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SAR EVALUATION REPORT

Applicant Name:
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Gyeonggi-do, 16677, Korea

Date of Testing:
03/30/20 - 05/14/20
Test Site/Location:
PCTEST Lab, Columbia, MD, USA
Document Serial No.:
1M2003200047-01.A3L

FCC ID: **A3LSMA716U**

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

DUT Type: Portable Handset
Application Type: Certification
FCC Rule Part(s): CFR §2.1093
Model: SM-A716U

Equipment Class	Band & Mode	Tx Frequency	SAR			
			1g Head (W/kg)	1g Body-Worn (W/kg)	1g Hotspot (W/kg)	10g Phablet (W/kg)
PCE	GSM/GPRS/EDGE 850	824.20 - 848.80 MHz	0.18	0.25	1.16	N/A
PCE	GSM/GPRS/EDGE 1900	1850.20 - 1909.80 MHz	< 0.1	0.39	1.16	2.09
PCE	UMTS 850	826.40 - 846.60 MHz	0.21	0.32	0.67	N/A
PCE	UMTS 1750	1712.4 - 1752.6 MHz	0.14	0.88	0.90	2.85
PCE	UMTS 1900	1852.4 - 1907.6 MHz	0.13	0.64	1.02	3.00
PCE	CDMA/EVDO BC0 (§22H)	824.70 - 848.31 MHz	0.33	0.51	0.97	N/A
PCE	CDMA/EVDO BC10 (§90S)	817.90 - 823.10 MHz	0.30	0.41	0.75	N/A
PCE	PCS CDMA/EVDO	1851.25 - 1908.75 MHz	0.21	1.11	0.94	3.02
PCE	LTE Band 71	665.5 - 695.5 MHz	0.15	0.28	0.48	N/A
PCE	NR Band n71	665.5 - 695.5 MHz	0.15	0.24	0.39	N/A
PCE	LTE Band 12	699.7 - 715.3 MHz	0.21	0.30	0.50	N/A
PCE	LTE Band 13	779.5 - 784.5 MHz	0.21	0.31	0.60	N/A
PCE	LTE Band 14	790.5 - 795.5 MHz	0.21	0.32	0.66	N/A
PCE	LTE Band 5 (Cell)	824.7 - 848.3 MHz	0.22	0.32	0.75	N/A
PCE	NR Band n5 (Cell)	826.5 - 846.5 MHz	0.19	0.32	0.67	N/A
PCE	LTE Band 26 (Cell)	814.7 - 848.3 MHz	0.23	0.32	0.75	N/A
PCE	LTE Band 66 (AWS)	1710.7 - 1779.3 MHz	0.13	0.97	1.00	2.93
PCE	NR Band n66 (AWS)	1712.5 - 1777.5 MHz	0.14	0.77	0.72	2.96
PCE	LTE Band 4 (AWS)	1710.7 - 1754.3 MHz	N/A	N/A	N/A	N/A
PCE	LTE Band 25 (PCS)	1850.7 - 1914.3 MHz	0.12	0.81	1.04	2.97
PCE	NR Band n2 (PCS)	1852.5 - 1907.5 MHz	0.15	0.81	0.98	3.30
PCE	LTE Band 2 (PCS)	1850.7 - 1909.3 MHz	N/A	N/A	N/A	N/A
PCE	LTE Band 30	2307.5 - 2312.5 MHz	< 0.1	0.44	0.60	2.04
PCE	LTE Band 7	2502.5 - 2567.5 MHz	0.13	0.34	0.39	2.12
PCE	LTE Band 41	2498.5 - 2687.5 MHz	0.13	0.25	0.27	1.16
PCE	NR Band n41	2506.02 - 2679.99 MHz	0.69	< 0.1	0.16	N/A
PCE	LTE Band 38	2572.5 - 2617.5 MHz	N/A	N/A	N/A	N/A
DTS	2.4 GHz WLAN	2412 - 2462 MHz	0.38	0.12	0.58	N/A
NII	U-NII-1	5180 - 5240 MHz	N/A	N/A	N/A	N/A
NII	U-NII-2A	5260 - 5320 MHz	0.24	0.18	N/A	1.47
NII	U-NII-2C	5500 - 5720 MHz	0.14	0.19	N/A	1.41
NII	U-NII-3	5745 - 5825 MHz	0.14	0.20	0.43	N/A
DSS/DTS	Bluetooth	2402 - 2480 MHz	0.23	< 0.1	< 0.1	N/A
Simultaneous SAR per KDB 690783 D01v01r03:			1.22	1.50	1.59	3.93

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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TABLE OF CONTENTS

1 DEVICE UNDER TEST 3

2 LTE AND NR INFORMATION 14

3 INTRODUCTION 16

4 DOSIMETRIC ASSESSMENT 17

5 DEFINITION OF REFERENCE POINTS 18

6 TEST CONFIGURATION POSITIONS 19

7 RF EXPOSURE LIMITS 23

8 FCC MEASUREMENT PROCEDURES 24

9 RF CONDUCTED POWERS 32

10 SYSTEM VERIFICATION 130

11 SAR DATA SUMMARY 140

12 FCC MULTI-TX AND ANTENNA SAR CONSIDERATIONS 170

13 SAR MEASUREMENT VARIABILITY 198

14 ADDITIONAL TESTING PER FCC GUIDANCE 199

15 EQUIPMENT LIST 212

16 MEASUREMENT UNCERTAINTIES 213

17 CONCLUSION 214

18 REFERENCES 215

APPENDIX A: SAR TEST PLOTS

APPENDIX B: SAR DIPOLE VERIFICATION PLOTS

APPENDIX C: SAR TISSUE SPECIFICATIONS

APPENDIX D: SAR SYSTEM VALIDATION

APPENDIX E: DUT ANTENNA DIAGRAM & SAR TEST SETUP PHOTOGRAPHS

APPENDIX F: DOWNLINK LTE CA RF CONDUCTED POWERS

APPENDIX G: POWER REDUCTION VERIFICATION

APPENDIX H: PROBE AND DIPOLE CALIBRATION CERTIFICATES

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1 DEVICE UNDER TEST

1.1 Device Overview

Band & Mode	Operating Modes	Tx Frequency
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
CDMA/EVDO BC0 (§22H)	Voice/Data	824.70 - 848.31 MHz
CDMA/EVDO BC10 (§90S)	Voice/Data	817.90 - 823.10 MHz
PCS CDMA/EVDO	Voice/Data	1851.25 - 1908.75 MHz
LTE Band 71	Voice/Data	665.5 - 695.5 MHz
NR Band n71	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 5 (Cell)	Voice/Data	824.7 - 848.3 MHz
NR Band n5 (Cell)	Data	826.5 - 846.5 MHz
LTE Band 26 (Cell)	Voice/Data	814.7 - 848.3 MHz
LTE Band 66 (AWS)	Voice/Data	1710.7 - 1779.3 MHz
NR Band n66 (AWS)	Data	1712.5 - 1777.5 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
NR Band n2 (PCS)	Data	1852.5 - 1907.5 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
NR Band n41	Data	2506.02 - 2679.99 MHz
LTE Band 38	Voice/Data	2572.5 - 2617.5 MHz
2.4 GHz WLAN	Voice/Data	2412 - 2462 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. 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 was used as a guideline for selecting SAR test distances for this device when being used in phablet 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 2G/3G/4G/5G Output Power

GSM/GPRS/EDGE 850										
Power Level		Voice (in dBm)	Data - Burst Average GMSK (in dBm)				Data - Burst Average 8-PSK (in 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
Max	Max allowed power	34.0	33.5	33.0	30.5	28.5	28.0	26.5	24.5	23.5
	Nominal	33.0	32.5	32.0	29.5	27.5	27.0	25.5	23.5	22.5

GSM/GPRS/EDGE 1900										
Power Level		Voice (in dBm)	Data - Burst Average GMSK (in dBm)				Data - Burst Average 8-PSK (in 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
Max	Max allowed power	31.0	30.0	29.0	26.5	25.0	27.0	25.0	23.0	22.0
	Nominal	30.0	29.0	28.0	25.5	24.0	26.0	24.0	22.0	21.0
Hotspot Mode Active	Max allowed power	N/A	27.0	26.0	23.5	22.0	24.0	22.0	20.0	19.0
	Nominal	N/A	26.0	25.0	22.5	21.0	23.0	21.0	19.0	18.0
Proximity Sensor Active	Max allowed power	28.0	27.0	26.0	23.5	22.0	24.0	22.0	20.0	19.0
	Nominal	27.0	26.0	25.0	22.5	21.0	23.0	21.0	19.0	18.0

UMTS Band 5 (850 MHz)					
Power Level		Modulated Average Output Power (in dBm)			
		3GPP WCDMA Rel 99	3GPP HSDPA Rel 5	3GPP HSUPA Rel 6	3GPP DC-HSDPA Rel 8
Max	Max allowed power	25.0	24.0	24.0	24.0
	Nominal	24.0	23.0	23.0	23.0

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UMTS Band 4 (1750 MHz)					
Power Level		Modulated Average Output Power (in dBm)			
		3GPP WCDMA Rel 99	3GPP HSDPA Rel 5	3GPP HSUPA Rel 6	3GPP DC-HSDPA Rel 8
Max	Max allowed power	25.0	24.0	24.0	24.0
	Nominal	24.0	23.0	23.0	23.0
Hotspot Mode Active	Max allowed power	21.0	20.5	20.5	20.5
	Nominal	20.0	19.5	19.5	19.5
Proximity Sensor Active	Max allowed power	22.0	21.0	21.0	21.0
	Nominal	21.0	20.0	20.0	20.0

UMTS Band 2 (1900 MHz)					
Power Level		Modulated Average Output Power (in dBm)			
		3GPP WCDMA Rel 99	3GPP HSDPA Rel 5	3GPP HSUPA Rel 6	3GPP DC-HSDPA Rel 8
Max	Max allowed power	24.0	23.0	23.0	23.0
	Nominal	23.0	22.0	22.0	22.0
Hotspot Mode Active	Max allowed power	20.0	19.5	19.5	19.5
	Nominal	19.0	18.5	18.5	18.5
Proximity Sensor Active	Max allowed power	21.5	20.5	20.5	20.5
	Nominal	20.5	19.5	19.5	19.5

CDMA BC0 (835 MHz)				
Power Level		Modulated Average Output Power (in dBm)		
		1x-RTT	EVDO Rev 0	EVDO Rev A
Max	Max allowed power	26.0	26.0	26.0
	Nominal	25.0	25.0	25.0

CDMA BC10 (815 MHz)				
Power Level		Modulated Average Output Power (in dBm)		
		1x-RTT	EVDO Rev 0	EVDO Rev A
Max	Max allowed power	26.0	26.0	26.0
	Nominal	25.0	25.0	25.0

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CDMA BC1 (1900 MHz)				
Power Level		Modulated Average Output Power (in dBm)		
		1x-RTT	EVDO Rev 0	EVDO Rev A
Max	Max allowed power	26.0	26.0	26.0
	Nominal	25.0	25.0	25.0
Hotspot Mode Active	Max allowed power	19.5	19.5	19.5
	Nominal	18.5	18.5	18.5
Proximity Sensor Active	Max allowed power	21.5	21.5	21.5
	Nominal	20.5	20.5	20.5

Mode / Band		Modulated Average Output Power (in dBm)		
		Max	Hotspot Mode Active	Proximity Sensor Active
LTE FDD Band 71	Max allowed power	25.5	25.5	25.5
	Nominal	24.5	24.5	24.5
LTE FDD Band 12	Max allowed power	25.5	25.5	25.5
	Nominal	24.5	24.5	24.5
LTE FDD Band 13	Max allowed power	25.5	25.5	25.5
	Nominal	24.5	24.5	24.5
LTE FDD Band 14	Max allowed power	25.5	25.5	25.5
	Nominal	24.5	24.5	24.5
LTE FDD Band 5	Max allowed power	25.5	25.5	25.5
	Nominal	24.5	24.5	24.5
LTE FDD Band 26	Max allowed power	25.5	25.5	25.5
	Nominal	24.5	24.5	24.5
LTE FDD Band 4	Max allowed power	25.0	21.0	22.0
	Nominal	24.0	20.0	21.0
LTE FDD Band 66	Max allowed power	25.0	21.0	22.0
	Nominal	24.0	20.0	21.0
LTE FDD Band 2	Max allowed power	24.5	19.5	21.0
	Nominal	23.5	18.5	20.0
LTE FDD Band 25	Max allowed power	24.5	19.5	21.0
	Nominal	23.5	18.5	20.0
LTE FDD Band 30	Max allowed power	24.0	22.0	22.0
	Nominal	23.0	21.0	21.0
LTE FDD Band 7	Max allowed power	23.0	22.0	22.0
	Nominal	22.0	21.0	21.0
LTE TDD Band 38	Max allowed power	24.0	22.0	22.0
	Nominal	23.0	21.0	21.0
LTE TDD Band 41 (PC3)	Max allowed power	24.0	22.0	22.0
	Nominal	23.0	21.0	21.0
LTE TDD Band 41 (PC2)	Max allowed power	27.0	22.0	22.0
	Nominal	26.0	21.0	21.0

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Mode / Band		Modulated Average Output Power (in dBm)		
		Max	Hotspot Mode Active	Proximity Sensor Active
NR FDD Band n71	Max allowed power	25.0	25.0	25.0
	Nominal	24.0	24.0	24.0
NR FDD Band n5	Max allowed power	25.0	25.0	25.0
	Nominal	24.0	24.0	24.0
NR FDD Band n66	Max allowed power	26.0	21.0	22.0
	Nominal	25.0	20.0	21.0
NR FDD Band n2	Max allowed power	25.0	20.0	22.0
	Nominal	24.0	19.0	21.0
NR TDD Band n41	Max allowed power	24.0	24.0	24.0
	Nominal	23.0	23.0	23.0

1.3.2 WLAN and Bluetooth Maximum Output Power

Mode	Band	IEEE 802.11 (in dBm)					
		b		g		n	
Maximum / Nominal Power		Max	Nom.	Max	Nom.	Max	Nom.
2.4 GHz WIFI	2.45 GHz	21.0	20.0	20.0	19.0	20.0 ch. 1: 19.0 ch. 11: 19.0	19.0 18.0 18.0

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Mode	Band	IEEE 802.11 (in dBm)					
		a		n		ac	
Maximum / Nominal Power		Max	Nom.	Max	Nom.	Max	Nom.
5 GHz WIFI (20MHz BW)	5200 MHz	20.0	19.0	20.0	19.0	18.0	17.0
	5300 MHz	20.0	19.0	20.0	19.0	18.0	17.0
	5500 MHz	20.0	19.0	20.0	19.0	18.0	17.0
	5800 MHz	20.0	19.0	20.0	19.0	18.0	17.0
5 GHz WIFI (40MHz BW)	5200 MHz			17.0	16.0	17.0	16.0
	5300 MHz			17.0	16.0	17.0	16.0
	5500 MHz			17.0	16.0	17.0	16.0
	5800 MHz			17.0	16.0	17.0	16.0
5 GHz WIFI (80MHz BW)	5200 MHz					17.0	16.0
	5300 MHz					17.0	16.0
	5500 MHz					17.0	16.0
	5800 MHz					17.0	16.0

Mode / Band		Modulated Average (dBm)
Bluetooth 1 Mbps (GFSK)	Maximum	**10.5**
	Nominal	**9.5**
Bluetooth 2 Mbps (DPSK)	Maximum	**7.5**
	Nominal	**6.5**
Bluetooth 3 Mbps (8DPSK)	Maximum	**7.5**
	Nominal	**6.5**
Bluetooth LE 2 Mbps	Maximum	**2.5**
	Nominal	**1.5**
Bluetooth LE 1 Mbps, 125/500 Kbps	Maximum	**2.0**
	Nominal	**1.0**

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1.3.3 WLAN Reduced Output Power

Mode	Band	IEEE 802.11 (in dBm)					
		b		g		n	
Maximum / Nominal Power		Max	Nom.	Max	Nom.	Max	Nom.
2.4 GHz WIFI	2.45 GHz	14.0	13.0	14.0	13.0	14.0	13.0

Mode	Band	IEEE 802.11 (in dBm)					
		a		n		ac	
Maximum / Nominal Power		Max	Nom.	Max	Nom.	Max	Nom.
5 GHz WIFI (20MHz BW)	5200 MHz	11.0	10.0	11.0	10.0	11.0	10.0
	5300 MHz	11.0	10.0	11.0	10.0	11.0	10.0
	5500 MHz	11.0	10.0	11.0	10.0	11.0	10.0
	5800 MHz	11.0	10.0	11.0	10.0	11.0	10.0
5 GHz WIFI (40MHz BW)	5200 MHz			11.0	10.0	11.0	10.0
	5300 MHz			11.0	10.0	11.0	10.0
	5500 MHz			11.0	10.0	11.0	10.0
	5800 MHz			11.0	10.0	11.0	10.0
5 GHz WIFI (80MHz BW)	5200 MHz					11.0	10.0
	5300 MHz					11.0	10.0
	5500 MHz					11.0	10.0
	5800 MHz					11.0	10.0

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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 E. Since the diagonal dimension of this device is > 160 mm and <200 mm, it is considered a "phablet."

Table 1-1
Device Edges/Sides for SAR Testing

Mode	Back	Front	Top	Bottom	Right	Left
GPRS 850	Yes	Yes	No	Yes	Yes	Yes
GPRS 1900	Yes	Yes	No	Yes	Yes	Yes
UMTS 850	Yes	Yes	No	Yes	Yes	Yes
UMTS 1750	Yes	Yes	No	Yes	Yes	Yes
UMTS 1900	Yes	Yes	No	Yes	Yes	Yes
EVDO BC0 (§22H)	Yes	Yes	No	Yes	Yes	Yes
EVDO BC10 (§90S)	Yes	Yes	No	Yes	Yes	Yes
PCS EVDO	Yes	Yes	No	Yes	Yes	Yes
LTE Band 71	Yes	Yes	No	Yes	Yes	Yes
NR Band n71	Yes	Yes	No	Yes	Yes	Yes
LTE Band 12	Yes	Yes	No	Yes	Yes	Yes
LTE Band 13	Yes	Yes	No	Yes	Yes	Yes
LTE Band 14	Yes	Yes	No	Yes	Yes	Yes
LTE Band 5 (Cell)	Yes	Yes	No	Yes	Yes	Yes
NR Band n5 (Cell)	Yes	Yes	No	Yes	Yes	Yes
LTE Band 26 (Cell)	Yes	Yes	No	Yes	Yes	Yes
LTE Band 66 (AWS)	Yes	Yes	No	Yes	Yes	Yes
NR Band n66 (AWS)	Yes	Yes	No	Yes	Yes	Yes
LTE Band 25 (PCS)	Yes	Yes	No	Yes	Yes	Yes
NR Band n2 (PCS)	Yes	Yes	No	Yes	Yes	Yes
LTE Band 30	Yes	Yes	No	Yes	No	Yes
LTE Band 7	Yes	Yes	No	Yes	No	Yes
LTE Band 41	Yes	Yes	No	Yes	No	Yes
NR Band n41	Yes	Yes	Yes	No	No	Yes
2.4 GHz WLAN	Yes	Yes	Yes	No	No	Yes
5 GHz WLAN	Yes	Yes	Yes	No	No	Yes
Bluetooth	Yes	Yes	Yes	No	No	Yes

Note: Particular DUT edges were not required to be evaluated for wireless router SAR or phablet SAR if the edges were greater than 2.5 cm from the transmitting antenna according to FCC KDB Publication 941225 D06v02r01 Section III 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 E.

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.

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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 1-2
Simultaneous Transmission Scenarios

No.	Capable Transmit Configuration	Head	Body-Worn Accessory	Wireless Router	Phablet	Notes
1	1x CDMA voice + 2.4 GHz WI-FI	Yes	Yes	N/A	Yes	
2	1x CDMA voice + 5 GHz WI-FI	Yes	Yes	N/A	Yes	
3	1x CDMA voice + 2.4 GHz Bluetooth	Yes^	Yes	N/A	Yes	^Bluetooth Tethering is considered
4	1x CDMA voice + 2.4 GHz Bluetooth + 5 GHz WI-FI	Yes^	Yes	N/A	Yes	^Bluetooth Tethering is considered
5	GSM voice + 2.4 GHz WI-FI	Yes	Yes	N/A	Yes	
6	GSM voice + 5 GHz WI-FI	Yes	Yes	N/A	Yes	
7	GSM voice + 2.4 GHz Bluetooth	Yes^	Yes	N/A	Yes	^Bluetooth Tethering is considered
8	GSM voice + 2.4 GHz Bluetooth + 5 GHz WI-FI	Yes^	Yes	N/A	Yes	^Bluetooth Tethering is considered
9	UMTS + 2.4 GHz WI-FI	Yes	Yes	Yes	Yes	
10	UMTS + 5 GHz WI-FI	Yes	Yes	Yes	Yes	
11	UMTS + 2.4 GHz Bluetooth	Yes^	Yes	Yes^	Yes	^Bluetooth Tethering is considered
12	UMTS + 2.4 GHz Bluetooth + 5 GHz WI-FI	Yes^	Yes	Yes^	Yes	^Bluetooth Tethering is considered
13	LTE + 5G NR	Yes	Yes	N/A	Yes	
14	LTE + 2.4 GHz WI-FI	Yes	Yes	Yes	Yes	
15	LTE + 2.4 GHz WI-FI + 5G NR	Yes	Yes	Yes	Yes	
16	LTE + 5 GHz WI-FI	Yes	Yes	Yes	Yes	
17	LTE + 5 GHz WI-FI + 5G NR	Yes	Yes	Yes	Yes	
18	LTE + 2.4 GHz Bluetooth	Yes^	Yes	Yes^	Yes	^Bluetooth Tethering is considered
19	LTE + 5G NR+ 2.4 GHz Bluetooth	Yes^	Yes	Yes^	Yes	^Bluetooth Tethering is considered
20	LTE + 2.4 GHz Bluetooth + 5 GHz WI-FI	Yes^	Yes	Yes^	Yes	^Bluetooth Tethering is considered
21	LTE + 2.4 GHz Bluetooth + 5 GHz WI-FI + 5G NR	Yes^	Yes	Yes^	Yes	^Bluetooth Tethering is considered
22	CDMA/EVDO data + 2.4 GHz WI-FI	Yes*	Yes*	Yes	Yes	* Pre-installed VOIP applications are considered
23	CDMA/EVDO data + 5 GHz WI-FI	Yes*	Yes*	Yes	Yes	* Pre-installed VOIP applications are considered
24	CDMA/EVDO data + 2.4 GHz Bluetooth	Yes*^	Yes*	Yes^	Yes	* Pre-installed VOIP applications are considered ^Bluetooth Tethering is considered
25	CDMA/EVDO data + 2.4 GHz Bluetooth + 5 GHz WI-FI	Yes*^	Yes*	Yes^	Yes	* Pre-installed VOIP applications are considered ^Bluetooth Tethering is considered
26	GPRS/EDGE + 2.4 GHz WI-FI	N/A	N/A	Yes	Yes	
27	GPRS/EDGE + 5 GHz WI-FI	N/A	N/A	Yes	Yes	
28	GPRS/EDGE + 2.4 GHz Bluetooth	N/A	N/A	Yes^	Yes	^Bluetooth Tethering is considered
29	GPRS/EDGE + 2.4 GHz Bluetooth + 5 GHz WI-FI	N/A	N/A	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.
5. 5 GHz Wireless Router is only supported for the U-NII-3 by S/W, therefore U-NII-1, U-NII-2A, and U-NII-2C were not evaluated for wireless router conditions.
6. This device supports VOLTE.
7. This device supports VOWIFI.
8. This device supports Bluetooth Tethering.
9. LTE + 5G NR Scenarios are limited to LTE Anchor Bands, LTE Band 12, LTE Band 5, LTE Band 66, LTE Band 25, LTE Band 2, and LTE Band 30.

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1.7 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 802.11ac with the following features:

a) Up to 80 MHz Bandwidth only
b) No aggregate channel configurations
c) 1 Tx antenna output
d) 256 QAM is supported
e) TDWR and Band gap channels are supported

Per FCC KDB Publication 648474 D04v01r03, this device is considered a "phablet" 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, Bluetooth and U-NII-3 WLAN operations since wireless router 1g SAR was < 1.2 W/kg.

(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.

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 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. The downlink carrier aggregation exclusion analysis can be found in Appendix F.

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Per FCC KDB Publication 648474 D04v01r03, this device is considered a "phablet" 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. Phablet SAR was not evaluated for licensed technologies since wireless router 1g SAR was < 1.2 W/kg for these modes.

This device supports downlink 4x4 MIMO operations for some LTE Bands. Per May 2017 TCB Workshop Notes, SAR for 4x4 DL MIMO was not needed since the maximum average output power in 4x4 DL MIMO mode was not more than 0.25 dB higher than the maximum output power with 4x4 DL MIMO inactive. Additionally, SAR for 4x4 MIMO Downlink Carrier Aggregation was not needed since the maximum average output power in 4x4 MIMO Downlink Carrier Aggregation mode was not more than 0.25 dB higher than the maximum output power with 4x4 MIMO Downlink and downlink carrier aggregation inactive.

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 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 41 with two component carriers in the uplink. SAR Measurements and conducted powers were evaluated per 2017 Fall TCB Workshop Notes.

NR implementation of n71, n5, n66, n2, and n41 is limited to EN-DC operations only, with LTE Band 12/5/66/25/2/30 acting as the anchor band. Per FCC Guidance, SAR tests were performed separately for NR Bands and LTE Anchor Bands. Please see Section 11 for more details.

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 4x4 Downlink MIMO, LTE Band 41 Power Class 2/3)
- April 2018 TCB Workshop Notes (LTE Carrier Aggregation)
- April 2019 TCB Workshop Notes (Dynamic Antenna Tuning)

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 AND NR 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 5 (Cell) (824.7 - 848.3 MHz)				
	LTE Band 26 (Cell) (814.7 - 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 5 (Cell): 1.4 MHz, 3 MHz, 5 MHz, 10 MHz				
	LTE Band 26 (Cell): 1.4 MHz, 3 MHz, 5 MHz, 10 MHz, 15 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 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 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 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 16, UL UE Cat 13				
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 15. It supports carrier aggregation, downlink MIMO features as shown in Section 9 and Appendix F. All uplink communications are indentical to the Release 8 Specifications. Uplink communications are done on the PCC. The following LTE Release 15 Features are not supported: Relay, HetNet, Enhanced MIMO, eICIC, WIFI Offloading, eMBMS, Cross-Carrier Scheduling, Enhanced SC-FDMA.				

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NR Information					
Form Factor	Portable Handset				
Frequency Range of each LTE transmission band	NR Band n71 (665.5 - 695.5 MHz)				
	NR Band n5 (Cell) (826.5 - 846.5 MHz)				
	NR Band n66 (AWS) (1712.5 - 1777.5 MHz)				
	NR Band n2 (PCS) (1852.5 - 1907.5 MHz)				
	NR Band n41 (2506.02 - 2679.99 MHz)				
Channel Bandwidths	NR Band n71: 5 MHz, 10 MHz, 15 MHz, 20 MHz				
	NR Band n5 (Cell): 5 MHz, 10 MHz, 15 MHz, 20 MHz				
	NR Band n66 (AWS): 5 MHz, 10 MHz, 15 MHz, 20 MHz				
	NR Band n2 (PCS): 5 MHz, 10 MHz, 15 MHz, 20 MHz				
	NR Band n41: 20 MHz, 40 MHz, 50MHz, 60 MHz, 80 MHz, 90 MHz, 100 MHz				
Channel Numbers and Frequencies (MHz)	Low	Low-Mid	Mid	Mid-High	High
NR Band n71: 5 MHz	665.5 (133100)		680.5 (136100)	695.5 (139100)	
NR Band n71: 10 MHz	668 (133600)		680.5 (136100)	693 (138600)	
NR Band n71: 15 MHz	670.5 (134100)		N/A	690.5 (138100)	
NR Band n71: 20 MHz	673 (134600)		680.5 (136100)	688 (137600)	
NR Band n5 (Cell): 5 MHz	826.5 (165300)		836.5 (167300)	846.5 (169300)	
NR Band n5 (Cell): 10 MHz	829 (165800)		836.5 (167300)	844 (168800)	
NR Band n5 (Cell): 15 MHz	831.5 (166300)		836.5 (167300)	841.5 (168300)	
NR Band n5 (Cell): 20 MHz	834 (166800)		836.5 (167300)	839 (167800)	
NR Band n66 (AWS): 5 MHz	1712.5 (342500)		1745 (349000)	1777.5 (355500)	
NR Band n66 (AWS): 10 MHz	1715 (343000)		1745 (349000)	1775 (355000)	
NR Band n66 (AWS): 15 MHz	1717.5 (343500)		1745 (349000)	1772.5 (354500)	
NR Band n66 (AWS): 20 MHz	1720 (344000)		1745 (349000)	1770 (354000)	
NR Band n2 (PCS): 5 MHz	1852.5 (370500)		1880 (376000)	1907.5 (381500)	
NR Band n2 (PCS): 10 MHz	1855 (371000)		1880 (376000)	1905 (381000)	
NR Band n2 (PCS): 15 MHz	1857.5 (371500)		1880 (376000)	1902.5 (380500)	
NR Band n2 (PCS): 20 MHz	1860 (372000)		1880 (376000)	1900 (380000)	
NR Band n41: 20 MHz	2506.02 (501204)	2549.49 (509898)	2592.99 (518598)	2636.49 (527298)	2679.99 (535998)
NR Band n41: 40 MHz	2516.01 (503202)	2567.34 (513468)	N/A	2618.67 (523734)	2670 (534000)
NR Band n41: 50 MHz	2521.02 (504204)		2592.99 (518598)	2664.99 (532998)	
NR Band n41: 60 MHz	2526 (505200)		2592.99 (518598)	2659.98 (531996)	
NR Band n41: 80 MHz	2536.02 (507204)		N/A	2649.99 (529998)	
NR Band n41: 90 MHz	2541 (508200)		N/A	2644.98 (528996)	
NR Band n41: 100 MHz	N/A		2592.99 (518598)	N/A	
NR Band n71/n5/n2/n66 SCS	15 kHZ				
NR Band n41 SCS	30 kHz				
Modulations Supported in UL	DFT-s-OFDM: π/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM CP-OFDM: QPSK, 16QAM, 64QAM, 256QAM				
A-MPR (Additional MPR) disabled for SAR Testing?	YES				
EN-DC Carrier Aggregation Possible Combinations	The technical description includes all the possible carrier aggregation combinations				
LTE Anchor Bands for NR Band n71	LTE Band 2/66				
LTE Anchor Bands for NR Band n5	LTE Band 2/30/66				
LTE Anchor Bands for NR Band n66	LTE Band 5/12				
LTE Anchor Bands for NR Band n2	LTE Band 5/12				
LTE Anchor Bands for NR Band n41	LTE Band 2/25/66				

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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:

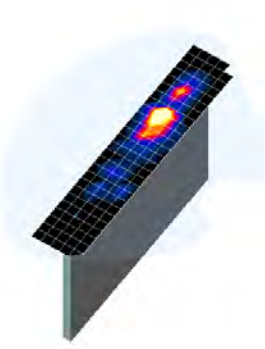


Figure 4-1
Sample SAR Area Scan

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].

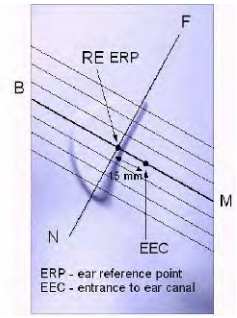


Figure 5-1
Close-Up Side view of ERP

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

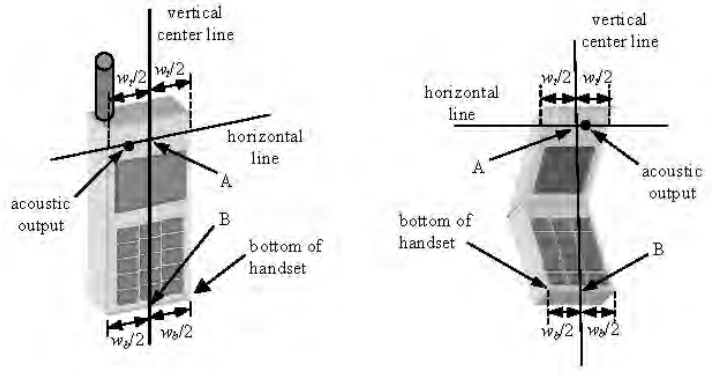


Figure 5-3
Handset Vertical Center & Horizontal Line Reference Points

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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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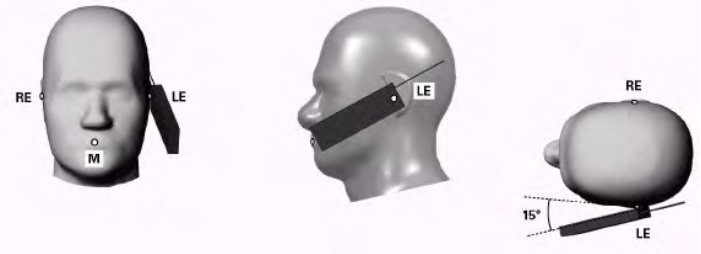


Figure 6-2 Front, Side and Top View of Ear/15º Tilt Position

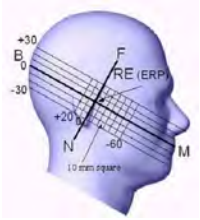


Figure 6-3
Side view w/ relevant markings

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.

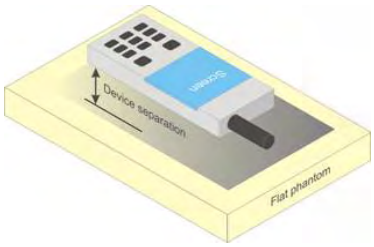


Figure 6-4
Sample Body-Worn Diagram

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.

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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 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 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.

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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

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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.

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

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measurements are required for downlink only carrier aggregation configurations when the average output 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

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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.

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 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. 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.

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9 RF CONDUCTED POWERS

9.1 GSM Conducted Powers

Table 9-1
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	32.69	32.87	**31.81**	29.99	28.03	27.12	25.34	23.33	22.43
	190	32.55	32.73	**31.68**	30.09	27.74	26.94	25.28	23.47	22.60
	251	32.59	32.74	**31.48**	29.61	27.56	27.04	25.15	23.27	22.32
GSM 1900	512	30.04	30.00	**28.63**	26.40	24.82	26.22	24.39	22.37	21.54
	661	29.38	29.43	**28.65**	26.00	24.16	26.06	24.29	22.26	21.41
	810	29.92	29.94	**28.80**	26.13	24.54	26.03	24.32	22.24	21.22

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	23.49	23.67	**25.62**	25.56	24.85	17.92	19.15	18.90	19.25
	190	23.35	23.53	**25.49**	25.66	24.56	17.74	19.09	19.04	19.42
	251	23.39	23.54	**25.29**	25.18	24.38	17.84	18.96	18.84	19.14
GSM 1900	512	20.84	20.80	**22.44**	21.97	21.64	17.02	18.20	17.94	18.36
	661	20.18	20.23	**22.46**	21.57	20.98	16.86	18.10	17.83	18.23
	810	20.72	20.74	**22.61**	21.70	21.36	16.83	18.13	17.81	18.04

GSM 850	**Frame Avg.Targets:**	23.80	23.30	**25.81**	25.07	24.32	17.80	19.31	19.07	19.32
GSM 1900		20.80	19.80	**21.81**	21.07	20.82	16.80	17.81	17.57	17.82

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Table 9-2
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	26.42	**24.90**	23.48	21.50	22.82	21.01	19.03	18.16
	661	26.03	**25.01**	23.20	21.18	22.71	20.76	18.70	17.89
	810	26.31	**25.09**	23.49	21.41	22.92	20.90	18.77	18.10

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	17.22	**18.71**	19.05	18.32	13.62	14.82	14.60	14.98
	661	16.83	**18.82**	18.77	18.00	13.51	14.57	14.27	14.71
	810	17.11	**18.90**	19.06	18.23	13.72	14.71	14.34	14.92

GSM 1900	**Frame Avg.Targets:**	16.80	**18.81**	18.07	17.82	13.80	14.81	14.57	14.82

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Table 9-3
Reduced Conducted Power – Proximity Sensor and/or Earjack 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	26.44	26.42	**24.90**	23.48	21.50	22.82	21.01	19.03	18.16
	661	26.02	26.03	**25.01**	23.20	21.18	22.71	20.76	18.70	17.89
	810	26.35	26.31	**25.09**	23.49	21.41	22.92	20.90	18.77	18.10

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	17.24	17.22	**18.71**	19.05	18.32	13.62	14.82	14.60	14.98
	661	16.82	16.83	**18.82**	18.77	18.00	13.51	14.57	14.27	14.71
	810	17.15	17.11	**18.90**	19.06	18.23	13.72	14.71	14.34	14.92
GSM 1900	**Frame Avg.Targets:**	17.80	16.80	**18.81**	18.07	17.82	13.80	14.81	14.57	14.82

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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 8-PSK modulation do not have an impact on output power.

GSM Class: B
GPRS Multislot class: 33 (Max 4 Tx uplink slots)
EDGE Multislot class: 33 (Max 4 Tx uplink slots)
DTM Multislot Class: N/A



Figure 9-1
Power Measurement Setup

9.2 UMTS Conducted Powers

Table 9-4
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	24.59	24.61	24.73	24.25	24.24	24.20	23.70	23.55	23.38	-
99		12.2 kbps AMR	24.55	24.65	24.67	24.21	24.23	24.18	23.74	23.53	23.38	-
6	HSDPA	Subtest 1	23.54	23.59	23.64	23.20	23.49	23.11	22.51	22.28	22.13	0
6		Subtest 2	23.52	23.54	23.46	23.26	23.47	23.13	22.59	22.29	22.10	0
6		Subtest 3	23.02	23.11	22.91	22.63	22.92	22.64	22.04	21.82	21.62	0.5
6		Subtest 4	22.95	22.92	22.85	22.71	22.97	22.61	22.05	21.82	21.61	0.5
6	HSUPA	Subtest 1	23.54	23.59	23.64	23.28	23.54	23.16	22.54	22.25	22.07	0
6		Subtest 2	21.44	21.57	21.54	21.20	21.51	21.16	20.49	20.24	20.05	2
6		Subtest 3	22.48	22.56	22.67	22.20	22.49	22.12	21.50	21.26	21.05	1
6		Subtest 4	21.42	21.49	21.59	21.16	21.48	21.11	20.55	20.25	20.07	2
6		Subtest 5	23.48	23.61	23.47	23.15	23.44	23.12	22.59	22.29	22.13	0
8	DC-HSDPA	Subtest 1	23.51	23.52	23.35	23.19	23.45	23.06	22.49	22.23	22.08	0
8		Subtest 2	23.44	23.43	23.28	23.29	23.49	23.11	22.52	22.22	22.10	0
8		Subtest 3	22.55	22.67	22.42	22.83	23.00	22.66	22.04	21.74	21.62	0.5
8		Subtest 4	22.60	22.68	22.56	22.75	22.94	22.65	22.03	21.72	21.60	0.5

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Table 9-5
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	20.55	20.61	20.68	19.31	19.21	19.08	-
99		12.2 kbps AMR	20.54	20.58	20.66	19.32	19.21	19.06	-
6	HSDPA	Subtest 1	19.45	19.50	19.29	18.43	18.15	18.00	0
6		Subtest 2	19.43	19.51	19.28	18.46	18.19	19.07	0
6		Subtest 3	18.94	18.99	18.74	17.95	17.67	17.53	0.5
6		Subtest 4	18.94	19.00	18.75	17.98	17.67	17.52	0.5
6	HSUPA	Subtest 1	19.33	19.41	19.23	18.47	18.15	18.00	0
6		Subtest 2	17.41	17.47	17.25	16.44	16.18	16.00	2
6		Subtest 3	18.35	18.48	18.20	17.42	17.17	16.94	1
6		Subtest 4	17.43	17.50	17.23	16.48	16.18	16.01	2
6		Subtest 5	19.41	19.46	19.25	18.43	18.13	18.01	0
8	DC-HSDPA	Subtest 1	19.42	19.50	19.26	18.44	18.16	18.00	0
8		Subtest 2	19.43	19.52	19.25	18.47	18.19	18.03	0
8		Subtest 3	18.97	19.03	18.81	17.99	17.68	17.53	0.5
8		Subtest 4	18.00	19.02	18.78	17.95	17.66	17.54	0.5

Table 9-6
Reduced Conducted Power – Proximity Sensor and/or Earjack 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	21.08	21.07	20.61	20.22	20.16	20.12	-
99		12.2 kbps AMR	21.08	21.04	20.57	20.18	20.15	20.07	-
6	HSDPA	Subtest 1	19.72	19.95	19.66	19.44	19.21	19.03	0
6		Subtest 2	19.72	19.96	19.68	19.49	19.22	19.05	0
6		Subtest 3	19.25	19.55	19.15	19.00	18.70	18.54	0.5
6		Subtest 4	19.21	19.54	19.16	19.01	18.69	18.51	0.5
6	HSUPA	Subtest 1	19.76	19.98	19.62	19.45	19.18	19.02	0
6		Subtest 2	17.72	17.98	17.61	17.45	17.19	17.01	2
6		Subtest 3	18.67	18.96	18.61	18.50	18.15	18.01	1
6		Subtest 4	17.73	17.97	17.59	17.45	17.16	17.01	2
6		Subtest 5	19.75	20.09	19.71	19.53	19.25	19.06	0
8	DC-HSDPA	Subtest 1	19.72	20.02	19.73	19.45	19.21	19.42	0
8		Subtest 2	19.67	20.01	19.62	19.48	19.21	19.07	0
8		Subtest 3	19.15	19.46	19.14	18.97	18.72	18.54	0.5
8		Subtest 4	19.17	19.48	19.08	18.97	18.71	18.56	0.5

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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 9-2
Power Measurement Setup

9.3 CDMA Conducted Powers

Table 9-7
Maximum Conducted Power

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	24.73	24.72	24.82	24.72	24.74	25.85	25.89
Cellular	1013	22H	824.7	24.72	24.71	24.78	24.77	24.76	25.79	25.90
	384	22H	836.52	24.64	24.65	24.94	24.75	24.72	25.88	25.83
	777	22H	848.31	24.62	24.68	24.76	24.70	24.64	24.76	24.38
PCS	25	24E	1851.25	24.40	24.39	24.36	24.38	24.40	24.45	24.15
	600	24E	1880	24.19	24.14	24.19	24.20	24.21	24.15	24.01
	1175	24E	1908.75	24.06	24.08	24.23	24.09	24.14	24.27	24.10

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Table 9-8
Reduced Conducted Power – Hotspot Mode Active

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	18.67	18.71	18.82	18.83
	600	24E	1880	18.52	18.50	18.63	18.60
	1175	24E	1908.75	18.50	18.49	18.62	18.63

Table 9-9
Reduced Conducted Power – Proximity Sensor and/or Earjack Active

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	20.74	20.80	21.01	20.77	20.75	20.92	20.87
	600	24E	1880	20.52	20.59	20.76	20.51	20.52	20.76	20.74
	1175	24E	1908.75	20.52	20.50	20.84	20.50	20.52	20.68	20.67

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 9-3
Power Measurement Setup

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9.4 LTE Conducted Powers

9.4.1 LTE Band 71

Table 9-10
LTE Band 71 Maximum 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	24.63	0	0
	1	50	24.72		0
	1	99	**24.79**		0
	50	0	23.75	0-1	1
	50	25	23.80		1
	50	50	**23.83**		1
	100	0	23.76		1
16QAM	1	0	24.05	24.5	1
	1	50	24.15		1
	1	99	24.19		1
	50	0	22.72	0-2	2
	50	25	22.77		2
	50	50	22.84		2
	100	0	22.76		2
64QAM	1	0	22.81	0-2	2
	1	50	22.90		2
	1	99	23.02		2
	50	0	21.79	0-3	3
	50	25	21.81		3
	50	50	21.85		3
	100	0	21.82		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.

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Table 9-11
LTE Band 71 Maximum 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	24.48	0	0
	1	36	24.62		0
	1	74	24.65		0
	36	0	23.70	0-1	1
	36	18	23.75		1
	36	37	23.86		1
	75	0	23.62		1
16QAM	1	0	23.63	0-1	1
	1	36	23.80		1
	1	74	23.76		1
	36	0	22.73	0-2	2
	36	18	22.82		2
	36	37	22.86		2
	75	0	22.71		2
64QAM	1	0	22.91	0-2	2
	1	36	22.90		2
	1	74	23.04		2
	36	0	21.82	0-3	3
	36	18	21.86		3
	36	37	21.96		3
	75	0	21.67		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 Maximum 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	24.44	24.55	24.61	0	0
	1	25	24.60	24.43	24.63		0
	1	49	24.53	24.54	24.61		0
	25	0	23.47	23.71	23.76	0-1	1
	25	12	23.48	23.77	23.87		1
	25	25	23.55	23.77	23.86		1
	50	0	23.53	23.68	23.77		1
16QAM	1	0	23.53	23.47	23.90	0-1	1
	1	25	23.75	23.67	24.00		1
	1	49	23.91	23.64	23.95		1
	25	0	22.67	22.86	22.87	0-2	2
	25	12	22.66	22.84	23.00		2
	25	25	22.75	22.87	22.93		2
	50	0	22.46	22.74	22.80		2
64QAM	1	0	22.96	22.94	22.65	0-2	2
	1	25	22.93	22.73	22.68		2
	1	49	22.96	22.89	22.80		2
	25	0	21.61	21.87	21.77	0-3	3
	25	12	21.64	21.88	21.99		3
	25	25	21.63	21.89	21.96		3
	50	0	21.49	21.65	21.78		3

Table 9-13
LTE Band 71 Maximum 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	24.43	24.51	24.43	0	0
	1	12	24.41	24.64	24.63		0
	1	24	24.46	24.72	24.59		0
	12	0	23.49	23.70	23.73	0-1	1
	12	6	23.54	23.81	23.83		1
	12	13	23.52	23.82	23.87		1
	25	0	23.56	23.73	23.83		1
16QAM	1	0	24.06	23.58	23.69	0-1	1
	1	12	24.03	23.69	23.85		1
	1	24	24.09	23.75	23.83		1
	12	0	22.57	22.82	22.83	0-2	2
	12	6	22.65	22.89	22.92		2
	12	13	22.68	22.92	22.96		2
	25	0	22.64	22.74	22.80		2
64QAM	1	0	22.73	23.04	22.83	0-2	2
	1	12	22.73	23.20	23.01		2
	1	24	22.74	23.21	23.03		2
	12	0	21.51	21.77	21.75	0-3	3
	12	6	21.57	21.87	21.84		3
	12	13	21.57	21.91	21.91		3
	25	0	21.56	21.82	21.80		3

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9.4.2 LTE Band 12

Table 9-14
LTE Band 12 Maximum 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	**24.87**	0	0
	1	25	24.77		0
	1	49	24.86		0
	25	0	23.69	0-1	1
	25	12	**23.87**		1
	25	25	23.80		1
	50	0	23.79		1
16QAM	1	0	23.75	0-1	1
	1	25	23.78		1
	1	49	23.87		1
	25	0	22.74	0-2	2
	25	12	22.93		2
	25	25	22.85		2
	50	0	22.79		2
64QAM	1	0	22.72	0-2	2
	1	25	22.86		2
	1	49	23.01		2
	25	0	21.76	0-3	3
	25	12	21.95		3
	25	25	21.88		3
	50	0	21.80		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.

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Table 9-15
LTE Band 12 Maximum 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	24.77	24.76	24.60	0	0
	1	12	24.82	24.74	24.63		0
	1	24	24.85	24.77	24.74		0
	12	0	23.94	23.88	23.87	0-1	1
	12	6	23.96	23.90	23.95		1
	12	13	23.91	23.86	23.92		1
	25	0	23.97	23.87	23.90		1
16QAM	1	0	23.70	23.83	23.85	0-1	1
	1	12	23.78	23.77	23.84		1
	1	24	23.90	23.80	23.95		1
	12	0	23.08	22.98	22.94	0-2	2
	12	6	23.14	23.03	23.04		2
	12	13	23.05	22.99	23.00		2
	25	0	23.06	22.93	22.97		2
64QAM	1	0	23.08	23.01	23.05	0-2	2
	1	12	23.05	23.03	23.02		2
	1	24	23.00	23.05	23.12		2
	12	0	22.00	21.97	21.90	0-3	3
	12	6	22.04	22.01	22.02		3
	12	13	21.96	21.97	22.04		3
	25	0	21.99	21.95	21.98		3

Table 9-16
LTE Band 12 Maximum 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	24.66	24.75	24.73	0	0
	1	7	24.72	24.70	24.75		0
	1	14	24.68	24.72	24.84		0
	8	0	23.89	23.82	23.84	0-1	1
	8	4	23.94	23.88	23.91		1
	8	7	23.91	23.83	23.91		1
	15	0	23.91	23.84	23.98		1
16QAM	1	0	23.74	24.11	23.69	0-1	1
	1	7	23.59	24.05	23.64		1
	1	14	23.72	24.13	23.73		1
	8	0	22.95	22.92	22.92	0-2	2
	8	4	22.99	22.99	23.03		2
	8	7	22.97	22.96	22.98		2
	15	0	22.95	22.93	23.10		2
64QAM	1	0	23.21	22.73	23.13	0-2	2
	1	7	23.01	22.71	23.14		2
	1	14	23.19	22.77	23.15		2
	8	0	21.91	21.88	21.90	0-3	3
	8	4	21.99	21.99	21.98		3
	8	7	21.93	21.93	21.96		3
	15	0	22.02	21.92	21.99		3

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Table 9-17
LTE Band 12 Maximum 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	24.69	24.71	24.80	0	0
	1	2	24.84	24.90	24.93		0
	1	5	24.77	24.86	24.97		0
	3	0	24.79	24.76	24.81		0
	3	2	24.82	24.83	24.97		0
	3	3	24.86	24.75	24.86		0
	6	0	23.89	23.81	23.92	0-1	1
16QAM	1	0	24.00	23.69	23.83	0-1	1
	1	2	24.09	23.77	23.90		1
	1	5	24.05	23.82	23.89		1
	3	0	24.11	23.95	24.01		1
	3	2	24.10	24.03	24.20		1
	3	3	24.11	23.96	24.12		1
	6	0	22.81	22.99	22.99	0-2	2
64QAM	1	0	22.70	22.99	23.04	0-2	2
	1	2	22.79	23.17	23.10		2
	1	5	22.68	22.99	22.88		2
	3	0	23.01	23.16	23.19		2
	3	2	22.99	23.22	23.29		2
	3	3	23.03	23.11	23.17		2
	6	0	22.15	21.76	21.88	0-3	3

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9.4.3 LTE Band 13

Table 9-18
LTE Band 13 Maximum 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	**24.61**	0	0
	1	25	24.57		0
	1	49	24.59		0
	25	0	23.57	0-1	1
	25	12	**23.63**		1
	25	25	23.52		1
	50	0	23.50		1
16QAM	1	0	23.55	0-1	1
	1	25	23.68		1
	1	49	23.49		1
	25	0	22.65	0-2	2
	25	12	22.66		2
	25	25	22.60		2
	50	0	22.57		2
64QAM	1	0	22.50	0-2	2
	1	25	22.60		2
	1	49	22.40		2
	25	0	21.75	0-3	3
	25	12	21.76		3
	25	25	21.68		3
	50	0	21.54		3

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Table 9-19
LTE Band 13 Maximum 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	24.45	0	0
	1	12	24.21		0
	1	24	24.22		0
	12	0	23.35	0-1	1
	12	6	23.43		1
	12	13	23.33		1
	25	0	23.42		1
16QAM	1	0	23.55	0-1	1
	1	12	23.52		1
	1	24	23.51		1
	12	0	22.43	0-2	2
	12	6	22.51		2
	12	13	22.40		2
	25	0	22.43		2
64QAM	1	0	22.35	0-2	2
	1	12	22.32		2
	1	24	22.30		2
	12	0	21.43	0-3	3
	12	6	21.45		3
	12	13	21.44		3
	25	0	21.36		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 Maximum 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	**24.55**	0	0
	1	25	24.44		0
	1	49	24.41		0
	25	0	23.41	0-1	1
	25	12	**23.43**		1
	25	25	23.40		1
	50	0	23.42		1
16QAM	1	0	23.44	0-1	1
	1	25	23.51		1
	1	49	23.42		1
	25	0	22.60	0-2	2
	25	12	22.53		2
	25	25	22.48		2
	50	0	22.40		2
64QAM	1	0	22.63	0-2	2
	1	25	22.45		2
	1	49	22.68		2
	25	0	21.45	0-3	3
	25	12	21.40		3
	25	25	21.43		3
	50	0	21.46		3

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Table 9-21
LTE Band 14 Maximum 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	24.12	0	0
	1	12	24.26		0
	1	24	24.21		0
	12	0	23.35	0-1	1
	12	6	23.23		1
	12	13	23.24		1
	25	0	23.36		1
16QAM	1	0	23.35	0-1	1
	1	12	23.41		1
	1	24	23.38		1
	12	0	22.37	0-2	2
	12	6	22.37		2
	12	13	22.32		2
	25	0	22.25		2
64QAM	1	0	22.59	0-2	2
	1	12	22.64		2
	1	24	22.55		2
	12	0	21.34	0-3	3
	12	6	21.43		3
	12	13	21.38		3
	25	0	21.28		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 5 (Cell)

Table 9-22
LTE Band 5 (Cell) Maximum 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	**25.05**	0	0
	1	25	24.81		0
	1	49	24.85		0
	25	0	23.86	0-1	1
	25	12	23.84		1
	25	25	**23.93**		1
	50	0	23.85		1
16QAM	1	0	23.77	0-1	1
	1	25	23.84		1
	1	49	23.80		1
	25	0	22.92	0-2	2
	25	12	22.89		2
	25	25	22.80		2
	50	0	22.79		2
64QAM	1	0	22.91	0-2	2
	1	25	22.95		2
	1	49	22.92		2
	25	0	21.90	0-3	3
	25	12	21.90		3
	25	25	21.94		3
	50	0	21.86		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.

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Table 9-23
LTE Band 5 (Cell) Maximum 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	24.78	24.57	24.70	0	0
	1	12	24.88	24.68	24.74		0
	1	24	24.83	24.68	24.74		0
	12	0	23.93	23.87	23.85	0-1	1
	12	6	24.01	23.94	23.85		1
	12	13	23.99	23.89	23.85		1
	25	0	24.01	23.87	23.84		1
16QAM	1	0	24.19	23.83	23.78	0-1	1
	1	12	24.15	23.93	23.75		1
	1	24	24.05	23.92	23.77		1
	12	0	23.05	22.95	22.96	0-2	2
	12	6	23.15	23.00	22.96		2
	12	13	23.14	22.99	23.00		2
	25	0	23.07	22.94	22.87		2
64QAM	1	0	23.00	23.02	23.15	0-2	2
	1	12	23.12	23.11	23.28		2
	1	24	23.03	23.03	23.28		2
	12	0	21.95	21.92	21.93	0-3	3
	12	6	22.08	21.97	21.98		3
	12	13	22.01	21.96	21.98		3
	25	0	22.01	21.90	21.98		3

Table 9-24
LTE Band 5 (Cell) Maximum 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	24.71	24.77	24.53	0	0
	1	7	24.72	24.82	24.58		0
	1	14	24.77	24.77	24.68		0
	8	0	23.92	23.89	23.85	0-1	1
	8	4	23.96	23.92	23.90		1
	8	7	23.92	23.93	23.89		1
	15	0	23.95	23.91	23.84		1
16QAM	1	0	24.17	23.72	23.80	0-1	1
	1	7	24.10	23.82	23.79		1
	1	14	24.11	23.81	23.74		1
	8	0	23.10	22.94	22.89	0-2	2
	8	4	23.12	22.96	22.93		2
	8	7	23.07	22.99	22.93		2
	15	0	23.01	22.96	22.87		2
64QAM	1	0	22.90	23.06	23.14	0-2	2
	1	7	22.90	23.17	23.17		2
	1	14	22.80	23.15	23.18		2
	8	0	22.06	21.92	21.87	0-3	3
	8	4	22.12	21.94	21.92		3
	8	7	22.06	22.00	21.96		3
	15	0	22.02	21.95	21.98		3

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Table 9-25
LTE Band 5 (Cell) Maximum 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	24.30	24.44	24.63	0	0
	1	2	24.42	24.48	24.68		0
	1	5	24.40	24.42	24.65		0
	3	0	24.41	24.47	24.60		0
	3	2	24.44	24.60	24.62		0
	3	3	24.50	24.54	24.61		0
	6	0	23.52	23.58	23.62	0-1	1
16QAM	1	0	23.78	23.30	23.55	0-1	1
	1	2	23.80	23.40	23.61		1
	1	5	23.81	23.50	23.60		1
	3	0	23.77	23.65	23.75		1
	3	2	23.84	23.81	23.83		1
	3	3	23.79	23.75	23.80		1
	6	0	22.45	22.72	22.81	0-2	2
64QAM	1	0	22.45	22.66	22.85	0-2	2
	1	2	22.41	22.80	22.87		2
	1	5	22.46	22.76	22.78		2
	3	0	22.59	22.51	22.79		2
	3	2	22.70	22.85	23.00		2
	3	3	22.59	22.64	22.99		2
	6	0	21.83	21.70	21.64	0-3	3

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9.4.6 LTE Band 26 (Cell)

Table 9-26
LTE Band 26 (Cell) Maximum 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	**24.79**	0	0
	1	36	24.76		0
	1	74	24.78		0
	36	0	23.79	0-1	1
	36	18	**23.92**		1
	36	37	23.91		1
	75	0	23.84		1
16QAM	1	0	24.26	0-1	1
	1	36	24.23		1
	1	74	24.19		1
	36	0	22.91	0-2	2
	36	18	22.98		2
	36	37	22.92		2
	75	0	22.88		2
64QAM	1	0	22.81	0-2	2
	1	36	22.83		2
	1	74	22.78		2
	36	0	21.91	0-3	3
	36	18	22.03		3
	36	37	21.95		3
	75	0	21.90		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.

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Table 9-27
LTE Band 26 (Cell) Maximum 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	24.83	24.66	24.67	0	0
	1	25	24.88	24.63	24.82		0
	1	49	24.84	24.69	24.97		0
	25	0	23.75	23.76	23.80	0-1	1
	25	12	23.94	23.95	23.86		1
	25	25	23.91	23.85	23.91		1
	50	0	23.91	23.88	23.83		1
16QAM	1	0	24.04	23.80	24.29	0-1	1
	1	25	23.89	23.68	24.35		1
	1	49	23.89	23.67	24.49		1
	25	0	22.88	22.89	22.87	0-2	2
	25	12	23.10	23.02	22.98		2
	25	25	23.00	22.96	22.98		2
	50	0	22.89	22.94	22.85		2
64QAM	1	0	23.21	23.23	22.77	0-2	2
	1	25	23.23	23.14	22.83		2
	1	49	23.17	23.16	23.00		2
	25	0	21.85	21.87	21.85	0-3	3
	25	12	22.04	22.06	21.98		3
	25	25	21.97	21.99	22.02		3
	50	0	21.89	21.84	21.86		3

Table 9-28
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	24.62	24.61	24.79	0	0
	1	12	24.82	24.66	24.86		0
	1	24	24.83	24.77	25.02		0
	12	0	23.87	23.81	23.87	0-1	1
	12	6	23.97	23.93	23.97		1
	12	13	23.94	23.87	24.00		1
	25	0	23.94	23.88	23.93		1
16QAM	1	0	24.31	23.95	24.42	0-1	1
	1	12	24.40	23.91	24.47		1
	1	24	24.29	24.00	24.31		1
	12	0	23.02	22.89	23.06	0-2	2
	12	6	23.14	22.97	23.14		2
	12	13	23.11	22.94	23.21		2
	25	0	23.06	22.92	23.01		2
64QAM	1	0	22.90	23.08	23.10	0-2	2
	1	12	23.06	23.10	23.12		2
	1	24	23.05	23.12	23.19		2
	12	0	21.91	21.87	21.98	0-3	3
	12	6	22.04	21.95	22.03		3
	12	13	21.99	21.92	22.09		3
	25	0	22.00	21.88	22.00		3

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Table 9-29
LTE Band 26 (Cell) Maximum 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	24.54	24.76	24.76	0	0
	1	7	24.68	24.83	24.81		0
	1	14	24.71	24.81	24.94		0
	8	0	23.87	23.79	23.87	0-1	1
	8	4	23.89	23.93	24.04		1
	8	7	23.91	23.88	23.99		1
	15	0	23.91	23.87	23.99		1
16QAM	1	0	24.24	23.66	24.41	0-1	1
	1	7	24.27	23.74	24.30		1
	1	14	24.24	23.78	24.39		1
	8	0	23.02	22.86	23.02	0-2	2
	8	4	23.08	22.95	23.13		2
	8	7	23.01	22.93	23.09		2
	15	0	23.00	22.93	23.11		2
64QAM	1	0	22.64	23.06	22.82	0-2	2
	1	7	22.73	23.07	22.85		2
	1	14	22.77	23.14	22.98		2
	8	0	21.99	21.86	22.01	0-3	3
	8	4	22.06	21.96	22.18		3
	8	7	22.00	21.88	22.12		3
	15	0	22.02	21.93	22.11		3

Table 9-30
LTE Band 26 (Cell) Maximum 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	24.79	24.81	24.95	0	0
	1	2	24.91	24.96	25.05		0
	1	5	24.89	24.93	25.05		0
	3	0	24.79	24.75	24.91		0
	3	2	24.80	24.82	25.00		0
	3	3	24.81	24.82	24.97		0
	6	0	23.85	23.84	23.98	0-1	1
16QAM	1	0	23.66	23.73	23.88	0-1	1
	1	2	23.82	23.89	24.01		1
	1	5	23.78	23.82	23.96		1
	3	0	23.94	23.88	24.07		1
	3	2	24.03	24.02	24.21		1
	3	3	24.01	23.98	24.18		1
	6	0	23.04	23.05	23.13	0-2	2
64QAM	1	0	22.99	23.00	23.14	0-2	2
	1	2	23.14	23.11	23.30		2
	1	5	23.04	23.01	23.05		2
	3	0	23.14	23.08	23.22		2
	3	2	23.25	23.28	23.41		2
	3	3	23.17	23.21	23.36		2
	6	0	21.81	21.84	22.02	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	24.30	24.20	24.08	0	0
	1	50	**24.46**	24.42	23.97		0
	1	99	24.31	24.20	23.95		0
	50	0	23.53	23.51	23.34	0-1	1
	50	25	**23.58**	23.56	23.41		1
	50	50	23.39	23.40	23.21		1
	100	0	23.49	23.48	23.32		1
16QAM	1	0	23.57	23.55	23.70	0-1	1
	1	50	23.79	23.80	23.62		1
	1	99	23.69	23.67	23.52		1
	50	0	22.66	22.50	22.36	0-2	2
	50	25	22.58	22.57	22.38		2
	50	50	22.49	22.36	22.23		2
	100	0	22.51	22.49	22.30		2
64QAM	1	0	22.24	22.33	22.66	0-2	2
	1	50	22.56	22.62	22.52		2
	1	99	22.42	22.29	22.42		2
	50	0	21.56	21.58	21.36	0-3	3
	50	25	21.62	21.59	21.30		3
	50	50	21.47	21.42	21.29		3
	100	0	21.51	21.40	21.30		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	24.18	24.27	24.15	0	0
	1	36	24.38	24.43	24.18		0
	1	74	24.15	24.17	24.08		0
	36	0	23.53	23.42	23.29	0-1	1
	36	18	23.44	23.47	23.31		1
	36	37	23.42	23.31	23.27		1
	75	0	23.44	23.41	23.26		1
16QAM	1	0	23.44	23.23	23.60	0-1	1
	1	36	23.61	23.45	23.66		1
	1	74	23.41	23.25	23.54		1
	36	0	22.59	22.45	22.35	0-2	2
	36	18	22.50	22.51	22.40		2
	36	37	22.46	22.36	22.29		2
	75	0	22.39	22.38	22.34		2
64QAM	1	0	22.68	22.76	22.40	0-2	2
	1	36	22.85	22.80	22.41		2
	1	74	22.62	22.74	22.31		2
	36	0	21.62	21.54	21.41	0-3	3
	36	18	21.56	21.52	21.43		3
	36	37	21.51	21.38	21.36		3
	75	0	21.44	21.53	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	24.10	24.20	24.09	0	0
	1	25	24.09	24.21	24.13		0
	1	49	23.90	23.97	23.96		0
	25	0	23.40	23.37	23.20	0-1	1
	25	12	23.40	23.48	23.24		1
	25	25	23.30	23.26	23.16		1
	50	0	23.35	23.38	23.27		1
16QAM	1	0	23.00	23.40	23.00	0-1	1
	1	25	23.25	23.64	23.22		1
	1	49	23.36	23.57	23.20		1
	25	0	22.59	22.48	22.32	0-2	2
	25	12	22.51	22.56	22.40		2
	25	25	22.44	22.34	22.28		2
	50	0	22.39	22.39	22.20		2
64QAM	1	0	22.52	22.12	22.32	0-2	2
	1	25	22.61	22.37	22.48		2
	1	49	22.40	22.11	22.25		2
	25	0	21.51	21.48	21.29	0-3	3
	25	12	21.46	21.53	21.35		3
	25	25	21.42	21.37	21.28		3
	50	0	21.35	21.42	21.24		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	24.10	24.29	24.02	0	0
	1	12	24.11	24.28	24.05		0
	1	24	24.07	24.19	23.91		0
	12	0	23.51	23.48	23.28	0-1	1
	12	6	23.45	23.46	23.27		1
	12	13	23.34	23.33	23.22		1
	25	0	23.45	23.38	23.27		1
16QAM	1	0	23.72	23.43	23.33	0-1	1
	1	12	23.43	23.38	23.29		1
	1	24	23.38	23.31	23.25		1
	12	0	22.59	22.55	22.34	0-2	2
	12	6	22.49	22.55	22.34		2
	12	13	22.44	22.45	22.28		2
	25	0	22.43	22.43	22.29		2
64QAM	1	0	22.67	22.70	22.41	0-2	2
	1	12	22.65	22.87	22.50		2
	1	24	22.50	22.69	22.29		2
	12	0	21.53	21.50	21.29	0-3	3
	12	6	21.46	21.53	21.30		3
	12	13	21.36	21.37	21.27		3
	25	0	21.42	21.43	21.28		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	24.45	24.28	24.07	0	0
	1	7	24.32	24.21	23.96		0
	1	14	24.23	24.21	23.94		0
	8	0	23.48	23.41	23.24	0-1	1
	8	4	23.52	23.42	23.25		1
	8	7	23.44	23.35	23.20		1
	15	0	23.46	23.39	23.23		1
16QAM	1	0	23.44	23.69	23.21	0-1	1
	1	7	23.34	23.83	22.96		1
	1	14	23.45	23.82	22.90		1
	8	0	22.54	22.52	22.26	0-2	2
	8	4	22.51	22.55	22.27		2
	8	7	22.46	22.49	22.21		2
	15	0	22.54	22.47	22.23		2
64QAM	1	0	22.57	22.32	22.63	0-2	2
	1	7	22.69	22.20	22.34		2
	1	14	22.58	22.19	22.44		2
	8	0	21.54	21.52	21.26	0-3	3
	8	4	21.55	21.53	21.25		3
	8	7	21.50	21.43	21.24		3
	15	0	21.54	21.46	21.27		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	24.42	24.16	24.02	0	0
	1	2	24.43	24.22	24.08		0
	1	5	24.36	24.15	23.98		0
	3	0	24.40	24.20	24.11		0
	3	2	24.38	24.26	24.11		0
	3	3	24.30	24.22	24.07		0
	6	0	23.35	23.32	23.17	0-1	1
16QAM	1	0	23.37	23.70	23.24	0-1	1
	1	2	23.47	23.60	23.15		1
	1	5	23.34	23.67	23.32		1
	3	0	23.52	23.57	23.30		1
	3	2	23.58	23.56	23.38		1
	3	3	23.45	23.55	23.32		1
	6	0	22.58	22.22	22.36	0-2	2
64QAM	1	0	22.62	22.15	22.30	0-2	2
	1	2	22.74	22.24	22.36		2
	1	5	22.50	22.09	22.30		2
	3	0	22.64	22.41	22.25		2
	3	2	22.70	22.43	22.40		2
	3	3	22.61	22.38	22.20		2
	6	0	21.33	21.60	21.32	0-3	3

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Table 9-37
LTE Band 66 (AWS) Reduced Conducted Power – Hotspot Mode Active - 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	20.24	19.94	20.51	0	0
	1	50	**20.52**	20.20	20.38		0
	1	99	20.20	20.06	20.40		0
	50	0	**20.57**	20.40	20.31	0-1	0
	50	25	20.54	20.46	20.33		0
	50	50	20.46	20.37	20.20		0
	100	0	20.40	20.37	20.29		0
16QAM	1	0	20.49	20.33	20.55	0-1	0
	1	50	20.72	20.43	20.44		0
	1	99	20.53	20.37	20.50		0
	50	0	20.61	20.37	20.24	0-2	0
	50	25	20.56	20.41	20.34		0
	50	50	20.42	20.32	20.25		0
	100	0	20.39	20.36	20.30		0
64QAM	1	0	20.32	20.13	20.57	0-2	0
	1	50	20.67	20.61	20.34		0
	1	99	20.42	20.24	20.40		0
	50	0	20.59	20.32	20.32	0-3	0
	50	25	20.60	20.45	20.46		0
	50	50	20.33	20.40	20.26		0
	100	0	20.36	20.35	20.30		0

Table 9-38
LTE Band 66 (AWS) Reduced Conducted Power – Hotspot Mode Active - 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	20.31	20.13	20.05	0	0
	1	36	20.46	20.38	20.13		0
	1	74	20.24	20.09	20.01		0
	36	0	20.50	20.40	20.29	0-1	0
	36	18	20.42	20.46	20.29		0
	36	37	20.35	20.30	20.25		0
	75	0	20.34	20.33	20.20		0
16QAM	1	0	20.40	20.59	20.18	0-1	0
	1	36	20.57	20.68	20.26		0
	1	74	20.32	20.46	20.08		0
	36	0	20.48	20.46	20.30	0-2	0
	36	18	20.42	20.51	20.33		0
	36	37	20.37	20.31	20.31		0
	75	0	20.31	20.43	20.23		0
64QAM	1	0	20.68	20.20	20.41	0-2	0
	1	36	20.41	20.20	20.44		0
	1	74	20.50	20.10	20.28		0
	36	0	20.57	20.52	20.39	0-3	0
	36	18	20.50	20.56	20.41		0
	36	37	20.45	20.41	20.36		0
	75	0	20.51	20.46	20.22		0

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Table 9-39
LTE Band 66 (AWS) Reduced Conducted Power – Hotspot Mode Active - 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	20.08	19.98	19.77	0	0
	1	25	20.25	20.19	20.00		0
	1	49	20.11	20.01	19.86		0
	25	0	20.44	20.35	20.19	0-1	0
	25	12	20.39	20.37	20.25		0
	25	25	20.26	20.23	20.15		0
	50	0	20.29	20.35	20.16		0
16QAM	1	0	20.30	19.99	19.85	0-1	0
	1	25	20.59	20.27	20.10		0
	1	49	20.38	20.02	19.90		0
	25	0	20.54	20.44	20.26	0-2	0
	25	12	20.55	20.48	20.34		0
	25	25	20.40	20.33	20.27		0
	50	0	20.33	20.38	20.17		0
64QAM	1	0	20.21	20.31	20.07	0-2	0
	1	25	20.16	20.59	20.32		0
	1	49	20.22	20.30	20.02		0
	25	0	20.47	20.36	20.22	0-3	0
	25	12	20.44	20.44	20.32		0
	25	25	20.35	20.33	20.23		0
	50	0	20.35	20.35	20.15		0

Table 9-40
LTE Band 66 (AWS) Reduced Conducted Power – Hotspot Mode Active - 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	20.39	20.29	20.01	0	0
	1	12	20.45	20.30	20.05		0
	1	24	20.32	20.18	19.95		0
	12	0	20.52	20.45	20.25	0-1	0
	12	6	20.42	20.41	20.27		0
	12	13	20.32	20.25	20.18		0
	25	0	20.39	20.33	20.22		0
16QAM	1	0	20.79	20.42	20.30	0-1	0
	1	12	20.80	20.40	20.35		0
	1	24	20.81	20.38	20.32		0
	12	0	20.52	20.48	20.31	0-2	0
	12	6	20.50	20.50	20.33		0
	12	13	20.42	20.35	20.26		0
	25	0	20.55	20.35	20.23		0
64QAM	1	0	20.50	20.56	20.37	0-2	0
	1	12	20.65	20.87	20.40		0
	1	24	20.50	20.67	20.22		0
	12	0	20.43	20.46	20.25	0-3	0
	12	6	20.40	20.46	20.29		0
	12	13	20.35	20.36	20.25		0
	25	0	20.41	20.39	20.20		0

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Table 9-41
LTE Band 66 (AWS) Reduced Conducted Power – Hotspot Mode Active - 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	20.41	20.25	20.18	0	0
	1	7	20.27	20.17	20.09		0
	1	14	20.29	20.14	20.07		0
	8	0	20.44	20.41	20.21	0-1	0
	8	4	20.43	20.41	20.21		0
	8	7	20.39	20.34	20.15		0
	15	0	20.42	20.36	20.22		0
16QAM	1	0	20.82	20.39	20.59	0-1	0
	1	7	20.79	20.33	20.62		0
	1	14	20.74	20.30	20.54		0
	8	0	20.58	20.44	20.34	0-2	0
	8	4	20.56	20.43	20.39		0
	8	7	20.49	20.37	20.27		0
	15	0	20.45	20.45	20.28		0
64QAM	1	0	20.24	20.58	20.20	0-2	0
	1	7	20.22	20.50	20.10		0
	1	14	20.19	20.49	20.05		0
	8	0	20.55	20.43	20.32	0-3	0
	8	4	20.51	20.43	20.34		0
	8	7	20.46	20.35	20.25		0
	15	0	20.48	20.39	20.25		0

Table 9-42
LTE Band 66 (AWS) Reduced Conducted Power – Hotspot Mode Active -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	20.40	20.18	20.01	0	0
	1	2	20.45	20.23	20.03		0
	1	5	20.31	20.14	20.09		0
	3	0	20.28	20.22	20.09		0
	3	2	20.32	20.23	20.08		0
	3	3	20.18	20.22	20.03		0
	6	0	20.28	20.27	20.16	0-1	0
16QAM	1	0	20.19	20.65	20.16	0-1	0
	1	2	20.30	20.73	20.24		0
	1	5	20.13	20.61	20.21		0
	3	0	20.48	20.53	20.25		0
	3	2	20.53	20.59	20.27		0
	3	3	20.44	20.52	20.23		0
	6	0	20.52	20.21	20.35	0-2	0
64QAM	1	0	20.56	20.14	20.27	0-2	0
	1	2	20.68	20.20	20.31		0
	1	5	20.44	20.05	20.27		0
	3	0	20.68	20.36	20.20		0
	3	2	20.73	20.42	20.24		0
	3	3	20.64	20.36	20.21		0
	6	0	20.27	20.60	20.30	0-3	0

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Table 9-43
LTE Band 66 (AWS) Reduced Conducted Power – Proximity Sensor and/or Earjack Active - 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	21.04	21.07	21.23	0	0
	1	50	21.40	**21.48**	21.11		0
	1	99	21.13	21.02	21.01		0
	50	0	21.40	21.31	21.18	0-1	0
	50	25	21.42	**21.50**	21.21		0
	50	50	21.32	21.24	21.11		0
	100	0	21.37	21.27	21.18		0
16QAM	1	0	21.37	21.30	21.44	0-1	0
	1	50	21.69	21.38	21.24		0
	1	99	21.54	21.35	21.35		0
	50	0	21.33	21.42	21.21	0-2	0
	50	25	21.55	21.37	21.27		0
	50	50	21.40	21.15	21.08		0
	100	0	21.40	21.40	21.22		0
64QAM	1	0	21.55	21.20	21.37	0-2	0
	1	50	21.52	21.43	21.30		0
	1	99	21.26	21.35	21.12		0
	50	0	21.37	21.26	21.31	0-3	0
	50	25	21.33	21.42	21.22		0
	50	50	21.22	21.34	21.21		0
	100	0	21.37	21.35	21.06		0

Table 9-44
LTE Band 66 (AWS) Reduced Conducted Power – Proximity Sensor and/or Earjack Active - 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	21.31	21.15	21.11	0	0
	1	36	21.48	21.41	21.10		0
	1	74	21.30	21.10	21.03		0
	36	0	21.47	21.44	21.31	0-1	0
	36	18	21.42	21.49	21.33		0
	36	37	21.37	21.29	21.29		0
	75	0	21.36	21.39	21.26		0
16QAM	1	0	21.41	21.62	21.21	0-1	0
	1	36	21.59	21.70	21.25		0
	1	74	21.32	21.55	21.09		0
	36	0	21.47	21.48	21.30	0-2	0
	36	18	21.45	21.52	21.32		0
	36	37	21.39	21.36	21.30		0
	75	0	21.35	21.44	21.23		0
64QAM	1	0	21.67	21.20	21.47	0-2	0
	1	36	21.70	21.28	21.55		0
	1	74	21.58	21.29	21.31		0
	36	0	21.46	21.50	21.41	0-3	0
	36	18	21.45	21.43	21.42		0
	36	37	21.48	21.44	21.37		0
	75	0	21.43	21.50	21.24		0

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Table 9-45
LTE Band 66 (AWS) Reduced Conducted Power – Proximity Sensor and/or Earjack Active - 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	20.99	20.99	20.85	0	0
	1	25	21.21	21.24	21.07		0
	1	49	21.03	21.07	20.94		0
	25	0	21.42	21.41	21.21	0-1	0
	25	12	21.40	21.45	21.28		0
	25	25	21.28	21.30	21.19		0
	50	0	21.32	21.38	21.20		0
16QAM	1	0	21.33	21.45	21.20	0-1	0
	1	25	21.44	21.60	21.25		0
	1	49	21.00	21.38	20.95		0
	25	0	21.48	21.47	21.29	0-2	0
	25	12	21.46	21.52	21.34		0
	25	25	21.41	21.35	21.27		0
	50	0	21.31	21.37	21.23		0
64QAM	1	0	21.35	21.20	21.24	0-2	0
	1	25	21.59	21.26	21.42		0
	1	49	21.33	21.26	21.18		0
	25	0	21.45	21.49	21.27	0-3	0
	25	12	21.35	21.43	21.31		0
	25	25	21.42	21.37	21.25		0
	50	0	21.35	21.45	21.22		0

Table 9-46
LTE Band 66 (AWS) Reduced Conducted Power – Proximity Sensor and/or Earjack Active - 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	21.43	21.31	21.21	0	0
	1	12	21.47	21.34	21.23		0
	1	24	21.35	21.22	21.12		0
	12	0	21.52	21.46	21.30	0-1	0
	12	6	21.42	21.42	21.29		0
	12	13	21.39	21.28	21.20		0
	25	0	21.44	21.35	21.24		0
16QAM	1	0	21.60	21.44	21.81	0-1	0
	1	12	21.72	21.44	21.87		0
	1	24	21.80	21.40	21.71		0
	12	0	21.57	21.50	21.35	0-2	0
	12	6	21.50	21.53	21.36		0
	12	13	21.43	21.40	21.27		0
	25	0	21.53	21.40	21.32		0
64QAM	1	0	21.63	21.68	21.43	0-2	0
	1	12	21.66	21.70	21.47		0
	1	24	21.49	21.69	21.28		0
	12	0	21.44	21.50	21.31	0-3	0
	12	6	21.49	21.43	21.29		0
	12	13	21.36	21.37	21.22		0
	25	0	21.48	21.43	21.28		0

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Table 9-47
LTE Band 66 (AWS) Reduced Conducted Power – Proximity Sensor and/or Earjack Active - 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	21.39	21.27	21.17	0	0
	1	7	21.32	21.22	21.10		0
	1	14	21.32	21.17	21.11		0
	8	0	21.44	21.43	21.24	0-1	0
	8	4	21.46	21.46	21.22		0
	8	7	21.42	21.36	21.19		0
	15	0	21.43	21.38	21.26		0
16QAM	1	0	21.86	21.44	21.63	0-1	0
	1	7	21.70	21.36	21.59		0
	1	14	21.68	21.21	21.57		0
	8	0	21.60	21.43	21.38	0-2	0
	8	4	21.61	21.44	21.37		0
	8	7	21.52	21.37	21.27		0
	15	0	21.49	21.44	21.28		0
64QAM	1	0	21.31	21.62	21.20	0-2	0
	1	7	21.29	21.53	21.10		0
	1	14	21.25	21.53	21.08		0
	8	0	21.39	21.48	21.36	0-3	0
	8	4	21.43	21.46	21.38		0
	8	7	21.41	21.42	21.26		0
	15	0	21.35	21.46	21.29		0

Table 9-48
LTE Band 66 (AWS) Reduced Conducted Power – Proximity Sensor and/or Earjack Active - 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	21.22	21.20	20.98	0	0
	1	2	21.24	21.27	21.07		0
	1	5	21.13	21.17	20.95		0
	3	0	21.30	21.24	21.11		0
	3	2	21.36	21.28	21.12		0
	3	3	21.23	21.23	21.08		0
	6	0	21.30	21.33	21.17	0-1	0
16QAM	1	0	21.19	21.61	21.11	0-1	0
	1	2	21.15	21.60	21.12		0
	1	5	21.07	21.65	21.16		0
	3	0	21.51	21.56	21.27		0
	3	2	21.54	21.60	21.30		0
	3	3	21.36	21.52	21.25		0
	6	0	21.51	21.22	21.35	0-2	0
64QAM	1	0	21.60	21.19	21.29	0-2	0
	1	2	21.53	21.22	21.36		0
	1	5	21.48	21.08	21.30		0
	3	0	21.44	21.38	21.18		0
	3	2	21.48	21.47	21.20		0
	3	3	21.36	21.40	21.18		0
	6	0	21.48	21.44	21.31	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	23.72	23.92	23.93	0	0
	1	50	23.79	23.89	23.94		0
	1	99	23.81	23.95	**24.07**		0
	50	0	23.04	22.96	22.99	0-1	1
	50	25	22.99	22.97	23.07		1
	50	50	23.00	22.94	**23.15**		1
	100	0	22.80	22.91	23.03		1
16QAM	1	0	23.32	23.28	23.46	0-1	1
	1	50	23.31	23.31	23.41		1
	1	99	23.30	23.35	23.47		1
	50	0	22.05	21.96	21.93	0-2	2
	50	25	21.99	21.96	22.00		2
	50	50	22.00	21.87	22.04		2
	100	0	21.90	21.90	22.00		2
64QAM	1	0	22.24	22.07	21.94	0-2	2
	1	50	22.26	22.09	21.95		2
	1	99	22.22	22.04	22.02		2
	50	0	21.04	20.98	21.11	0-3	3
	50	25	20.99	21.05	21.10		3
	50	50	20.87	21.00	21.12		3
	100	0	20.88	21.04	21.14		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	23.54	23.60	23.65	0	0
	1	36	23.86	23.58	23.70		0
	1	74	23.64	23.50	23.73		0
	36	0	22.73	22.55	22.54	0-1	1
	36	18	22.83	22.66	22.73		1
	36	37	22.78	22.58	22.69		1
	75	0	22.68	22.59	22.65		1
16QAM	1	0	22.54	22.66	22.62	0-1	1
	1	36	22.89	22.75	22.76		1
	1	74	22.67	22.65	22.69		1
	36	0	21.74	21.60	21.58	0-2	2
	36	18	21.86	21.72	21.75		2
	36	37	21.75	21.59	21.75		2
	75	0	21.68	21.60	21.62		2
64QAM	1	0	22.16	21.87	22.25	0-2	2
	1	36	22.20	21.94	22.37		2
	1	74	22.13	21.90	22.31		2
	36	0	20.80	20.68	20.62	0-3	3
	36	18	20.91	20.75	20.77		3
	36	37	20.82	20.64	20.79		3
	75	0	20.78	20.58	20.73		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	23.64	23.62	23.55	0	0
	1	25	23.52	23.38	23.49		0
	1	49	23.63	23.70	23.61		0
	25	0	22.80	22.67	22.52	0-1	1
	25	12	22.83	22.57	22.58		1
	25	25	22.83	22.45	22.57		1
	50	0	22.79	22.52	22.65		1
16QAM	1	0	22.75	22.88	22.84	0-1	1
	1	25	22.77	22.94	22.60		1
	1	49	22.64	22.90	22.87		1
	25	0	21.85	21.61	21.61	0-2	2
	25	12	21.97	21.68	21.77		2
	25	25	21.91	21.79	21.72		2
	50	0	21.82	21.85	21.58		2
64QAM	1	0	21.85	21.81	21.92	0-2	2
	1	25	21.90	21.54	21.89		2
	1	49	21.70	21.89	22.03		2
	25	0	20.85	20.56	20.89	0-3	3
	25	12	20.88	20.74	20.90		3
	25	25	20.93	20.57	20.85		3
	50	0	20.78	20.88	20.84		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	23.72	23.57	23.59	0	0
	1	12	23.80	23.64	23.60		0
	1	24	23.83	23.61	23.69		0
	12	0	22.86	22.61	22.67	0-1	1
	12	6	22.94	22.72	22.77		1
	12	13	22.93	22.67	22.74		1
	25	0	22.91	22.66	22.72		1
16QAM	1	0	23.24	22.80	23.25	0-1	1
	1	12	23.27	22.79	23.26		1
	1	24	23.36	22.90	23.35		1
	12	0	21.96	21.72	21.77	0-2	2
	12	6	22.04	21.78	21.86		2
	12	13	22.04	21.79	21.90		2
	25	0	22.00	21.70	21.83		2
64QAM	1	0	21.96	22.06	21.84	0-2	2
	1	12	22.06	22.06	21.88		2
	1	24	22.04	22.14	21.90		2
	12	0	20.91	20.72	20.70	0-3	3
	12	6	20.96	20.76	20.78		3
	12	13	20.98	20.76	20.77		3
	25	0	20.92	20.70	20.78		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	23.77	23.58	23.58	0	0
	1	7	23.80	23.58	23.55		0
	1	14	23.87	23.64	23.67		0
	8	0	22.92	22.72	22.79	0-1	1
	8	4	22.99	22.76	22.84		1
	8	7	22.97	22.78	22.82		1
	15	0	22.97	22.77	22.80		1
16QAM	1	0	23.20	22.80	22.71	0-1	1
	1	7	23.18	22.76	22.69		1
	1	14	23.30	22.85	22.80		1
	8	0	22.10	21.78	21.78	0-2	2
	8	4	22.12	21.84	21.82		2
	8	7	22.11	21.83	21.82		2
	15	0	22.04	21.86	21.78		2
64QAM	1	0	21.75	21.91	22.07	0-2	2
	1	7	21.78	21.95	21.98		2
	1	14	21.86	22.06	22.09		2
	8	0	21.05	20.77	20.80	0-3	3
	8	4	21.11	20.84	20.82		3
	8	7	21.10	20.80	20.82		3
	15	0	21.09	20.79	20.89		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	23.64	23.51	23.53	0	0
	1	2	23.72	23.59	23.62		0
	1	5	23.68	23.57	23.57		0
	3	0	23.76	23.54	23.66		0
	3	2	23.84	23.62	23.72		0
	3	3	23.80	23.63	23.67		0
	6	0	22.88	22.65	22.74	0-1	1
16QAM	1	0	22.56	22.90	22.50	0-1	1
	1	2	22.66	23.00	22.61		1
	1	5	22.62	22.96	22.50		1
	3	0	22.94	22.91	22.91		1
	3	2	23.03	22.95	22.98		1
	3	3	23.00	22.94	22.93		1
	6	0	21.90	21.61	21.91	0-2	2
64QAM	1	0	21.98	21.51	21.86	0-2	2
	1	2	21.97	21.58	21.99		2
	1	5	21.90	21.51	21.95		2
	3	0	21.85	21.74	21.73		2
	3	2	21.95	21.82	21.84		2
	3	3	21.89	21.79	21.81		2
	6	0	21.05	20.99	20.87	0-3	3

