan (7x14x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Peak SAR (extrapolated) = 2.93 W/kg
SAR(1 g) = 1.95 W/kg
Deviation(1 g) = 3.39%



0 dB = 2.61 W/kg = 4.17 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: Dipole 835 MHz; Type: D835V2; Serial: 4d047

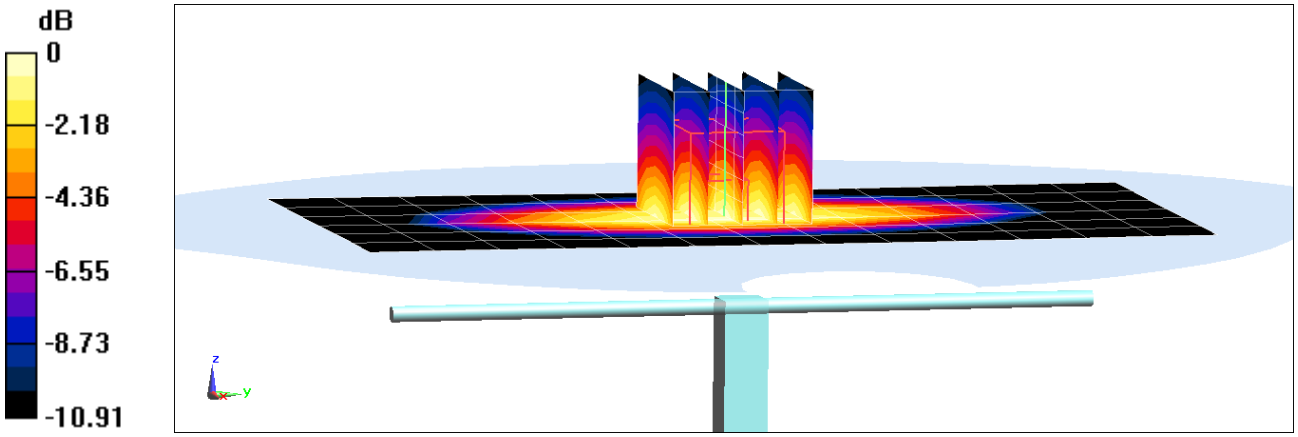
Communication System: UID 0, CW; Frequency: 835 MHz; Duty Cycle: 1:1
Medium: 835 Head Medium parameters used:
f = 835 MHz; σ = 0.928 S/m; ε_r = 40.992; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 02-01-2019; Ambient Temp: 22.6°C; Tissue Temp: 21.1°C

Probe: EX3DV4 - SN7410; ConvF(9.81, 9.81, 9.81) @ 835 MHz; Calibrated: 7/20/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2018
Phantom: SAM Front; Type: SAM; Serial: 1686
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

835 MHz System Verification at 23.0 dBm (200 mW)

Area Scan (7x14x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Peak SAR (extrapolated) = 3.04 W/kg
SAR(1 g) = 2 W/kg
Deviation(1 g) = 5.60%



0 dB = 2.70 W/kg = 4.31 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: Dipole 835 MHz; Type: D835V2; Serial: 4d133

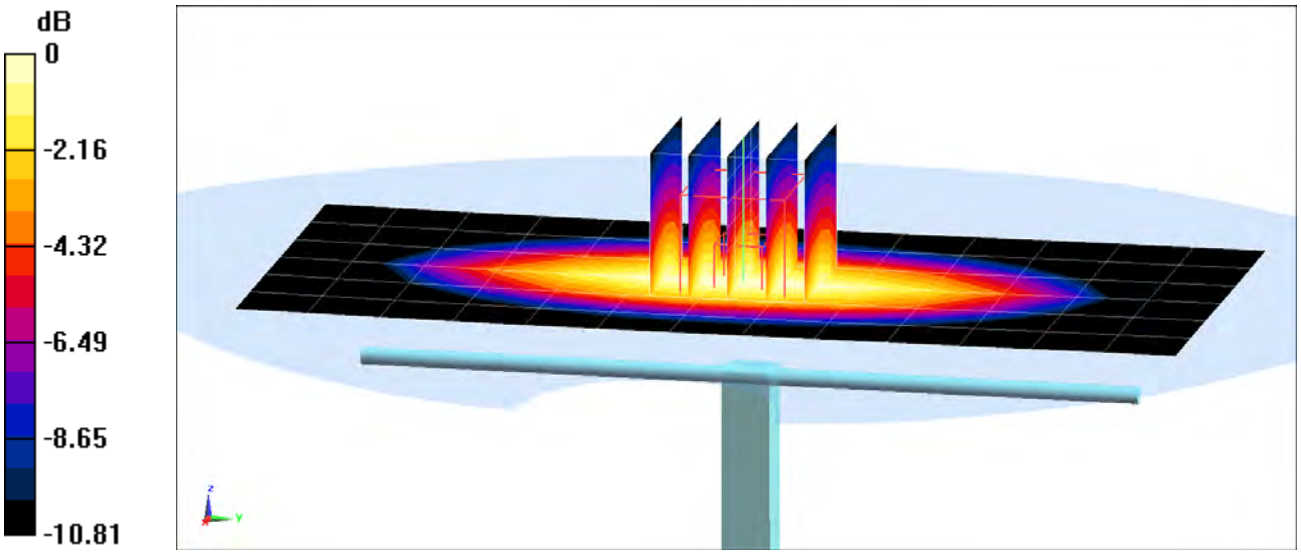
Communication System: UID 0, CW; Frequency: 835 MHz; Duty Cycle: 1:1
Medium: 835 Head; Medium parameters used:
f = 835 MHz; σ = 0.925 S/m; ε_r = 41.763; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 03-13-2019; Ambient Temp: 21.6°C; Tissue Temp: 20.6°C

Probe: EX3DV4 - SN7409; ConvF(9.67, 9.67, 9.67) @ 835 MHz; Calibrated: 6/25/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1334; Calibrated: 6/18/2018
Phantom: SAM 30 with CRP v5.0 right; Type: QD000P40CD; Serial: TP:1759
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

835 MHz System Verification at 23.0 dBm (200 mW)

Area Scan (7x14x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Peak SAR (extrapolated) = 3.08 W/kg
SAR(1 g) = 2 W/kg
Deviation(1 g) = 6.04%



0 dB = 2.71 W/kg = 4.33 dBW/kg

DUT: Dipole 1750 MHz; Type: D1765V2; Serial: 1008

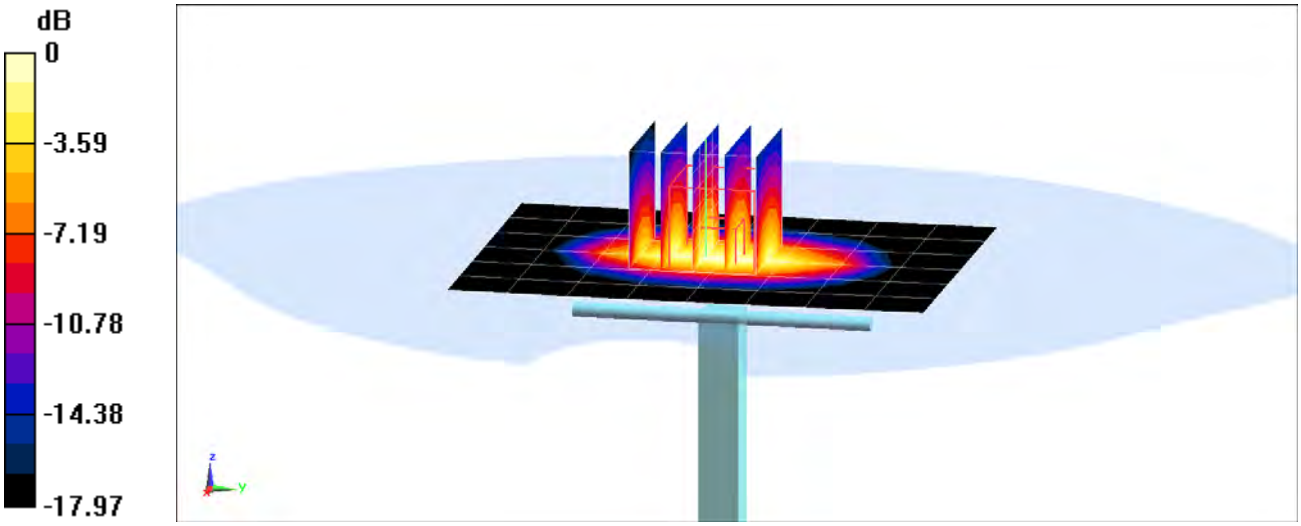
Communication System: UID 0, CW; Frequency: 1750 MHz; Duty Cycle: 1:1
Medium: 1750 Head Medium parameters used:
f = 1750 MHz; σ = 1.387 S/m; ε_r = 41.854; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 02-04-2019; Ambient Temp: 22.3°C; Tissue Temp: 21.1°C