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Table 9-55
LTE Band 25 (PCS) Reduced Conducted Power – Hotspot Mode Active - 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	18.74	**18.79**	18.49	0	0
	1	50	18.78	18.69	18.50		0
	1	99	18.76	18.67	18.59		0
	50	0	18.80	18.73	18.76	0-1	0
	50	25	18.86	**18.87**	18.81		0
	50	50	18.80	18.69	18.86		0
	100	0	18.73	18.66	18.70		0
16QAM	1	0	19.12	19.12	19.11	0-1	0
	1	50	19.16	19.08	19.13		0
	1	99	19.17	19.12	19.25		0
	50	0	18.91	18.73	18.79	0-2	0
	50	25	18.87	18.74	18.86		0
	50	50	18.86	18.67	18.88		0
	100	0	18.76	18.66	18.75		0
64QAM	1	0	18.98	18.97	19.05	0-2	0
	1	50	18.96	18.94	19.00		0
	1	99	18.94	18.93	18.95		0
	50	0	18.92	18.78	18.84	0-3	0
	50	25	18.96	18.79	18.89		0
	50	50	18.91	18.72	18.91		0
	100	0	18.82	18.69	18.76		0

Table 9-56
LTE Band 25 (PCS) Reduced Conducted Power – Hotspot Mode Active - 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	18.48	18.54	18.51	0	0
	1	36	18.80	18.59	18.62		0
	1	74	18.60	18.48	18.61		0
	36	0	18.78	18.64	18.59	0-1	0
	36	18	18.95	18.78	18.78		0
	36	37	18.82	18.71	18.76		0
	75	0	18.75	18.68	18.66		0
16QAM	1	0	19.12	19.01	19.14	0-1	0
	1	36	19.28	19.06	19.27		0
	1	74	19.28	19.10	19.29		0
	36	0	18.86	18.77	18.68	0-2	0
	36	18	19.04	18.85	18.89		0
	36	37	18.92	18.73	18.86		0
	75	0	18.84	18.75	18.82		0
64QAM	1	0	18.73	19.15	18.69	0-2	0
	1	36	19.03	19.25	18.85		0
	1	74	18.76	19.13	18.82		0
	36	0	18.95	18.81	18.78	0-3	0
	36	18	19.11	18.95	18.94		0
	36	37	19.01	18.87	18.93		0
	75	0	18.89	18.73	18.83		0

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Table 9-57
LTE Band 25 (PCS) Reduced Conducted Power – Hotspot Mode Active - 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	18.41	18.30	18.47	0	0
	1	25	18.63	18.46	18.49		0
	1	49	18.44	18.25	18.60		0
	25	0	18.80	18.59	18.60	0-1	0
	25	12	18.94	18.69	18.67		0
	25	25	18.86	18.58	18.69		0
	50	0	18.82	18.62	18.64		0
16QAM	1	0	18.72	19.13	18.89	0-1	0
	1	25	18.96	19.12	18.95		0
	1	49	18.91	19.16	19.01		0
	25	0	18.98	18.74	18.75	0-2	0
	25	12	19.06	18.84	18.84		0
	25	25	18.98	18.68	18.85		0
	50	0	18.99	18.68	18.69		0
64QAM	1	0	19.07	18.70	19.19	0-2	0
	1	25	19.11	18.75	19.22		0
	1	49	19.08	18.70	19.18		0
	25	0	18.97	18.78	18.68	0-3	0
	25	12	19.08	18.90	18.87		0
	25	25	19.06	18.78	18.87		0
	50	0	18.90	18.76	18.66		0

Table 9-58
LTE Band 25 (PCS) Reduced Conducted Power – Hotspot Mode Active - 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	18.73	18.55	18.45	0	0
	1	12	18.82	18.56	18.50		0
	1	24	18.88	18.60	18.53		0
	12	0	18.86	18.61	18.63	0-1	0
	12	6	18.87	18.64	18.71		0
	12	13	18.89	18.66	18.78		0
	25	0	18.87	18.62	18.68		0
16QAM	1	0	19.24	18.99	19.05	0-1	0
	1	12	19.26	19.00	19.10		0
	1	24	19.28	19.06	19.17		0
	12	0	19.01	18.78	18.78	0-2	0
	12	6	19.07	18.80	18.88		0
	12	13	19.07	18.82	18.90		0
	25	0	19.03	18.71	18.79		0
64QAM	1	0	19.04	19.17	19.18	0-2	0
	1	12	19.09	19.20	19.20		0
	1	24	19.05	19.16	19.29		0
	12	0	18.94	18.82	18.77	0-3	0
	12	6	18.98	18.88	18.85		0
	12	13	18.99	18.86	18.88		0
	25	0	19.02	18.75	18.76		0

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Table 9-59
LTE Band 25 (PCS) Reduced Conducted Power – Hotspot Mode Active - 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	18.66	18.47	18.56	0	0
	1	7	18.60	18.45	18.59		0
	1	14	18.75	18.54	18.68		0
	8	0	18.84	18.61	18.69	0-1	0
	8	4	18.88	18.68	18.70		0
	8	7	18.90	18.64	18.68		0
	15	0	18.84	18.63	18.70		0
16QAM	1	0	18.98	18.89	19.13	0-1	0
	1	7	18.95	18.94	19.27		0
	1	14	19.03	19.00	19.28		0
	8	0	18.86	18.71	18.86	0-2	0
	8	4	18.94	18.77	18.91		0
	8	7	18.95	18.75	18.86		0
	15	0	18.88	18.77	18.83		0
64QAM	1	0	19.10	19.17	18.94	0-2	0
	1	7	19.11	19.13	19.00		0
	1	14	19.16	19.19	18.94		0
	8	0	18.91	18.75	18.84	0-3	0
	8	4	19.00	18.78	18.90		0
	8	7	18.99	18.79	18.90		0
	15	0	19.00	18.77	18.87		0

Table 9-60
LTE Band 25 (PCS) Reduced Conducted Power – Hotspot Mode Active -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	18.63	18.55	18.48	0	0
	1	2	18.67	18.63	18.55		0
	1	5	18.67	18.63	18.56		0
	3	0	18.64	18.50	18.52		0
	3	2	18.73	18.50	18.64		0
	3	3	18.73	18.50	18.58		0
	6	0	18.73	18.53	18.59	0-1	0
16QAM	1	0	18.96	18.83	19.04	0-1	0
	1	2	19.00	18.90	19.00		0
	1	5	19.05	18.90	18.97		0
	3	0	19.09	18.74	18.93		0
	3	2	19.12	18.84	19.01		0
	3	3	19.11	18.81	18.97		0
	6	0	18.77	18.77	18.65	0-2	0
64QAM	1	0	18.95	19.12	18.81	0-2	0
	1	2	19.04	19.18	18.93		0
	1	5	18.94	19.09	18.83		0
	3	0	18.90	18.92	18.78		0
	3	2	19.02	18.94	18.88		0
	3	3	18.97	18.94	18.83		0
	6	0	19.00	18.62	18.99	0-3	0

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Table 9-61
LTE Band 25 (PCS) Reduced Conducted Power – Proximity Sensor and/or Earjack Active - 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	20.74	20.95	20.61	0	0
	1	50	20.73	20.87	20.66		0
	1	99	20.71	**20.96**	20.72		0
	50	0	20.90	**20.96**	20.76	0-1	0
	50	25	20.87	20.95	20.87		0
	50	50	20.82	20.86	20.86		0
	100	0	20.87	20.80	20.79		0
16QAM	1	0	20.99	20.87	20.77	0-1	0
	1	50	20.96	20.86	20.78		0
	1	99	20.87	20.91	20.95		0
	50	0	20.90	20.77	20.78	0-2	0
	50	25	20.98	20.80	20.85		0
	50	50	20.84	20.71	20.86		0
	100	0	20.81	20.87	20.78		0
64QAM	1	0	20.87	20.85	20.55	0-2	0
	1	50	21.00	20.83	20.68		0
	1	99	20.94	20.84	20.75		0
	50	0	20.89	20.77	20.77	0-3	0
	50	25	20.84	20.79	20.84		0
	50	50	20.81	20.69	20.85		0
	100	0	20.76	20.68	20.78		0

Table 9-62
LTE Band 25 (PCS) Reduced Conducted Power – Proximity Sensor and/or Earjack Active - 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	20.26	20.60	20.61	0	0
	1	36	20.52	20.63	20.63		0
	1	74	20.50	20.66	20.72		0
	36	0	20.57	20.51	20.51	0-1	0
	36	18	20.70	20.63	20.65		0
	36	37	20.67	20.56	20.67		0
	75	0	20.59	20.55	20.58		0
16QAM	1	0	20.69	20.93	20.93	0-1	0
	1	36	20.84	20.91	20.90		0
	1	74	20.80	20.92	20.97		0
	36	0	20.60	20.54	20.55	0-2	0
	36	18	20.76	20.64	20.66		0
	36	37	20.69	20.59	20.70		0
	75	0	20.56	20.58	20.62		0
64QAM	1	0	20.66	21.00	20.67	0-2	0
	1	36	21.00	21.00	20.75		0
	1	74	20.82	20.97	20.76		0
	36	0	20.63	20.54	20.58	0-3	0
	36	18	20.76	20.64	20.69		0
	36	37	20.72	20.59	20.71		0
	75	0	20.55	20.90	20.64		0

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Table 9-63
LTE Band 25 (PCS) Reduced Conducted Power – Proximity Sensor and/or Earjack Active - 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	20.20	20.28	20.40	0	0
	1	25	20.35	20.42	20.32		0
	1	49	20.25	20.23	20.49		0
	25	0	20.57	20.48	20.50	0-1	0
	25	12	20.66	20.60	20.56		0
	25	25	20.64	20.48	20.55		0
	50	0	20.61	20.58	20.53		0
16QAM	1	0	20.64	20.75	20.63	0-1	0
	1	25	20.94	20.97	20.67		0
	1	49	20.78	20.71	20.77		0
	25	0	20.60	20.52	20.54	0-2	0
	25	12	20.73	20.65	20.64		0
	25	25	20.77	20.53	20.62		0
	50	0	20.63	20.57	20.55		0
64QAM	1	0	20.62	20.74	20.46	0-2	0
	1	25	20.82	20.84	20.56		0
	1	49	20.70	20.61	20.66		0
	25	0	20.64	20.57	20.58	0-3	0
	25	12	20.75	20.71	20.78		0
	25	25	20.73	20.53	20.76		0
	50	0	20.67	20.52	20.56		0

Table 9-64
LTE Band 25 (PCS) Reduced Conducted Power – Proximity Sensor and/or Earjack Active - 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	20.42	20.51	20.56	0	0
	1	12	20.47	20.53	20.60		0
	1	24	20.52	20.58	20.65		0
	12	0	20.55	20.55	20.60	0-1	0
	12	6	20.63	20.63	20.65		0
	12	13	20.65	20.64	20.65		0
	25	0	20.58	20.59	20.61		0
16QAM	1	0	20.80	20.86	20.95	0-1	0
	1	12	20.83	20.93	20.98		0
	1	24	20.94	20.93	21.00		0
	12	0	20.55	20.76	20.74	0-2	0
	12	6	20.65	20.80	20.79		0
	12	13	20.64	20.81	20.85		0
	25	0	20.70	20.59	20.61		0
64QAM	1	0	20.60	20.88	20.99	0-2	0
	1	12	20.68	20.96	20.98		0
	1	24	20.77	20.96	21.00		0
	12	0	20.69	20.52	20.58	0-3	0
	12	6	20.73	20.57	20.65		0
	12	13	20.77	20.59	20.68		0
	25	0	20.67	20.60	20.66		0

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Table 9-65
LTE Band 25 (PCS) Reduced Conducted Power – Proximity Sensor and/or Earjack Active - 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	20.42	20.44	20.50	0	0
	1	7	20.41	20.42	20.47		0
	1	14	20.50	20.50	20.53		0
	8	0	20.58	20.50	20.60	0-1	0
	8	4	20.60	20.53	20.67		0
	8	7	20.62	20.58	20.66		0
	15	0	20.59	20.58	20.64		0
16QAM	1	0	20.86	20.71	20.98	0-1	0
	1	7	20.83	20.69	20.98		0
	1	14	20.92	20.76	21.00		0
	8	0	20.68	20.57	20.73	0-2	0
	8	4	20.70	20.61	20.79		0
	8	7	20.71	20.63	20.76		0
	15	0	20.72	20.55	20.72		0
64QAM	1	0	20.80	20.43	20.97	0-2	0
	1	7	20.75	20.44	20.99		0
	1	14	20.87	20.53	21.00		0
	8	0	20.61	20.61	20.73	0-3	0
	8	4	20.64	20.66	20.80		0
	8	7	20.66	20.62	20.79		0
	15	0	20.72	20.66	20.67		0

Table 9-66
LTE Band 25 (PCS) Reduced Conducted Power – Proximity Sensor and/or Earjack Active – 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	20.50	20.30	20.42	0	0
	1	2	20.58	20.38	20.48		0
	1	5	20.54	20.32	20.48		0
	3	0	20.45	20.37	20.43		0
	3	2	20.48	20.42	20.52		0
	3	3	20.43	20.44	20.47		0
	6	0	20.50	20.51	20.51	0-1	0
16QAM	1	0	20.77	20.79	20.72	0-1	0
	1	2	20.86	20.88	20.79		0
	1	5	20.83	20.85	20.75		0
	3	0	20.70	20.52	20.65		0
	3	2	20.75	20.55	20.71		0
	3	3	20.72	20.53	20.67		0
	6	0	20.63	20.57	20.48	0-2	0
64QAM	1	0	20.91	20.66	20.40	0-2	0
	1	2	20.99	20.71	20.57		0
	1	5	20.95	20.70	20.40		0
	3	0	20.71	20.56	20.56		0
	3	2	20.76	20.61	20.63		0
	3	3	20.73	20.57	20.60		0
	6	0	20.50	20.55	20.57	0-3	0

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9.4.9 LTE Band 30

Table 9-67
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	**23.35**	0	0
	1	25	23.33		0
	1	49	23.31		0
	25	0	22.29	0-1	1
	25	12	**22.32**		1
	25	25	22.23		1
	50	0	22.27		1
16QAM	1	0	22.27	0-1	1
	1	25	22.82		1
	1	49	22.81		1
	25	0	21.31	0-2	2
	25	12	21.24		2
	25	25	21.31		2
	50	0	21.48		2
64QAM	1	0	21.61	0-2	2
	1	25	21.57		2
	1	49	21.54		2
	25	0	20.30	0-3	3
	25	12	20.30		3
	25	25	20.44		3
	50	0	20.34		3

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Table 9-68
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	22.95	0	0
	1	12	23.01		0
	1	24	22.97		0
	12	0	22.17	0-1	1
	12	6	22.18		1
	12	13	22.15		1
	25	0	22.16		1
16QAM	1	0	22.23	0-1	1
	1	12	22.33		1
	1	24	22.32		1
	12	0	21.27	0-2	2
	12	6	21.28		2
	12	13	21.29		2
	25	0	21.15		2
64QAM	1	0	21.07	0-2	2
	1	12	21.18		2
	1	24	21.12		2
	12	0	20.22	0-3	3
	12	6	20.24		3
	12	13	20.25		3
	25	0	20.14		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 9-69
LTE Band 30 Hotspot/Proximity Sensor and/or Earjack Active - 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	**21.30**	0	0
	1	25	21.05		0
	1	49	21.10		0
	25	0	21.07	0-1	0
	25	12	**21.29**		0
	25	25	21.02		0
	50	0	21.14		0
16QAM	1	0	21.56	0-1	0
	1	25	21.56		0
	1	49	21.46		0
	25	0	21.10	0-2	0
	25	12	21.15		0
	25	25	21.16		0
	50	0	21.11		0
64QAM	1	0	21.24	0-2	0
	1	25	21.46		0
	1	49	21.41		0
	25	0	20.12	0-3	1
	25	12	20.26		1
	25	25	20.14		1
	50	0	20.04		1

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Table 9-70
LTE Band 30 Hotspot/Proximity Sensor and/or Earjack Active - 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	21.00	0	0
	1	12	21.08		0
	1	24	21.02		0
	12	0	21.17	0-1	0
	12	6	21.18		0
	12	13	21.21		0
	25	0	21.19		0
16QAM	1	0	21.31	0-1	0
	1	12	21.37		0
	1	24	21.33		0
	12	0	21.25	0-2	0
	12	6	21.30		0
	12	13	21.32		0
	25	0	21.24		0
64QAM	1	0	21.13	0-2	0
	1	12	21.24		0
	1	24	21.20		0
	12	0	20.29	0-3	1
	12	6	20.29		1
	12	13	20.31		1
	25	0	20.22		1

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 9-71
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	21.84	21.81	22.17	0	0
	1	50	21.77	21.66	22.10		0
	1	99	21.82	21.78	**22.20**		0
	50	0	21.12	21.18	21.45	0-1	1
	50	25	21.13	21.22	21.46		1
	50	50	21.12	21.12	**21.48**		1
	100	0	21.10	21.17	21.35		1
16QAM	1	0	21.24	21.04	21.54	0-1	1
	1	50	21.05	20.96	21.66		1
	1	99	21.24	21.04	21.62		1
	50	0	19.86	19.85	20.20	0-2	2
	50	25	19.92	19.87	20.28		2
	50	50	19.82	19.85	20.16		2
	100	0	19.84	19.84	20.06		2
64QAM	1	0	20.09	19.88	20.36	0-2	2
	1	50	20.04	19.83	20.20		2
	1	99	20.18	19.94	20.18		2
	50	0	18.89	18.60	19.21	0-3	3
	50	25	18.92	18.79	19.28		3
	50	50	18.87	18.96	19.21		3
	100	0	18.87	18.90	19.02		3

Table 9-72
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	21.75	21.82	22.12	0	0
	1	36	21.81	21.87	22.09		0
	1	74	21.91	21.96	22.07		0
	36	0	20.85	20.97	21.21	0-1	1
	36	18	20.92	21.02	21.18		1
	36	37	20.93	21.03	21.16		1
	75	0	20.88	20.97	21.13		1
16QAM	1	0	21.00	21.51	21.70	0-1	1
	1	36	21.21	21.40	21.69		1
	1	74	21.14	21.50	21.59		1
	36	0	19.85	19.95	20.23	0-2	2
	36	18	19.91	20.03	20.21		2
	36	37	19.94	20.03	20.19		2
	75	0	19.92	20.01	20.18		2
64QAM	1	0	20.10	20.35	20.47	0-2	2
	1	36	20.12	20.30	20.40		2
	1	74	20.20	20.40	20.36		2
	36	0	18.89	18.91	19.33	0-3	3
	36	18	18.99	19.07	19.31		3
	36	37	18.94	19.05	19.29		3
	75	0	18.89	19.01	19.24		3

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Table 9-73
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	21.77	21.91	22.01	0	0
	1	25	21.79	21.85	22.10		0
	1	49	21.84	21.93	22.19		0
	25	0	20.86	21.02	21.16	0-1	1
	25	12	20.94	21.12	21.15		1
	25	25	20.91	21.07	21.13		1
	50	0	20.87	21.04	21.17		1
16QAM	1	0	21.21	21.32	21.69	0-1	1
	1	25	21.22	21.30	21.64		1
	1	49	21.29	21.39	21.59		1
	25	0	19.95	20.11	20.27	0-2	2
	25	12	20.02	20.19	20.28		2
	25	25	20.02	20.19	20.24		2
	50	0	19.91	20.09	20.16		2
64QAM	1	0	20.10	20.25	20.53	0-2	2
	1	25	20.14	20.30	20.49		2
	1	49	20.17	20.32	20.48		2
	25	0	18.92	18.90	19.29	0-3	3
	25	12	19.02	19.21	19.31		3
	25	25	18.99	19.19	19.27		3
	50	0	18.90	19.09	19.21		3

Table 9-74
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	21.80	21.85	22.09	0	0
	1	12	21.88	21.87	22.08		0
	1	24	21.96	21.97	22.18		0
	12	0	20.82	21.00	21.18	0-1	1
	12	6	20.95	21.11	21.21		1
	12	13	20.87	21.04	21.20		1
	25	0	20.86	21.07	21.19		1
16QAM	1	0	21.21	21.14	21.60	0-1	1
	1	12	21.20	21.18	21.46		1
	1	24	21.32	21.29	21.59		1
	12	0	19.99	19.98	20.37	0-2	2
	12	6	20.05	20.11	20.40		2
	12	13	20.00	20.05	20.36		2
	25	0	19.88	20.10	20.19		2
64QAM	1	0	19.95	20.04	20.20	0-2	2
	1	12	20.07	20.13	20.21		2
	1	24	20.06	20.19	20.25		2
	12	0	18.84	19.05	19.24	0-3	3
	12	6	18.93	19.16	19.25		3
	12	13	18.88	19.13	19.23		3
	25	0	18.92	19.09	19.19		3

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Table 9-75
LTE Band 7 Hotspot/Proximity Sensor and/or Earjack Active - 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	20.62	20.89	21.27	0	0
	1	50	20.67	20.91	21.25		0
	1	99	20.77	21.06	**21.38**		0
	50	0	20.87	20.98	21.39	0-1	0
	50	25	20.95	21.09	21.42		0
	50	50	20.95	21.10	**21.43**		0
	100	0	20.89	21.05	21.29		0
16QAM	1	0	21.21	21.34	21.69	0-1	0
	1	50	21.26	21.31	21.72		0
	1	99	21.38	21.33	21.62		0
	50	0	19.85	20.08	20.23	0-2	1
	50	25	19.93	20.12	20.15		1
	50	50	19.92	20.10	20.30		1
	100	0	19.86	20.04	20.17		1
64QAM	1	0	19.86	20.21	20.36	0-2	1
	1	50	20.00	20.17	20.59		1
	1	99	20.15	20.22	20.43		1
	50	0	18.85	19.07	19.34	0-3	2
	50	25	18.96	19.12	19.32		2
	50	50	18.96	19.10	19.39		2
	100	0	18.83	19.01	19.23		2

Table 9-76
LTE Band 7 Hotspot/Proximity Sensor and/or Earjack Active - 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	20.80	20.94	21.15	0	0
	1	36	20.93	21.19	21.14		0
	1	74	20.94	21.05	21.20		0
	36	0	20.93	21.09	21.18	0-1	0
	36	18	20.89	21.15	21.11		0
	36	37	20.89	21.17	21.23		0
	75	0	20.92	21.12	21.19		0
16QAM	1	0	21.15	21.51	21.55	0-1	0
	1	36	21.24	21.42	21.71		0
	1	74	21.28	21.39	21.78		0
	36	0	19.91	20.08	20.20	0-2	1
	36	18	20.03	20.23	20.50		1
	36	37	20.03	20.18	20.21		1
	75	0	19.94	20.15	20.16		1
64QAM	1	0	20.03	20.20	20.38	0-2	1
	1	36	20.03	20.29	20.28		1
	1	74	20.14	20.35	20.27		1
	36	0	18.95	19.13	19.25	0-3	2
	36	18	18.94	19.24	19.14		2
	36	37	18.99	19.15	19.24		2
	75	0	18.88	19.16	19.17		2

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Table 9-77
LTE Band 7 Hotspot/Proximity Sensor and/or Earjack Active - 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	20.82	21.10	21.14	0	0
	1	25	20.87	21.01	21.01		0
	1	49	20.79	21.07	21.12		0
	25	0	20.87	21.14	21.15	0-1	0
	25	12	20.90	21.12	21.26		0
	25	25	20.90	21.15	21.25		0
	50	0	20.91	21.14	21.17		0
16QAM	1	0	21.20	21.58	21.40	0-1	0
	1	25	21.21	21.60	21.53		0
	1	49	21.30	21.54	21.47		0
	25	0	19.96	20.09	20.23	0-2	1
	25	12	19.94	20.17	20.32		1
	25	25	19.91	20.19	20.26		1
	50	0	19.90	20.10	20.12		1
64QAM	1	0	20.05	20.28	20.53	0-2	1
	1	25	20.02	20.25	20.45		1
	1	49	20.13	20.20	20.36		1
	25	0	18.90	19.12	19.18	0-3	2
	25	12	19.03	19.23	19.35		2
	25	25	19.00	19.19	19.23		2
	50	0	18.97	19.20	19.26		2

Table 9-78
LTE Band 7 Hotspot/Proximity Sensor and/or Earjack Active - 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	20.87	21.01	21.02	0	0
	1	12	21.02	21.09	21.02		0
	1	24	20.94	21.10	21.15		0
	12	0	20.90	21.17	21.23	0-1	0
	12	6	21.01	21.19	21.32		0
	12	13	20.97	21.19	21.20		0
	25	0	20.96	21.13	21.11		0
16QAM	1	0	21.18	21.44	21.44	0-1	0
	1	12	21.08	21.39	21.44		0
	1	24	21.18	21.28	21.47		0
	12	0	20.00	20.20	20.22	0-2	1
	12	6	20.08	20.20	20.36		1
	12	13	19.96	20.28	20.28		1
	25	0	19.98	20.21	20.20		1
64QAM	1	0	20.04	20.27	20.34	0-2	1
	1	12	20.06	20.31	20.29		1
	1	24	20.11	20.40	20.50		1
	12	0	18.95	19.15	19.25	0-3	2
	12	6	19.00	19.27	19.30		2
	12	13	19.01	19.20	19.25		2
	25	0	19.02	19.17	19.15		2

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9.4.11 LTE Band 41

Table 9-79
LTE Band 41 PC3 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	22.88	23.05	22.81	23.00	22.98	0	0
	1	50	22.78	23.02	**23.34**	23.14	22.99		0
	1	99	22.92	22.96	22.80	22.56	22.94		0
	50	0	21.92	22.17	22.33	22.26	22.06	0-1	1
	50	25	22.05	22.19	**22.43**	22.21	22.29		1
	50	50	21.98	22.14	22.41	22.26	22.21		1
	100	0	21.98	22.11	22.34	22.15	22.25		1
16QAM	1	0	22.10	22.39	22.23	22.26	21.96	0-1	1
	1	50	22.07	22.27	22.60	22.34	22.33		1
	1	99	22.17	22.35	22.27	21.91	22.10		1
	50	0	20.99	21.22	21.39	21.32	21.13	0-2	2
	50	25	21.11	21.20	21.47	21.32	21.33		2
	50	50	21.10	21.13	21.51	21.17	21.30		2
	100	0	21.09	21.13	21.37	21.24	21.27		2
64QAM	1	0	21.09	21.24	21.12	21.21	20.93	0-2	2
	1	50	21.10	21.13	21.49	21.44	21.41		2
	1	99	21.08	21.05	21.09	20.91	21.32		2
	50	0	20.38	20.35	20.42	20.44	20.23	0-3	3
	50	25	20.46	20.41	20.57	20.50	20.41		3
	50	50	20.47	20.31	20.49	20.31	20.47		3
	100	0	20.39	20.21	20.41	20.36	20.28		3

Table 9-80
LTE Band 41 PC3 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	23.00	22.81	23.11	23.08	22.75	0	0
	1	36	23.02	23.04	23.36	23.21	23.09		0
	1	74	22.91	22.76	23.12	22.87	22.99		0
	36	0	22.07	21.95	22.28	22.19	22.04	0-1	1
	36	18	22.14	22.12	22.42	22.24	22.25		1
	36	37	22.06	22.02	22.46	22.20	22.19		1
	75	0	22.03	21.99	22.31	22.11	22.12		1
16QAM	1	0	22.23	22.10	22.42	22.08	21.76	0-1	1
	1	36	22.25	22.31	22.65	22.22	22.06		1
	1	74	22.20	21.98	22.58	21.81	21.95		1
	36	0	21.09	21.01	21.26	21.27	21.12	0-2	2
	36	18	21.18	21.14	21.37	21.30	21.31		2
	36	37	21.13	21.05	21.40	21.26	21.27		2
	75	0	21.09	21.03	21.27	21.18	21.22		2
64QAM	1	0	20.85	20.70	21.12	20.88	20.56	0-2	2
	1	36	20.95	20.99	21.49	21.02	20.93		2
	1	74	20.87	20.68	21.29	20.71	20.87		2
	36	0	20.06	19.98	20.26	20.27	20.14	0-3	3
	36	18	20.16	20.12	20.35	20.31	20.31		3
	36	37	20.10	19.99	20.36	20.26	20.31		3
	75	0	20.08	20.04	20.35	20.18	20.19		3

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Table 9-81
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	23.10	22.76	23.16	23.08	22.81	0	0
	1	25	23.09	22.97	23.45	23.26	23.05		0
	1	49	23.05	22.77	23.15	23.29	22.81		0
	25	0	22.11	22.04	22.39	22.22	22.08	0-1	1
	25	12	22.16	22.17	22.50	22.32	22.24		1
	25	25	22.12	22.07	22.48	22.23	22.12		1
	50	0	22.07	22.12	22.41	22.25	22.19		1
16QAM	1	0	22.33	22.09	22.45	21.91	22.15	0-1	1
	1	25	22.32	22.31	22.70	22.09	22.38		1
	1	49	22.34	22.06	22.46	21.85	22.19		1
	25	0	21.11	20.99	21.43	21.31	21.05	0-2	2
	25	12	21.19	21.14	21.49	21.40	21.19		2
	25	25	21.14	21.03	21.47	21.32	21.09		2
	50	0	21.11	21.08	21.43	21.28	21.11		2
64QAM	1	0	20.96	20.90	21.06	21.23	20.95	0-2	2
	1	25	20.96	21.15	21.32	21.42	21.23		2
	1	49	20.98	20.86	21.03	21.18	20.99		2
	25	0	20.14	20.02	20.48	20.30	20.07	0-3	3
	25	12	20.28	20.15	20.57	20.40	20.22		3
	25	25	20.19	20.07	20.53	20.35	20.10		3
	50	0	20.12	20.18	20.48	20.30	20.18		3

Table 9-82
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	23.00	23.03	23.28	23.23	23.17	0	0
	1	12	23.08	23.02	23.42	23.24	23.14		0
	1	24	23.03	23.06	23.34	23.26	23.18		0
	12	0	22.10	22.12	22.49	22.31	22.15	0-1	1
	12	6	22.13	22.19	22.48	22.32	22.24		1
	12	13	22.15	22.15	22.53	22.37	22.22		1
	25	0	22.14	22.16	22.50	22.28	22.24		1
16QAM	1	0	21.88	21.87	22.22	22.08	22.11	0-1	1
	1	12	21.90	21.90	22.26	22.06	22.30		1
	1	24	22.00	21.91	22.29	22.07	22.16		1
	12	0	21.17	21.16	21.57	21.39	21.27	0-2	2
	12	6	21.26	21.27	21.59	21.40	21.34		2
	12	13	21.20	21.23	21.60	21.42	21.30		2
	25	0	21.18	21.18	21.53	21.31	21.22		2
64QAM	1	0	21.16	21.22	21.46	21.38	21.59	0-2	2
	1	12	21.20	21.11	21.56	21.40	21.67		2
	1	24	21.24	21.25	21.57	21.40	21.59		2
	12	0	20.09	20.23	20.47	20.40	20.24	0-3	3
	12	6	20.16	20.31	20.50	20.44	20.27		3
	12	13	20.13	20.26	20.50	20.43	20.29		3
	25	0	20.13	20.20	20.45	20.30	20.18		3

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Table 9-83
LTE Band 41 PC3 Hotspot/Proximity Sensor and/or Earjack Active - 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	20.89	21.19	20.90	21.09	20.79	0	0
	1	50	20.77	21.06	**21.30**	21.22	21.16		0
	1	99	20.86	21.09	20.91	20.85	21.12		0
	50	0	20.89	21.17	21.21	21.29	21.12	0-1	0
	50	25	20.96	21.25	**21.30**	21.28	21.24		0
	50	50	20.91	21.19	21.25	21.19	21.29		0
	100	0	20.88	21.10	21.20	21.22	21.15		0
16QAM	1	0	20.93	21.36	20.99	21.22	20.86	0-1	0
	1	50	20.88	21.27	21.41	21.41	21.34		0
	1	99	21.12	21.19	21.13	20.88	21.37		0
	50	0	20.89	21.18	21.29	21.38	21.15	0-2	0
	50	25	20.90	21.27	21.40	21.44	21.31		0
	50	50	20.99	21.24	21.35	21.24	21.39		0
	100	0	20.91	21.19	21.30	21.36	21.29		0
64QAM	1	0	20.64	20.84	20.70	20.85	20.80	0-2	0
	1	50	20.75	20.90	21.07	21.05	20.98		0
	1	99	20.76	20.87	20.77	20.85	20.92		0
	50	0	19.97	20.24	20.29	20.46	20.23	0-3	1
	50	25	20.03	20.32	20.42	20.47	20.36		1
	50	50	19.97	20.25	20.41	20.28	20.43		1
	100	0	19.91	20.16	20.30	20.36	20.21		1

Table 9-84
LTE Band 41 PC3 Hotspot/Proximity Sensor and/or Earjack Active - 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	21.19	20.99	21.18	21.30	21.07	0	0
	1	36	21.20	21.26	21.38	21.44	21.37		0
	1	74	21.06	20.98	21.16	21.18	21.18		0
	36	0	21.21	21.22	21.37	21.41	21.35	0-1	0
	36	18	21.29	21.32	21.48	21.54	21.45		0
	36	37	21.26	21.25	21.51	21.49	21.52		0
	75	0	21.20	21.25	21.39	21.47	21.31		0
16QAM	1	0	20.86	20.79	21.21	21.02	21.27	0-1	0
	1	36	20.91	21.00	21.41	21.23	21.50		0
	1	74	20.90	20.77	21.29	20.98	21.22		0
	36	0	21.27	21.26	21.24	21.49	21.32	0-2	0
	36	18	21.30	21.40	21.38	21.39	21.43		0
	36	37	21.33	21.31	21.48	21.40	21.52		0
	75	0	21.21	21.20	21.38	21.49	21.41		0
64QAM	1	0	21.08	20.94	21.10	21.18	21.09	0-2	0
	1	36	21.19	21.25	21.40	21.49	21.40		0
	1	74	21.14	20.96	21.20	21.09	21.29		0
	36	0	20.27	20.23	20.24	20.51	20.37	0-3	1
	36	18	20.37	20.35	20.47	20.50	20.49		1
	36	37	20.32	20.27	20.47	20.61	20.54		1
	75	0	20.27	20.24	20.43	20.54	20.42		1

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Table 9-85
LTE Band 41 PC3 Hotspot/Proximity Sensor and/or Earjack Active - 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	21.32	21.04	21.20	21.29	21.23	0	0
	1	25	21.19	21.30	21.48	21.54	21.35		0
	1	49	21.23	21.03	21.25	21.18	21.39		0
	25	0	21.24	21.28	21.47	21.45	21.41	0-1	0
	25	12	21.35	21.42	21.18	21.62	21.30		0
	25	25	21.33	21.22	21.23	21.55	21.42		0
	50	0	21.30	21.32	21.31	21.54	21.39		0
16QAM	1	0	21.11	21.35	21.30	21.12	21.29	0-1	0
	1	25	21.16	21.29	21.33	21.30	21.19		0
	1	49	21.13	21.45	21.30	21.19	21.57		0
	25	0	21.18	21.31	21.45	21.36	21.45	0-2	0
	25	12	21.26	21.31	21.52	21.30	21.34		0
	25	25	21.19	21.40	21.49	21.45	21.50		0
	50	0	21.28	21.39	21.33	21.54	21.22		0
64QAM	1	0	20.83	20.77	21.10	20.86	20.72	0-2	0
	1	25	20.94	20.89	21.50	21.25	21.11		0
	1	49	20.87	20.75	21.20	20.90	20.88		0
	25	0	20.30	20.34	20.43	20.44	20.50	0-3	1
	25	12	20.38	20.51	20.51	20.64	20.52		1
	25	25	20.34	20.46	20.45	20.40	20.50		1
	50	0	20.20	20.35	20.46	20.51	20.36		1

Table 9-86
LTE Band 41 PC3 Hotspot/Proximity Sensor and/or Earjack Active - 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	21.23	21.38	21.34	21.37	21.20	0	0
	1	12	21.20	21.41	21.51	21.44	21.46		0
	1	24	21.19	21.42	21.33	21.30	21.48		0
	12	0	21.28	21.35	21.41	21.51	21.49	0-1	0
	12	6	21.35	21.30	21.44	21.45	21.54		0
	12	13	21.31	21.43	21.32	21.46	21.38		0
	25	0	21.32	21.25	21.37	21.50	21.50		0
16QAM	1	0	21.23	21.32	21.40	21.18	21.22	0-1	0
	1	12	21.26	21.30	21.42	21.19	21.48		0
	1	24	21.34	21.22	21.43	21.21	21.44		0
	12	0	21.29	21.19	21.38	21.48	21.50	0-2	0
	12	6	21.34	21.21	21.29	21.44	21.44		0
	12	13	21.32	21.43	21.34	21.45	21.51		0
	25	0	21.35	21.46	21.38	21.49	21.50		0
64QAM	1	0	20.90	21.20	21.10	21.29	21.25	0-2	0
	1	12	20.92	21.33	21.23	21.50	21.38		0
	1	24	20.98	21.30	21.20	21.28	21.36		0
	12	0	20.39	20.44	20.71	20.39	20.55	0-3	1
	12	6	20.47	20.51	20.76	20.34	20.55		1
	12	13	20.40	20.49	20.74	20.33	20.62		1
	25	0	20.30	20.40	20.58	20.51	20.43		1

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Table 9-87
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	25.87	26.03	25.99	26.07	25.72	0	0
	1	50	25.82	25.94	26.34	26.17	25.74		0
	1	99	25.88	26.08	26.07	26.23	25.93		0
	50	0	24.88	25.16	25.33	25.23	24.99	0-1	1
	50	25	25.09	25.20	25.44	25.21	24.88		1
	50	50	25.03	25.19	25.54	25.20	25.20		1
	100	0	24.90	25.10	25.39	25.19	25.13		1

Table 9-88
LTE Band 41 PC2 Hotspot/Proximity Sensor and/or Earjack Active - 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	20.74	20.90	20.68	20.86	20.70	0	0
	1	50	20.60	20.98	21.18	21.01	20.97		0
	1	99	20.58	21.08	20.69	20.80	20.85		0
	50	0	20.82	21.06	21.10	21.14	21.04	0-1	0
	50	25	20.88	21.19	21.50	21.24	21.17		0
	50	50	20.82	21.11	21.45	21.10	21.24		0
	100	0	20.68	21.04	21.16	21.17	21.12		0

9.4.12 LTE Uplink Carrier Aggregation Conducted Powers

Table 9-89
LTE Band 41 PC3 Uplink Carrier Aggregation Maximum 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	40620	2593.0	QPSK	1	0	LTE B41	20	40422	2573.2	QPSK	1	99	23.98	22.81

Table 9-90
LTE 41 Band PC2 Uplink Carrier Aggregation Maximum 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	40620	2593.0	QPSK	1	0	LTE B41 PC2	20	40422	2573.2	QPSK	1	99	26.98	25.99

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Table 9-91
LTE Band 41 PC3 Uplink Carrier Aggregation Conducted Powers - Hotspot/Proximity Sensor and/or Earjack 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	40620	2593.0	QPSK	1	99	LTE B41	20	40818	2612.8	QPSK	1	0	21.96	20.91
CA_41C	LTE B41	20	40620	2593.0	QPSK	50	50	LTE B41	20	40818	2612.8	QPSK	50	0	21.99	21.25

Table 9-92
LTE Band 41 PC2 Uplink Carrier Aggregation Conducted Powers - Hotspot/Proximity Sensor and/or Earjack 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	40620	2593.0	QPSK	1	99	LTE B41 PC2	20	40818	2612.8	QPSK	1	0	22.00	20.69
CA_41C	LTE B41 PC2	20	40620	2593.0	QPSK	50	50	LTE B41 PC2	20	40818	2612.8	QPSK	50	0	21.50	21.45

Notes:

1. This device supports uplink carrier aggregation for LTE CA_41C with a maximum of two 20 MHz 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 NR Conducted Powers

9.5.1 NR Band n71

Table 9-93
NR Band n71 Maximum Conducted Powers - 20 MHz Bandwidth

NR Band n71 20 MHz Bandwidth					
			Channel		
Modulation	RB Size	RB Offset	136100 (680.5 MHz) Conducted Power [dBm]	MPR Allowed per 3GPP [dB]	MPR [dB]
DFT-s-OFDM π/2 BPSK	1	1	24.50	0	0
	1	53	24.71		0
	1	104	24.37		0
	50	0	24.09	0-0.5	0.5
	50	28	24.47	0	0
	50	56	24.03	0-0.5	0.5
	100	0	24.10		0.5
DFT-s-OFDM QPSK	1	1	24.53	0	0
	1	53	**24.65**		0
	1	104	24.40		0
	50	0	23.52	0-1	1
	50	28	**24.47**	0	0
	50	56	23.40	0-1	1
	100	0	23.47		1
DFT-s-OFDM 16QAM	1	1	23.58	0-1	1
CP-OFDM QPSK	1	1	23.20	0-1.5	1.5

Note: NR Band n71 at 20 MHz bandwidth does not support non-overlapping channels. Per FCC Guidance, 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 9-94
NR Band n71 Maximum Conducted Powers - 15 MHz Bandwidth

NR Band n71 15 MHz Bandwidth					
			Channel		
Modulation	RB Size	RB Offset	136100 (680.5 MHz) Conducted Power [dBm]	MPR Allowed per 3GPP [dB]	MPR [dB]
DFT-s-OFDM π/2 BPSK	1	1	24.58	0	0
	1	40	24.53		0
	1	77	24.57		0
	36	0	24.12	0-0.5	0.5
	36	22	24.53	0	0
	36	43	24.01	0-0.5	0.5
	75	0	24.09		0.5
DFT-s-OFDM QPSK	1	1	24.55	0	0
	1	40	24.65		0
	1	77	24.56		0
	36	0	23.48	0-1	1
	36	22	24.44	0	0
	36	43	23.34	0-1	1
	75	0	23.47		1
DFT-s-OFDM 16QAM	1	1	23.62	0-1	1
CP-OFDM QPSK	1	1	23.09	0-1.5	1.5

Note: NR Band n71 at 15 MHz bandwidth does not support non-overlapping channels. Per FCC Guidance, 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 9-95
NR Band n71 Maximum Conducted Powers - 10 MHz Bandwidth

NR Band n71 10 MHz Bandwidth							
			Channel			MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	133600 (668 MHz)	136100 (680.5 MHz)	138600 (693 MHz)		
			Conducted Power [dBm]				
DFT-s-OFDM π/2 BPSK	1	1	24.56	24.61	24.41	0	0
	1	26	24.85	24.92	24.79		0
	1	50	24.63	24.55	24.45		0
	25	0	24.06	24.16	24.05	0-0.5	0.5
	25	14	24.48	24.41	24.42	0	0
	25	27	24.05	24.08	23.95	0-0.5	0.5
	50	0	24.07	24.11	24.03		0.5
DFT-s-OFDM QPSK	1	1	24.45	24.72	24.59	0	0
	1	26	24.83	24.65	24.63		0
	1	50	24.74	24.64	24.59		0
	25	0	23.50	23.53	23.38	0-1	1
	25	14	24.50	24.53	24.41	0	0
	25	27	23.41	23.42	23.37	0-1	1
	50	0	23.50	23.52	23.40		1
DFT-s-OFDM 16QAM	1	1	23.62	23.56	23.64	0-1	1
CP-OFDM QPSK	1	1	23.11	23.06	23.13	0-1.5	1.5

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Table 9-96
NR Band n71 Maximum Conducted Powers - 5 MHz Bandwidth

NR Band n71 5 MHz Bandwidth							
			Channel			MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	133100 (665.5 MHz)	136100 (680.5 MHz)	139100 (695.5 MHz)		
			Conducted Power [dBm]				
DFT-s-OFDM π/2 BPSK	1	1	24.37	24.61	24.56	0	0
	1	13	24.68	24.63	24.63		0
	1	23	24.70	24.55	24.47		0
	12	0	24.14	24.16	23.99	0-0.5	0.5
	12	7	24.51	24.51	24.48	0	0
	12	13	24.17	24.12	24.01	0-0.5	0.5
	25	0	24.08	24.13	23.99		0.5
DFT-s-OFDM QPSK	1	1	24.45	24.79	24.51	0	0
	1	13	24.83	24.73	24.66		0
	1	23	24.69	24.74	24.48		0
	12	0	23.54	23.58	23.45	0-1	1
	12	7	24.57	24.50	24.43	0	0
	12	13	23.60	23.48	23.44	0-1	1
	25	0	23.56	23.52	23.37		1
DFT-s-OFDM 16QAM	1	1	23.45	23.72	23.50	0-1	1
CP-OFDM QPSK	1	1	23.08	23.21	23.03	0-1.5	1.5

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9.5.2 NR Band n5

Table 9-97
NR Band n5 Maximum Conducted Powers - 20 MHz Bandwidth

NR Band n5 20 MHz Bandwidth					
			Channel		
Modulation	RB Size	RB Offset	167300 (836.5 MHz) Conducted Power [dBm]	MPR Allowed per 3GPP [dB]	MPR [dB]
DFT-s-OFDM π/2 BPSK	1	1	24.80	0	0
	1	53	24.91		0
	1	104	24.65		0
	50	0	24.40	0-0.5	0.5
	50	28	24.57	0	0
	50	56	24.05	0-0.5	0.5
	100	0	24.13		0.5
DFT-s-OFDM QPSK	1	1	**24.77**	0	0
	1	53	24.65		0
	1	104	24.60		0
	50	0	23.78	0-1	1
	50	28	**24.80**	0	0
	50	56	23.68	0-1	1
	100	0	23.57		1
DFT-s-OFDM 16QAM	1	1	23.82	0-1	1
CP-OFDM QPSK	1	1	23.30	0-1.5	1.5

Note: NR Band n5 at 20 MHz bandwidth does not support non-overlapping channels. Per FCC Guidance, 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 9-98
NR Band n5 Maximum Conducted Powers - 15 MHz Bandwidth

NR Band n5 15 MHz Bandwidth					
			Channel		
Modulation	RB Size	RB Offset	167300 (836.5 MHz) Conducted Power [dBm]	MPR Allowed per 3GPP [dB]	MPR [dB]
DFT-s-OFDM π/2 BPSK	1	1	24.91	0	0
	1	40	24.86		0
	1	77	24.87		0
	36	0	24.47	0-0.5	0.5
	36	22	24.78	0	0
	36	43	24.35	0-0.5	0.5
	75	0	24.46		0.5
DFT-s-OFDM QPSK	1	1	24.97	0	0
	1	40	24.97		0
	1	77	24.89		0
	36	0	23.82	0-1	1
	36	22	24.71	0	0
	36	43	23.72	0-1	1
	75	0	23.88		1
DFT-s-OFDM 16QAM	1	1	23.97	0-1	1
CP-OFDM QPSK	1	1	23.45	0-1.5	1.5

Note: NR Band n5 at 15 MHz bandwidth does not support non-overlapping channels. Per FCC Guidance, 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 9-99
NR Band n5 Maximum Conducted Powers - 10 MHz Bandwidth

NR Band n5 10 MHz Bandwidth					
			Channel		
Modulation	RB Size	RB Offset	167300 (836.5 MHz) Conducted Power [dBm]	MPR Allowed per 3GPP [dB]	MPR [dB]
DFT-s-OFDM π/2 BPSK	1	1	24.98	0	0
	1	26	24.97		0
	1	50	24.88		0
	25	0	24.47	0-0.5	0.5
	25	14	24.92	0	0
	25	27	24.39	0-0.5	0.5
	50	0	24.37		0.5
DFT-s-OFDM QPSK	1	1	24.97	0	0
	1	26	24.98		0
	1	50	24.92		0
	25	0	23.84	0-1	1
	25	14	24.96	0	0
	25	27	23.78	0-1	1
	50	0	23.89		1
DFT-s-OFDM 16QAM	1	1	23.95	0-1	1
CP-OFDM QPSK	1	1	23.46	0-1.5	1.5

Note: NR Band n5 at 10 MHz bandwidth does not support non-overlapping channels. Per FCC Guidance, 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 9-100
NR Band n5 Maximum Conducted Powers - 5 MHz Bandwidth

NR Band n5 5 MHz Bandwidth							
			Channel			MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	165300 (826.5 MHz)	167300 (836.5 MHz)	169300 (846.5 MHz)		
			Conducted Power [dBm]				
DFT-s-OFDM π/2 BPSK	1	1	24.96	24.98	24.79	0	0
	1	13	24.93	24.95	24.84		0
	1	23	24.99	24.92	24.71		0
	12	0	24.36	24.42	24.35	0-0.5	0.5
	12	7	24.88	24.87	24.73	0	0
	12	13	24.44	24.39	24.34	0-0.5	0.5
	25	0	24.39	24.43	24.33		0.5
DFT-s-OFDM QPSK	1	1	24.99	24.99	24.90	0	0
	1	13	24.96	24.95	24.91		0
	1	23	24.87	24.84	24.95		0
	12	0	23.81	23.94	23.83	0-1	1
	12	7	24.93	24.95	24.79	0	0
	12	13	23.86	23.87	23.82	0-1	1
	25	0	23.82	23.93	23.81		1
DFT-s-OFDM 16QAM	1	1	23.98	23.91	23.95	0-1	1
CP-OFDM QPSK	1	1	23.47	23.44	23.38	0-1.5	1.5

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9.5.3 NR Band n66

Table 9-101
NR Band n66 Maximum Conducted Powers - 20 MHz Bandwidth

NR Band n66 20 MHz Bandwidth							
			Channel			MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	344000 (1720 MHz)	349000 (1745 MHz)	354000 (1770 MHz)		
			Conducted Power [dBm]				
DFT-s-OFDM π/2 BPSK	1	1	24.85	25.32	24.93	0	0
	1	53	25.02	25.41	25.06		0
	1	104	24.93	25.32	24.90		0
	50	0	24.32	24.81	24.41	0-0.5	0.5
	50	28	24.76	25.19	24.76	0	0
	50	56	24.42	24.78	24.43	0-0.5	0.5
	100	0	24.38	24.72	24.37		0.5
DFT-s-OFDM QPSK	1	1	25.03	25.14	24.87	0	0
	1	53	25.20	**25.33**	24.73		0
	1	104	24.98	25.19	24.93		0
	50	0	23.76	24.15	23.83	0-1	1
	50	28	24.81	**25.14**	24.73	0	0
	50	56	23.91	24.15	23.82	0-1	1
	100	0	23.86	24.14	23.79		1
DFT-s-OFDM 16QAM	1	1	23.81	24.44	23.83	0-1	1
CP-OFDM QPSK	1	1	23.53	23.63	23.36	0-1.5	1.5

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Table 9-102
NR Band n66 Maximum Conducted Powers - 15 MHz Bandwidth

NR Band n66 15 MHz Bandwidth							
			Channel			MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	343500 (1717.5 MHz)	349000 (1745 MHz)	354500 (1772.5 MHz)		
			Conducted Power [dBm]				
DFT-s-OFDM π/2 BPSK	1	1	25.09	25.33	25.16	0	0
	1	40	24.95	25.31	25.12		0
	1	77	25.08	25.32	25.06		0
	36	0	24.61	24.81	24.59	0-0.5	0.5
	36	22	24.99	25.19	24.94	0	0
	36	43	24.66	24.82	24.56	0-0.5	0.5
	75	0	24.62	24.79	24.58		0.5
DFT-s-OFDM QPSK	1	1	25.03	25.14	25.13	0	0
	1	40	24.93	25.23	25.04		0
	1	77	25.11	25.36	25.13		0
	36	0	24.06	24.26	24.07	0-1	1
	36	22	25.01	25.19	24.96	0	0
	36	43	24.07	24.17	24.04	0-1	1
	75	0	24.01	24.22	24.01		1
DFT-s-OFDM 16QAM	1	1	24.22	24.39	24.23	0-1	1
CP-OFDM QPSK	1	1	23.61	23.84	23.76	0-1.5	1.5

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Table 9-103
NR Band n66 Maximum Conducted Powers - 10 MHz Bandwidth

NR Band n66 10 MHz Bandwidth							
			Channel			MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	343000 (1715 MHz)	349000 (1745 MHz)	355000 (1775 MHz)		
			Conducted Power [dBm]				
DFT-s-OFDM π/2 BPSK	1	1	25.11	25.25	25.06	0	0
	1	26	25.23	25.34	25.11		0
	1	50	25.21	25.27	24.93		0
	25	0	24.63	24.84	24.48	0-0.5	0.5
	25	14	25.02	25.23	24.90	0	0
	25	27	24.66	24.82	24.53	0-0.5	0.5
	50	0	24.60	24.46	24.53		0.5
DFT-s-OFDM QPSK	1	1	25.04	25.13	24.89	0	0
	1	26	25.35	25.31	25.38		0
	1	50	25.03	25.23	25.04		0
	25	0	24.13	24.03	23.92	0-1	1
	25	14	25.08	25.03	24.92	0	0
	25	27	24.06	24.05	23.91	0-1	1
	50	0	24.07	23.97	23.93		1
DFT-s-OFDM 16QAM	1	1	24.14	24.44	24.07	0-1	1
CP-OFDM QPSK	1	1	23.75	23.88	23.66	0-1.5	1.5

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Table 9-104
NR Band n66 Maximum Conducted Powers - 5 MHz Bandwidth

NR Band n66 5 MHz Bandwidth							
			Channel			MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	342500 (1712.5 MHz)	349000 (1745 MHz)	355500 (1777.5 MHz)		
			Conducted Power [dBm]				
DFT-s-OFDM π/2 BPSK	1	1	24.93	25.36	25.16	0	0
	1	13	25.07	25.28	25.03		0
	1	23	25.05	25.31	24.99		0
	12	0	24.57	24.82	24.55	0-0.5	0.5
	12	7	24.96	25.25	24.93	0	0
	12	13	24.59	24.91	24.53	0-0.5	0.5
	25	0	24.52	24.81	24.53		0.5
DFT-s-OFDM QPSK	1	1	25.01	25.20	24.98	0	0
	1	13	25.05	25.12	24.96		0
	1	23	25.03	25.23	25.02		0
	12	0	23.98	24.27	23.97	0-1	1
	12	7	25.01	25.24	24.96	0	0
	12	13	23.94	24.28	23.97	0-1	1
	25	0	23.97	24.22	23.95		1
DFT-s-OFDM 16QAM	1	1	24.13	24.25	24.12	0-1	1
CP-OFDM QPSK	1	1	23.62	23.65	23.61	0-1.5	1.5

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Table 9-105
NR Band n66 Reduced Conducted Power – Hotspot Mode Active - 20 MHz Bandwidth

NR Band n66 20 MHz Bandwidth							
			Channel			MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	344000 (1720 MHz)	349000 (1745 MHz)	354000 (1770 MHz)		
			Conducted Power [dBm]				
DFT-s-OFDM π/2 BPSK	1	1	20.78	20.98	20.72	0	0
	1	53	20.91	21.00	20.85		0
	1	104	20.99	20.91	20.72		0
	50	0	20.74	21.00	20.66	0-0.5	0
	50	28	20.76	20.92	20.70	0	0
	50	56	20.81	20.95	20.66	0-0.5	0
	100	0	20.74	20.99	20.69		0
DFT-s-OFDM QPSK	1	1	20.77	20.92	20.70	0	0
	1	53	20.93	**21.00**	20.81		0
	1	104	20.99	20.95	20.94		0
	50	0	20.68	20.91	20.69	0-1	0
	50	28	20.74	20.96	20.63	0	0
	50	56	20.82	**20.97**	20.65	0-1	0
	100	0	20.74	20.95	20.66		0
DFT-s-OFDM 16QAM	1	1	20.95	20.98	20.98	0-1	0
CP-OFDM QPSK	1	1	20.91	21.00	20.94	0-1.5	0

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Table 9-106
NR Band n66 Reduced Conducted Power – Hotspot Mode Active - 15 MHz Bandwidth

NR Band n66 15 MHz Bandwidth							
			Channel			MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	343500 (1717.5 MHz)	349000 (1745 MHz)	354500 (1772.5 MHz)		
			Conducted Power [dBm]				
DFT-s-OFDM π/2 BPSK	1	1	20.84	20.96	20.87	0	0
	1	40	20.89	20.92	20.61		0
	1	77	20.93	20.94	20.76		0
	36	0	20.76	20.91	20.59	0-0.5	0
	36	22	20.70	20.83	20.63	0	0
	36	43	20.74	20.84	20.72	0-0.5	0
	75	0	20.76	20.88	20.66		0
DFT-s-OFDM QPSK	1	1	20.71	20.94	20.75	0	0
	1	40	20.74	20.89	20.66		0
	1	77	20.85	20.91	20.90		0
	36	0	20.73	20.88	20.70	0-1	0
	36	22	20.77	20.83	20.69	0	0
	36	43	20.68	20.87	20.62	0-1	0
	75	0	20.75	20.86	20.69		0
DFT-s-OFDM 16QAM	1	1	20.87	20.94	20.88	0-1	0
CP-OFDM QPSK	1	1	20.62	20.88	20.82	0-1.5	0

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Table 9-107
NR Band n66 Reduced Conducted Power – Hotspot Mode Active - 10 MHz Bandwidth

NR Band n66 10 MHz Bandwidth							
			Channel			MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	343000 (1715 MHz)	349000 (1745 MHz)	355000 (1775 MHz)		
			Conducted Power [dBm]				
DFT-s-OFDM π/2 BPSK	1	1	20.93	20.96	20.92	0	0
	1	26	20.94	20.91	20.85		0
	1	50	20.96	20.98	20.93		0
	25	0	20.84	20.87	20.69	0-0.5	0
	25	14	20.88	20.90	20.67	0	0
	25	27	20.86	20.97	20.77	0-0.5	0
	50	0	20.82	20.89	20.75		0
DFT-s-OFDM QPSK	1	1	20.86	20.93	20.86	0	0
	1	26	20.92	21.00	20.97		0
	1	50	20.88	20.89	20.80		0
	25	0	20.76	20.91	20.67	0-1	0
	25	14	20.77	20.88	20.73	0	0
	25	27	20.81	20.94	20.71	0-1	0
	50	0	20.77	20.91	20.74		0
DFT-s-OFDM 16QAM	1	1	20.81	20.99	20.94	0-1	0
CP-OFDM QPSK	1	1	20.77	20.98	20.85	0-1.5	0

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Table 9-108
NR Band n66 Reduced Conducted Power – Hotspot Mode Active - 5 MHz Bandwidth

NR Band n66 5 MHz Bandwidth							
			Channel			MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	342500 (1712.5 MHz)	349000 (1745 MHz)	355500 (1777.5 MHz)		
			Conducted Power [dBm]				
DFT-s-OFDM π/2 BPSK	1	1	20.88	20.96	20.83	0	0
	1	13	20.78	21.00	20.82		0
	1	23	20.69	20.99	20.91		0
	12	0	20.73	20.96	20.80	0-0.5	0
	12	7	20.76	20.97	20.86	0	0
	12	13	20.72	20.94	20.76	0-0.5	0
	25	0	20.71	20.99	20.76		0
DFT-s-OFDM QPSK	1	1	20.89	20.94	20.83	0	0
	1	13	20.92	20.91	20.87		0
	1	23	20.81	20.89	20.92		0
	12	0	20.78	20.91	20.78	0-1	0
	12	7	20.75	20.99	20.82	0	0
	12	13	20.80	20.98	20.77	0-1	0
	25	0	20.77	20.99	20.80		0
DFT-s-OFDM 16QAM	1	1	20.90	20.97	20.95	0-1	0
CP-OFDM QPSK	1	1	20.83	20.98	20.81	0-1.5	0

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Table 9-109
NR Band n66 Reduced Conducted Power – Proximity Sensor and/or Earjack Active - 20 MHz Bandwidth

NR Band n66 20 MHz Bandwidth							
			Channel			MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	344000 (1720 MHz)	349000 (1745 MHz)	354000 (1770 MHz)		
			Conducted Power [dBm]				
DFT-s-OFDM π/2 BPSK	1	1	21.76	21.10	21.95	0	0
	1	53	21.96	22.00	21.88		0
	1	104	21.90	21.95	21.83		0
	50	0	21.71	21.95	21.79	0-0.5	0
	50	28	21.78	21.98	21.77	0	0
	50	56	21.83	21.95	21.81	0-0.5	0
	100	0	21.77	22.00	21.79		0
DFT-s-OFDM QPSK	1	1	21.91	**22.00**	21.95	0	0
	1	53	21.98	21.99	21.99		0
	1	104	21.98	21.97	21.94		0
	50	0	21.84	21.96	21.95	0-1	0
	50	28	21.83	21.92	21.95	0	0
	50	56	21.88	21.94	**21.97**	0-1	0
	100	0	21.82	21.94	21.91		0
DFT-s-OFDM 16QAM	1	1	21.82	22.00	21.95	0-1	0
CP-OFDM QPSK	1	1	21.91	22.00	21.99	0-1.5	0

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Table 9-110
NR Band n66 Reduced Conducted Power – Proximity Sensor and/or Earjack Active - 15 MHz Bandwidth

NR Band n66 15 MHz Bandwidth							
			Channel			MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	343500 (1717.5 MHz)	349000 (1745 MHz)	354500 (1772.5 MHz)		
			Conducted Power [dBm]				
DFT-s-OFDM π/2 BPSK	1	1	21.84	21.97	21.77	0	0
	1	40	21.82	21.98	21.76		0
	1	77	21.98	21.96	21.67		0
	36	0	21.75	22.00	21.62	0-0.5	0
	36	22	21.68	21.99	21.66	0	0
	36	43	21.78	21.98	21.69	0-0.5	0
	75	0	21.78	21.99	21.70		0
DFT-s-OFDM QPSK	1	1	21.85	21.92	21.81	0	0
	1	40	21.79	21.97	21.73		0
	1	77	21.86	21.96	21.86		0
	36	0	21.74	22.00	21.68	0-1	0
	36	22	21.75	21.95	21.62	0	0
	36	43	21.72	21.99	21.72	0-1	0
	75	0	21.69	22.00	21.68		0
DFT-s-OFDM 16QAM	1	1	21.89	21.98	21.88	0-1	0
CP-OFDM QPSK	1	1	21.87	22.00	21.93	0-1.5	0

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Table 9-111
NR Band n66 Reduced Conducted Power – Proximity Sensor and/or Earjack Active - 10 MHz Bandwidth

NR Band n66 10 MHz Bandwidth							
			Channel			MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	343000 (1715 MHz)	349000 (1745 MHz)	355000 (1775 MHz)		
			Conducted Power [dBm]				
DFT-s-OFDM π/2 BPSK	1	1	21.72	21.93	21.72	0	0
	1	26	21.99	22.00	21.98		0
	1	50	21.94	21.88	21.82		0
	25	0	21.73	21.99	21.81	0-0.5	0
	25	14	21.69	21.94	21.78	0	0
	25	27	21.72	21.91	21.73	0-0.5	0
	50	0	21.70	21.96	21.78		0
DFT-s-OFDM QPSK	1	1	21.65	21.93	21.67	0	0
	1	26	21.81	21.99	21.95		0
	1	50	21.77	21.97	21.83		0
	25	0	21.74	21.98	21.78	0-1	0
	25	14	21.76	21.99	21.73	0	0
	25	27	21.77	21.96	21.78	0-1	0
	50	0	21.77	21.99	21.71		0
DFT-s-OFDM 16QAM	1	1	21.82	22.00	21.82	0-1	0
CP-OFDM QPSK	1	1	21.73	21.98	21.94	0-1.5	0

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Table 9-112
NR Band n66 Reduced Conducted Power – Proximity Sensor and/or Earjack Active - 5 MHz Bandwidth

NR Band n66 5 MHz Bandwidth							
			Channel			MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	342500 (1712.5 MHz)	349000 (1745 MHz)	355500 (1777.5 MHz)		
			Conducted Power [dBm]				
DFT-s-OFDM π/2 BPSK	1	1	21.78	21.95	21.83	0	0
	1	13	21.76	21.97	21.85		0
	1	23	21.69	21.95	21.76		0
	12	0	21.75	21.88	21.67	0-0.5	0
	12	7	21.76	21.94	21.72	0	0
	12	13	21.72	21.99	21.79	0-0.5	0
	25	0	21.77	21.94	21.73		0
DFT-s-OFDM QPSK	1	1	21.81	21.87	21.86	0	0
	1	13	21.71	21.89	21.78		0
	1	23	21.78	21.92	21.82		0
	12	0	21.80	21.96	21.73	0-1	0
	12	7	21.84	21.95	21.80	0	0
	12	13	21.79	21.90	21.81	0-1	0
	25	0	21.75	21.96	21.78		0
DFT-s-OFDM 16QAM	1	1	21.80	21.97	21.97	0-1	0
CP-OFDM QPSK	1	1	21.91	21.99	21.89	0-1.5	0

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9.5.4 NR Band n2

Table 9-113
NR Band n2 Maximum Conducted Powers - 20 MHz Bandwidth

NR Band n2 20 MHz Bandwidth							
			Channel			MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	372000 (1860 MHz)	376000 (1880 MHz)	380000 (1900 MHz)		
			Conducted Power [dBm]				
DFT-s-OFDM π/2 BPSK	1	1	24.53	24.68	24.80	0	0
	1	53	24.63	24.85	24.84		0
	1	104	24.64	24.70	24.78		0
	50	0	23.73	23.95	24.01	0-0.5	0.5
	50	28	24.41	24.62	24.61	0	0
	50	56	23.92	24.04	24.13	0-0.5	0.5
	100	0	23.76	24.09	23.99		0.5
DFT-s-OFDM QPSK	1	1	24.26	24.69	24.61	0	0
	1	53	24.61	**25.00**	24.67		0
	1	104	24.43	24.56	24.55		0
	50	0	23.23	23.58	23.52	0-1	1
	50	28	24.29	**24.35**	24.34	0	0
	50	56	23.43	23.62	23.62	0-1	1
	100	0	23.32	23.60	23.56		1
DFT-s-OFDM 16QAM	1	1	23.53	23.89	23.63	0-1	1
CP-OFDM QPSK	1	1	22.94	23.10	23.01	0-1.5	1.5

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Table 9-114
NR Band n2 Maximum Conducted Powers - 15 MHz Bandwidth

NR Band n2 15 MHz Bandwidth							
			Channel			MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	371500 (1857.5 MHz)	376000 (1880 MHz)	380500 (1902.5 MHz)		
			Conducted Power [dBm]				
DFT-s-OFDM π/2 BPSK	1	1	24.29	24.57	24.27	0	0
	1	40	24.24	24.43	24.22		0
	1	77	24.34	24.67	24.46		0
	36	0	23.64	23.90	23.64	0-0.5	0.5
	36	22	24.24	24.45	24.21	0	0
	36	43	23.72	23.81	23.69	0-0.5	0.5
	75	0	23.67	23.87	23.61		0.5
DFT-s-OFDM QPSK	1	1	24.10	24.42	24.11	0	0
	1	40	24.16	24.55	24.14		0
	1	77	24.20	24.46	24.28		0
	36	0	23.23	23.54	23.26	0-1	1
	36	22	24.24	24.45	24.27	0	0
	36	43	23.27	23.42	23.36	0-1	1
	75	0	23.28	23.54	23.22		1
DFT-s-OFDM 16QAM	1	1	23.25	23.41	23.31	0-1	1
CP-OFDM QPSK	1	1	22.82	23.03	22.78	0-1.5	1.5

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Table 9-115
NR Band n2 Maximum Conducted Powers - 10 MHz Bandwidth

NR Band n2 10 MHz Bandwidth							
			Channel			MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	371000 (1855 MHz)	376000 (1880 MHz)	381000 (1905 MHz)		
			Conducted Power [dBm]				
DFT-s-OFDM π/2 BPSK	1	1	24.45	24.71	24.34	0	0
	1	26	24.50	24.72	24.63		0
	1	50	24.41	24.66	24.46		0
	25	0	23.72	23.99	23.77	0-0.5	0.5
	25	14	24.32	24.55	24.36	0	0
	25	27	23.65	23.98	23.86	0-0.5	0.5
	50	0	23.78	23.95	23.83		0.5
DFT-s-OFDM QPSK	1	1	24.39	24.64	24.07	0	0
	1	26	24.53	24.65	24.52		0
	1	50	24.38	24.55	24.59		0
	25	0	23.27	23.51	23.34	0-1	1
	25	14	24.30	24.43	24.33	0	0
	25	27	23.27	23.44	23.38	0-1	1
	50	0	23.35	23.50	23.41		1
DFT-s-OFDM 16QAM	1	1	23.22	23.31	23.36	0-1	1
CP-OFDM QPSK	1	1	22.61	22.85	23.22	0-1.5	1.5

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Table 9-116
NR Band n2 Maximum Conducted Powers - 5 MHz Bandwidth

NR Band n2 5 MHz Bandwidth							
			Channel			MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	370500 (1852.5 MHz)	376000 (1880 MHz)	381500 (1907.5 MHz)		
			Conducted Power [dBm]				
DFT-s-OFDM π/2 BPSK	1	1	24.23	24.65	24.41	0	0
	1	13	24.21	24.67	24.39		0
	1	23	24.33	24.77	24.61		0
	12	0	24.21	24.04	23.87	0-0.5	0.5
	12	7	24.12	24.64	24.43	0	0
	12	13	23.61	23.98	23.76	0-0.5	0.5
	25	0	23.66	24.09	23.82		0.5
DFT-s-OFDM QPSK	1	1	24.32	24.40	24.41	0	0
	1	13	24.40	24.70	24.56		0
	1	23	24.46	24.64	24.57		0
	12	0	23.25	23.61	23.43	0-1	1
	12	7	24.23	24.35	24.41	0	0
	12	13	23.30	23.63	23.42	0-1	1
	25	0	23.26	23.61	23.52		1
DFT-s-OFDM 16QAM	1	1	23.53	23.59	22.86	0-1	1
CP-OFDM QPSK	1	1	22.62	22.84	22.73	0-1.5	1.5

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Table 9-117
NR Band n2 Reduced Conducted Power – Hotspot Mode Active - 20 MHz Bandwidth

NR Band n2 20 MHz Bandwidth							
			Channel			MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	372000 (1860 MHz)	376000 (1880 MHz)	380000 (1900 MHz)		
			Conducted Power [dBm]				
DFT-s-OFDM π/2 BPSK	1	1	19.11	19.46	19.35	0	0
	1	53	19.12	19.83	19.31		0
	1	104	19.11	19.44	19.46		0
	50	0	18.99	19.40	19.14	0-0.5	0
	50	28	19.01	19.48	19.11	0	0
	50	56	19.08	19.46	19.25	0-0.5	0
	100	0	19.02	19.43	19.20		0
DFT-s-OFDM QPSK	1	1	19.01	19.46	19.21	0	0
	1	53	19.25	**19.85**	19.34		0
	1	104	19.17	19.49	19.35		0
	50	0	18.99	19.44	19.13	0-1	0
	50	28	18.96	**19.46**	19.10	0	0
	50	56	19.08	19.46	19.25	0-1	0
	100	0	18.99	19.44	19.18		0
DFT-s-OFDM 16QAM	1	1	19.11	19.48	19.31	0-1	0
CP-OFDM QPSK	1	1	19.23	19.88	19.50	0-1.5	0

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Table 9-118
NR Band n2 Reduced Conducted Power – Hotspot Mode Active - 15 MHz Bandwidth

NR Band n2 15 MHz Bandwidth							
			Channel			MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	371500 (1857.5 MHz)	376000 (1880 MHz)	380500 (1902.5 MHz)		
			Conducted Power [dBm]				
DFT-s-OFDM π/2 BPSK	1	1	19.09	19.47	19.10	0	0
	1	40	19.11	19.34	19.05		0
	1	77	19.13	19.51	19.30		0
	36	0	19.02	19.42	19.12	0-0.5	0
	36	22	19.04	19.37	19.07	0	0
	36	43	19.06	19.33	19.20	0-0.5	0
	75	0	19.01	19.46	19.13		0
DFT-s-OFDM QPSK	1	1	19.01	19.46	19.02	0	0
	1	40	19.02	19.33	19.03		0
	1	77	19.17	19.41	19.20		0
	36	0	19.02	19.50	19.12	0-1	0
	36	22	19.00	19.37	19.11	0	0
	36	43	19.05	19.43	19.24	0-1	0
	75	0	19.06	19.41	19.17		0
DFT-s-OFDM 16QAM	1	1	19.03	19.59	19.12	0-1	0
CP-OFDM QPSK	1	1	18.97	19.65	19.23	0-1.5	0

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Table 9-119
NR Band n2 Reduced Conducted Power – Hotspot Mode Active - 10 MHz Bandwidth

NR Band n2 10 MHz Bandwidth							
			Channel			MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	371000 (1855 MHz)	376000 (1880 MHz)	381000 (1905 MHz)		
			Conducted Power [dBm]				
DFT-s-OFDM π/2 BPSK	1	1	19.26	19.47	19.15	0	0
	1	26	19.59	19.87	19.50		0
	1	50	19.32	19.53	19.35		0
	25	0	19.22	19.53	19.25	0-0.5	0
	25	14	19.24	19.49	19.24	0	0
	25	27	19.21	19.63	19.28	0-0.5	0
	50	0	19.24	19.57	19.28		0
DFT-s-OFDM QPSK	1	1	19.32	19.64	19.44	0	0
	1	26	19.48	19.80	19.68		0
	1	50	19.33	19.58	19.50		0
	25	0	19.26	19.46	19.35	0-1	0
	25	14	19.22	19.48	19.35	0	0
	25	27	19.19	19.47	19.31	0-1	0
	50	0	19.21	19.47	19.42		0
DFT-s-OFDM 16QAM	1	1	19.23	19.52	19.56	0-1	0
CP-OFDM QPSK	1	1	19.07	19.44	19.51	0-1.5	0

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Table 9-120
NR Band n2 Reduced Conducted Power – Hotspot Mode Active - 5 MHz Bandwidth

NR Band n2 5 MHz Bandwidth							
			Channel			MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	370500 (1852.5 MHz)	376000 (1880 MHz)	381500 (1907.5 MHz)		
			Conducted Power [dBm]				
DFT-s-OFDM π/2 BPSK	1	1	19.07	19.64	19.28	0	0
	1	13	19.21	19.57	19.34		0
	1	23	19.08	19.66	19.59		0
	12	0	19.15	19.59	19.27	0-0.5	0
	12	7	19.20	19.51	19.34	0	0
	12	13	19.27	19.52	19.34	0-0.5	0
	25	0	19.18	19.51	19.33		0
DFT-s-OFDM QPSK	1	1	19.45	19.67	19.41	0	0
	1	13	19.51	19.67	19.58		0
	1	23	19.36	19.69	19.41		0
	12	0	19.26	19.41	19.31	0-1	0
	12	7	19.22	19.53	19.37	0	0
	12	13	19.20	19.52	19.31	0-1	0
	25	0	19.18	19.50	19.36		0
DFT-s-OFDM 16QAM	1	1	19.51	19.76	19.44	0-1	0
CP-OFDM QPSK	1	1	19.46	19.35	19.45	0-1.5	0

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Table 9-121
NR Band n2 Reduced Conducted Power – Proximity Sensor and/or Earjack Active - 20 MHz Bandwidth

NR Band n2 20 MHz Bandwidth							
			Channel			MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	372000 (1860 MHz)	376000 (1880 MHz)	380000 (1900 MHz)		
			Conducted Power [dBm]				
DFT-s-OFDM π/2 BPSK	1	1	21.06	21.43	21.37	0	0
	1	53	21.25	21.50	21.28		0
	1	104	21.14	21.40	21.35		0
	50	0	21.09	21.31	21.14	0-0.5	0
	50	28	21.09	21.35	21.20	0	0
	50	56	21.09	21.39	21.25	0-0.5	0
	100	0	21.08	21.40	21.20		0
DFT-s-OFDM QPSK	1	1	21.10	21.39	21.24	0	0
	1	53	21.29	**21.84**	21.45		0
	1	104	21.21	21.36	21.27		0
	50	0	21.08	21.31	21.17	0-1	0
	50	28	21.07	**21.50**	21.23	0	0
	50	56	21.13	21.37	21.34	0-1	0
	100	0	21.06	21.22	21.40		0
DFT-s-OFDM 16QAM	1	1	21.16	21.41	21.32	0-1	0
CP-OFDM QPSK	1	1	21.20	21.96	21.50	0-1.5	0

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Table 9-122
NR Band n2 Reduced Conducted Power – Proximity Sensor and/or Earjack Active - 15 MHz Bandwidth

NR Band n2 15 MHz Bandwidth							
			Channel			MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	371500 (1857.5 MHz)	376000 (1880 MHz)	380500 (1902.5 MHz)		
			Conducted Power [dBm]				
DFT-s-OFDM π/2 BPSK	1	1	21.25	21.40	21.23	0	0
	1	40	21.24	21.55	21.33		0
	1	77	21.28	21.48	21.34		0
	36	0	21.11	21.52	21.18	0-0.5	0
	36	22	21.12	21.47	21.21	0	0
	36	43	21.11	21.52	21.30	0-0.5	0
	75	0	21.11	21.54	21.22		0
DFT-s-OFDM QPSK	1	1	21.09	21.41	21.21	0	0
	1	40	21.07	21.40	21.01		0
	1	77	21.06	21.51	21.10		0
	36	0	21.15	21.52	21.24	0-1	0
	36	22	21.09	21.44	21.17	0	0
	36	43	21.13	21.45	21.33	0-1	0
	75	0	21.14	21.54	21.23		0
DFT-s-OFDM 16QAM	1	1	21.38	21.57	21.28	0-1	0
CP-OFDM QPSK	1	1	21.34	21.71	21.42	0-1.5	0

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Table 9-123
NR Band n2 Reduced Conducted Power – Proximity Sensor and/or Earjack Active - 10 MHz Bandwidth

NR Band n2 10 MHz Bandwidth							
			Channel			MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	371000 (1855 MHz)	376000 (1880 MHz)	381000 (1905 MHz)		
			Conducted Power [dBm]				
DFT-s-OFDM π/2 BPSK	1	1	21.15	21.69	21.26	0	0
	1	26	21.27	21.83	21.59		0
	1	50	21.40	21.53	21.33		0
	25	0	21.30	21.55	21.26	0-0.5	0
	25	14	21.22	21.52	21.38	0	0
	25	27	21.23	21.57	21.42	0-0.5	0
	50	0	21.31	21.56	21.36		0
DFT-s-OFDM QPSK	1	1	21.35	21.74	21.51	0	0
	1	26	21.54	21.82	21.54		0
	1	50	21.46	21.75	21.65		0
	25	0	21.22	21.52	21.28	0-1	0
	25	14	21.19	21.52	21.34	0	0
	25	27	21.18	21.51	21.35	0-1	0
	50	0	21.38	21.53	21.35		0
DFT-s-OFDM 16QAM	1	1	21.44	21.47	21.43	0-1	0
CP-OFDM QPSK	1	1	21.25	21.48	21.27	0-1.5	0

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Table 9-124
NR Band n2 Reduced Conducted Power – Proximity Sensor and/or Earjack Active - 5 MHz Bandwidth

NR Band n2 5 MHz Bandwidth							
			Channel			MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	370500 (1852.5 MHz)	376000 (1880 MHz)	381500 (1907.5 MHz)		
			Conducted Power [dBm]				
DFT-s-OFDM π/2 BPSK	1	1	21.20	21.55	21.25	0	0
	1	13	21.11	21.72	21.49		0
	1	23	21.06	21.69	21.36		0
	12	0	21.20	21.65	21.39	0-0.5	0
	12	7	21.25	21.63	21.32	0	0
	12	13	21.17	21.58	21.17	0-0.5	0
	25	0	21.12	21.58	21.32		0
DFT-s-OFDM QPSK	1	1	21.42	21.64	21.40	0	0
	1	13	21.49	21.77	21.53		0
	1	23	21.40	21.84	21.37		0
	12	0	21.19	21.56	21.29	0-1	0
	12	7	21.22	21.59	21.29	0	0
	12	13	21.19	21.55	21.30	0-1	0
	25	0	21.16	21.61	21.28		0
DFT-s-OFDM 16QAM	1	1	21.38	21.57	21.27	0-1	0
CP-OFDM QPSK	1	1	21.03	21.57	21.23	0-1.5	0

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9.5.5 NR Band n41

Table 9-125
NR Band n41 Maximum Conducted Powers - 100 MHz Bandwidth

NR Band n41 100 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	518598 (2592.99 MHz) Conducted Power [dBm]		
DFT-s-OFDM π/2 BPSK	1	1	23.94	0	0
	1	137	23.98		0
	1	271	23.97		0
	135	0	23.47	0-0.5	0.5
	135	69	23.96	0	0
	135	138	23.39	0-0.5	0.5
	270	0	23.14		0.5
DFT-s-OFDM QPSK	1	1	**23.95**	0	0
	1	137	23.87		0
	1	271	23.86		0
	135	0	22.93	0-1	1
	135	69	**23.73**	0	0
	135	138	22.86	0-1	1
	270	0	22.83		1
DFT-s-OFDM 16QAM	1	1	22.87	0-1	1
CP-OFDM QPSK	1	1	22.21	0-1.5	1.5

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Table 9-126
NR Band n41 Maximum Conducted Powers - 90 MHz Bandwidth

NR Band n41 90 MHz Bandwidth						
			Channel		MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	508200 (2541 MHz)	528996 (2644.98 MHz)		
			Conducted Power [dBm]			
DFT-s-OFDM π/2 BPSK	1	1	23.97	23.91	0	0
	1	123	23.98	23.90		0
	1	243	24.00	23.87		0
	120	0	23.46	23.34	0-0.5	0.5
	120	63	23.74	23.68	0	0
	120	125	23.40	23.47	0-0.5	0.5
	243	0	23.38	23.32		0.5
DFT-s-OFDM QPSK	1	1	23.96	23.84	0	0
	1	123	23.94	23.84		0
	1	243	23.98	23.97		0
	120	0	22.93	22.81	0-1	1
	120	63	23.81	23.75	0	0
	120	125	22.84	22.77	0-1	1
	243	0	22.92	22.72		1
DFT-s-OFDM 16QAM	1	1	22.99	22.85	0-1	1
CP-OFDM QPSK	1	1	22.33	22.06	0-1.5	1.5

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Table 9-127
NR Band n41 Maximum Conducted Powers - 80 MHz Bandwidth

NR Band n41 80 MHz Bandwidth						
			Channel		MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	507204 (2536.02 MHz)	529998 (2649.99 MHz)		
			Conducted Power [dBm]			
DFT-s-OFDM π/2 BPSK	1	1	23.78	23.70	0	0
	1	109	23.80	23.92		0
	1	215	23.92	23.95		0
	108	0	23.25	23.30	0-0.5	0.5
	108	55	23.60	23.72	0	0
	108	109	23.20	23.40	0-0.5	0.5
	216	0	23.10	23.11		0.5
DFT-s-OFDM QPSK	1	1	23.80	23.70	0	0
	1	109	23.72	23.94		0
	1	215	23.75	23.86		0
	108	0	22.79	22.74	0-1	1
	108	55	23.60	23.65	0	0
	108	109	22.64	22.71	0-1	1
	216	0	22.73	22.60		1
DFT-s-OFDM 16QAM	1	1	22.92	22.87	0-1	1
CP-OFDM QPSK	1	1	22.33	22.01	0-1.5	1.5

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Table 9-128
NR Band n41 Maximum Conducted Powers - 60 MHz Bandwidth

NR Band n41 60 MHz Bandwidth							
			Channel			MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	505200 (2526 MHz)	518598 (2592.99 MHz)	531996 (2659.98 MHz)		
			Conducted Power [dBm]				
DFT-s-OFDM π/2 BPSK	1	1	23.81	23.60	23.74	0	0
	1	81	23.62	23.58	23.78		0
	1	160	23.83	23.74	23.85		0
	81	0	23.24	23.20	23.19	0-0.5	0.5
	81	41	23.74	23.60	23.80	0	0
	81	81	23.20	23.18	23.40	0-0.5	0.5
	162	0	23.17	23.10	23.17		0.5
DFT-s-OFDM QPSK	1	1	23.82	23.76	23.73	0	0
	1	81	23.94	23.84	23.97		0
	1	160	23.98	23.99	23.95		0
	81	0	22.81	22.63	22.68	0-1	1
	81	41	23.56	23.44	23.68	0	0
	81	81	22.71	22.69	22.80	0-1	1
	162	0	22.64	22.70	22.82		1
DFT-s-OFDM 16QAM	1	1	22.96	22.86	22.98	0-1	1
CP-OFDM QPSK	1	1	22.45	22.20	22.22	0-1.5	1.5

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Table 9-129
NR Band n41 Maximum Conducted Powers - 50 MHz Bandwidth

NR Band n41 50 MHz Bandwidth							
			Channel			MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	504204 (2521.02 MHz)	518598 (2592.99 MHz)	532998 (2664.99 MHz)		
			Conducted Power [dBm]				
DFT-s-OFDM π/2 BPSK	1	1	23.72	23.62	23.93	0	0
	1	67	23.80	23.79	23.87		0
	1	131	23.99	23.89	23.86		0
	64	0	23.29	23.16	23.22	0-0.5	0.5
	64	35	23.72	23.63	23.71	0	0
	64	69	23.21	23.14	23.24	0-0.5	0.5
	128	0	23.25	23.31	23.23		0.5
DFT-s-OFDM QPSK	1	1	23.95	23.88	23.92	0	0
	1	67	23.96	23.72	23.91		0
	1	131	23.99	23.98	24.00		0
	64	0	22.63	22.58	22.84	0-1	1
	64	35	23.51	23.41	23.59	0	0
	64	69	22.89	22.56	22.70	0-1	1
	128	0	22.68	22.57	22.65		1
DFT-s-OFDM 16QAM	1	1	22.96	22.87	22.91	0-1	1
CP-OFDM QPSK	1	1	22.50	22.30	22.33	0-1.5	1.5

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Table 9-130
NR Band n41 Maximum Conducted Powers - 40 MHz Bandwidth

NR Band n41 40 MHz Bandwidth								
			Channel				MPR Allowed per 3GPP [dB]	MPR Allowed per 3GPP [dB]
Modulation	RB Size	RB Offset	503202 (2516.01 MHz)	513468 (2567.34 MHz)	523734 (2618.67 MHz)	534000 (2670 MHz)		
			Conducted Power [dBm]					
DFT-s-OFDM π/2 BPSK	1	1	23.85	23.95	23.83	23.87	0	0
	1	53	23.92	24.00	23.91	23.98		0
	1	104	23.97	23.97	23.93	23.98		0
	50	0	23.43	23.46	23.40	23.50	0-0.5	0.5
	50	28	23.98	23.94	23.95	23.96	0	0
	50	56	23.50	23.50	23.50	23.46	0-0.5	0.5
	100	0	23.46	23.41	23.42	23.48		0.5
DFT-s-OFDM QPSK	1	1	23.85	23.84	23.93	23.95	0	0
	1	53	23.94	23.87	23.92	23.85		0
	1	104	23.92	23.76	23.98	23.89		0
	50	0	23.00	22.97	22.73	22.99	0-1	1
	50	28	23.79	23.80	23.79	23.84	0	0
	50	56	22.90	22.94	23.00	22.99	0-1	1
	100	0	22.88	22.99	22.90	22.96		1
DFT-s-OFDM 16QAM	1	1	22.97	22.96	22.93	23.00	0-1	1
CP-OFDM QPSK	1	1	22.49	22.41	22.25	22.45	0-1.5	1.5

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Table 9-131
NR Band n41 Maximum Conducted Powers - 20 MHz Bandwidth

NR Band n41 20 MHz Bandwidth									
			Channel					MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	501204 (2506.02 MHz)	509898 (2549.49 MHz)	518598 (2592.99 MHz)	527298 (2636.49 MHz)	535998 (2679.99 MHz)		
			Conducted Power [dBm]						
DFT-s-OFDM π/2 BPSK	1	1	23.89	23.87	23.83	23.88	23.85	0	0
	1	26	23.91	23.86	23.86	23.85	23.92		0
	1	49	23.99	23.70	23.79	24.00	23.93		0
	25	0	23.43	23.30	23.15	23.38	23.50	0-0.5	0.5
	25	13	23.88	23.74	23.52	23.80	23.96	0	0
	25	26	23.41	23.36	23.26	23.42	23.28	0-0.5	0.5
	50	0	23.46	23.29	23.21	23.39	23.46		0.5
DFT-s-OFDM QPSK	1	1	23.87	23.92	23.79	23.91	23.83	0	0
	1	26	23.98	23.96	23.95	23.82	23.95		0
	1	49	23.93	23.81	23.98	23.88	23.86		0
	25	0	22.95	22.99	22.72	22.99	22.93	0-1	1
	25	13	23.81	23.76	23.61	24.00	23.78	0	0
	25	26	22.80	22.81	22.83	22.96	22.85	0-1	1
	50	0	22.86	22.89	22.69	22.97	22.85		1
DFT-s-OFDM 16QAM	1	1	22.96	22.84	22.77	22.70	22.85	0-1	1
CP-OFDM QPSK	1	1	22.50	22.31	22.35	22.28	22.33	0-1.5	1.5

9.6 WLAN Conducted Powers

Table 9-132
2.4 GHz WLAN Maximum Average RF Power

2.4GHz Conducted Power [dBm]				
Freq [MHz]	Channel	IEEE Transmission Mode		
		802.11b	802.11g	802.11n
		Average	Average	Average
2412	1	20.54	19.85	18.93
2417	2	N/A	N/A	19.98
2437	6	20.49	19.80	19.68
2457	10	N/A	N/A	19.70
2462	11	20.26	19.60	18.72

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Table 9-133
5 GHz WLAN Maximum Average RF Power

Freq [MHz]	Channel	IEEE Transmission Mode		
		802.11a	802.11n	802.11ac
		Average	Average	Average
5180	36	19.98	19.84	17.02
5200	40	19.92	19.76	17.84
5220	44	19.84	19.73	17.90
5240	48	19.83	19.68	17.83
5260	52	19.99	19.98	17.13
5280	56	19.18	19.96	17.11
5300	60	19.93	19.83	17.91
5320	64	19.97	19.86	17.93
5500	100	19.17	19.89	17.99
5600	120	19.61	19.46	17.43
5620	124	19.55	19.37	17.36
5720	144	19.12	19.89	17.96
5745	149	19.93	19.74	17.82
5785	157	19.87	19.73	17.77
5825	165	19.71	19.56	17.67

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Table 9-134
2.4 GHz WLAN Reduced Average RF Power

2.4GHz Conducted Power [dBm]				
Freq [MHz]	Channel	IEEE Transmission Mode		
		802.11b	802.11g	802.11n
		Average	Average	Average
2412	1	13.70	13.77	13.61
2437	6	13.51	13.62	13.42
2462	11	13.62	13.55	13.39

Table 9-135
5 GHz WLAN Reduced Average RF Power

5GHz (80MHz) Conducted Power [dBm]		
Freq [MHz]	Channel	IEEE Transmission Mode
		802.11ac
		Average
5210	42	10.19
5290	58	10.90
5530	106	10.27
5610	122	10.25
5690	138	10.93
5775	155	10.22

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.

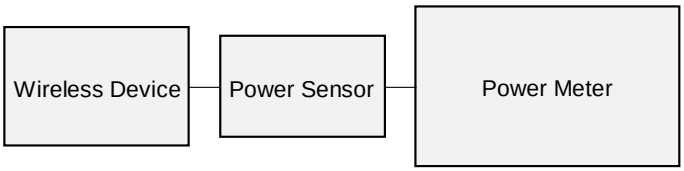


Figure 9-5
Power Measurement Setup

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9.7 Bluetooth Conducted Powers

Table 9-136
Bluetooth Average RF Power

Frequency [MHz]	Data Rate [Mbps]	Channel No.	Avg Conducted Power	
			[dBm]	[mW]
2402	1.0	0	9.79	9.536
2441	1.0	39	10.13	10.301
2480	1.0	78	9.00	7.941
2402	2.0	0	6.80	4.789
2441	2.0	39	7.38	5.466
2480	2.0	78	6.34	4.301
2402	3.0	0	6.86	4.848
2441	3.0	39	7.43	5.532
2480	3.0	78	6.38	4.345

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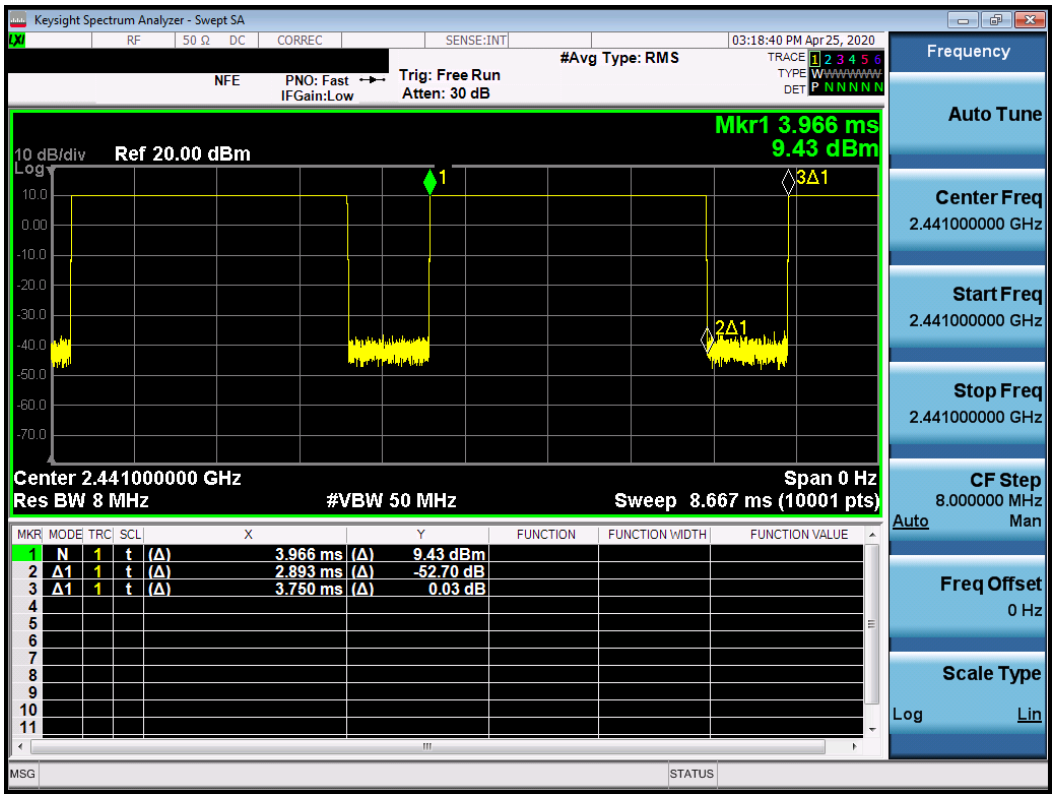


Figure 9-6
Bluetooth Transmission Plot

Equation 9-1
Bluetooth Duty Cycle Calculation

$$Duty\ Cycle = \frac{Pulse\ Width}{Period} * 100\% = \frac{2.893ms}{3.750ms} * 100\% = 77.1\%$$

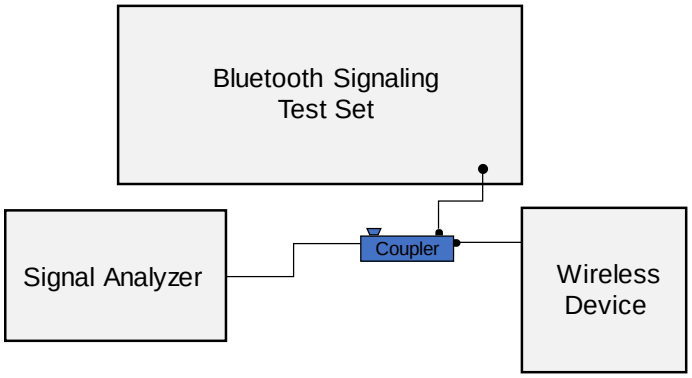


Figure 9-7
Power Measurement Setup

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10 SYSTEM VERIFICATION

10.1 Tissue Verification

Table 10-1
Measured Head Tissue Properties

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
04/02/2020	750 Head	20.6	680	0.853	41.524	0.888	42.305	-3.94%	-1.85%
			695	0.858	41.471	0.889	42.227	-3.49%	-1.79%
			740	0.875	41.318	0.893	41.994	-2.02%	-1.61%
			750	0.879	41.289	0.894	41.942	-1.68%	-1.56%
			755	0.881	41.274	0.894	41.916	-1.45%	-1.53%
04/19/2020	750 Head	20.1	680	0.864	43.831	0.888	42.305	-2.70%	3.61%
			695	0.867	43.775	0.889	42.227	-2.47%	3.67%
			700	0.869	43.764	0.889	42.201	-2.25%	3.70%
			710	0.873	43.735	0.890	42.149	-1.91%	3.76%
			725	0.876	43.689	0.891	42.071	-1.68%	3.85%
			750	0.884	43.556	0.894	41.942	-1.12%	3.85%
			770	0.891	43.482	0.895	41.838	-0.45%	3.93%
			785	0.897	43.442	0.896	41.760	0.11%	4.03%
			800	0.902	43.411	0.897	41.682	0.56%	4.15%
04/05/2020	835 Head	20.2	820	0.901	41.513	0.899	41.578	0.22%	-0.16%
			835	0.906	41.473	0.900	41.500	0.67%	-0.07%
			850	0.913	41.428	0.916	41.500	-0.33%	-0.17%
04/25/2020	835 Head	19.9	820	0.887	42.943	0.899	41.578	-1.33%	3.28%
			835	0.892	42.901	0.900	41.500	-0.89%	3.38%
			850	0.898	42.863	0.916	41.500	-1.97%	3.28%
04/27/2020	835 Head	20.1	820	0.906	42.990	0.899	41.578	0.78%	3.40%
			835	0.910	42.953	0.900	41.500	1.11%	3.50%
			850	0.916	42.923	0.916	41.500	0.00%	3.43%
05/04/2020	835 Head	22.3	820	0.930	42.873	0.899	41.578	3.45%	3.11%
			835	0.936	42.833	0.900	41.500	4.00%	3.21%
			850	0.942	42.793	0.916	41.500	2.84%	3.12%
04/28/2020	1750 Head	21.1	1710	1.367	38.819	1.348	40.142	1.41%	-3.30%
			1720	1.377	38.773	1.354	40.126	1.70%	-3.37%
			1745	1.403	38.658	1.368	40.087	2.56%	-3.56%
			1750	1.408	38.636	1.371	40.079	2.70%	-3.60%
			1770	1.428	38.540	1.383	40.047	3.25%	-3.76%
			1790	1.449	38.447	1.394	40.016	3.95%	-3.92%
05/13/2020	1750 Head	21.0	1710	1.312	40.663	1.348	40.142	-2.67%	1.30%
			1720	1.318	40.656	1.354	40.126	-2.66%	1.32%
			1745	1.335	40.627	1.368	40.087	-2.41%	1.35%
			1750	1.338	40.620	1.371	40.079	-2.41%	1.35%
			1770	1.351	40.589	1.383	40.047	-2.31%	1.35%
			1790	1.362	40.552	1.394	40.016	-2.30%	1.34%

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Table 10-2
Measured Head Tissue Properties Continued

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
03/30/2020	1900 Head	22.1	1850	1.399	39.209	1.400	40.000	-0.07%	-1.98%
			1860	1.409	39.169	1.400	40.000	0.64%	-2.08%
			1880	1.431	39.084	1.400	40.000	2.21%	-2.29%
			1900	1.452	38.988	1.400	40.000	3.71%	-2.53%
			1905	1.458	38.965	1.400	40.000	4.14%	-2.59%
			1910	1.463	38.942	1.400	40.000	4.50%	-2.65%
04/20/2020	1900 Head	22.5	1850	1.392	39.005	1.400	40.000	-0.57%	-2.49%
			1860	1.403	38.962	1.400	40.000	0.21%	-2.59%
			1880	1.423	38.880	1.400	40.000	1.64%	-2.80%
			1900	1.444	38.800	1.400	40.000	3.14%	-3.00%
			1905	1.450	38.779	1.400	40.000	3.57%	-3.05%
			1910	1.456	38.759	1.400	40.000	4.00%	-3.10%
05/04/2020	1900 Head	22.4	1850	1.373	38.473	1.400	40.000	-1.93%	-3.82%
			1860	1.383	38.431	1.400	40.000	-1.21%	-3.92%
			1880	1.405	38.349	1.400	40.000	0.36%	-4.13%
			1900	1.426	38.266	1.400	40.000	1.86%	-4.34%
			1905	1.431	38.245	1.400	40.000	2.21%	-4.39%
			1910	1.436	38.223	1.400	40.000	2.57%	-4.44%
05/11/2020	1900 Head	21.0	1850	1.420	41.014	1.400	40.000	1.43%	2.54%
			1860	1.426	40.998	1.400	40.000	1.86%	2.49%
			1880	1.438	40.978	1.400	40.000	2.71%	2.45%
			1900	1.450	40.959	1.400	40.000	3.57%	2.40%
			1905	1.453	40.952	1.400	40.000	3.79%	2.38%
			1910	1.456	40.945	1.400	40.000	4.00%	2.36%
04/02/2020	2450 Head	20.9	2300	1.704	38.357	1.670	39.500	2.04%	-2.89%
			2310	1.711	38.341	1.679	39.480	1.91%	-2.89%
			2320	1.719	38.326	1.687	39.460	1.90%	-2.87%
04/05/2020	2450 Head	22.0	2400	1.778	38.303	1.756	39.289	1.25%	-2.51%
			2450	1.818	38.229	1.800	39.200	1.00%	-2.48%
			2500	1.856	38.142	1.855	39.136	0.05%	-2.54%
			2510	1.865	38.121	1.866	39.123	-0.05%	-2.56%
			2535	1.885	38.079	1.893	39.092	-0.42%	-2.59%
			2550	1.898	38.061	1.909	39.073	-0.58%	-2.59%
			2560	1.906	38.052	1.920	39.060	-0.73%	-2.58%
			2600	1.937	37.985	1.964	39.009	-1.37%	-2.63%
			2650	1.978	37.874	2.018	38.945	-1.98%	-2.75%
			2680	2.003	37.827	2.051	38.907	-2.34%	-2.78%
			2700	2.019	37.796	2.073	38.882	-2.60%	-2.79%
04/26/2020	2450 Head	23.7	2400	1.767	39.151	1.756	39.289	0.63%	-0.35%
			2450	1.804	39.074	1.800	39.200	0.22%	-0.32%
			2480	1.825	39.030	1.833	39.162	-0.44%	-0.34%
			2500	1.839	38.988	1.855	39.136	-0.86%	-0.38%
05/10/2020	2450 Head	23.8	2560	1.867	39.153	1.920	39.060	-2.76%	0.24%
			2600	1.896	39.100	1.964	39.009	-3.46%	0.23%
			2650	1.935	39.023	2.018	38.945	-4.11%	0.20%
			2680	1.958	38.986	2.051	38.907	-4.53%	0.20%
			2700	1.972	38.955	2.073	38.882	-4.87%	0.19%

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Table 10-3
Measured Head Tissue Properties Continued

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
04/13/2020	5200-5800 Head	21.0	5180	4.519	34.795	4.635	36.009	-2.50%	-3.37%
			5190	4.527	34.784	4.645	35.998	-2.54%	-3.37%
			5200	4.536	34.770	4.655	35.986	-2.56%	-3.38%
			5210	4.547	34.749	4.666	35.975	-2.55%	-3.41%
			5220	4.555	34.720	4.676	35.963	-2.59%	-3.46%
			5240	4.581	34.667	4.696	35.940	-2.45%	-3.54%
			5250	4.594	34.644	4.706	35.929	-2.38%	-3.58%
			5260	4.606	34.624	4.717	35.917	-2.35%	-3.60%
			5270	4.617	34.609	4.727	35.906	-2.33%	-3.61%
			5280	4.629	34.596	4.737	35.894	-2.28%	-3.62%
			5290	4.643	34.585	4.748	35.883	-2.21%	-3.62%
			5300	4.654	34.573	4.758	35.871	-2.19%	-3.62%
			5310	4.660	34.553	4.768	35.860	-2.27%	-3.64%
			5320	4.667	34.535	4.778	35.849	-2.32%	-3.67%
			5500	4.877	34.236	4.963	35.643	-1.73%	-3.95%
			5510	4.890	34.181	4.973	35.632	-1.67%	-4.07%
			5520	4.898	34.182	4.983	35.620	-1.71%	-4.04%
			5530	4.907	34.169	4.994	35.609	-1.74%	-4.04%
			5540	4.916	34.149	5.004	35.597	-1.76%	-4.07%
			5550	4.927	34.124	5.014	35.586	-1.74%	-4.11%
			5560	4.936	34.092	5.024	35.574	-1.75%	-4.17%
			5580	4.962	34.051	5.045	35.551	-1.65%	-4.22%
			5600	4.994	34.009	5.065	35.529	-1.40%	-4.28%
			5610	5.005	33.994	5.076	35.518	-1.40%	-4.29%
			5620	5.017	33.982	5.086	35.506	-1.36%	-4.29%
			5640	5.040	33.966	5.106	35.483	-1.29%	-4.28%
			5660	5.059	33.926	5.127	35.460	-1.33%	-4.33%
			5670	5.068	33.905	5.137	35.449	-1.34%	-4.36%
			5680	5.080	33.877	5.147	35.437	-1.30%	-4.40%
			5690	5.093	33.851	5.158	35.426	-1.26%	-4.45%
			5700	5.106	33.826	5.168	35.414	-1.20%	-4.48%
			5710	5.120	33.809	5.178	35.403	-1.12%	-4.50%
			5720	5.133	33.798	5.188	35.391	-1.06%	-4.50%
			5745	5.164	33.763	5.214	35.363	-0.96%	-4.52%
			5750	5.169	33.756	5.219	35.357	-0.96%	-4.53%
			5755	5.174	33.748	5.224	35.351	-0.96%	-4.53%
			5765	5.184	33.741	5.234	35.340	-0.96%	-4.52%
			5775	5.193	33.731	5.245	35.329	-0.99%	-4.52%
			5785	5.204	33.707	5.255	35.317	-0.97%	-4.56%
			5795	5.214	33.674	5.265	35.305	-0.97%	-4.62%
			5800	5.218	33.658	5.270	35.300	-0.99%	-4.65%
			5805	5.223	33.642	5.275	35.294	-0.99%	-4.68%
			5825	5.251	33.607	5.296	35.271	-0.85%	-4.72%

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Table 10-4
Measured Body Tissue Properties

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
04/08/2020	750 Body	21.8	680	0.957	53.856	0.958	55.804	-0.10%	-3.49%
			695	0.962	53.818	0.959	55.745	0.31%	-3.46%
			700	0.964	53.805	0.959	55.726	0.52%	-3.45%
			710	0.967	53.777	0.960	55.687	0.73%	-3.43%
			725	0.973	53.740	0.961	55.629	1.25%	-3.40%
			750	0.982	53.700	0.964	55.531	1.87%	-3.30%
			770	0.990	53.665	0.965	55.453	2.59%	-3.22%
			785	0.996	53.627	0.966	55.395	3.11%	-3.19%
			800	1.002	53.581	0.967	55.336	3.62%	-3.17%
04/16/2020	750 Body	21.6	680	0.914	54.967	0.958	55.804	-4.59%	-1.50%
			695	0.919	54.917	0.959	55.745	-4.17%	-1.49%
			700	0.921	54.902	0.959	55.726	-3.96%	-1.48%
			710	0.924	54.872	0.960	55.687	-3.75%	-1.46%
			725	0.929	54.832	0.961	55.629	-3.33%	-1.43%
			750	0.938	54.759	0.964	55.531	-2.70%	-1.39%
			770	0.945	54.719	0.965	55.453	-2.07%	-1.32%
			785	0.951	54.701	0.966	55.395	-1.55%	-1.25%
			800	0.957	54.680	0.967	55.336	-1.03%	-1.19%
04/20/2020	750 Body	20.3	680	0.923	53.892	0.958	55.804	-3.65%	-3.43%
			695	0.928	53.871	0.959	55.745	-3.23%	-3.36%
			700	0.930	53.863	0.959	55.726	-3.02%	-3.34%
			710	0.933	53.848	0.960	55.687	-2.81%	-3.30%
			725	0.939	53.817	0.961	55.629	-2.29%	-3.26%
			750	0.949	53.751	0.964	55.531	-1.56%	-3.21%
			770	0.957	53.708	0.965	55.453	-0.83%	-3.15%
			785	0.963	53.678	0.966	55.395	-0.31%	-3.10%
			800	0.969	53.647	0.967	55.336	0.21%	-3.05%
04/13/2020	835 Body	21.4	820	0.991	53.993	0.969	55.258	2.27%	-2.29%
			835	0.997	53.960	0.970	55.200	2.78%	-2.25%
			850	1.003	53.928	0.988	55.154	1.52%	-2.22%
05/04/2020	835 Body	21.6	820	0.943	54.309	0.969	55.258	-2.68%	-1.72%
			835	0.960	54.160	0.970	55.200	-1.03%	-1.88%
			850	0.976	54.005	0.988	55.154	-1.21%	-2.08%
04/01/2020	1750 Body	21.6	1710	1.444	55.202	1.463	53.537	-1.30%	3.11%
			1720	1.456	55.161	1.469	53.511	-0.88%	3.08%
			1745	1.484	55.063	1.485	53.445	-0.07%	3.03%
			1750	1.490	55.045	1.488	53.432	0.13%	3.02%
			1770	1.511	54.967	1.501	53.379	0.67%	2.97%
			1790	1.532	54.891	1.514	53.326	1.19%	2.93%
04/05/2020	1750 Body	21.0	1710	1.475	55.216	1.463	53.537	0.82%	3.14%
			1720	1.487	55.175	1.469	53.511	1.23%	3.11%
			1745	1.516	55.080	1.485	53.445	2.09%	3.06%
			1750	1.521	55.061	1.488	53.432	2.22%	3.05%
			1770	1.543	54.987	1.501	53.379	2.80%	3.01%
			1790	1.565	54.914	1.514	53.326	3.37%	2.98%
04/27/2020	1750 Body	20.5	1710	1.470	53.045	1.463	53.537	0.48%	-0.92%
			1720	1.482	53.007	1.469	53.511	0.88%	-0.94%
			1745	1.510	52.910	1.485	53.445	1.68%	-1.00%
			1750	1.516	52.892	1.488	53.432	1.88%	-1.01%
			1770	1.537	52.811	1.501	53.379	2.40%	-1.06%
			1790	1.557	52.734	1.514	53.326	2.84%	-1.11%

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Table 10-5
Measured Body Tissue Properties Continued

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
05/03/2020	1750 Body	21.2	1710	1.478	52.241	1.463	53.537	1.03%	-2.42%
			1720	1.489	52.200	1.469	53.511	1.36%	-2.45%
			1745	1.518	52.107	1.485	53.445	2.22%	-2.50%
			1750	1.523	52.088	1.488	53.432	2.35%	-2.52%
			1770	1.544	52.014	1.501	53.379	2.86%	-2.56%
			1790	1.566	51.939	1.514	53.326	3.43%	-2.60%
05/06/2020	1750 Body	21.9	1710	1.452	52.786	1.463	53.537	-0.75%	-1.40%
			1720	1.464	52.746	1.469	53.511	-0.34%	-1.43%
			1745	1.492	52.646	1.485	53.445	0.47%	-1.49%
			1750	1.498	52.627	1.488	53.432	0.67%	-1.51%
			1770	1.519	52.547	1.501	53.379	1.20%	-1.56%
			1790	1.539	52.468	1.514	53.326	1.65%	-1.61%
05/10/2020	1750 Body	21.5	1710	1.466	52.370	1.463	53.537	0.21%	-2.18%
			1720	1.478	52.330	1.469	53.511	0.61%	-2.21%
			1745	1.504	52.239	1.485	53.445	1.28%	-2.26%
			1750	1.509	52.220	1.488	53.432	1.41%	-2.27%
			1770	1.529	52.147	1.501	53.379	1.87%	-2.31%
			1790	1.548	52.074	1.514	53.326	2.25%	-2.35%
05/14/2020	1750 Body	21.6	1710	1.466	53.267	1.463	53.537	0.21%	-0.50%
			1720	1.478	53.229	1.469	53.511	0.61%	-0.53%
			1745	1.507	53.133	1.485	53.445	1.48%	-0.58%
			1750	1.513	53.115	1.488	53.432	1.68%	-0.59%
			1770	1.534	53.037	1.501	53.379	2.20%	-0.64%
			1790	1.556	52.958	1.514	53.326	2.77%	-0.69%
03/31/2020	1900 Body	23.6	1850	1.504	53.881	1.520	53.300	-1.05%	1.09%
			1860	1.515	53.852	1.520	53.300	-0.33%	1.04%
			1880	1.537	53.794	1.520	53.300	1.12%	0.93%
			1900	1.559	53.729	1.520	53.300	2.57%	0.80%
			1905	1.564	53.711	1.520	53.300	2.89%	0.77%
			1910	1.570	53.692	1.520	53.300	3.29%	0.74%
04/05/2020	1900 Body	23.4	1850	1.516	54.554	1.520	53.300	-0.26%	2.35%
			1860	1.527	54.515	1.520	53.300	0.46%	2.28%
			1880	1.550	54.447	1.520	53.300	1.97%	2.15%
			1900	1.572	54.383	1.520	53.300	3.42%	2.03%
			1905	1.577	54.366	1.520	53.300	3.75%	2.00%
			1910	1.583	54.350	1.520	53.300	4.14%	1.97%
04/07/2020	1900 Body	24.4	1850	1.482	53.524	1.520	53.300	-2.50%	0.42%
			1860	1.493	53.502	1.520	53.300	-1.78%	0.38%
			1880	1.516	53.447	1.520	53.300	-0.26%	0.28%
			1900	1.538	53.395	1.520	53.300	1.18%	0.18%
			1905	1.544	53.380	1.520	53.300	1.58%	0.15%
			1910	1.550	53.367	1.520	53.300	1.97%	0.13%
04/12/2020	1900 Body	23.1	1850	1.507	55.220	1.520	53.300	-0.86%	3.60%
			1860	1.519	55.186	1.520	53.300	-0.07%	3.54%
			1880	1.542	55.126	1.520	53.300	1.45%	3.43%
			1900	1.565	55.055	1.520	53.300	2.96%	3.29%
			1905	1.571	55.036	1.520	53.300	3.36%	3.26%
			1910	1.577	55.018	1.520	53.300	3.75%	3.22%
05/05/2020	1900 Body	22.8	1850	1.526	55.844	1.520	53.300	0.39%	4.77%
			1860	1.538	55.809	1.520	53.300	1.18%	4.71%
			1880	1.561	55.741	1.520	53.300	2.70%	4.58%
			1900	1.583	55.672	1.520	53.300	4.14%	4.45%
			1905	1.589	55.654	1.520	53.300	4.54%	4.42%
			1910	1.595	55.636	1.520	53.300	4.93%	4.38%
05/08/2020	1900 Body	23.9	1850	1.509	55.737	1.520	53.300	-0.72%	4.57%
			1860	1.521	55.716	1.520	53.300	0.07%	4.53%
			1880	1.545	55.661	1.520	53.300	1.64%	4.43%
			1900	1.569	55.589	1.520	53.300	3.22%	4.29%
			1905	1.575	55.570	1.520	53.300	3.62%	4.26%
			1910	1.581	55.553	1.520	53.300	4.01%	4.23%
05/14/2020	1900 Body	24.0	1850	1.503	55.292	1.520	53.300	-1.12%	3.74%
			1860	1.515	55.263	1.520	53.300	-0.33%	3.68%
			1880	1.538	55.200	1.520	53.300	1.18%	3.56%
			1900	1.562	55.128	1.520	53.300	2.76%	3.43%
			1905	1.567	55.108	1.520	53.300	3.09%	3.39%
			1910	1.573	55.089	1.520	53.300	3.49%	3.36%

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Table 10-6
Measured Body Tissue Properties Continued

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
04/01/2020	2450 Body	22.0	2500	2.100	51.025	2.021	52.636	3.91%	-3.06%
			2510	2.112	50.992	2.035	52.623	3.78%	-3.10%
			2535	2.142	50.920	2.071	52.592	3.43%	-3.18%
			2550	2.159	50.883	2.092	52.573	3.20%	-3.21%
			2560	2.171	50.858	2.106	52.560	3.09%	-3.24%
			2600	2.216	50.740	2.163	52.509	2.45%	-3.37%
			2650	2.277	50.579	2.234	52.445	1.92%	-3.56%
			2680	2.314	50.486	2.277	52.407	1.62%	-3.67%
			2700	2.337	50.430	2.305	52.382	1.39%	-3.73%
04/15/2020	2450 Body	21.5	2400	1.984	50.658	1.902	52.767	4.31%	-4.00%
			2450	2.042	50.514	1.950	52.700	4.72%	-4.15%
			2480	2.076	50.424	1.993	52.662	4.16%	-4.25%
			2500	2.100	50.349	2.021	52.636	3.91%	-4.34%
			2510	2.112	50.309	2.035	52.623	3.78%	-4.40%
			2535	2.141	50.232	2.071	52.592	3.38%	-4.49%
			2550	2.159	50.203	2.092	52.573	3.20%	-4.51%
			2650	2.277	49.900	2.234	52.445	1.92%	-4.85%
			2680	2.316	49.827	2.277	52.407	1.71%	-4.92%
			2700	2.340	49.773	2.305	52.382	1.52%	-4.98%
04/23/2020	2450 Body	23.0	2400	1.971	51.641	1.902	52.767	3.63%	-2.13%
			2450	2.029	51.509	1.950	52.700	4.05%	-2.26%
			2480	2.062	51.422	1.993	52.662	3.46%	-2.35%
			2500	2.086	51.361	2.021	52.636	3.22%	-2.42%
			2510	2.098	51.333	2.035	52.623	3.10%	-2.45%
			2535	2.128	51.265	2.071	52.592	2.75%	-2.52%
			2550	2.146	51.229	2.092	52.573	2.58%	-2.56%
			2560	2.159	51.206	2.106	52.560	2.52%	-2.58%
			2600	2.205	51.095	2.163	52.509	1.94%	-2.69%
			2650	2.268	50.932	2.234	52.445	1.52%	-2.88%
			2680	2.305	50.847	2.277	52.407	1.23%	-2.98%
			2700	2.328	50.787	2.305	52.382	1.00%	-3.04%
05/04/2020	2450 Body	23.1	2500	2.078	52.575	2.021	52.636	2.82%	-0.12%
			2510	2.091	52.542	2.035	52.623	2.75%	-0.15%
			2535	2.122	52.465	2.071	52.592	2.46%	-0.24%
			2550	2.140	52.425	2.092	52.573	2.29%	-0.28%
			2560	2.152	52.399	2.106	52.560	2.18%	-0.31%
			2600	2.198	52.280	2.163	52.509	1.62%	-0.44%
05/06/2020	2450 Body	21.9	2500	2.096	51.523	2.021	52.636	3.71%	-2.11%
			2510	2.108	51.498	2.035	52.623	3.59%	-2.14%
			2535	2.139	51.426	2.071	52.592	3.28%	-2.22%
			2550	2.158	51.383	2.092	52.573	3.15%	-2.26%
			2560	2.170	51.354	2.106	52.560	3.04%	-2.29%
			2600	2.218	51.237	2.163	52.509	2.54%	-2.42%

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Table 10-7
Measured Body Tissue Properties Continued

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
04/02/2020	5200-5800 Body	23.0	5180	5.424	47.927	5.276	49.041	2.81%	-2.27%
			5190	5.426	47.911	5.288	49.028	2.61%	-2.28%
			5200	5.434	47.878	5.299	49.014	2.55%	-2.32%
			5210	5.447	47.856	5.311	49.001	2.56%	-2.34%
			5220	5.473	47.808	5.323	48.987	2.82%	-2.41%
			5240	5.495	47.786	5.346	48.960	2.79%	-2.40%
			5250	5.506	47.765	5.358	48.947	2.76%	-2.41%
			5260	5.523	47.764	5.369	48.933	2.87%	-2.39%
			5270	5.531	47.743	5.381	48.919	2.79%	-2.40%
			5280	5.542	47.727	5.393	48.906	2.76%	-2.41%
			5290	5.559	47.698	5.404	48.892	2.87%	-2.44%
			5300	5.572	47.669	5.416	48.879	2.88%	-2.48%
			5310	5.584	47.666	5.428	48.865	2.87%	-2.45%
			5320	5.608	47.658	5.439	48.851	3.11%	-2.44%
			5500	5.840	47.338	5.650	48.607	3.36%	-2.61%
			5510	5.852	47.324	5.661	48.594	3.37%	-2.61%
			5520	5.861	47.296	5.673	48.580	3.31%	-2.64%
			5530	5.877	47.295	5.685	48.566	3.38%	-2.62%
			5540	5.894	47.287	5.696	48.553	3.48%	-2.61%
			5550	5.912	47.249	5.708	48.539	3.57%	-2.66%
			5560	5.928	47.233	5.720	48.526	3.64%	-2.66%
			5580	5.957	47.208	5.743	48.499	3.73%	-2.66%
			5600	5.975	47.190	5.766	48.471	3.62%	-2.64%
			5610	5.986	47.157	5.778	48.458	3.60%	-2.68%
			5620	6.002	47.151	5.790	48.444	3.66%	-2.67%
			5640	6.024	47.116	5.813	48.417	3.63%	-2.69%
			5660	6.050	47.085	5.837	48.390	3.65%	-2.70%
			5670	6.067	47.071	5.848	48.376	3.74%	-2.70%
			5680	6.076	47.065	5.860	48.363	3.69%	-2.68%
			5690	6.090	47.043	5.872	48.349	3.71%	-2.70%
			5700	6.106	47.019	5.883	48.336	3.79%	-2.72%
			5710	6.129	46.981	5.895	48.322	3.97%	-2.78%
			5720	6.136	46.972	5.907	48.309	3.88%	-2.77%
			5745	6.169	46.957	5.936	48.275	3.93%	-2.73%
			5750	6.182	46.943	5.942	48.268	4.04%	-2.75%
			5755	6.185	46.940	5.947	48.261	4.00%	-2.74%
			5765	6.195	46.914	5.959	48.248	3.96%	-2.76%
			5775	6.213	46.893	5.971	48.234	4.05%	-2.78%
			5785	6.221	46.885	5.982	48.220	4.00%	-2.77%
			5795	6.232	46.858	5.994	48.207	3.97%	-2.80%
			5800	6.241	46.827	6.000	48.200	4.02%	-2.85%
			5805	6.258	46.816	6.006	48.193	4.20%	-2.86%
			5825	6.285	46.801	6.029	48.166	4.25%	-2.83%

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 D.

Table 10-8
System Verification Results – 1g Head

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)	$Deviation_{1g}$ (%)
P	750	HEAD	04/02/2020	21.1	20.6	0.200	1161	7551	1.650	8.030	8.250	2.74%
P	750	HEAD	04/19/2020	21.3	20.1	0.200	1161	7551	1.620	8.030	8.100	0.87%
P	835	HEAD	04/05/2020	21.0	20.2	0.200	4d132	7551	1.880	9.650	9.400	-2.59%
P	835	HEAD	04/25/2020	20.5	19.9	0.200	4d133	7551	1.860	9.430	9.300	-1.38%
P	835	HEAD	04/27/2020	20.8	20.1	0.200	4d133	7551	1.930	9.430	9.650	2.33%
P	835	HEAD	05/04/2020	23.3	22.3	0.200	4d133	7551	1.960	9.430	9.800	3.92%
M	1750	HEAD	04/28/2020	21.4	21.1	0.100	1150	7570	3.750	36.500	37.500	2.74%
L	1750	HEAD	05/13/2020	23.9	20.5	0.100	1150	7410	3.610	36.500	36.100	-1.10%
H	1900	HEAD	03/30/2020	21.2	21.2	0.100	5d148	7406	4.210	39.100	42.100	7.67%
P	1900	HEAD	04/20/2020	20.3	21.5	0.100	5d149	7551	4.250	39.300	42.500	8.14%
H	1900	HEAD	05/04/2020	23.0	21.5	0.100	5d148	7406	4.170	39.100	41.700	6.65%
L	1900	HEAD	05/11/2020	21.8	21.0	0.100	5d080	7410	4.290	39.800	42.900	7.79%
E	2300	HEAD	04/02/2020	21.1	20.5	0.100	1073	3589	4.530	49.200	45.300	-7.93%
E	2450	HEAD	04/05/2020	22.5	22.4	0.100	719	3589	5.300	53.100	53.000	-0.19%
E	2450	HEAD	04/26/2020	22.1	22.3	0.100	797	3589	5.360	52.700	53.600	1.71%
E	2600	HEAD	04/05/2020	22.5	22.4	0.100	1064	3589	6.050	58.100	60.500	4.13%
E	2600	HEAD	05/10/2020	23.2	22.8	0.100	1064	3589	5.780	58.100	57.800	-0.52%
H	5250	HEAD	04/13/2020	23.0	21.0	0.050	1191	7406	3.840	80.800	76.800	-4.95%
H	5600	HEAD	04/13/2020	23.0	21.0	0.050	1191	7406	3.760	82.700	75.200	-9.07%
H	5750	HEAD	04/13/2020	23.0	21.0	0.050	1191	7406	3.710	80.200	74.200	-7.48%

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Table 10-9
System Verification Results – 1g Body

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	BODY	04/08/2020	23.2	21.8	0.200	1161	7409	1.800	8.430	9.000	6.76%
L	750	BODY	04/16/2020	20.6	21.0	0.200	1161	7410	1.740	8.430	8.700	3.20%
L	750	BODY	04/20/2020	21.0	20.3	0.200	1161	7410	1.720	8.430	8.600	2.02%
L	835	BODY	04/13/2020	23.9	21.9	0.200	4d132	7410	2.130	9.960	10.650	6.93%
M	835	BODY	05/04/2020	22.2	21.6	0.200	4d133	7570	2.010	9.750	10.050	3.08%
I	1750	BODY	04/01/2020	22.2	21.6	0.100	1150	7357	3.740	36.600	37.400	2.19%
I	1750	BODY	04/05/2020	20.9	21.0	0.100	1150	7357	3.920	36.600	39.200	7.10%
I	1750	BODY	04/27/2020	21.5	20.5	0.100	1150	7527	3.840	36.600	38.400	4.92%
I	1750	BODY	05/03/2020	21.6	21.2	0.100	1150	7527	3.880	36.600	38.800	6.01%
I	1750	BODY	05/06/2020	21.1	21.9	0.100	1150	7527	3.510	36.600	35.100	-4.10%
I	1750	BODY	05/10/2020	21.1	21.5	0.100	1150	7527	3.450	36.600	34.500	-5.74%
I	1750	BODY	05/14/2020	21.6	21.6	0.100	1150	7527	3.750	36.600	37.500	2.46%
J	1900	BODY	03/31/2020	22.3	22.8	0.100	5d080	7571	3.890	39.200	38.900	-0.77%
J	1900	BODY	04/05/2020	20.7	21.4	0.100	5d080	7571	4.150	39.200	41.500	5.87%
J	1900	BODY	04/07/2020	21.3	24.4	0.100	5d080	7571	4.050	39.200	40.500	3.32%
J	1900	BODY	05/05/2020	20.9	20.8	0.100	5d148	7571	4.150	39.100	41.500	6.14%
J	1900	BODY	05/14/2020	24.5	24.0	0.100	5d080	7571	4.190	39.200	41.900	6.89%
K	2300	BODY	04/06/2020	23.1	21.6	0.100	1073	7547	4.770	47.700	47.700	0.00%
K	2450	BODY	04/15/2020	22.9	21.5	0.100	719	7547	5.130	50.800	51.300	0.98%
K	2450	BODY	04/23/2020	23.2	21.6	0.100	719	7547	5.280	50.800	52.800	3.94%
K	2600	BODY	04/01/2020	23.1	22.0	0.100	1064	7547	5.360	55.600	53.600	-3.60%
K	2600	BODY	04/15/2020	22.9	21.5	0.100	1064	7547	5.520	55.600	55.200	-0.72%
K	2600	BODY	05/04/2020	22.5	21.9	0.100	1064	7547	5.650	55.600	56.500	1.62%
K	2600	BODY	05/06/2020	24.4	21.9	0.100	1064	7547	5.430	55.600	54.300	-2.34%
G	5250	BODY	04/02/2020	22.7	22.6	0.050	1237	7409	3.710	75.600	74.200	-1.85%
G	5600	BODY	04/02/2020	22.7	22.6	0.050	1237	7409	4.050	78.500	81.000	3.18%
G	5750	BODY	04/02/2020	22.7	22.6	0.050	1237	7409	3.680	75.900	73.600	-3.03%

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Table 10-10
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)	$Deviation_{10g}$ (%)
I	1750	BODY	04/27/2020	21.5	20.5	0.100	1150	7527	2.030	19.400	20.300	4.64%
I	1750	BODY	05/06/2020	21.1	21.9	0.100	1150	7527	1.850	19.400	18.500	-4.64%
I	1750	BODY	05/14/2020	21.6	21.6	0.100	1150	7527	1.970	19.400	19.700	1.55%
J	1900	BODY	04/07/2020	21.3	24.4	0.100	5d080	7571	2.110	20.600	21.100	2.43%
J	1900	BODY	04/12/2020	21.1	21.4	0.100	5d080	7571	2.090	20.600	20.900	1.46%
J	1900	BODY	05/08/2020	22.7	23.9	0.100	5d148	7571	2.120	20.500	21.200	3.41%
K	2300	BODY	04/06/2020	23.1	21.6	0.100	1073	7547	2.290	23.200	22.900	-1.29%
K	2450	BODY	04/15/2020	22.9	21.5	0.100	719	7547	2.340	24.000	23.400	-2.50%
K	2600	BODY	04/23/2020	23.2	21.6	0.100	1064	7547	2.430	25.000	24.300	-2.80%
G	5250	BODY	04/02/2020	22.7	22.6	0.050	1237	7409	1.040	21.200	20.800	-1.89%
G	5600	BODY	04/02/2020	22.7	22.6	0.050	1237	7409	1.120	22.000	22.400	1.82%

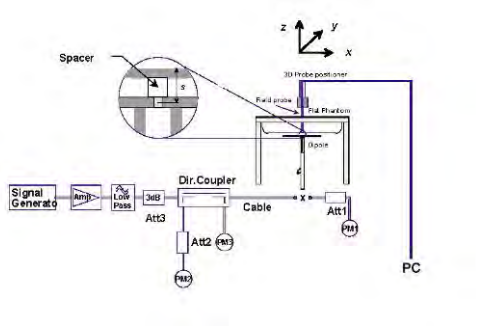


Figure 10-1
System Verification Setup Diagram



Figure 10-2
System Verification Setup Photo

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REV 21.4 M
09/11/2019

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11 SAR DATA SUMMARY

11.1 Standalone Head SAR Data

Table 11-1
GSM 850 Head SAR

MEASUREMENT RESULTS														
FREQUENCY		Mode	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	32.55	-0.07	Right	Cheek	05187	1:8.3	0.129	1.396	0.180	A1
836.60	190	GSM 850	GSM	34.0	32.55	-0.11	Right	Tilt	05187	1:8.3	0.068	1.396	0.095	
836.60	190	GSM 850	GSM	34.0	32.55	-0.01	Left	Cheek	05187	1:8.3	0.083	1.396	0.116	
836.60	190	GSM 850	GSM	34.0	32.55	0.02	Left	Tilt	05187	1:8.3	0.064	1.396	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 11-2
GSM 1900 Head SAR

MEASUREMENT RESULTS														
FREQUENCY		Mode	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)	
1850.20	512	GSM 1900	GSM	31.0	30.04	0.12	Right	Cheek	05633	1:8.3	0.035	1.247	0.044	
1850.20	512	GSM 1900	GSM	31.0	30.04	0.12	Right	Tilt	05633	1:8.3	0.028	1.247	0.035	
1850.20	512	GSM 1900	GSM	31.0	30.04	0.13	Left	Cheek	05633	1:8.3	0.074	1.247	0.092	A2
1850.20	512	GSM 1900	GSM	31.0	30.04	0.17	Left	Tilt	05633	1:8.3	0.018	1.247	0.022	
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 11-3
UMTS 850 Head SAR

MEASUREMENT RESULTS															
FREQUENCY		Mode	Service	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Side	Test Position	Antenna Config.	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	25.0	24.61	0.13	Right	Cheek	17	05633	1:1	0.187	1.094	0.205	A3
836.60	4183	UMTS 850	RMC	25.0	24.61	0.19	Right	Tilt	17	05633	1:1	0.098	1.094	0.107	
836.60	4183	UMTS 850	RMC	25.0	24.61	0.03	Left	Cheek	17	05633	1:1	0.117	1.094	0.128	
836.60	4183	UMTS 850	RMC	25.0	24.61	0.10	Left	Tilt	17	05633	1:1	0.090	1.094	0.098	
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 11-4
UMTS 1750 Head SAR

MEASUREMENT RESULTS															
FREQUENCY		Mode	Service	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Side	Test Position	Antenna Config.	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	25.0	24.24	0.12	Right	Cheek	108	05583	1:1	0.086	1.191	0.102	
1732.40	1412	UMTS 1750	RMC	25.0	24.24	0.18	Right	Tilt	108	05583	1:1	0.065	1.191	0.077	
1732.40	1412	UMTS 1750	RMC	25.0	24.24	0.08	Left	Cheek	108	05583	1:1	0.119	1.191	0.142	A4
1732.40	1412	UMTS 1750	RMC	25.0	24.24	0.13	Left	Tilt	108	05583	1:1	0.049	1.191	0.058	
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
UMTS 1900 Head SAR

MEASUREMENT RESULTS															
FREQUENCY		Mode	Service	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Side	Test Position	Antenna Config.	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	24.0	23.55	-0.01	Right	Cheek	108	05633	1:1	0.070	1.109	0.078	
1880.00	9400	UMTS 1900	RMC	24.0	23.55	0.12	Right	Tilt	108	05633	1:1	0.055	1.109	0.061	
1880.00	9400	UMTS 1900	RMC	24.0	23.55	0.10	Left	Cheek	108	05633	1:1	0.113	1.109	0.125	A5
1880.00	9400	UMTS 1900	RMC	24.0	23.55	0.13	Left	Tilt	108	05633	1:1	0.029	1.109	0.032	
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 11-6
CDMA BC0 (§22H) Head SAR

MEASUREMENT RESULTS															
FREQUENCY		Mode	Service	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Side	Test Position	Antenna Config.	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	24.65	0.13	Right	Cheek	0	05633	1:1	0.243	1.365	0.332	A6
836.52	384	CDMA BC0 (§22H)	RC3 / SO55	26.0	24.65	-0.03	Right	Tilt	0	05633	1:1	0.118	1.365	0.161	
836.52	384	CDMA BC0 (§22H)	RC3 / SO55	26.0	24.65	0.14	Left	Cheek	0	05633	1:1	0.160	1.365	0.218	
836.52	384	CDMA BC0 (§22H)	RC3 / SO55	26.0	24.65	0.12	Left	Tilt	0	05633	1:1	0.127	1.365	0.173	
824.70	1013	CDMA BC0 (§22H)	EVDO Rev. A	26.0	25.90	0.09	Right	Cheek	0	05633	1:1	0.238	1.023	0.243	
824.70	1013	CDMA BC0 (§22H)	EVDO Rev. A	26.0	25.90	-0.01	Right	Tilt	0	05633	1:1	0.112	1.023	0.115	
824.70	1013	CDMA BC0 (§22H)	EVDO Rev. A	26.0	25.90	0.06	Left	Cheek	0	05633	1:1	0.171	1.023	0.175	
824.70	1013	CDMA BC0 (§22H)	EVDO Rev. A	26.0	25.90	0.00	Left	Tilt	0	05633	1:1	0.112	1.023	0.115	
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 11-7
CDMA BC10 (§90S) Head SAR

MEASUREMENT RESULTS															
FREQUENCY		Mode	Service	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Side	Test Position	Antenna Config.	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	24.72	-0.02	Right	Cheek	15	05633	1:1	0.226	1.343	0.304	A7
820.10	564	CDMA BC10 (§90S)	RC3 / SO55	26.0	24.72	0.07	Right	Tilt	15	05633	1:1	0.121	1.343	0.163	
820.10	564	CDMA BC10 (§90S)	RC3 / SO55	26.0	24.72	0.06	Left	Cheek	15	05633	1:1	0.180	1.343	0.242	
820.10	564	CDMA BC10 (§90S)	RC3 / SO55	26.0	24.72	0.00	Left	Tilt	15	05633	1:1	0.135	1.343	0.181	
820.10	564	CDMA BC10 (§90S)	EVDO Rev. A	26.0	25.89	0.14	Right	Cheek	15	05633	1:1	0.192	1.026	0.197	
820.10	564	CDMA BC10 (§90S)	EVDO Rev. A	26.0	25.89	0.13	Right	Tilt	15	05633	1:1	0.095	1.026	0.097	
820.10	564	CDMA BC10 (§90S)	EVDO Rev. A	26.0	25.89	-0.02	Left	Cheek	15	05633	1:1	0.185	1.026	0.190	
820.10	564	CDMA BC10 (§90S)	EVDO Rev. A	26.0	25.89	-0.21	Left	Tilt	15	05633	1:1	0.130	1.026	0.133	
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
PCS CDMA Head SAR

MEASUREMENT RESULTS															
FREQUENCY		Mode	Service	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Side	Test Position	Antenna Config.	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	24.14	0.05	Right	Cheek	108	05633	1:1	0.102	1.535	0.157	
1880.00	600	PCS CDMA	RC3 / SO55	26.0	24.14	0.03	Right	Tilt	108	05633	1:1	0.089	1.535	0.137	
1880.00	600	PCS CDMA	RC3 / SO55	26.0	24.14	-0.14	Left	Cheek	108	05633	1:1	0.135	1.535	0.207	A8
1880.00	600	PCS CDMA	RC3 / SO55	26.0	24.14	-0.05	Left	Tilt	108	05633	1:1	0.058	1.535	0.089	
1880.00	600	PCS CDMA	EVDO Rev. A	26.0	24.01	0.08	Right	Cheek	108	05633	1:1	0.082	1.581	0.130	
1880.00	600	PCS CDMA	EVDO Rev. A	26.0	24.01	0.05	Right	Tilt	108	05633	1:1	0.074	1.581	0.117	
1880.00	600	PCS CDMA	EVDO Rev. A	26.0	24.01	-0.09	Left	Cheek	108	05633	1:1	0.124	1.581	0.196	
1880.00	600	PCS CDMA	EVDO Rev. A	26.0	24.01	0.13	Left	Tilt	108	05633	1:1	0.074	1.581	0.117	
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	Antenna Config.	Modulation	RB Size	RB Offset	Device Serial Number	Duty Cycle	SAR (1g) (W/kg)	Scaling Factor	Reported SAR (1g) (W/kg)	Plot #
MHz	Ch.																			
680.50	133297	Mid	LTE Band 71	20	25.5	24.79	0.12	0	Right	Cheek	0	QPSK	1	99	05187	1:1	0.123	1.178	0.145	A9
680.50	133297	Mid	LTE Band 71	20	24.5	23.83	0.06	1	Right	Cheek	0	QPSK	50	50	05187	1:1	0.102	1.167	0.119	
680.50	133297	Mid	LTE Band 71	20	25.5	24.79	0.05	0	Right	Tilt	0	QPSK	1	99	05187	1:1	0.052	1.178	0.061	
680.50	133297	Mid	LTE Band 71	20	24.5	23.83	0.18	1	Right	Tilt	0	QPSK	50	50	05187	1:1	0.045	1.167	0.053	
680.50	133297	Mid	LTE Band 71	20	25.5	24.79	0.00	0	Left	Cheek	0	QPSK	1	99	05187	1:1	0.110	1.178	0.130	
680.50	133297	Mid	LTE Band 71	20	24.5	23.83	0.00	1	Left	Cheek	0	QPSK	50	50	05187	1:1	0.092	1.167	0.107	
680.50	133297	Mid	LTE Band 71	20	25.5	24.79	-0.08	0	Left	Tilt	0	QPSK	1	99	05187	1:1	0.075	1.178	0.088	
680.50	133297	Mid	LTE Band 71	20	24.5	23.83	0.11	1	Left	Tilt	0	QPSK	50	50	05187	1:1	0.059	1.167	0.069	
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	Antenna Config.	Modulation	RB Size	RB Offset	Device Serial Number	Duty Cycle	SAR (1g) (W/kg)	Scaling Factor	Reported SAR (1g) (W/kg)	Plot #
MHz	Ch.																			
707.50	23095	Mid	LTE Band 12	10	25.5	24.87	-0.03	0	Right	Cheek	0	QPSK	1	0	05633	1:1	0.185	1.156	0.214	A10
707.50	23095	Mid	LTE Band 12	10	24.5	23.87	0.08	1	Right	Cheek	0	QPSK	25	12	05633	1:1	0.161	1.156	0.186	
707.50	23095	Mid	LTE Band 12	10	25.5	24.87	0.11	0	Right	Tilt	0	QPSK	1	0	05633	1:1	0.094	1.156	0.109	
707.50	23095	Mid	LTE Band 12	10	24.5	23.87	-0.15	1	Right	Tilt	0	QPSK	25	12	05633	1:1	0.080	1.156	0.092	
707.50	23095	Mid	LTE Band 12	10	25.5	24.87	-0.03	0	Left	Cheek	0	QPSK	1	0	05633	1:1	0.162	1.156	0.187	
707.50	23095	Mid	LTE Band 12	10	24.5	23.87	0.08	1	Left	Cheek	0	QPSK	25	12	05633	1:1	0.122	1.156	0.141	
707.50	23095	Mid	LTE Band 12	10	25.5	24.87	-0.09	0	Left	Tilt	0	QPSK	1	0	05633	1:1	0.109	1.156	0.126	
707.50	23095	Mid	LTE Band 12	10	24.5	23.87	0.17	1	Left	Tilt	0	QPSK	25	12	05633	1:1	0.082	1.156	0.095	
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	Antenna Config.	Modulation	RB Size	RB Offset	Device Serial Number	Duty Cycle	SAR (1g) (W/kg)	Scaling Factor	Reported SAR (1g) (W/kg)	Plot #
MHz	Ch.																			
782.00	23230	Mid	LTE Band 13	10	25.5	24.61	0.08	0	Right	Cheek	0	QPSK	1	0	05633	1:1	0.170	1.227	0.209	A11
782.00	23230	Mid	LTE Band 13	10	24.5	23.63	-0.05	1	Right	Cheek	0	QPSK	25	12	05633	1:1	0.130	1.222	0.159	
782.00	23230	Mid	LTE Band 13	10	25.5	24.61	0.04	0	Right	Tilt	0	QPSK	1	0	05633	1:1	0.090	1.227	0.110	
782.00	23230	Mid	LTE Band 13	10	24.5	23.63	0.08	1	Right	Tilt	0	QPSK	25	12	05633	1:1	0.074	1.222	0.090	
782.00	23230	Mid	LTE Band 13	10	25.5	24.61	-0.16	0	Left	Cheek	0	QPSK	1	0	05633	1:1	0.133	1.227	0.163	
782.00	23230	Mid	LTE Band 13	10	24.5	23.63	0.07	1	Left	Cheek	0	QPSK	25	12	05633	1:1	0.101	1.222	0.123	
782.00	23230	Mid	LTE Band 13	10	25.5	24.61	0.12	0	Left	Tilt	0	QPSK	1	0	05633	1:1	0.098	1.227	0.120	
782.00	23230	Mid	LTE Band 13	10	24.5	23.63	0.14	1	Left	Tilt	0	QPSK	25	12	05633	1:1	0.071	1.222	0.087	
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	Antenna Config.	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	24.55	0.14	0	Right	Cheek	0	QPSK	1	0	05633	1:1	0.170	1.245	0.212	A12
793.00	23330	Mid	LTE Band 14	10	24.5	23.43	-0.04	1	Right	Cheek	0	QPSK	25	12	05633	1:1	0.114	1.279	0.146	
793.00	23330	Mid	LTE Band 14	10	25.5	24.55	0.15	0	Right	Tilt	0	QPSK	1	0	05633	1:1	0.091	1.245	0.113	
793.00	23330	Mid	LTE Band 14	10	24.5	23.43	-0.10	1	Right	Tilt	0	QPSK	25	12	05633	1:1	0.060	1.279	0.077	
793.00	23330	Mid	LTE Band 14	10	25.5	24.55	0.21	0	Left	Cheek	0	QPSK	1	0	05633	1:1	0.119	1.245	0.148	
793.00	23330	Mid	LTE Band 14	10	24.5	23.43	0.16	1	Left	Cheek	0	QPSK	25	12	05633	1:1	0.093	1.279	0.119	
793.00	23330	Mid	LTE Band 14	10	25.5	24.55	0.04	0	Left	Tilt	0	QPSK	1	0	05633	1:1	0.099	1.245	0.123	
793.00	23330	Mid	LTE Band 14	10	24.5	23.43	0.03	1	Left	Tilt	0	QPSK	25	12	05633	1:1	0.079	1.279	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 5 (Cell) Head SAR

MEASUREMENT RESULTS																						
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Side	Test Position	Antenna Config.	Modulation	RB Size	RB Offset	Device Serial Number	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.																(W/kg)		(W/kg)	
836.50	20525	Mid	LTE Band 5 (Cell)	10	25.5	25.05	-0.04	0	Right	Cheek	1	QPSK	1	0	05633	1:1	0.196	1.109	0.217	A13
836.50	20525	Mid	LTE Band 5 (Cell)	10	24.5	23.93	0.03	1	Right	Cheek	1	QPSK	25	25	05633	1:1	0.143	1.140	0.163	
836.50	20525	Mid	LTE Band 5 (Cell)	10	25.5	25.05	0.07	0	Right	Tilt	1	QPSK	1	0	05633	1:1	0.077	1.109	0.085	
836.50	20525	Mid	LTE Band 5 (Cell)	10	24.5	23.93	0.02	1	Right	Tilt	1	QPSK	25	25	05633	1:1	0.067	1.140	0.076	
836.50	20525	Mid	LTE Band 5 (Cell)	10	25.5	25.05	0.16	0	Left	Cheek	1	QPSK	1	0	05633	1:1	0.151	1.109	0.167	
836.50	20525	Mid	LTE Band 5 (Cell)	10	24.5	23.93	-0.04	1	Left	Cheek	1	QPSK	25	25	05633	1:1	0.112	1.140	0.128	
836.50	20525	Mid	LTE Band 5 (Cell)	10	25.5	25.05	-0.10	0	Left	Tilt	1	QPSK	1	0	05633	1:1	0.112	1.109	0.124	
836.50	20525	Mid	LTE Band 5 (Cell)	10	24.5	23.93	0.16	1	Left	Tilt	1	QPSK	25	25	05633	1:1	0.072	1.140	0.082	
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 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	Antenna Config.	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	24.79	-0.13	0	Right	Cheek	0	QPSK	1	0	05633	1:1	0.196	1.178	0.231	A14
831.50	26865	Mid	LTE Band 26 (Cell)	15	24.5	23.92	0.18	1	Right	Cheek	0	QPSK	36	18	05633	1:1	0.150	1.143	0.171	
831.50	26865	Mid	LTE Band 26 (Cell)	15	25.5	24.79	0.04	0	Right	Tilt	0	QPSK	1	0	05633	1:1	0.098	1.178	0.115	
831.50	26865	Mid	LTE Band 26 (Cell)	15	24.5	23.92	-0.02	1	Right	Tilt	0	QPSK	36	18	05633	1:1	0.077	1.143	0.088	
831.50	26865	Mid	LTE Band 26 (Cell)	15	25.5	24.79	-0.02	0	Left	Cheek	0	QPSK	1	0	05633	1:1	0.150	1.178	0.177	
831.50	26865	Mid	LTE Band 26 (Cell)	15	24.5	23.92	0.10	1	Left	Cheek	0	QPSK	36	18	05633	1:1	0.122	1.143	0.139	
831.50	26865	Mid	LTE Band 26 (Cell)	15	25.5	24.79	0.04	0	Left	Tilt	0	QPSK	1	0	05633	1:1	0.109	1.178	0.128	
831.50	26865	Mid	LTE Band 26 (Cell)	15	24.5	23.92	0.06	1	Left	Tilt	0	QPSK	36	18	05633	1:1	0.084	1.143	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			

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

MEASUREMENT RESULTS																					
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Side	Test Position	Antenna Config.	Modulation	RB Size	RB Offset	Device Serial Number	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	24.46	0.14	0	Right	Cheek	108	QPSK	1	50	07134	1:1	0.095	1.132	0.108	
1720.00	132072	Low	LTE Band 66 (AWS)	20	24.0	23.58	0.15	1	Right	Cheek	108	QPSK	50	25	07134	1:1	0.074	1.102	0.082	
1720.00	132072	Low	LTE Band 66 (AWS)	20	25.0	24.46	0.12	0	Right	Tilt	108	QPSK	1	50	07134	1:1	0.064	1.132	0.072	
1720.00	132072	Low	LTE Band 66 (AWS)	20	24.0	23.58	0.14	1	Right	Tilt	108	QPSK	50	25	07134	1:1	0.053	1.102	0.058	
1720.00	132072	Low	LTE Band 66 (AWS)	20	25.0	24.46	0.03	0	Left	Cheek	108	QPSK	1	50	07134	1:1	0.114	1.132	0.129	A15
1720.00	132072	Low	LTE Band 66 (AWS)	20	24.0	23.58	0.09	1	Left	Cheek	108	QPSK	50	25	07134	1:1	0.095	1.102	0.105	
1720.00	132072	Low	LTE Band 66 (AWS)	20	25.0	24.46	0.03	0	Left	Tilt	108	QPSK	1	50	07134	1:1	0.056	1.132	0.063	
1720.00	132072	Low	LTE Band 66 (AWS)	20	24.0	23.58	0.09	1	Left	Tilt	108	QPSK	50	25	07134	1:1	0.024	1.102	0.026	
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	Antenna Config.	Modulation	RB Size	RB Offset	Device Serial Number	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.																(W/kg)		(W/kg)	
1905.00	26590	High	LTE Band 25 (PCS)	20	24.5	24.07	-0.17	0	Right	Cheek	13	QPSK	1	99	19550	1:1	0.071	1.104	0.078	
1905.00	26590	High	LTE Band 25 (PCS)	20	23.5	23.15	0.10	1	Right	Cheek	13	QPSK	50	50	19550	1:1	0.055	1.084	0.060	
1905.00	26590	High	LTE Band 25 (PCS)	20	24.5	24.07	-0.14	0	Right	Tilt	13	QPSK	1	99	19550	1:1	0.094	1.104	0.104	
1905.00	26590	High	LTE Band 25 (PCS)	20	23.5	23.15	0.08	1	Right	Tilt	13	QPSK	50	50	19550	1:1	0.067	1.084	0.073	
1905.00	26590	High	LTE Band 25 (PCS)	20	24.5	24.07	0.05	0	Left	Cheek	108	QPSK	1	99	19550	1:1	0.107	1.104	0.118	A16
1905.00	26590	High	LTE Band 25 (PCS)	20	23.5	23.15	0.08	1	Left	Cheek	13	QPSK	50	50	19550	1:1	0.096	1.084	0.104	
1905.00	26590	High	LTE Band 25 (PCS)	20	24.5	24.07	-0.02	0	Left	Tilt	13	QPSK	1	99	19550	1:1	0.052	1.104	0.057	
1905.00	26590	High	LTE Band 25 (PCS)	20	23.5	23.15	0.12	1	Left	Tilt	13	QPSK	50	50	19550	1:1	0.040	1.084	0.043	
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 11-17
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	24.0	23.35	0.15	0	Right	Cheek	QPSK	1	0	19410	1:1	0.040	1.161	0.046	A17
2310.00	27710	Mid	LTE Band 30	10	23.0	22.32	0.18	1	Right	Cheek	QPSK	25	12	19410	1:1	0.031	1.169	0.036	
2310.00	27710	Mid	LTE Band 30	10	24.0	23.35	0.11	0	Right	Tilt	QPSK	1	0	19410	1:1	0.027	1.161	0.031	
2310.00	27710	Mid	LTE Band 30	10	23.0	22.32	0.18	1	Right	Tilt	QPSK	25	12	19410	1:1	0.018	1.169	0.021	
2310.00	27710	Mid	LTE Band 30	10	24.0	23.35	0.16	0	Left	Cheek	QPSK	1	0	19410	1:1	0.039	1.161	0.045	
2310.00	27710	Mid	LTE Band 30	10	23.0	22.32	0.16	1	Left	Cheek	QPSK	25	12	19410	1:1	0.033	1.169	0.039	
2310.00	27710	Mid	LTE Band 30	10	24.0	23.35	0.11	0	Left	Tilt	QPSK	1	0	19410	1:1	0.024	1.161	0.028	
2310.00	27710	Mid	LTE Band 30	10	23.0	22.32	0.19	1	Left	Tilt	QPSK	25	12	19410	1:1	0.022	1.169	0.026	
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 11-18
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)	
2560.00	21350	High	LTE Band 7	20	23.0	22.20	0.13	0	Right	Cheek	QPSK	1	99	07613	1:1	0.093	1.202	0.112	
2560.00	21350	High	LTE Band 7	20	22.0	21.48	0.13	1	Right	Cheek	QPSK	50	50	07613	1:1	0.073	1.127	0.082	
2560.00	21350	High	LTE Band 7	20	23.0	22.20	0.15	0	Right	Tilt	QPSK	1	99	07613	1:1	0.063	1.202	0.076	
2560.00	21350	High	LTE Band 7	20	22.0	21.48	0.02	1	Right	Tilt	QPSK	50	50	07613	1:1	0.033	1.127	0.037	
2560.00	21350	High	LTE Band 7	20	23.0	22.20	0.12	0	Left	Cheek	QPSK	1	99	07613	1:1	0.104	1.202	0.125	A18
2560.00	21350	High	LTE Band 7	20	22.0	21.48	0.12	1	Left	Cheek	QPSK	50	50	07613	1:1	0.084	1.127	0.095	
2560.00	21350	High	LTE Band 7	20	23.0	22.20	0.14	0	Left	Tilt	QPSK	1	99	07613	1:1	0.069	1.202	0.083	
2560.00	21350	High	LTE Band 7	20	22.0	21.48	0.13	1	Left	Tilt	QPSK	50	50	07613	1:1	0.053	1.127	0.060	
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	2593.00	40620	Mid	LTE Band 41	20	24.0	23.34	0.21	0	Right	Cheek	QPSK	1	50	19410	1:1.58	0.072	1.164	0.084	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	23.0	22.43	0.12	1	Right	Cheek	QPSK	50	25	19410	1:1.58	0.054	1.140	0.062	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	24.0	23.34	-0.13	0	Right	Tilt	QPSK	1	50	19410	1:1.58	0.066	1.164	0.077	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	23.0	22.43	0.14	1	Right	Tilt	QPSK	50	25	19410	1:1.58	0.047	1.140	0.054	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	24.0	22.81	0.13	0	Left	Cheek	QPSK	1	0	19410	1:1.58	0.072	1.315	0.095	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	24.0	23.34	0.18	0	Left	Cheek	QPSK	1	50	19410	1:1.58	0.082	1.164	0.095	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	23.0	22.43	0.10	1	Left	Cheek	QPSK	50	25	19410	1:1.58	0.057	1.140	0.065	
1 CC Uplink - Power Class 2	N/A	2593.00	40620	Mid	LTE Band 41	20	27.0	25.99	0.21	0	Left	Cheek	QPSK	1	0	19410	1:2.31	0.096	1.262	0.121	
1 CC Uplink - Power Class 2	N/A	2593.00	40620	Mid	LTE Band 41	20	27.0	26.34	0.16	0	Left	Cheek	QPSK	1	50	19410	1:2.31	0.108	1.164	0.126	
2 CC Uplink - Power Class 3	PCC	2593.00	40620	Mid	LTE Band 41	20	24.0	23.98	0.12	0	Left	Cheek	QPSK	1	0	19410	1:1.58	0.096	1.005	0.096	
	SCC	2573.20	40422	Mid	LTE Band 41	20									99						
2 CC Uplink - Power Class 2	PCC	2593.00	40620	Mid	LTE Band 41	20	27.0	26.98	0.13	0	Left	Cheek	QPSK	1	0	19410	1:2.31	0.125	1.005	0.126	A19
	SCC	2573.20	40422	Mid	LTE Band 41	20									99						
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	24.0	23.34	0.15	0	Left	Tilt	QPSK	1	50	19410	1:1.58	0.068	1.164	0.079	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	23.0	22.43	0.16	1	Left	Tilt	QPSK	50	25	19410	1:1.58	0.057	1.140	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 11-20
NR Band n71 Head SAR

MEASUREMENT RESULTS																				
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Side	Test Position	Antenna Config.	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	136100	Mid	NR Band n71	20	25.0	24.65	0.04	0	Right	Cheek	0	DFT-S-OFDM QPSK	1	53	05633	1:1	0.133	1.084	0.144	A20
680.50	136100	Mid	NR Band n71	20	25.0	24.47	0.10	0	Right	Cheek	0	DFT-S-OFDM QPSK	50	28	05633	1:1	0.128	1.130	0.145	
680.50	136100	Mid	NR Band n71	20	23.5	23.20	0.02	1.5	Right	Cheek	0	CP-OFDM QPSK	1	1	05633	1:1	0.083	1.072	0.089	
680.50	136100	Mid	NR Band n71	20	25.0	24.65	-0.02	0	Right	Tilt	0	DFT-S-OFDM QPSK	1	53	05633	1:1	0.058	1.084	0.063	
680.50	136100	Mid	NR Band n71	20	25.0	24.47	0.14	0	Right	Tilt	0	DFT-S-OFDM QPSK	50	28	05633	1:1	0.054	1.130	0.061	
680.50	136100	Mid	NR Band n71	20	25.0	24.65	0.13	0	Left	Cheek	0	DFT-S-OFDM QPSK	1	53	05633	1:1	0.127	1.084	0.138	
680.50	136100	Mid	NR Band n71	20	25.0	24.47	0.05	0	Left	Cheek	0	DFT-S-OFDM QPSK	50	28	05633	1:1	0.114	1.130	0.129	
680.50	136100	Mid	NR Band n71	20	25.0	24.65	-0.14	0	Left	Tilt	0	DFT-S-OFDM QPSK	1	53	05633	1:1	0.074	1.084	0.080	
680.50	136100	Mid	NR Band n71	20	25.0	24.47	0.05	0	Left	Tilt	0	DFT-S-OFDM QPSK	50	28	05633	1:1	0.072	1.130	0.081	
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 11-21
NR Band n5 Head SAR

MEASUREMENT RESULTS																					
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Side	Test Position	Antenna Config.	Modulation	RB Size	RB Offset	Device Serial Number	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.																(W/kg)		(W/kg)	
836.50	167300	Mid	NR Band n5 (Cell)	20	25.0	24.77	0.15	0	Right	Cheek	1	DFT-S-OFDM QPSK	1	1	19550	1:1	0.177	1.054	0.187	
836.50	167300	Mid	NR Band n5 (Cell)	20	25.0	24.80	0.00	0	Right	Cheek	1	DFT-S-OFDM QPSK	50	28	19550	1:1	0.178	1.047	0.186	A21
836.50	167300	Mid	NR Band n5 (Cell)	20	23.5	23.30	0.11	1.5	Right	Cheek	1	CP-OFDM QPSK	1	1	19550	1:1	0.129	1.047	0.135	
836.50	167300	Mid	NR Band n5 (Cell)	20	25.0	24.77	0.11	0	Right	Tilt	1	DFT-S-OFDM QPSK	1	1	19550	1:1	0.097	1.054	0.102	
836.50	167300	Mid	NR Band n5 (Cell)	20	25.0	24.80	0.09	0	Right	Tilt	1	DFT-S-OFDM QPSK	50	28	19550	1:1	0.088	1.047	0.092	
836.50	167300	Mid	NR Band n5 (Cell)	20	25.0	24.77	-0.10	0	Left	Cheek	1	DFT-S-OFDM QPSK	1	1	19550	1:1	0.134	1.054	0.141	
836.50	167300	Mid	NR Band n5 (Cell)	20	25.0	24.80	0.14	0	Left	Cheek	1	DFT-S-OFDM QPSK	50	28	19550	1:1	0.148	1.047	0.155	
836.50	167300	Mid	NR Band n5 (Cell)	20	25.0	24.77	0.03	0	Left	Tilt	1	DFT-S-OFDM QPSK	1	1	19550	1:1	0.094	1.054	0.099	
836.50	167300	Mid	NR Band n5 (Cell)	20	25.0	24.80	-0.01	0	Left	Tilt	1	DFT-S-OFDM QPSK	50	28	19550	1:1	0.092	1.047	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 11-22
NR Band n66 Head SAR

MEASUREMENT RESULTS																					
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Side	Test Position	Antenna Config.	Modulation	RB Size	RB Offset	Device Serial Number	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.																(W/kg)		(W/kg)	
1745.00	349000	Mid	NR Band n66 (AWS)	20	26.0	25.33	0.16	0	Right	Cheek	108	DFT-S-OFDM QPSK	1	53	19550	1:1	0.082	1.167	0.096	
1745.00	349000	Mid	NR Band n66 (AWS)	20	26.0	25.14	0.14	0	Right	Cheek	108	DFT-S-OFDM QPSK	50	28	19550	1:1	0.090	1.219	0.110	
1745.00	349000	Mid	NR Band n66 (AWS)	20	26.0	25.33	0.19	0	Right	Tilt	108	DFT-S-OFDM QPSK	1	53	19550	1:1	0.079	1.167	0.092	
1745.00	349000	Mid	NR Band n66 (AWS)	20	26.0	25.14	0.18	0	Right	Tilt	108	DFT-S-OFDM QPSK	50	28	19550	1:1	0.079	1.219	0.096	
1745.00	349000	Mid	NR Band n66 (AWS)	20	26.0	25.33	0.12	0	Left	Cheek	108	DFT-S-OFDM QPSK	1	53	19550	1:1	0.116	1.167	0.135	A22
1745.00	349000	Mid	NR Band n66 (AWS)	20	26.0	25.14	0.12	0	Left	Cheek	108	DFT-S-OFDM QPSK	50	28	19550	1:1	0.115	1.219	0.140	
1745.00	349000	Mid	NR Band n66 (AWS)	20	24.5	23.63	0.13	1.5	Left	Cheek	108	CP-OFDM QPSK	1	1	19550	1:1	0.084	1.222	0.103	
1745.00	349000	Mid	NR Band n66 (AWS)	20	26.0	25.33	0.17	0	Left	Tilt	108	DFT-S-OFDM QPSK	1	53	19550	1:1	0.049	1.167	0.057	
1745.00	349000	Mid	NR Band n66 (AWS)	20	26.0	25.14	0.12	0	Left	Tilt	108	DFT-S-OFDM QPSK	50	28	19550	1:1	0.054	1.219	0.066	
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 11-23
NR Band n2 Head SAR

MEASUREMENT RESULTS																					
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Side	Test Position	Antenna Config.	Modulation	RB Size	RB Offset	Device Serial Number	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.																(W/kg)		(W/kg)	
1880.00	376000	Mid	NR Band n2 (PCS)	20	25.0	25.00	0.19	0	Right	Cheek	13	DFT-S-OFDM QPSK	1	53	07613	1:1	0.070	1.000	0.070	
1880.00	376000	Mid	NR Band n2 (PCS)	20	25.0	24.35	0.10	0	Right	Cheek	13	DFT-S-OFDM QPSK	50	28	07613	1:1	0.095	1.161	0.110	
1880.00	376000	Mid	NR Band n2 (PCS)	20	25.0	25.00	0.17	0	Right	Tilt	13	DFT-S-OFDM QPSK	1	53	07613	1:1	0.074	1.000	0.074	
1880.00	376000	Mid	NR Band n2 (PCS)	20	25.0	24.35	0.20	0	Right	Tilt	13	DFT-S-OFDM QPSK	50	28	07613	1:1	0.105	1.161	0.122	
1880.00	376000	Mid	NR Band n2 (PCS)	20	25.0	25.00	0.11	0	Left	Cheek	108	DFT-S-OFDM QPSK	1	53	07613	1:1	0.150	1.000	0.150	A23
1880.00	376000	Mid	NR Band n2 (PCS)	20	25.0	24.35	0.13	0	Left	Cheek	108	DFT-S-OFDM QPSK	50	28	07613	1:1	0.130	1.161	0.151	
1880.00	376000	Mid	NR Band n2 (PCS)	20	23.5	23.10	-0.01	1.5	Left	Cheek	108	CP-OFDM QPSK	1	1	07613	1:1	0.083	1.096	0.091	
1880.00	376000	Mid	NR Band n2 (PCS)	20	25.0	25.00	0.17	0	Left	Tilt	13	DFT-S-OFDM QPSK	1	53	07613	1:1	0.061	1.000	0.061	
1880.00	376000	Mid	NR Band n2 (PCS)	20	25.0	24.35	0.12	0	Left	Tilt	13	DFT-S-OFDM QPSK	50	28	07613	1:1	0.059	1.161	0.068	
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 11-24
NR Band n41 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)	
2592.99	518598	Mid	NR Band n41	100	24.0	23.95	0.05	0	Right	Cheek	DFT-S-OFDM QPSK	1	1	07613	1:4	0.631	1.012	0.639	
2592.99	518598	Mid	NR Band n41	100	24.0	23.73	0.11	0	Right	Cheek	DFT-S-OFDM QPSK	135	69	07613	1:4	0.412	1.064	0.438	
2592.99	518598	Mid	NR Band n41	100	23.0	22.83	0.05	1	Right	Cheek	DFT-S-OFDM QPSK	270	0	07613	1:4	0.378	1.040	0.393	
2592.99	518598	Mid	NR Band n41	100	24.0	23.95	-0.01	0	Right	Tilt	DFT-S-OFDM QPSK	1	1	19550	1:4	0.686	1.012	**0.694**	A24
2592.99	518598	Mid	NR Band n41	100	24.0	23.73	0.10	0	Right	Tilt	DFT-S-OFDM QPSK	135	69	19550	1:4	0.554	1.064	0.589	
2592.99	518598	Mid	NR Band n41	100	22.5	22.21	-0.11	1.5	Right	Tilt	CP-OFDM QPSK	1	1	19550	1:4	0.445	1.069	0.476	
2592.99	518598	Mid	NR Band n41	100	23.0	22.83	0.02	1	Right	Tilt	DFT-S-OFDM QPSK	270	0	19550	1:4	0.467	1.040	0.486	
2592.99	518598	Mid	NR Band n41	100	24.0	23.95	0.05	0	Left	Cheek	DFT-S-OFDM QPSK	1	1	07613	1:4	0.262	1.012	0.265	
2592.99	518598	Mid	NR Band n41	100	24.0	23.73	0.07	0	Left	Cheek	DFT-S-OFDM QPSK	135	69	07613	1:4	0.179	1.064	0.190	
2592.99	518598	Mid	NR Band n41	100	24.0	23.95	0.09	0	Left	Tilt	DFT-S-OFDM QPSK	1	1	07613	1:4	0.334	1.012	0.338	
2592.99	518598	Mid	NR Band n41	100	24.0	23.73	0.12	0	Left	Tilt	DFT-S-OFDM QPSK	135	69	07613	1:4	0.278	1.064	0.296	
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 11-25
DTS Head SAR

MEASUREMENT RESULTS																		
FREQUENCY		Mode	Service	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Side	Test Position	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)	
2412	1	802.11b	DSSS	22	14.0	13.70	0.12	Right	Cheek	28338	1	99.0	0.533	0.352	1.072	1.010	**0.381**	A25
2412	1	802.11b	DSSS	22	14.0	13.70	0.13	Right	Tilt	28338	1	99.0	0.342	-	1.072	1.010	-	
2412	1	802.11b	DSSS	22	14.0	13.70	-0.13	Left	Cheek	28338	1	99.0	0.138	-	1.072	1.010	-	
2412	1	802.11b	DSSS	22	14.0	13.70	0.16	Left	Tilt	28338	1	99.0	0.096	-	1.072	1.010	-	
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 11-26
NII Head SAR

MEASUREMENT RESULTS																		
FREQUENCY		Mode	Service	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Side	Test Position	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)	
5290	58	802.11ac	OFDM	80	11.0	10.90	0.12	Right	Cheek	28114	29.3	90.8	0.408	0.217	1.023	1.101	**0.244**	A26
5290	58	802.11ac	OFDM	80	11.0	10.90	0.14	Right	Tilt	28114	29.3	90.8	0.288	-	1.023	1.101	-	
5290	58	802.11ac	OFDM	80	11.0	10.90	0.20	Left	Cheek	28114	29.3	90.8	0.142	-	1.023	1.101	-	
5290	58	802.11ac	OFDM	80	11.0	10.90	0.12	Left	Tilt	28114	29.3	90.8	0.112	-	1.023	1.101	-	
5690	138	802.11ac	OFDM	80	11.0	10.93	0.14	Right	Cheek	28114	29.3	90.8	0.309	0.125	1.016	1.101	0.140	
5690	138	802.11ac	OFDM	80	11.0	10.93	0.04	Right	Tilt	28114	29.3	90.8	0.198	-	1.016	1.101	-	
5690	138	802.11ac	OFDM	80	11.0	10.93	0.15	Left	Cheek	28114	29.3	90.8	0.107	-	1.016	1.101	-	
5690	138	802.11ac	OFDM	80	11.0	10.93	0.15	Left	Tilt	28114	29.3	90.8	0.099	-	1.016	1.101	-	
5775	155	802.11ac	OFDM	80	11.0	10.22	0.13	Right	Cheek	28114	29.3	90.8	0.279	0.107	1.197	1.101	0.141	
5775	155	802.11ac	OFDM	80	11.0	10.22	0.05	Right	Tilt	28114	29.3	90.8	0.140	-	1.197	1.101	-	
5775	155	802.11ac	OFDM	80	11.0	10.22	0.08	Left	Cheek	28114	29.3	90.8	0.079	-	1.197	1.101	-	
5775	155	802.11ac	OFDM	80	11.0	10.22	0.09	Left	Tilt	28114	29.3	90.8	0.077	-	1.197	1.101	-	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population										Head 1.6 W/kg (mW/g) averaged over 1 gram								

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Table 11-27
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)	
2441.00	39	Bluetooth	FHSS	10.5	10.13	-0.12	Right	Cheek	28338	1	77.1	0.163	1.089	1.297	**0.230**	A27
2441.00	39	Bluetooth	FHSS	10.5	10.13	0.06	Right	Tilt	28338	1	77.1	0.103	1.089	1.297	0.145	
2441.00	39	Bluetooth	FHSS	10.5	10.13	0.04	Left	Cheek	28338	1	77.1	0.047	1.089	1.297	0.066	
2441.00	39	Bluetooth	FHSS	10.5	10.13	-0.16	Left	Tilt	28338	1	77.1	0.037	1.089	1.297	0.052	
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 11-28
GSM/UMTS/CDMA Body-Worn SAR Data

MEASUREMENT RESULTS																
FREQUENCY		Mode	Service	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Spacing	Antenna Config.	Device Serial Number	# of Time Slots	Duty Cycle	Side	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.												(W/kg)		(W/kg)	
836.60	190	GSM 850	GSM	34.0	32.55	-0.08	15 mm	N/A	19550	1	1:8.3	back	0.180	1.396	0.251	A28
1850.20	512	GSM 1900	GSM	31.0	30.04	-0.01	15 mm	N/A	05583	1	1:8.3	back	0.309	1.247	0.385	A30
836.60	4183	UMTS 850	RMC	25.0	24.61	-0.01	15 mm	18	07134	N/A	1:1	back	0.293	1.094	0.321	A32
1712.40	1312	UMTS 1750	RMC	25.0	24.25	0.00	15 mm	108	05583	N/A	1:1	back	0.523	1.189	0.622	
1732.40	1412	UMTS 1750	RMC	25.0	24.24	0.03	15 mm	108	05583	N/A	1:1	back	0.674	1.191	0.803	
1752.60	1513	UMTS 1750	RMC	25.0	24.20	0.00	15 mm	108	05583	N/A	1:1	back	0.729	1.202	0.876	A34
1852.40	9262	UMTS 1900	RMC	24.0	23.70	-0.03	15 mm	108	05583	N/A	1:1	back	0.599	1.072	0.642	A36
1880.00	9400	UMTS 1900	RMC	24.0	23.55	0.03	15 mm	108	05583	N/A	1:1	back	0.576	1.109	0.639	
1907.60	9538	UMTS 1900	RMC	24.0	23.38	-0.01	15 mm	108	05583	N/A	1:1	back	0.509	1.153	0.587	
836.52	384	CDMA BC0 (§22H)	TDSO / SO32	26.0	24.72	0.00	15 mm	0	19550	N/A	1:1	back	0.383	1.343	0.514	A38
820.10	564	CDMA BC10 (§90S)	TDSO / SO32	26.0	24.74	0.01	15 mm	0	19550	N/A	1:1	back	0.305	1.337	0.408	A40
1851.25	25	PCS CDMA	TDSO / SO32	26.0	24.40	0.02	15 mm	108	05583	N/A	1:1	back	0.771	1.445	**1.114**	A42
1880.00	600	PCS CDMA	TDSO / SO32	26.0	24.21	-0.04	15 mm	108	05583	N/A	1:1	back	0.682	1.510	1.030	
1908.75	1175	PCS CDMA	TDSO / SO32	26.0	24.14	0.03	15 mm	108	05583	N/A	1:1	back	0.616	1.535	0.946	
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 11-29
LTE Body-Worn SAR

MEASUREMENT RESULTS																						
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Antenna Config.	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	24.79	-0.04	0	0	05187	QPSK	1	99	15 mm	back	1:1	0.235	1.178	0.277	A44
680.50	133297	Mid	LTE Band 71	20	24.5	23.83	0.00	1	0	05187	QPSK	50	50	15 mm	back	1:1	0.200	1.167	0.233	
707.50	23095	Mid	LTE Band 12	10	25.5	24.87	-0.04	0	0	05187	QPSK	1	0	15 mm	back	1:1	0.255	1.156	0.295	A46
707.50	23095	Mid	LTE Band 12	10	24.5	23.87	0.00	1	0	05187	QPSK	25	12	15 mm	back	1:1	0.218	1.156	0.252	
782.00	23230	Mid	LTE Band 13	10	25.5	24.61	0.05	0	0	05187	QPSK	1	0	15 mm	back	1:1	0.256	1.227	0.314	A48
782.00	23230	Mid	LTE Band 13	10	24.5	23.63	0.02	1	0	05187	QPSK	25	12	15 mm	back	1:1	0.210	1.222	0.257	
793.00	23330	Mid	LTE Band 14	10	25.5	24.55	0.04	0	0	05187	QPSK	1	0	15 mm	back	1:1	0.257	1.245	0.320	A50
793.00	23330	Mid	LTE Band 14	10	24.5	23.43	0.06	1	0	05187	QPSK	25	12	15 mm	back	1:1	0.194	1.279	0.248	
836.50	20525	Mid	LTE Band 5 (Cell)	10	25.5	25.05	0.00	0	0	07134	QPSK	1	0	15 mm	back	1:1	0.292	1.109	0.324	A52
836.50	20525	Mid	LTE Band 5 (Cell)	10	24.5	23.93	-0.11	1	0	07134	QPSK	25	25	15 mm	back	1:1	0.237	1.140	0.270	
831.50	26865	Mid	LTE Band 26 (Cell)	15	25.5	24.79	-0.01	0	0	07134	QPSK	1	0	15 mm	back	1:1	0.269	1.178	0.317	A54
831.50	26865	Mid	LTE Band 26 (Cell)	15	24.5	23.92	-0.01	1	0	07134	QPSK	36	18	15 mm	back	1:1	0.228	1.143	0.261	
1720.00	132072	Low	LTE Band 66 (AWS)	20	25.0	24.46	0.00	0	108	19550	QPSK	1	50	15 mm	back	1:1	0.536	1.132	0.607	
1745.00	132322	Mid	LTE Band 66 (AWS)	20	25.0	24.42	0.21	0	108	19550	QPSK	1	50	15 mm	back	1:1	0.715	1.143	0.817	
1770.00	132572	High	LTE Band 66 (AWS)	20	25.0	24.08	-0.01	0	108	19550	QPSK	1	0	15 mm	back	1:1	0.781	1.236	0.965	A56
1720.00	132072	Low	LTE Band 66 (AWS)	20	24.0	23.58	-0.03	1	108	19550	QPSK	50	25	15 mm	back	1:1	0.455	1.102	0.501	
1720.00	132072	Low	LTE Band 66 (AWS)	20	24.0	23.49	0.03	1	108	19550	QPSK	100	0	15 mm	back	1:1	0.486	1.125	0.547	
1860.00	26140	Low	LTE Band 25 (PCS)	20	24.5	23.81	0.06	0	108	06938	QPSK	1	99	15 mm	back	1:1	0.691	1.172	0.810	A58
1882.50	26365	Mid	LTE Band 25 (PCS)	20	24.5	23.95	0.02	0	108	06938	QPSK	1	99	15 mm	back	1:1	0.602	1.135	0.683	
1905.00	26590	High	LTE Band 25 (PCS)	20	24.5	24.07	-0.08	0	13	06938	QPSK	1	99	15 mm	back	1:1	0.627	1.104	0.692	
1905.00	26590	High	LTE Band 25 (PCS)	20	23.5	23.15	-0.01	1	13	06938	QPSK	50	50	15 mm	back	1:1	0.487	1.084	0.528	
1905.00	26590	High	LTE Band 25 (PCS)	20	23.5	23.03	0.02	1	13	06938	QPSK	100	0	15 mm	back	1:1	0.496	1.114	0.553	
2310.00	27710	Mid	LTE Band 30	10	24.0	23.35	-0.04	0	N/A	19469	QPSK	1	0	15 mm	back	1:1	0.382	1.161	0.444	A60
2310.00	27710	Mid	LTE Band 30	10	23.0	22.32	0.00	1	N/A	19469	QPSK	25	12	15 mm	back	1:1	0.317	1.169	0.371	
2560.00	21350	High	LTE Band 7	20	23.0	22.20	-0.12	0	N/A	19469	QPSK	1	99	15 mm	back	1:1	0.282	1.202	0.339	A62
2560.00	21350	High	LTE Band 7	20	22.0	21.48	0.01	1	N/A	19469	QPSK	50	50	15 mm	back	1:1	0.236	1.127	0.266	