Probe: EX3DV4 - SN7409; ConvF(8.43, 8.43, 8.43) @ 1750 MHz; Calibrated: 6/25/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1334; Calibrated: 6/18/2018
Phantom: SAM with CRP (Left); Type: SAM; Serial: 1715
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

1750 MHz System Verification at 20.0 dBm (100 mW)

Area Scan (7x9x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Peak SAR (extrapolated) = 7.15 W/kg
SAR(1 g) = 3.79 W/kg
Deviation(1 g) = 4.70%



0 dB = 5.80 W/kg = 7.63 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: Dipole 1900 MHz; Type: D1900V2; Serial: 5d149

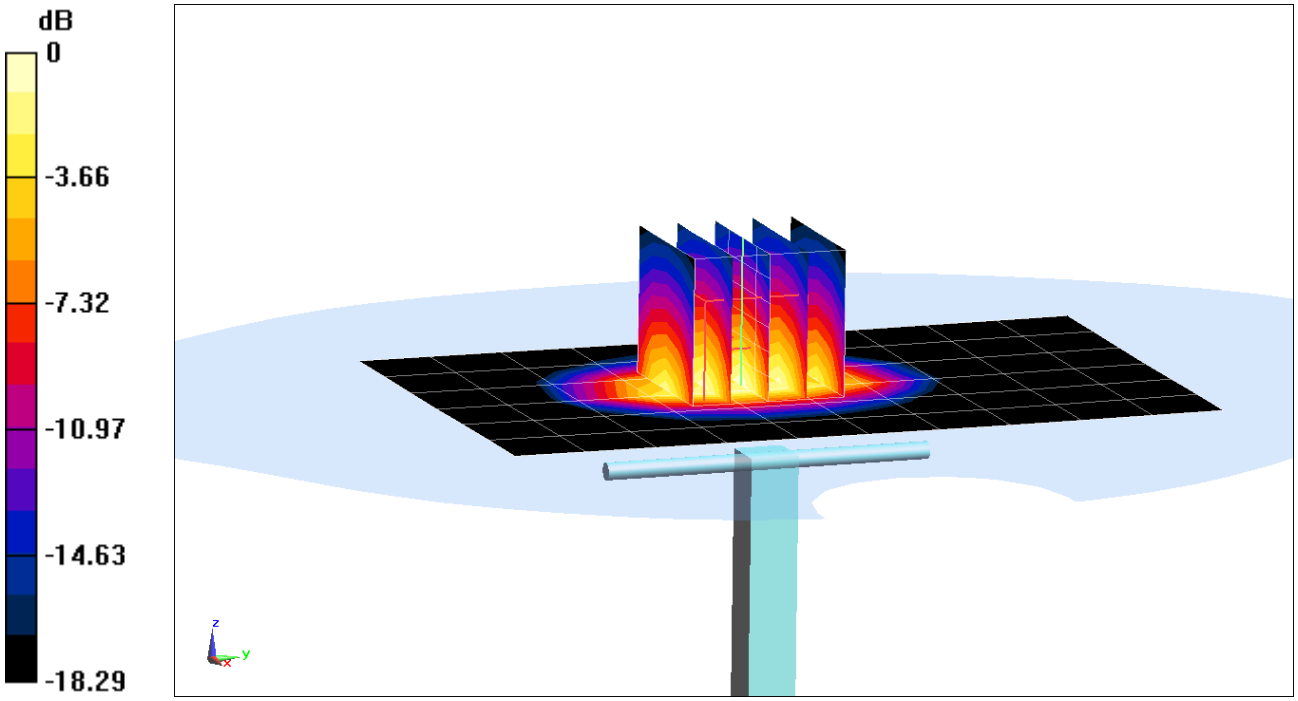
Communication System: UID 0, CW; Frequency: 1900 MHz; Duty Cycle: 1:1
Medium: 1900 Head Medium parameters used (interpolated):
f = 1900 MHz; σ = 1.429 S/m; ε_r = 38.974; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 02-06-2019; Ambient Temp: 22.6°C; Tissue Temp: 21.5°C