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 11-30
LTE Band 41 Body-Worn 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	2593.00	40620	Mid	LTE Band 41	20	24.0	22.81	0.04	0	19410	QPSK	1	0	15 mm	back	1:1.58	0.141	1.315	0.185	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	24.0	23.34	0.09	0	19410	QPSK	1	50	15 mm	back	1:1.58	0.151	1.164	0.176	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	23.0	22.43	0.02	1	19410	QPSK	50	25	15 mm	back	1:1.58	0.105	1.140	0.120	
1 CC Uplink - Power Class 2	N/A	2593.00	40620	Mid	LTE Band 41	20	27.0	25.99	-0.01	0	19410	QPSK	1	0	15 mm	back	1:2.31	0.190	1.262	0.240	
1 CC Uplink - Power Class 2	N/A	2593.00	40620	Mid	LTE Band 41	20	27.0	26.34	0.03	0	19410	QPSK	1	50	15 mm	back	1:2.31	0.203	1.164	0.236	
1 CC Uplink - Power Class 3	PCC	2593.00	40620	Mid	LTE Band 41	20	24.0	23.98	0.01	0	19410	QPSK	1	0	15 mm	back	1:1.58	0.193	1.005	0.194	
	SCC	2573.20	40422	Mid	LTE Band 41	20						QPSK		99							
2 CC Uplink - Power Class 2	PCC	2593.00	40620	Mid	LTE Band 41	20	27.0	26.98	0.00	0	19410	QPSK	1	0	15 mm	back	1:2.31	0.250	1.005	0.251	A64
	SCC	2573.20	40422	Mid	LTE Band 41	20								99							

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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Table 11-31
NR Body-Worn SAR

MEASUREMENT RESULTS																					
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Antenna Config.	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	136100	Mid	NR Band n71	20	25.0	24.65	0.11	0	0	05187	DFT-S-OFDM QPSK	1	53	15 mm	back	1:1	0.216	1.084	0.234	A66
680.50	136100	Mid	NR Band n71	20	25.0	24.47	-0.04	0	0	05187	DFT-S-OFDM QPSK	50	28	15 mm	back	1:1	0.215	1.130	0.243	
680.50	136100	Mid	NR Band n71	20	23.5	23.20	0.06	1.5	0	05187	CP-OFDM QPSK	1	1	15 mm	back	1:1	0.180	1.072	0.193	
836.50	167300	Mid	NR Band n5 (Cell)	20	25.0	24.77	0.00	0	0	19550	DFT-S-OFDM QPSK	1	1	15 mm	back	1:1	0.256	1.054	0.270	
836.50	167300	Mid	NR Band n5 (Cell)	20	25.0	24.80	-0.17	0	0	19550	DFT-S-OFDM QPSK	50	28	15 mm	back	1:1	0.301	1.047	0.315	A68
836.50	167300	Mid	NR Band n5 (Cell)	20	23.5	23.30	0.11	1.5	0	19550	CP-OFDM QPSK	1	1	15 mm	back	1:1	0.178	1.047	0.186	
1745.00	349000	Mid	NR Band n66 (AWS)	20	26.0	25.33	0.00	0	108	07217	DFT-S-OFDM QPSK	1	53	15 mm	back	1:1	0.564	1.167	0.658	
1720.00	344000	Low	NR Band n66 (AWS)	20	26.0	24.81	-0.01	0	108	07217	DFT-S-OFDM QPSK	50	28	15 mm	back	1:1	0.472	1.315	0.621	
1745.00	349000	Mid	NR Band n66 (AWS)	20	26.0	25.14	0.00	0	108	07217	DFT-S-OFDM QPSK	50	28	15 mm	back	1:1	0.579	1.219	0.706	A70
1745.00	349000	Mid	NR Band n66 (AWS)	20	24.5	23.63	0.01	1.5	108	07217	CP-OFDM QPSK	1	1	15 mm	back	1:1	0.414	1.222	0.506	
1770.00	354000	High	NR Band n66 (AWS)	20	26.0	24.73	-0.02	0	108	07217	DFT-S-OFDM QPSK	50	28	15 mm	back	1:1	0.572	1.340	0.766	
1860.00	372000	Low	NR Band n2 (PCS)	20	25.0	24.61	-0.03	0	108	05583	DFT-S-OFDM QPSK	1	53	15 mm	back	1:1	0.744	1.094	0.814	A72
1880.00	376000	Mid	NR Band n2 (PCS)	20	25.0	25.00	0.12	0	108	05583	DFT-S-OFDM QPSK	1	53	15 mm	back	1:1	0.708	1.000	0.708	
1900.00	380000	High	NR Band n2 (PCS)	20	25.0	24.67	0.10	0	13	05583	DFT-S-OFDM QPSK	1	53	15 mm	back	1:1	0.644	1.079	0.695	
1880.00	376000	Mid	NR Band n2 (PCS)	20	25.0	24.35	-0.04	0	108	05583	DFT-S-OFDM QPSK	50	28	15 mm	back	1:1	0.696	1.161	0.808	
1880.00	376000	Mid	NR Band n2 (PCS)	20	23.5	23.10	-0.04	1.5	108	05583	CP-OFDM QPSK	1	1	15 mm	back	1:1	0.561	1.096	0.615	
1880.00	376000	Mid	NR Band n2 (PCS)	20	24.0	23.60	0.01	1	108	05583	DFT-S-OFDM QPSK	100	0	15 mm	back	1:1	0.563	1.096	0.617	
2592.99	518598	Mid	NR Band n41	100	24.0	23.95	0.21	0	N/A	19550	DFT-S-OFDM QPSK	1	1	15 mm	back	1:4	0.043	1.012	0.044	A74
2592.99	518598	Mid	NR Band n41	100	24.0	23.73	0.08	0	N/A	19550	DFT-S-OFDM QPSK	135	69	15 mm	back	1:4	0.032	1.064	0.034	
2592.99	518598	Mid	NR Band n41	100	22.5	22.21	0.00	1.5	N/A	19550	CP-OFDM QPSK	1	1	15 mm	back	1:4	0.029	1.069	0.031	

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 11-32
DTS Body-Worn SAR

MEASUREMENT RESULTS																		
FREQUENCY		Mode	Service	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Spacing	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	21.0	20.54	0.10	15 mm	28114	1	back	99.0	0.157	0.106	1.112	1.010	**0.119**	A76

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 11-33
NII Body-Worn SAR

MEASUREMENT RESULTS																		
FREQUENCY		Mode	Service	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Spacing	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)	
5260	52	802.11a	OFDM	20	20.0	19.99	0.09	15 mm	28338	6	back	97.6	0.355	0.174	1.002	1.025	0.179	
5600	120	802.11a	OFDM	20	20.0	19.61	0.06	15 mm	28338	6	back	97.6	0.345	0.165	1.094	1.025	0.185	
5745	149	802.11a	OFDM	20	20.0	19.93	0.12	15 mm	28338	6	back	97.6	0.435	0.194	1.016	1.025	**0.202**	A78

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 11-34
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)	
2441	39	Bluetooth	FHSS	10.5	10.13	0.15	15 mm	28114	1	back	77.1	0.010	1.089	1.297	**0.014**	A80

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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11.3 Standalone Hotspot SAR Data

Table 11-35
GPRS/UMTS/CDMA Hotspot SAR Data

MEASUREMENT RESULTS																	
FREQUENCY		Mode	Service	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Spacing	Antenna Config.	Device Serial Number	# of Time Slots	Duty Cycle	Side	SAR (1g) (W/kg)	Scaling Factor	Reported SAR (1g) (W/kg)	Plot #
MHz	Ch.															
824.20	128	GSM 850	GPRS	33.0	31.81	-0.13	10 mm	N/A	19550	2	1:4.15	back	0.493	1.315	0.648	
836.60	190	GSM 850	GPRS	33.0	31.68	-0.12	10 mm	N/A	19550	2	1:4.15	back	0.601	1.355	0.814	
848.80	251	GSM 850	GPRS	33.0	31.48	-0.13	10 mm	N/A	19550	2	1:4.15	back	0.815	1.419	**1.156**	A29
836.60	190	GSM 850	GPRS	33.0	31.68	-0.07	10 mm	N/A	19550	2	1:4.15	front	0.498	1.355	0.675	
836.60	190	GSM 850	GPRS	33.0	31.68	-0.06	10 mm	N/A	19550	2	1:4.15	bottom	0.363	1.355	0.492	
836.60	190	GSM 850	GPRS	33.0	31.68	0.01	10 mm	N/A	19550	2	1:4.15	right	0.194	1.355	0.263	
836.60	190	GSM 850	GPRS	33.0	31.68	-0.04	10 mm	N/A	19550	2	1:4.15	left	0.074	1.355	0.100	
1880.00	661	GSM 1900	GPRS	26.0	25.01	0.00	10 mm	N/A	05583	2	1:4.15	back	0.553	1.256	0.695	
1880.00	661	GSM 1900	GPRS	26.0	25.01	-0.08	10 mm	N/A	05583	2	1:4.15	front	0.510	1.256	0.641	
1850.20	512	GSM 1900	GPRS	26.0	24.90	0.00	10 mm	N/A	05583	2	1:4.15	bottom	0.825	1.288	1.063	
1880.00	661	GSM 1900	GPRS	26.0	25.01	0.03	10 mm	N/A	05583	2	1:4.15	bottom	0.914	1.256	1.148	
1909.80	810	GSM 1900	GPRS	26.0	25.09	-0.08	10 mm	N/A	05583	2	1:4.15	bottom	0.938	1.233	**1.157**	A31
1880.00	661	GSM 1900	GPRS	26.0	25.01	-0.05	10 mm	N/A	05583	2	1:4.15	right	0.105	1.256	0.132	
1880.00	661	GSM 1900	GPRS	26.0	25.01	-0.14	10 mm	N/A	05583	2	1:4.15	left	0.063	1.256	0.079	
1909.80	810	GSM 1900	GPRS	26.0	25.09	0.09	10 mm	N/A	05583	2	1:4.15	bottom	0.937	1.233	**1.155**	
826.40	4132	UMTS 850	RMC	25.0	24.59	-0.02	10 mm	18	07134	N/A	1:1	back	0.611	1.099	0.671	
836.60	4183	UMTS 850	RMC	25.0	24.61	0.01	10 mm	18	07134	N/A	1:1	back	0.613	1.094	0.671	A33
846.60	4233	UMTS 850	RMC	25.0	24.73	0.00	10 mm	18	07134	N/A	1:1	back	0.607	1.064	0.646	
836.60	4183	UMTS 850	RMC	25.0	24.61	-0.12	10 mm	18	07134	N/A	1:1	front	0.386	1.094	0.422	
836.60	4183	UMTS 850	RMC	25.0	24.61	0.17	10 mm	18	07134	N/A	1:1	bottom	0.330	1.094	0.361	
836.60	4183	UMTS 850	RMC	25.0	24.61	0.02	10 mm	18	07134	N/A	1:1	right	0.158	1.094	0.173	
836.60	4183	UMTS 850	RMC	25.0	24.61	0.14	10 mm	18	07134	N/A	1:1	left	0.071	1.094	0.078	
1732.40	1412	UMTS 1750	RMC	21.0	20.61	-0.03	10 mm	108	06318	N/A	1:1	back	0.519	1.094	0.568	
1732.40	1412	UMTS 1750	RMC	21.0	20.61	-0.04	10 mm	108	06318	N/A	1:1	front	0.460	1.094	0.503	
1712.40	1312	UMTS 1750	RMC	21.0	20.55	-0.02	10 mm	108	06318	N/A	1:1	bottom	0.718	1.109	0.796	
1732.40	1412	UMTS 1750	RMC	21.0	20.61	-0.01	10 mm	108	06318	N/A	1:1	bottom	0.826	1.094	0.904	
1752.60	1513	UMTS 1750	RMC	21.0	20.68	-0.01	10 mm	108	06318	N/A	1:1	bottom	0.827	1.076	0.890	A35
1732.40	1412	UMTS 1750	RMC	21.0	20.61	0.01	10 mm	108	06318	N/A	1:1	right	0.110	1.094	0.120	
1732.40	1412	UMTS 1750	RMC	21.0	20.61	0.15	10 mm	108	06318	N/A	1:1	left	0.048	1.094	0.053	
1880.00	9400	UMTS 1900	RMC	20.0	19.21	0.00	10 mm	108	05583	N/A	1:1	back	0.398	1.199	0.477	
1880.00	9400	UMTS 1900	RMC	20.0	19.21	-0.06	10 mm	108	05583	N/A	1:1	front	0.301	1.199	0.361	
1852.40	9262	UMTS 1900	RMC	20.0	19.31	-0.04	10 mm	108	05583	N/A	1:1	bottom	0.809	1.172	0.948	
1880.00	9400	UMTS 1900	RMC	20.0	19.21	-0.04	10 mm	108	05583	N/A	1:1	bottom	0.850	1.199	1.019	A37
1907.60	9538	UMTS 1900	RMC	20.0	19.08	-0.06	10 mm	108	05583	N/A	1:1	bottom	0.800	1.236	0.989	
1880.00	9400	UMTS 1900	RMC	20.0	19.21	-0.16	10 mm	108	05583	N/A	1:1	right	0.084	1.199	0.101	
1880.00	9400	UMTS 1900	RMC	20.0	19.21	0.10	10 mm	108	05583	N/A	1:1	left	0.025	1.199	0.030	
824.70	1013	CDMA BC0 (§22H)	EVDO Rev. 0	26.0	25.79	-0.01	10 mm	0	19550	N/A	1:1	back	0.712	1.050	0.748	
836.52	384	CDMA BC0 (§22H)	EVDO Rev. 0	26.0	25.88	-0.06	10 mm	0	19550	N/A	1:1	back	0.816	1.028	0.839	A39
848.31	777	CDMA BC0 (§22H)	EVDO Rev. 0	26.0	24.76	-0.13	10 mm	0	19550	N/A	1:1	back	0.731	1.330	0.972	
836.52	384	CDMA BC0 (§22H)	EVDO Rev. 0	26.0	25.88	0.01	10 mm	0	19550	N/A	1:1	front	0.547	1.028	0.562	
836.52	384	CDMA BC0 (§22H)	EVDO Rev. 0	26.0	25.88	-0.03	10 mm	0	19550	N/A	1:1	bottom	0.475	1.028	0.488	
836.52	384	CDMA BC0 (§22H)	EVDO Rev. 0	26.0	25.88	0.06	10 mm	0	19550	N/A	1:1	right	0.215	1.028	0.221	
836.52	384	CDMA BC0 (§22H)	EVDO Rev. 0	26.0	25.88	0.02	10 mm	0	19550	N/A	1:1	left	0.094	1.028	0.097	
836.52	384	CDMA BC0 (§22H)	EVDO Rev. 0	26.0	25.88	-0.10	10 mm	0	19550	N/A	1:1	back	0.788	1.028	0.810	
820.10	564	CDMA BC10 (§90S)	EVDO Rev. 0	26.0	25.85	0.01	10 mm	0	19550	N/A	1:1	back	0.723	1.035	0.748	A41
820.10	564	CDMA BC10 (§90S)	EVDO Rev. 0	26.0	25.85	0.00	10 mm	0	19550	N/A	1:1	front	0.466	1.035	0.482	
820.10	564	CDMA BC10 (§90S)	EVDO Rev. 0	26.0	25.85	0.01	10 mm	0	19550	N/A	1:1	bottom	0.420	1.035	0.435	
820.10	564	CDMA BC10 (§90S)	EVDO Rev. 0	26.0	25.85	0.02	10 mm	0	19550	N/A	1:1	right	0.179	1.035	0.185	
820.10	564	CDMA BC10 (§90S)	EVDO Rev. 0	26.0	25.85	0.02	10 mm	0	19550	N/A	1:1	left	0.084	1.035	0.087	
1880.00	600	PCS CDMA	EVDO Rev. 0	19.5	18.63	0.02	10 mm	108	05583	N/A	1:1	back	0.397	1.222	0.485	
1880.00	600	PCS CDMA	EVDO Rev. 0	19.5	18.63	-0.05	10 mm	108	05583	N/A	1:1	front	0.312	1.222	0.381	
1851.25	25	PCS CDMA	EVDO Rev. 0	19.5	18.82	-0.13	10 mm	108	05583	N/A	1:1	bottom	0.723	1.169	0.845	
1880.00	600	PCS CDMA	EVDO Rev. 0	19.5	18.63	-0.11	10 mm	108	05583	N/A	1:1	bottom	0.727	1.222	0.888	
1908.75	1175	PCS CDMA	EVDO Rev. 0	19.5	18.62	-0.05	10 mm	108	05583	N/A	1:1	bottom	0.765	1.225	0.937	A43
1880.00	600	PCS CDMA	EVDO Rev. 0	19.5	18.63	-0.03	10 mm	108	05583	N/A	1:1	right	0.072	1.222	0.088	
1880.00	600	PCS CDMA	EVDO Rev. 0	19.5	18.63	-0.12	10 mm	108	05583	N/A	1:1	left	0.018	1.222	0.022	
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 11-36
LTE Band 71 Hotspot SAR

MEASUREMENT RESULTS																						
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Antenna Config.	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	24.79	-0.01	0	0	05187	QPSK	1	99	10 mm	back	1:1	0.404	1.178	0.476	A45
680.50	133297	Mid	LTE Band 71	20	24.5	23.83	-0.02	1	0	05187	QPSK	50	50	10 mm	back	1:1	0.339	1.167	0.396	
680.50	133297	Mid	LTE Band 71	20	25.5	24.79	0.00	0	0	05187	QPSK	1	99	10 mm	front	1:1	0.238	1.178	0.280	
680.50	133297	Mid	LTE Band 71	20	24.5	23.83	-0.03	1	0	05187	QPSK	50	50	10 mm	front	1:1	0.198	1.167	0.231	
680.50	133297	Mid	LTE Band 71	20	25.5	24.79	0.06	0	13	05187	QPSK	1	99	10 mm	bottom	1:1	0.193	1.178	0.227	
680.50	133297	Mid	LTE Band 71	20	24.5	23.83	0.02	1	13	05187	QPSK	50	50	10 mm	bottom	1:1	0.162	1.167	0.189	
680.50	133297	Mid	LTE Band 71	20	25.5	24.79	0.09	0	13	05187	QPSK	1	99	10 mm	right	1:1	0.211	1.178	0.249	
680.50	133297	Mid	LTE Band 71	20	24.5	23.83	-0.05	1	13	05187	QPSK	50	50	10 mm	right	1:1	0.179	1.167	0.209	
680.50	133297	Mid	LTE Band 71	20	25.5	24.79	-0.03	0	0	05187	QPSK	1	99	10 mm	left	1:1	0.115	1.178	0.135	
680.50	133297	Mid	LTE Band 71	20	24.5	23.83	-0.02	1	0	05187	QPSK	50	50	10 mm	left	1:1	0.099	1.167	0.116	
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 11-37
LTE Band 12 Hotspot SAR

MEASUREMENT RESULTS																				
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Antenna Config.	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	24.87	0.04	0	0	05187	QPSK	1	0	10 mm	back	1:1	0.429	1.156	0.496	A47
707.50	23095	Mid	LTE Band 12	10	24.5	23.87	0.03	1	0	05187	QPSK	25	12	10 mm	back	1:1	0.369	1.156	0.427	
707.50	23095	Mid	LTE Band 12	10	25.5	24.87	-0.01	0	0	05187	QPSK	1	0	10 mm	front	1:1	0.290	1.156	0.335	
707.50	23095	Mid	LTE Band 12	10	24.5	23.87	0.00	1	0	05187	QPSK	25	12	10 mm	front	1:1	0.236	1.156	0.273	
707.50	23095	Mid	LTE Band 12	10	25.5	24.87	-0.06	0	0	05187	QPSK	1	0	10 mm	bottom	1:1	0.284	1.156	0.328	
707.50	23095	Mid	LTE Band 12	10	24.5	23.87	-0.03	1	0	05187	QPSK	25	12	10 mm	bottom	1:1	0.225	1.156	0.260	
707.50	23095	Mid	LTE Band 12	10	25.5	24.87	-0.12	0	0	05187	QPSK	1	0	10 mm	right	1:1	0.286	1.156	0.331	
707.50	23095	Mid	LTE Band 12	10	24.5	23.87	0.04	1	0	05187	QPSK	25	12	10 mm	right	1:1	0.248	1.156	0.287	
707.50	23095	Mid	LTE Band 12	10	25.5	24.87	0.04	0	0	05187	QPSK	1	0	10 mm	left	1:1	0.133	1.156	0.154	
707.50	23095	Mid	LTE Band 12	10	24.5	23.87	0.02	1	0	05187	QPSK	25	12	10 mm	left	1:1	0.122	1.156	0.141	
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 13 Hotspot SAR

MEASUREMENT RESULTS																				
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Antenna Config.	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	24.61	0.04	0	0	05187	QPSK	1	0	10 mm	back	1:1	0.488	1.227	0.599	A49
782.00	23230	Mid	LTE Band 13	10	24.5	23.63	0.05	1	0	05187	QPSK	25	12	10 mm	back	1:1	0.415	1.222	0.507	
782.00	23230	Mid	LTE Band 13	10	25.5	24.61	-0.03	0	0	05187	QPSK	1	0	10 mm	front	1:1	0.333	1.227	0.409	
782.00	23230	Mid	LTE Band 13	10	24.5	23.63	0.01	1	0	05187	QPSK	25	12	10 mm	front	1:1	0.279	1.222	0.341	
782.00	23230	Mid	LTE Band 13	10	25.5	24.61	-0.04	0	0	05187	QPSK	1	0	10 mm	bottom	1:1	0.285	1.227	0.350	
782.00	23230	Mid	LTE Band 13	10	24.5	23.63	-0.03	1	0	05187	QPSK	25	12	10 mm	bottom	1:1	0.240	1.222	0.293	
782.00	23230	Mid	LTE Band 13	10	25.5	24.61	-0.06	0	0	05187	QPSK	1	0	10 mm	right	1:1	0.225	1.227	0.276	
782.00	23230	Mid	LTE Band 13	10	24.5	23.63	0.00	1	0	05187	QPSK	25	12	10 mm	right	1:1	0.167	1.222	0.204	
782.00	23230	Mid	LTE Band 13	10	25.5	24.61	0.10	0	0	05187	QPSK	1	0	10 mm	left	1:1	0.091	1.227	0.112	
782.00	23230	Mid	LTE Band 13	10	24.5	23.63	-0.06	1	0	05187	QPSK	25	12	10 mm	left	1:1	0.079	1.222	0.097	
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 14 Hotspot SAR

MEASUREMENT RESULTS																						
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Antenna Config.	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.																			
793.00	23330	Mid	LTE Band 14	10	25.5	24.55	0.03	0	0	05187	QPSK	1	0	10 mm	back	1:1	0.531	1.245	0.661	A51
793.00	23330	Mid	LTE Band 14	10	24.5	23.43	0.00	1	0	05187	QPSK	25	12	10 mm	back	1:1	0.420	1.279	0.537	
793.00	23330	Mid	LTE Band 14	10	25.5	24.55	-0.02	0	0	05187	QPSK	1	0	10 mm	front	1:1	0.345	1.245	0.430	
793.00	23330	Mid	LTE Band 14	10	24.5	23.43	-0.03	1	0	05187	QPSK	25	12	10 mm	front	1:1	0.264	1.279	0.338	
793.00	23330	Mid	LTE Band 14	10	25.5	24.55	-0.11	0	0	05187	QPSK	1	0	10 mm	bottom	1:1	0.298	1.245	0.371	
793.00	23330	Mid	LTE Band 14	10	24.5	23.43	-0.02	1	0	05187	QPSK	25	12	10 mm	bottom	1:1	0.253	1.279	0.324	
793.00	23330	Mid	LTE Band 14	10	25.5	24.55	0.05	0	0	05187	QPSK	1	0	10 mm	right	1:1	0.179	1.245	0.223	
793.00	23330	Mid	LTE Band 14	10	24.5	23.43	-0.08	1	0	05187	QPSK	25	12	10 mm	right	1:1	0.129	1.279	0.165	
793.00	23330	Mid	LTE Band 14	10	25.5	24.55	-0.01	0	0	05187	QPSK	1	0	10 mm	left	1:1	0.111	1.245	0.138	
793.00	23330	Mid	LTE Band 14	10	24.5	23.43	0.09	1	0	05187	QPSK	25	12	10 mm	left	1:1	0.074	1.279	0.095	
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 11-40
LTE Band 5 (Cell) Hotspot SAR

MEASUREMENT RESULTS																						
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Antenna Config.	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	25.05	0.03	0	0	07134	QPSK	1	0	10 mm	back	1:1	0.676	1.109	0.750	A53
836.50	20525	Mid	LTE Band 5 (Cell)	10	24.5	23.93	0.03	1	0	07134	QPSK	25	25	10 mm	back	1:1	0.546	1.140	0.622	
836.50	20525	Mid	LTE Band 5 (Cell)	10	25.5	25.05	0.00	0	0	07134	QPSK	1	0	10 mm	front	1:1	0.441	1.109	0.489	
836.50	20525	Mid	LTE Band 5 (Cell)	10	24.5	23.93	0.02	1	0	07134	QPSK	25	25	10 mm	front	1:1	0.352	1.140	0.401	
836.50	20525	Mid	LTE Band 5 (Cell)	10	25.5	25.05	0.04	0	0	07134	QPSK	1	0	10 mm	bottom	1:1	0.350	1.109	0.388	
836.50	20525	Mid	LTE Band 5 (Cell)	10	24.5	23.93	0.04	1	0	07134	QPSK	25	25	10 mm	bottom	1:1	0.267	1.140	0.304	
836.50	20525	Mid	LTE Band 5 (Cell)	10	25.5	25.05	0.07	0	0	07134	QPSK	1	0	10 mm	right	1:1	0.164	1.109	0.182	
836.50	20525	Mid	LTE Band 5 (Cell)	10	24.5	23.93	0.05	1	0	07134	QPSK	25	25	10 mm	right	1:1	0.119	1.140	0.136	
836.50	20525	Mid	LTE Band 5 (Cell)	10	25.5	25.05	0.07	0	0	07134	QPSK	1	0	10 mm	left	1:1	0.064	1.109	0.071	
836.50	20525	Mid	LTE Band 5 (Cell)	10	24.5	23.93	0.10	1	0	07134	QPSK	25	25	10 mm	left	1:1	0.049	1.140	0.056	
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 11-41
LTE Band 26 (Cell) Hotspot SAR

MEASUREMENT RESULTS																						
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Antenna Config.	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.																			
831.50	26865	Mid	LTE Band 26 (Cell)	15	25.5	24.79	0.01	0	0	07134	QPSK	1	0	10 mm	back	1:1	0.634	1.178	0.747	A55
831.50	26865	Mid	LTE Band 26 (Cell)	15	24.5	23.92	0.03	1	0	07134	QPSK	36	18	10 mm	back	1:1	0.543	1.143	0.621	
831.50	26865	Mid	LTE Band 26 (Cell)	15	25.5	24.79	0.13	0	0	07134	QPSK	1	0	10 mm	front	1:1	0.427	1.178	0.503	
831.50	26865	Mid	LTE Band 26 (Cell)	15	24.5	23.92	0.01	1	0	07134	QPSK	36	18	10 mm	front	1:1	0.353	1.143	0.403	
831.50	26865	Mid	LTE Band 26 (Cell)	15	25.5	24.79	0.05	0	0	07134	QPSK	1	0	10 mm	bottom	1:1	0.310	1.178	0.365	
831.50	26865	Mid	LTE Band 26 (Cell)	15	24.5	23.92	0.06	1	0	07134	QPSK	36	18	10 mm	bottom	1:1	0.274	1.143	0.313	
831.50	26865	Mid	LTE Band 26 (Cell)	15	25.5	24.79	0.01	0	0	07134	QPSK	1	0	10 mm	right	1:1	0.192	1.178	0.226	
831.50	26865	Mid	LTE Band 26 (Cell)	15	24.5	23.92	0.00	1	0	07134	QPSK	36	18	10 mm	right	1:1	0.139	1.143	0.159	
831.50	26865	Mid	LTE Band 26 (Cell)	15	25.5	24.79	0.07	0	0	07134	QPSK	1	0	10 mm	left	1:1	0.084	1.178	0.099	
831.50	26865	Mid	LTE Band 26 (Cell)	15	24.5	23.92	0.08	1	0	07134	QPSK	36	18	10 mm	left	1:1	0.054	1.143	0.062	
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 11-42
LTE Band 66 (AWS) Hotspot SAR

MEASUREMENT RESULTS																					
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Antenna Config.	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	21.0	20.52	-0.02	0	108	06318	QPSK	1	50	10 mm	back	1:1	0.435	1.117	0.486	
1720.00	132072	Low	LTE Band 66 (AWS)	20	21.0	20.57	-0.03	0	108	06318	QPSK	50	0	10 mm	back	1:1	0.433	1.104	0.478	
1720.00	132072	Low	LTE Band 66 (AWS)	20	21.0	20.52	-0.02	0	108	06318	QPSK	1	50	10 mm	front	1:1	0.397	1.117	0.443	
1720.00	132072	Low	LTE Band 66 (AWS)	20	21.0	20.57	-0.04	0	108	06318	QPSK	50	0	10 mm	front	1:1	0.401	1.104	0.443	
1720.00	132072	Low	LTE Band 66 (AWS)	20	21.0	20.52	0.01	0	10	06318	QPSK	1	50	10 mm	bottom	1:1	0.667	1.117	0.745	
1720.00	132072	Low	LTE Band 66 (AWS)	20	21.0	20.57	0.02	0	10	06318	QPSK	50	0	10 mm	bottom	1:1	0.680	1.104	0.751	
1745.00	132322	Mid	LTE Band 66 (AWS)	20	21.0	20.46	-0.01	0	10	06318	QPSK	50	25	10 mm	bottom	1:1	0.764	1.132	0.865	
1770.00	132572	High	LTE Band 66 (AWS)	20	21.0	20.33	0.00	0	10	06318	QPSK	50	25	10 mm	bottom	1:1	0.857	1.167	1.000	A57
1720.00	132072	Low	LTE Band 66 (AWS)	20	21.0	20.40	0.00	0	10	06318	QPSK	100	0	10 mm	bottom	1:1	0.694	1.148	0.797	
1720.00	132072	Low	LTE Band 66 (AWS)	20	21.0	20.52	0.04	0	108	06318	QPSK	1	50	10 mm	right	1:1	0.101	1.117	0.113	
1720.00	132072	Low	LTE Band 66 (AWS)	20	21.0	20.57	-0.04	0	108	06318	QPSK	50	0	10 mm	right	1:1	0.100	1.104	0.110	
1720.00	132072	Low	LTE Band 66 (AWS)	20	21.0	20.52	0.15	0	108	06318	QPSK	1	50	10 mm	left	1:1	0.037	1.117	0.041	
1720.00	132072	Low	LTE Band 66 (AWS)	20	21.0	20.57	0.02	0	108	06318	QPSK	50	0	10 mm	left	1:1	0.035	1.104	0.039	
1770.00	132572	High	LTE Band 66 (AWS)	20	21.0	20.33	-0.02	0	10	06318	QPSK	50	25	10 mm	bottom	1:1	0.829	1.167	0.967	
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.

Table 11-43
LTE Band 25 (PCS) Hotspot SAR

MEASUREMENT RESULTS																					
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Antenna Config.	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	19.5	18.79	0.02	0	108	06938	QPSK	1	0	10 mm	back	1:1	0.446	1.178	0.525	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	19.5	18.87	-0.01	0	108	06938	QPSK	50	25	10 mm	back	1:1	0.446	1.156	0.516	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	19.5	18.79	-0.02	0	108	06938	QPSK	1	0	10 mm	front	1:1	0.377	1.178	0.444	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	19.5	18.87	-0.12	0	108	06938	QPSK	50	25	10 mm	front	1:1	0.367	1.156	0.424	
1860.00	26140	Low	LTE Band 25 (PCS)	20	19.5	18.78	0.05	0	108	06938	QPSK	1	50	10 mm	bottom	1:1	0.846	1.180	0.998	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	19.5	18.79	0.10	0	108	06938	QPSK	1	0	10 mm	bottom	1:1	0.831	1.178	0.979	
1905.00	26590	High	LTE Band 25 (PCS)	20	19.5	18.59	0.04	0	13	06938	QPSK	1	99	10 mm	bottom	1:1	0.842	1.233	1.038	
1860.00	26140	Low	LTE Band 25 (PCS)	20	19.5	18.86	0.05	0	108	06938	QPSK	50	25	10 mm	bottom	1:1	0.858	1.159	0.994	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	19.5	18.87	-0.01	0	108	06938	QPSK	50	25	10 mm	bottom	1:1	0.886	1.156	1.024	A59
1905.00	26590	High	LTE Band 25 (PCS)	20	19.5	18.86	0.03	0	13	06938	QPSK	50	50	10 mm	bottom	1:1	0.818	1.159	0.948	
1860.00	26140	Low	LTE Band 25 (PCS)	20	19.5	18.73	0.03	0	108	06938	QPSK	100	0	10 mm	bottom	1:1	0.844	1.194	1.008	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	19.5	18.79	-0.13	0	108	06938	QPSK	1	0	10 mm	right	1:1	0.100	1.178	0.118	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	19.5	18.87	-0.06	0	108	06938	QPSK	50	25	10 mm	right	1:1	0.103	1.156	0.119	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	19.5	18.79	-0.15	0	108	06938	QPSK	1	0	10 mm	left	1:1	0.034	1.178	0.040	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	19.5	18.87	-0.14	0	108	06938	QPSK	50	25	10 mm	left	1:1	0.027	1.156	0.031	
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 11-44
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	22.0	21.30	-0.02	0	19469	QPSK	1	0	10 mm	back	1:1	0.470	1.175	0.552	
2310.00	27710	Mid	LTE Band 30	10	22.0	21.29	-0.06	0	19469	QPSK	25	12	10 mm	back	1:1	0.512	1.178	0.603	A61
2310.00	27710	Mid	LTE Band 30	10	22.0	21.30	0.05	0	19469	QPSK	1	0	10 mm	front	1:1	0.286	1.175	0.336	
2310.00	27710	Mid	LTE Band 30	10	22.0	21.29	0.04	0	19469	QPSK	25	12	10 mm	front	1:1	0.299	1.178	0.352	
2310.00	27710	Mid	LTE Band 30	10	22.0	21.30	0.10	0	19469	QPSK	1	0	10 mm	bottom	1:1	0.447	1.175	0.525	
2310.00	27710	Mid	LTE Band 30	10	22.0	21.29	-0.02	0	19469	QPSK	25	12	10 mm	bottom	1:1	0.480	1.178	0.565	
2310.00	27710	Mid	LTE Band 30	10	22.0	21.30	-0.08	0	19469	QPSK	1	0	10 mm	left	1:1	0.184	1.175	0.216	
2310.00	27710	Mid	LTE Band 30	10	22.0	21.29	-0.11	0	19469	QPSK	25	12	10 mm	left	1:1	0.192	1.178	0.226	
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 11-45
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)	
2560.00	21350	High	LTE Band 7	20	22.0	21.38	-0.02	0	19469	QPSK	1	99	10 mm	back	1:1	0.322	1.153	0.371	
2560.00	21350	High	LTE Band 7	20	22.0	21.43	-0.02	0	19469	QPSK	50	50	10 mm	back	1:1	0.345	1.140	0.393	A63
2560.00	21350	High	LTE Band 7	20	22.0	21.38	0.03	0	19469	QPSK	1	99	10 mm	front	1:1	0.168	1.153	0.194	
2560.00	21350	High	LTE Band 7	20	22.0	21.43	0.00	0	19469	QPSK	50	50	10 mm	front	1:1	0.190	1.140	0.217	
2560.00	21350	High	LTE Band 7	20	22.0	21.38	-0.06	0	19469	QPSK	1	99	10 mm	bottom	1:1	0.279	1.153	0.322	
2560.00	21350	High	LTE Band 7	20	22.0	21.43	0.01	0	19469	QPSK	50	50	10 mm	bottom	1:1	0.286	1.140	0.326	
2560.00	21350	High	LTE Band 7	20	22.0	21.38	0.02	0	19469	QPSK	1	99	10 mm	left	1:1	0.153	1.153	0.176	
2560.00	21350	High	LTE Band 7	20	22.0	21.43	0.11	0	19469	QPSK	50	50	10 mm	left	1:1	0.162	1.140	0.185	
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 11-46
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	2593.00	40620	Mid	LTE Band 41	20	22.0	21.30	-0.09	0	19410	QPSK	1	50	10 mm	back	1:1.58	0.176	1.175	0.207	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	22.0	21.30	-0.06	0	19410	QPSK	50	25	10 mm	back	1:1.58	0.175	1.175	0.206	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	22.0	21.30	0.12	0	19410	QPSK	1	50	10 mm	front	1:1.58	0.114	1.175	0.134	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	22.0	21.30	-0.01	0	19410	QPSK	50	25	10 mm	front	1:1.58	0.131	1.175	0.154	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	22.0	21.30	0.02	0	19410	QPSK	1	50	10 mm	bottom	1:1.58	0.218	1.175	0.256	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	22.0	20.91	0.11	0	19410	QPSK	1	99	10 mm	bottom	1:1.58	0.199	1.285	0.256	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	22.0	21.30	-0.06	0	19410	QPSK	50	25	10 mm	bottom	1:1.58	0.216	1.175	0.254	
1 CC Uplink - Power Class 2	N/A	2593.00	40620	Mid	LTE Band 41	20	22.0	21.18	0.12	0	19410	QPSK	1	50	10 mm	bottom	1:2.31	0.143	1.208	0.173	
1 CC Uplink - Power Class 2	N/A	2593.00	40620	Mid	LTE Band 41	20	22.0	20.69	0.11	0	19410	QPSK	1	99	10 mm	bottom	1:2.31	0.124	1.352	0.168	
2 CC Uplink - Power Class 3	PCC	2593.00	40620	Mid	LTE Band 41	20	22.0	21.96	0.06	0	19410	QPSK	1	99	10 mm	bottom	1:1.58	0.265	1.009	0.267	A65
	SCC	2612.80	40818	Mid	LTE Band 41	20								0							
2 CC Uplink - Power Class 2	PCC	2593.00	40620	Mid	LTE Band 41	20	22.0	22.00	0.08	0	19410	QPSK	1	99	10 mm	bottom	1:2.31	0.176	1.000	0.176	
	SCC	2612.80	40818	Mid	LTE Band 41	20								0							
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	22.0	21.30	-0.17	0	19410	QPSK	1	50	10 mm	left	1:1.58	0.106	1.175	0.125	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	22.0	21.30	-0.05	0	19410	QPSK	50	25	10 mm	left	1:1.58	0.105	1.175	0.123	
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 11-47
NR Band n71 Hotspot SAR

MEASUREMENT RESULTS																						
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Antenna Config.	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	136100	Mid	NR Band n71	20	25.0	24.65	0.01	0	0	05187	DFT-S-OFDM QPSK	1	53	10 mm	back	1:1	0.345	1.084	0.374	
680.50	136100	Mid	NR Band n71	20	25.0	24.47	0.02	0	0	05187	DFT-S-OFDM QPSK	50	28	10 mm	back	1:1	0.349	1.130	0.394	A67
680.50	136100	Mid	NR Band n71	20	23.5	23.20	-0.04	1.5	0	05187	CP-OFDM QPSK	1	1	10 mm	back	1:1	0.280	1.072	0.300	
680.50	136100	Mid	NR Band n71	20	25.0	24.65	-0.09	0	0	05187	DFT-S-OFDM QPSK	1	53	10 mm	front	1:1	0.208	1.084	0.225	
680.50	136100	Mid	NR Band n71	20	25.0	24.47	0.03	0	0	05187	DFT-S-OFDM QPSK	50	28	10 mm	front	1:1	0.206	1.130	0.233	
680.50	136100	Mid	NR Band n71	20	25.0	24.65	-0.15	0	13	05187	DFT-S-OFDM QPSK	1	53	10 mm	bottom	1:1	0.165	1.084	0.179	
680.50	136100	Mid	NR Band n71	20	25.0	24.47	-0.12	0	13	05187	DFT-S-OFDM QPSK	50	28	10 mm	bottom	1:1	0.164	1.130	0.185	
680.50	136100	Mid	NR Band n71	20	25.0	24.65	-0.16	0	13	05187	DFT-S-OFDM QPSK	1	53	10 mm	right	1:1	0.220	1.084	0.238	
680.50	136100	Mid	NR Band n71	20	25.0	24.47	0.03	0	13	05187	DFT-S-OFDM QPSK	50	28	10 mm	right	1:1	0.207	1.130	0.234	
680.50	136100	Mid	NR Band n71	20	25.0	24.65	0.05	0	0	05187	DFT-S-OFDM QPSK	1	53	10 mm	left	1:1	0.126	1.084	0.137	
680.50	136100	Mid	NR Band n71	20	25.0	24.47	0.11	0	0	05187	DFT-S-OFDM QPSK	50	28	10 mm	left	1:1	0.121	1.130	0.137	
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 11-48
NR Band n5 Hotspot SAR

MEASUREMENT RESULTS																					
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Antenna Config.	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)	
836.50	167300	Mid	NR Band n5 (Cell)	20	25.0	24.77	0.03	0	0	19550	DFT-S-OFDM QPSK	1	1	10 mm	back	1:1	0.569	1.054	0.600	
836.50	167300	Mid	NR Band n5 (Cell)	20	25.0	24.80	0.01	0	0	19550	DFT-S-OFDM QPSK	50	28	10 mm	back	1:1	0.641	1.047	0.671	A69
836.50	167300	Mid	NR Band n5 (Cell)	20	23.5	23.30	0.04	1.5	0	19550	CP-OFDM QPSK	1	1	10 mm	back	1:1	0.392	1.047	0.410	
836.50	167300	Mid	NR Band n5 (Cell)	20	25.0	24.77	0.09	0	0	19550	DFT-S-OFDM QPSK	1	1	10 mm	front	1:1	0.373	1.054	0.393	
836.50	167300	Mid	NR Band n5 (Cell)	20	25.0	24.80	-0.07	0	0	19550	DFT-S-OFDM QPSK	50	28	10 mm	front	1:1	0.419	1.047	0.439	
836.50	167300	Mid	NR Band n5 (Cell)	20	25.0	24.77	-0.15	0	0	19550	DFT-S-OFDM QPSK	1	1	10 mm	bottom	1:1	0.327	1.054	0.345	
836.50	167300	Mid	NR Band n5 (Cell)	20	25.0	24.80	0.03	0	0	19550	DFT-S-OFDM QPSK	50	28	10 mm	bottom	1:1	0.350	1.047	0.366	
836.50	167300	Mid	NR Band n5 (Cell)	20	25.0	24.77	0.00	0	0	19550	DFT-S-OFDM QPSK	1	1	10 mm	right	1:1	0.164	1.054	0.173	
836.50	167300	Mid	NR Band n5 (Cell)	20	25.0	24.80	0.04	0	0	19550	DFT-S-OFDM QPSK	50	28	10 mm	right	1:1	0.155	1.047	0.162	
836.50	167300	Mid	NR Band n5 (Cell)	20	25.0	24.77	-0.05	0	0	19550	DFT-S-OFDM QPSK	1	1	10 mm	left	1:1	0.075	1.054	0.079	
836.50	167300	Mid	NR Band n5 (Cell)	20	25.0	24.80	0.08	0	0	19550	DFT-S-OFDM QPSK	50	28	10 mm	left	1:1	0.073	1.047	0.076	
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 11-49
NR Band n66 Hotspot SAR

MEASUREMENT RESULTS																					
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Antenna Config.	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)	
1745.00	349000	Mid	NR Band n66 (AWS)	20	21.0	21.00	-0.04	0	108	07217	DFT-S-OFDM QPSK	1	53	10 mm	back	1:1	0.489	1.000	0.489	
1745.00	349000	Mid	NR Band n66 (AWS)	20	21.0	20.97	0.00	0	108	07217	DFT-S-OFDM QPSK	50	56	10 mm	back	1:1	0.523	1.007	0.527	
1745.00	349000	Mid	NR Band n66 (AWS)	20	21.0	21.00	-0.03	0	108	07217	DFT-S-OFDM QPSK	1	53	10 mm	front	1:1	0.439	1.000	0.439	
1745.00	349000	Mid	NR Band n66 (AWS)	20	21.0	20.97	-0.03	0	108	07217	DFT-S-OFDM QPSK	50	56	10 mm	front	1:1	0.471	1.007	0.474	
1745.00	349000	Mid	NR Band n66 (AWS)	20	21.0	21.00	-0.14	0	10	07217	DFT-S-OFDM QPSK	1	53	10 mm	bottom	1:1	0.614	1.000	0.614	
1720.00	344000	Low	NR Band n66 (AWS)	20	21.0	20.82	0.03	0	10	07217	DFT-S-OFDM QPSK	50	56	10 mm	bottom	1:1	0.623	1.042	0.649	
1745.00	349000	Mid	NR Band n66 (AWS)	20	21.0	20.97	-0.04	0	10	07217	DFT-S-OFDM QPSK	50	56	10 mm	bottom	1:1	0.657	1.007	0.662	
1745.00	349000	Mid	NR Band n66 (AWS)	20	21.0	21.00	0.05	0	10	07217	CP-OFDM QPSK	1	1	10 mm	bottom	1:1	0.643	1.000	0.643	
1770.00	354000	High	NR Band n66 (AWS)	20	21.0	20.69	-0.03	0	10	07217	DFT-S-OFDM QPSK	50	0	10 mm	bottom	1:1	0.666	1.074	0.715	A71
1745.00	349000	Mid	NR Band n66 (AWS)	20	21.0	21.00	0.12	0	108	07217	DFT-S-OFDM QPSK	1	53	10 mm	right	1:1	0.062	1.000	0.062	
1745.00	349000	Mid	NR Band n66 (AWS)	20	21.0	20.97	0.01	0	108	07217	DFT-S-OFDM QPSK	50	56	10 mm	right	1:1	0.068	1.007	0.068	
1745.00	349000	Mid	NR Band n66 (AWS)	20	21.0	21.00	0.19	0	108	07217	DFT-S-OFDM QPSK	1	53	10 mm	left	1:1	0.042	1.000	0.042	
1745.00	349000	Mid	NR Band n66 (AWS)	20	21.0	20.97	0.09	0	108	07217	DFT-S-OFDM QPSK	50	56	10 mm	left	1:1	0.042	1.007	0.042	
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 11-50
NR Band n2 Hotspot SAR

MEASUREMENT RESULTS																				
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Antenna Config.	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)	
1880.00	376000	Mid	NR Band n2 (PCS)	20	20.0	19.85	0.05	0	108	05583	DFT-S-OFDM QPSK	1	53	10 mm	back	1:1	0.435	1.035	0.450	
1880.00	376000	Mid	NR Band n2 (PCS)	20	20.0	19.46	0.08	0	108	05583	DFT-S-OFDM QPSK	50	28	10 mm	back	1:1	0.433	1.132	0.490	
1880.00	376000	Mid	NR Band n2 (PCS)	20	20.0	19.85	-0.15	0	108	05583	DFT-S-OFDM QPSK	1	53	10 mm	front	1:1	0.355	1.035	0.367	
1880.00	376000	Mid	NR Band n2 (PCS)	20	20.0	19.46	-0.15	0	108	05583	DFT-S-OFDM QPSK	50	28	10 mm	front	1:1	0.356	1.132	0.403	
1860.00	372000	Low	NR Band n2 (PCS)	20	20.0	19.25	0.07	0	108	05583	DFT-S-OFDM QPSK	1	53	10 mm	bottom	1:1	0.811	1.189	0.964	A73
1880.00	376000	Mid	NR Band n2 (PCS)	20	20.0	19.85	0.03	0	108	05583	DFT-S-OFDM QPSK	1	53	10 mm	bottom	1:1	0.802	1.035	0.830	
1900.00	380000	High	NR Band n2 (PCS)	20	20.0	19.35	-0.06	0	13	05583	DFT-S-OFDM QPSK	1	104	10 mm	bottom	1:1	0.793	1.161	0.921	
1860.00	372000	Low	NR Band n2 (PCS)	20	20.0	19.08	0.07	0	108	05583	DFT-S-OFDM QPSK	50	56	10 mm	bottom	1:1	0.795	1.236	0.983	
1880.00	376000	Mid	NR Band n2 (PCS)	20	20.0	19.46	0.00	0	108	05583	DFT-S-OFDM QPSK	50	28	10 mm	bottom	1:1	0.792	1.132	0.897	
1880.00	376000	Mid	NR Band n2 (PCS)	20	20.0	19.88	-0.03	0	108	05583	CP-OFDM QPSK	1	1	10 mm	bottom	1:1	0.768	1.028	0.790	
1900.00	380000	High	NR Band n2 (PCS)	20	20.0	19.25	-0.04	0	13	05583	DFT-S-OFDM QPSK	50	56	10 mm	bottom	1:1	0.791	1.189	0.940	
1880.00	376000	Mid	NR Band n2 (PCS)	20	20.0	19.44	-0.01	0	108	05583	DFT-S-OFDM QPSK	100	0	10 mm	bottom	1:1	0.720	1.138	0.819	
1880.00	376000	Mid	NR Band n2 (PCS)	20	20.0	19.85	-0.04	0	108	05583	DFT-S-OFDM QPSK	1	53	10 mm	right	1:1	0.092	1.035	0.095	
1880.00	376000	Mid	NR Band n2 (PCS)	20	20.0	19.46	0.02	0	108	05583	DFT-S-OFDM QPSK	50	28	10 mm	right	1:1	0.089	1.132	0.101	
1880.00	376000	Mid	NR Band n2 (PCS)	20	20.0	19.85	0.12	0	108	05583	DFT-S-OFDM QPSK	1	53	10 mm	left	1:1	0.021	1.035	0.022	
1880.00	376000	Mid	NR Band n2 (PCS)	20	20.0	19.46	0.12	0	108	05583	DFT-S-OFDM QPSK	50	28	10 mm	left	1:1	0.021	1.132	0.024	
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 11-51
NR Band n41 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)	
2592.99	518598	Mid	NR Band n41	100	24.0	23.95	0.15	0	19550	DFT-S-OFDM QPSK	1	1	10 mm	back	1:4	0.106	1.012	0.107	
2592.99	518598	Mid	NR Band n41	100	24.0	23.73	0.09	0	19550	DFT-S-OFDM QPSK	135	69	10 mm	back	1:4	0.067	1.064	0.071	
2592.99	518598	Mid	NR Band n41	100	24.0	23.95	0.06	0	19550	DFT-S-OFDM QPSK	1	1	10 mm	front	1:4	0.091	1.012	0.092	
2592.99	518598	Mid	NR Band n41	100	24.0	23.73	0.15	0	19550	DFT-S-OFDM QPSK	135	69	10 mm	front	1:4	0.056	1.064	0.060	
2592.99	518598	Mid	NR Band n41	100	24.0	23.95	0.10	0	19550	DFT-S-OFDM QPSK	1	1	10 mm	top	1:4	0.157	1.012	0.159	A75
2592.99	518598	Mid	NR Band n41	100	24.0	23.73	0.14	0	19550	DFT-S-OFDM QPSK	135	69	10 mm	top	1:4	0.108	1.064	0.115	
2592.99	518598	Mid	NR Band n41	100	22.5	22.21	0.03	1.5	19550	CP-OFDM QPSK	1	1	10 mm	top	1:4	0.109	1.069	0.117	
2592.99	518598	Mid	NR Band n41	100	24.0	23.95	0.11	0	19550	DFT-S-OFDM QPSK	1	1	10 mm	left	1:4	0.040	1.012	0.040	
2592.99	518598	Mid	NR Band n41	100	24.0	23.73	0.14	0	19550	DFT-S-OFDM QPSK	135	69	10 mm	left	1:4	0.025	1.064	0.027	
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 11-52
WLAN Hotspot SAR

MEASUREMENT RESULTS																		
FREQUENCY		Mode	Service	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Spacing	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	21.0	20.54	0.14	10 mm	28114	1	back	99.0	0.317	0.220	1.112	1.010	0.247	
2412	1	802.11b	DSSS	22	21.0	20.54	0.17	10 mm	28114	1	front	99.0	0.340	0.238	1.112	1.010	0.267	
2412	1	802.11b	DSSS	22	21.0	20.54	0.15	10 mm	28114	1	top	99.0	0.155	-	1.112	1.010	-	
2412	1	802.11b	DSSS	22	21.0	20.54	0.14	10 mm	28114	1	left	99.0	0.779	0.519	1.112	1.010	**0.583**	A77
5745	149	802.11a	OFDM	20	20.0	19.93	0.13	10 mm	28338	6	back	97.6	0.587	0.271	1.016	1.025	0.282	
5745	149	802.11a	OFDM	20	20.0	19.93	0.12	10 mm	28338	6	front	97.6	0.289	-	1.016	1.025	-	
5745	149	802.11a	OFDM	20	20.0	19.93	0.12	10 mm	28338	6	top	97.6	0.463	-	1.016	1.025	-	
5745	149	802.11a	OFDM	20	20.0	19.93	0.12	10 mm	28338	6	left	97.6	0.952	0.413	1.016	1.025	**0.430**	A79
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 11-53
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)	
2441	39	Bluetooth	FHSS	10.5	10.13	0.16	10 mm	28114	1	back	77.1	0.021	1.089	1.297	0.030	
2441	39	Bluetooth	FHSS	10.5	10.13	0.19	10 mm	28114	1	front	77.1	0.021	1.089	1.297	0.030	
2441	39	Bluetooth	FHSS	10.5	10.13	-0.01	10 mm	28114	1	top	77.1	0.010	1.089	1.297	0.014	
2441	39	Bluetooth	FHSS	10.5	10.13	0.03	10 mm	28114	1	left	77.1	0.049	1.089	1.297	**0.069**	A81
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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11.4 Standalone Phablet SAR Data

Table 11-54
GPRS/UMTS/CDMA Phablet SAR Data

MEASUREMENT RESULTS																
FREQUENCY		Mode	Service	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Spacing	Antenna Config.	Device Serial Number	# of Time Slots	Duty Cycle	Side	SAR (10g)	Scaling Factor	Reported SAR (10g)	Plot #
MHz	Ch.												(W/kg)		(W/kg)	
1880.00	661	GSM 1900	GPRS	29.0	28.65	0.03	9 mm	N/A	05583	2	1:4.15	back	0.589	1.084	0.638	
1880.00	661	GSM 1900	GPRS	29.0	28.65	0.03	3 mm	N/A	05583	2	1:4.15	front	1.390	1.084	1.507	
1880.00	661	GSM 1900	GPRS	29.0	28.65	-0.11	10 mm	N/A	05583	2	1:4.15	bottom	0.663	1.084	0.719	
1880.00	661	GSM 1900	GPRS	29.0	28.65	-0.09	0 mm	N/A	05583	2	1:4.15	right	0.445	1.084	0.482	
1880.00	661	GSM 1900	GPRS	29.0	28.65	-0.14	0 mm	N/A	05583	2	1:4.15	left	0.183	1.084	0.198	
1880.00	661	GSM 1900	GPRS	26.0	25.01	-0.06	0 mm	N/A	05583	2	1:4.15	back	1.260	1.256	1.583	
1880.00	661	GSM 1900	GPRS	26.0	25.01	-0.04	0 mm	N/A	05583	2	1:4.15	front	0.974	1.256	1.223	
1850.20	512	GSM 1900	GPRS	26.0	24.90	0.18	0 mm	N/A	05583	2	1:4.15	bottom	1.620	1.288	2.087	A82
1880.00	661	GSM 1900	GPRS	26.0	25.01	-0.12	0 mm	N/A	05583	2	1:4.15	bottom	1.500	1.256	1.884	
1909.80	810	GSM 1900	GPRS	26.0	25.09	-0.17	0 mm	N/A	05583	2	1:4.15	bottom	1.480	1.233	1.825	
1732.40	1412	UMTS 1750	RMC	25.0	24.24	0.00	9 mm	108	05583	N/A	1:1	back	0.760	1.191	0.905	
1732.40	1412	UMTS 1750	RMC	25.0	24.24	-0.08	3 mm	108	05583	N/A	1:1	front	1.660	1.191	1.977	
1732.40	1412	UMTS 1750	RMC	25.0	24.24	-0.02	10 mm	108	05583	N/A	1:1	bottom	1.130	1.191	1.346	
1732.40	1412	UMTS 1750	RMC	25.0	24.24	0.00	0 mm	108	05583	N/A	1:1	right	0.467	1.191	0.556	
1732.40	1412	UMTS 1750	RMC	25.0	24.24	0.00	0 mm	108	05583	N/A	1:1	left	0.231	1.191	0.275	
1712.40	1312	UMTS 1750	RMC	22.0	21.08	0.03	0 mm	108	05583	N/A	1:1	back	1.570	1.236	1.941	
1732.40	1412	UMTS 1750	RMC	22.0	21.07	-0.02	0 mm	108	05583	N/A	1:1	back	1.690	1.239	2.094	
1752.60	1513	UMTS 1750	RMC	22.0	20.61	0.09	0 mm	108	05583	N/A	1:1	back	1.720	1.377	2.368	
1712.40	1312	UMTS 1750	RMC	22.0	21.08	-0.08	0 mm	108	05583	N/A	1:1	front	1.430	1.236	1.767	
1732.40	1412	UMTS 1750	RMC	22.0	21.07	-0.11	0 mm	108	05583	N/A	1:1	front	1.770	1.239	2.193	
1752.60	1513	UMTS 1750	RMC	22.0	20.61	-0.07	0 mm	108	05583	N/A	1:1	front	1.700	1.377	2.341	
1712.40	1312	UMTS 1750	RMC	22.0	21.08	-0.02	0 mm	108	05583	N/A	1:1	bottom	2.270	1.236	2.806	
1732.40	1412	UMTS 1750	RMC	22.0	21.07	0.02	0 mm	108	05583	N/A	1:1	bottom	2.300	1.239	2.850	A83
1752.60	1513	UMTS 1750	RMC	22.0	20.61	0.02	0 mm	108	05583	N/A	1:1	bottom	2.050	1.377	2.823	
1880.00	9400	UMTS 1900	RMC	24.0	23.55	-0.04	9 mm	108	05583	N/A	1:1	back	0.705	1.109	0.782	
1880.00	9400	UMTS 1900	RMC	24.0	23.55	-0.18	3 mm	108	05583	N/A	1:1	front	1.640	1.109	1.819	
1880.00	9400	UMTS 1900	RMC	24.0	23.55	-0.02	10 mm	108	05583	N/A	1:1	bottom	1.110	1.109	1.231	
1880.00	9400	UMTS 1900	RMC	24.0	23.55	-0.12	0 mm	108	05583	N/A	1:1	right	0.532	1.109	0.590	
1880.00	9400	UMTS 1900	RMC	24.0	23.55	-0.13	0 mm	108	05583	N/A	1:1	left	0.156	1.109	0.173	
1880.00	9400	UMTS 1900	RMC	21.5	20.16	-0.08	0 mm	108	05583	N/A	1:1	back	1.240	1.361	1.688	
1880.00	9400	UMTS 1900	RMC	21.5	20.16	-0.10	0 mm	108	05583	N/A	1:1	front	1.440	1.361	1.960	
1852.40	9262	UMTS 1900	RMC	21.5	20.22	-0.09	0 mm	108	05583	N/A	1:1	bottom	2.230	1.343	2.995	A84
1880.00	9400	UMTS 1900	RMC	21.5	20.16	-0.09	0 mm	108	05583	N/A	1:1	bottom	1.970	1.361	2.681	
1907.60	9538	UMTS 1900	RMC	21.5	20.12	-0.05	0 mm	108	05583	N/A	1:1	bottom	2.140	1.374	2.940	
1880.00	600	PCS CDMA	EVDO Rev. 0	26.0	24.15	-0.03	9 mm	108	05583	N/A	1:1	back	0.786	1.531	1.203	
1851.25	25	PCS CDMA	EVDO Rev. 0	26.0	24.45	-0.02	3 mm	108	05583	N/A	1:1	front	2.110	1.429	3.015	
1880.00	600	PCS CDMA	EVDO Rev. 0	26.0	24.15	-0.17	3 mm	108	05583	N/A	1:1	front	1.970	1.531	3.016	
1908.75	1175	PCS CDMA	EVDO Rev. 0	26.0	24.27	0.00	3 mm	108	05583	N/A	1:1	front	1.710	1.489	2.546	
1880.00	600	PCS CDMA	EVDO Rev. 0	26.0	24.15	-0.07	10 mm	108	05583	N/A	1:1	bottom	1.190	1.531	1.822	
1880.00	600	PCS CDMA	EVDO Rev. 0	26.0	24.15	-0.12	0 mm	108	05583	N/A	1:1	right	0.616	1.531	0.943	
1880.00	600	PCS CDMA	EVDO Rev. 0	26.0	24.15	-0.16	0 mm	108	05583	N/A	1:1	left	0.149	1.531	0.228	
1880.00	600	PCS CDMA	EVDO Rev. 0	21.5	20.76	-0.12	0 mm	108	05583	N/A	1:1	back	1.590	1.186	1.886	
1880.00	600	PCS CDMA	EVDO Rev. 0	21.5	20.76	-0.01	0 mm	108	05583	N/A	1:1	front	1.620	1.186	1.921	
1851.25	25	PCS CDMA	EVDO Rev. 0	21.5	20.92	-0.09	0 mm	108	05583	N/A	1:1	bottom	2.450	1.143	2.800	A85
1880.00	600	PCS CDMA	EVDO Rev. 0	21.5	20.76	-0.10	0 mm	108	05583	N/A	1:1	bottom	2.240	1.186	2.657	
1908.75	1175	PCS CDMA	EVDO Rev. 0	21.5	20.68	-0.11	0 mm	108	05583	N/A	1:1	bottom	2.410	1.208	2.911	
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 11-55
LTE Band 66 Phablet SAR

MEASUREMENT RESULTS																					
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Antenna Config.	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	24.46	-0.03	0	10	06318	QPSK	1	50	9 mm	back	1:1	0.789	1.132	0.893	
1720.00	132072	Low	LTE Band 66 (AWS)	20	24.0	23.58	0.00	1	10	06318	QPSK	50	25	9 mm	back	1:1	0.661	1.102	0.728	
1720.00	132072	Low	LTE Band 66 (AWS)	20	25.0	24.46	0.02	0	9	06318	QPSK	1	50	3 mm	front	1:1	1.480	1.132	1.675	
1720.00	132072	Low	LTE Band 66 (AWS)	20	24.0	23.58	0.04	1	9	06318	QPSK	50	25	3 mm	front	1:1	1.250	1.102	1.378	
1720.00	132072	Low	LTE Band 66 (AWS)	20	25.0	24.46	-0.02	0	10	06318	QPSK	1	50	10 mm	bottom	1:1	0.830	1.132	0.940	
1720.00	132072	Low	LTE Band 66 (AWS)	20	24.0	23.58	0.00	1	10	06318	QPSK	50	25	10 mm	bottom	1:1	0.698	1.102	0.769	
1720.00	132072	Low	LTE Band 66 (AWS)	20	25.0	24.46	0.10	0	5	06318	QPSK	1	50	0 mm	right	1:1	0.413	1.132	0.468	
1720.00	132072	Low	LTE Band 66 (AWS)	20	24.0	23.58	0.03	1	5	06318	QPSK	50	25	0 mm	right	1:1	0.344	1.102	0.379	
1720.00	132072	Low	LTE Band 66 (AWS)	20	25.0	24.46	-0.04	0	108	06318	QPSK	1	50	0 mm	left	1:1	0.221	1.132	0.250	
1720.00	132072	Low	LTE Band 66 (AWS)	20	24.0	23.58	-0.01	1	108	06318	QPSK	50	25	0 mm	left	1:1	0.180	1.102	0.198	
1745.00	132322	Mid	LTE Band 66 (AWS)	20	22.0	21.48	-0.07	0	4	06318	QPSK	1	50	0 mm	back	1:1	1.640	1.127	1.848	
1745.00	132322	Mid	LTE Band 66 (AWS)	20	22.0	21.50	-0.05	0	4	06318	QPSK	50	25	0 mm	back	1:1	1.750	1.122	1.964	
1745.00	132322	Mid	LTE Band 66 (AWS)	20	22.0	21.48	-0.15	0	108	06318	QPSK	1	50	0 mm	front	1:1	1.730	1.127	1.950	
1720.00	132072	Low	LTE Band 66 (AWS)	20	22.0	21.42	-0.12	0	108	06318	QPSK	50	25	0 mm	front	1:1	1.690	1.143	1.932	
1745.00	132322	Mid	LTE Band 66 (AWS)	20	22.0	21.50	-0.12	0	108	06318	QPSK	50	25	0 mm	front	1:1	1.840	1.122	2.064	
1770.00	132572	High	LTE Band 66 (AWS)	20	22.0	21.21	-0.11	0	108	06318	QPSK	50	25	0 mm	front	1:1	1.990	1.199	2.386	
1720.00	132072	Low	LTE Band 66 (AWS)	20	22.0	21.37	-0.10	0	108	06318	QPSK	100	0	0 mm	front	1:1	1.670	1.156	1.931	
1720.00	132072	Low	LTE Band 66 (AWS)	20	22.0	21.40	-0.05	0	6	06318	QPSK	1	50	0 mm	bottom	1:1	2.390	1.148	2.744	
1745.00	132322	Mid	LTE Band 66 (AWS)	20	22.0	21.48	-0.03	0	6	06318	QPSK	1	50	0 mm	bottom	1:1	2.250	1.127	2.536	
1770.00	132572	High	LTE Band 66 (AWS)	20	22.0	21.23	-0.01	0	6	06318	QPSK	1	0	0 mm	bottom	1:1	2.130	1.194	2.543	
1720.00	132072	Low	LTE Band 66 (AWS)	20	22.0	21.42	-0.04	0	6	06318	QPSK	50	25	0 mm	bottom	1:1	2.560	1.143	2.926	A86
1745.00	132322	Mid	LTE Band 66 (AWS)	20	22.0	21.50	-0.04	0	6	06318	QPSK	50	25	0 mm	bottom	1:1	2.350	1.122	2.637	
1770.00	132572	High	LTE Band 66 (AWS)	20	22.0	21.21	-0.01	0	6	06318	QPSK	50	25	0 mm	bottom	1:1	2.160	1.199	2.590	
1720.00	132072	Low	LTE Band 66 (AWS)	20	22.0	21.37	-0.01	0	6	06318	QPSK	100	0	0 mm	bottom	1:1	2.510	1.156	2.902	
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 11-56
LTE Band 25 Phablet SAR

MEASUREMENT RESULTS																					
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Antenna Config.	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)	
1905.00	26590	High	LTE Band 25 (PCS)	20	24.5	24.07	-0.04	0	13	06938	QPSK	1	99	9 mm	back	1:1	0.755	1.104	0.834	
1905.00	26590	High	LTE Band 25 (PCS)	20	23.5	23.15	-0.04	1	13	06938	QPSK	50	50	9 mm	back	1:1	0.597	1.084	0.647	
1860.00	26140	Low	LTE Band 25 (PCS)	20	24.5	23.81	-0.12	0	108	06938	QPSK	1	99	3 mm	front	1:1	2.290	1.172	2.684	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	24.5	23.95	-0.12	0	108	06938	QPSK	1	99	3 mm	front	1:1	2.040	1.135	2.315	
1905.00	26590	High	LTE Band 25 (PCS)	20	24.5	24.07	-0.08	0	13	06938	QPSK	1	99	3 mm	front	1:1	1.960	1.104	2.164	
1905.00	26590	High	LTE Band 25 (PCS)	20	23.5	23.15	-0.12	1	13	06938	QPSK	50	50	3 mm	front	1:1	1.500	1.084	1.626	
1905.00	26590	High	LTE Band 25 (PCS)	20	23.5	23.03	-0.10	1	13	06938	QPSK	100	0	3 mm	front	1:1	1.540	1.114	1.716	
1905.00	26590	High	LTE Band 25 (PCS)	20	24.5	24.07	-0.05	0	13	06938	QPSK	1	99	10 mm	bottom	1:1	1.380	1.104	1.524	
1905.00	26590	High	LTE Band 25 (PCS)	20	23.5	23.15	-0.12	1	13	06938	QPSK	50	50	10 mm	bottom	1:1	1.000	1.084	1.084	
1905.00	26590	High	LTE Band 25 (PCS)	20	24.5	24.07	-0.16	0	13	06938	QPSK	1	99	0 mm	right	1:1	0.617	1.104	0.681	
1905.00	26590	High	LTE Band 25 (PCS)	20	23.5	23.15	-0.15	1	13	06938	QPSK	50	50	0 mm	right	1:1	0.501	1.084	0.543	
1905.00	26590	High	LTE Band 25 (PCS)	20	24.5	24.07	-0.08	0	13	06938	QPSK	1	99	0 mm	left	1:1	0.200	1.104	0.221	
1905.00	26590	High	LTE Band 25 (PCS)	20	23.5	23.15	-0.13	1	13	06938	QPSK	50	50	0 mm	left	1:1	0.138	1.084	0.150	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	21.0	20.96	0.17	0	108	06938	QPSK	1	99	0 mm	back	1:1	1.660	1.009	1.675	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	21.0	20.96	0.16	0	108	06938	QPSK	50	0	0 mm	back	1:1	1.850	1.009	1.867	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	21.0	20.96	-0.18	0	13	06938	QPSK	1	99	0 mm	front	1:1	1.530	1.009	1.544	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	21.0	20.96	-0.18	0	13	06938	QPSK	50	0	0 mm	front	1:1	1.830	1.009	1.846	
1860.00	26140	Low	LTE Band 25 (PCS)	20	21.0	20.74	-0.10	0	108	06938	QPSK	1	0	0 mm	bottom	1:1	2.620	1.062	2.782	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	21.0	20.96	-0.08	0	108	06938	QPSK	1	99	0 mm	bottom	1:1	2.260	1.009	2.280	
1905.00	26590	High	LTE Band 25 (PCS)	20	21.0	20.72	-0.18	0	13	06938	QPSK	1	99	0 mm	bottom	1:1	2.780	1.067	2.966	
1860.00	26140	Low	LTE Band 25 (PCS)	20	21.0	20.90	-0.09	0	108	06938	QPSK	50	0	0 mm	bottom	1:1	2.700	1.023	2.762	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	21.0	20.96	-0.17	0	108	06938	QPSK	50	0	0 mm	bottom	1:1	2.640	1.009	2.664	
1905.00	26590	High	LTE Band 25 (PCS)	20	21.0	20.87	-0.17	0	13	06938	QPSK	50	25	0 mm	bottom	1:1	2.860	1.030	2.946	A87
1860.00	26140	Low	LTE Band 25 (PCS)	20	21.0	20.87	-0.17	0	108	06938	QPSK	100	0	0 mm	bottom	1:1	2.760	1.030	2.843	
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 11-57
LTE Band 30 Phablet SAR

MEASUREMENT RESULTS																				
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	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.																			
2310.00	27710	Mid	LTE Band 30	10	24.0	23.35	-0.07	0	19469	QPSK	1	0	9 mm	back	1:1	0.405	1.161	0.470	
2310.00	27710	Mid	LTE Band 30	10	23.0	22.32	-0.06	1	19469	QPSK	25	12	9 mm	back	1:1	0.342	1.169	0.400	
2310.00	27710	Mid	LTE Band 30	10	24.0	23.35	0.11	0	19469	QPSK	1	0	3 mm	front	1:1	0.650	1.161	0.755	
2310.00	27710	Mid	LTE Band 30	10	23.0	22.32	0.14	1	19469	QPSK	25	12	3 mm	front	1:1	0.539	1.169	0.630	
2310.00	27710	Mid	LTE Band 30	10	24.0	23.35	-0.08	0	19469	QPSK	1	0	10 mm	bottom	1:1	0.363	1.161	0.421	
2310.00	27710	Mid	LTE Band 30	10	23.0	22.32	-0.02	1	19469	QPSK	25	12	10 mm	bottom	1:1	0.303	1.169	0.354	
2310.00	27710	Mid	LTE Band 30	10	24.0	23.35	-0.13	0	19469	QPSK	1	0	0 mm	left	1:1	0.928	1.161	1.077	
2310.00	27710	Mid	LTE Band 30	10	23.0	22.32	-0.14	1	19469	QPSK	25	12	0 mm	left	1:1	0.781	1.169	0.913	
2310.00	27710	Mid	LTE Band 30	10	22.0	21.30	0.01	0	19469	QPSK	1	0	0 mm	back	1:1	1.530	1.175	1.798	
2310.00	27710	Mid	LTE Band 30	10	22.0	21.29	0.03	0	19469	QPSK	25	12	0 mm	back	1:1	1.590	1.178	1.873	
2310.00	27710	Mid	LTE Band 30	10	22.0	21.30	0.02	0	19469	QPSK	1	0	0 mm	front	1:1	1.580	1.175	1.857	
2310.00	27710	Mid	LTE Band 30	10	22.0	21.29	0.03	0	19469	QPSK	25	12	0 mm	front	1:1	1.700	1.178	2.003	A88
2310.00	27710	Mid	LTE Band 30	10	22.0	21.14	-0.01	0	19469	QPSK	50	0	0 mm	front	1:1	1.670	1.219	2.036	
2310.00	27710	Mid	LTE Band 30	10	22.0	21.30	-0.09	0	19469	QPSK	1	0	0 mm	bottom	1:1	1.600	1.175	1.880	
2310.00	27710	Mid	LTE Band 30	10	22.0	21.29	-0.06	0	19469	QPSK	25	12	0 mm	bottom	1:1	1.650	1.178	1.944	
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 11-58
LTE Band 7 Phablet SAR

MEASUREMENT RESULTS																				
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	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.																			
2560.00	21350	High	LTE Band 7	20	23.0	22.20	-0.03	0	19469	QPSK	1	99	9 mm	back	1:1	0.316	1.202	0.380	
2560.00	21350	High	LTE Band 7	20	22.0	21.48	0.00	1	19469	QPSK	50	50	9 mm	back	1:1	0.270	1.127	0.304	
2560.00	21350	High	LTE Band 7	20	23.0	22.20	0.01	0	19469	QPSK	1	99	3 mm	front	1:1	0.636	1.202	0.764	
2560.00	21350	High	LTE Band 7	20	22.0	21.48	0.04	1	19469	QPSK	50	50	3 mm	front	1:1	0.529	1.127	0.596	
2560.00	21350	High	LTE Band 7	20	23.0	22.20	-0.06	0	07134	QPSK	1	99	10 mm	bottom	1:1	0.216	1.202	0.260	
2560.00	21350	High	LTE Band 7	20	22.0	21.48	-0.08	1	07134	QPSK	50	50	10 mm	bottom	1:1	0.177	1.127	0.199	
2560.00	21350	High	LTE Band 7	20	23.0	22.20	-0.12	0	19469	QPSK	1	99	0 mm	left	1:1	0.883	1.202	1.061	
2560.00	21350	High	LTE Band 7	20	22.0	21.48	-0.16	1	19469	QPSK	50	50	0 mm	left	1:1	0.749	1.127	0.844	
2560.00	21350	High	LTE Band 7	20	22.0	21.38	0.14	0	19469	QPSK	1	99	0 mm	back	1:1	1.170	1.153	1.349	
2560.00	21350	High	LTE Band 7	20	22.0	21.43	0.13	0	19469	QPSK	50	50	0 mm	back	1:1	1.240	1.140	1.414	
2560.00	21350	High	LTE Band 7	20	22.0	21.38	0.15	0	19469	QPSK	1	99	0 mm	front	1:1	1.370	1.153	1.580	
2510.00	20850	Low	LTE Band 7	20	22.0	20.95	0.04	0	19469	QPSK	50	50	0 mm	front	1:1	1.660	1.274	2.115	A89
2535.00	21100	Mid	LTE Band 7	20	22.0	21.10	0.02	0	19469	QPSK	50	50	0 mm	front	1:1	1.550	1.230	1.907	
2560.00	21350	High	LTE Band 7	20	22.0	21.43	0.03	0	19469	QPSK	50	50	0 mm	front	1:1	1.460	1.140	1.664	
2560.00	21350	High	LTE Band 7	20	22.0	21.29	0.05	0	19469	QPSK	100	0	0 mm	front	1:1	1.500	1.178	1.767	
2560.00	21350	High	LTE Band 7	20	22.0	21.38	-0.09	0	19469	QPSK	1	99	0 mm	bottom	1:1	1.110	1.153	1.280	
2560.00	21350	High	LTE Band 7	20	22.0	21.43	-0.11	0	19469	QPSK	50	50	0 mm	bottom	1:1	1.190	1.140	1.357	
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 11-59
LTE Band 41 Phablet 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]	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	2593.00	40620	Mid	LTE Band 41	20	24.0	23.34	-0.10	0	19410	QPSK	1	50	9 mm	back	1:1.58	0.198	1.164	0.230	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	23.0	22.43	-0.04	1	19410	QPSK	50	25	9 mm	back	1:1.58	0.156	1.140	0.178	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	24.0	23.34	0.09	0	19410	QPSK	1	50	3 mm	front	1:1.58	0.464	1.164	0.540	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	23.0	22.43	0.12	1	19410	QPSK	50	25	3 mm	front	1:1.58	0.372	1.140	0.424	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	24.0	23.34	-0.14	0	19410	QPSK	1	50	10 mm	bottom	1:1.58	0.166	1.164	0.193	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	23.0	22.43	-0.03	1	19410	QPSK	50	25	10 mm	bottom	1:1.58	0.132	1.140	0.150	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	24.0	23.34	-0.13	0	19410	QPSK	1	50	0 mm	left	1:1.58	0.561	1.164	0.653	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	23.0	22.43	-0.21	1	19410	QPSK	50	25	0 mm	left	1:1.58	0.434	1.140	0.495	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	22.0	21.30	-0.17	0	19410	QPSK	1	50	0 mm	back	1:1.58	0.710	1.175	0.834	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	22.0	21.30	0.17	0	19410	QPSK	50	25	0 mm	back	1:1.58	0.716	1.175	0.841	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	22.0	21.30	-0.13	0	19410	QPSK	1	50	0 mm	front	1:1.58	0.984	1.175	1.156	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	22.0	21.30	-0.15	0	19410	QPSK	50	25	0 mm	front	1:1.58	0.986	1.175	1.159	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	22.0	21.25	-0.11	0	19410	QPSK	50	50	0 mm	front	1:1.58	0.852	1.189	1.013	
1 CC Uplink - Power Class 2	N/A	2593.00	40620	Mid	LTE Band 41	20	22.0	21.50	-0.13	0	19410	QPSK	50	25	0 mm	front	1:2.31	0.677	1.122	0.760	
1 CC Uplink - Power Class 2	N/A	2593.00	40620	Mid	LTE Band 41	20	22.0	21.45	-0.10	0	19410	QPSK	50	50	0 mm	front	1:2.31	0.666	1.135	0.756	
2 CC Uplink - Power Class 3	PCC	2593.00	40620	Mid	LTE Band 41	20	22.0	21.99	-0.13	0	19410	QPSK	50	50	0 mm	front	1:1.58	0.999	1.002	1.001	A90
	SCC	2612.80	40818	Mid	LTE Band 41	20								0							
2 CC Uplink - Power Class 2	PCC	2593.00	40620	Mid	LTE Band 41	20	22.0	21.50	-0.13	0	19410	QPSK	50	50	0 mm	front	1:2.31	0.670	1.122	0.752	
	SCC	2612.80	40818	Mid	LTE Band 41	20								0							
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	22.0	21.30	-0.06	0	19410	QPSK	1	50	0 mm	bottom	1:1.58	0.722	1.175	0.848	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	22.0	21.30	-0.07	0	19410	QPSK	50	25	0 mm	bottom	1:1.58	0.724	1.175	0.851	
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 11-60
NR Band n66 Phablet SAR

MEASUREMENT RESULTS																					
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Antenna Config.	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)	
1745.00	349000	Mid	NR Band n66 (AWS)	20	26.0	25.33	0.02	0	10	07217	DFT-S-OFDM QPSK	1	53	9 mm	back	1:1	0.854	1.167	0.997	
1745.00	349000	Mid	NR Band n66 (AWS)	20	26.0	25.14	0.01	0	10	07217	DFT-S-OFDM QPSK	50	28	9 mm	back	1:1	0.951	1.219	1.159	
1745.00	349000	Mid	NR Band n66 (AWS)	20	26.0	25.33	-0.04	0	9	07217	DFT-S-OFDM QPSK	1	53	3 mm	front	1:1	1.490	1.167	1.739	
1745.00	349000	Mid	NR Band n66 (AWS)	20	26.0	25.14	0.02	0	9	07217	DFT-S-OFDM QPSK	50	28	3 mm	front	1:1	1.550	1.219	1.889	
1745.00	349000	Mid	NR Band n66 (AWS)	20	26.0	25.33	-0.01	0	10	07217	DFT-S-OFDM QPSK	1	53	10 mm	bottom	1:1	1.040	1.167	1.214	
1745.00	349000	Mid	NR Band n66 (AWS)	20	26.0	25.14	-0.03	0	10	07217	DFT-S-OFDM QPSK	50	28	10 mm	bottom	1:1	1.080	1.219	1.317	
1745.00	349000	Mid	NR Band n66 (AWS)	20	26.0	25.33	-0.11	0	5	07217	DFT-S-OFDM QPSK	1	53	0 mm	right	1:1	0.472	1.167	0.551	
1745.00	349000	Mid	NR Band n66 (AWS)	20	26.0	25.14	0.09	0	5	07217	DFT-S-OFDM QPSK	50	28	0 mm	right	1:1	0.502	1.219	0.612	
1745.00	349000	Mid	NR Band n66 (AWS)	20	26.0	25.33	0.02	0	108	07217	DFT-S-OFDM QPSK	1	53	0 mm	left	1:1	0.278	1.167	0.324	
1745.00	349000	Mid	NR Band n66 (AWS)	20	26.0	25.14	-0.02	0	108	07217	DFT-S-OFDM QPSK	50	28	0 mm	left	1:1	0.285	1.219	0.347	
1745.00	349000	Mid	NR Band n66 (AWS)	20	22.0	22.00	-0.06	0	4	07217	DFT-S-OFDM QPSK	1	1	0 mm	back	1:1	1.780	1.000	1.780	
1770.00	354000	High	NR Band n66 (AWS)	20	22.0	21.97	-0.10	0	4	07217	DFT-S-OFDM QPSK	50	56	0 mm	back	1:1	1.660	1.007	1.672	
1745.00	349000	Mid	NR Band n66 (AWS)	20	22.0	22.00	-0.14	0	108	07217	DFT-S-OFDM QPSK	1	1	0 mm	front	1:1	1.880	1.000	1.880	
1770.00	354000	High	NR Band n66 (AWS)	20	22.0	21.97	-0.18	0	108	07217	DFT-S-OFDM QPSK	50	56	0 mm	front	1:1	1.940	1.007	1.954	
1720.00	344000	Low	NR Band n66 (AWS)	20	22.0	21.98	-0.09	0	6	07217	DFT-S-OFDM QPSK	1	53	0 mm	bottom	1:1	2.940	1.005	2.955	A91
1745.00	349000	Mid	NR Band n66 (AWS)	20	22.0	22.00	-0.04	0	6	07217	DFT-S-OFDM QPSK	1	1	0 mm	bottom	1:1	2.850	1.000	2.850	
1770.00	354000	High	NR Band n66 (AWS)	20	22.0	21.99	-0.04	0	6	07217	DFT-S-OFDM QPSK	1	53	0 mm	bottom	1:1	2.480	1.002	2.485	
1720.00	344000	Low	NR Band n66 (AWS)	20	22.0	21.88	-0.05	0	6	07217	DFT-S-OFDM QPSK	50	56	0 mm	bottom	1:1	2.880	1.028	2.961	
1745.00	349000	Mid	NR Band n66 (AWS)	20	22.0	21.96	0.01	0	6	07217	DFT-S-OFDM QPSK	50	0	0 mm	bottom	1:1	2.860	1.009	2.886	
1745.00	349000	Mid	NR Band n66 (AWS)	20	22.0	22.00	-0.02	0	6	07217	CP-OFDM QPSK	1	1	0 mm	bottom	1:1	2.810	1.000	2.810	
1770.00	354000	High	NR Band n66 (AWS)	20	22.0	21.97	-0.03	0	6	07217	DFT-S-OFDM QPSK	50	56	0 mm	bottom	1:1	2.360	1.007	2.377	
1745.00	349000	Mid	NR Band n66 (AWS)	20	22.0	21.94	0.00	0	6	07217	DFT-S-OFDM QPSK	100	0	0 mm	bottom	1:1	2.820	1.014	2.859	
1720.00	344000	Low	NR Band n66 (AWS)	20	22.0	21.98	-0.09	0	6	07217	DFT-S-OFDM QPSK	1	53	0 mm	bottom	1:1	2.890	1.005	2.904	
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 11-61
NR Band n2 Phablet SAR

MEASUREMENT RESULTS																					
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Antenna Config.	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)	
1880.00	376000	Mid	NR Band n2 (PCS)	20	25.0	25.00	0.05	0	13	05583	DFT-S-OFDM QPSK	1	53	9 mm	back	1:1	0.571	1.000	0.571	
1880.00	376000	Mid	NR Band n2 (PCS)	20	25.0	24.35	0.02	0	13	05583	DFT-S-OFDM QPSK	50	28	9 mm	back	1:1	0.580	1.161	0.673	
1860.00	372000	Low	NR Band n2 (PCS)	20	25.0	24.61	-0.03	0	108	05583	DFT-S-OFDM QPSK	1	53	3 mm	front	1:1	2.190	1.094	2.396	
1880.00	376000	Mid	NR Band n2 (PCS)	20	25.0	25.00	-0.14	0	108	05583	DFT-S-OFDM QPSK	1	53	3 mm	front	1:1	2.090	1.000	2.090	
1900.00	380000	High	NR Band n2 (PCS)	20	25.0	24.67	-0.20	0	13	05583	DFT-S-OFDM QPSK	1	53	3 mm	front	1:1	1.870	1.079	2.018	
1860.00	372000	Low	NR Band n2 (PCS)	20	25.0	24.29	-0.12	0	108	05583	DFT-S-OFDM QPSK	50	28	3 mm	front	1:1	1.710	1.178	2.014	
1880.00	376000	Mid	NR Band n2 (PCS)	20	25.0	24.35	-0.14	0	108	05583	DFT-S-OFDM QPSK	50	28	3 mm	front	1:1	2.090	1.161	2.426	
1900.00	380000	High	NR Band n2 (PCS)	20	25.0	24.34	-0.06	0	13	05583	DFT-S-OFDM QPSK	50	28	3 mm	front	1:1	1.380	1.164	1.606	
1880.00	376000	Mid	NR Band n2 (PCS)	20	24.0	23.60	-0.12	1	108	05583	DFT-S-OFDM QPSK	100	0	3 mm	front	1:1	1.630	1.096	1.786	
1880.00	376000	Mid	NR Band n2 (PCS)	20	25.0	25.00	-0.02	0	13	05583	DFT-S-OFDM QPSK	1	53	10 mm	bottom	1:1	1.090	1.000	1.090	
1880.00	376000	Mid	NR Band n2 (PCS)	20	25.0	24.35	0.01	0	13	05583	DFT-S-OFDM QPSK	50	28	10 mm	bottom	1:1	1.130	1.161	1.312	
1880.00	376000	Mid	NR Band n2 (PCS)	20	25.0	25.00	-0.19	0	108	05583	DFT-S-OFDM QPSK	1	53	0 mm	right	1:1	0.669	1.000	0.669	
1880.00	376000	Mid	NR Band n2 (PCS)	20	25.0	24.35	-0.06	0	108	05583	DFT-S-OFDM QPSK	50	28	0 mm	right	1:1	0.646	1.161	0.750	
1880.00	376000	Mid	NR Band n2 (PCS)	20	25.0	25.00	-0.16	0	108	05583	DFT-S-OFDM QPSK	1	53	0 mm	left	1:1	0.289	1.000	0.289	
1880.00	376000	Mid	NR Band n2 (PCS)	20	25.0	24.35	0.12	0	108	05583	DFT-S-OFDM QPSK	50	28	0 mm	left	1:1	0.271	1.161	0.315	
1880.00	376000	Mid	NR Band n2 (PCS)	20	22.0	21.84	-0.04	0	108	05583	DFT-S-OFDM QPSK	1	53	0 mm	back	1:1	1.520	1.038	1.578	
1880.00	376000	Mid	NR Band n2 (PCS)	20	22.0	21.50	0.04	0	108	05583	DFT-S-OFDM QPSK	50	28	0 mm	back	1:1	1.530	1.122	1.717	
1880.00	376000	Mid	NR Band n2 (PCS)	20	22.0	21.84	-0.21	0	13	05583	DFT-S-OFDM QPSK	1	53	0 mm	front	1:1	1.550	1.038	1.609	
1880.00	376000	Mid	NR Band n2 (PCS)	20	22.0	21.50	-0.10	0	13	05583	DFT-S-OFDM QPSK	50	28	0 mm	front	1:1	1.560	1.122	1.750	
1860.00	372000	Low	NR Band n2 (PCS)	20	22.0	21.29	0.16	0	108	05583	DFT-S-OFDM QPSK	1	53	0 mm	bottom	1:1	2.600	1.178	3.063	
1880.00	376000	Mid	NR Band n2 (PCS)	20	22.0	21.84	0.17	0	108	05583	DFT-S-OFDM QPSK	1	53	0 mm	bottom	1:1	2.550	1.038	2.647	
1900.00	380000	High	NR Band n2 (PCS)	20	22.0	21.45	0.00	0	13	05583	DFT-S-OFDM QPSK	1	53	0 mm	bottom	1:1	2.740	1.135	3.110	
1860.00	372000	Low	NR Band n2 (PCS)	20	22.0	21.13	0.03	0	108	05583	DFT-S-OFDM QPSK	50	56	0 mm	bottom	1:1	2.670	1.222	3.263	
1880.00	376000	Mid	NR Band n2 (PCS)	20	22.0	21.50	0.18	0	108	05583	DFT-S-OFDM QPSK	50	28	0 mm	bottom	1:1	2.600	1.122	2.917	
1880.00	376000	Mid	NR Band n2 (PCS)	20	22.0	21.96	0.16	0	108	05583	CP-OFDM QPSK	1	1	0 mm	bottom	1:1	2.460	1.009	2.482	
1900.00	380000	High	NR Band n2 (PCS)	20	22.0	21.34	0.00	0	13	05583	DFT-S-OFDM QPSK	50	56	0 mm	bottom	1:1	2.810	1.164	3.271	
1900.00	380000	High	NR Band n2 (PCS)	20	22.0	21.40	0.00	0	13	05583	DFT-S-OFDM QPSK	100	0	0 mm	bottom	1:1	2.870	1.148	**3.295**	A92
1900.00	380000	High	NR Band n2 (PCS)	20	22.0	21.40	0.00	0	13	05583	DFT-S-OFDM QPSK	100	0	0 mm	bottom	1:1	2.820	1.148	3.237	
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 11-62
WLAN Phablet SAR

MEASUREMENT RESULTS																		
FREQUENCY		Mode	Service	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Spacing	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)	
5260	52	802.11a	OFDM	20	20.0	19.99	-0.20	0 mm	28338	6	back	97.6	6.071	-	1.002	1.025	-	
5260	52	802.11a	OFDM	20	20.0	19.99	0.13	0 mm	28338	6	front	97.6	7.022	1.210	1.002	1.025	1.243	
5260	52	802.11a	OFDM	20	20.0	19.99	0.15	0 mm	28338	6	top	97.6	4.390	-	1.002	1.025	-	
5260	52	802.11a	OFDM	20	20.0	19.99	-0.15	0 mm	28338	6	left	97.6	20.621	1.430	1.002	1.025	**1.469**	A93
5600	120	802.11a	OFDM	20	20.0	19.61	-0.14	0 mm	28338	6	back	97.6	5.655	0.905	1.094	1.025	1.015	
5600	120	802.11a	OFDM	20	20.0	19.61	0.20	0 mm	28338	6	front	97.6	4.923	-	1.094	1.025	-	
5600	120	802.11a	OFDM	20	20.0	19.61	0.17	0 mm	28338	6	top	97.6	4.426	-	1.094	1.025	-	
5600	120	802.11a	OFDM	20	20.0	19.61	0.00	0 mm	28338	6	left	97.6	21.299	1.260	1.094	1.025	1.413	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT **Spatial Peak** **Uncontrolled Exposure/General Population**													**Phablet** **4.0 W/kg (mW/g)** averaged over 10 grams					

11.5 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" 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.
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 1g thresholds for the equivalent test cases.

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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 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 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 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.

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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.
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. For 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.
9. This device supports LTE Band 41 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.

NR Notes:

1. NR implementation of n71, n5, n66, n2, n41 is limited to EN-DC operations only, with LTE Band 2, LTE Band 5, LTE Band 12, LTE Band 25, LTE Band 30, and LTE Band 66. Per FCC guidance, SAR tests for NR Bands and LTE Anchors Bands were performed separately due to limitations in SAR probe calibration factors.
2. Due to test setup limitations, SAR testing for NR was performed using test mode software to establish the connection.
3. Simultaneous transmission analysis for EN-DC operations is included in Section 12. This device additionally supports some EN-DC conditions where additional LTE carriers are added on the downlink only. Per FCC guidance, all unique uplink combinations were assessed.
4. Per FCC Guidance, the device was configured with the tuner state selected by the device in LTE mode with auto-tune active at the same frequency as the NR test results. Additional tuner states were evaluated per April 2019 TCBC Workshop Guidance. Please see Section 14 for supplemental data.
5. Per FCC Guidance, NR modulations and RB Sizes/Offsets were selected for testing such that configurations with the highest output power were evaluated for SAR tests.
6. For final implementation, NR slot configuration is synchronized using maximum duty cycle of 25%. SAR testing was performed using FTM mode with a 25% duty cycle applied to match final duty cycle.

WLAN Notes:

1. For held-to-ear, hotspot, and phablet operations, the initial test position procedures were applied. The test position with the highest extrapolated peak SAR will be used as the initial test position. When reported SAR for the initial test position is ≤ 0.4 W/kg for 1g evaluations, no additional testing for the remaining test

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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 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) 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 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. 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.
5. 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.
6. 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.
2. Head and Hotspot Bluetooth SAR were evaluated for BT BR tethering applications.

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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.

LTE Band 2 was not run as it is overlapped by LTE Band 25. In simultaneous, LTE Band 2 is populated with LTE Band 25's data.

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.

12.3 Head SAR Simultaneous Transmission Analysis

(*) 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.

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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 SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2
Head SAR	GSM 850	0.180	0.381	0.561
	GSM 1900	0.092	0.381	0.473
	UMTS 850	0.205	0.381	0.586
	UMTS 1750	0.142	0.381	0.523
	UMTS 1900	0.125	0.381	0.506
	CDMA/EVDO BC0 (§22H)	0.332	0.381	**0.713**
	CDMA/EVDO BC10 (§90S)	0.304	0.381	0.685
	PCS CDMA/EVDO	0.207	0.381	0.588
	LTE Band 71	0.145	0.381	0.526
	LTE Band 12	0.214	0.381	0.595
	LTE Band 13	0.209	0.381	0.590
	LTE Band 14	0.212	0.381	0.593
	LTE Band 5 (Cell)	0.217	0.381	0.598
	LTE Band 26 (Cell)	0.231	0.381	0.612
	LTE Band 66 (AWS)	0.129	0.381	0.510
	LTE Band 25 (PCS)	0.118	0.381	0.499
	LTE Band 30	0.046	0.381	0.427
	LTE Band 7	0.125	0.381	0.506
	LTE Band 41	0.126	0.381	0.507

Simult Tx	Configuration	LTE Band 5 (Cell) SAR (W/kg)	NR Band n2 (PCS) SAR (W/kg)	2.4 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Head SAR	Right Cheek	0.217	0.110	0.381	**0.708**
	Right Tilt	0.085	0.122	0.381*	0.588
	Left Cheek	0.167	0.151	0.381*	0.699
	Left Tilt	0.124	0.068	0.381*	0.573

Simult Tx	Configuration	LTE Band 12 SAR (W/kg)	NR Band n2 (PCS) SAR (W/kg)	2.4 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Head SAR	Right Cheek	0.214	0.110	0.381	0.705
	Right Tilt	0.109	0.122	0.381*	0.612
	Left Cheek	0.187	0.151	0.381*	**0.719**
	Left Tilt	0.126	0.068	0.381*	0.575

Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	NR Band n5 (Cell) SAR (W/kg)	2.4 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Head SAR	Right Cheek	0.108	0.187	0.381	**0.676**
	Right Tilt	0.072	0.102	0.381*	0.555
	Left Cheek	0.129	0.155	0.381*	0.665
	Left Tilt	0.063	0.099	0.381*	0.543

Simult Tx	Configuration	LTE Band 2 (PCS) SAR (W/kg)	NR Band n5 (Cell) SAR (W/kg)	2.4 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Head SAR	Right Cheek	0.078	0.187	0.381	0.646
	Right Tilt	0.104	0.102	0.381*	0.587
	Left Cheek	0.118	0.155	0.381*	**0.654**
	Left Tilt	0.057	0.099	0.381*	0.537

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Simult Tx	Configuration	LTE Band 30 SAR (W/kg)	NR Band n5 (Cell) SAR (W/kg)	2.4 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Head SAR	Right Cheek	0.046	0.187	0.381	**0.614**
	Right Tilt	0.031	0.102	0.381*	0.514
	Left Cheek	0.045	0.155	0.381*	0.581
	Left Tilt	0.028	0.099	0.381*	0.508

Simult Tx	Configuration	LTE Band 12 SAR (W/kg)	NR Band n66 (AWS) SAR (W/kg)	2.4 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Head SAR	Right Cheek	0.214	0.110	0.381	0.705
	Right Tilt	0.109	0.096	0.381*	0.586
	Left Cheek	0.187	0.140	0.381*	**0.708**
	Left Tilt	0.126	0.066	0.381*	0.573

Simult Tx	Configuration	LTE Band 5 (Cell) SAR (W/kg)	NR Band n66 (AWS) SAR (W/kg)	2.4 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Head SAR	Right Cheek	0.217	0.110	0.381	**0.708**
	Right Tilt	0.085	0.096	0.381*	0.562
	Left Cheek	0.167	0.140	0.381*	0.688
	Left Tilt	0.124	0.066	0.381*	0.571

Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	NR Band n71 SAR (W/kg)	2.4 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Head SAR	Right Cheek	0.108	0.145	0.381	0.634
	Right Tilt	0.072	0.063	0.381*	0.516
	Left Cheek	0.129	0.138	0.381*	**0.648**
	Left Tilt	0.063	0.081	0.381*	0.525

Simult Tx	Configuration	LTE Band 2 (PCS) SAR (W/kg)	NR Band n71 SAR (W/kg)	2.4 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Head SAR	Right Cheek	0.078	0.145	0.381	0.604
	Right Tilt	0.104	0.063	0.381*	0.548
	Left Cheek	0.118	0.138	0.381*	**0.637**
	Left Tilt	0.057	0.081	0.381*	0.519

Simult Tx	Configuration	LTE Band 2 (PCS) SAR (W/kg)	NR Band n41 SAR (W/kg)	2.4 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Head SAR	Right Cheek	0.078	0.639	0.381	1.098
	Right Tilt	0.104	0.694	0.381*	**1.179**
	Left Cheek	0.118	0.265	0.381*	0.764
	Left Tilt	0.057	0.338	0.381*	0.776

Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	NR Band n41 SAR (W/kg)	2.4 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Head SAR	Right Cheek	0.108	0.639	0.381	1.128
	Right Tilt	0.072	0.694	0.381*	**1.147**
	Left Cheek	0.129	0.265	0.381*	0.775
	Left Tilt	0.063	0.338	0.381*	0.782

Simult Tx	Configuration	LTE Band 25 (PCS) SAR (W/kg)	NR Band n41 SAR (W/kg)	2.4 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Head SAR	Right Cheek	0.078	0.639	0.381	1.098
	Right Tilt	0.104	0.694	0.381*	**1.179**
	Left Cheek	0.118	0.265	0.381*	0.764
	Left Tilt	0.057	0.338	0.381*	0.776

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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 SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2
Head SAR	GSM 850	0.180	0.244	0.424
	GSM 1900	0.092	0.244	0.336
	UMTS 850	0.205	0.244	0.449
	UMTS 1750	0.142	0.244	0.386
	UMTS 1900	0.125	0.244	0.369
	CDMA/EVDO BC0 (§22H)	0.332	0.244	**0.576**
	CDMA/EVDO BC10 (§90S)	0.304	0.244	0.548
	PCS CDMA/EVDO	0.207	0.244	0.451
	LTE Band 71	0.145	0.244	0.389
	LTE Band 12	0.214	0.244	0.458
	LTE Band 13	0.209	0.244	0.453
	LTE Band 14	0.212	0.244	0.456
	LTE Band 5 (Cell)	0.217	0.244	0.461
	LTE Band 26 (Cell)	0.231	0.244	0.475
	LTE Band 66 (AWS)	0.129	0.244	0.373
	LTE Band 25 (PCS)	0.118	0.244	0.362
	LTE Band 30	0.046	0.244	0.290
	LTE Band 7	0.125	0.244	0.369
	LTE Band 41	0.126	0.244	0.370

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Simult Tx	Configuration	LTE Band 5 (Cell) SAR (W/kg)	NR Band n2 (PCS) SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Head SAR	Right Cheek	0.217	0.110	0.244	**0.571**
	Right Tilt	0.085	0.122	0.244*	0.451
	Left Cheek	0.167	0.151	0.244*	0.562
	Left Tilt	0.124	0.068	0.244*	0.436

Simult Tx	Configuration	LTE Band 12 SAR (W/kg)	NR Band n2 (PCS) SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Head SAR	Right Cheek	0.214	0.110	0.244	0.568
	Right Tilt	0.109	0.122	0.244*	0.475
	Left Cheek	0.187	0.151	0.244*	**0.582**
	Left Tilt	0.126	0.068	0.244*	0.438

Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	NR Band n5 (Cell) SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Head SAR	Right Cheek	0.108	0.187	0.244	**0.539**
	Right Tilt	0.072	0.102	0.244*	0.418
	Left Cheek	0.129	0.155	0.244*	0.528
	Left Tilt	0.063	0.099	0.244*	0.406

Simult Tx	Configuration	LTE Band 2 (PCS) SAR (W/kg)	NR Band n5 (Cell) SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Head SAR	Right Cheek	0.078	0.187	0.244	0.509
	Right Tilt	0.104	0.102	0.244*	0.450
	Left Cheek	0.118	0.155	0.244*	**0.517**
	Left Tilt	0.057	0.099	0.244*	0.400

Simult Tx	Configuration	LTE Band 30 SAR (W/kg)	NR Band n5 (Cell) SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Head SAR	Right Cheek	0.046	0.187	0.244	**0.477**
	Right Tilt	0.031	0.102	0.244*	0.377
	Left Cheek	0.045	0.155	0.244*	0.444
	Left Tilt	0.028	0.099	0.244*	0.371

Simult Tx	Configuration	LTE Band 12 SAR (W/kg)	NR Band n66 (AWS) SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Head SAR	Right Cheek	0.214	0.110	0.244	0.568
	Right Tilt	0.109	0.096	0.244*	0.449
	Left Cheek	0.187	0.140	0.244*	**0.571**
	Left Tilt	0.126	0.066	0.244*	0.436

Simult Tx	Configuration	LTE Band 5 (Cell) SAR (W/kg)	NR Band n66 (AWS) SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Head SAR	Right Cheek	0.217	0.110	0.244	**0.571**
	Right Tilt	0.085	0.096	0.244*	0.425
	Left Cheek	0.167	0.140	0.244*	0.551
	Left Tilt	0.124	0.066	0.244*	0.434

Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	NR Band n71 SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Head SAR	Right Cheek	0.108	0.145	0.244	0.497
	Right Tilt	0.072	0.063	0.244*	0.379
	Left Cheek	0.129	0.138	0.244*	**0.511**
	Left Tilt	0.063	0.081	0.244*	0.388

Simult Tx	Configuration	LTE Band 2 (PCS) SAR (W/kg)	NR Band n71 SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Head SAR	Right Cheek	0.078	0.145	0.244	0.467
	Right Tilt	0.104	0.063	0.244*	0.411
	Left Cheek	0.118	0.138	0.244*	**0.500**
	Left Tilt	0.057	0.081	0.244*	0.382

Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	NR Band n41 SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Head SAR	Right Cheek	0.108	0.639	0.244	0.991
	Right Tilt	0.072	0.694	0.244*	**1.010**
	Left Cheek	0.129	0.265	0.244*	0.638
	Left Tilt	0.063	0.338	0.244*	0.645

Simult Tx	Configuration	LTE Band 25 (PCS) SAR (W/kg)	NR Band n41 SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Head SAR	Right Cheek	0.078	0.639	0.244	0.961
	Right Tilt	0.104	0.694	0.244*	**1.042**
	Left Cheek	0.118	0.265	0.244*	0.627
	Left Tilt	0.057	0.338	0.244*	0.639

Simult Tx	Configuration	LTE Band 2 (PCS) SAR (W/kg)	NR Band n41 SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Head SAR	Right Cheek	0.078	0.639	0.244	0.961
	Right Tilt	0.104	0.694	0.244*	**1.042**
	Left Cheek	0.118	0.265	0.244*	0.627
	Left Tilt	0.057	0.338	0.244*	0.639

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Table 12-3
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	GSM 850	0.180	0.230	0.410
	GSM 1900	0.092	0.230	0.322
	UMTS 850	0.205	0.230	0.435
	UMTS 1750	0.142	0.230	0.372
	UMTS 1900	0.125	0.230	0.355
	CDMA/EVDO BC0 (§22H)	0.332	0.230	**0.562**
	CDMA/EVDO BC10 (§90S)	0.304	0.230	0.534
	PCS CDMA/EVDO	0.207	0.230	0.437
	LTE Band 71	0.145	0.230	0.375
	LTE Band 12	0.214	0.230	0.444
	LTE Band 13	0.209	0.230	0.439
	LTE Band 14	0.212	0.230	0.442
	LTE Band 5 (Cell)	0.217	0.230	0.447
	LTE Band 26 (Cell)	0.231	0.230	0.461
	LTE Band 66 (AWS)	0.129	0.230	0.359
	LTE Band 25 (PCS)	0.118	0.230	0.348
	LTE Band 30	0.046	0.230	0.276
	LTE Band 7	0.125	0.230	0.355
	LTE Band 41	0.126	0.230	0.356

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Simult Tx	Configuration	LTE Band 5 (Cell) SAR (W/kg)	NR Band n2 (PCS) SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Head SAR	Right Cheek	0.217	0.110	0.230	**0.557**
	Right Tilt	0.085	0.122	0.145	0.352
	Left Cheek	0.167	0.151	0.066	0.384
	Left Tilt	0.124	0.068	0.052	0.244

Simult Tx	Configuration	LTE Band 12 SAR (W/kg)	NR Band n2 (PCS) SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Head SAR	Right Cheek	0.214	0.110	0.230	**0.554**
	Right Tilt	0.109	0.122	0.145	0.376
	Left Cheek	0.187	0.151	0.066	0.404
	Left Tilt	0.126	0.068	0.052	0.246

Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	NR Band n5 (Cell) SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Head SAR	Right Cheek	0.108	0.187	0.230	**0.525**
	Right Tilt	0.072	0.102	0.145	0.319
	Left Cheek	0.129	0.155	0.066	0.350
	Left Tilt	0.063	0.099	0.052	0.214

Simult Tx	Configuration	LTE Band 2 (PCS) SAR (W/kg)	NR Band n5 (Cell) SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Head SAR	Right Cheek	0.078	0.187	0.230	**0.495**
	Right Tilt	0.104	0.102	0.145	0.351
	Left Cheek	0.118	0.155	0.066	0.339
	Left Tilt	0.057	0.099	0.052	0.208

Simult Tx	Configuration	LTE Band 30 SAR (W/kg)	NR Band n5 (Cell) SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Head SAR	Right Cheek	0.046	0.187	0.230	**0.463**
	Right Tilt	0.031	0.102	0.145	0.278
	Left Cheek	0.045	0.155	0.066	0.266
	Left Tilt	0.028	0.099	0.052	0.179

Simult Tx	Configuration	LTE Band 12 SAR (W/kg)	NR Band n66 (AWS) SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Head SAR	Right Cheek	0.214	0.110	0.230	**0.554**
	Right Tilt	0.109	0.096	0.145	0.350
	Left Cheek	0.187	0.140	0.066	0.393
	Left Tilt	0.126	0.066	0.052	0.244

Simult Tx	Configuration	LTE Band 5 (Cell) SAR (W/kg)	NR Band n66 (AWS) SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Head SAR	Right Cheek	0.217	0.110	0.230	**0.557**
	Right Tilt	0.085	0.096	0.145	0.326
	Left Cheek	0.167	0.140	0.066	0.373
	Left Tilt	0.124	0.066	0.052	0.242

Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	NR Band n71 SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Head SAR	Right Cheek	0.108	0.145	0.230	**0.483**
	Right Tilt	0.072	0.063	0.145	0.280
	Left Cheek	0.129	0.138	0.066	0.333
	Left Tilt	0.063	0.081	0.052	0.196

Simult Tx	Configuration	LTE Band 2 (PCS) SAR (W/kg)	NR Band n71 SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Head SAR	Right Cheek	0.078	0.145	0.230	**0.453**
	Right Tilt	0.104	0.063	0.145	0.312
	Left Cheek	0.118	0.138	0.066	0.322
	Left Tilt	0.057	0.081	0.052	0.190

Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	NR Band n41 SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Head SAR	Right Cheek	0.108	0.639	0.230	**0.977**
	Right Tilt	0.072	0.694	0.145	0.911
	Left Cheek	0.129	0.265	0.066	0.460
	Left Tilt	0.063	0.338	0.052	0.453

Simult Tx	Configuration	LTE Band 2 (PCS) SAR (W/kg)	NR Band n41 SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Head SAR	Right Cheek	0.078	0.639	0.230	**0.947**
	Right Tilt	0.104	0.694	0.145	0.943
	Left Cheek	0.118	0.265	0.066	0.449
	Left Tilt	0.057	0.338	0.052	0.447

Simult Tx	Configuration	LTE Band 25 (PCS) SAR (W/kg)	NR Band n41 SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Head SAR	Right Cheek	0.078	0.639	0.230	**0.947**
	Right Tilt	0.104	0.694	0.145	0.943
	Left Cheek	0.118	0.265	0.066	0.449
	Left Tilt	0.057	0.338	0.052	0.447

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Table 12-4
Simultaneous Transmission Scenario with 5 GHz WLAN and Bluetooth (Held to Ear)

Exposure Condition	Mode	2G/3G/4G SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Head SAR	GSM 850	0.180	0.244	0.230	0.654
	GSM 1900	0.092	0.244	0.230	0.566
	UMTS 850	0.205	0.244	0.230	0.679
	UMTS 1750	0.142	0.244	0.230	0.616
	UMTS 1900	0.125	0.244	0.230	0.599
	CDMA/EVDO BC0 (§22H)	0.332	0.244	0.230	**0.806**
	CDMA/EVDO BC10 (§90S)	0.304	0.244	0.230	0.778
	PCS CDMA/EVDO	0.207	0.244	0.230	0.681
	LTE Band 71	0.145	0.244	0.230	0.619
	LTE Band 12	0.214	0.244	0.230	0.688
	LTE Band 13	0.209	0.244	0.230	0.683
	LTE Band 14	0.212	0.244	0.230	0.686
	LTE Band 5 (Cell)	0.217	0.244	0.230	0.691
	LTE Band 26 (Cell)	0.231	0.244	0.230	0.705
	LTE Band 66 (AWS)	0.129	0.244	0.230	0.603
	LTE Band 25 (PCS)	0.118	0.244	0.230	0.592
	LTE Band 30	0.046	0.244	0.230	0.520
	LTE Band 7	0.125	0.244	0.230	0.599
	LTE Band 41	0.126	0.244	0.230	0.600

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Simult Tx	Configuration	LTE Band 5 (Cell) SAR (W/kg)	NR Band n2 (PCS) SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4
Head SAR	Right Cheek	0.217	0.110	0.244	0.230	**0.801**
	Right Tilt	0.085	0.122	0.244*	0.145	0.596
	Left Cheek	0.167	0.151	0.244*	0.066	0.628
	Left Tilt	0.124	0.068	0.244*	0.052	0.488

Simult Tx	Configuration	LTE Band 12 SAR (W/kg)	NR Band n2 (PCS) SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4
Head SAR	Right Cheek	0.214	0.110	0.244	0.230	**0.798**
	Right Tilt	0.109	0.122	0.244*	0.145	0.620
	Left Cheek	0.187	0.151	0.244*	0.066	0.648
	Left Tilt	0.126	0.068	0.244*	0.052	0.490

Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	NR Band n5 (Cell) SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4
Head SAR	Right Cheek	0.108	0.187	0.244	0.230	**0.769**
	Right Tilt	0.072	0.102	0.244*	0.145	0.563
	Left Cheek	0.129	0.155	0.244*	0.066	0.594
	Left Tilt	0.063	0.099	0.244*	0.052	0.458

Simult Tx	Configuration	LTE Band 2 (PCS) SAR (W/kg)	NR Band n5 (Cell) SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4
Head SAR	Right Cheek	0.078	0.187	0.244	0.230	**0.739**
	Right Tilt	0.104	0.102	0.244*	0.145	0.595
	Left Cheek	0.118	0.155	0.244*	0.066	0.583
	Left Tilt	0.057	0.099	0.244*	0.052	0.452

Simult Tx	Configuration	LTE Band 30 SAR (W/kg)	NR Band n5 (Cell) SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4
Head SAR	Right Cheek	0.046	0.187	0.244	0.230	**0.707**
	Right Tilt	0.031	0.102	0.244*	0.145	0.522
	Left Cheek	0.045	0.155	0.244*	0.066	0.510
	Left Tilt	0.028	0.099	0.244*	0.052	0.423

Simult Tx	Configuration	LTE Band 12 SAR (W/kg)	NR Band n66 (AWS) SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4
Head SAR	Right Cheek	0.214	0.110	0.244	0.230	**0.798**
	Right Tilt	0.109	0.096	0.244*	0.145	0.594
	Left Cheek	0.187	0.140	0.244*	0.066	0.637
	Left Tilt	0.126	0.066	0.244*	0.052	0.488

Simult Tx	Configuration	LTE Band 5 (Cell) SAR (W/kg)	NR Band n66 (AWS) SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4
Head SAR	Right Cheek	0.217	0.110	0.244	0.230	**0.801**
	Right Tilt	0.085	0.096	0.244*	0.145	0.570
	Left Cheek	0.167	0.140	0.244*	0.066	0.617
	Left Tilt	0.124	0.066	0.244*	0.052	0.486

Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	NR Band n71 SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4
Head SAR	Right Cheek	0.108	0.145	0.244	0.230	**0.727**
	Right Tilt	0.072	0.063	0.244*	0.145	0.524
	Left Cheek	0.129	0.138	0.244*	0.066	0.577
	Left Tilt	0.063	0.081	0.244*	0.052	0.440

Simult Tx	Configuration	LTE Band 2 (PCS) SAR (W/kg)	NR Band n71 SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4
Head SAR	Right Cheek	0.078	0.145	0.244	0.230	**0.697**
	Right Tilt	0.104	0.063	0.244*	0.145	0.556
	Left Cheek	0.118	0.138	0.244*	0.066	0.566
	Left Tilt	0.057	0.081	0.244*	0.052	0.434

Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	NR Band n41 SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4
Head SAR	Right Cheek	0.108	0.639	0.244	0.230	**1.221**
	Right Tilt	0.072	0.694	0.244*	0.145	1.155
	Left Cheek	0.129	0.265	0.244*	0.066	0.704
	Left Tilt	0.063	0.338	0.244*	0.052	0.697

Simult Tx	Configuration	LTE Band 25 (PCS) SAR (W/kg)	NR Band n41 SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4
Head SAR	Right Cheek	0.078	0.639	0.244	0.230	**1.191**
	Right Tilt	0.104	0.694	0.244*	0.145	1.187
	Left Cheek	0.118	0.265	0.244*	0.066	0.693
	Left Tilt	0.057	0.338	0.244*	0.052	0.691

Simult Tx	Configuration	LTE Band 2 (PCS) SAR (W/kg)	NR Band n41 SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4
Head SAR	Right Cheek	0.078	0.639	0.244	0.230	**1.191**
	Right Tilt	0.104	0.694	0.244*	0.145	1.187
	Left Cheek	0.118	0.265	0.244*	0.066	0.693
	Left Tilt	0.057	0.338	0.244*	0.052	0.691

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12.4 Body-Worn Simultaneous Transmission Analysis

Table 12-5
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 SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2
Body-Worn	GSM 850	0.251	0.119	0.370
	GSM 1900	0.385	0.119	0.504
	UMTS 850	0.321	0.119	0.440
	UMTS 1750	0.876	0.119	0.995
	UMTS 1900	0.642	0.119	0.761
	CDMA BC0 (§22H)	0.514	0.119	0.633
	CDMA BC10 (§90S)	0.408	0.119	0.527
	PCS CDMA	1.114	0.119	**1.233**
	LTE Band 71	0.277	0.119	0.396
	LTE Band 12	0.295	0.119	0.414
	LTE Band 13	0.314	0.119	0.433
	LTE Band 14	0.320	0.119	0.439
	LTE Band 5 (Cell)	0.324	0.119	0.443
	LTE Band 26 (Cell)	0.317	0.119	0.436
	LTE Band 66 (AWS)	0.965	0.119	1.084
	LTE Band 25 (PCS)	0.810	0.119	0.929
	LTE Band 30	0.444	0.119	0.563
	LTE Band 7	0.339	0.119	0.458
	LTE Band 41	0.251	0.119	0.370

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Simult Tx	Configuration	LTE Band 5 (Cell) SAR (W/kg)	NR Band n2 (PCS) SAR (W/kg)	2.4 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Body SAR	Back	0.324	0.814	0.119	**1.257**

Simult Tx	Configuration	LTE Band 12 SAR (W/kg)	NR Band n2 (PCS) SAR (W/kg)	2.4 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Body SAR	Back	0.295	0.814	0.119	**1.228**

Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	NR Band n5 (Cell) SAR (W/kg)	2.4 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Body SAR	Back	0.965	0.315	0.119	**1.399**

Simult Tx	Configuration	LTE Band 2 (PCS) SAR (W/kg)	NR Band n5 (Cell) SAR (W/kg)	2.4 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Body SAR	Back	0.810	0.315	0.119	**1.244**

Simult Tx	Configuration	LTE Band 30 SAR (W/kg)	NR Band n5 (Cell) SAR (W/kg)	2.4 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Body SAR	Back	0.444	0.315	0.119	**0.878**

Simult Tx	Configuration	LTE Band 12 SAR (W/kg)	NR Band n66 (AWS) SAR (W/kg)	2.4 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Body SAR	Back	0.295	0.766	0.119	**1.180**

Simult Tx	Configuration	LTE Band 5 (Cell) SAR (W/kg)	NR Band n66 (AWS) SAR (W/kg)	2.4 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Body SAR	Back	0.324	0.766	0.119	**1.209**

Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	NR Band n71 SAR (W/kg)	2.4 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Body SAR	Back	0.965	0.243	0.119	**1.327**

Simult Tx	Configuration	LTE Band 2 (PCS) SAR (W/kg)	NR Band n71 SAR (W/kg)	2.4 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Body SAR	Back	0.810	0.243	0.119	**1.172**

Simult Tx	Configuration	LTE Band 2 (PCS) SAR (W/kg)	NR Band n41 SAR (W/kg)	2.4 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Body SAR	Back	0.810	0.044	0.119	**0.973**

Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	NR Band n41 SAR (W/kg)	2.4 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Body SAR	Back	0.965	0.044	0.119	**1.128**

Simult Tx	Configuration	LTE Band 25 (PCS) SAR (W/kg)	NR Band n41 SAR (W/kg)	2.4 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Body SAR	Back	0.810	0.044	0.119	**0.973**

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Table 12-6
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 SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2
Body-Worn	GSM 850	0.251	0.202	0.453
	GSM 1900	0.385	0.202	0.587
	UMTS 850	0.321	0.202	0.523
	UMTS 1750	0.876	0.202	1.078
	UMTS 1900	0.642	0.202	0.844
	CDMA BC0 (§22H)	0.514	0.202	0.716
	CDMA BC10 (§90S)	0.408	0.202	0.610
	PCS CDMA	1.114	0.202	**1.316**
	LTE Band 71	0.277	0.202	0.479
	LTE Band 12	0.295	0.202	0.497
	LTE Band 13	0.314	0.202	0.516
	LTE Band 14	0.320	0.202	0.522
	LTE Band 5 (Cell)	0.324	0.202	0.526
	LTE Band 26 (Cell)	0.317	0.202	0.519
	LTE Band 66 (AWS)	0.965	0.202	1.167
	LTE Band 25 (PCS)	0.810	0.202	1.012
	LTE Band 30	0.444	0.202	0.646
	LTE Band 7	0.339	0.202	0.541
	LTE Band 41	0.251	0.202	0.453

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Simult Tx	Configuration	LTE Band 5 (Cell) SAR (W/kg)	NR Band n2 (PCS) SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Body SAR	Back	0.324	0.814	0.202	**1.340**

Simult Tx	Configuration	LTE Band 12 SAR (W/kg)	NR Band n2 (PCS) SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Body SAR	Back	0.295	0.814	0.202	**1.311**

Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	NR Band n5 (Cell) SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Body SAR	Back	0.965	0.315	0.202	**1.482**

Simult Tx	Configuration	LTE Band 2 (PCS) SAR (W/kg)	NR Band n5 (Cell) SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Body SAR	Back	0.810	0.315	0.202	**1.327**

Simult Tx	Configuration	LTE Band 30 SAR (W/kg)	NR Band n5 (Cell) SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Body SAR	Back	0.444	0.315	0.202	**0.961**

Simult Tx	Configuration	LTE Band 12 SAR (W/kg)	NR Band n66 (AWS) SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Body SAR	Back	0.295	0.766	0.202	**1.263**

Simult Tx	Configuration	LTE Band 5 (Cell) SAR (W/kg)	NR Band n66 (AWS) SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Body SAR	Back	0.324	0.766	0.202	**1.292**

Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	NR Band n71 SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Body SAR	Back	0.965	0.243	0.202	**1.410**

Simult Tx	Configuration	LTE Band 2 (PCS) SAR (W/kg)	NR Band n71 SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Body SAR	Back	0.810	0.243	0.202	**1.255**

Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	NR Band n41 SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Body SAR	Back	0.965	0.044	0.202	**1.211**

Simult Tx	Configuration	LTE Band 25 (PCS) SAR (W/kg)	NR Band n41 SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Body SAR	Back	0.810	0.044	0.202	**1.056**

Simult Tx	Configuration	LTE Band 2 (PCS) SAR (W/kg)	NR Band n41 SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Body SAR	Back	0.810	0.044	0.202	**1.056**

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Table 12-7
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	GSM 850	0.251	0.014	0.265
	GSM 1900	0.385	0.014	0.399
	UMTS 850	0.321	0.014	0.335
	UMTS 1750	0.876	0.014	0.890
	UMTS 1900	0.642	0.014	0.656
	CDMA BC0 (§22H)	0.514	0.014	0.528
	CDMA BC10 (§90S)	0.408	0.014	0.422
	PCS CDMA	1.114	0.014	**1.128**
	LTE Band 71	0.277	0.014	0.291
	LTE Band 12	0.295	0.014	0.309
	LTE Band 13	0.314	0.014	0.328
	LTE Band 14	0.320	0.014	0.334
	LTE Band 5 (Cell)	0.324	0.014	0.338
	LTE Band 26 (Cell)	0.317	0.014	0.331
	LTE Band 66 (AWS)	0.965	0.014	0.979
	LTE Band 25 (PCS)	0.810	0.014	0.824
	LTE Band 30	0.444	0.014	0.458
	LTE Band 7	0.339	0.014	0.353
	LTE Band 41	0.251	0.014	0.265

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Simult Tx	Configuration	LTE Band 5 (Cell) SAR (W/kg)	NR Band n2 (PCS) SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Body SAR	Back	0.324	0.814	0.014	**1.152**

Simult Tx	Configuration	LTE Band 12 SAR (W/kg)	NR Band n2 (PCS) SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Body SAR	Back	0.295	0.814	0.014	**1.123**

Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	NR Band n5 (Cell) SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Body SAR	Back	0.965	0.315	0.014	**1.294**

Simult Tx	Configuration	LTE Band 2 (PCS) SAR (W/kg)	NR Band n5 (Cell) SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Body SAR	Back	0.810	0.315	0.014	**1.139**

Simult Tx	Configuration	LTE Band 30 SAR (W/kg)	NR Band n5 (Cell) SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Body SAR	Back	0.444	0.315	0.014	**0.773**

Simult Tx	Configuration	LTE Band 12 SAR (W/kg)	NR Band n66 (AWS) SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Body SAR	Back	0.295	0.766	0.014	**1.075**

Simult Tx	Configuration	LTE Band 5 (Cell) SAR (W/kg)	NR Band n66 (AWS) SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Body SAR	Back	0.324	0.766	0.014	**1.104**

Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	NR Band n71 SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Body SAR	Back	0.965	0.243	0.014	**1.222**

Simult Tx	Configuration	LTE Band 2 (PCS) SAR (W/kg)	NR Band n71 SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Body SAR	Back	0.810	0.243	0.014	**1.067**

Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	NR Band n41 SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Body SAR	Back	0.965	0.044	0.014	**1.023**

Simult Tx	Configuration	LTE Band 25 (PCS) SAR (W/kg)	NR Band n41 SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Body SAR	Back	0.810	0.044	0.014	**0.868**

Simult Tx	Configuration	LTE Band 2 (PCS) SAR (W/kg)	NR Band n41 SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Body SAR	Back	0.810	0.044	0.014	**0.868**

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Table 12-8
Simultaneous Transmission Scenario with 5 GHz WLAN and Bluetooth (Body-Worn at 1.5 cm)

Exposure Condition	Mode	2G/3G/4G SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Body-Worn	GSM 850	0.251	0.202	0.014	0.467
	GSM 1900	0.385	0.202	0.014	0.601
	UMTS 850	0.321	0.202	0.014	0.537
	UMTS 1750	0.876	0.202	0.014	1.092
	UMTS 1900	0.642	0.202	0.014	0.858
	CDMA BC0 (§22H)	0.514	0.202	0.014	0.730
	CDMA BC10 (§90S)	0.408	0.202	0.014	0.624
	PCS CDMA	1.114	0.202	0.014	**1.330**
	LTE Band 71	0.277	0.202	0.014	0.493
	LTE Band 12	0.295	0.202	0.014	0.511
	LTE Band 13	0.314	0.202	0.014	0.530
	LTE Band 14	0.320	0.202	0.014	0.536
	LTE Band 5 (Cell)	0.324	0.202	0.014	0.540
	LTE Band 26 (Cell)	0.317	0.202	0.014	0.533
	LTE Band 66 (AWS)	0.965	0.202	0.014	1.181
	LTE Band 25 (PCS)	0.810	0.202	0.014	1.026
	LTE Band 30	0.444	0.202	0.014	0.660
	LTE Band 7	0.339	0.202	0.014	0.555
	LTE Band 41	0.251	0.202	0.014	0.467

Simult Tx	Configuration	LTE Band 5 (Cell) SAR (W/kg)	NR Band n2 (PCS) SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4
Body SAR	Back	0.324	0.814	0.202	0.014	**1.354**

Simult Tx	Configuration	LTE Band 12 SAR (W/kg)	NR Band n2 (PCS) SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4
Body SAR	Back	0.295	0.814	0.202	0.014	**1.325**

Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	NR Band n5 (Cell) SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4
Body SAR	Back	0.965	0.315	0.202	0.014	**1.496**

Simult Tx	Configuration	LTE Band 2 (PCS) SAR (W/kg)	NR Band n5 (Cell) SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4
Body SAR	Back	0.810	0.315	0.202	0.014	**1.341**

Simult Tx	Configuration	LTE Band 30 SAR (W/kg)	NR Band n5 (Cell) SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4
Body SAR	Back	0.444	0.315	0.202	0.014	**0.975**

Simult Tx	Configuration	LTE Band 12 SAR (W/kg)	NR Band n66 (AWS) SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4
Body SAR	Back	0.295	0.766	0.202	0.014	**1.277**

Simult Tx	Configuration	LTE Band 5 (Cell) SAR (W/kg)	NR Band n66 (AWS) SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4
Body SAR	Back	0.324	0.766	0.202	0.014	**1.306**

Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	NR Band n71 SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4
Body SAR	Back	0.965	0.243	0.202	0.014	**1.424**

Simult Tx	Configuration	LTE Band 2 (PCS) SAR (W/kg)	NR Band n71 SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4
Body SAR	Back	0.810	0.243	0.202	0.014	**1.269**

Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	NR Band n41 SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4
Body SAR	Back	0.965	0.044	0.202	0.014	**1.225**

Simult Tx	Configuration	LTE Band 25 (PCS) SAR (W/kg)	NR Band n41 SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4
Body SAR	Back	0.810	0.044	0.202	0.014	**1.070**

Simult Tx	Configuration	LTE Band 2 (PCS) SAR (W/kg)	NR Band n41 SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4
Body SAR	Back	0.810	0.044	0.202	0.014	**1.070**

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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 12-9
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 SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2
Hotspot SAR	GPRS 850	1.156	0.583	See Table Below
	GPRS 1900	1.157	0.583	See Table Below
	UMTS 850	0.671	0.583	1.254
	UMTS 1750	0.904	0.583	1.487
	UMTS 1900	1.019	0.583	See Table Below
	EVDO BC0 (§22H)	0.972	0.583	1.555
	EVDO BC10 (§90S)	0.748	0.583	1.331
	PCS EVDO	0.937	0.583	1.520
	LTE Band 71	0.476	0.583	1.059
	LTE Band 12	0.496	0.583	1.079
	LTE Band 13	0.599	0.583	1.182
	LTE Band 14	0.661	0.583	1.244
	LTE Band 5 (Cell)	0.750	0.583	1.333
	LTE Band 26 (Cell)	0.747	0.583	1.330
	LTE Band 66 (AWS)	1.000	0.583	**1.583**
	LTE Band 25 (PCS)	1.038	0.583	See Table Below
	LTE Band 30	0.603	0.583	1.186
	LTE Band 7	0.393	0.583	0.976
	LTE Band 41	0.267	0.583	0.850

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Simult Tx	Configuration	GPRS 850 SAR (W/kg)	2.4 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2
Hotspot SAR	Back	1.156	0.247	**1.403**
	Front	0.675	0.267	0.942
	Top	-	0.583*	0.583
	Bottom	0.492	-	0.492
	Right	0.263	-	0.263
	Left	0.100	0.583	0.683

Simult Tx	Configuration	GPRS 1900 SAR (W/kg)	2.4 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2
Hotspot SAR	Back	0.695	0.247	0.942
	Front	0.641	0.267	0.908
	Top	-	0.583*	0.583
	Bottom	1.157	-	**1.157**
	Right	0.132	-	0.132
	Left	0.079	0.583	0.662

Simult Tx	Configuration	UMTS 1900 SAR (W/kg)	2.4 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2
Hotspot SAR	Back	0.477	0.247	0.724
	Front	0.361	0.267	0.628
	Top	-	0.583*	0.583
	Bottom	1.019	-	**1.019**
	Right	0.101	-	0.101
	Left	0.030	0.583	0.613

Simult Tx	Configuration	LTE Band 25 (PCS) SAR (W/kg)	2.4 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2
Hotspot SAR	Back	0.525	0.247	0.772
	Front	0.444	0.267	0.711
	Top	-	0.583*	0.583
	Bottom	1.038	-	**1.038**
	Right	0.119	-	0.119
	Left	0.040	0.583	0.623

Simult Tx	Configuration	LTE Band 5 (Cell) SAR (W/kg)	NR Band n2 (PCS) SAR (W/kg)	2.4 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Hotspot SAR	Back	0.750	0.490	0.247	**1.487**
	Front	0.489	0.403	0.267	1.159
	Top	-	-	0.583*	0.583
	Bottom	0.388	0.983	-	1.371
	Right	0.182	0.101	-	0.283
	Left	0.071	0.024	0.583	0.678

Simult Tx	Configuration	LTE Band 12 SAR (W/kg)	NR Band n2 (PCS) SAR (W/kg)	2.4 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Hotspot SAR	Back	0.496	0.490	0.247	1.233
	Front	0.335	0.403	0.267	1.005
	Top	-	-	0.583*	0.583
	Bottom	0.328	0.983	-	**1.311**
	Right	0.331	0.101	-	0.432
	Left	0.154	0.024	0.583	0.761

Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	NR Band n5 (Cell) SAR (W/kg)	2.4 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Hotspot SAR	Back	0.486	0.671	0.247	**1.404**
	Front	0.443	0.439	0.267	1.149
	Top	-	-	0.583*	0.583
	Bottom	1.000	0.366	-	1.366
	Right	0.113	0.173	-	0.286
	Left	0.041	0.079	0.583	0.703

Simult Tx	Configuration	LTE Band 2 (PCS) SAR (W/kg)	NR Band n5 (Cell) SAR (W/kg)	2.4 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Hotspot SAR	Back	0.525	0.671	0.247	**1.443**
	Front	0.444	0.439	0.267	1.150
	Top	-	-	0.583*	0.583
	Bottom	1.038	0.366	-	1.404
	Right	0.119	0.173	-	0.292
	Left	0.040	0.079	0.583	0.702

Simult Tx	Configuration	LTE Band 30 SAR (W/kg)	NR Band n5 (Cell) SAR (W/kg)	2.4 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Hotspot SAR	Back	0.603	0.671	0.247	**1.521**
	Front	0.352	0.439	0.267	1.058
	Top	-	-	0.583*	0.583
	Bottom	0.565	0.366	-	0.931
	Right	-	0.173	-	0.173
	Left	0.226	0.079	0.583	0.888

Simult Tx	Configuration	LTE Band 12 SAR (W/kg)	NR Band n66 (AWS) SAR (W/kg)	2.4 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Hotspot SAR	Back	0.496	0.527	0.247	**1.270**
	Front	0.335	0.474	0.267	1.076
	Top	-	-	0.583*	0.583
	Bottom	0.328	0.715	-	1.043
	Right	0.331	0.068	-	0.399
	Left	0.154	0.042	0.583	0.779

Simult Tx	Configuration	LTE Band 5 (Cell) SAR (W/kg)	NR Band n66 (AWS) SAR (W/kg)	2.4 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Hotspot SAR	Back	0.750	0.527	0.247	**1.524**
	Front	0.489	0.474	0.267	1.230
	Top	-	-	0.583*	0.583
	Bottom	0.388	0.715	-	1.103
	Right	0.182	0.068	-	0.250
	Left	0.071	0.042	0.583	0.696

Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	NR Band n71 SAR (W/kg)	2.4 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Hotspot SAR	Back	0.486	0.394	0.247	1.127
	Front	0.443	0.233	0.267	0.943
	Top	-	-	0.583*	0.583
	Bottom	1.000	0.185	-	**1.185**
	Right	0.113	0.238	-	0.351
	Left	0.041	0.137	0.583	0.761

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Simult Tx	Configuration	LTE Band 2 (PCS) SAR (W/kg)	NR Band n71 SAR (W/kg)	2.4 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Hotspot SAR	Back	0.525	0.394	0.247	1.166
	Front	0.444	0.233	0.267	0.944
	Top	-	-	0.583*	0.583
	Bottom	1.038	0.185	-	**1.223**
	Right	0.119	0.238	-	0.357
	Left	0.040	0.137	0.583	0.760

Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	NR Band n41 SAR (W/kg)	2.4 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Hotspot SAR	Back	0.486	0.107	0.247	0.840
	Front	0.443	0.092	0.267	0.802
	Top	-	0.159	0.583*	0.742
	Bottom	1.000	-	-	**1.000**
	Right	0.113	-	-	0.113
	Left	0.041	0.040	0.583	0.664

Simult Tx	Configuration	LTE Band 25 (PCS) SAR (W/kg)	NR Band n41 SAR (W/kg)	2.4 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Hotspot SAR	Back	0.525	0.107	0.247	0.879
	Front	0.444	0.092	0.267	0.803
	Top	-	0.159	0.583*	0.742
	Bottom	1.038	-	-	**1.038**
	Right	0.119	-	-	0.119
	Left	0.040	0.040	0.583	0.663

Simult Tx	Configuration	LTE Band 2 (PCS) SAR (W/kg)	NR Band n41 SAR (W/kg)	2.4 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Hotspot SAR	Back	0.525	0.107	0.247	0.879
	Front	0.444	0.092	0.267	0.803
	Top	-	0.159	0.583*	0.742
	Bottom	1.038	-	-	**1.038**
	Right	0.119	-	-	0.119
	Left	0.040	0.040	0.583	0.663

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Table 12-10
Simultaneous Transmission Scenario with 5 GHz WLAN (Hotspot at 1.0 cm)

Exposure Condition	Mode	2G/3G/4G SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2
Hotspot SAR	GPRS 850	1.156	0.430	1.586
	GPRS 1900	1.157	0.430	**1.587**
	UMTS 850	0.671	0.430	1.101
	UMTS 1750	0.904	0.430	1.334
	UMTS 1900	1.019	0.430	1.449
	EVDO BC0 (§22H)	0.972	0.430	1.402
	EVDO BC10 (§90S)	0.748	0.430	1.178
	PCS EVDO	0.937	0.430	1.367
	LTE Band 71	0.476	0.430	0.906
	LTE Band 12	0.496	0.430	0.926
	LTE Band 13	0.599	0.430	1.029
	LTE Band 14	0.661	0.430	1.091
	LTE Band 5 (Cell)	0.750	0.430	1.180
	LTE Band 26 (Cell)	0.747	0.430	1.177
	LTE Band 66 (AWS)	1.000	0.430	1.430
	LTE Band 25 (PCS)	1.038	0.430	1.468
	LTE Band 30	0.603	0.430	1.033
	LTE Band 7	0.393	0.430	0.823
	LTE Band 41	0.267	0.430	0.697

Simult Tx	Configuration	LTE Band 5 (Cell) SAR (W/kg)	NR Band n2 (PCS) SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Hotspot SAR	Back	0.750	0.490	0.282	**1.522**
	Front	0.489	0.403	0.430*	1.322
	Top	-	-	0.430*	0.430
	Bottom	0.388	0.983	-	1.371
	Right	0.182	0.101	-	0.283
	Left	0.071	0.024	0.430	0.525

Simult Tx	Configuration	LTE Band 12 SAR (W/kg)	NR Band n2 (PCS) SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Hotspot SAR	Back	0.496	0.490	0.282	1.268
	Front	0.335	0.403	0.430*	1.168
	Top	-	-	0.430*	0.430
	Bottom	0.328	0.983	-	**1.311**
	Right	0.331	0.101	-	0.432
	Left	0.154	0.024	0.430	0.608

Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	NR Band n5 (Cell) SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Hotspot SAR	Back	0.486	0.671	0.282	**1.439**
	Front	0.443	0.439	0.430*	1.312
	Top	-	-	0.430*	0.430
	Bottom	1.000	0.366	-	1.366
	Right	0.113	0.173	-	0.286
	Left	0.041	0.079	0.430	0.550

Simult Tx	Configuration	LTE Band 2 (PCS) SAR (W/kg)	NR Band n5 (Cell) SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Hotspot SAR	Back	0.525	0.671	0.282	**1.478**
	Front	0.444	0.439	0.430*	1.313
	Top	-	-	0.430*	0.430
	Bottom	1.038	0.366	-	1.404
	Right	0.119	0.173	-	0.292
	Left	0.040	0.079	0.430	0.549

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Simult Tx	Configuration	LTE Band 30 SAR (W/kg)	NR Band n5 (Cell) SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Hotspot SAR	Back	0.603	0.671	0.282	**1.556**
	Front	0.352	0.439	0.430*	1.221
	Top	-	-	0.430*	0.430
	Bottom	0.565	0.366	-	0.931
	Right	-	0.173	-	0.173
	Left	0.226	0.079	0.430	0.735

Simult Tx	Configuration	LTE Band 5 (Cell) SAR (W/kg)	NR Band n66 (AWS) SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Hotspot SAR	Back	0.750	0.527	0.282	**1.559**
	Front	0.489	0.474	0.430*	1.393
	Top	-	-	0.430*	0.430
	Bottom	0.388	0.715	-	1.103
	Right	0.182	0.068	-	0.250
	Left	0.071	0.042	0.430	0.543

Simult Tx	Configuration	LTE Band 12 SAR (W/kg)	NR Band n66 (AWS) SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Hotspot SAR	Back	0.496	0.527	0.282	**1.305**
	Front	0.335	0.474	0.430*	1.239
	Top	-	-	0.430*	0.430
	Bottom	0.328	0.715	-	1.043
	Right	0.331	0.068	-	0.399
	Left	0.154	0.042	0.430	0.626

Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	NR Band n71 SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Hotspot SAR	Back	0.486	0.394	0.282	1.162
	Front	0.443	0.233	0.430*	1.106
	Top	-	-	0.430*	0.430
	Bottom	1.000	0.185	-	**1.185**
	Right	0.113	0.238	-	0.351
	Left	0.041	0.137	0.430	0.608

Simult Tx	Configuration	LTE Band 2 (PCS) SAR (W/kg)	NR Band n71 SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Hotspot SAR	Back	0.525	0.394	0.282	1.201
	Front	0.444	0.233	0.430*	1.107
	Top	-	-	0.430*	0.430
	Bottom	1.038	0.185	-	**1.223**
	Right	0.119	0.238	-	0.357
	Left	0.040	0.137	0.430	0.607

Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	NR Band n41 SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Hotspot SAR	Back	0.486	0.107	0.282	0.875
	Front	0.443	0.092	0.430*	0.965
	Top	-	0.159	0.430*	0.589
	Bottom	1.000	-	-	**1.000**
	Right	0.113	-	-	0.113
	Left	0.041	0.040	0.430	0.511

Simult Tx	Configuration	LTE Band 25 (PCS) SAR (W/kg)	NR Band n41 SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Hotspot SAR	Back	0.525	0.107	0.282	0.914
	Front	0.444	0.092	0.430*	0.966
	Top	-	0.159	0.430*	0.589
	Bottom	1.038	-	-	**1.038**
	Right	0.119	-	-	0.119
	Left	0.040	0.040	0.430	0.510

Simult Tx	Configuration	LTE Band 2 (PCS) SAR (W/kg)	NR Band n41 SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Hotspot SAR	Back	0.525	0.107	0.282	0.914
	Front	0.444	0.092	0.430*	0.966
	Top	-	0.159	0.430*	0.589
	Bottom	1.038	-	-	**1.038**
	Right	0.119	-	-	0.119
	Left	0.040	0.040	0.430	0.510

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Table 12-11
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	GPRS 850	1.156	0.069	1.225
	GPRS 1900	1.157	0.069	**1.226**
	UMTS 850	0.671	0.069	0.740
	UMTS 1750	0.904	0.069	0.973
	UMTS 1900	1.019	0.069	1.088
	EVDO BC0 (§22H)	0.972	0.069	1.041
	EVDO BC10 (§90S)	0.748	0.069	0.817
	PCS EVDO	0.937	0.069	1.006
	LTE Band 71	0.476	0.069	0.545
	LTE Band 12	0.496	0.069	0.565
	LTE Band 13	0.599	0.069	0.668
	LTE Band 14	0.661	0.069	0.730
	LTE Band 5 (Cell)	0.750	0.069	0.819
	LTE Band 26 (Cell)	0.747	0.069	0.816
	LTE Band 66 (AWS)	1.000	0.069	1.069
	LTE Band 25 (PCS)	1.038	0.069	1.107
	LTE Band 30	0.603	0.069	0.672
	LTE Band 7	0.393	0.069	0.462
	LTE Band 41	0.267	0.069	0.336

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Simult Tx	Configuration	LTE Band 5 (Cell) SAR (W/kg)	NR Band n2 (PCS) SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Hotspot SAR	Back	0.750	0.490	0.030	1.270
	Front	0.489	0.403	0.030	0.922
	Top	-	-	0.014	0.014
	Bottom	0.388	0.983	-	**1.371**
	Right	0.182	0.101	-	0.283
	Left	0.071	0.024	0.069	0.164

Simult Tx	Configuration	LTE Band 12 SAR (W/kg)	NR Band n2 (PCS) SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Hotspot SAR	Back	0.496	0.490	0.030	1.016
	Front	0.335	0.403	0.030	0.768
	Top	-	-	0.014	0.014
	Bottom	0.328	0.983	-	**1.311**
	Right	0.331	0.101	-	0.432
	Left	0.154	0.024	0.069	0.247

Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	NR Band n5 (Cell) SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Hotspot SAR	Back	0.486	0.671	0.030	1.187
	Front	0.443	0.439	0.030	0.912
	Top	-	-	0.014	0.014
	Bottom	1.000	0.366	-	**1.366**
	Right	0.113	0.173	-	0.286
	Left	0.041	0.079	0.069	0.189

Simult Tx	Configuration	LTE Band 2 (PCS) SAR (W/kg)	NR Band n5 (Cell) SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Hotspot SAR	Back	0.525	0.671	0.030	1.226
	Front	0.444	0.439	0.030	0.913
	Top	-	-	0.014	0.014
	Bottom	1.038	0.366	-	**1.404**
	Right	0.119	0.173	-	0.292
	Left	0.040	0.079	0.069	0.188

Simult Tx	Configuration	LTE Band 30 SAR (W/kg)	NR Band n5 (Cell) SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Hotspot SAR	Back	0.603	0.671	0.030	**1.304**
	Front	0.352	0.439	0.030	0.821
	Top	-	-	0.014	0.014
	Bottom	0.565	0.366	-	0.931
	Right	-	0.173	-	0.173
	Left	0.226	0.079	0.069	0.374

Simult Tx	Configuration	LTE Band 12 SAR (W/kg)	NR Band n66 (AWS) SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Hotspot SAR	Back	0.496	0.527	0.030	**1.053**
	Front	0.335	0.474	0.030	0.839
	Top	-	-	0.014	0.014
	Bottom	0.328	0.715	-	1.043
	Right	0.331	0.068	-	0.399
	Left	0.154	0.042	0.069	0.265

Simult Tx	Configuration	LTE Band 5 (Cell) SAR (W/kg)	NR Band n66 (AWS) SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Hotspot SAR	Back	0.750	0.527	0.030	**1.307**
	Front	0.489	0.474	0.030	0.993
	Top	-	-	0.014	0.014
	Bottom	0.388	0.715	-	1.103
	Right	0.182	0.068	-	0.250
	Left	0.071	0.042	0.069	0.182

Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	NR Band n71 SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Hotspot SAR	Back	0.486	0.394	0.030	0.910
	Front	0.443	0.233	0.030	0.706
	Top	-	-	0.014	0.014
	Bottom	1.000	0.185	-	**1.185**
	Right	0.113	0.238	-	0.351
	Left	0.041	0.137	0.069	0.247

Simult Tx	Configuration	LTE Band 2 (PCS) SAR (W/kg)	NR Band n71 SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Hotspot SAR	Back	0.525	0.394	0.030	0.949
	Front	0.444	0.233	0.030	0.707
	Top	-	-	0.014	0.014
	Bottom	1.038	0.185	-	**1.223**
	Right	0.119	0.238	-	0.357
	Left	0.040	0.137	0.069	0.246

Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	NR Band n41 SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Hotspot SAR	Back	0.486	0.107	0.030	0.623
	Front	0.443	0.092	0.030	0.565
	Top	-	0.159	0.014	0.173
	Bottom	1.000	-	-	**1.000**
	Right	0.113	-	-	0.113
	Left	0.041	0.040	0.069	0.150

Simult Tx	Configuration	LTE Band 25 (PCS) SAR (W/kg)	NR Band n41 SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Hotspot SAR	Back	0.525	0.107	0.030	0.662
	Front	0.444	0.092	0.030	0.566
	Top	-	0.159	0.014	0.173
	Bottom	1.038	-	-	**1.038**
	Right	0.119	-	-	0.119
	Left	0.040	0.040	0.069	0.149

Simult Tx	Configuration	LTE Band 2 (PCS) SAR (W/kg)	NR Band n41 SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Hotspot SAR	Back	0.525	0.107	0.030	0.662
	Front	0.444	0.092	0.030	0.566
	Top	-	0.159	0.014	0.173
	Bottom	1.038	-	-	**1.038**
	Right	0.119	-	-	0.119
	Left	0.040	0.040	0.069	0.149

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

Exposure Condition	Mode	2G/3G/4G SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Hotspot SAR	GPRS 850	1.156	0.430	0.069	See Table Below
	GPRS 1900	1.157	0.430	0.069	See Table Below
	UMTS 850	0.671	0.430	0.069	1.170
	UMTS 1750	0.904	0.430	0.069	1.403
	UMTS 1900	1.019	0.430	0.069	1.518
	EVDO BC0 (§22H)	0.972	0.430	0.069	1.471
	EVDO BC10 (§90S)	0.748	0.430	0.069	1.247
	PCS EVDO	0.937	0.430	0.069	1.436
	LTE Band 71	0.476	0.430	0.069	0.975
	LTE Band 12	0.496	0.430	0.069	0.995
	LTE Band 13	0.599	0.430	0.069	1.098
	LTE Band 14	0.661	0.430	0.069	1.160
	LTE Band 5 (Cell)	0.750	0.430	0.069	1.249
	LTE Band 26 (Cell)	0.747	0.430	0.069	1.246
	LTE Band 66 (AWS)	1.000	0.430	0.069	1.499
	LTE Band 25 (PCS)	1.038	0.430	0.069	**1.537**
	LTE Band 30	0.603	0.430	0.069	1.102
	LTE Band 7	0.393	0.430	0.069	0.892
	LTE Band 41	0.267	0.430	0.069	0.766

Simult Tx	Configuration	GPRS 850 SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Hotspot SAR	Back	1.156	0.282	0.030	**1.468**
	Front	0.675	0.430*	0.030	1.135
	Top	-	0.430*	0.014	0.444
	Bottom	0.492	-	-	0.492
	Right	0.263	-	-	0.263
	Left	0.100	0.430	0.069	0.530

Simult Tx	Configuration	GPRS 1900 SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Hotspot SAR	Back	0.695	0.282	0.030	1.007
	Front	0.641	0.430*	0.030	1.101
	Top	-	0.430*	0.014	0.444
	Bottom	1.157	-	-	**1.157**
	Right	0.132	-	-	0.263
	Left	0.079	0.430	0.069	0.530

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Simult Tx	Configuration	LTE Band 5 (Cell) SAR (W/kg)	NR Band n2 (PCS) SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4
Hotspot SAR	Back	0.750	0.490	0.282	0.030	**1.552**
	Front	0.489	0.403	0.430*	0.030	1.352
	Top	-	-	0.430*	0.014	0.444
	Bottom	0.388	0.983	-	-	1.371
	Right	0.182	0.101	-	-	0.283
	Left	0.071	0.024	0.430	0.069	0.594

Simult Tx	Configuration	LTE Band 12 SAR (W/kg)	NR Band n2 (PCS) SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4
Hotspot SAR	Back	0.496	0.490	0.282	0.030	1.298
	Front	0.335	0.403	0.430*	0.030	1.198
	Top	-	-	0.430*	0.014	0.444
	Bottom	0.328	0.983	-	-	**1.311**
	Right	0.331	0.101	-	-	0.432
	Left	0.154	0.024	0.430	0.069	0.677

Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	NR Band n5 (Cell) SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4
Hotspot SAR	Back	0.486	0.671	0.282	0.030	**1.469**
	Front	0.443	0.439	0.430*	0.030	1.342
	Top	-	-	0.430*	0.014	0.444
	Bottom	1.000	0.366	-	-	1.366
	Right	0.113	0.173	-	-	0.286
	Left	0.041	0.079	0.430	0.069	0.619

Simult Tx	Configuration	LTE Band 30 SAR (W/kg)	NR Band n5 (Cell) SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4
Hotspot SAR	Back	0.603	0.671	0.282	0.030	**1.586**
	Front	0.352	0.439	0.430*	0.030	1.251
	Top	-	-	0.430*	0.014	0.444
	Bottom	0.565	0.366	-	-	0.931
	Right	-	0.173	-	-	0.173
	Left	0.226	0.079	0.430	0.069	0.804

Simult Tx	Configuration	LTE Band 2 (PCS) SAR (W/kg)	NR Band n5 (Cell) SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4
Hotspot SAR	Back	0.525	0.671	0.282	0.030	**1.508**
	Front	0.444	0.439	0.430*	0.030	1.343
	Top	-	-	0.430*	0.014	0.444
	Bottom	1.038	0.366	-	-	1.404
	Right	0.119	0.173	-	-	0.292
	Left	0.040	0.079	0.430	0.069	0.618

Simult Tx	Configuration	LTE Band 12 SAR (W/kg)	NR Band n66 (AWS) SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4
Hotspot SAR	Back	0.496	0.527	0.282	0.030	**1.335**
	Front	0.335	0.474	0.430*	0.030	1.269
	Top	-	-	0.430*	0.014	0.444
	Bottom	0.328	0.715	-	-	1.043
	Right	0.331	0.068	-	-	0.399
	Left	0.154	0.042	0.430	0.069	0.695

Simult Tx	Configuration	LTE Band 5 (Cell) SAR (W/kg)	NR Band n66 (AWS) SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4
Hotspot SAR	Back	0.750	0.527	0.282	0.030	**1.589**
	Front	0.489	0.474	0.430*	0.030	1.423
	Top	-	-	0.430*	0.014	0.444
	Bottom	0.388	0.715	-	-	1.103
	Right	0.182	0.068	-	-	0.250
	Left	0.071	0.042	0.430	0.069	0.612

Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	NR Band n71 SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4
Hotspot SAR	Back	0.486	0.394	0.282	0.030	**1.192**
	Front	0.443	0.233	0.430*	0.030	1.136
	Top	-	-	0.430*	0.014	0.444
	Bottom	1.000	0.185	-	-	1.185
	Right	0.113	0.238	-	-	0.351
	Left	0.041	0.137	0.430	0.069	0.677

Simult Tx	Configuration	LTE Band 2 (PCS) SAR (W/kg)	NR Band n71 SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4
Hotspot SAR	Back	0.525	0.394	0.282	0.030	**1.231**
	Front	0.444	0.233	0.430*	0.030	1.137
	Top	-	-	0.430*	0.014	0.444
	Bottom	1.038	0.185	-	-	1.223
	Right	0.119	0.238	-	-	0.357
	Left	0.040	0.137	0.430	0.069	0.676

Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	NR Band n41 SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4
Hotspot SAR	Back	0.486	0.107	0.282	0.030	0.905
	Front	0.443	0.092	0.430*	0.030	0.995
	Top	-	0.159	0.430*	0.014	0.603
	Bottom	1.000	-	-	-	**1.000**
	Right	0.113	-	-	-	0.113
	Left	0.041	0.040	0.430	0.069	0.580

Simult Tx	Configuration	LTE Band 25 (PCS) SAR (W/kg)	NR Band n41 SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4
Hotspot SAR	Back	0.525	0.107	0.282	0.030	0.944
	Front	0.444	0.092	0.430*	0.030	0.996
	Top	-	0.159	0.430*	0.014	0.603
	Bottom	1.038	-	-	-	**1.038**
	Right	0.119	-	-	-	0.119
	Left	0.040	0.040	0.430	0.069	0.579

Simult Tx	Configuration	LTE Band 2 (PCS) SAR (W/kg)	NR Band n41 SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4
Hotspot SAR	Back	0.525	0.107	0.282	0.030	0.944
	Front	0.444	0.092	0.430*	0.030	0.996
	Top	-	0.159	0.430*	0.014	0.603
	Bottom	1.038	-	-	-	**1.038**
	Right	0.119	-	-	-	0.119
	Left	0.040	0.040	0.430	0.069	0.579

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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.

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.

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.

Table 12-13
Simultaneous Transmission Scenario with 5 GHz WLAN (Phablet)

Simult Tx	Configuration	GPRS 1900 SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)	Simult Tx	Configuration	UMTS 1750 SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2			1	2	1+2
Phablet SAR	Back	1.583	1.015	2.598	Phablet SAR	Back	2.368	1.015	3.383
	Front	1.507	1.243	**2.750**		Front	2.341	1.243	**3.584**
	Top	-	1.469*	1.469		Top	-	1.469*	1.469
	Bottom	2.087	-	2.087		Bottom	2.850	-	2.850
	Right	0.482	-	0.482		Right	0.556	-	0.556
	Left	0.198	1.469	1.667		Left	0.275	1.469	1.744
Simult Tx	Configuration	UMTS 1900 SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)	Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2			1	2	1+2
Phablet SAR	Back	1.688	1.015	2.703	Phablet SAR	Back	1.964	1.015	2.979
	Front	1.960	1.243	**3.203**		Front	2.386	1.243	**3.629**
	Top	-	1.469*	1.469		Top	-	1.469*	1.469
	Bottom	2.995	-	2.995		Bottom	2.926	-	2.926
	Right	0.590	-	0.590		Right	0.468	-	0.468
	Left	0.173	1.469	1.642		Left	0.250	1.469	1.719

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Simult Tx	Configuration	LTE Band 25 (PCS) SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2
Phablet SAR	Back	1.867	1.015	2.882
	Front	2.684	1.243	**3.927**
	Top	-	1.469*	1.469
	Bottom	2.966	-	2.966
	Right	0.681	-	-
	Left	0.221	1.469	1.690

Simult Tx	Configuration	LTE Band 30 SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2
Phablet SAR	Back	1.873	1.015	2.888
	Front	2.036	1.243	**3.279**
	Top	-	1.469*	1.469
	Bottom	1.944	-	1.944
	Right	-	-	-
	Left	1.077	1.469	2.546

Simult Tx	Configuration	LTE Band 7 SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2
Phablet SAR	Back	1.414	1.015	2.429
	Front	2.115	1.243	**3.358**
	Top	-	1.469*	1.469
	Bottom	1.357	-	1.357
	Left	1.061	1.469	2.530

Simult Tx	Configuration	LTE Band 41 SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2
Phablet SAR	Back	0.841	1.015	1.856
	Front	1.159	1.243	**2.402**
	Top	-	1.469*	1.469
	Bottom	0.851	-	0.851
	Left	0.653	1.469	2.122

Simult Tx	Configuration	PCS EVDO SAR (W/kg)	5 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)	SPLSR
		1	2	1+2	1+2
Phablet SAR	Back	1.886	1.015	2.901	N/A
	Front	3.016	1.243	See Note 1	0.05
	Top	-	1.469*	1.469	N/A
	Bottom	2.911	-	**2.911**	N/A
	Right	0.943	-	0.943	N/A
	Left	0.228	1.469	1.697	N/A

Simult Tx	Configuration	NR Band n66 (AWS)	5 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2
Phablet SAR	Back	1.780	1.015	2.795
	Front	1.954	1.243	**3.197**
	Top	-	1.469*	1.469
	Bottom	2.961	-	2.961
	Right	0.612	-	0.612
	Left	0.347	1.469	1.816

Simult Tx	Configuration	NR Band n2 (PCS)	5 GHz WLAN SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2
Phablet SAR	Back	1.717	1.015	2.732
	Front	2.426	1.243	**3.669**
	Top	-	1.469*	1.469
	Bottom	3.295	-	3.295
	Right	0.750	-	0.750
	Left	0.315	1.469	1.784

Note: LTE Phablet SAR tests were not required for the anchor bands as 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.

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 12.7 for detailed SPLS ratio analysis.

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12.7 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.

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

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

12.7.1 Front Side SPLSR Evaluation and Analysis

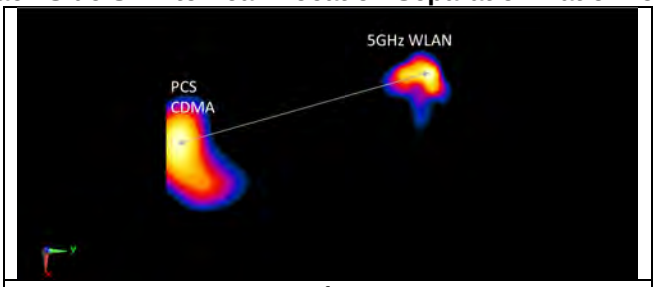
Table 12-14
Peak SAR Locations for Body Front Side

Mode/Band	x (mm)	y (mm)
5 GHz WLAN	-72.00	66.00
PCS EVDO	-12.50	-84.00

Table 12-15
Back Side 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
Ant "a"	Ant "b"	a	b	a+b	D_{a-b}	$(a+b)^{1.5}/D_{a-b}$
5 GHz WLAN	PCS EVDO	1.243	3.016	4.259	161.37	0.05

Table 12-16
Back Side SAR to Peak Location Separation Ratio Plots



1

12.8 Simultaneous Transmission Conclusion

The above numerical summed SAR results and SPLSR analysis for all the worst-case simultaneous transmission conditions were below the SAR limit. Therefore, the above analysis is 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 6.3.4.1.2.

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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
Body SAR Measurement Variability Results

BODY VARIABILITY RESULTS														
Band	FREQUENCY		Mode	Service	# of Time Slots	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)	
835	836.52	384	CDMA BC0 (§22H)	EVDO Rev. 0	N/A	back	10 mm	0.816	0.788	1.04	N/A	N/A	N/A	N/A
1750	1770.00	132572	LTE Band 66 (AWS), 20 MHz Bandwidth	QPSK, 50 RB, 25 RB Offset	N/A	bottom	10 mm	0.857	0.829	1.03	N/A	N/A	N/A	N/A
1900	1909.80	810	GSM 1900	GPRS	2	bottom	10 mm	0.938	0.937	1.00	N/A	N/A	N/A	N/A
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 13-2
Phablet SAR Measurement Variability Results

PHABLET VARIABILITY RESULTS														
Band	FREQUENCY		Mode	Service	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	1720.00	344000	NR Band n66 (AWS), 20 MHz Bandwidth	DFT-S-OFDM QPSK, 1 RB, 53 RB Offset	bottom	0 mm	2.940	2.890	1.02	N/A	N/A	N/A	N/A
1900	1900.00	380000	NR Band n2 (PCS), 20 MHz Bandwidth	DFT-S-OFDM QPSK, 100 RB, 0 RB Offset	bottom	0 mm	2.870	2.820	1.02	N/A	N/A	N/A	N/A
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population							Phablet 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

Per April 2019 TCB Workshop Notes, 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. Per FCC Guidance, during NR testing the device was configured with the tuner state selected by the device in LTE mode with auto-tune active at the same frequency. 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 120 tuner states were divided among the aggregate band, mode and exposure combinations. 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 120 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 B5		UMTS B4		UMTS B2	
RMC		RMC		RMC	
Test Position	Right Cheek	Test Position	Left Cheek	Test Position	Left Cheek
Frequency (MHz)	836.6	Frequency (MHz)	1732.4	Frequency (MHz)	1880.0
Channel	4183	Channel	1412	Channel	9400
Measured 1g SAR (W/kg)	0.187	Measured 1g SAR (W/kg)	0.119	Measured 1g SAR (W/kg)	0.113
Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)	
Auto-tune (State 17)	0.244	Auto-tune (State 108)	0.187	Auto-tune (State 108)	0.156
Default (State 0)	0.230	Default (State 108)	0.175	Default (State 108)	0.162
State 1	0.222	State 3	0.177	State 47	0.037
State 6	0.171	State 9	0.139	State 55	0.004
State 11	0.045	State 14	0.186	State 66	0.003
State 17	0.245	State 20	0.176	State 77	0.000

Supplemental Head SAR Data					
CDMA BC10		CDMA BC0		CDMA BC1	
CDMA		CDMA		CDMA	
Test Position	Right Cheek	Test Position	Right Cheek	Test Position	Left Cheek
Frequency (MHz)	820.1	Frequency (MHz)	836.52	Frequency (MHz)	1880.0
Channel	564	Channel	384	Channel	600
Measured 1g SAR (W/kg)	0.226	Measured 1g SAR (W/kg)	0.243	Measured 1g SAR (W/kg)	0.135
Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)	
Auto-tune (State 15)	0.281	Auto-tune (State 0)	0.315	Auto-tune (State 108)	0.203
Default (State 0)	0.272	Default (State 0)	0.312	Default (State 108)	0.197
State 15	0.278	State 67	0.326	State 7	0.188
State 109	0.049	State 75	0.034	State 10	0.157
State 114	0.227	State 87	0.000	State 18	0.192
State 118	0.225	State 98	0.000	State 24	0.171

Table 14-2
LTE Supplemental Head SAR Data

Supplemental Head SAR Data							
LTE B71		LTE B12		LTE B13		LTE B14	
QPSK, 20 MHz Bandwidth, 1 RB, 99 RB Offset		QPSK, 10 MHz Bandwidth, 1 RB, 0 RB Offset		QPSK, 10 MHz Bandwidth, 1 RB, 0 RB Offset		QPSK, 10 MHz Bandwidth, 1 RB, 0 RB Offset	
Test Position	Right Cheek	Test Position	Right Cheek	Test Position	Right Cheek	Test Position	Right Cheek
Frequency (MHz)	680.5	Frequency (MHz)	707.5	Frequency (MHz)	782.0	Frequency (MHz)	793.0
Channel	133297	Channel	23095	Channel	23230	Channel	23330
Measured 1g SAR (W/kg)	0.123	Measured 1g SAR (W/kg)	0.185	Measured 1g SAR (W/kg)	0.170	Measured 1g SAR (W/kg)	0.170
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)	0.173	Auto-tune (State 0)	0.232	Auto-tune (State 0)	0.212	Auto-tune (State 0)	0.220
Default (State 0)	0.180	Default (State 0)	0.243	Default (State 0)	0.221	Default (State 0)	0.212
State 0	0.180	State 26	0.031	State 48	0.000	State 91	0.041
State 8	0.041	State 33	0.000	State 60	0.053	State 101	0.000
State 14	0.146	State 40	0.008	State 65	0.193	State 110	0.167
State 20	0.034	State 61	0.021	State 71	0.076	State 115	0.040

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Supplemental Head SAR Data							
LTE B5		LTE B26		LTE B66/4		LTE B25/2	
QPSK, 10 MHz Bandwidth, 1 RB, 0 RB Offset		QPSK, 15 MHz Bandwidth, 1 RB, 0 RB Offset		QPSK, 20 MHz Bandwidth, 1 RB, 50 RB Offset		QPSK, 20 MHz Bandwidth, 1 RB, 99 RB Offset	
Test Position	Right Cheek	Test Position	Right Cheek	Test Position	Left Cheek	Test Position	Left Cheek
Frequency (MHz)	831.5	Frequency (MHz)	831.5	Frequency (MHz)	1720.0	Frequency (MHz)	1905.0
Channel	20525	Channel	26865	Channel	132072	Channel	26590
Measured 1g SAR (W/kg)	0.196	Measured 1g SAR (W/kg)	0.196	Measured 1g SAR (W/kg)	0.114	Measured 1g SAR (W/kg)	0.107
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 1)	0.256	Auto-tune (State 0)	0.256	Auto-tune (State 108)	0.141	Auto-tune (State 108)	0.158
Default (State 0)	0.266	Default (State 0)	0.246	Default (State 108)	0.142	Default (State 108)	0.162
State 1	0.259	State 4	0.226	State 81	0.027	State 5	0.148
State 88	0.000	State 13	0.191	State 86	0.005	State 13	0.158
State 97	0.004	State 36	0.000	State 99	0.003	State 15	0.158
State 104	0.268	State 45	0.004	State 108	0.142	State 30	0.042
State 119	0.009					State 54	0.000

Table 14-3
NR Supplemental Head SAR Data

Supplemental Head SAR Data							
NR Band n71		NR Band n5		NR Band n66		NR Band n2	
DFT-s-OFDM QPSK, 20 MHz Bandwidth, 50 RB, 28 RB Offset		DFT-s-OFDM QPSK, 20 MHz Bandwidth, 1 RB, 1 RB Offset		DFT-s-OFDM QPSK, 20 MHz Bandwidth, 50 RB, 28 RB Offset		DFT-s-OFDM QPSK, 20 MHz Bandwidth, 50 RB, 28 RB Offset	
Test Position	Right Cheek	Test Position	Right Cheek	Test Position	Left Cheek	Test Position	Left Cheek
Frequency (MHz)	680.5	Frequency (MHz)	836.5	Frequency (MHz)	1745.0	Frequency (MHz)	1880.0
Channel	136100	Channel	167300	Channel	349000	Channel	376000
Measured 1g SAR (W/kg)	0.128	Measured 1g SAR (W/kg)	0.177	Measured 1g SAR (W/kg)	0.115	Measured 1g SAR (W/kg)	0.130
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)	0.163	Auto-tune (State 1)	0.232	Auto-tune (State 108)	0.163	Auto-tune (State 108)	0.185
Default (State 0)	0.163	Default (State 0)	0.229	Default (State 108)	0.163	Default (State 108)	0.185
State 82	0.002	State 1	0.232	State 78	0.003	State 21	0.187
State 102	0.000	State 16	0.202	State 93	0.018	State 52	0.005
State 107	0.025	State 23	0.054	State 105	0.048	State 64	0.002
State 117	0.017	State 43	0.011	State 116	0.154	State 80	0.007
		State 53	0.152				

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Table 14-4
UMTS/CDMA Supplemental Body SAR Data

Supplemental Body SAR Data					
UMTS B5		UMTS B4		UMTS B2	
RMC		RMC		RMC	
Test Position	Back	Test Position	Bottom	Test Position	Bottom
Spacing	10 mm	Spacing	10 mm	Spacing	10 mm
Frequency (MHz)	836.6	Frequency (MHz)	1752.4	Frequency (MHz)	1880.0
Channel	4183	Channel	1412	Channel	9400
Measured 1g SAR (W/kg)	0.613	Measured 1g SAR (W/kg)	0.826	Measured 1g SAR (W/kg)	0.850
Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)	
Auto-tune (State 18)	0.995	Auto-tune (State 108)	1.290	Auto-tune (State 108)	1.494
Default (State 0)	1.008	Default (State 108)	1.250	Default (State 108)	1.490
State 18	0.965	State 0	1.264	State 0	1.454
State 27	0.125	State 1	1.264	State 1	1.457
State 39	0.134	State 2	1.274	State 2	1.454
State 59	0.443	State 3	1.28	State 3	1.465
State 70	0.822	State 4	1.285	State 4	1.454
		State 5	1.282	State 5	1.456
		State 6	1.277	State 6	1.427
		State 7	1.274	State 7	1.416
		State 8	1.257	State 8	1.372
		State 9	1.212	State 9	1.3
		State 10	1.163	State 10	1.229
		State 11	1.071	State 11	1.115
		State 12	0.911	State 12	0.926
		State 13	1.18	State 13	1.463
		State 14	1.203	State 14	1.478
		State 15	1.207	State 15	1.475
		State 16	1.211	State 16	1.475
		State 17	1.22	State 17	1.489
		State 18	1.22	State 18	1.478
		State 19	1.238	State 19	1.483
		State 20	1.242	State 20	1.48
		State 21	1.249	State 21	1.474
		State 22	1.237	State 22	1.445
		State 23	1.203	State 23	1.394
		State 24	1.136	State 24	1.31
		State 25	0.985	State 25	1.121
		State 26	0.315	State 26	0.425
		State 27	0.294	State 27	0.391
		State 28	0.297	State 28	0.388
		State 29	0.301	State 29	0.403
		State 30	0.303	State 30	0.404
		State 31	0.29	State 31	0.386
		State 32	0.295	State 32	0.391
		State 33	0.291	State 33	0.381
		State 34	0.292	State 34	0.374
		State 35	0.282	State 35	0.353
		State 36	0.269	State 36	0.329
		State 37	0.243	State 37	0.29
		State 38	0.193	State 38	0.226
		State 39	0.26	State 39	0.339
		State 40	0.244	State 40	0.318
		State 41	0.248	State 41	0.321
		State 42	0.25	State 42	0.322
		State 43	0.252	State 43	0.322
		State 44	0.242	State 44	0.311
		State 45	0.247	State 45	0.313
		State 46	0.242	State 46	0.306
		State 47	0.242	State 47	0.301
		State 48	0.233	State 48	0.283
		State 49	0.221	State 49	0.266
		State 50	0.2	State 50	0.235
		State 51	0.158	State 51	0.182
		State 52	0.095	State 52	0.031
		State 53	0.095	State 53	0.034
		State 54	0.092	State 54	0.032
		State 55	0.088	State 55	0.031
		State 56	0.082	State 56	0.03
		State 57	0.085	State 57	0.032
		State 58	0.067	State 58	0.027
		State 59	0.056	State 59	0.024
		State 60	0.04	State 60	0.019
		State 61	0.024	State 61	0.014
		State 62	0.015	State 62	0.01
		State 63	0.007	State 63	0.007
		State 64	0.002	State 64	0.005
		State 65	0.086	State 65	0.024
		State 66	0.102	State 66	0.03
		State 67	0.1	State 67	0.03
		State 68	0.099	State 68	0.03
		State 69	0.097	State 69	0.03
		State 70	0.104	State 70	0.034
		State 71	0.094	State 71	0.033
		State 72	0.086	State 72	0.034
		State 73	0.068	State 73	0.031
		State 74	0.045	State 74	0.026
		State 75	0.03	State 75	0.02
		State 76	0.016	State 76	0.014
		State 77	0.006	State 77	0.007
		State 78	0.076	State 78	0.016
		State 79	0.211	State 79	0.041
		State 80	0.228	State 80	0.049
		State 81	0.238	State 81	0.055
		State 82	0.248	State 82	0.076
		State 83	0.249	State 83	0.097
		State 84	0.162	State 84	0.145
		State 85	0.107	State 85	0.13
		State 86	0.067	State 86	0.082
		State 87	0.04	State 87	0.047
		State 88	0.03	State 88	0.034
		State 89	0.022	State 89	0.025
		State 90	0.015	State 90	0.018
		State 91	0.068	State 91	0.013
		State 92	0.199	State 92	0.037
		State 93	0.215	State 93	0.043
		State 94	0.224	State 94	0.05
		State 95	0.229	State 95	0.071
		State 96	0.226	State 96	0.092
		State 97	0.139	State 97	0.136
		State 98	0.09	State 98	0.113
		State 99	0.057	State 99	0.068
		State 100	0.034	State 100	0.038
		State 101	0.025	State 101	0.028
		State 102	0.018	State 102	0.02
		State 103	0.012	State 103	0.015
		State 104	1.236	State 104	1.462
		State 105	0.308	State 105	0.409
		State 106	0.097	State 106	0.033
		State 107	0.075	State 107	0.016
		State 108	1.25	State 108	1.49
		State 109	0.307	State 109	0.404
		State 110	0.098	State 110	0.035
		State 111	0.076	State 111	0.018
		State 112	1.139	State 112	1.402
		State 113	0.256	State 113	0.337
		State 114	0.094	State 114	0.031
		State 115	0.065	State 115	0.014
		State 116	1.137	State 116	1.392
		State 117	0.254	State 117	0.333
		State 118	0.095	State 118	0.032
		State 119	0.066	State 119	0.015

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Supplemental Body SAR Data					
CDMA BC10		CDMA BC0		CDMA BC1	
EVDO		EVDO		CDMA	
Test Position	Back	Test Position	Back	Test Position	Back
Spacing	10 mm	Spacing	10mm	Spacing	15 mm
Frequency (MHz)	820.1	Frequency (MHz)	848.31	Frequency (MHz)	1851.25
Channel	564	Channel	777	Channel	25
Measured 1g SAR (W/kg)	0.723	Measured 1g SAR (W/kg)	0.731	Measured 1g SAR (W/kg)	0.771
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)	1.182	Auto-tune (State 0)	1.097	Auto-tune (State 108)	1.063
Default (State 0)	1.137	Default (State 0)	1.092	Default (State 108)	1.064
State 28	0.110	State 49	0.001	State 29	0.318
State 42	0.086	State 56	0.679	State 50	0.115
State 63	0.128	State 84	0.025	State 68	0.042
State 74	0.16	State 100	0.004	State 90	0.011

Table 14-5
LTE Supplemental Body SAR Data

Supplemental Body SAR Data							
LTE B71		LTE B12		LTE B13		LTE B14	
QPSK, 20 MHz Bandwidth, 1 RB, 99 RB Offset		QPSK, 10 MHz Bandwidth, 1 RB, 0 RB Offset		QPSK, 10 MHz, 1 RB, 0 RB Offset		QPSK, 10 MHz Bandwidth, 1 RB, 0 RB Offset	
Test Position	Back	Test Position	Back	Test Position	Back	Test Position	Back
Spacing	10 mm	Spacing	10 mm	Spacing	10 mm	Spacing	10 mm
Frequency (MHz)	680.5	Frequency (MHz)	707.5	Frequency (MHz)	782.0	Frequency (MHz)	793.0
Channel	133297	Channel	23095	Channel	23230	Channel	23330
Measured 1g SAR (W/kg)	0.404	Measured 1g SAR (W/kg)	0.429	Measured 1g SAR (W/kg)	0.488	Measured 1g SAR (W/kg)	0.531
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)	0.671	Auto-tune (State 0)	0.728	Auto-tune (State 0)	0.774	Auto-tune (State 0)	0.871
Default (State 0)	0.663	Default (State 0)	0.723	Default (State 0)	0.740	Default (State 0)	0.869
State 13	0.691	State 51	0.000	State 58	0.336	State 34	0.006
State 95	0.014	State 73	0.076	State 76	0.034	State 72	0.257
State 106	0.506	State 92	0.034	State 96	0.017	State 85	0.011
State 113	0.103	State 112	0.7	State 111	0.12	State 94	0.049

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Supplemental Body SAR Data							
LTE B5		LTE B26		LTE B66/4		LTE B25/2	
QPSK, 10 MHz Bandwidth, 1 RB, 0 RB Offset		QPSK, 15 MHz Bandwidth, 1 RB, 0 RB Offset		QPSK, 20 MHz Bandwidth, 50 RB, 25 RB Offset		QPSK, 20MHz Bandwidth, 1 RB, 99 RB Offset	
Test Position	Back	Test Position	Back	Test Position	Bottom	Test Position	Bottom
Spacing	10 mm	Spacing	10 mm	Spacing	10 mm	Spacing	10 mm
Frequency (MHz)	836.5	Frequency (MHz)	831.5	Frequency (MHz)	1770.0	Frequency (MHz)	1905.0
Channel	20525	Channel	26865	Channel	132572	Channel	26590
Measured 1g SAR (W/kg)	0.676	Measured 1g SAR (W/kg)	0.634	Measured 1g SAR (W/kg)	0.857	Measured 1g SAR (W/kg)	0.842
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)	1.100	Auto-tune (State 0)	1.045	Auto-tune (State 10)	1.386	Auto-tune (State 13)	1.256
Default (State 0)	1.106	Default (State 0)	1.061	Default (State 108)	1.335	Default (State 108)	1.294
State 31	0.070	State 60	0.374	State 0	1.339	State 0	1.232
State 38	0.000	State 72	0.395	State 1	1.358	State 1	1.214
State 62	0.216	State 77	0.047	State 2	1.359	State 2	1.217
State 79	0.095	State 116	0.761	State 3	1.356	State 3	1.205
				State 4	1.356	State 4	1.194
				State 5	1.354	State 5	1.198
				State 6	1.356	State 6	1.167
				State 7	1.386	State 7	1.141
				State 8	1.36	State 8	1.101
				State 9	1.293	State 9	1.039
				State 10	1.391	State 10	0.977
				State 11	1.09	State 11	0.89
				State 12	0.873	State 12	0.751
				State 13	1.263	State 13	1.308
				State 14	1.292	State 14	1.199
				State 15	1.297	State 15	1.19
				State 16	1.301	State 16	1.2
				State 17	1.317	State 17	1.202
				State 18	1.318	State 18	1.187
				State 19	1.339	State 19	1.181
				State 20	1.346	State 20	1.163
				State 21	1.361	State 21	1.144
				State 22	1.334	State 22	1.094
				State 23	1.283	State 23	1.05
				State 24	1.173	State 24	0.981
				State 25	0.966	State 25	0.851
				State 26	0.38	State 26	0.324
				State 27	0.363	State 27	0.287
				State 28	0.368	State 28	0.285
				State 29	0.374	State 29	0.289
				State 30	0.378	State 30	0.286
				State 31	0.365	State 31	0.273
				State 32	0.389	State 32	0.267
				State 33	0.385	State 33	0.256
				State 34	0.386	State 34	0.246
				State 35	0.366	State 35	0.228
				State 36	0.338	State 36	0.21
				State 37	0.288	State 37	0.186
				State 38	0.206	State 38	0.149
				State 39	0.327	State 39	0.253
				State 40	0.315	State 40	0.227
				State 41	0.319	State 41	0.227
				State 42	0.324	State 42	0.228
				State 43	0.328	State 43	0.226
				State 44	0.316	State 44	0.213
				State 45	0.325	State 45	0.207
				State 46	0.323	State 46	0.197
				State 47	0.323	State 47	0.19
				State 48	0.305	State 48	0.176
				State 49	0.281	State 49	0.162
				State 50	0.24	State 50	0.143
				State 51	0.17	State 51	0.114
				State 52	0.089	State 52	0.022
				State 53	0.094	State 53	0.024
				State 54	0.089	State 54	0.023
				State 55	0.086	State 55	0.023
				State 56	0.08	State 56	0.021
				State 57	0.085	State 57	0.022
				State 58	0.069	State 58	0.018
				State 59	0.06	State 59	0.016
				State 60	0.045	State 60	0.013
				State 61	0.028	State 61	0.008
				State 62	0.019	State 62	0.006
				State 63	0.011	State 63	0.004
				State 64	0.005	State 64	0.001
				State 65	0.078	State 65	0.016
				State 66	0.096	State 66	0.021
				State 67	0.095	State 67	0.02
				State 68	0.094	State 68	0.02
				State 69	0.093	State 69	0.021
				State 70	0.101	State 70	0.023
				State 71	0.094	State 71	0.023
				State 72	0.09	State 72	0.024
				State 73	0.074	State 73	0.022
				State 74	0.051	State 74	0.018
				State 75	0.036	State 75	0.014
				State 76	0.021	State 76	0.009
				State 77	0.009	State 77	0.005
				State 78	0.064	State 78	0.009
				State 79	0.186	State 79	0.025
				State 80	0.208	State 80	0.029
				State 81	0.224	State 81	0.034
				State 82	0.256	State 82	0.047
				State 83	0.277	State 83	0.062
				State 84	0.208	State 84	0.098
				State 85	0.144	State 85	0.092
				State 86	0.092	State 86	0.056
				State 87	0.057	State 87	0.028
				State 88	0.043	State 88	0.019
				State 89	0.032	State 89	0.012
				State 90	0.023	State 90	0.008
				State 91	0.057	State 91	0.007
				State 92	0.175	State 92	0.022
				State 93	0.198	State 93	0.027
				State 94	0.213	State 94	0.03
				State 95	0.242	State 95	0.044
				State 96	0.258	State 96	0.058
				State 97	0.182	State 97	0.093
				State 98	0.123	State 98	0.078
				State 99	0.078	State 99	0.043
				State 100	0.047	State 100	0.021
				State 101	0.036	State 101	0.014
				State 102	0.027	State 102	0.008
				State 103	0.02	State 103	0.006
				State 104	1.354	State 104	1.29
				State 105	0.384	State 105	0.312
				State 106	0.093	State 106	0.023
				State 107	0.064	State 107	0.009
				State 108	1.335	State 108	1.294
				State 109	0.382	State 109	0.308
				State 110	0.095	State 110	0.024
				State 111	0.066	State 111	0.01
				State 112	1.238	State 112	1.271
				State 113	0.323	State 113	0.251
				State 114	0.089	State 114	0.02
				State 115	0.055	State 115	0.008
				State 116	1.242	State 116	1.28
				State 117	0.32	State 117	0.248
				State 118	0.09	State 118	0.021
				State 119	0.057	State 119	0.008

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Table 14-6
NR Supplemental Body SAR Data

Supplemental Body SAR Data							
NR Band n71		NR Band n5		NR Band n66		NR Band n2	
DFT-s-OFDM QPSK, 20 MHz Bandwidth, 50 RB, 28 RB Offset		DFT-s-OFDM QPSK, 20 MHz Bandwidth, 50 RB, 28 RB Offset		DFT-s-OFDM QPSK, 20 MHz Bandwidth, 50 RB 28 RB Offset		DFT-s-OFDM QPSK, 20 MHz Bandwidth, 50 RB, 56 RB Offset	
Test Position	Back Side	Test Position	Back Side	Test Position	Back	Test Position	bottom
Spacing	10 mm	Spacing	10 mm	Spacing	15 mm	Spacing	10 mm
Frequency (MHz)	680.5	Frequency (MHz)	836.5	Frequency (MHz)	1770.0	Frequency (MHz)	1860.0
Channel	136100	Channel	167300	Channel	354000	Channel	372000
Measured 1g SAR (W/kg)	0.349	Measured 1g SAR (W/kg)	0.641	Measured 1g SAR (W/kg)	0.572	Measured 1g SAR (W/kg)	0.795
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)	0.564	Auto-tune (State 0)	1.061	Auto-tune (State 108)	0.885	Auto-tune (State 108)	1.277
Default (State 0)	0.564	Default (State 0)	1.061	Default (State 108)	0.891	Default (State 108)	1.299
State 2	0.458	State 5	0.990	State 10	0.664	State 0	1.239
State 12	0.036	State 25	0.104	State 13	0.862	State 1	1.238
State 13	0.513	State 41	0.072	State 19	0.805	State 2	1.222
State 17	0.35	State 50	0.001	State 33	0.269	State 3	1.218
State 23	0.037	State 65	0.914	State 45	0.235	State 4	1.216
						State 5	1.216
						State 6	1.193
						State 7	1.17
						State 8	1.145
						State 9	1.08
						State 10	1.015
						State 11	0.927
						State 12	0.768
						State 13	1.208
						State 14	1.209
						State 15	1.216
						State 16	1.208
						State 17	1.225
						State 18	1.232
						State 19	1.228
						State 20	1.241
						State 21	1.218
						State 22	1.186
						State 23	1.137
						State 24	1.043
						State 25	0.897
						State 26	0.345
						State 27	0.318
						State 28	0.319
						State 29	0.318
						State 30	0.318
						State 31	0.305
						State 32	0.304
						State 33	0.297
						State 34	0.29
						State 35	0.271
						State 36	0.252
						State 37	0.222
						State 38	0.174
						State 39	0.262
						State 40	0.247
						State 41	0.252
						State 42	0.259
						State 43	0.253
						State 44	0.241
						State 45	0.241
						State 46	0.232
						State 47	0.225
						State 48	0.211
						State 49	0.197
						State 50	0.173
						State 51	0.134
						State 52	0.038
						State 53	0.042
						State 54	0.04
						State 55	0.039
						State 56	0.038
						State 57	0.041
						State 58	0.034
						State 59	0.031
						State 60	0.024
						State 61	0.015
						State 62	0.011
						State 63	0.005
						State 64	0.001
						State 65	0.03
						State 66	0.039
						State 67	0.039
						State 68	0.038
						State 69	0.039
						State 70	0.044
						State 71	0.042
						State 72	0.042
						State 73	0.038
						State 74	0.029
						State 75	0.021
						State 76	0.012
						State 77	0.006
						State 78	0.022
						State 79	0.062
						State 80	0.072
						State 81	0.082
						State 82	0.107
						State 83	0.132
						State 84	0.148
						State 85	0.113
						State 86	0.069
						State 87	0.027
						State 88	0.026
						State 89	0.018
						State 90	0.012
						State 91	0.016
						State 92	0.055
						State 93	0.065
						State 94	0.075
						State 95	0.101
						State 96	0.127
						State 97	0.135
						State 98	0.097
						State 99	0.058
						State 100	0.032
						State 101	0.024
						State 102	0.017
						State 103	0.012
						State 104	1.227
						State 105	0.334
						State 106	0.04
						State 107	0.019
						State 108	1.299
						State 109	0.326
						State 110	0.041
						State 111	0.02
						State 112	1.154
						State 113	0.272
						State 114	0.036
						State 115	0.016
						State 116	1.167
						State 117	0.276
						State 118	0.039
						State 119	0.019

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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.