Probe: EX3DV4 - SN7410; ConvF(8.16, 8.16, 8.16) @ 1900 MHz; Calibrated: 7/20/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2018
Phantom: SAM Front; Type: SAM; Serial: 1686
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

1900 MHz System Verification at 20.0 dBm (100 mW)

Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Peak SAR (extrapolated) = 7.42 W/kg
SAR(1 g) = 4.09 W/kg
Deviation(1 g) = 4.07%



0 dB = 6.33 W/kg = 8.01 dBW/kg

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DUT: Dipole 2300 MHz; Type: D2300V2; Serial: 1073

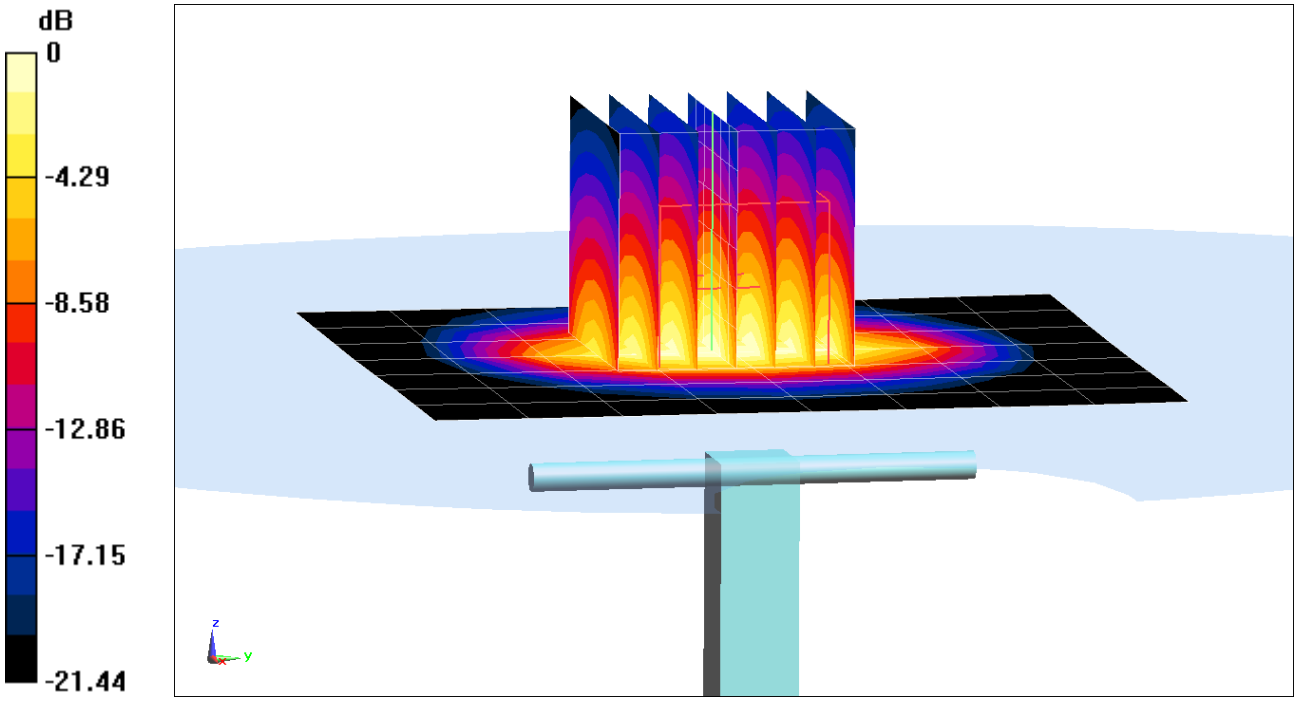
Communication System: UID 0, CW; Frequency: 2300 MHz; Duty Cycle: 1:1
Medium: 2450 Head Medium parameters used:
f = 2300 MHz; σ = 1.71 S/m; ε_r = 38.733; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-29-2019; Ambient Temp: 23.2°C; Tissue Temp: 21.1°C