Table 14-7
LTE Band 41 Head Linearity Data

	LTE Band 41 PC3	LTE Band 41 PC2
Maximum Allowed Output Power (dBm)	24	27
Measured Output Power (dBm)	22.81	25.99
Measured SAR (W/kg)	0.0716	0.0962
Measured Power (mW)	190.99	397.19
Duty Cycle	63.3%	43.3%
Frame Averaged Output Power (mW)	120.89	171.98
% deviation from expected linearity		-5.56%

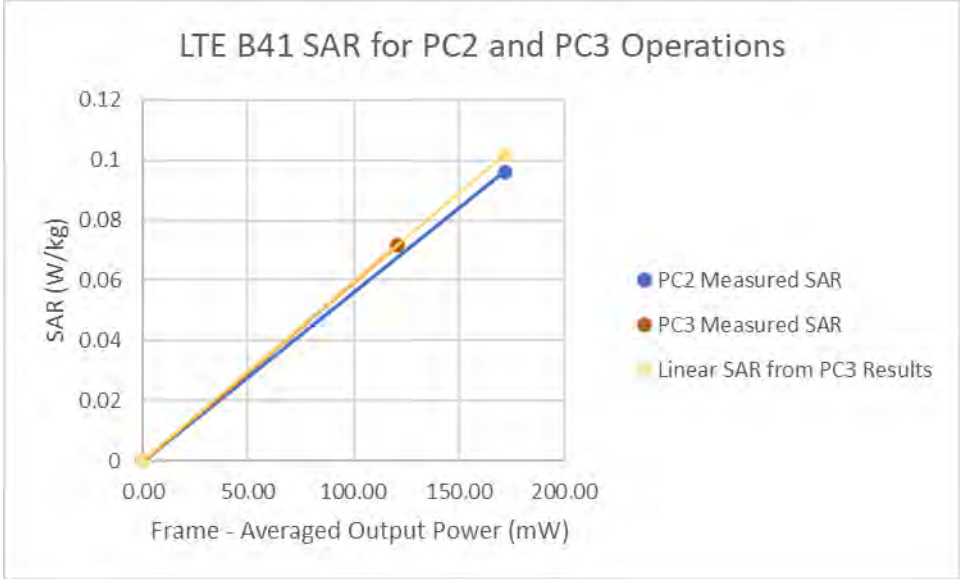


Figure 14-1
LTE Band 41 Head Linearity

Table 14-8
LTE Band 41 ULCA Head Linearity Data

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	LTE Band 41 PC3	LTE Band 41 PC2
Maximum Allowed Output Power (dBm)	24	27
Measured Output Power (dBm)	23.98	26.98
Measured SAR (W/kg)	0.0956	0.125
Measured Power (mW)	250.03	498.88
Duty Cycle	63.3%	43.3%
Frame Averaged Output Power (mW)	158.27	216.02
% deviation from expected linearity		-4.20%

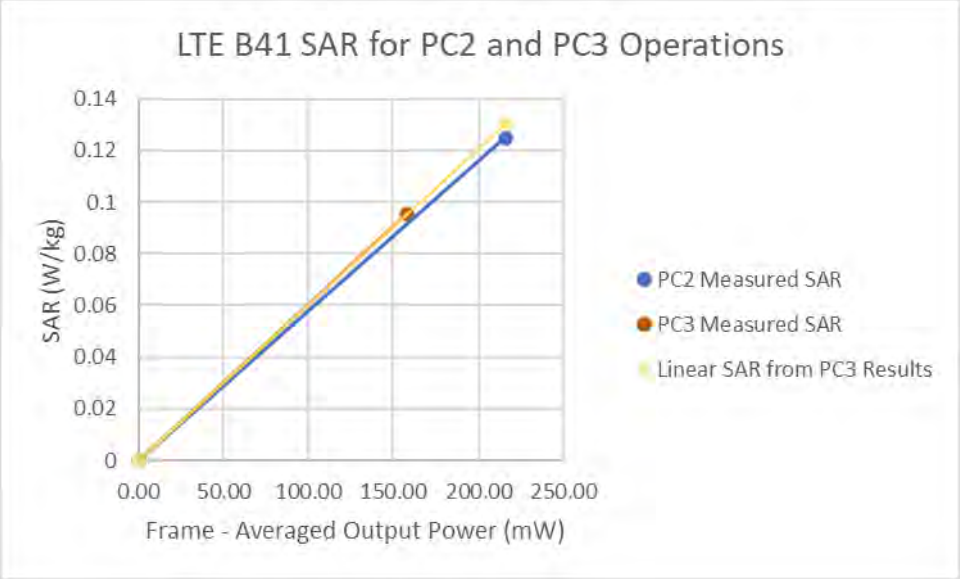


Figure 14-2
LTE Band 41 ULCA Head Linearity

Table 14-9
LTE Band 41 Body-Worn Linearity Data

	LTE Band 41 PC3	LTE Band 41 PC2
Maximum Allowed Output Power (dBm)	24	27
Measured Output Power (dBm)	22.81	25.99
Measured SAR (W/kg)	0.141	0.19
Measured Power (mW)	190.99	397.19
Duty Cycle	63.3%	43.3%
Frame Averaged Output Power (mW)	120.89	171.98
% deviation from expected linearity		-5.28%

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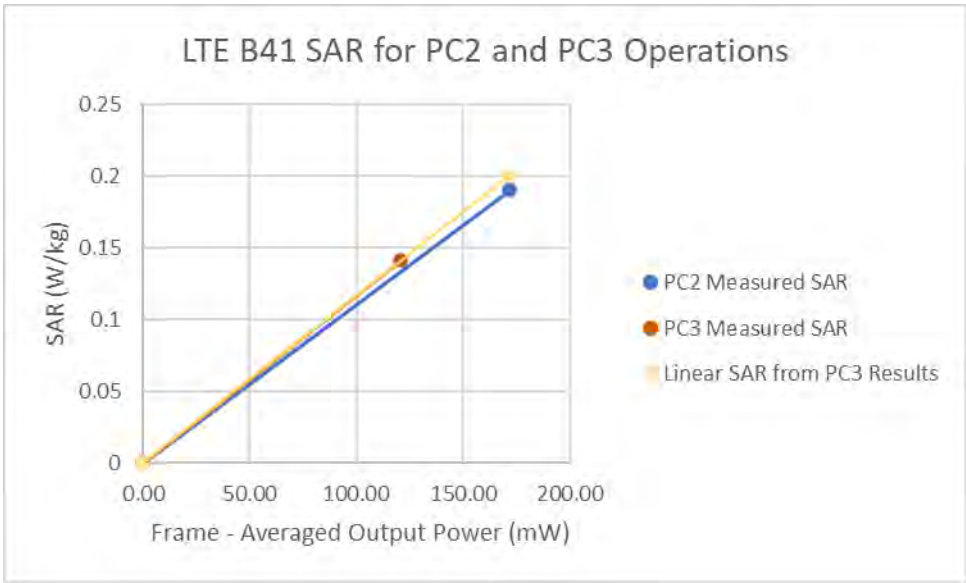


Figure 14-3
LTE Band 41 Body-Worn Linearity

Table 14-10
LTE Band 41 ULCA Body-Worn Linearity Data

	LTE Band 41 PC3	LTE Band 41 PC2
Maximum Allowed Output Power (dBm)	24	27
Measured Output Power (dBm)	23.98	26.98
Measured SAR (W/kg)	0.193	0.25
Measured Power (mW)	250.03	498.88
Duty Cycle	63.3%	43.3%
Frame Averaged Output Power (mW)	158.27	216.02
% deviation from expected linearity		-5.09%

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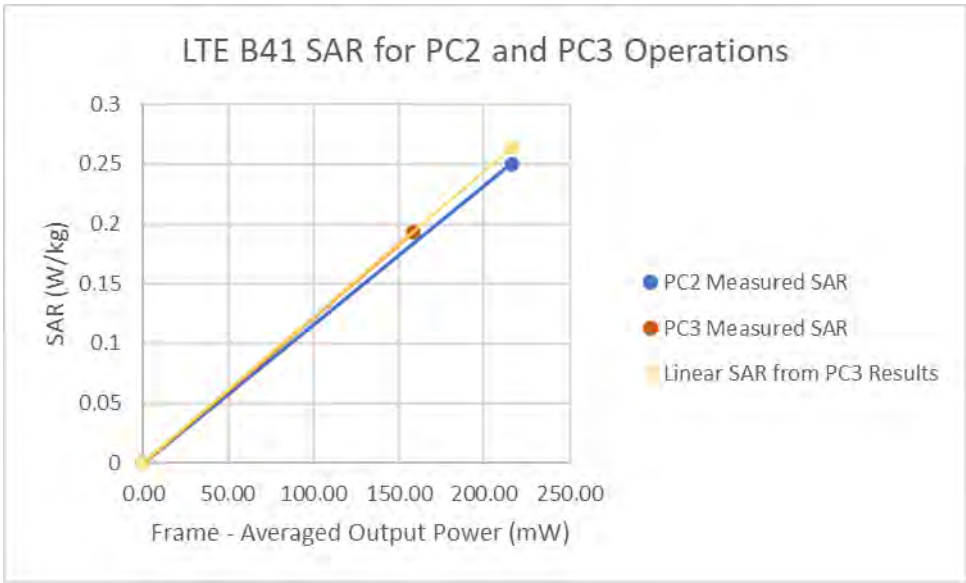


Figure 14-4
LTE Band 41 ULCA Body-Worn Linearity

Table 14-11
LTE Band 41 Hotspot Linearity Data

	LTE Band 41 PC3	LTE Band 41 PC2
Maximum Allowed Output Power (dBm)	22	22
Measured Output Power (dBm)	20.91	20.69
Measured SAR (W/kg)	0.199	0.124
Measured Power (mW)	123.31	117.22
Duty Cycle	63.3%	43.3%
Frame Averaged Output Power (mW)	78.06	50.76
% deviation from expected linearity		-4.17%

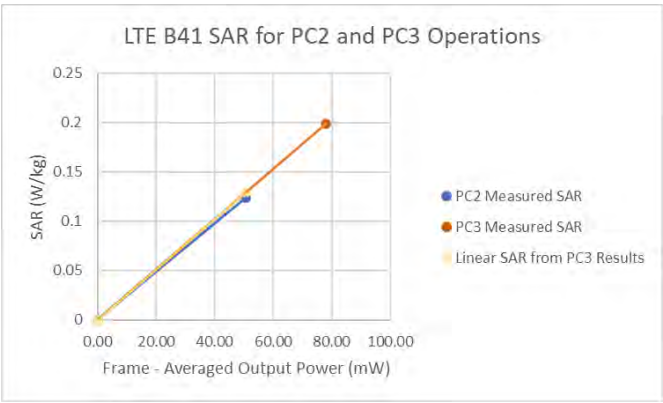


Figure 14-5
LTE Band 41 Hotspot Linearity

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Table 14-12
LTE Band 41 ULCA Hotspot Linearity Data

	LTE Band 41 PC3	LTE Band 41 PC2
Maximum Allowed Output Power (dBm)	22	22
Measured Output Power (dBm)	21.96	22
Measured SAR (W/kg)	0.265	0.176
Measured Power (mW)	157.04	158.49
Duty Cycle	63.3%	43.3%
Frame Averaged Output Power (mW)	99.40	68.63
% deviation from expected linearity		-3.80%

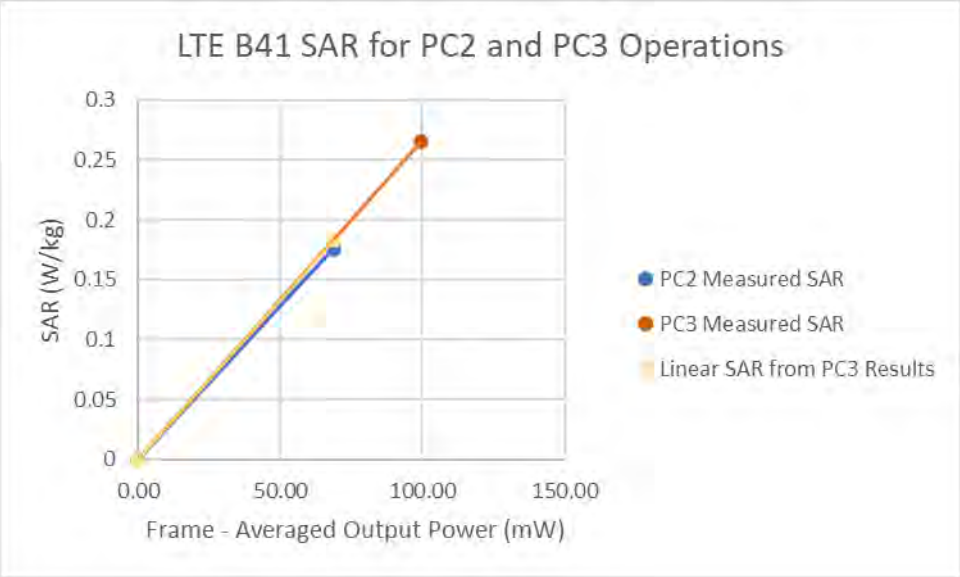


Figure 14-6
LTE Band 41 ULCA Hotspot Linearity

Table 14-13
LTE Band 41 Phablet Linearity Data

	LTE Band 41 PC3	LTE Band 41 PC2
Maximum Allowed Output Power (dBm)	22	22
Measured Output Power (dBm)	21.25	21.45
Measured SAR (W/kg)	0.852	0.666
Measured Power (mW)	133.35	139.64
Duty Cycle	63.3%	43.3%
Frame Averaged Output Power (mW)	84.41	60.46
% deviation from expected linearity		9.13%

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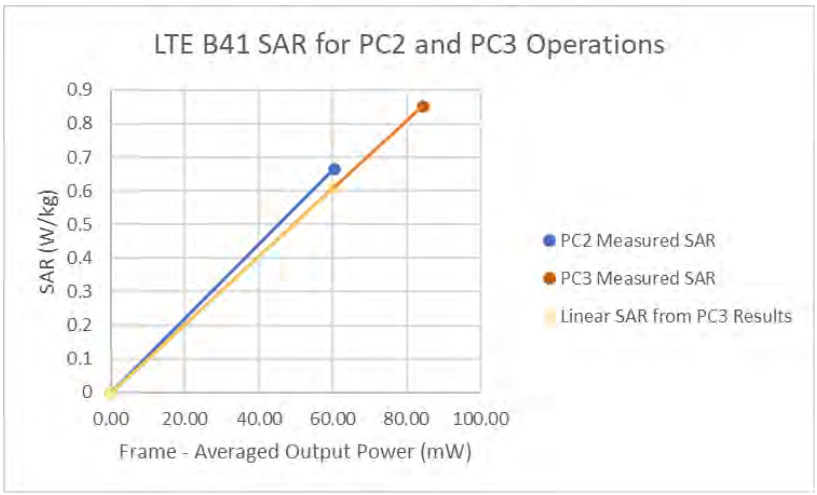


Figure 14-7
LTE Band 41 Phablet Linearity

Table 14-14
LTE Band 41 ULCA Phablet Linearity Data

	LTE Band 41 PC3	LTE Band 41 PC2
Maximum Allowed Output Power (dBm)	22	22
Measured Output Power (dBm)	21.99	21.5
Measured SAR (W/kg)	0.999	0.67
Measured Power (mW)	158.12	141.25
Duty Cycle	63.3%	43.3%
Frame Averaged Output Power (mW)	100.09	61.16
% deviation from expected linearity		9.76%

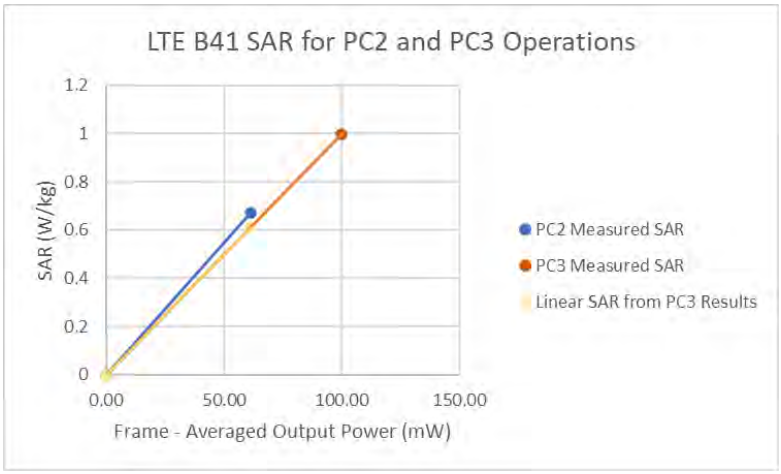


Figure 14-8
LTE Band 41 ULCA Phablet Linearity

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15 EQUIPMENT LIST

Manufacturer	Model	Description	Cal Date	Cal Interval	Cal Due	Serial Number
Agilent	8594A	(9kHz-2.9GHz) Spectrum Analyzer	N/A	N/A	N/A	3051A00187
Agilent	E4432B	ESG-D Series Signal Generator	7/14/2019	Annual	7/14/2020	US40053896
Agilent	E5515C	Wireless Communications Test Set	1/14/2020	Triennial	1/14/2023	GB43304447
Agilent	E5515C	Wireless Communications Test Set	3/29/2018	Triennial	3/29/2021	GB43163447
Agilent	8753ES	S-Parameter Network Analyzer	12/31/2019	Annual	12/31/2020	US39170122
Agilent	N5182A	MXG Vector Signal Generator	7/10/2019	Annual	7/10/2020	MY47420800
Agilent	N5182A	MXG Vector Signal Generator	2/19/2020	Annual	2/19/2021	MY47420651
Agilent	E4438C	ESG Vector Signal Generator	3/8/2019	Biennial	3/8/2021	MY42082385
Agilent	E4438C	ESG Vector Signal Generator	3/11/2019	Biennial	3/11/2021	MY45090700
Agilent	8753ES	S-Parameter Vector Network Analyzer	9/19/2019	Annual	9/19/2020	MY40003841
Amplifier Research	1551G6	Amplifier	CBT	N/A	CBT	433972
Amplifier Research	1551G6	Amplifier	CBT	N/A	CBT	433974
Amplifier Research	1551G6	Amplifier	CBT	N/A	CBT	433976
Amplifier Research	1551G6	Amplifier	CBT	N/A	CBT	433978
Anritsu	ML2495A	Power Meter	12/17/2019	Annual	12/17/2020	941001
Anritsu	ML2495A	Power Meter	11/15/2019	Annual	11/15/2020	1039008
Anritsu	MT8821C	Radio Communication Analyzer	3/10/2020	Annual	3/10/2021	6200901190
Anritsu	MT8820C	Radio Communication Analyzer	7/25/2019	Annual	7/25/2020	6201240328
Anritsu	MA2411B	Pulse Power Sensor	1/21/2020	Annual	1/21/2021	1207470
Anritsu	MA2411B	Pulse Power Sensor	1/21/2020	Annual	1/21/2021	1339007
Anritsu	MA2411B	Pulse Power Sensor	8/8/2019	Annual	8/8/2020	1339008
Anritsu	MA24106A	USB Power Sensor	12/9/2019	Annual	12/9/2020	1349503
Anritsu	MA24106A	USB Power Sensor	2/27/2020	Annual	2/27/2021	1349509
Anritsu	MA24106A	USB Power Sensor	7/16/2019	Annual	7/16/2020	1349511
Anritsu	MT8821C	Radio Communication Analyzer	10/2/2019	Annual	10/2/2020	6201664756
Anritsu	MT8862A	Wireless Connectivity Test Set	8/8/2019	Annual	8/8/2020	6261782395
Anritsu	MT8000A	Radio Communication Test Station	11/14/2018	Annual	11/14/2019	6261914237
Anritsu	MN81108	I/O Adaptor	CBT	N/A	CBT	6261747881
COMTECH	AR85729-5/5759B	Solid State Amplifier	CBT	N/A	CBT	M3W1A00-1002
COMTech	AR85729-5	Solid State Amplifier	CBT	N/A	CBT	M15A00-009
Control Company	4352	Ultra Long Stem Thermometer	8/2/2018	Biennial	8/2/2020	181292054
Control Company	4352	Ultra Long Stem Thermometer	8/2/2018	Biennial	8/2/2020	181292061
Control Company	4352	Ultra Long Stem Thermometer	8/2/2018	Biennial	8/2/2020	181334698
Control Company	4040	Therm./ Clock/ Humidity Monitor	10/9/2018	Biennial	10/9/2020	181647811
Control Company	4040	Therm./ Clock/ Humidity Monitor	10/9/2018	Biennial	10/9/2020	181647802
Control Company	4040	Therm./ Clock/ Humidity Monitor	10/9/2018	Biennial	10/9/2020	181647812
Keysight	772D	Dual Directional Coupler	CBT	N/A	CBT	MY52180215
Keysight Technologies	N6705B	DC Power Analyzer	4/27/2019	Biennial	4/27/2021	MY53004059
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
Mini-Circuits	BW-N20W5+	DC to 18 GHz Precision Fixed 20 dB Attenuator	CBT	N/A	CBT	N/A
Mini-Circuits	NLP-2950+	Low Pass Filter DC to 2700 MHz	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	BW-N20W5	Power Attenuator	CBT	N/A	CBT	1226
Narda	4772-3	Attenuator (3dB)	CBT	N/A	CBT	9406
Narda	BW-S3W2	Attenuator (3dB)	CBT	N/A	CBT	120
Narda	4014C-6	4 - 8 GHz SMA 6 dB Directional Coupler	CBT	N/A	CBT	N/A
Pasternack	PE2208-6	Bidirectional Coupler	CBT	N/A	CBT	N/A
Pasternack	PE2209-10	Bidirectional Coupler	CBT	N/A	CBT	N/A
Pasternack	NC-100	Torque Wrench	11/7/2017	Biennial	11/7/2019	N/A
Rohde & Schwarz	CMW500	Wideband Radio Communication Tester	2/4/2020	Annual	2/4/2021	162125
Rohde & Schwarz	CMW500	Wideband Radio Communication Tester	11/14/2019	Annual	11/14/2020	164948
Rohde & Schwarz	CMW500	Wideband Radio Communication Tester	6/6/2019	Annual	6/6/2020	161662
Rohde & Schwarz	ZNLE6	Vector Network Analyzer	10/11/2019	Annual	10/11/2020	101307
Rohde & Schwarz	CMU200	Base Station Simulator	6/3/2019	Annual	6/3/2020	109892
Seekonk	NC-100	Torque Wrench 5/16", 8" lbs	7/18/2019	Annual	7/18/2020	N/A
SPEAG	D750V3	750 MHz SAR Dipole	10/19/2018	Biennial	10/19/2020	1161
SPEAG	D835V2	835 MHz SAR Dipole	1/13/2020	Annual	1/13/2021	4d132
SPEAG	D835V2	835 MHz SAR Dipole	10/19/2018	Biennial	10/19/2020	4d133
SPEAG	D1750V2	1750 MHz SAR Dipole	10/22/2018	Biennial	10/22/2020	1150
SPEAG	D1900V2	1900 MHz SAR Dipole	2/21/2019	Biennial	2/21/2021	5d148
SPEAG	D1900V2	1900 MHz SAR Dipole	10/23/2018	Biennial	10/23/2020	5d149
SPEAG	D2300V2	2300 MHz SAR Dipole	8/13/2018	Biennial	8/13/2020	1073
SPEAG	D2450V2	2450 MHz SAR Dipole	8/14/2019	Annual	8/14/2020	719
SPEAG	D2450V2	2450 MHz SAR Dipole	9/11/2017	Triennial	9/11/2020	797
SPEAG	D2600V2	2600 MHz SAR Dipole	6/14/2019	Annual	6/14/2020	1064
SPEAG	D5GHzV2	5 GHz SAR Dipole	9/17/2019	Annual	9/17/2020	1191
SPEAG	D1900V2	1900 MHz SAR Dipole	10/23/2018	Biennial	10/23/2020	5d080
SPEAG	D5GHzV2	5 GHz SAR Dipole	8/10/2018	Biennial	8/10/2020	1237
SPEAG	EX3DV4	SAR Probe	9/19/2019	Annual	9/19/2020	7551
SPEAG	EX3DV4	SAR Probe	5/16/2019	Annual	5/16/2020	7406
SPEAG	EX3DV4	SAR Probe	1/21/2020	Annual	1/21/2021	3589
SPEAG	EX3DV4	SAR Probe	7/16/2019	Annual	7/16/2020	7410
SPEAG	EX3DV4	SAR Probe	4/24/2019	Annual	4/24/2020	7357
SPEAG	EX3DV4	SAR Probe	3/17/2020	Annual	3/17/2021	7527
SPEAG	EX3DV4	SAR Probe	12/11/2019	Annual	12/11/2020	7571
SPEAG	EX3DV4	SAR Probe	12/11/2019	Annual	12/11/2020	7570
SPEAG	EX3DV4	SAR Probe	7/15/2019	Annual	7/15/2020	7547
SPEAG	EX3DV4	SAR Probe	6/19/2019	Annual	6/19/2020	7409
SPEAG	DAE4	Dasy Data Acquisition Electronics	9/17/2019	Annual	9/17/2020	1333
SPEAG	DAE4	Dasy Data Acquisition Electronics	5/8/2019	Annual	5/8/2020	728
SPEAG	DAE4	Dasy Data Acquisition Electronics	1/13/2020	Annual	1/13/2021	1558
SPEAG	DAE4	Dasy Data Acquisition Electronics	7/11/2019	Annual	7/11/2020	1322
SPEAG	DAE4	Dasy Data Acquisition Electronics	4/18/2019	Annual	4/18/2020	1407
SPEAG	DAE4	Dasy Data Acquisition Electronics	3/12/2020	Annual	3/12/2021	1368
SPEAG	DAE4	Data Acquisition Electronics	12/5/2019	Annual	12/5/2020	1533
SPEAG	DAE4	Dasy Data Acquisition Electronics	7/11/2019	Annual	7/11/2020	1323
SPEAG	DAE4	Dasy Data Acquisition Electronics	6/20/2019	Annual	6/20/2020	1334
SPEAG	DAE4	Dasy Data Acquisition Electronics	12/18/2019	Annual	12/18/2020	859
SPEAG	DAK-3.5	Dielectric Assessment Kit	10/22/2019	Annual	10/22/2020	1091

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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APPENDIX A: SAR TEST DATA

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DUT: A3LSMA716U; Type: Portable Handset; Serial: 05187

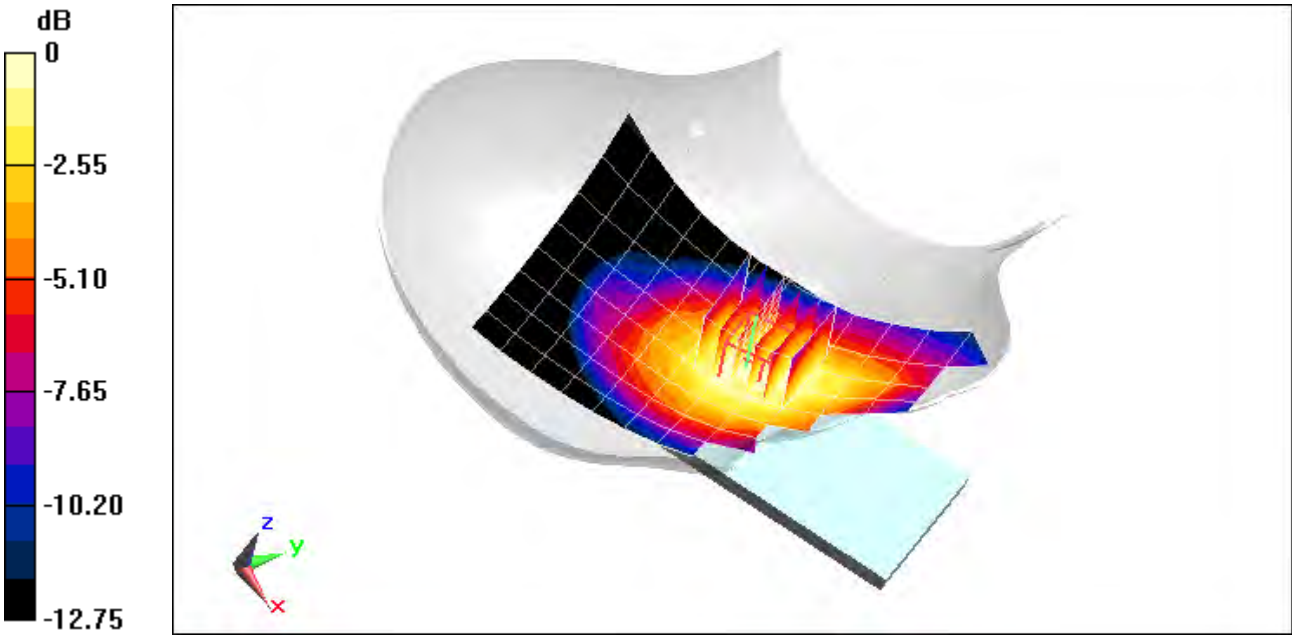
Communication System: UID 0, GSM; Frequency: 836.6 MHz; Duty Cycle: 1:8.3
Medium: 835 Head; Medium parameters used (interpolated):
f = 836.6 MHz; σ = 0.907 S/m; ε_r = 41.468; ρ = 1000 kg/m^3
Phantom section: Right Section

Test Date: 04/05/2020; Ambient Temp: 21.0°C; Tissue Temp: 20.2°C

Probe: EX3DV4 - SN7551; ConvF(9.88, 9.88, 9.88) @ 836.6 MHz; Calibrated: 9/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1333; Calibrated: 9/17/2019
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1792
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: GSM 850, Right Head, Cheek, Mid.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 = 12.01 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 0.171 W/kg
SAR(1 g) = 0.129 W/kg



0 dB = 0.154 W/kg = -8.12 dBW/kg

PCTEST

DUT: A3LSMA716U; Type: Portable Handset; Serial: 05633

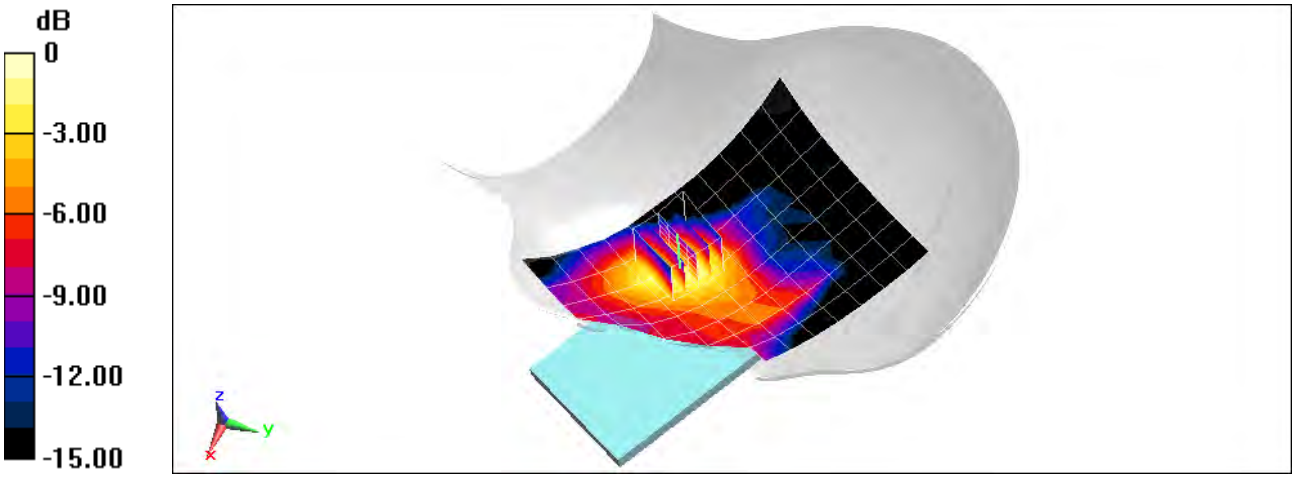
Communication System: UID 0, GSM, Frequency: 1850.2 MHz; Duty Cycle: 1:8.3
Medium: 1900 Head; Medium parameters used (interpolated):
f = 1850.2 MHz; σ = 1.399 S/m; ε_r = 39.208; ρ = 1000 kg/m^3
Phantom section: Left Section

Test Date: 03/30/2020; Ambient Temp: 21.2°C; Tissue Temp: 21.2°C

Probe: EX3DV4 - SN7406; ConvF(8.18, 8.18, 8.18) @ 1850.2 MHz; Calibrated: 5/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn728; Calibrated: 5/8/2019
Phantom: Twin-SAM V5.0 Left 30; Type: QD 000 P40 CD; Serial: 1715
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: GSM 1900, Left Head, Cheek, Low.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 = 7.588 V/m; Power Drift = 0.13 dB
Peak SAR (extrapolated) = 0.117 W/kg
SAR(1 g) = 0.074 W/kg



0 dB = 0.101 W/kg = -9.96 dBW/kg

PCTEST

DUT: A3LSMA716U; Type: Portable Handset; Serial: 05633

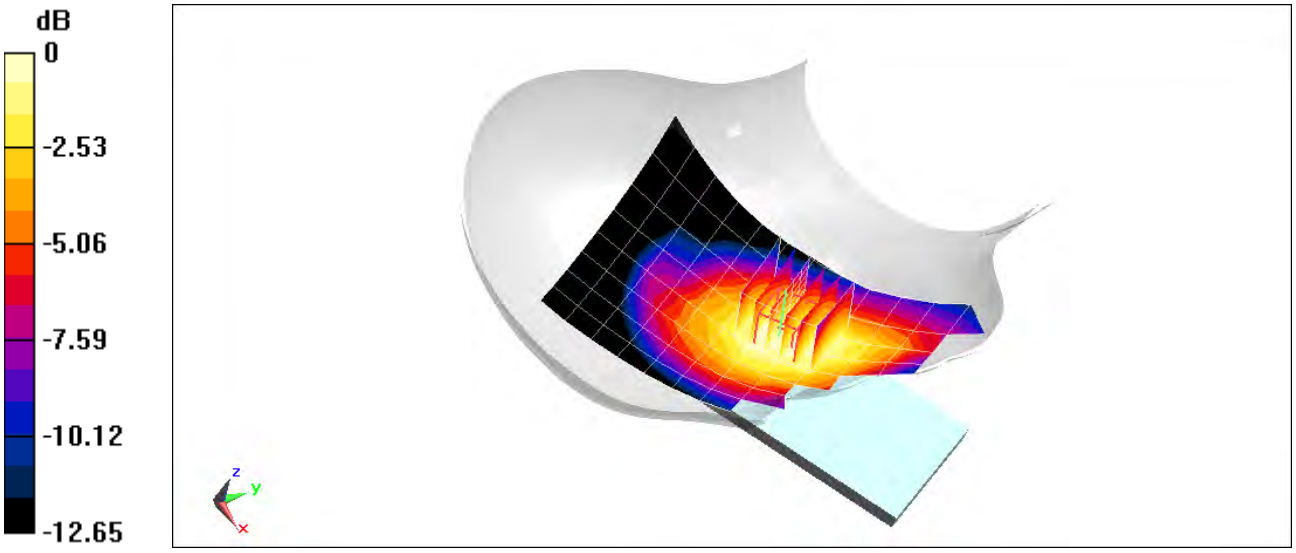
Communication System: UID 0, UMTS; Frequency: 836.6 MHz; Duty Cycle: 1:1
Medium: 835 Head; Medium parameters used (interpolated):
f = 836.6 MHz; σ = 0.911 S/m; ε_r = 42.95; ρ = 1000 kg/m^3
Phantom section: Right Section

Test Date: 04/27/2020; Ambient Temp: 20.8°C; Tissue Temp: 20.1°C

Probe: EX3DV4 - SN7551; ConvF(9.88, 9.88, 9.88) @ 836.6 MHz; Calibrated: 9/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1333; Calibrated: 9/17/2019
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1792
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: UMTS 850, Right Head, Cheek, Mid.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 = 14.32 V/m; Power Drift = 0.13 dB
Peak SAR (extrapolated) = 0.244 W/kg
SAR(1 g) = 0.187 W/kg



0 dB = 0.220 W/kg = -6.58 dBW/kg

DUT: A3LSMA716U; Type: Portable Handset; Serial: 05583

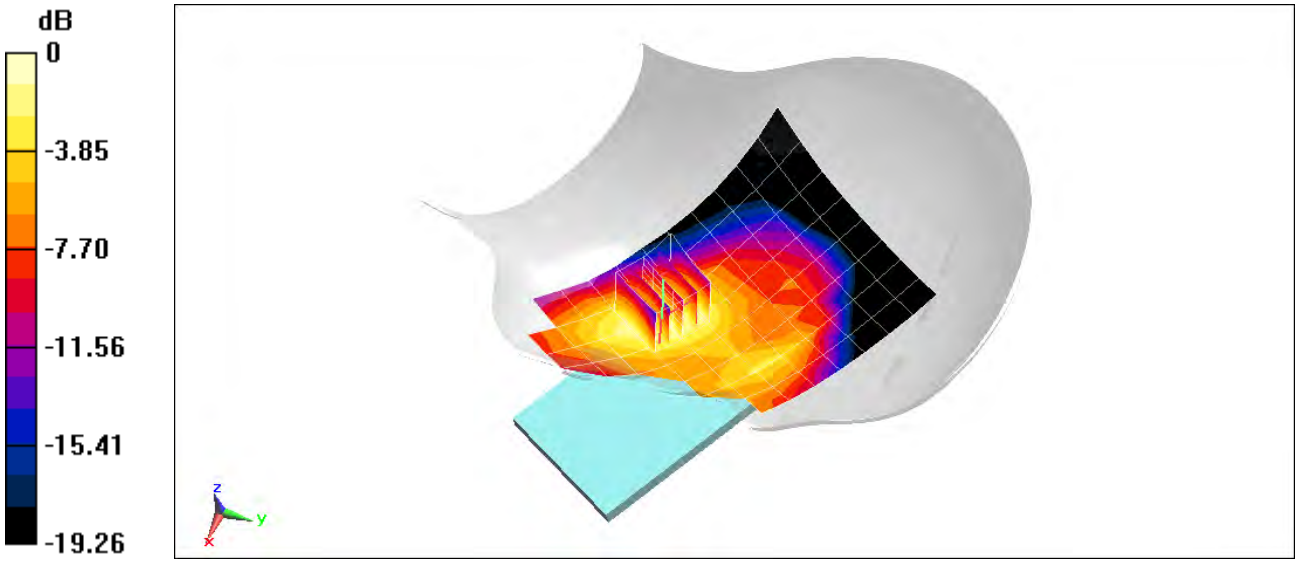
Communication System: UID 0, UMTS; Frequency: 1732.4 MHz; Duty Cycle: 1:1
Medium: 1750 Head; Medium parameters used (interpolated):
f = 1732.4 MHz; σ = 1.39 S/m; ε_r = 38.716; ρ = 1000 kg/m^3
Phantom section: Left Section

Test Date: 04/28/2020; Ambient Temp: 21.4°C; Tissue Temp: 21.1°C

Probe: EX3DV4 - SN7570; ConvF(8.68, 8.68, 8.68) @ 1732.4 MHz; Calibrated: 12/11/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn859; Calibrated: 12/18/2019
Phantom: Twin-SAM V8.0; Type: QD 000 P41 Ax; Serial: 1964
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

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 = 9.592 V/m; Power Drift = 0.08 dB
Peak SAR (extrapolated) = 0.183 W/kg
SAR(1 g) = 0.119 W/kg



0 dB = 0.161 W/kg = -7.93 dBW/kg

PCTEST

DUT: A3LSMA716U; Type: Portable Handset; Serial: 05633

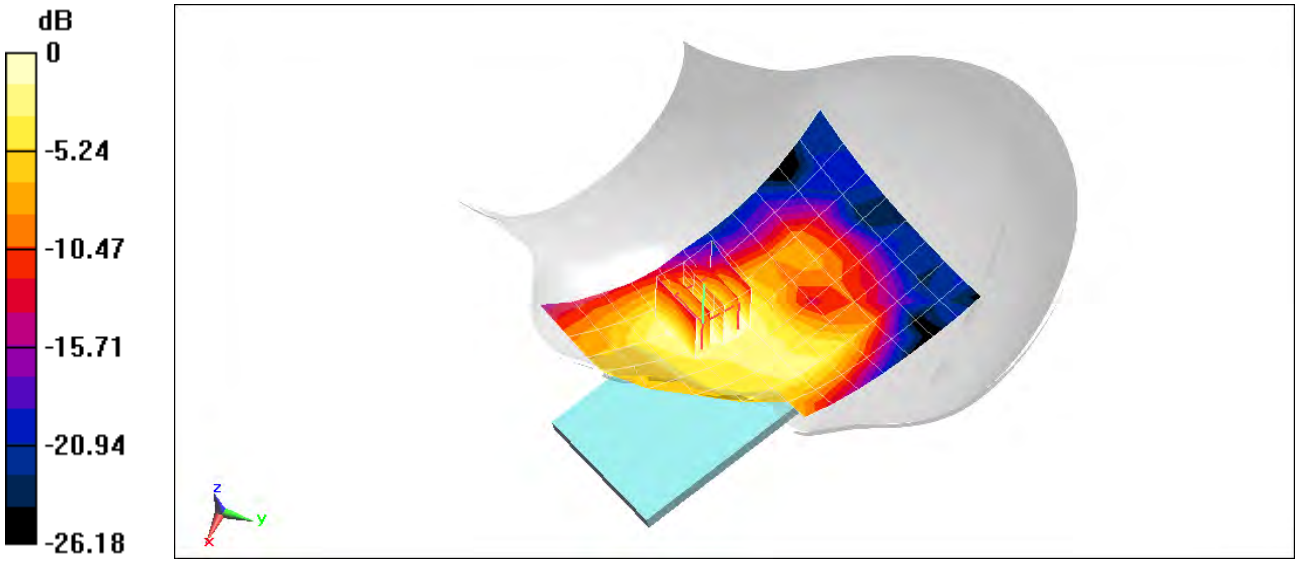
Communication System: UID 0, UMTS; Frequency: 1880 MHz; Duty Cycle: 1:1
Medium: 1900 Head; Medium parameters used:
f = 1880 MHz; σ = 1.423 S/m; ε_r = 38.88; ρ = 1000 kg/m^3
Phantom section: Left Section

Test Date: 04/20/2020; Ambient Temp: 20.3°C; Tissue Temp: 21.5°C

Probe: EX3DV4 - SN7551; ConvF(8.05, 8.05, 8.05) @ 1880 MHz; Calibrated: 9/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1333; Calibrated: 9/17/2019
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1792
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: UMTS 1900, 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 = 9.210 V/m; Power Drift = 0.10 dB
Peak SAR (extrapolated) = 0.176 W/kg
SAR(1 g) = 0.113 W/kg



0 dB = 0.151 W/kg = -8.21 dBW/kg

DUT: A3LSMA716U; Type: Portable Handset; Serial: 05633

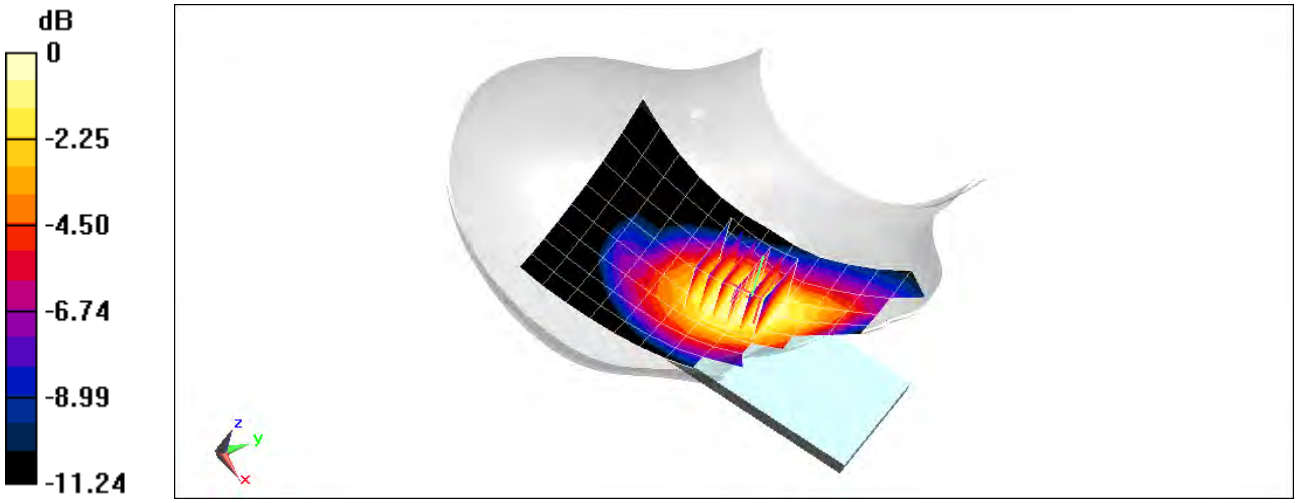
Communication System: UID 0, CDMA; Frequency: 836.52 MHz; Duty Cycle: 1:1
Medium: 835 Head; Medium parameters used (interpolated):
f = 836.52 MHz; σ = 0.937 S/m; ε_r = 42.829; ρ = 1000 kg/m^3
Phantom section: Right Section

Test Date: 05/04/2020; Ambient Temp: 23.3°C; Tissue Temp: 22.3°C

Probe: EX3DV4 - SN7551; ConvF(9.88, 9.88, 9.88) @ 836.52 MHz; Calibrated: 9/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1333; Calibrated: 9/17/2019
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1792
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: Cell. CDMA, Rule Part 22H, Right Head, Cheek, Mid.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 = 16.30 V/m; Power Drift = 0.13 dB
Peak SAR (extrapolated) = 0.320 W/kg
SAR(1 g) = 0.243 W/kg



0 dB = 0.289 W/kg = -5.39 dBW/kg

PCTEST

DUT: A3LSMA716U; Type: Portable Handset; Serial: 05633

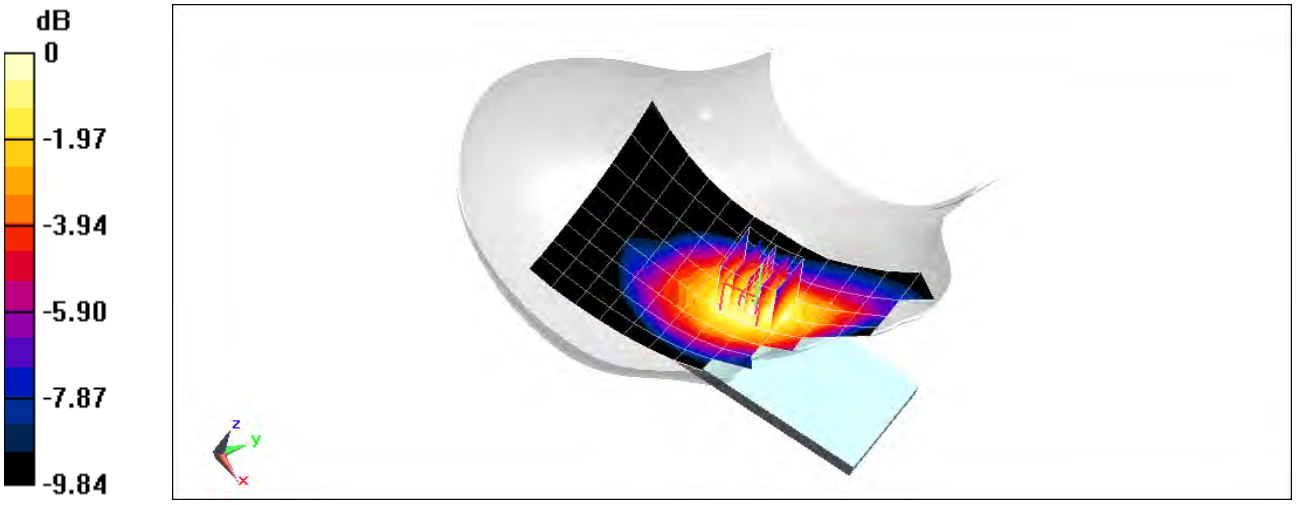
Communication System: UID 0, Cellular CDMA; Frequency: 820.1 MHz; Duty Cycle: 1:1
Medium: 835 Head; Medium parameters used (interpolated):
f = 820.1 MHz; σ = 0.93 S/m; ε_r = 42.873; ρ = 1000 kg/m^3
Phantom section: Right Section

Test Date: 05/04/2020; Ambient Temp: 23.3°C; Tissue Temp: 22.3°C

Probe: EX3DV4 - SN7551; ConvF(9.88, 9.88, 9.88) @ 820.1 MHz; Calibrated: 9/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1333; Calibrated: 9/17/2019
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1792
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: Cell. CDMA, 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 = 16.02 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 0.293 W/kg
SAR(1 g) = 0.226 W/kg



0 dB = 0.266 W/kg = -5.75 dBW/kg

PCTEST

DUT: A3LSMA716U; Type: Portable Handset; Serial: 05633

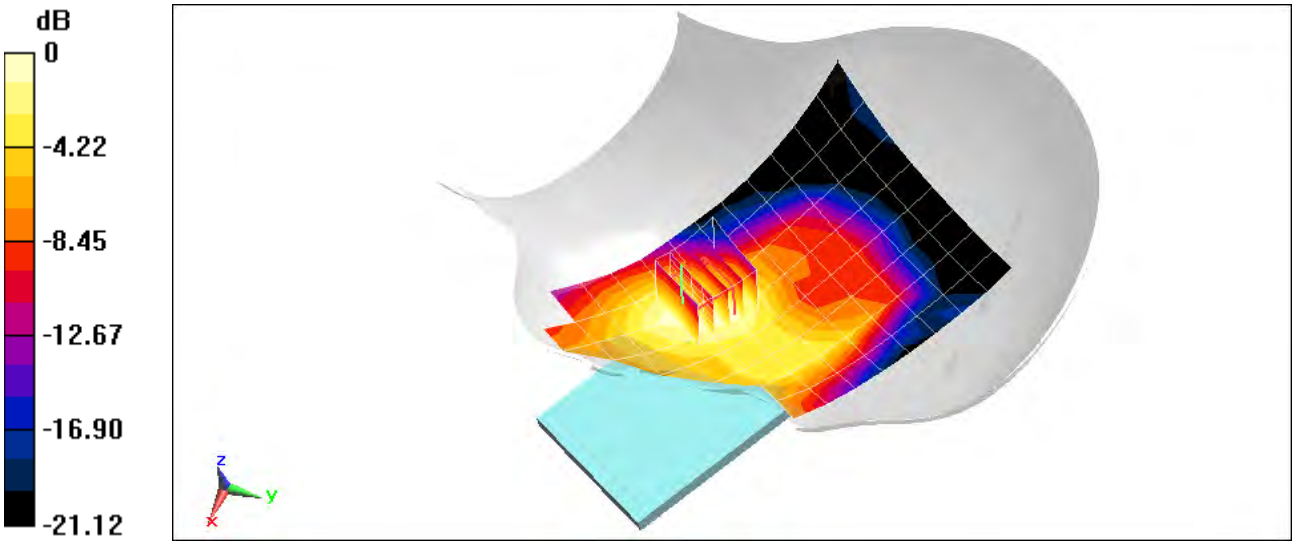
Communication System: UID 0, PCS CDMA; Frequency: 1880 MHz; Duty Cycle: 1:1
Medium: 1900 Head; Medium parameters used:
f = 1880 MHz; σ = 1.423 S/m; ε_r = 38.88; ρ = 1000 kg/m^3
Phantom section: Left Section

Test Date: 04/20/2020; Ambient Temp: 20.3°C; Tissue Temp: 21.5°C

Probe: EX3DV4 - SN7551; ConvF(8.05, 8.05, 8.05) @ 1880 MHz; Calibrated: 9/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1333; Calibrated: 9/17/2019
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1792
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: PCS CDMA, 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 = 10.37 V/m; Power Drift = -0.14 dB
Peak SAR (extrapolated) = 0.217 W/kg
SAR(1 g) = 0.135 W/kg



0 dB = 0.177 W/kg = -7.52 dBW/kg

DUT: A3LSMA716U; Type: Portable Handset; Serial: 05187

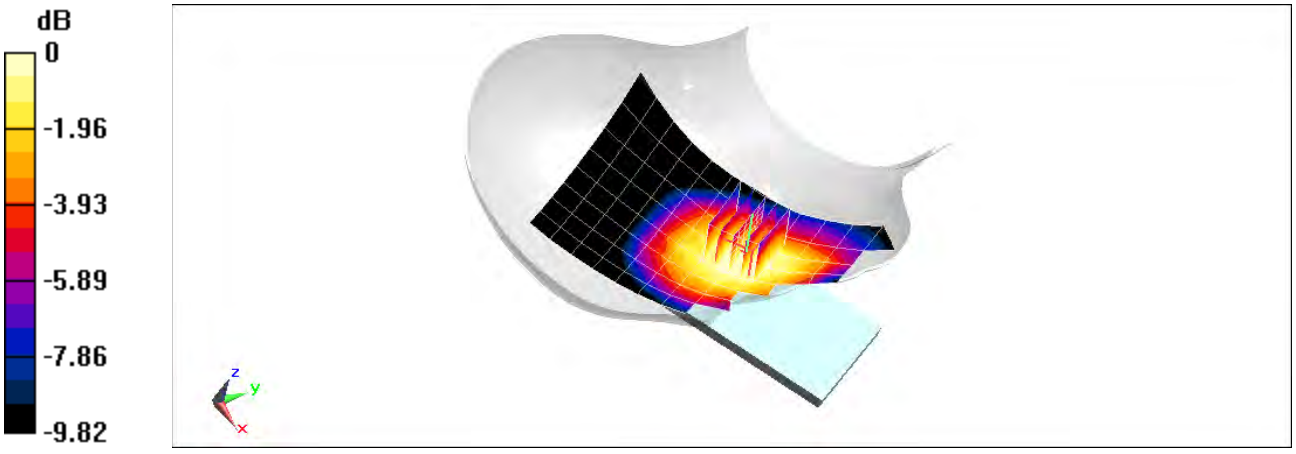
Communication System: UID 0, LTE Band 71; Frequency: 680.5 MHz; Duty Cycle: 1:1
Medium: 750 Head; Medium parameters used (interpolated):
f = 680.5 MHz; σ = 0.853 S/m; ε_r = 41.522; ρ = 1000 kg/m^3
Phantom section: Right Section

Test Date: 04/02/2020; Ambient Temp: 21.1°C; Tissue Temp: 20.6°C

Probe: EX3DV4 - SN7551; ConvF(10.11, 10.11, 10.11) @ 680.5 MHz; Calibrated: 9/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1333; Calibrated: 9/17/2019
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1792
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: LTE Band 71, Right Head, Cheek, Mid.ch, 20 MHz Bandwidth, QPSK, 1 RB, 99 RB Offset

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (6x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 12.56 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 0.154 W/kg
SAR(1 g) = 0.123 W/kg



0 dB = 0.144 W/kg = -8.42 dBW/kg

PCTEST

DUT: A3LSMA716U; Type: Portable Handset; Serial: 05633

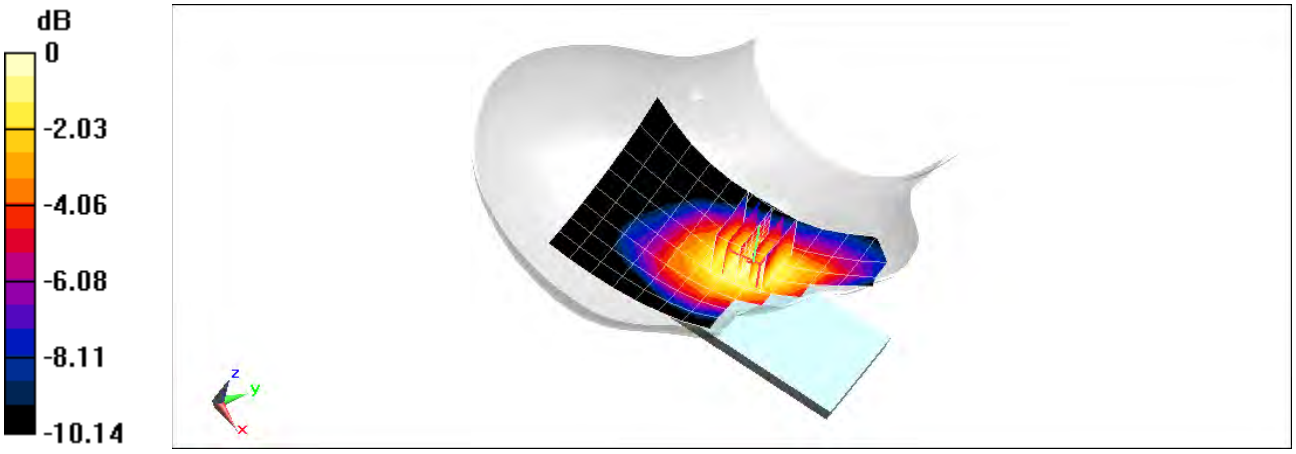
Communication System: UID 0, LTE Band 12; Frequency: 707.5 MHz; Duty Cycle: 1:1
Medium: 750 Head; Medium parameters used (interpolated):
f = 707.5 MHz; σ = 0.872 S/m; ε_r = 43.742; ρ = 1000 kg/m^3
Phantom section: Right Section

Test Date: 04/19/2020; Ambient Temp: 21.3°C; Tissue Temp: 20.1°C

Probe: EX3DV4 - SN7551; ConvF(10.11, 10.11, 10.11) @ 707.5 MHz; Calibrated: 9/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1333; Calibrated: 9/17/2019
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1792
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: LTE Band 12, Right Head, Cheek, Mid.ch, 10 MHz Bandwidth, QPSK, 1 RB, 0 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 = 15.15 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 0.232 W/kg
SAR(1 g) = 0.185 W/kg



0 dB = 0.215 W/kg = -6.68 dBW/kg

DUT: A3LSMA716U; Type: Portable Handset; Serial: 05633

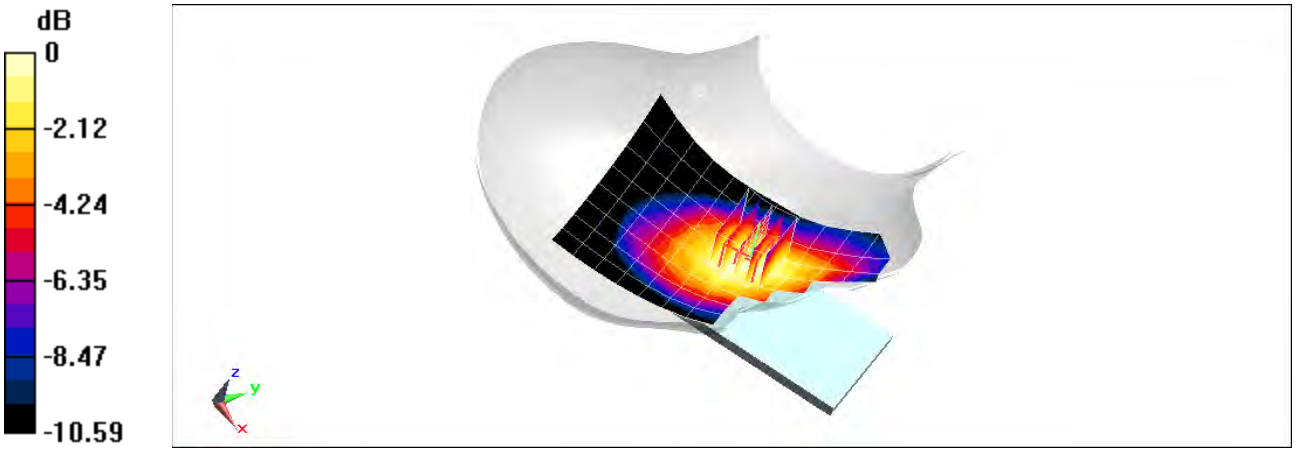
Communication System: UID 0, LTE Band 13; Frequency: 782 MHz; Duty Cycle: 1:1
Medium: 750 Head; Medium parameters used (interpolated):
f = 782 MHz; σ = 0.896 S/m; ε_r = 43.45; ρ = 1000 kg/m^3
Phantom section: Right Section

Test Date: 04/19/2020; Ambient Temp: 21.3°C; Tissue Temp: 20.1°C

Probe: EX3DV4 - SN7551; ConvF(10.11, 10.11, 10.11) @ 782 MHz; Calibrated: 9/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1333; Calibrated: 9/17/2019
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1792
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: LTE Band 13, Right Head, Cheek, Mid.ch,
10 MHz Bandwidth, QPSK, 1 RB, 0 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 = 14.24 V/m; Power Drift = 0.08 dB
Peak SAR (extrapolated) = 0.216 W/kg
SAR(1 g) = 0.170 W/kg



0 dB = 0.199 W/kg = -7.01 dBW/kg

PCTEST

DUT: A3LSMA716U; Type: Portable Handset; Serial: 05633

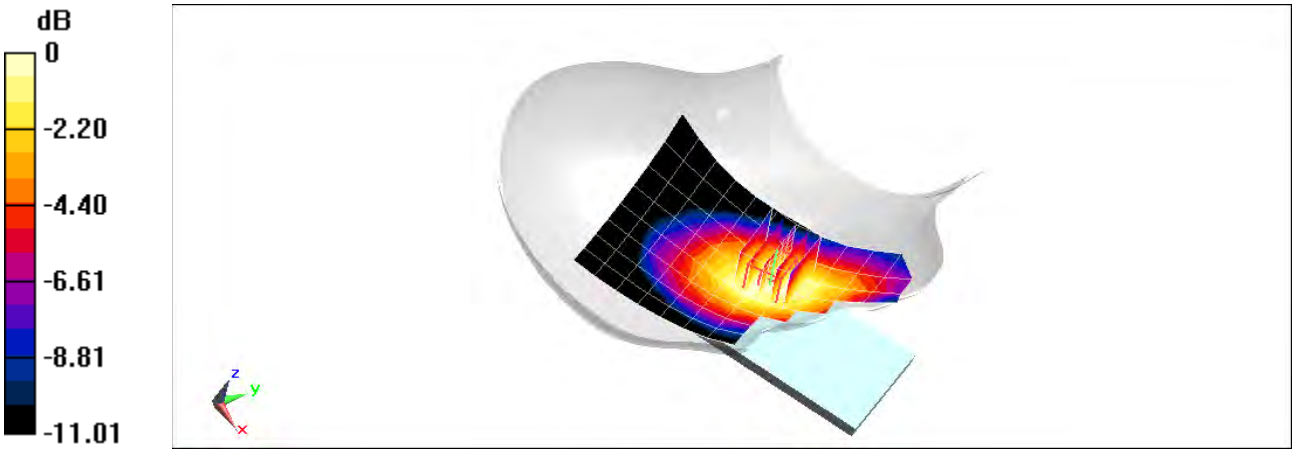
Communication System: UID 0, LTE Band 14; Frequency: 793 MHz; Duty Cycle: 1:1
Medium: 750 Head; Medium parameters used (interpolated):
f = 793 MHz; σ = 0.9 S/m; ε_r = 43.425; ρ = 1000 kg/m^3
Phantom section: Right Section

Test Date: 04/19/2020; Ambient Temp: 21.3°C; Tissue Temp: 20.1°C

Probe: EX3DV4 - SN7551; ConvF(10.11, 10.11, 10.11) @ 793 MHz; Calibrated: 9/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1333; Calibrated: 9/17/2019
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1792
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: LTE Band 14, Right Head, Cheek, Mid.ch, 10 MHz Bandwidth, QPSK, 1 RB, 0 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 = 14.03 V/m; Power Drift = 0.14 dB
Peak SAR (extrapolated) = 0.216 W/kg
SAR(1 g) = 0.170 W/kg



0 dB = 0.198 W/kg = -7.03 dBW/kg

DUT: A3LSMA716U; Type: Portable Handset; Serial: 05633

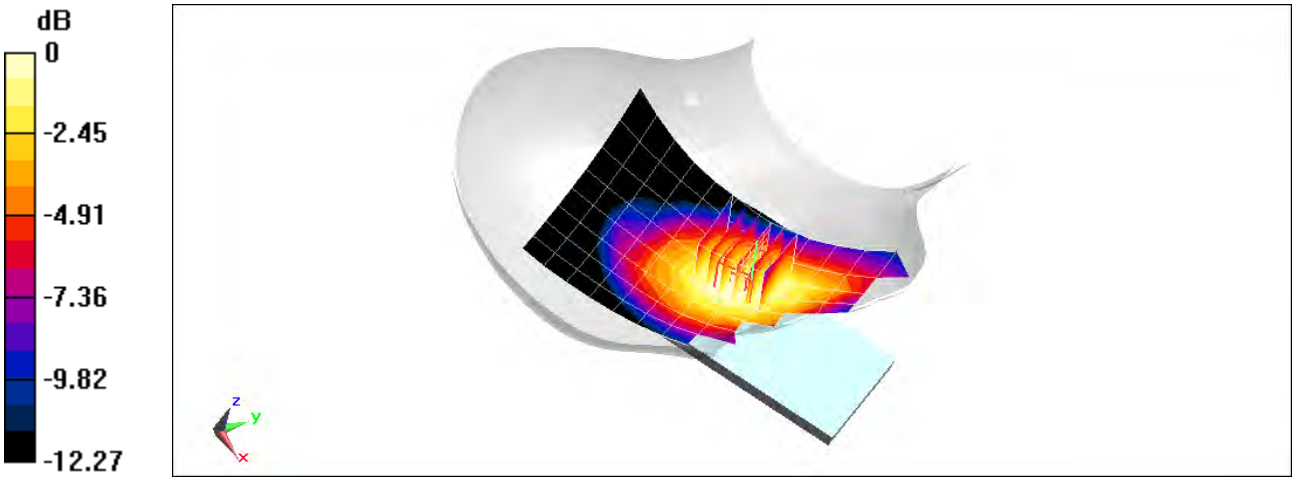
Communication System: UID 0, LTE Band 5 (Cell.); Frequency: 836.5 MHz; Duty Cycle: 1:1
Medium: 835 Head; Medium parameters used (interpolated):
f = 836.5 MHz; σ = 0.893 S/m; ε_r = 42.897; ρ = 1000 kg/m^3
Phantom section: Right Section

Test Date: 04/25/2020; Ambient Temp: 20.5°C; Tissue Temp: 19.9°C

Probe: EX3DV4 - SN7551; ConvF(9.88, 9.88, 9.88) @ 836.5 MHz; Calibrated: 9/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1333; Calibrated: 9/17/2019
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1792
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: LTE Band 5 (Cell.), Right Head, Cheek, Mid.ch,
10 MHz Bandwidth, QPSK, 1 RB, 0 RB Offset

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 15.66 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 0.252 W/kg
SAR(1 g) = 0.196 W/kg



0 dB = 0.230 W/kg = -6.38 dBW/kg

PCTEST

DUT: A3LSMA716U; Type: Portable Handset; Serial: 05633

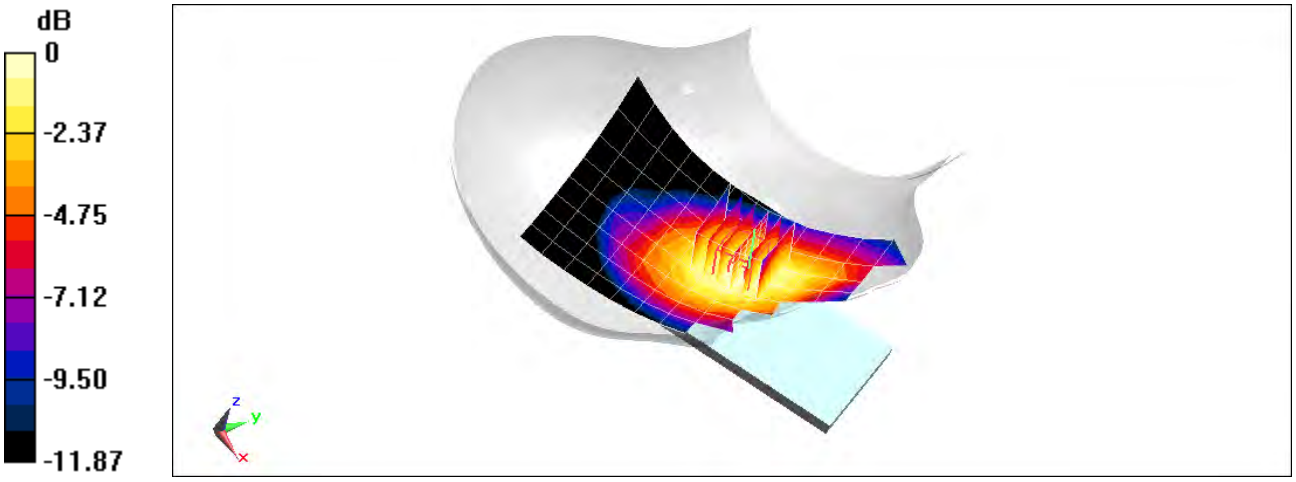
Communication System: UID 0, LTE Band 26; Frequency: 831.5 MHz; Duty Cycle: 1:1
Medium: 835 Head; Medium parameters used (interpolated):
f = 831.5 MHz; σ = 0.891 S/m; ε_r = 42.911; ρ = 1000 kg/m^3
Phantom section: Right Section

Test Date: 04/25/2020; Ambient Temp: 20.5°C; Tissue Temp: 19.9°C

Probe: EX3DV4 - SN7551; ConvF(9.88, 9.88, 9.88) @ 831.5 MHz; Calibrated: 9/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1333; Calibrated: 9/17/2019
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1792
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: LTE Band 26 (Cell.), Right Head, Cheek, Mid.ch, 15 MHz Bandwidth, QPSK, 1 RB, 0 RB Offset

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 15.32 V/m; Power Drift = -0.13 dB
Peak SAR (extrapolated) = 0.251 W/kg
SAR(1 g) = 0.196 W/kg



0 dB = 0.231 W/kg = -6.36 dBW/kg

DUT: A3LSMA716U; Type: Portable Handset; Serial: 07134

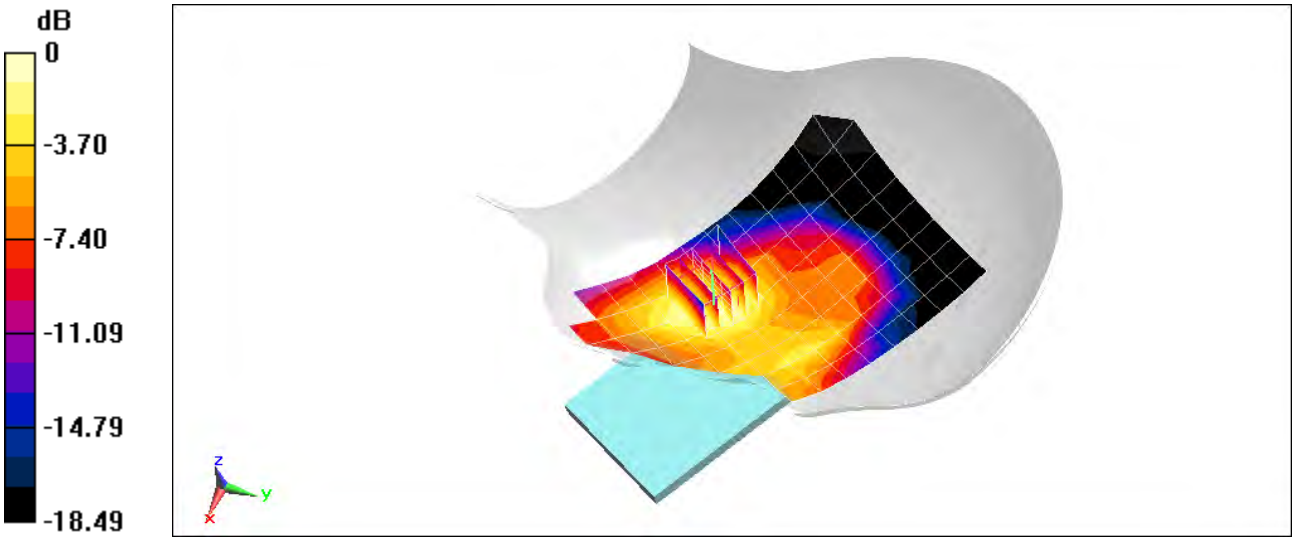
Communication System: UID 0, LTE Band 66 (AWS); Frequency: 1720 MHz; Duty Cycle: 1:1
Medium: 1750 Head; Medium parameters used:
f = 1720 MHz; σ = 1.377 S/m; ε_r = 38.773; ρ = 1000 kg/m^3
Phantom section: Left Section

Test Date: 04/28/2020; Ambient Temp: 21.4°C; Tissue Temp: 21.1°C

Probe: EX3DV4 - SN7570; ConvF(8.68, 8.68, 8.68) @ 1720 MHz; Calibrated: 12/11/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn859; Calibrated: 12/18/2019
Phantom: Twin-SAM V8.0; Type: QD 000 P41 Ax; Serial: 1964
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: LTE Band 66 (AWS), Left Head, Cheek, 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 = 9.710 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 0.176 W/kg
SAR(1 g) = 0.114 W/kg



0 dB = 0.146 W/kg = -8.36 dBW/kg

PCTEST

DUT: A3LSMA716U; Type: Portable Handset; Serial: 19550

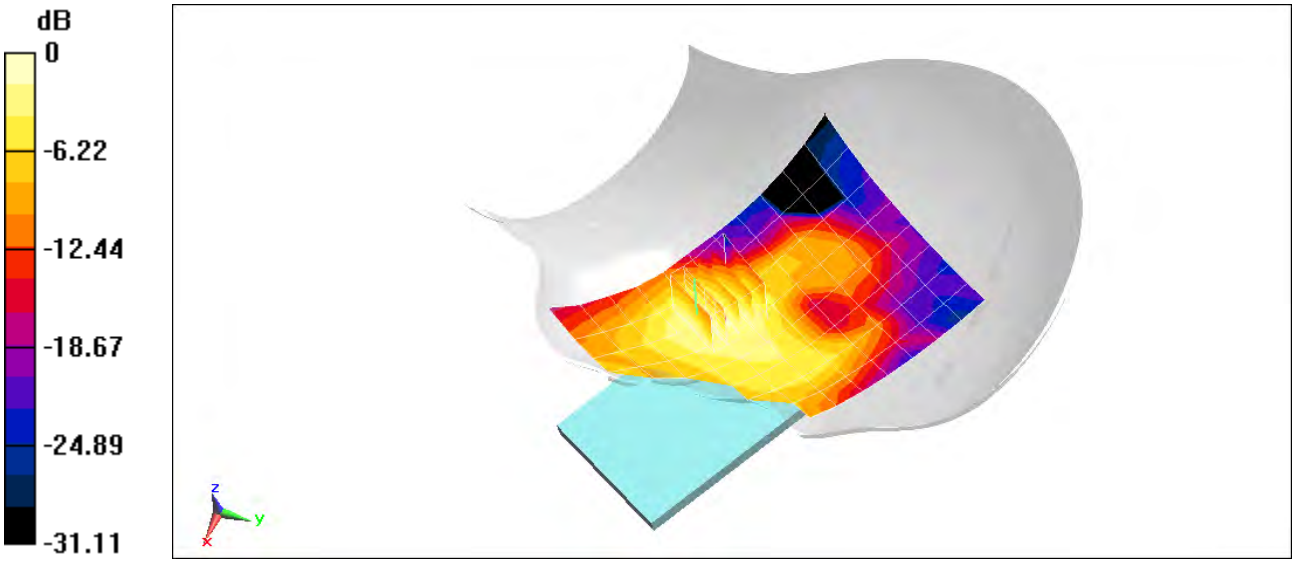
Communication System: UID 0, LTE Band 25 (PCS); Frequency: 1905 MHz; Duty Cycle: 1:1
Medium: 1900 Head; Medium parameters used:
f = 1905 MHz; σ = 1.453 S/m; ε_r = 40.952; ρ = 1000 kg/m^3
Phantom section: Left Section

Test Date: 05/11/2020; Ambient Temp: 21.8°C; Tissue Temp: 21.0°C

Probe: EX3DV4 - SN7410; ConvF(8.11, 8.11, 8.11) @ 1905 MHz; Calibrated: 7/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2019
Phantom: Twin-SAM V8.0; Type: QD 000 P41 Ax; Serial: 1966
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: LTE Band 25 (PCS), Left Head, Cheek, High.ch, 20 MHz Bandwidth, QPSK, 1 RB, 99 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 = 9.281 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 0.160 W/kg
SAR(1 g) = 0.107 W/kg



0 dB = 0.137 W/kg = -8.63 dBW/kg

DUT: A3LSMA716U; Type: Portable Handset; Serial: 19410

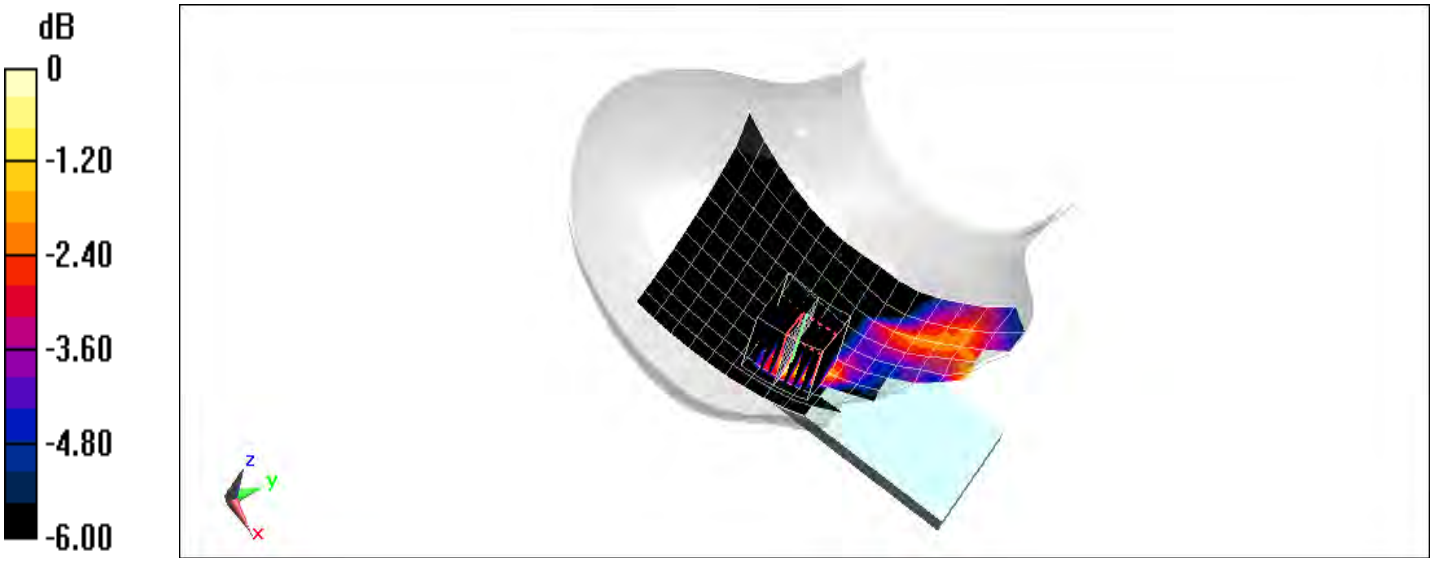
Communication System: UID 0, LTE Band 30; Frequency: 2310 MHz; Duty Cycle: 1:1
Medium: 2450 Head; Medium parameters used:
f = 2310 MHz; σ = 1.711 S/m; ε_r = 38.341; ρ = 1000 kg/m^3
Phantom section: Right Section

Test Date: 04/02/2020; Ambient Temp: 21.1°C; Tissue Temp: 20.5°C

Probe: EX3DV4 - SN3589; ConvF(7.11, 7.11, 7.11) @ 2310 MHz; Calibrated: 1/21/2020
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1558; Calibrated: 1/13/2020
Phantom: Twin-SAM V5.0 (30); Type: QD 000 P40 CD; Serial: 1647
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: LTE Band 30, Right Head, Cheek, Mid.ch,
10 MHz Bandwidth, QPSK, 1 RB, 0 RB Offset

Area Scan (11x18x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (9x9x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 4.985 V/m; Power Drift = 0.15 dB
Peak SAR (extrapolated) = 0.0660 W/kg
SAR(1 g) = 0.040 W/kg



0 dB = 0.0567 W/kg = -12.46 dBW/kg

DUT: A3LSMA716U; Type: Portable Handset; Serial: 07613

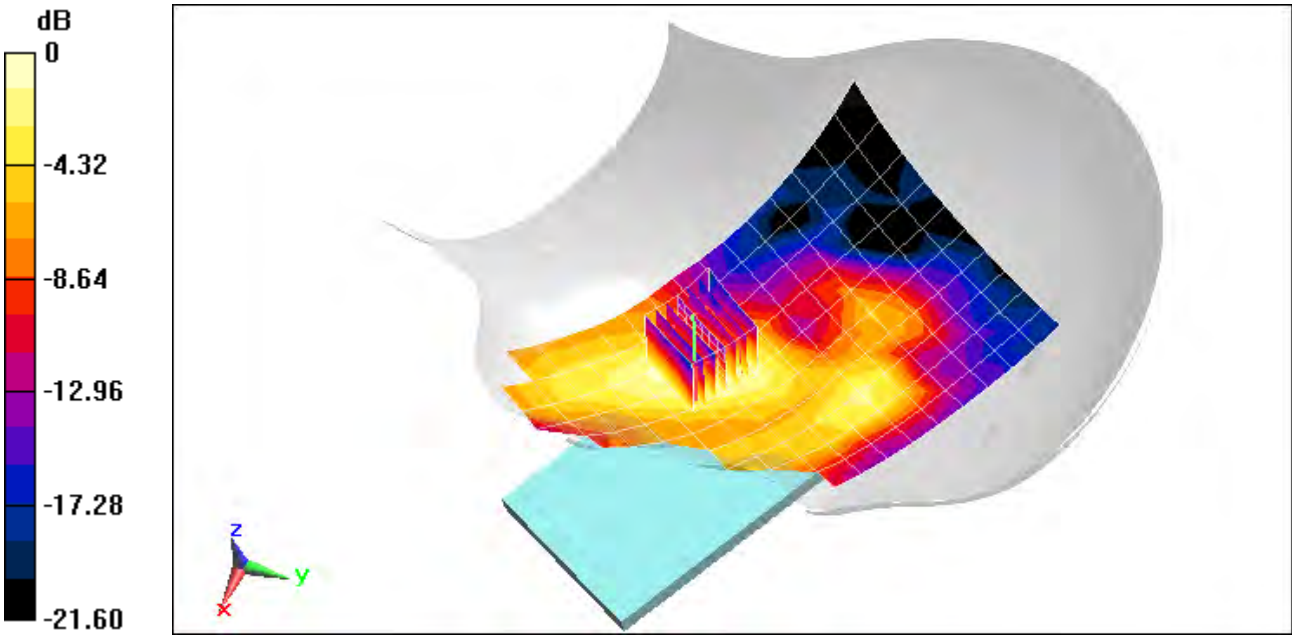
Communication System: UID 0, LTE Band 7; Frequency: 2560 MHz; Duty Cycle: 1:1
Medium: 2450 Head; Medium parameters used:
f = 2560 MHz; σ = 1.906 S/m; ε_r = 38.052; ρ = 1000 kg/m^3
Phantom section: Left Section

Test Date: 04/05/2020; Ambient Temp: 22.5°C; Tissue Temp: 22.4°C

Probe: EX3DV4 - SN3589; ConvF(6.6, 6.6, 6.6) @ 2560 MHz; Calibrated: 1/21/2020
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1558; Calibrated: 1/13/2020
Phantom: Twin-SAM V5.0 (30); Type: QD 000 P40 CD; Serial: 1647
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: LTE Band 7, Left Head, Cheek, High.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 = 8.156 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 0.186 W/kg
SAR(1 g) = 0.104 W/kg



0 dB = 0.154 W/kg = -8.12 dBW/kg

DUT: A3LSMA716U; Type: Portable Handset; Serial: 19410

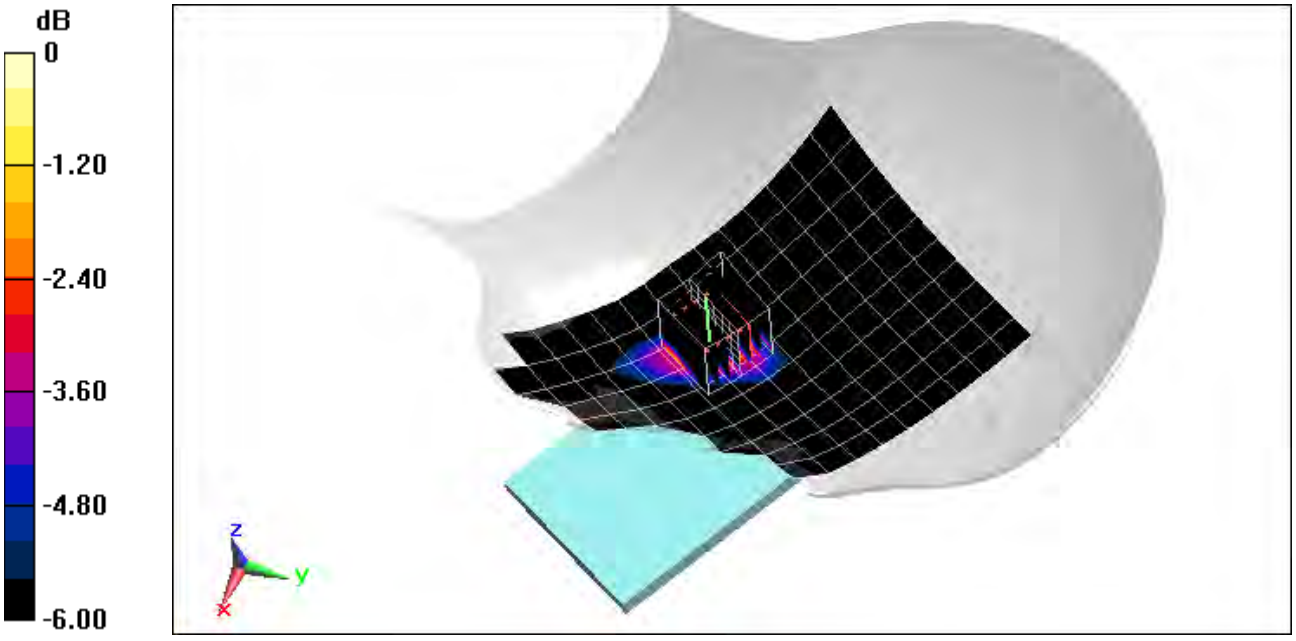
Communication System: UID 0, _LTE Band 41 (Class 2); Frequency: 2593 MHz; Duty Cycle: 1:2.31
Medium: 2450 Head; Medium parameters used (interpolated):
f = 2593 MHz; σ = 1.932 S/m; ε_r = 37.997; ρ = 1000 kg/m^3
Phantom section: Left Section

Test Date: 04/05/2020; Ambient Temp: 22.5°C; Tissue Temp: 22.4°C

Probe: EX3DV4 - SN3589; ConvF(6.6, 6.6, 6.6) @ 2593 MHz; Calibrated: 1/21/2020
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1558; Calibrated: 1/13/2020
Phantom: Twin-SAM V5.0 (30); Type: QD 000 P40 CD; Serial: 1647
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: LTE Band 41, PC2, ULCA, Left Head, Cheek, Mid.ch, QPSK,
PCC: Ch. 40620, 20 MHz Bandwidth, QPSK, 1 RB, 0 RB Offset
SCC: Ch. 40422, 20 MHz Bandwidth, QPSK, 1 RB, 99 RB Offset

Area Scan (11x17x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 8.812 V/m; Power Drift = 0.13 dB
Peak SAR (extrapolated) = 0.229 W/kg
SAR(1 g) = 0.125 W/kg



0 dB = 0.189 W/kg = -7.24 dBW/kg

DUT: A3LSMA716U; Type: Portable Handset; Serial: 05633

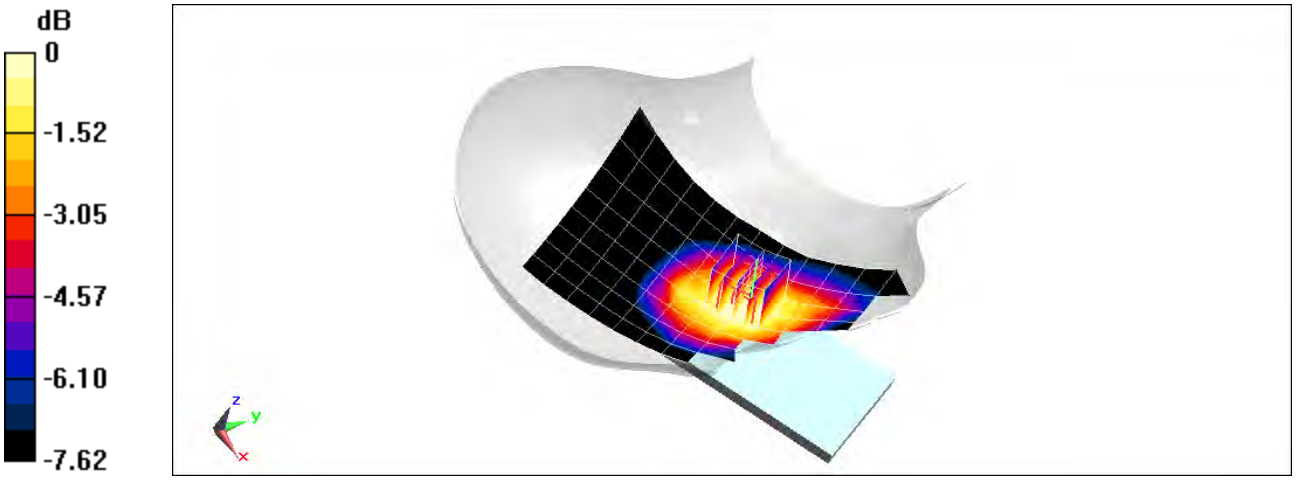
Communication System: UID 0, NR Band n71; Frequency: 680.5 MHz; Duty Cycle: 1:1
Medium: 750 Head; Medium parameters used (interpolated):
f = 680.5 MHz; σ = 0.864 S/m; ε_r = 43.829; ρ = 1000 kg/m^3
Phantom section: Right Section

Test Date: 04/19/2020; Ambient Temp: 21.3°C; Tissue Temp: 20.1°C

Probe: EX3DV4 - SN7551; ConvF(10.11, 10.11, 10.11) @ 680.5 MHz; Calibrated: 9/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1333; Calibrated: 9/17/2019
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1792
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: NR Band n71, Right Head, Cheek,
20 MHz Bandwidth, DFT-s-OFDM QPSK, Ch. 136100, 1 RB, 53 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 = 12.95 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 0.166 W/kg
SAR(1 g) = 0.133 W/kg



0 dB = 0.154 W/kg = -8.12 dBW/kg

PCTEST

DUT: A3LSMA716U; Type: Portable Handset; Serial: 19550

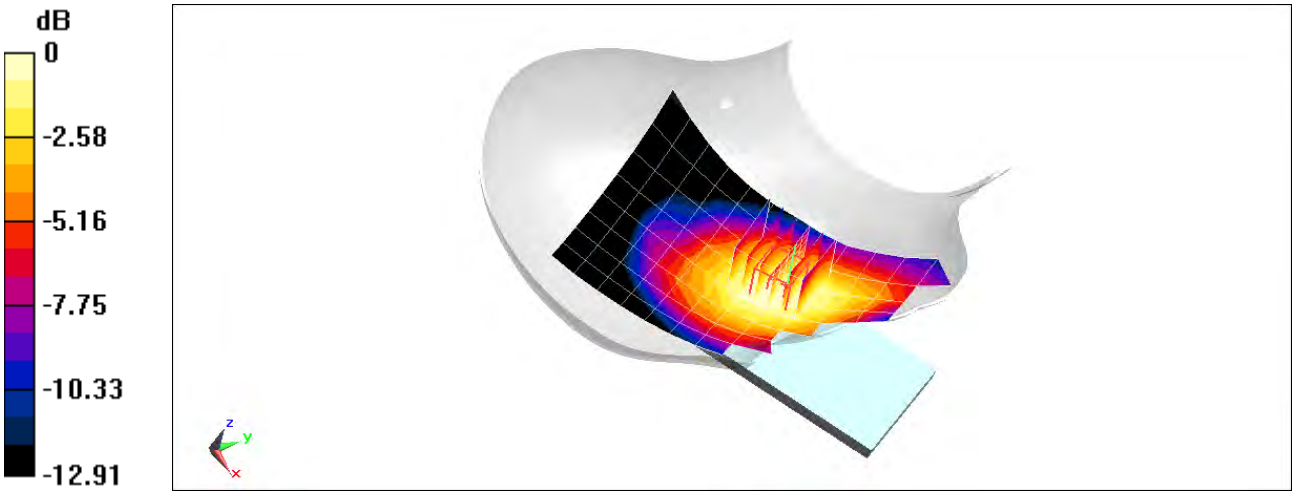
Communication System: UID 0, NR Band n5; Frequency: 836.5 MHz; Duty Cycle: 1:1
Medium: 835 Head; Medium parameters used (interpolated):
f = 836.5 MHz; σ = 0.937 S/m; ε_r = 42.829; ρ = 1000 kg/m^3
Phantom section: Right Section

Test Date: 05/04/2020; Ambient Temp: 23.3°C; Tissue Temp: 22.3°C

Probe: EX3DV4 - SN7551; ConvF(9.88, 9.88, 9.88) @ 836.5 MHz; Calibrated: 9/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1333; Calibrated: 9/17/2019
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1792
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: NR Band n5, Right Head, Cheek,
20 MHz Bandwidth, DFT-s-OFDM QPSK, Ch. 167300, 50 RB, 28 RB Offset

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 14.51 V/m; Power Drift = 0.00 dB
Peak SAR (extrapolated) = 0.234 W/kg
SAR(1 g) = 0.178 W/kg



0 dB = 0.213 W/kg = -6.72 dBW/kg

DUT: A3LSMA716U; Type: Portable Handset; Serial: 19550

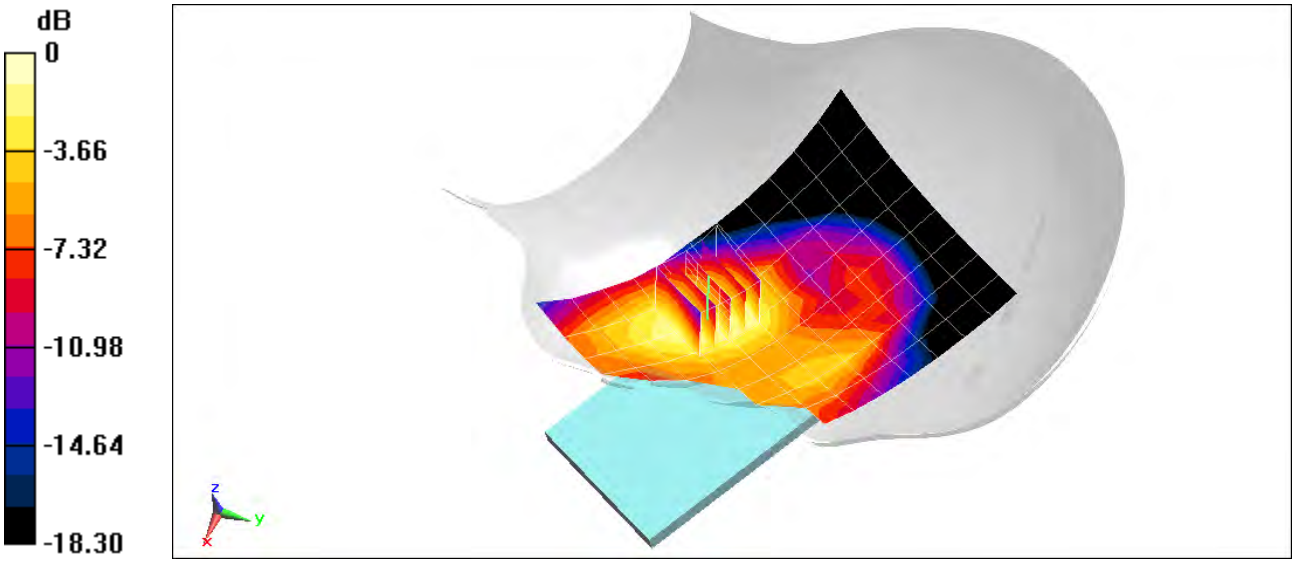
Communication System: UID 0, NR Band n66; Frequency: 1745 MHz; Duty Cycle: 1:1
Medium: 1750 Head; Medium parameters used:
f = 1745 MHz; σ = 1.335 S/m; ε_r = 40.627; ρ = 1000 kg/m^3
Phantom section: Left Section

Test Date: 05/13/2020; Ambient Temp: 23.9°C; Tissue Temp: 20.5°C

Probe: EX3DV4 - SN7410; ConvF(8.46, 8.46, 8.46) @ 1745 MHz; Calibrated: 7/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2019
Phantom: Twin-SAM V8.0; Type: QD 000 P41 Ax; Serial: 1966
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: NR Band n66, Left Head, Cheek,
20 MHz Bandwidth, DFT-s-OFDM QPSK, Ch. 349000, 1 RB, 53 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 = 10.08 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 0.170 W/kg
SAR(1 g) = 0.116 W/kg



0 dB = 0.149 W/kg = -8.27 dBW/kg

PCTEST

DUT: A3LSMA716U; Type: Portable Handset; Serial: 07613

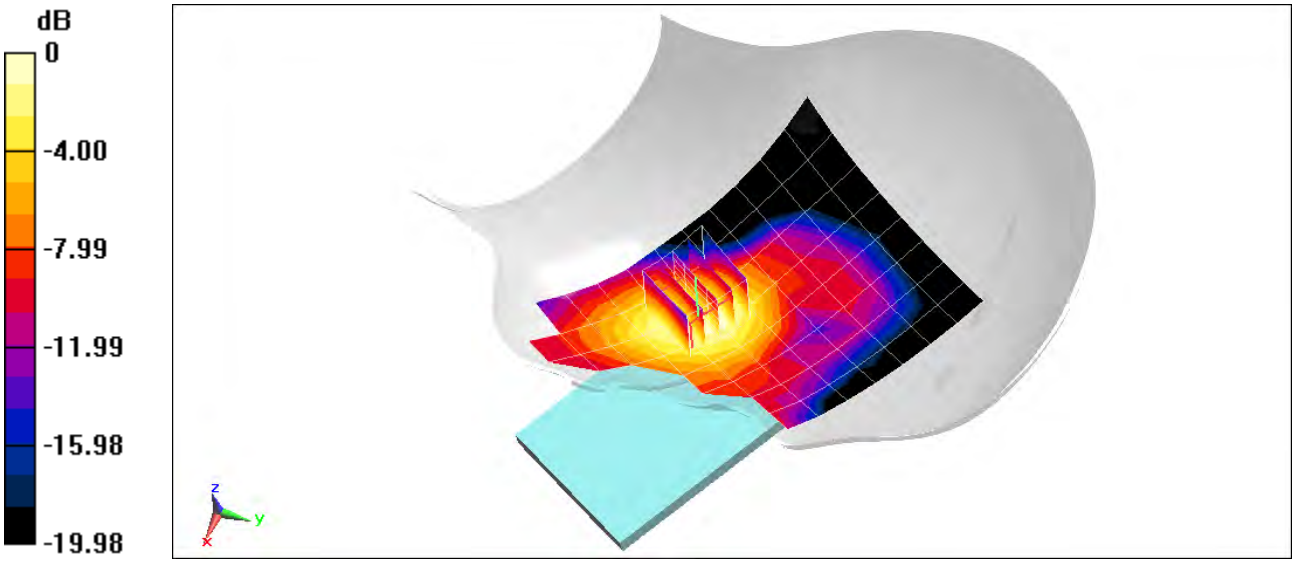
Communication System: UID 0, NR Band n2; Frequency: 1880 MHz; Duty Cycle: 1:1
Medium: 1900 Head; Medium parameters used:
f = 1880 MHz; σ = 1.405 S/m; ε_r = 38.349; ρ = 1000 kg/m^3
Phantom section: Left Section

Test Date: 05/04/2020; Ambient Temp: 23.0°C; Tissue Temp: 21.5°C

Probe: EX3DV4 - SN7406; ConvF(8.18, 8.18, 8.18) @ 1880 MHz; Calibrated: 5/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn728; Calibrated: 5/8/2019
Phantom: Twin-SAM V5.0 Left 20; Type: QD 000 P40 CD; Serial: 1715
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: NR Band n2, Left Head, Cheek,
20 MHz Bandwidth, DFT-s-OFDM QPSK, Ch. 376000, 1 RB, 53 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 = 11.17 V/m; Power Drift = 0.11 dB
Peak SAR (extrapolated) = 0.236 W/kg
SAR(1 g) = 0.150 W/kg



0 dB = 0.200 W/kg = -6.99 dBW/kg

DUT: A3LSMA716U; Type: Portable Handset; Serial: 19550

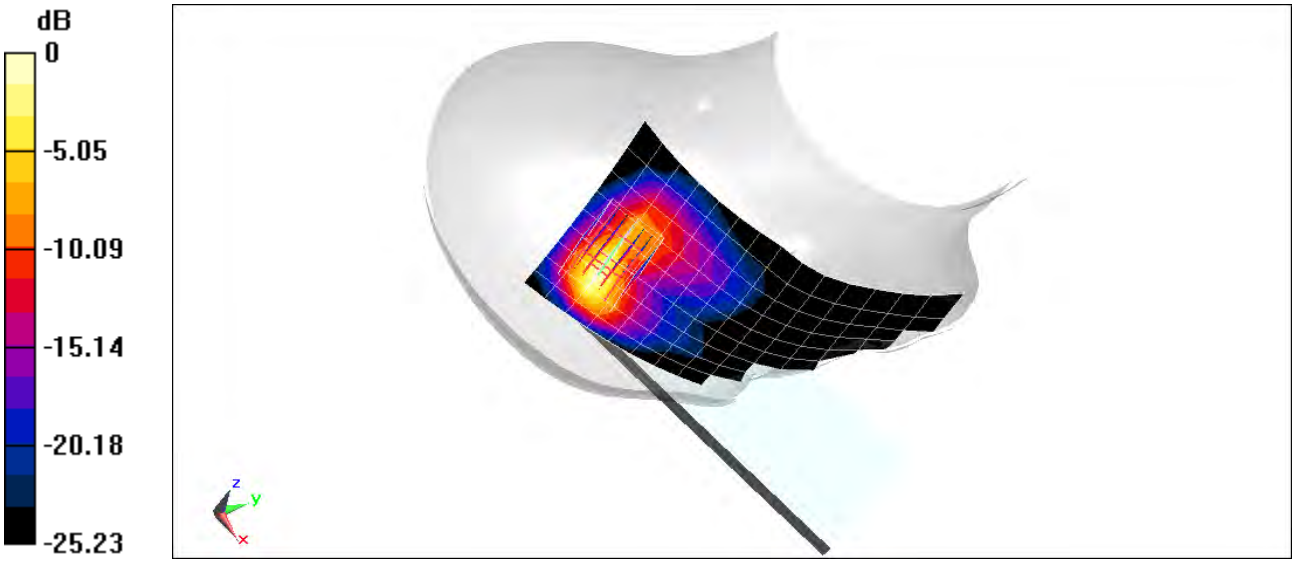
Communication System: UID 0, NR Band n41; Frequency: 2592.99 MHz; Duty Cycle: 1:4
Medium: 2450 Head; Medium parameters used (interpolated):
f = 2592.99 MHz; σ = 1.891 S/m; ε_r = 39.109; ρ = 1000 kg/m^3
Phantom section: Right Section

Test Date: 05/10/2020; Ambient Temp: 23.2°C; Tissue Temp: 22.8°C

Probe: EX3DV4 - SN3589; ConvF(6.6, 6.6, 6.6) @ 2592.99 MHz; Calibrated: 1/21/2020
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1558; Calibrated: 1/13/2020
Phantom: Twin-SAM V5.0 (30); Type: QD 000 P40 CD; Serial: 1647
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: NR Band n41, Right Head, Tilt,
100 MHz Bandwidth, DFT-s-OFDM QPSK, Ch. 518598, 1 RB, 1 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 = 22.75 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 1.79 W/kg
SAR(1 g) = 0.686 W/kg



0 dB = 1.36 W/kg = 1.34 dBW/kg

DUT: A3LSMA716U; Type: Portable Handset; Serial: 28338

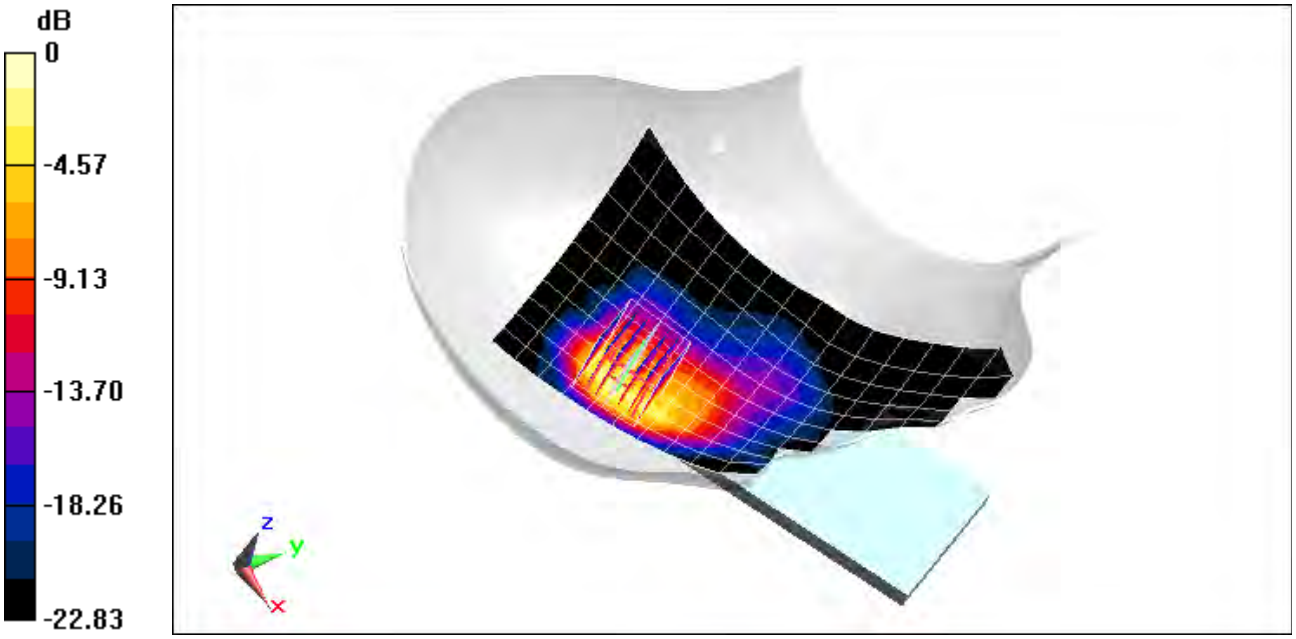
Communication System: UID 0, 802.11b; Frequency: 2412 MHz; Duty Cycle: 1:1
Medium: 2450 Head; Medium parameters used (interpolated):
f = 2412 MHz; σ = 1.788 S/m; ε_r = 38.285; ρ = 1000 kg/m^3
Phantom section: Right Section

Test Date: 04/05/2020; Ambient Temp: 22.5°C; Tissue Temp: 22.4°C

Probe: EX3DV4 - SN3589; ConvF(6.85, 6.85, 6.85) @ 2412 MHz; Calibrated: 1/21/2020
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1558; Calibrated: 1/13/2020
Phantom: Twin-SAM V5.0 (30); Type: QD 000 P40 CD; Serial: 1647
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: IEEE 802.11b, 22 MHz Bandwidth, Right Head, Cheek, Ch 1, 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 = 3.936 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 0.863 W/kg
SAR(1 g) = 0.352 W/kg



0 dB = 0.674 W/kg = -1.71 dBW/kg

DUT: A3LSMA716U; Type: Portable Handset; Serial: 28114

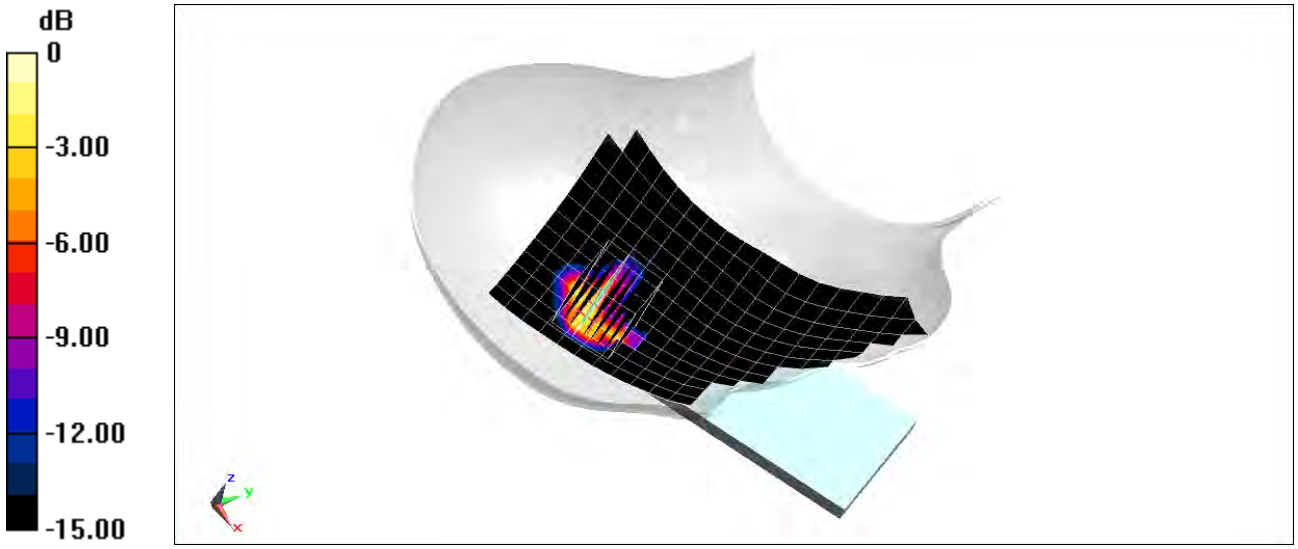
Communication System: UID 0, 802.11ac 5.2-5.8 GHz Band; Frequency: 5290 MHz; Duty Cycle: 1:1
Medium: 5200-5800 Head; Medium parameters used:
f = 5290 MHz; σ = 4.643 S/m; ε_r = 34.585; ρ = 1000 kg/m^3
Phantom section: Right Section

Test Date: 04/13/2020; Ambient Temp: 23.0°C; Tissue Temp: 21.0°C

Probe: EX3DV4 - SN7406; ConvF(5.54, 5.54, 5.54) @ 5290 MHz; Calibrated: 5/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn728; Calibrated: 5/8/2019
Phantom: Twin-SAM V5.0 Left 20; Type: QD 000 P40 CD; Serial: 1715
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: IEEE 802.11ac, U-NII-2A, 80 MHz Bandwidth, Right Head, Cheek, Ch 58, 29.3 Mbps

Area Scan (13x22x1): Measurement grid: dx=10mm, dy=10mm
Zoom Scan (9x9x8)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm; Graded Ratio: 1.4
Reference Value = 2.207 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 1.13 W/kg
SAR(1 g) = 0.217 W/kg



0 dB = 0.646 W/kg = -1.90 dBW/kg

DUT: A3LSMA716U; Type: Portable Handset; Serial: 28338

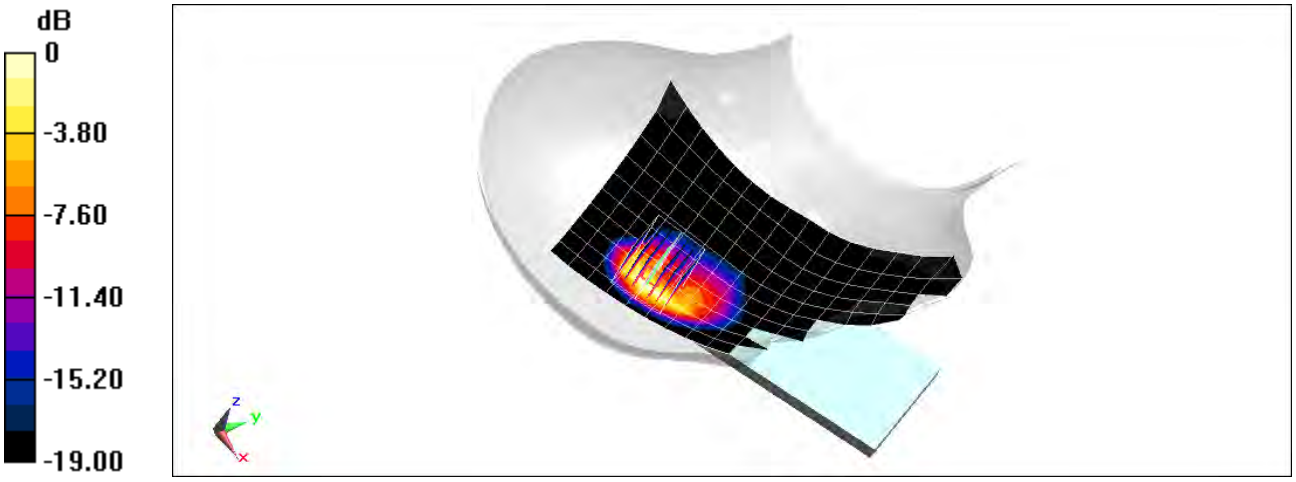
Communication System: UID 0, Bluetooth; Frequency: 2441 MHz; Duty Cycle: 1:1.297
Medium: 2450 Head; Medium parameters used (interpolated):
f = 2441 MHz; σ = 1.797 S/m; ε_r = 39.088; ρ = 1000 kg/m^3
Phantom section: Right Section

Test Date: 04/26/2020; Ambient Temp: 22.1°C; Tissue Temp: 22.3°C

Probe: EX3DV4 - SN3589; ConvF(6.85, 6.85, 6.85) @ 2441 MHz; Calibrated: 1/21/2020
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1558; Calibrated: 1/13/2020
Phantom: Twin-SAM V5.0 (30); Type: QD 000 P40 CD; Serial: 1647
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: Bluetooth, Right Head, Cheek, Ch 39, 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 = 10.54 V/m; Power Drift = -0.12 dB
Peak SAR (extrapolated) = 0.418 W/kg
SAR(1 g) = 0.163 W/kg



0 dB = 0.318 W/kg = -4.98 dBW/kg

DUT: A3LSMA716U; Type: Portable Handset; Serial: 19550

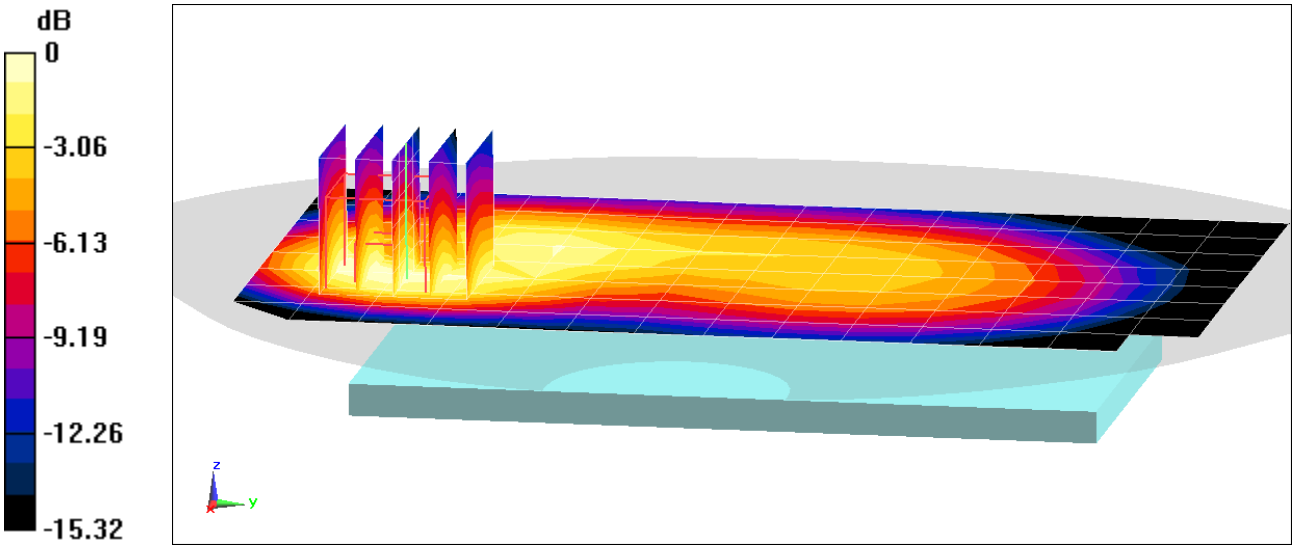
Communication System: UID 0, GSM; Frequency: 836.6 MHz; Duty Cycle: 1:8.3
Medium: 835 Body; Medium parameters used (interpolated):
f = 836.6 MHz; σ = 0.998 S/m; ε_r = 53.957; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 04/13/2020; Ambient Temp: 23.9°C; Tissue Temp: 21.9°C

Probe: EX3DV4 - SN7410; ConvF(9.79, 9.79, 9.79) @ 836.6 MHz; Calibrated: 7/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2019
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1630
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

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 = 13.88 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 0.291 W/kg
SAR(1 g) = 0.180 W/kg



0 dB = 0.245 W/kg = -6.11 dBW/kg

DUT: A3LSMA716U; Type: Portable Handset; Serial: 19550

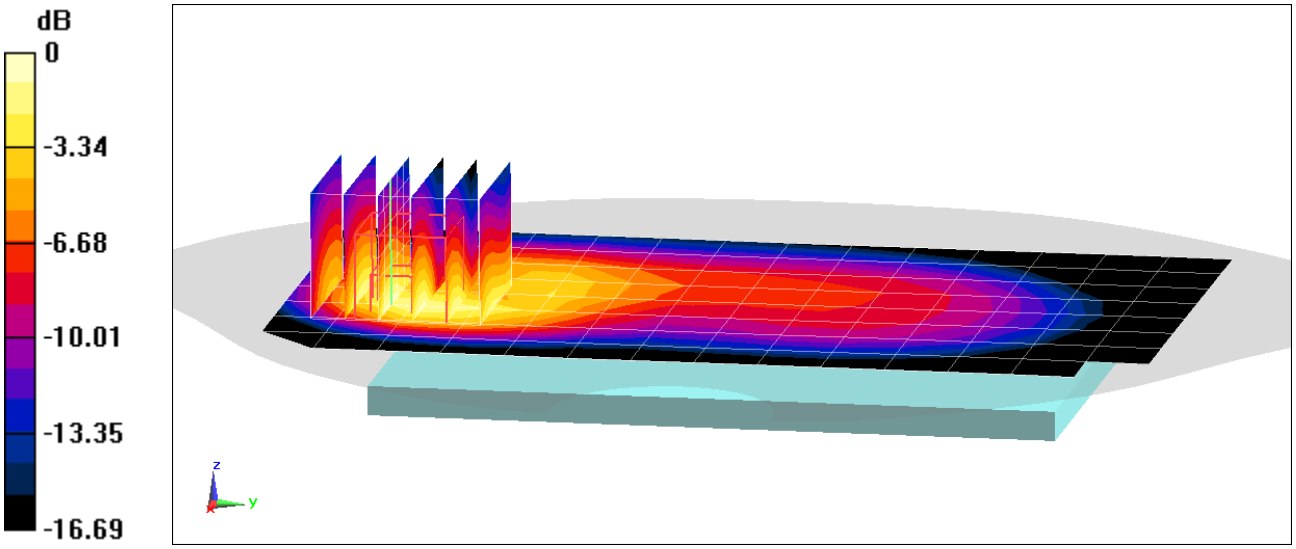
Communication System: UID 0, GSM GPRS; 2 Tx slots; Frequency: 848.8 MHz; Duty Cycle: 1:4.15
Medium: 835 Body; Medium parameters used (interpolated):
f = 848.8 MHz; σ = 1.003 S/m; ε_r = 53.931; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 04/13/2020; Ambient Temp: 23.9°C; Tissue Temp: 21.9°C

Probe: EX3DV4 - SN7410; ConvF(9.79, 9.79, 9.79) @ 848.8 MHz; Calibrated: 7/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2019
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1630
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: GPRS 850, Body SAR, Back side, High.ch, 2 Tx Slots

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 28.49 V/m; Power Drift = -0.13 dB
Peak SAR (extrapolated) = 1.40 W/kg
SAR(1 g) = 0.815 W/kg



0 dB = 1.18 W/kg = 0.72 dBW/kg

DUT: A3LSMA716U; Type: Portable Handset; Serial: 05583

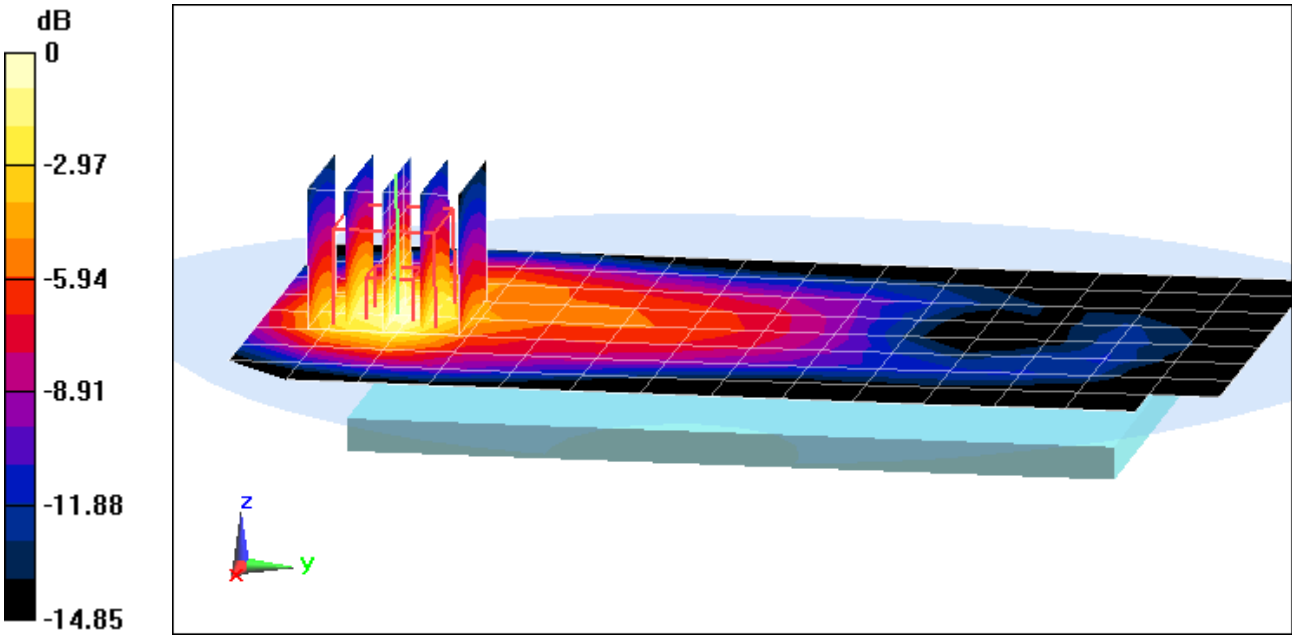
Communication System: UID 0, GSM; Frequency: 1850.2 MHz; Duty Cycle: 1:8.3
Medium: 1900 Body; Medium parameters used (interpolated):
f = 1850.2 MHz; σ = 1.516 S/m; ε_r = 54.553; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 04/05/2020; Ambient Temp: 20.7°C; Tissue Temp: 21.4°C

Probe: EX3DV4 - SN7571; ConvF(7.56, 7.56, 7.56) @ 1850.2 MHz; Calibrated: 12/11/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1533; Calibrated: 12/5/2019
Phantom: SAM Left; Type: QD000P40CC; Serial: TP: 1375
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: GSM 1900, Body SAR, Back side, Low.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 = 15.04 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 0.491 W/kg
SAR(1 g) = 0.309 W/kg



0 dB = 0.428 W/kg = -3.69 dBW/kg

DUT: A3LSMA716U; Type: Portable Handset; Serial: 05583

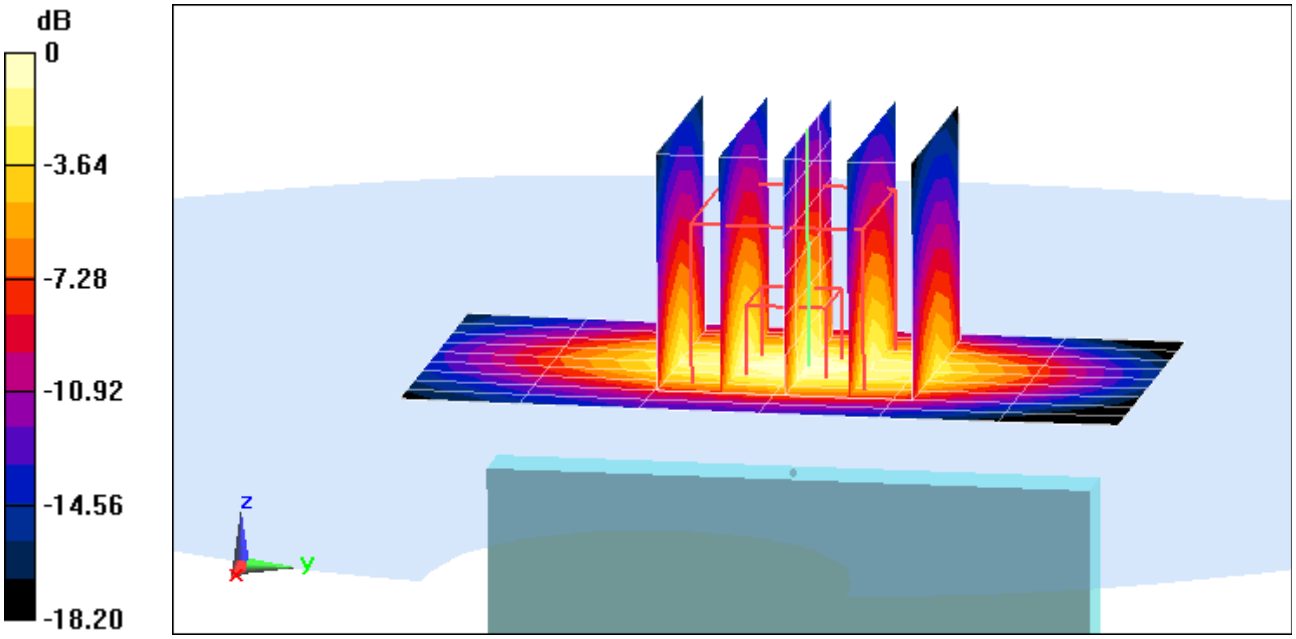
Communication System: UID 0, GSM GPRS; 2 Tx slots; Frequency: 1909.8 MHz; Duty Cycle: 1:4.15
Medium: 1900 Body; Medium parameters used:
f = 1910 MHz; σ = 1.583 S/m; ε_r = 54.35; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 04/05/2020; Ambient Temp: 20.7°C; Tissue Temp: 21.4°C

Probe: EX3DV4 - SN7571; ConvF(7.56, 7.56, 7.56) @ 1909.8 MHz; Calibrated: 12/11/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1533; Calibrated: 12/5/2019
Phantom: SAM Left; Type: QD000P40CC; Serial: TP: 1375
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

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 = 25.76 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 1.65 W/kg
SAR(1 g) = 0.938 W/kg



0 dB = 1.40 W/kg = 1.46 dBW/kg

DUT: A3LSMA716U; Type: Portable Handset; Serial: 07134

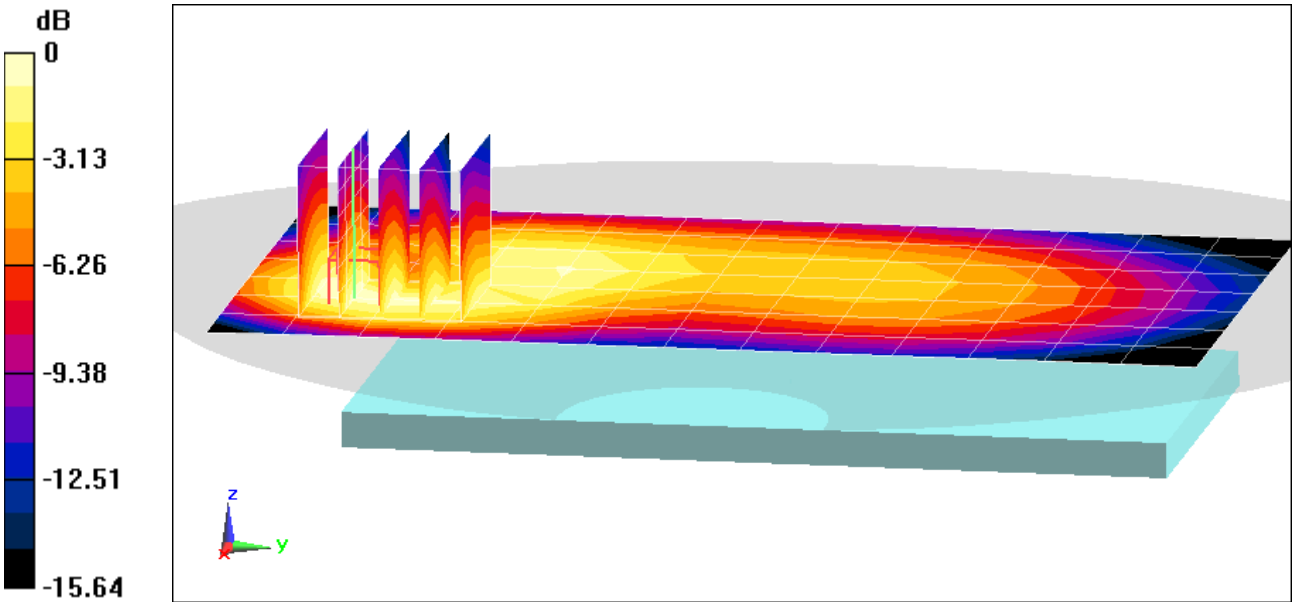
Communication System: UID 0, UMTS; Frequency: 836.6 MHz; Duty Cycle: 1:1
Medium: 835 Body; Medium parameters used (interpolated):
f = 836.6 MHz; σ = 0.962 S/m; ε_r = 54.143; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 05/04/2020; Ambient Temp: 22.2°C; Tissue Temp: 21.6°C

Probe: EX3DV4 - SN7570; ConvF(9.83, 9.83, 9.83) @ 836.6 MHz; Calibrated: 12/11/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn859; Calibrated: 12/18/2019
Phantom: Twin-SAM V8.0; Type: QD 000 P41 Ax; Serial: 1964
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: UMTS 850, Body SAR, Back side, Mid.ch

Area Scan (8x14x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 17.61 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 0.478 W/kg
SAR(1 g) = 0.293 W/kg



0 dB = 0.405 W/kg = -3.93 dBW/kg

DUT: A3LSMA716U; Type: Portable Handset; Serial: 07134

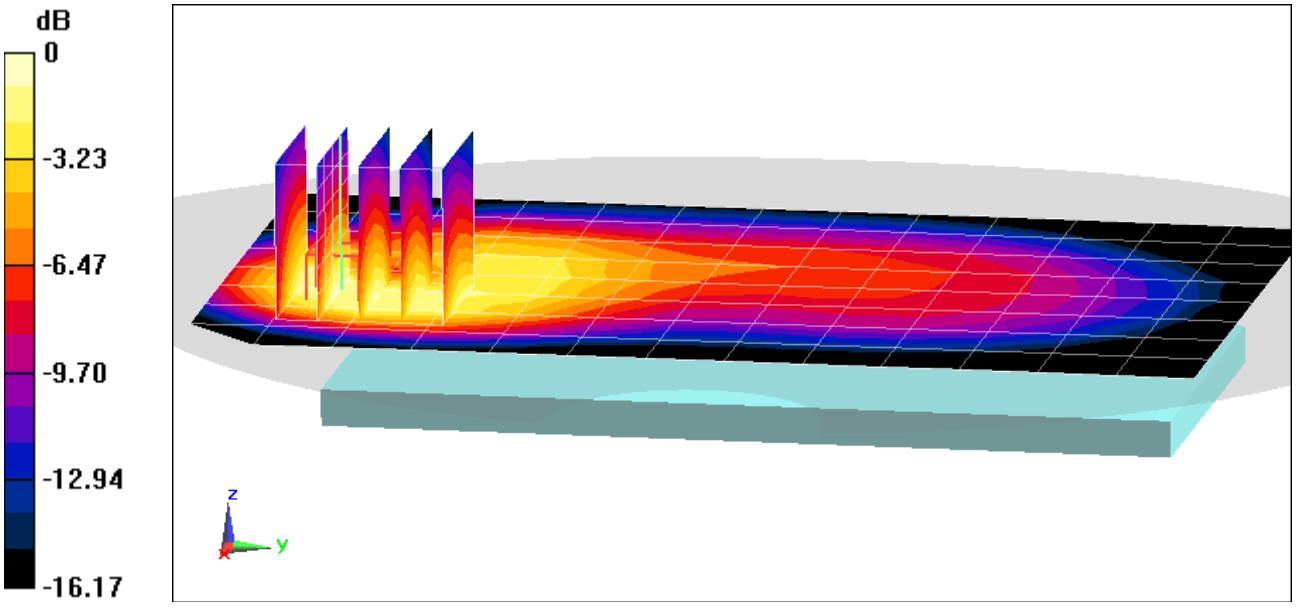
Communication System: UID 0, UMTS; Frequency: 836.6 MHz; Duty Cycle: 1:1
Medium: 835 Body; Medium parameters used (interpolated):
f = 836.6 MHz; σ = 0.962 S/m; ε_r = 54.143; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 05/04/2020; Ambient Temp: 22.2°C; Tissue Temp: 21.6°C

Probe: EX3DV4 - SN7570; ConvF(9.83, 9.83, 9.83) @ 836.6 MHz; Calibrated: 12/11/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn859; Calibrated: 12/18/2019
Phantom: Twin-SAM V8.0; Type: QD 000 P41 Ax; Serial: 1964
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: UMTS 850, Body SAR, Back side, Mid.ch

Area Scan (9x14x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 25.53 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 1.08 W/kg
SAR(1 g) = 0.613 W/kg



0 dB = 0.894 W/kg = -0.49 dBW/kg

DUT: A3LSMA716U; Type: Portable Handset; Serial: 05583

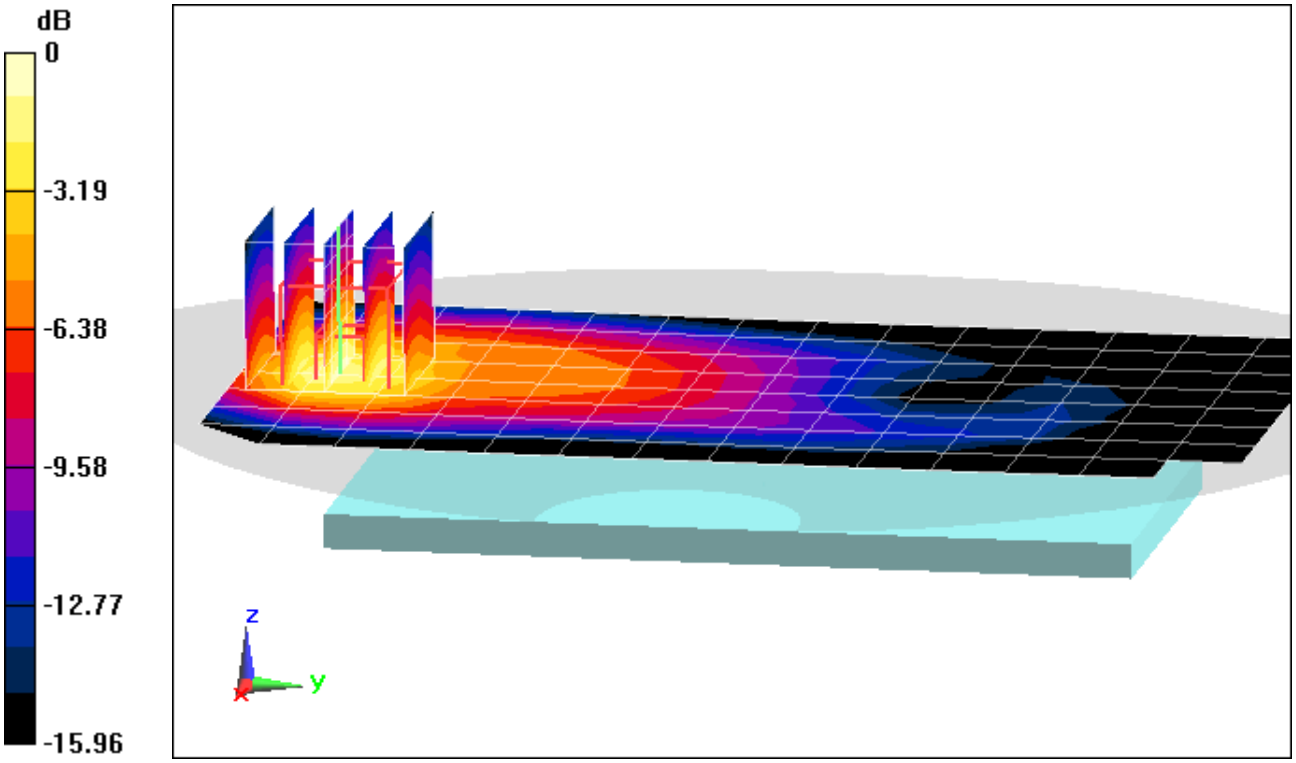
Communication System: UID 0, UMTS; Frequency: 1752.6 MHz; Duty Cycle: 1:1
Medium: 1750 Body; Medium parameters used (interpolated):
f = 1752.6 MHz; σ = 1.519 S/m; ε_r = 52.881; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 04/27/2020; Ambient Temp: 21.5°C; Tissue Temp: 20.5°C

Probe: EX3DV4 - SN7527; ConvF(8.1, 8.1, 8.1) @ 1752.6 MHz; Calibrated: 3/17/2020
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1368; Calibrated: 3/12/2020
Phantom: Right Back Twin-SAM V5.0 (30); Type: QD 000 P40 CD; Serial: 1692
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: UMTS 1750, Body SAR, Back side, High.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 = 23.14 V/m; Power Drift = 0.00 dB
Peak SAR (extrapolated) = 1.15 W/kg
SAR(1 g) = 0.729 W/kg



0 dB = 1.02 W/kg = 0.09 dBW/kg

DUT: A3LSMA716U; Type: Portable Handset; Serial: 06318

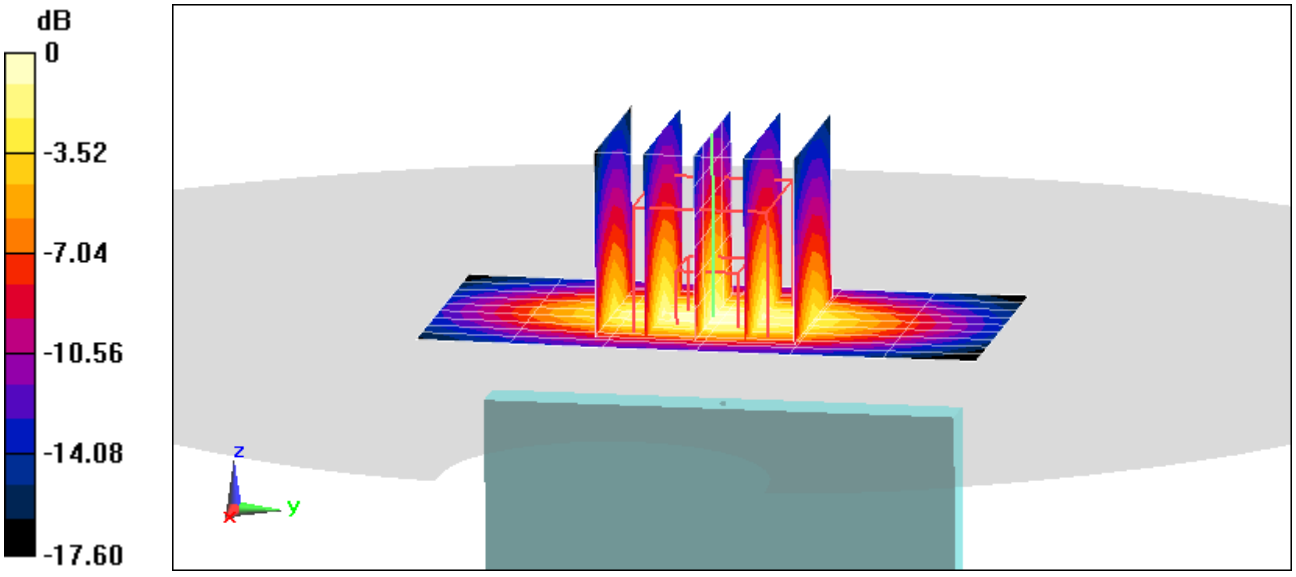
Communication System: UID 0, UMTS; Frequency: 1752.6 MHz; Duty Cycle: 1:1
Medium: 1750 Body; Medium parameters used (interpolated):
f = 1752.6 MHz; σ = 1.493 S/m; ε_r = 55.035; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 04/01/2020; Ambient Temp: 22.2°C; Tissue Temp: 21.6°C

Probe: EX3DV4 - SN7357; ConvF(8.26, 8.26, 8.26) @ 1752.6 MHz; Calibrated: 4/24/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1407; Calibrated: 4/18/2019
Phantom: Right Back Twin-SAM V5.0 (30); Type: QD 000 P40 CD; Serial: 1692
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: UMTS 1750, 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 = 24.99 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 1.44 W/kg
SAR(1 g) = 0.827 W/kg



0 dB = 1.23 W/kg = 0.90 dBW/kg

DUT: A3LSMA716U; Type: Portable Handset; Serial: 05583

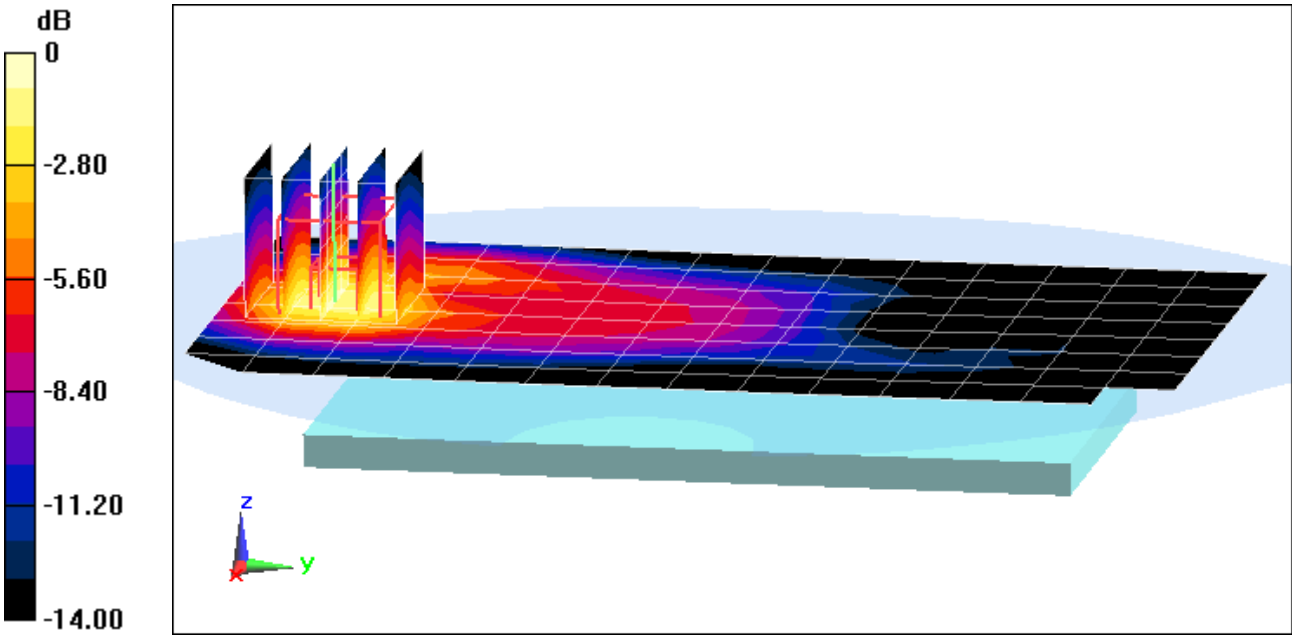
Communication System: UID 0, UMTS; Frequency: 1852.4 MHz; Duty Cycle: 1:1
Medium: 1900 Body; Medium parameters used (interpolated):
f = 1852.4 MHz; σ = 1.485 S/m; ε_r = 53.519; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 04/07/2020; Ambient Temp: 21.3°C; Tissue Temp: 24.4°C

Probe: EX3DV4 - SN7571; ConvF(7.56, 7.56, 7.56) @ 1852.4 MHz; Calibrated: 12/11/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1533; Calibrated: 12/5/2019
Phantom: SAM Left; Type: QD000P40CC; Serial: TP: 1375
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: UMTS 1900, Body SAR, Back side, Low.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 = 21.23 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 0.965 W/kg
SAR(1 g) = 0.599 W/kg



0 dB = 0.842 W/kg = -0.75 dBW/kg

DUT: A3LSMA716U; Type: Portable Handset; Serial: 05583

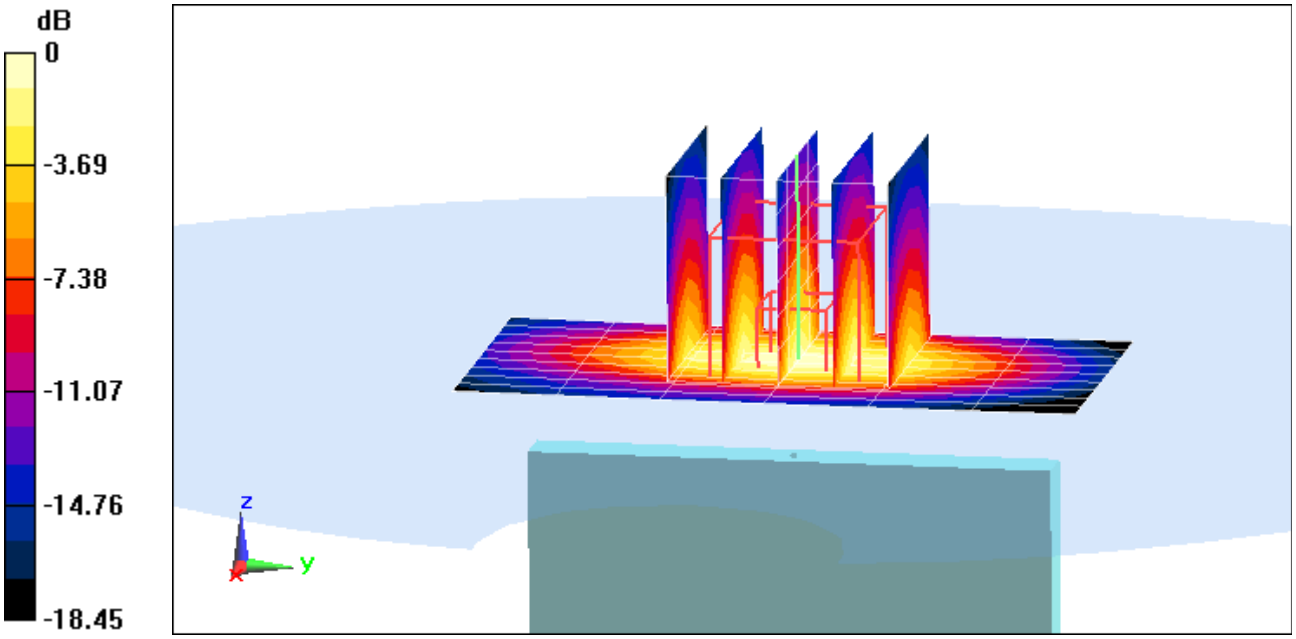
Communication System: UID 0, UMTS; Frequency: 1880 MHz; Duty Cycle: 1:1
Medium: 1900 Body; Medium parameters used:
f = 1880 MHz; σ = 1.516 S/m; ε_r = 53.447; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 04/07/2020; Ambient Temp: 21.3°C; Tissue Temp: 24.4°C

Probe: EX3DV4 - SN7571; ConvF(7.56, 7.56, 7.56) @ 1880 MHz; Calibrated: 12/11/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1533; Calibrated: 12/5/2019
Phantom: SAM Left; Type: QD000P40CC; Serial: TP: 1375
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: UMTS 1900, 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 = 25.16 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 1.52 W/kg
SAR(1 g) = 0.850 W/kg



0 dB = 1.29 W/kg = 1.11 dBW/kg

DUT: A3LSMA716U; Type: Portable Handset; Serial: 19550

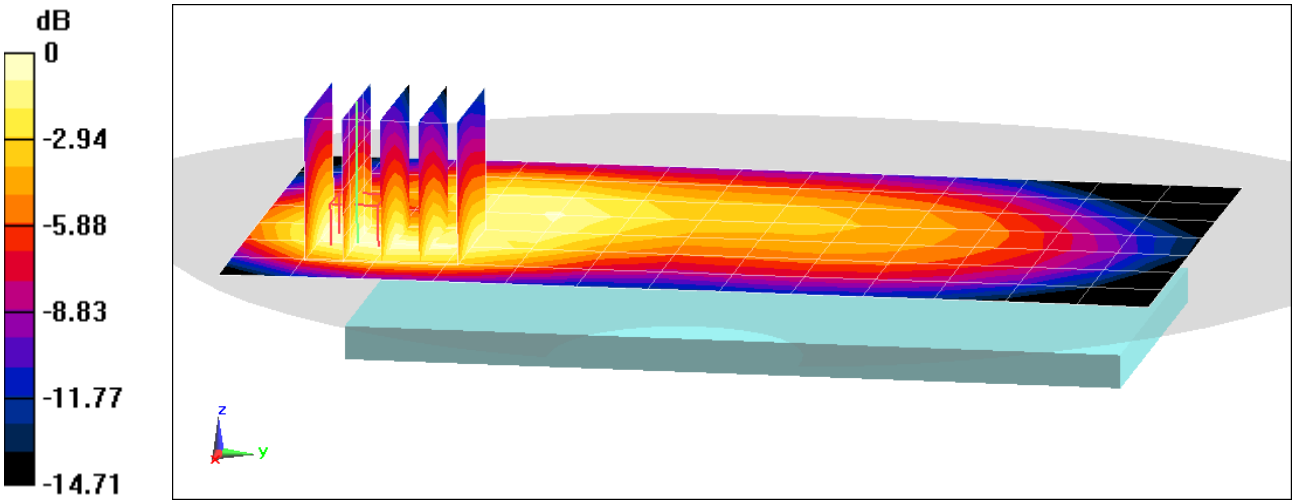
Communication System: UID 0, CDMA; Frequency: 836.52 MHz; Duty Cycle: 1:1
Medium: 835 Body; Medium parameters used (interpolated):
f = 836.52 MHz; σ = 0.962 S/m; ε_r = 54.144; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 05/04/2020; Ambient Temp: 22.2°C; Tissue Temp: 21.6°C

Probe: EX3DV4 - SN7570; ConvF(9.83, 9.83, 9.83) @ 836.52 MHz; Calibrated: 12/11/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn859; Calibrated: 12/18/2019
Phantom: Twin-SAM V8.0; Type: QD 000 P41 Ax; Serial: 1964
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: Cell. CDMA, Rule Part 22H, Body SAR, Back side, Mid.ch

Area Scan (8x14x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 20.30 V/m; Power Drift = 0.00 dB
Peak SAR (extrapolated) = 0.626 W/kg
SAR(1 g) = 0.383 W/kg



0 dB = 0.520 W/kg = -2.84 dBW/kg

DUT: A3LSMA716U; Type: Portable Handset; Serial: 19550

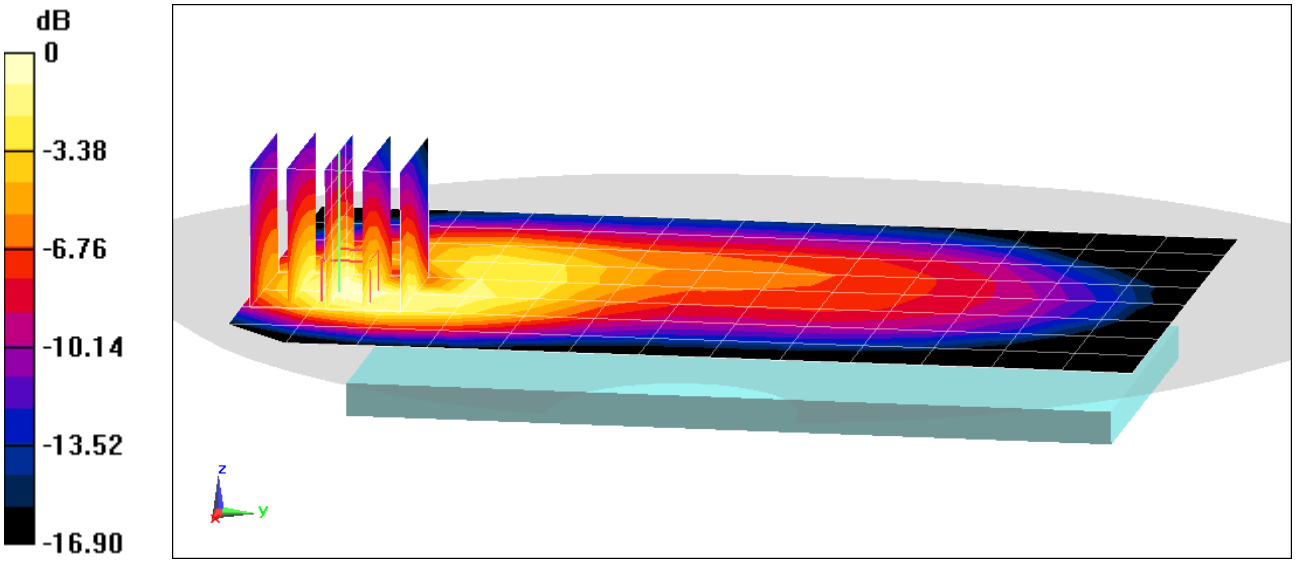
Communication System: UID 0, CDMA; Frequency: 836.52 MHz; Duty Cycle: 1:1
Medium: 835 Body; Medium parameters used (interpolated):
f = 836.52 MHz; σ = 0.962 S/m; ε_r = 54.144; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 05/04/2020; Ambient Temp: 22.2°C; Tissue Temp: 21.6°C

Probe: EX3DV4 - SN7570; ConvF(9.83, 9.83, 9.83) @ 836.52 MHz; Calibrated: 12/11/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn859; Calibrated: 12/18/2019
Phantom: Twin-SAM V8.0; Type: QD 000 P41 Ax; Serial: 1964
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: Cell. EVDO, Rule 22H, Body SAR, Back side, Mid.ch

Area Scan (9x14x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 30.43 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 1.42 W/kg
SAR(1 g) = 0.816 W/kg



0 dB = 1.20 W/kg = 0.79 dBW/kg

DUT: A3LSMA716U; Type: Portable Handset; Serial: 19550

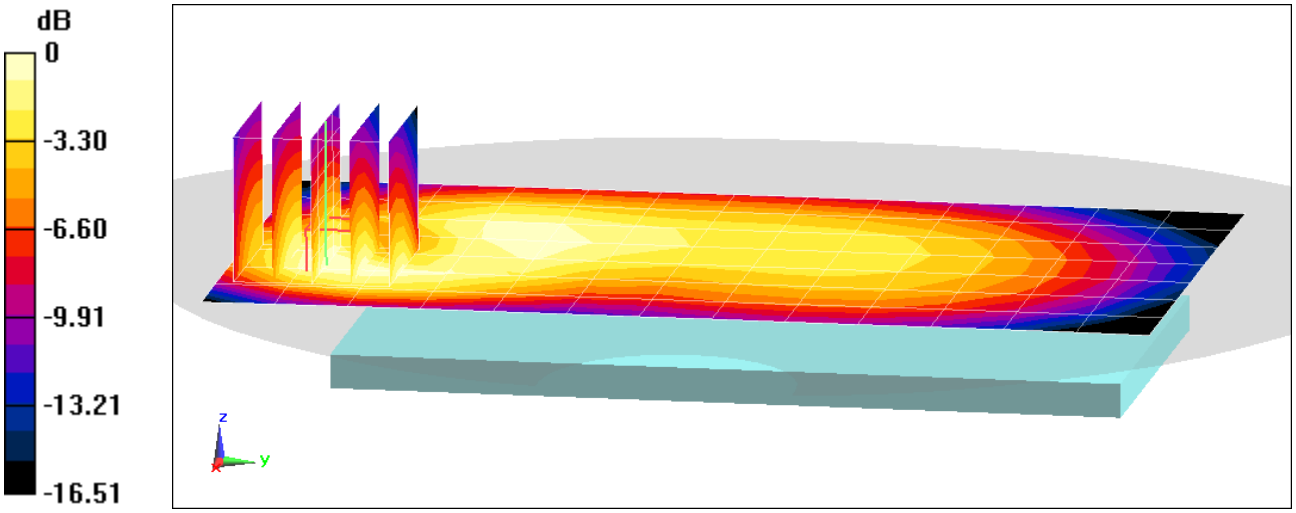
Communication System: UID 0, CDMA; Frequency: 820.1 MHz; Duty Cycle: 1:1
Medium: 835 Body; Medium parameters used (interpolated):
f = 820.1 MHz; σ = 0.943 S/m; ε_r = 54.308; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 05/04/2020; Ambient Temp: 22.2°C; Tissue Temp: 21.6°C

Probe: EX3DV4 - SN7570; ConvF(9.83, 9.83, 9.83) @ 820.1 MHz; Calibrated: 12/11/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn859; Calibrated: 12/18/2019
Phantom: Twin-SAM V8.0; Type: QD 000 P41 Ax; Serial: 1964
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: Cell. CDMA Rule Part 90S, Body SAR, Back side, Mid.ch

Area Scan (8x14x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 18.79 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 0.496 W/kg
SAR(1 g) = 0.305 W/kg



0 dB = 0.420 W/kg = -3.77 dBW/kg

DUT: A3LSMA716U; Type: Portable Handset; Serial: 19550

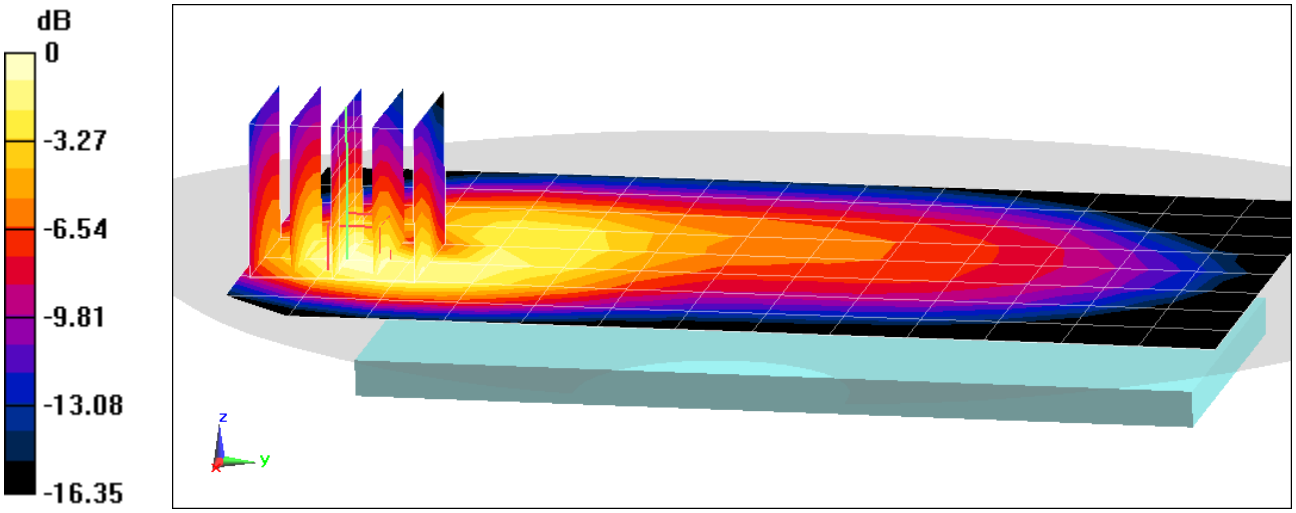
Communication System: UID 0, CDMA; Frequency: 820.1 MHz; Duty Cycle: 1:1
Medium: 835 Body; Medium parameters used (interpolated):
f = 820.1 MHz; σ = 0.943 S/m; ε_r = 54.308; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 05/04/2020; Ambient Temp: 22.2°C; Tissue Temp: 21.6°C

Probe: EX3DV4 - SN7570; ConvF(9.83, 9.83, 9.83) @ 820.1 MHz; Calibrated: 12/11/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn859; Calibrated: 12/18/2019
Phantom: Twin-SAM V8.0; Type: QD 000 P41 Ax; Serial: 1964
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: Cell. EVDO Rule Part 90S, Body SAR, Back side, Mid.ch

Area Scan (9x14x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 28.87 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 1.26 W/kg
SAR(1 g) = 0.723 W/kg



0 dB = 1.06 W/kg = 0.25 dBW/kg

DUT: A3LSMA716U; Type: Portable Handset; Serial: 05583

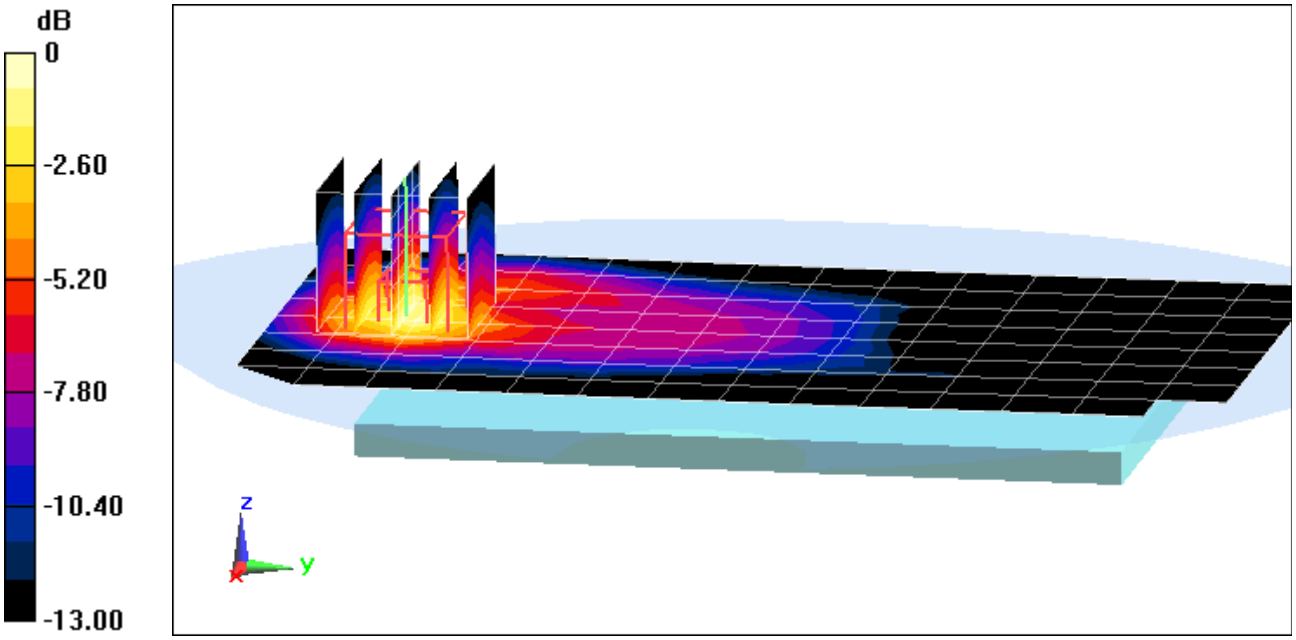
Communication System: UID 0, CDMA; Frequency: 1851.25 MHz; Duty Cycle: 1:1
Medium: 1900 Body; Medium parameters used (interpolated):
f = 1851.25 MHz; σ = 1.483 S/m; ε_r = 53.521; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 04/07/2020; Ambient Temp: 21.3°C; Tissue Temp: 24.4°C

Probe: EX3DV4 - SN7571; ConvF(7.56, 7.56, 7.56) @ 1851.25 MHz; Calibrated: 12/11/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1533; Calibrated: 12/5/2019
Phantom: SAM Left; Type: QD000P40CC; Serial: TP: 1375
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: PCS CDMA, Body SAR, Back side, Low.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 = 23.87 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 1.26 W/kg
SAR(1 g) = 0.771 W/kg