Probe: EX3DV4 - SN7410; ConvF(7.78, 7.78, 7.78) @ 2300 MHz; Calibrated: 7/20/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2018
Phantom: SAM Front; Type: SAM; Serial: 1686
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

2300 MHz System Verification at 20.0 dBm (100 mW)

Area Scan (8x9x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Peak SAR (extrapolated) = 9.74 W/kg
SAR(1 g) = 4.8 W/kg
Deviation(1 g) = -2.44%



0 dB = 7.85 W/kg = 8.95 dBW/kg

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DUT: Dipole 2450 MHz; Type: D2450V2; Serial: 981

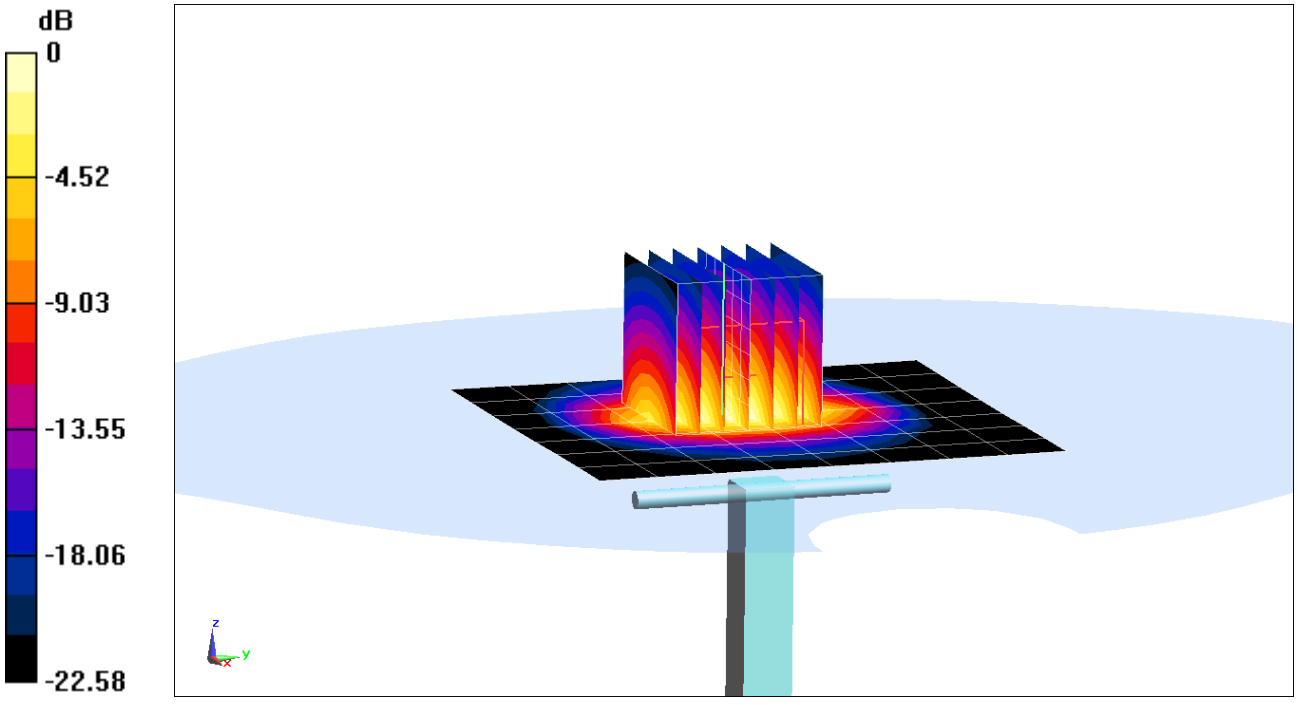
Communication System: UID 0, CW; Frequency: 2450 MHz; Duty Cycle: 1:1
Medium: 2450 Head Medium parameters used:
f = 2450 MHz; σ = 1.83 S/m; ε_r = 38.536; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 01-29-2019; Ambient Temp: 23.2°C; Tissue Temp: 21.1°C

Probe: EX3DV4 - SN7410; ConvF(7.5, 7.5, 7.5) @ 2450 MHz; Calibrated: 7/20/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2018
Phantom: SAM Front; Type: SAM; Serial: 1686
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

2450 MHz System Verification at 20.0 dBm (100 mW)

Area Scan (8x9x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Peak SAR (extrapolated) = 10.9 W/kg
SAR(1 g) = 5.19 W/kg
Deviation(1 g) = -0.76%



0 dB = 8.65 W/kg = 9.37 dBW/kg

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DUT: Dipole 2450 MHz; Type: D2450V2; Serial: 981

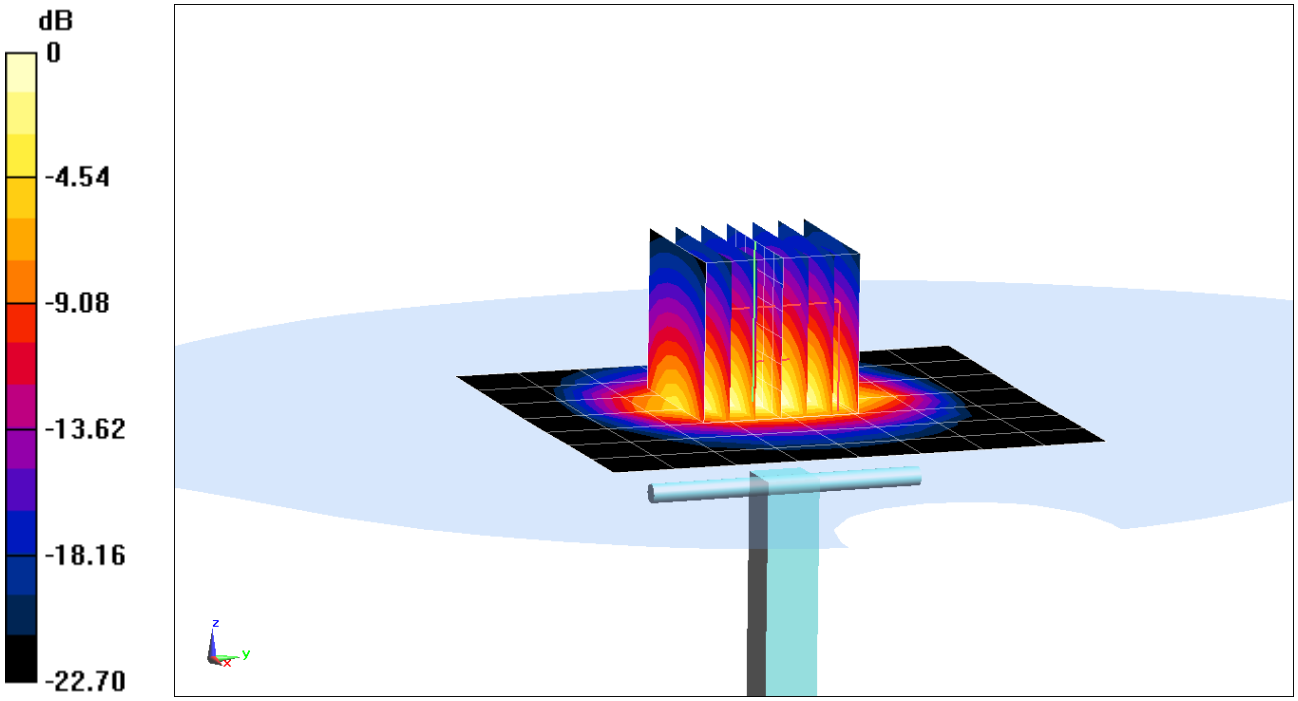
Communication System: UID 0, CW; Frequency: 2450 MHz; Duty Cycle: 1:1
Medium: 2300-2600 Head Medium parameters used:
f = 2450 MHz; σ = 1.792 S/m; ε_r = 38.231; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 02-05-2019; Ambient Temp: 24.0°C; Tissue Temp: 22.4°C

Probe: EX3DV4 - SN7410; ConvF(7.5, 7.5, 7.5) @ 2450 MHz; Calibrated: 7/20/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2018
Phantom: SAM Front; Type: SAM; Serial: 1686
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

2450 MHz System Verification at 20.0 dBm (100 mW)

Area Scan (8x9x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Peak SAR (extrapolated) = 10.8 W/kg
SAR(1 g) = 5.13 W/kg
Deviation(1 g) = -1.91%



0 dB = 8.64 W/kg = 9.37 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: Dipole 2450 MHz; Type: D2450V2; Serial: 797

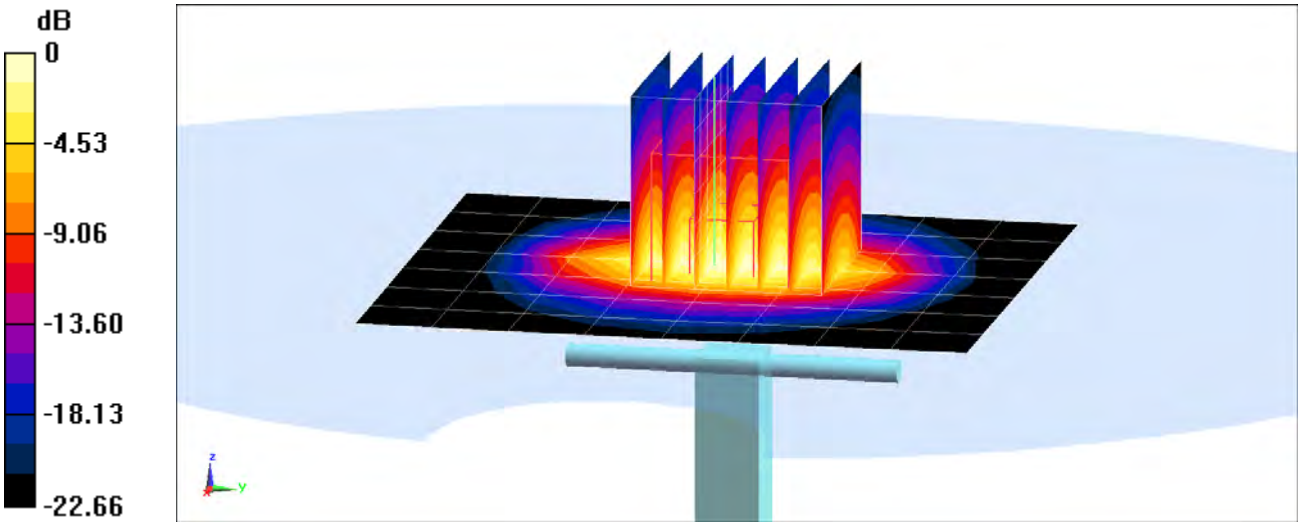
Communication System: UID 0, CW; Frequency: 2450 MHz; Duty Cycle: 1:1
Medium: 2450MHz Head Medium parameters used:
f = 2450 MHz; σ = 1.849 S/m; ε_r = 39.238; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 02-11-2019; Ambient Temp: 20.9°C; Tissue Temp: 21.1°C

Probe: EX3DV4 - SN7409; ConvF(7.23, 7.23, 7.23) @ 2450 MHz; Calibrated: 6/25/2018
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1334; Calibrated: 6/18/2018
Phantom: SAM with CRP (Left); Type: SAM; Serial: 1715
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7450)

2450 MHz System Verification at 20.0 dBm (100 mW)

Area Scan (8x9x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Peak SAR (extrapolated) = 11.6 W/kg
SAR(1 g) = 5.47 W/kg
Deviation(1 g) = 3.8%



0 dB = 9.22 W/kg = 9.65 dBW/kg