0 dB = 1.10 W/kg = 0.41 dBW/kg

DUT: A3LSMA716U; Type: Portable Handset; Serial: 05583

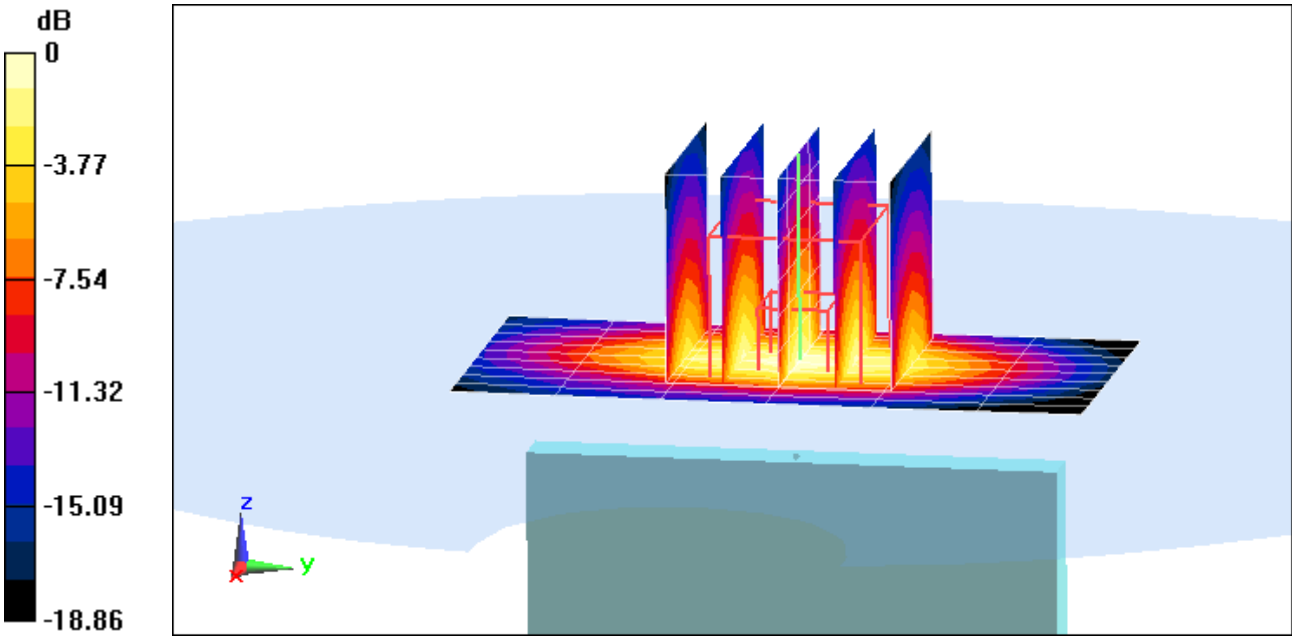
Communication System: UID 0, CDMA; Frequency: 1908.75 MHz; Duty Cycle: 1:1
Medium: 1900 Body; Medium parameters used (interpolated):
f = 1908.75 MHz; σ = 1.549 S/m; ε_r = 53.37; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 04/07/2020; Ambient Temp: 21.3°C; Tissue Temp: 24.4°C

Probe: EX3DV4 - SN7571; ConvF(7.56, 7.56, 7.56) @ 1908.75 MHz; Calibrated: 12/11/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1533; Calibrated: 12/5/2019
Phantom: SAM Left; Type: QD000P40CC; Serial: TP: 1375
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: PCS EVDO, 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 = 23.66 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 1.39 W/kg
SAR(1 g) = 0.765 W/kg



0 dB = 1.18 W/kg = 0.72 dBW/kg

DUT: A3LSMA716U; Type: Portable Handset; Serial: 05187

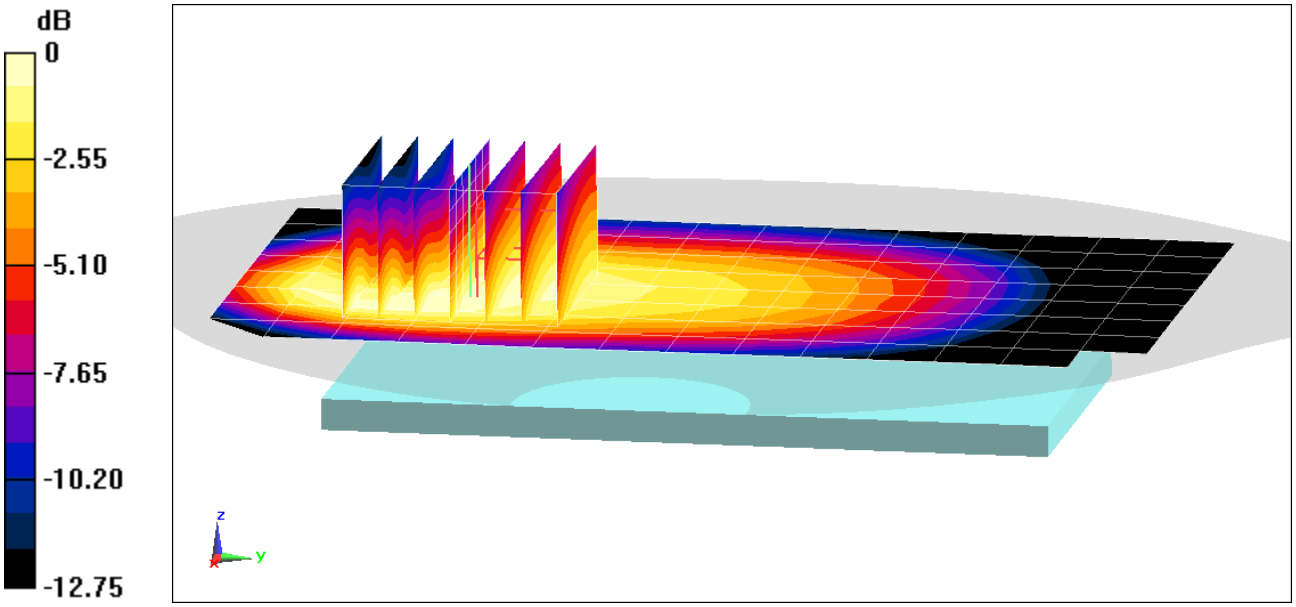
Communication System: UID 0, LTE Band 71; Frequency: 680.5 MHz; Duty Cycle: 1:1
Medium: 750 Body; Medium parameters used (interpolated):
f = 680.5 MHz; σ = 0.914 S/m; ε_r = 54.965; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 04/16/2020; Ambient Temp: 20.6°C; Tissue Temp: 21.0°C

Probe: EX3DV4 - SN7410; ConvF(10.01, 10.01, 10.01) @ 680.5 MHz; Calibrated: 7/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2019
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1630
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: LTE Band 71, Body SAR, Back side, Mid.ch,
20 MHz Bandwidth, QPSK, 1 RB, 99 RB Offset

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 16.15 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 0.346 W/kg
SAR(1 g) = 0.235 W/kg



0 dB = 0.303 W/kg = -5.19 dBW/kg

DUT: A3LSMA716U; Type: Portable Handset; Serial: 05187

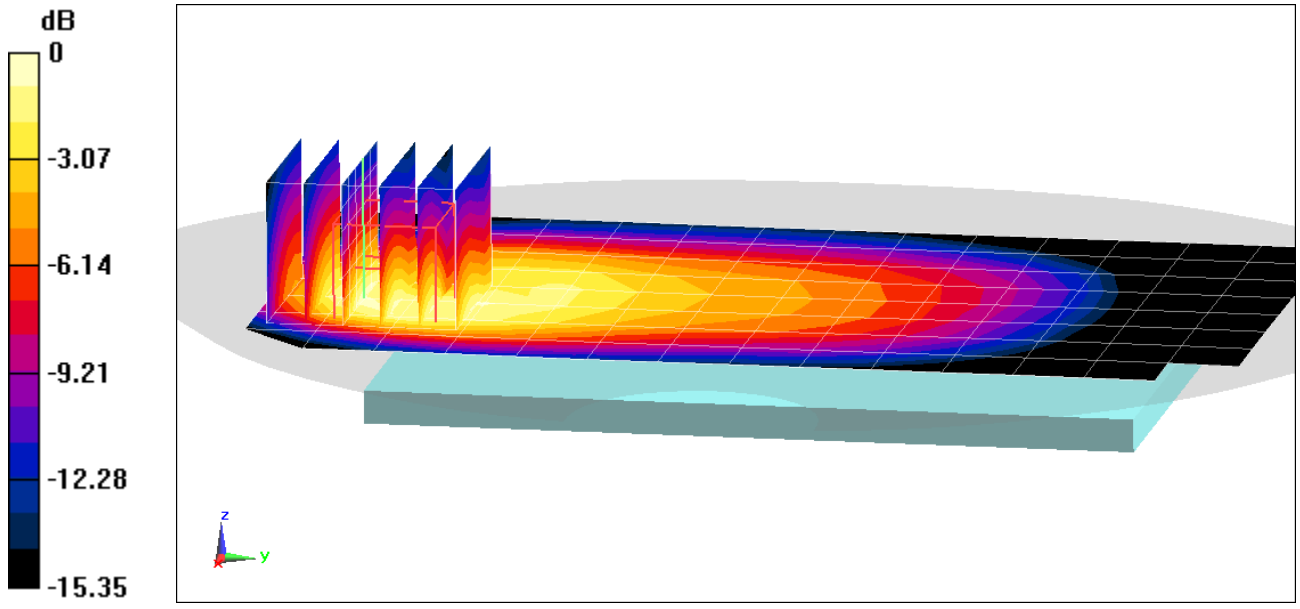
Communication System: UID 0, LTE Band 71; Frequency: 680.5 MHz; Duty Cycle: 1:1
Medium: 750 Body; Medium parameters used (interpolated):
f = 680.5 MHz; σ = 0.914 S/m; ε_r = 54.965; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 04/16/2020; Ambient Temp: 20.6°C; Tissue Temp: 21.0°C

Probe: EX3DV4 - SN7410; ConvF(10.01, 10.01, 10.01) @ 680.5 MHz; Calibrated: 7/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2019
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1630
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: LTE Band 71, Body SAR, Back side, Mid.ch,
20 MHz Bandwidth, QPSK, 1 RB, 99 RB Offset

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 21.94 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 0.719 W/kg
SAR(1 g) = 0.404 W/kg



0 dB = 0.600 W/kg = -2.22 dBW/kg

DUT: A3LSMA716U; Type: Portable Handset; Serial: 05187

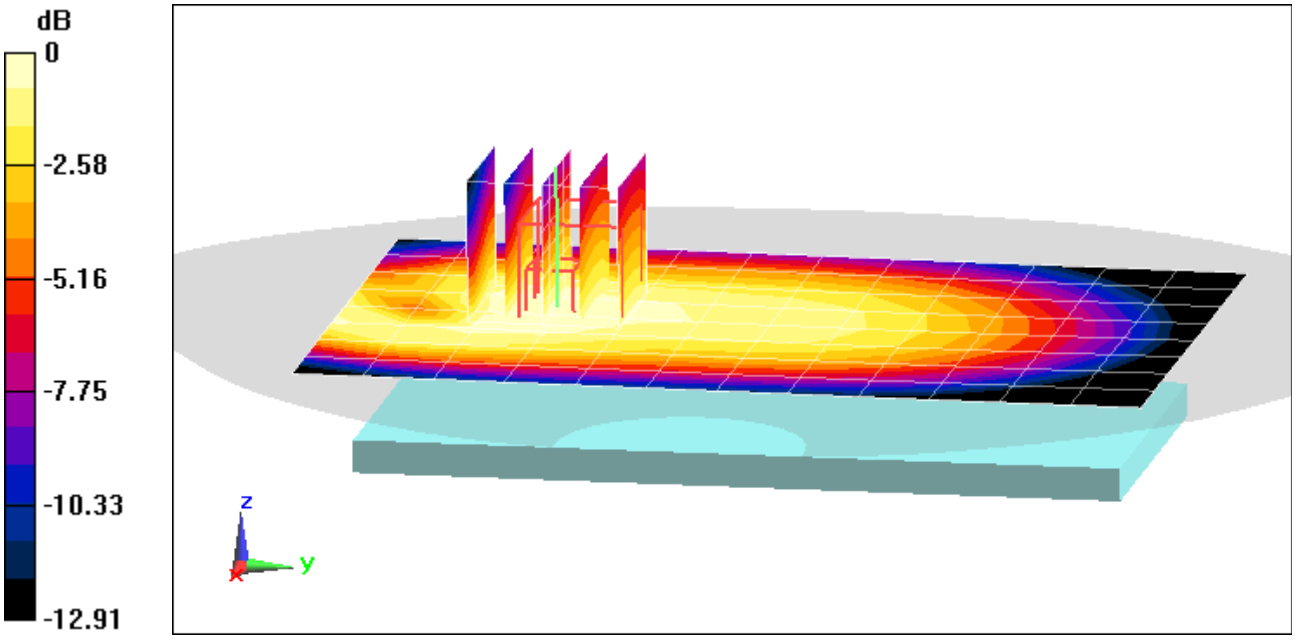
Communication System: UID 0, LTE Band 12; Frequency: 707.5 MHz; Duty Cycle: 1:1
Medium: 750 Body; Medium parameters used (interpolated):
f = 707.5 MHz; σ = 0.966 S/m; ε_r = 53.784; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 04/08/2020; Ambient Temp: 23.2°C; Tissue Temp: 21.8°C

Probe: EX3DV4 - SN7409; ConvF(9.96, 9.96, 9.96) @ 707.5 MHz; Calibrated: 6/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1334; Calibrated: 6/20/2019
Phantom: Front; Type: QD 000 P40 CD; Serial: 1686
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: LTE Band 12, Body SAR, Back side, Mid.ch,
10 MHz Bandwidth, QPSK, 1 RB, 0 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 = 16.43 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 0.370 W/kg
SAR(1 g) = 0.255 W/kg



0 dB = 0.323 W/kg = -4.91 dBW/kg

DUT: A3LSMA716U; Type: Portable Handset; Serial: 05187

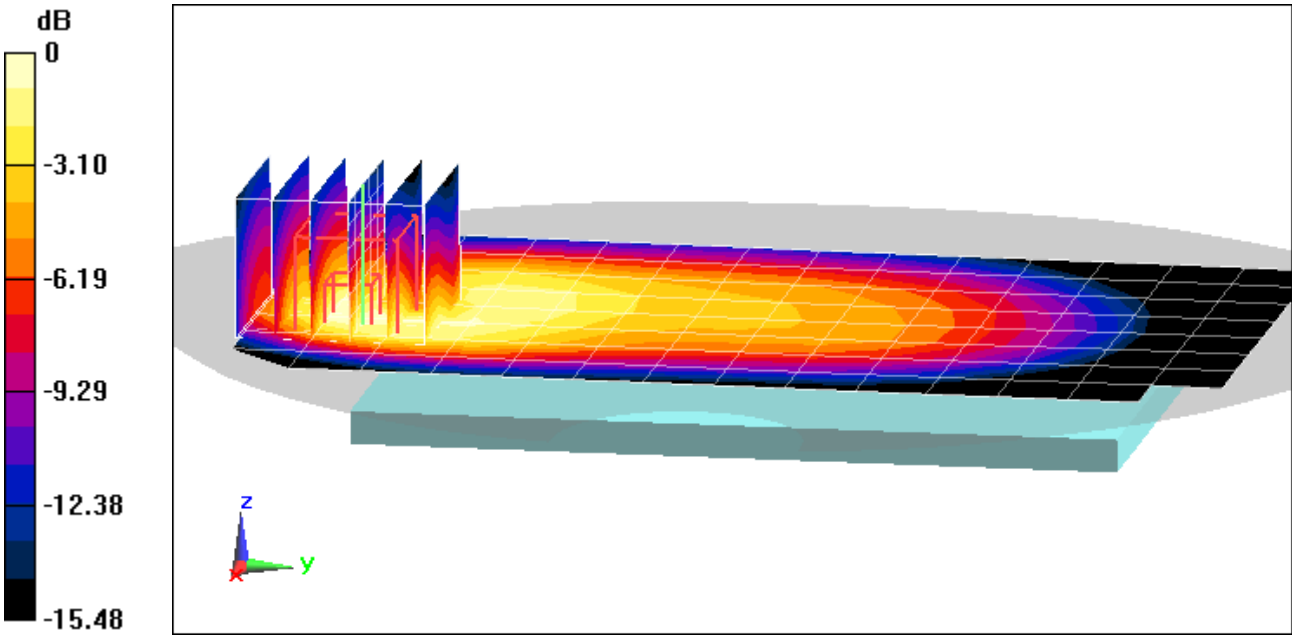
Communication System: UID 0, LTE Band 12; Frequency: 707.5 MHz; Duty Cycle: 1:1
Medium: 750 Body; Medium parameters used (interpolated):
f = 707.5 MHz; σ = 0.966 S/m; ε_r = 53.784; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 04/08/2020; Ambient Temp: 23.2°C; Tissue Temp: 21.8°C

Probe: EX3DV4 - SN7409; ConvF(9.96, 9.96, 9.96) @ 707.5 MHz; Calibrated: 6/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1334; Calibrated: 6/20/2019
Phantom: Front; Type: QD 000 P40 CD; Serial: 1686
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: LTE Band 12, Body SAR, Back side, Mid.ch,
10 MHz Bandwidth, QPSK, 1 RB, 0 RB Offset

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 21.34 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 0.804 W/kg
SAR(1 g) = 0.429 W/kg



0 dB = 0.632 W/kg = -1.99 dBW/kg

DUT: A3LSMA716U; Type: Portable Handset; Serial: 05187

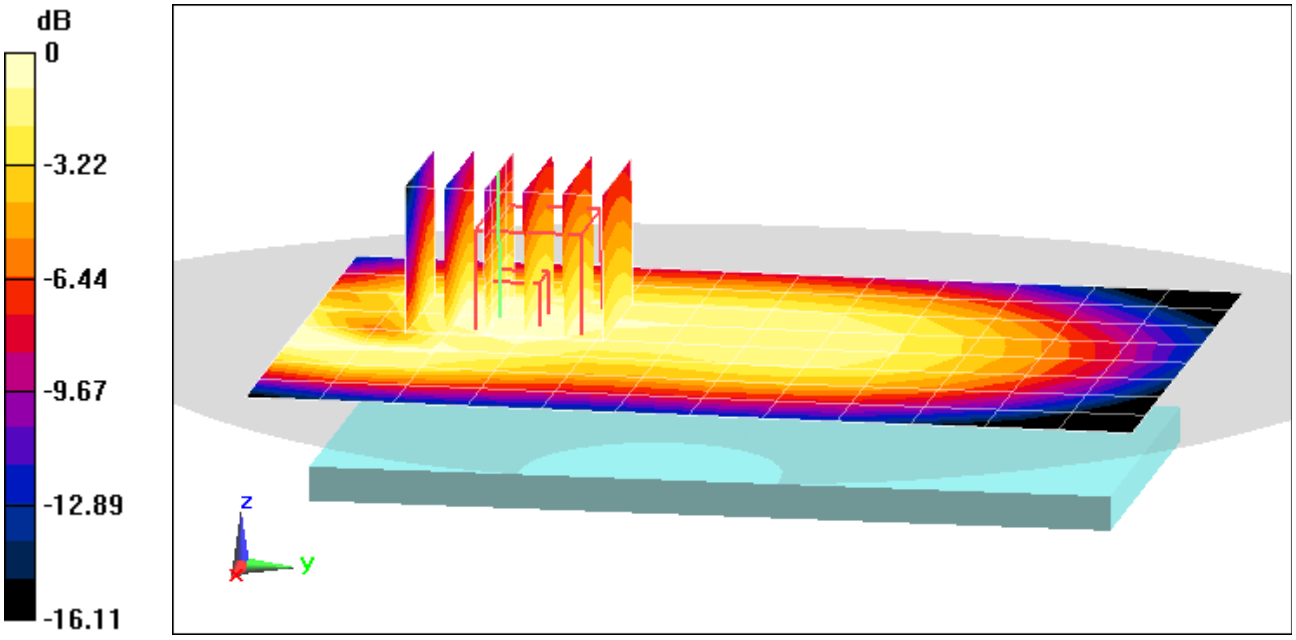
Communication System: UID 0, LTE Band 13; Frequency: 782 MHz; Duty Cycle: 1:1
Medium: 750 Body; Medium parameters used (interpolated):
f = 782 MHz; σ = 0.995 S/m; ε_r = 53.635; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 04/08/2020; Ambient Temp: 23.2°C; Tissue Temp: 21.8°C

Probe: EX3DV4 - SN7409; ConvF(9.96, 9.96, 9.96) @ 782 MHz; Calibrated: 6/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1334; Calibrated: 6/20/2019
Phantom: Front; Type: QD 000 P40 CD; Serial: 1686
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: LTE Band 13, Body SAR, Back side, Mid.ch,
10 MHz Bandwidth, QPSK, 1 RB, 0 RB Offset

Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 16.16 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 0.370 W/kg
SAR(1 g) = 0.256 W/kg



0 dB = 0.327 W/kg = -4.85 dBW/kg

DUT: A3LSMA716U; Type: Portable Handset; Serial: 05187

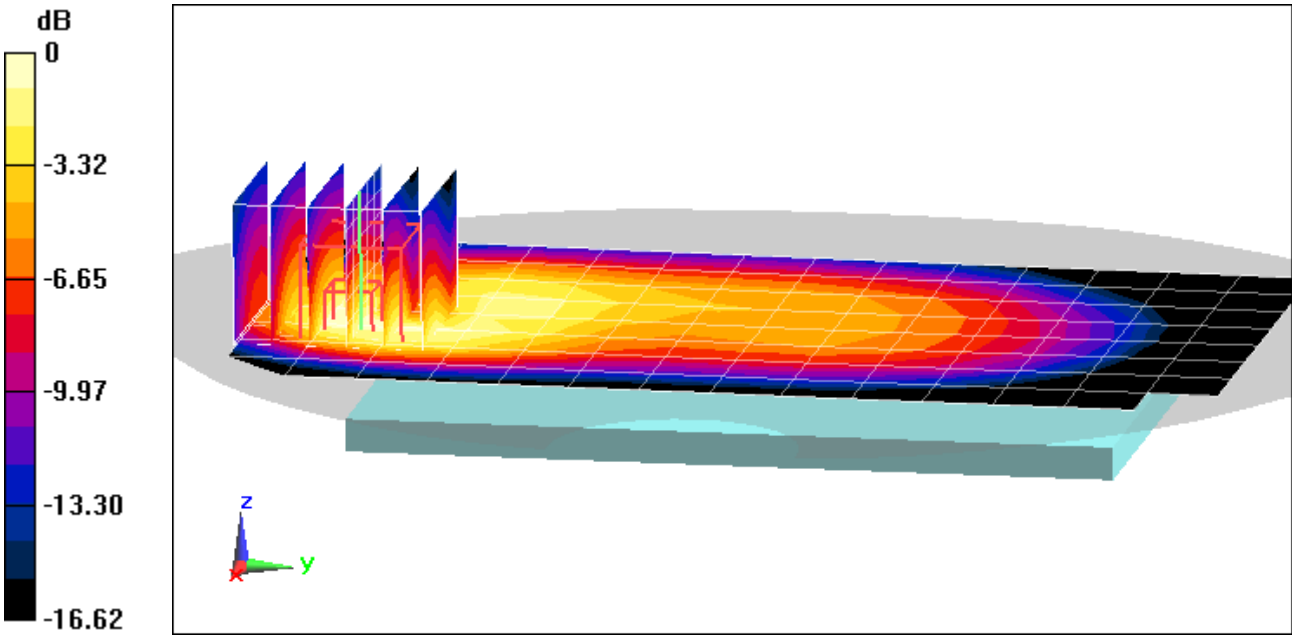
Communication System: UID 0, LTE Band 13; Frequency: 782 MHz; Duty Cycle: 1:1
Medium: 750 Body; Medium parameters used (interpolated):
f = 782 MHz; σ = 0.995 S/m; ε_r = 53.635; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 04/08/2020; Ambient Temp: 23.2°C; Tissue Temp: 21.8°C

Probe: EX3DV4 - SN7409; ConvF(9.96, 9.96, 9.96) @ 782 MHz; Calibrated: 6/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1334; Calibrated: 6/20/2019
Phantom: Front; Type: QD 000 P40 CD; Serial: 1686
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: LTE Band 13, Body SAR, Back side, Mid.ch,
10 MHz Bandwidth, QPSK, 1 RB, 0 RB Offset

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 22.36 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 0.895 W/kg
SAR(1 g) = 0.488 W/kg



0 dB = 0.719 W/kg = -1.43 dBW/kg

PCTEST

DUT: A3LSMA716U; Type: Portable Handset; Serial: 05187

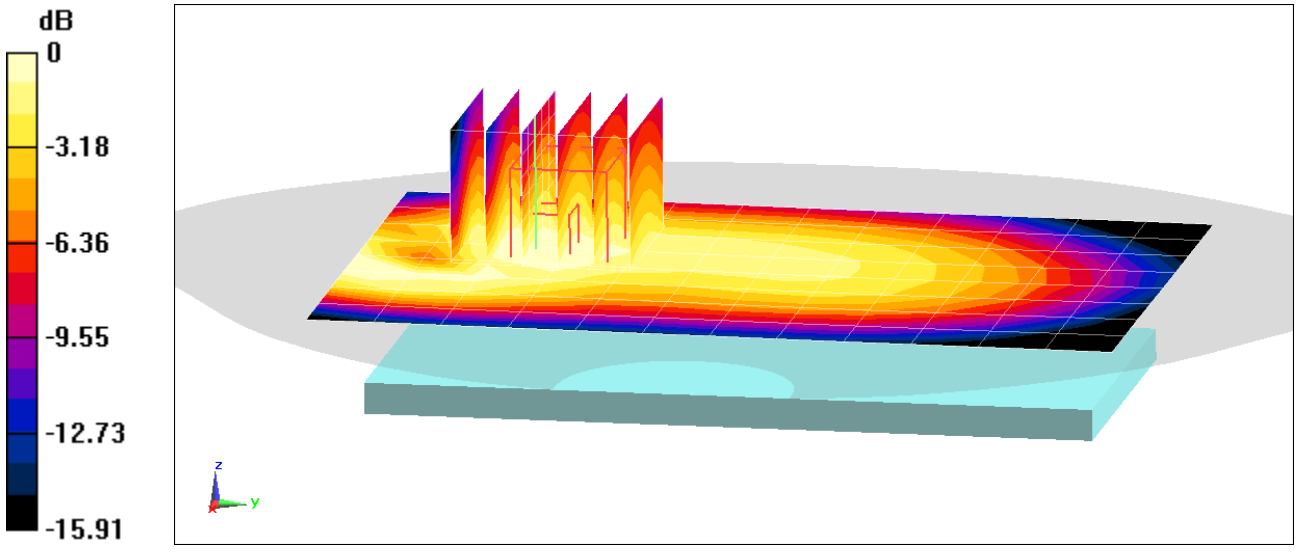
Communication System: UID 0, LTE Band 14; Frequency: 793 MHz; Duty Cycle: 1:1
Medium: 750 Body; Medium parameters used (interpolated):
f = 793 MHz; σ = 0.999 S/m; ε_r = 53.602; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 04/08/2020; Ambient Temp: 23.2°C; Tissue Temp: 21.8°C

Probe: EX3DV4 - SN7409; ConvF(9.96, 9.96, 9.96) @ 793 MHz; Calibrated: 6/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1334; Calibrated: 6/20/2019
Phantom: Front; Type: QD 000 P40 CD; Serial: 1686
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: LTE Band 14, Body SAR, Back side, Mid.ch,
10 MHz Bandwidth, QPSK, 1 RB, 0 RB Offset

Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 16.27 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 0.371 W/kg
SAR(1 g) = 0.257 W/kg



0 dB = 0.327 W/kg = -4.85 dBW/kg

PCTEST

DUT: A3LSMA716U; Type: Portable Handset; Serial: 05187

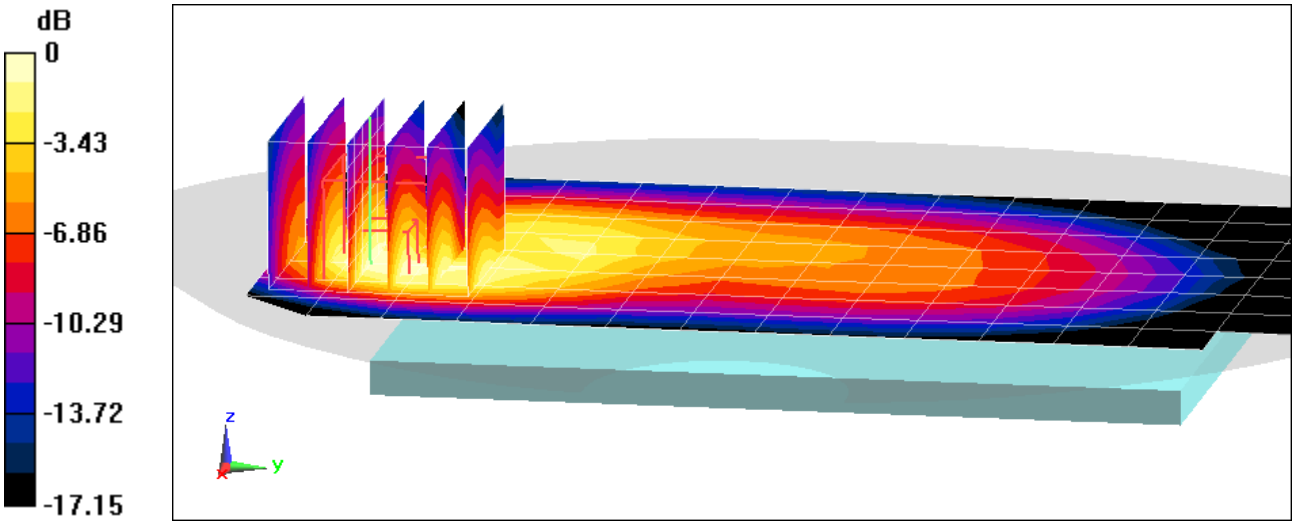
Communication System: UID 0, LTE Band 14; Frequency: 793 MHz; Duty Cycle: 1:1
Medium: 750 Body; Medium parameters used (interpolated):
f = 793 MHz; σ = 0.954 S/m; ε_r = 54.69; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 04/16/2020; Ambient Temp: 20.6°C; Tissue Temp: 21.0°C

Probe: EX3DV4 - SN7410; ConvF(10.01, 10.01, 10.01) @ 793 MHz; Calibrated: 7/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2019
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1630
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: LTE Band 14, Body SAR, Back side, Mid.ch, 10 MHz Bandwidth, QPSK, 1 RB, 0 RB Offset

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 24.52 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 0.920 W/kg
SAR(1 g) = 0.531 W/kg



0 dB = 0.755 W/kg = -1.22 dBW/kg

DUT: A3LSMA716U; Type: Portable Handset; Serial: 07134

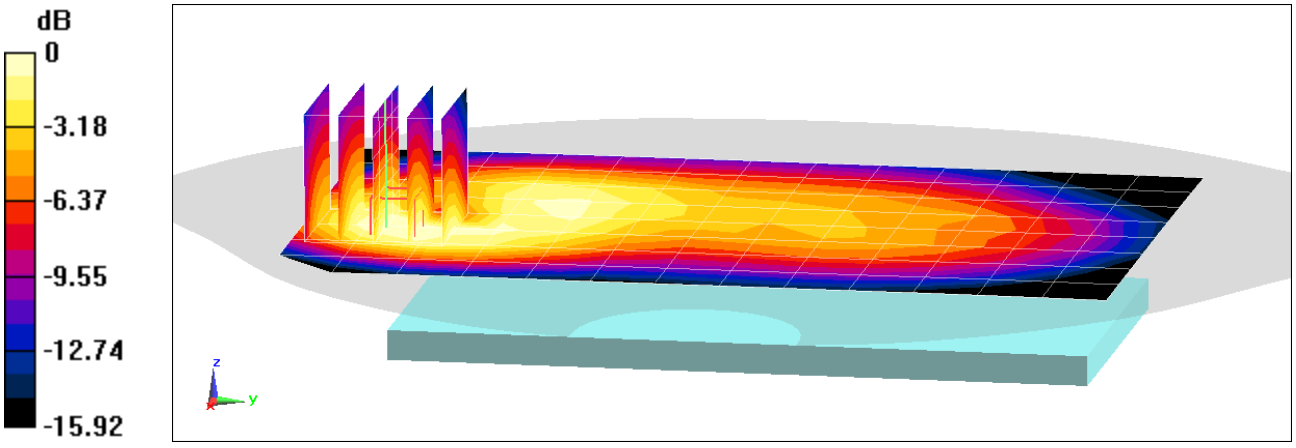
Communication System: UID 0, LTE Band 5; Frequency: 836.5 MHz; Duty Cycle: 1:1
Medium: 835 Body; Medium parameters used (interpolated):
f = 836.5 MHz; σ = 0.962 S/m; ε_r = 54.145; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 05/04/2020; Ambient Temp: 22.2°C; Tissue Temp: 21.6°C

Probe: EX3DV4 - SN7570; ConvF(9.83, 9.83, 9.83) @ 836.5 MHz; Calibrated: 12/11/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn859; Calibrated: 12/18/2019
Phantom: Twin-SAM V8.0; Type: QD 000 P41 Ax; Serial: 1964
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: LTE Band 5 (Cell.), Body SAR, Back side, Mid.ch,
10 MHz Bandwidth, QPSK, 1 RB, 0 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 = 18.13 V/m; Power Drift = 0.00 dB
Peak SAR (extrapolated) = 0.472 W/kg
SAR(1 g) = 0.292 W/kg



0 dB = 0.406 W/kg = -3.91 dBW/kg

PCTEST

DUT: A3LSMA716U; Type: Portable Handset; Serial: 07134

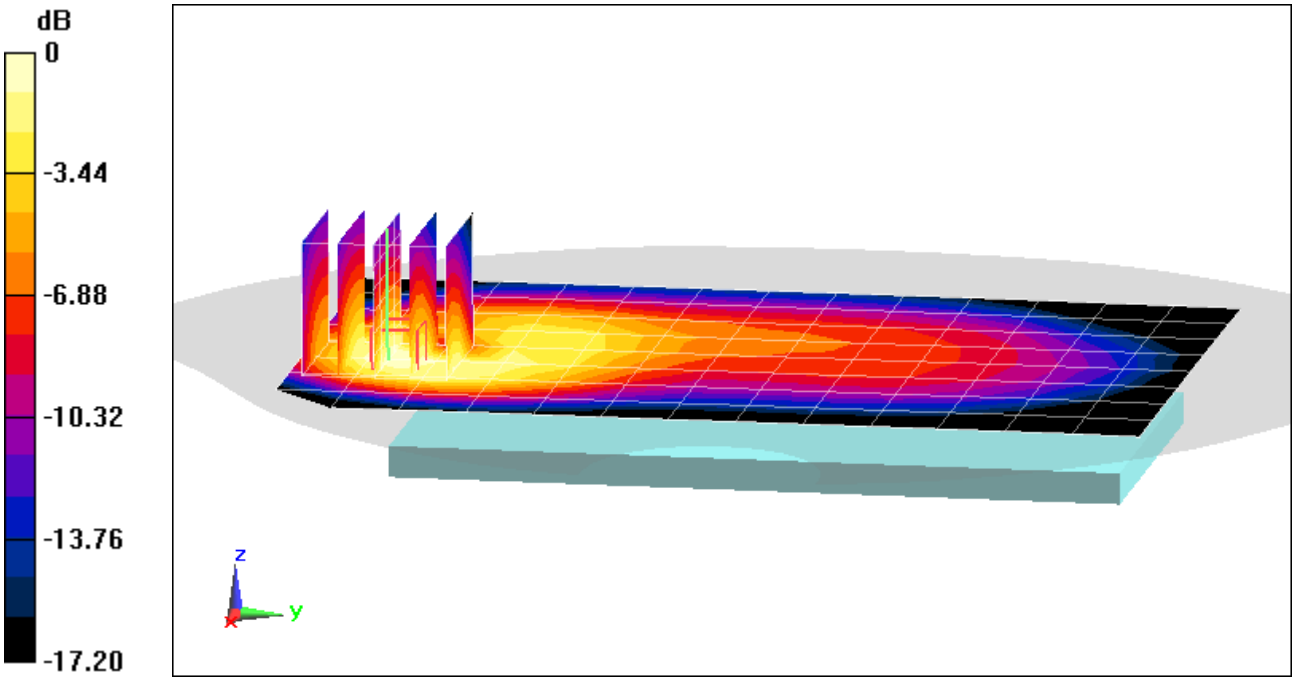
Communication System: UID 0, LTE Band 5; Frequency: 836.5 MHz; Duty Cycle: 1:1
Medium: 835 Body; Medium parameters used (interpolated):
f = 836.5 MHz; σ = 0.962 S/m; ε_r = 54.145; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 05/04/2020; Ambient Temp: 22.2°C; Tissue Temp: 21.6°C

Probe: EX3DV4 - SN7570; ConvF(9.83, 9.83, 9.83) @ 836.5 MHz; Calibrated: 12/11/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn859; Calibrated: 12/18/2019
Phantom: Twin-SAM V8.0; Type: QD 000 P41 Ax; Serial: 1964
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: LTE Band 5 (Cell.), Body SAR, Back side, Mid.ch, 10 MHz Bandwidth, QPSK, 1 RB, 0 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 = 27.72 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 1.17 W/kg
SAR(1 g) = 0.676 W/kg



0 dB = 0.983 W/kg = -0.07 dBW/kg

DUT: A3LSMA716U; Type: Portable Handset; Serial: 07134

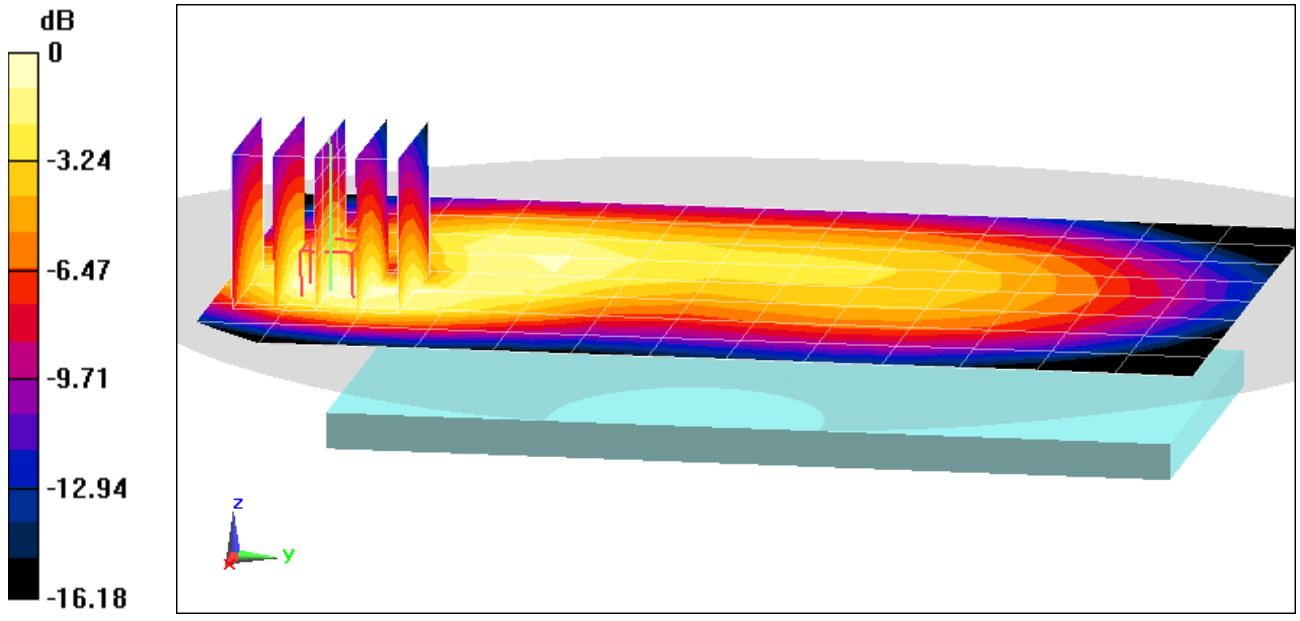
Communication System: UID 0, LTE Band 26; Frequency: 831.5 MHz; Duty Cycle: 1:1
Medium: 835 Body; Medium parameters used (interpolated):
f = 831.5 MHz; σ = 0.956 S/m; ε_r = 54.195; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 05/04/2020; Ambient Temp: 22.2°C; Tissue Temp: 21.6°C

Probe: EX3DV4 - SN7570; ConvF(9.83, 9.83, 9.83) @ 831.5 MHz; Calibrated: 12/11/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn859; Calibrated: 12/18/2019
Phantom: Twin-SAM V8.0; Type: QD 000 P41 Ax; Serial: 1964
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: LTE Band 26 (Cell.), Body SAR, Back side, Mid.ch,
15 MHz Bandwidth, QPSK, 1 RB, 0 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 = 17.47 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 0.439 W/kg
SAR(1 g) = 0.269 W/kg



0 dB = 0.376 W/kg = -4.25 dBW/kg

DUT: A3LSMA716U; Type: Portable Handset; Serial: 07134

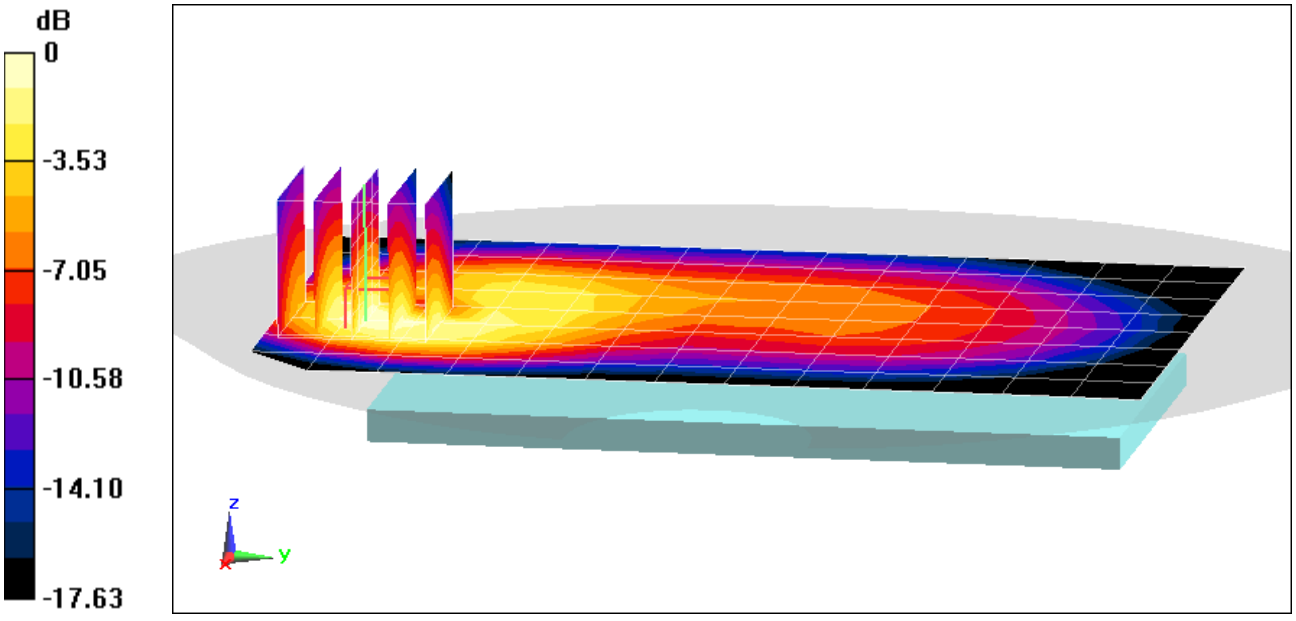
Communication System: UID 0, LTE Band 26; Frequency: 831.5 MHz; Duty Cycle: 1:1
Medium: 835 Body; Medium parameters used (interpolated):
f = 831.5 MHz; σ = 0.956 S/m; ε_r = 54.195; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 05/04/2020; Ambient Temp: 22.2°C; Tissue Temp: 21.6°C

Probe: EX3DV4 - SN7570; ConvF(9.83, 9.83, 9.83) @ 831.5 MHz; Calibrated: 12/11/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn859; Calibrated: 12/18/2019
Phantom: Twin-SAM V8.0; Type: QD 000 P41 Ax; Serial: 1964
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: LTE Band 26 (Cell.), Body SAR, Back side, Mid.ch,
15 MHz Bandwidth, QPSK, 1 RB, 0 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 = 26.96 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 1.11 W/kg
SAR(1 g) = 0.634 W/kg



0 dB = 0.924 W/kg = -0.34 dBW/kg

DUT: A3LSMA716U; Type: Portable Handset; Serial: 19550

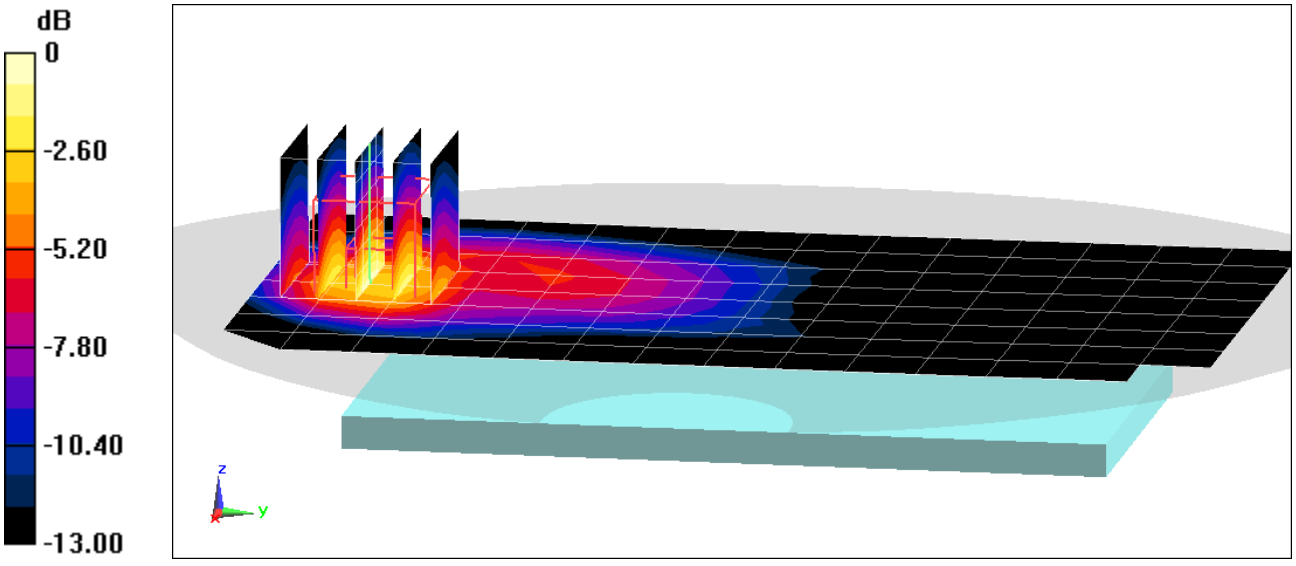
Communication System: UID 0, LTE Band 66 (AWS); Frequency: 1770 MHz; Duty Cycle: 1:1
Medium: 1750 Body; Medium parameters used:
f = 1770 MHz; σ = 1.543 S/m; ε_r = 54.987; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 04/05/2020; Ambient Temp: 20.9°C; Tissue Temp: 21.0°C

Probe: EX3DV4 - SN7357; ConvF(8.26, 8.26, 8.26) @ 1770 MHz; Calibrated: 4/24/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1407; Calibrated: 4/18/2019
Phantom: Right Back Twin-SAM V5.0 (30); Type: QD 000 P40 CD; Serial: 1692
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: LTE Band 66 (AWS), Body SAR, Back side, High.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 = 23.57 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 1.28 W/kg
SAR(1 g) = 0.781 W/kg



0 dB = 1.10 W/kg = 0.41 dBW/kg

DUT: A3LSMA716U; Type: Portable Handset; Serial: 06318

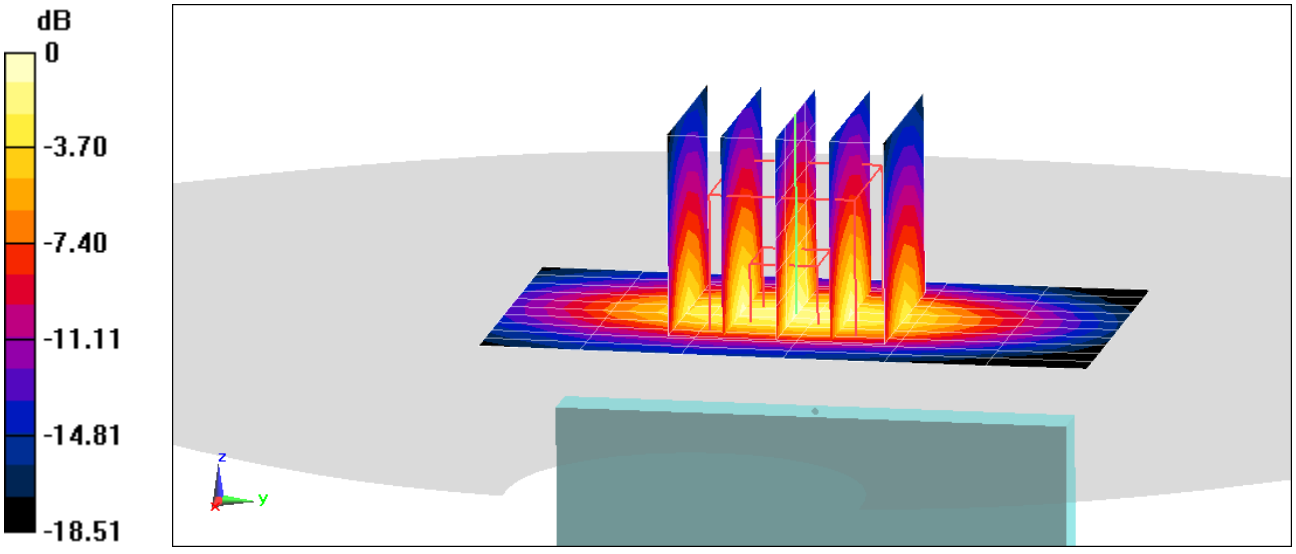
Communication System: UID 0, LTE Band 66 (AWS); Frequency: 1770 MHz; Duty Cycle: 1:1
Medium: 1750 Body; Medium parameters used:
f = 1770 MHz; σ = 1.544 S/m; ε_r = 52.014; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 05/03/2020; Ambient Temp: 21.6°C; Tissue Temp: 21.2°C

Probe: EX3DV4 - SN7527; ConvF(8.1, 8.1, 8.1) @ 1770 MHz; Calibrated: 3/17/2020
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1368; Calibrated: 3/12/2020
Phantom: Right Back Twin-SAM V5.0 (30); Type: QD 000 P40 CD; Serial: 1692
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: LTE Band 66 (AWS), Body SAR, Bottom Edge, High.ch, 20 MHz Bandwidth, QPSK, 50 RB, 25 RB Offset

Area Scan (11x7x1): Measurement grid: dx=5mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 25.17 V/m; Power Drift = 0.00 dB
Peak SAR (extrapolated) = 1.49 W/kg
SAR(1 g) = 0.857 W/kg



0 dB = 1.29 W/kg = 1.11 dBW/kg

DUT: A3LSMA716U; Type: Portable Handset; Serial: 06938

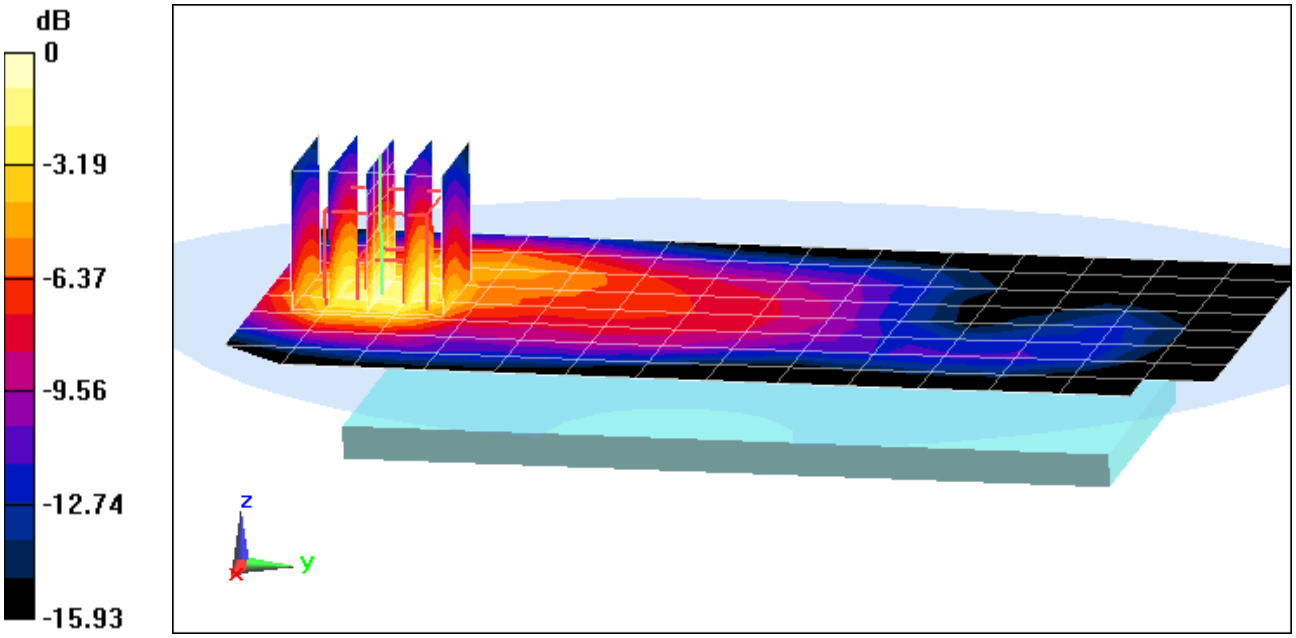
Communication System: UID 0, LTE Band 25 (PCS); Frequency: 1860 MHz; Duty Cycle: 1:1
Medium: 1900 Body; Medium parameters used:
f = 1860 MHz; σ = 1.515 S/m; ε_r = 53.852; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 03/31/2020; Ambient Temp: 22.3°C; Tissue Temp: 22.8°C

Probe: EX3DV4 - SN7571; ConvF(7.56, 7.56, 7.56) @ 1860 MHz; Calibrated: 12/11/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1533; Calibrated: 12/5/2019
Phantom: SAM Left; Type: QD000P40CC; Serial: TP: 1375
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: LTE Band 25 (PCS), Body SAR, Back side, Low.ch, 20 MHz Bandwidth, QPSK, 1 RB, 99 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 = 22.34 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 1.10 W/kg
SAR(1 g) = 0.691 W/kg



0 dB = 0.967 W/kg = -0.15 dBW/kg

DUT: A3LSMA716U; Type: Portable Handset; Serial: 06938

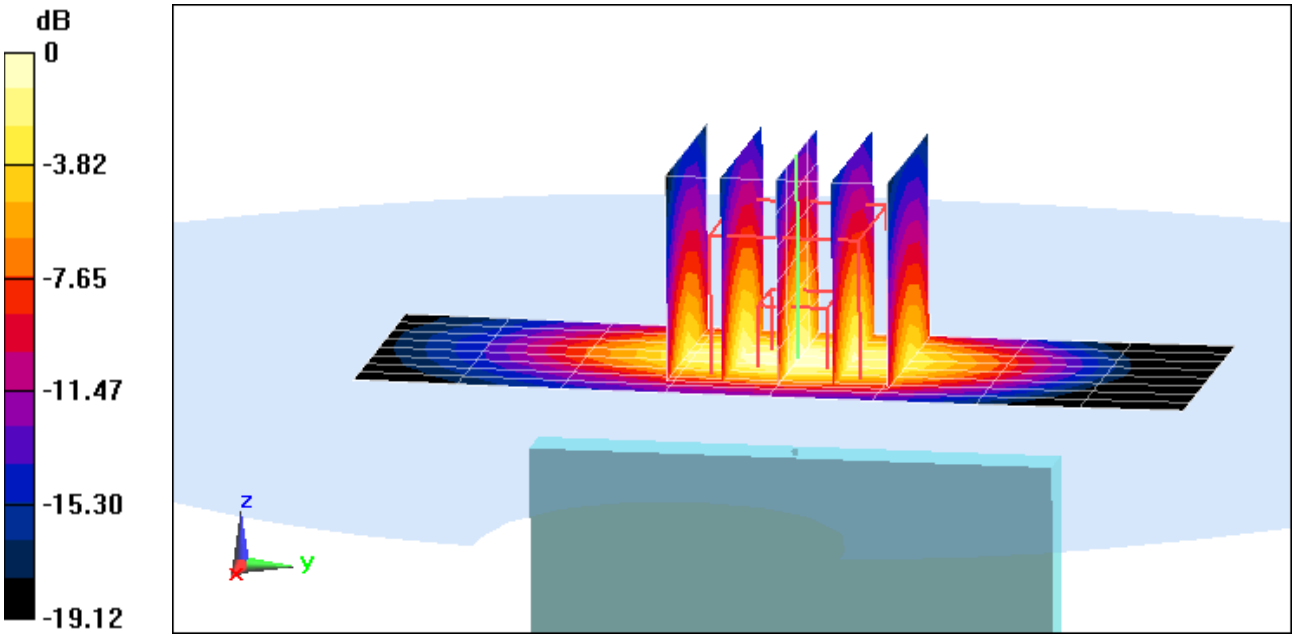
Communication System: UID 0, LTE Band 25 (PCS); Frequency: 1882.5 MHz; Duty Cycle: 1:1
Medium: 1900 Body; Medium parameters used (interpolated):
f = 1882.5 MHz; σ = 1.54 S/m; ε_r = 53.786; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 03/31/2020; Ambient Temp: 22.3°C; Tissue Temp: 22.8°C

Probe: EX3DV4 - SN7571; ConvF(7.56, 7.56, 7.56) @ 1882.5 MHz; Calibrated: 12/11/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1533; Calibrated: 12/5/2019
Phantom: SAM Left; Type: QD000P40CC; Serial: TP: 1375
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

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 = 25.47 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 1.58 W/kg
SAR(1 g) = 0.886 W/kg



0 dB = 1.34 W/kg = 1.27 dBW/kg

DUT: A3LSMA716U; Type: Portable Handset; Serial: 19469

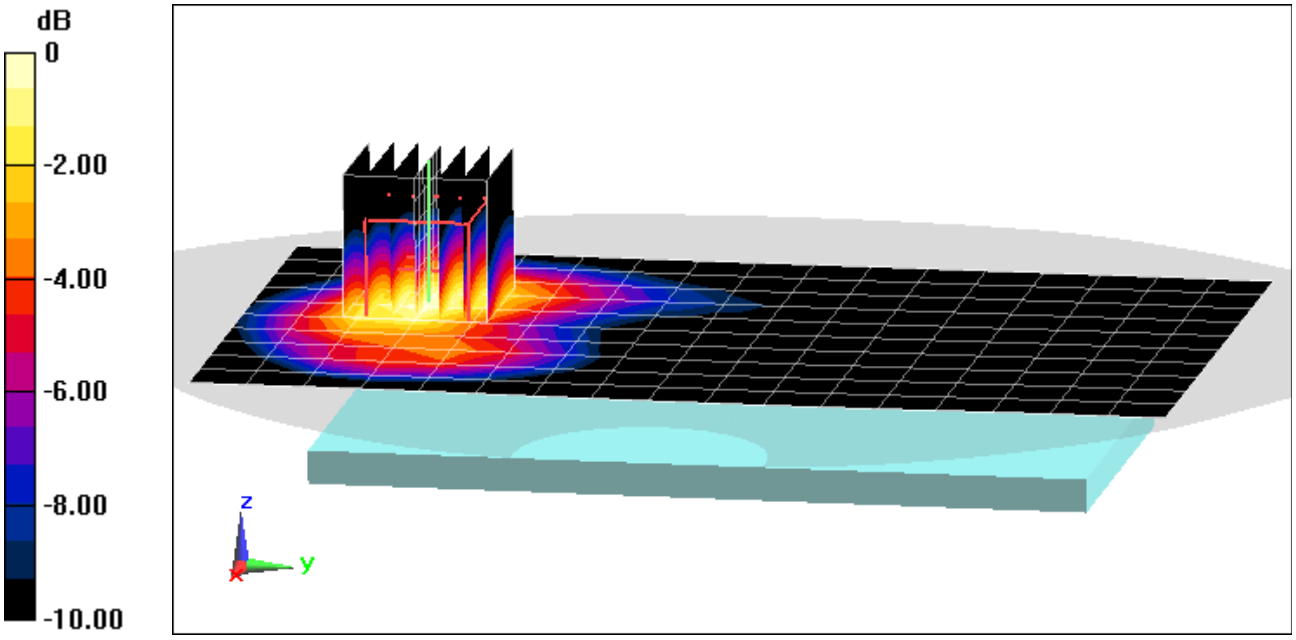
Communication System: UID 0, LTE Band 30; Frequency: 2310 MHz; Duty Cycle: 1:1
Medium: 2450 Body; Medium parameters used:
f = 2310 MHz; σ = 1.88 S/m; ε_r = 51.806; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 04/06/2020; Ambient Temp: 23.1°C; Tissue Temp: 21.6°C

Probe: EX3DV4 - SN7547; ConvF(7.47, 7.47, 7.47) @ 2310 MHz; Calibrated: 7/15/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1323; Calibrated: 7/11/2019
Phantom: LeftTwin-SAM V5.0; Type: QD 000 P40 CD; Serial: TP1375
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: LTE Band 30, Body SAR, Back side, 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 = 14.95 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 0.681 W/kg
SAR(1 g) = 0.382 W/kg



0 dB = 0.568 W/kg = -2.46 dBW/kg

DUT: A3LSMA716U; Type: Portable Handset; Serial: 19469

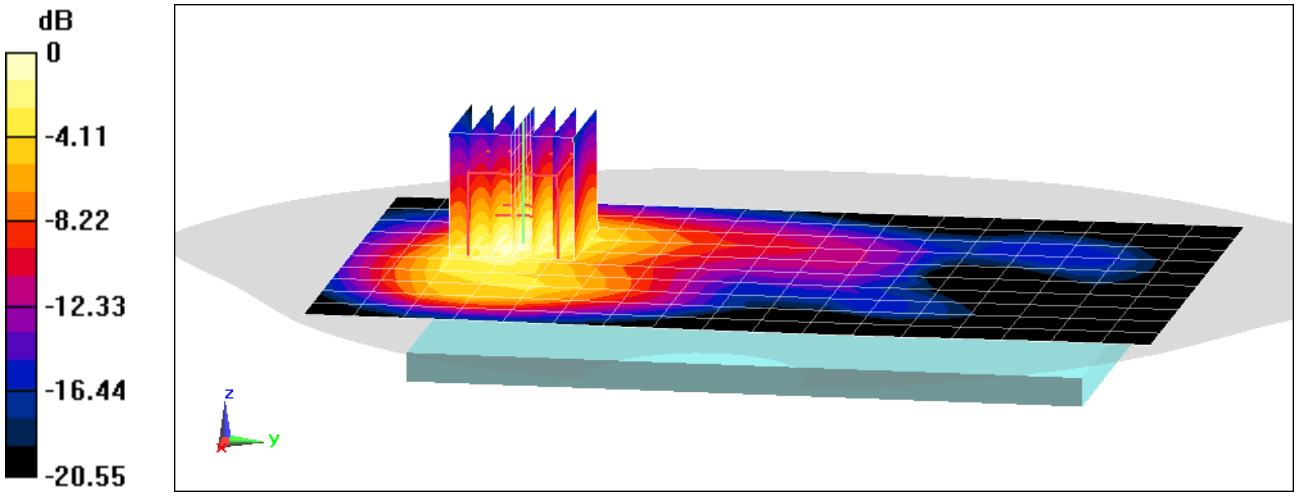
Communication System: UID 0, LTE Band 30; Frequency: 2310 MHz; Duty Cycle: 1:1
Medium: 2450 Body; Medium parameters used:
f = 2310 MHz; σ = 1.88 S/m; ε_r = 51.806; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 04/06/2020; Ambient Temp: 23.1°C; Tissue Temp: 21.6°C

Probe: EX3DV4 - SN7547; ConvF(7.47, 7.47, 7.47) @ 2310 MHz; Calibrated: 7/15/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1323; Calibrated: 7/11/2019
Phantom: LeftTwin-SAM V5.0; Type: QD 000 P40 CD; Serial: TP1375
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: LTE Band 30, Body SAR, Back side, Mid.ch,
10 MHz Bandwidth, QPSK, 25 RB, 12 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 = 17.34 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 0.951 W/kg
SAR(1 g) = 0.512 W/kg



0 dB = 0.779 W/kg = -1.08 dBW/kg

DUT: A3LSMA716U; Type: Portable Handset; Serial: 19469

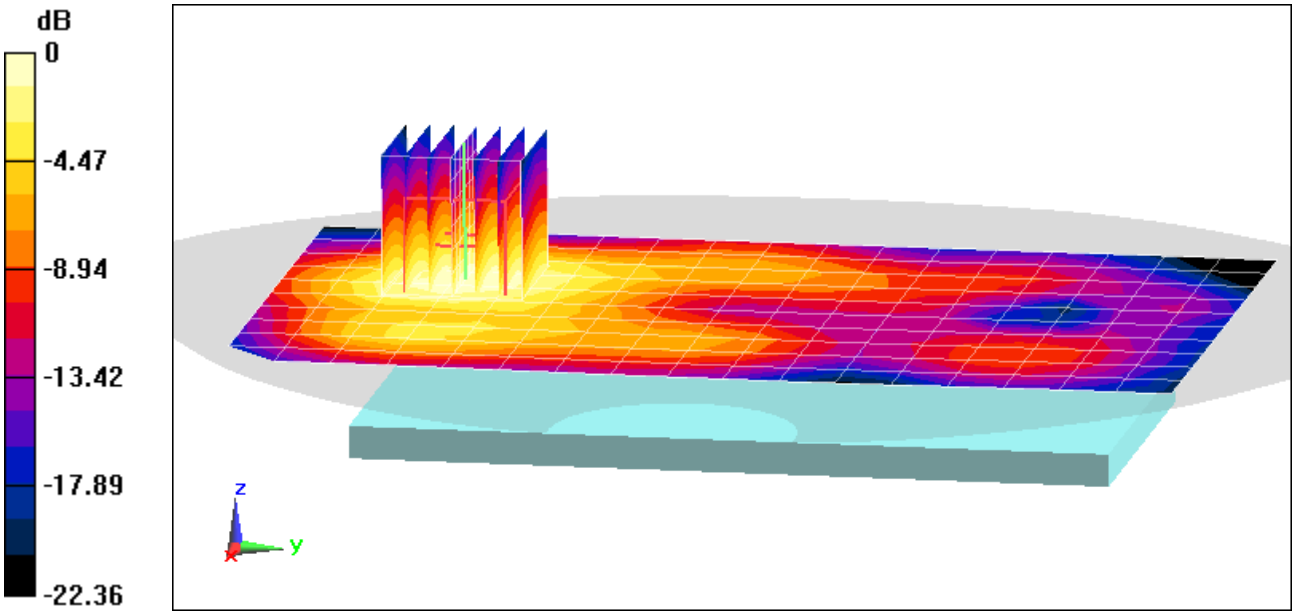
Communication System: UID 0, LTE Band 7; Frequency: 2560 MHz; Duty Cycle: 1:1
Medium: 2450 Body; Medium parameters used:
f = 2560 MHz; σ = 2.171 S/m; ε_r = 50.181; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 04/15/2020; Ambient Temp: 22.9°C; Tissue Temp: 21.5°C

Probe: EX3DV4 - SN7547; ConvF(7.18, 7.18, 7.18) @ 2560 MHz; Calibrated: 7/15/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1323; Calibrated: 7/11/2019
Phantom: LeftTwin-SAM V5.0; Type: QD 000 P40 CD; Serial: TP1375
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: LTE Band 7, Body SAR, Back side, High.ch,
20 MHz Bandwidth, QPSK, 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 = 12.04 V/m; Power Drift = -0.12 dB
Peak SAR (extrapolated) = 0.526 W/kg
SAR(1 g) = 0.282 W/kg



0 dB = 0.430 W/kg = -3.67 dBW/kg

DUT: A3LSMA716U; Type: Portable Handset; Serial: 19469

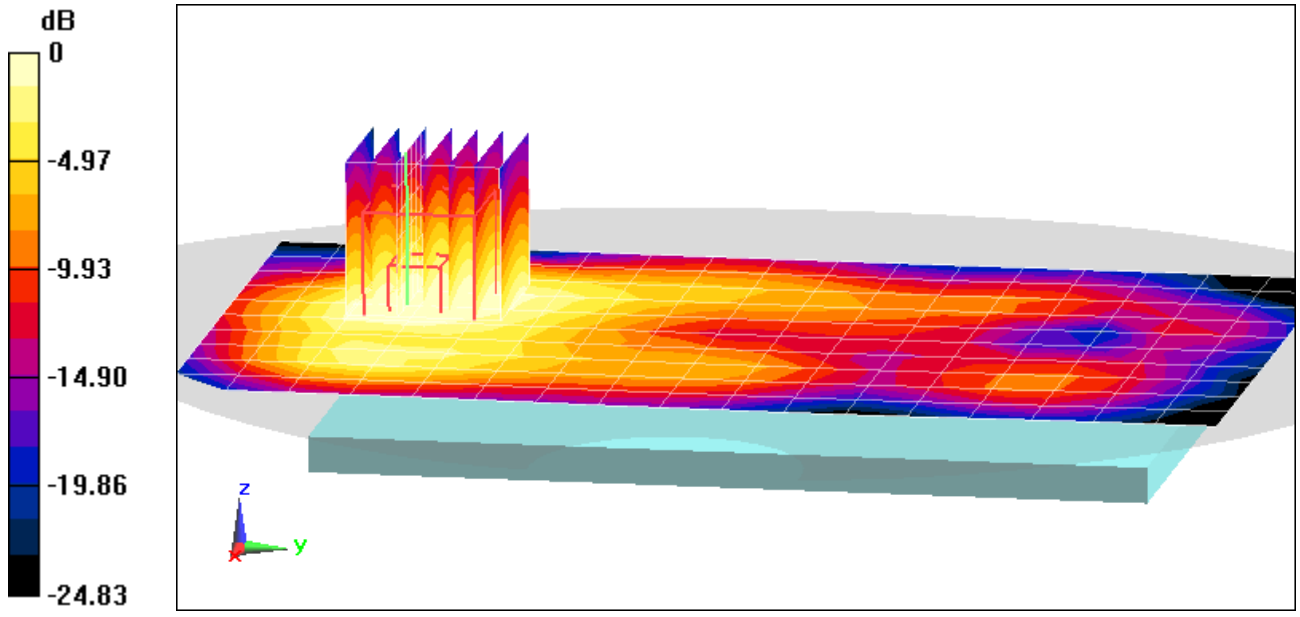
Communication System: UID 0, LTE Band 7; Frequency: 2560 MHz; Duty Cycle: 1:1
Medium: 2450 Body; Medium parameters used:
f = 2560 MHz; σ = 2.171 S/m; ε_r = 50.181; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 04/15/2020; Ambient Temp: 22.9°C; Tissue Temp: 21.5°C

Probe: EX3DV4 - SN7547; ConvF(7.18, 7.18, 7.18) @ 2560 MHz; Calibrated: 7/15/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1323; Calibrated: 7/11/2019
Phantom: LeftTwin-SAM V5.0; Type: QD 000 P40 CD; Serial: TP1375
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: LTE Band 7, Body SAR, Back side, High.ch,
20 MHz Bandwidth, QPSK, 50 RB, 50 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 = 12.98 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 0.643 W/kg
SAR(1 g) = 0.345 W/kg



0 dB = 0.400 W/kg = -3.98 dBW/kg

DUT: A3LSMA716U; Type: Portable Handset; 19410

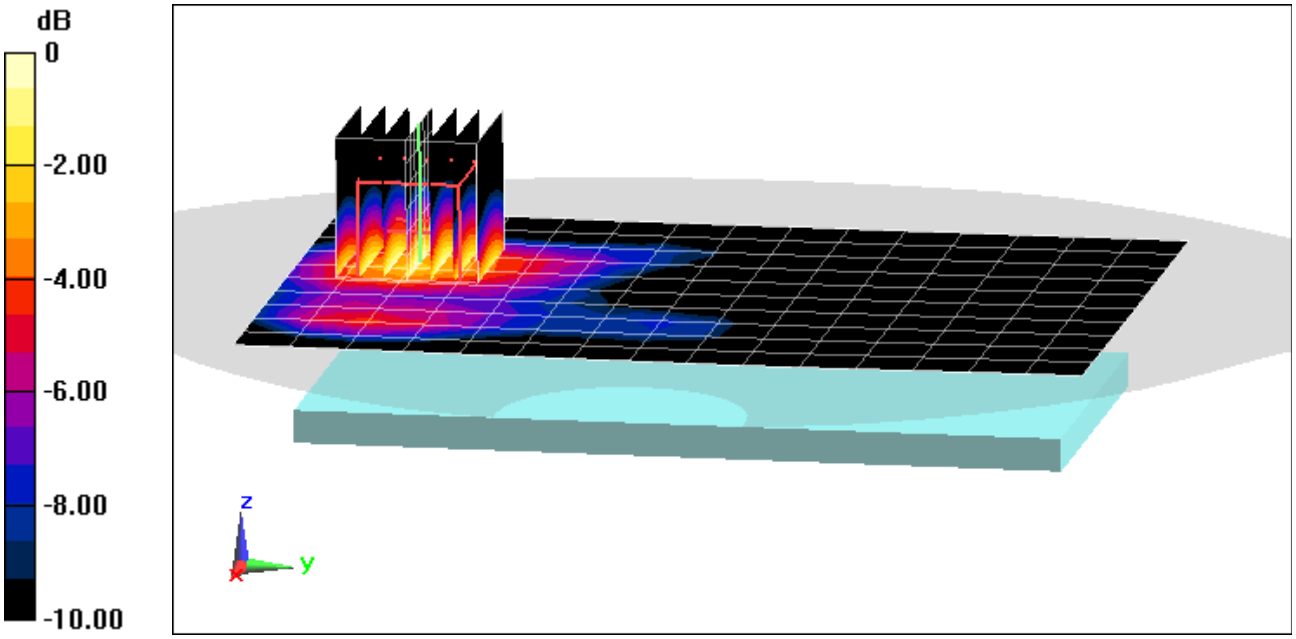
Communication System: UID 0, _LTE Band 41 (Class 2); Frequency: 2593 MHz; Duty Cycle: 1:2.31
Medium: 2450 Body; Medium parameters used (interpolated):
f = 2593 MHz; σ = 2.208 S/m; ε_r = 50.761; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 04/01/2020; Ambient Temp: 23.1°C; Tissue Temp: 22.0°C

Probe: EX3DV4 - SN7547; ConvF(7.18, 7.18, 7.18) @ 2593 MHz; Calibrated: 7/15/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1323; Calibrated: 7/11/2019
Phantom: LeftTwin-SAM V5.0; Type: QD 000 P40 CD; Serial: TP1375
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: LTE Band 41, PC2, ULCA, Body SAR, Back side, Mid.ch, QPSK,
PCC: Ch. 40620, 20 MHz Bandwidth, QPSK, 1 RB, 0 RB Offset
SCC: Ch. 40422, 20 MHz Bandwidth, QPSK, 1 RB, 99 RB Offset

Area Scan (11x16x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 11.01 V/m; Power Drift = 0.00 dB
Peak SAR (extrapolated) = 0.462 W/kg
SAR(1 g) = 0.250 W/kg



0 dB = 0.376 W/kg = -4.25 dBW/kg

DUT: A3LSMA716U; Type: Portable Handset; Serial: 19410

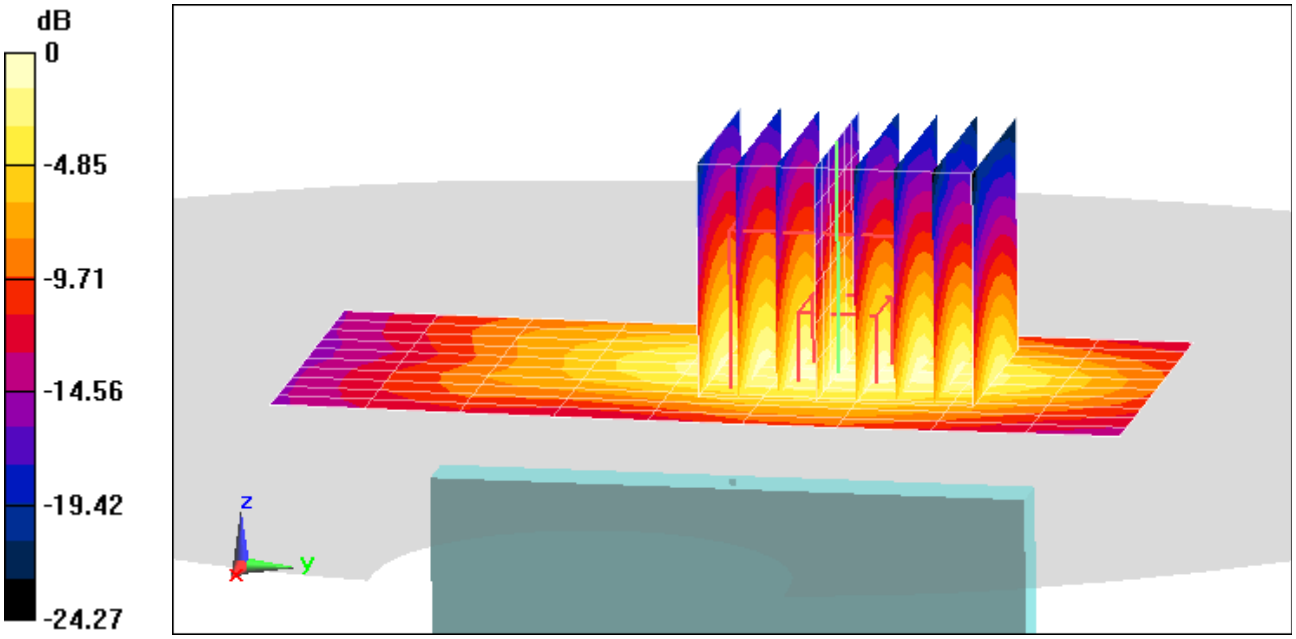
Communication System: UID 0, LTE Band 41 (Class 3); Frequency: 2593 MHz; Duty Cycle: 1:1.58
Medium: 2450 Body; Medium parameters used (interpolated):
f = 2593 MHz; σ = 2.208 S/m; ε_r = 50.761; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 04/01/2020; Ambient Temp: 23.1°C; Tissue Temp: 22.0°C

Probe: EX3DV4 - SN7547; ConvF(7.18, 7.18, 7.18) @ 2593 MHz; Calibrated: 7/15/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1323; Calibrated: 7/11/2019
Phantom: LeftTwin-SAM V5.0; Type: QD 000 P40 CD; Serial: TP1375
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: LTE Band 41, PC3, ULCA, Body SAR, Bottom Edge, Mid.ch, QPSK,
PCC: Ch. 40620, 20 MHz Bandwidth, QPSK, 1 RB, 99 RB Offset
SCC: Ch. 40818, 20 MHz Bandwidth, QPSK, 1 RB, 0 RB Offset

Area Scan (11x10x1): Measurement grid: dx=5mm, dy=12mm
Zoom Scan (7x8x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 11.40 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 0.521 W/kg
SAR(1 g) = 0.265 W/kg



0 dB = 0.419 W/kg = -3.78 dBW/kg

DUT: A3LSMA716U; Type: Portable Handset; Serial: 05187

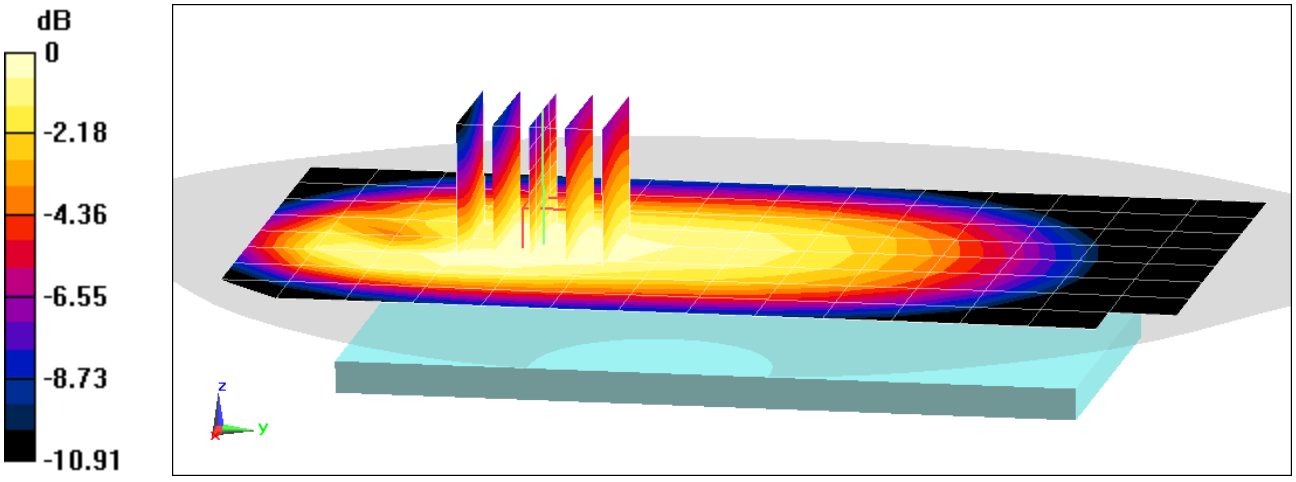
Communication System: UID 0, NR Band n71; Frequency: 680.5 MHz; Duty Cycle: 1:1
Medium: 750 Body; Medium parameters used (interpolated):
f = 680.5 MHz; σ = 0.923 S/m; ε_r = 53.891; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 04/20/2020; Ambient Temp: 21.0°C; Tissue Temp: 20.3°C

Probe: EX3DV4 - SN7410; ConvF(10.01, 10.01, 10.01) @ 680.5 MHz; Calibrated: 7/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2019
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1630
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: NR Band n71, Body SAR, Back Side,
20 MHz Bandwidth, DFT-s-OFDM QPSK, Ch. 136100, 1 RB, 53 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 = 15.56 V/m; Power Drift = 0.11 dB
Peak SAR (extrapolated) = 0.293 W/kg
SAR(1 g) = 0.216 W/kg



0 dB = 0.265 W/kg = -5.77 dBW/kg

DUT: A3LSMA716U; Type: Portable Handset; Serial: 05187

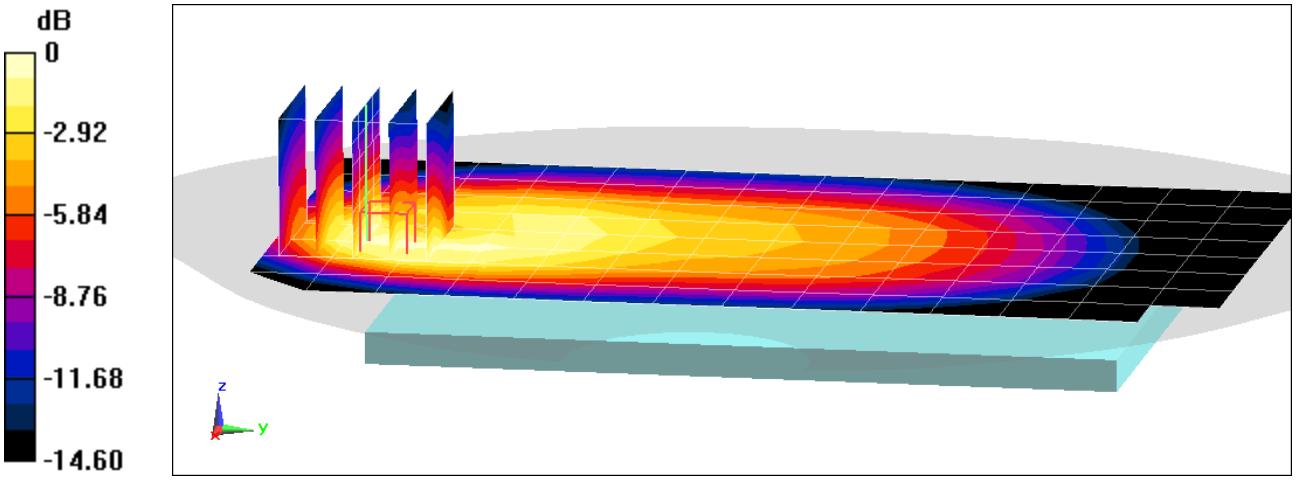
Communication System: UID 0, NR Band n71; Frequency: 680.5 MHz; Duty Cycle: 1:1
Medium: 750 Body; Medium parameters used (interpolated):
f = 680.5 MHz; σ = 0.923 S/m; ε_r = 53.891; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 04/20/2020; Ambient Temp: 21.0°C; Tissue Temp: 20.3°C

Probe: EX3DV4 - SN7410; ConvF(10.01, 10.01, 10.01) @ 680.5 MHz; Calibrated: 7/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2019
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1630
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: NR Band n71, Body SAR, Back Side,
20 MHz Bandwidth, DFT-s-OFDM QPSK, Ch. 136100, 50 RB, 28 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 = 19.98 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 0.614 W/kg
SAR(1 g) = 0.349 W/kg



0 dB = 0.506 W/kg = -2.96 dBW/kg

DUT: A3LSMA716U; Type: Portable Handset; Serial: 19550

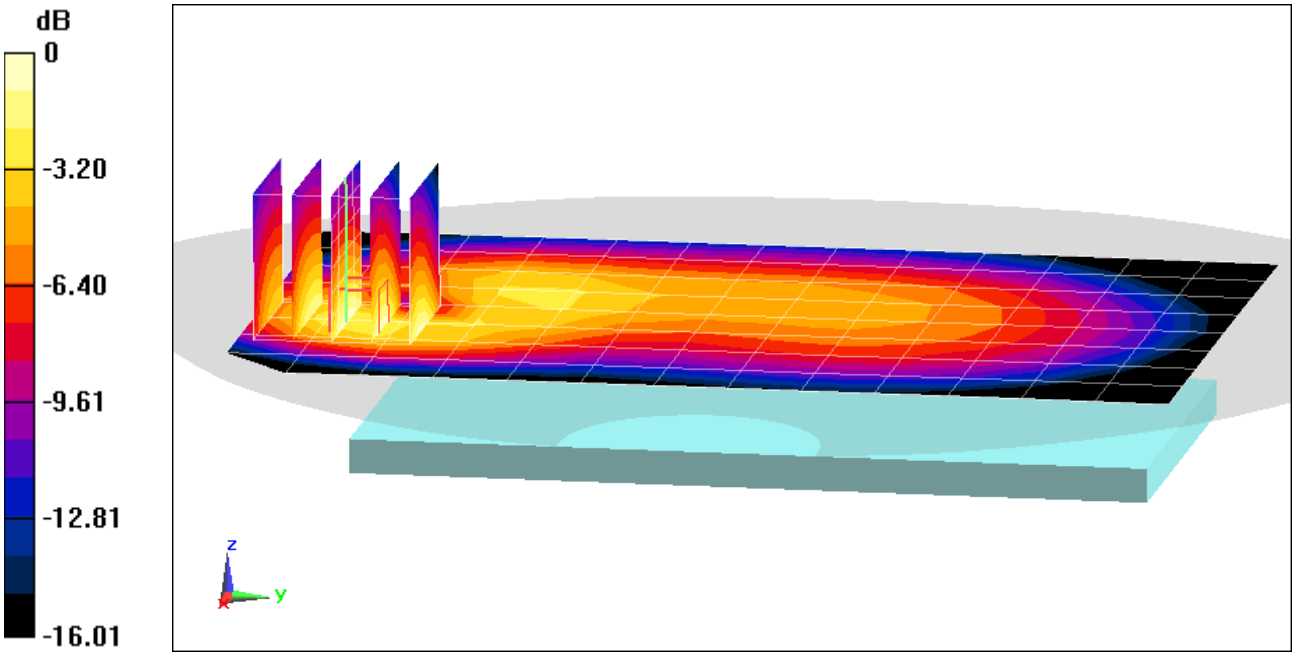
Communication System: UID 0, NR Band n5; Frequency: 836.5 MHz; Duty Cycle: 1:1
Medium: 835 Body; Medium parameters used (interpolated):
f = 836.5 MHz; σ = 0.962 S/m; ε_r = 54.145; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 05/04/2020; Ambient Temp: 22.2°C; Tissue Temp: 21.6°C

Probe: EX3DV4 - SN7570; ConvF(9.83, 9.83, 9.83) @ 836.5 MHz; Calibrated: 12/11/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn859; Calibrated: 12/18/2019
Phantom: Twin-SAM V8.0; Type: QD 000 P41 Ax; Serial: 1964
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: NR Band n5, Body SAR, Back Side,
20 MHz Bandwidth, DFT-s-OFDM QPSK, Ch. 167300, 50 RB, 28 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 = 18.36 V/m; Power Drift = -0.17 dB
Peak SAR (extrapolated) = 0.493 W/kg
SAR(1 g) = 0.301 W/kg



0 dB = 0.420 W/kg = -3.77 dBW/kg

DUT: A3LSMA716U; Type: Portable Handset; Serial: 19550

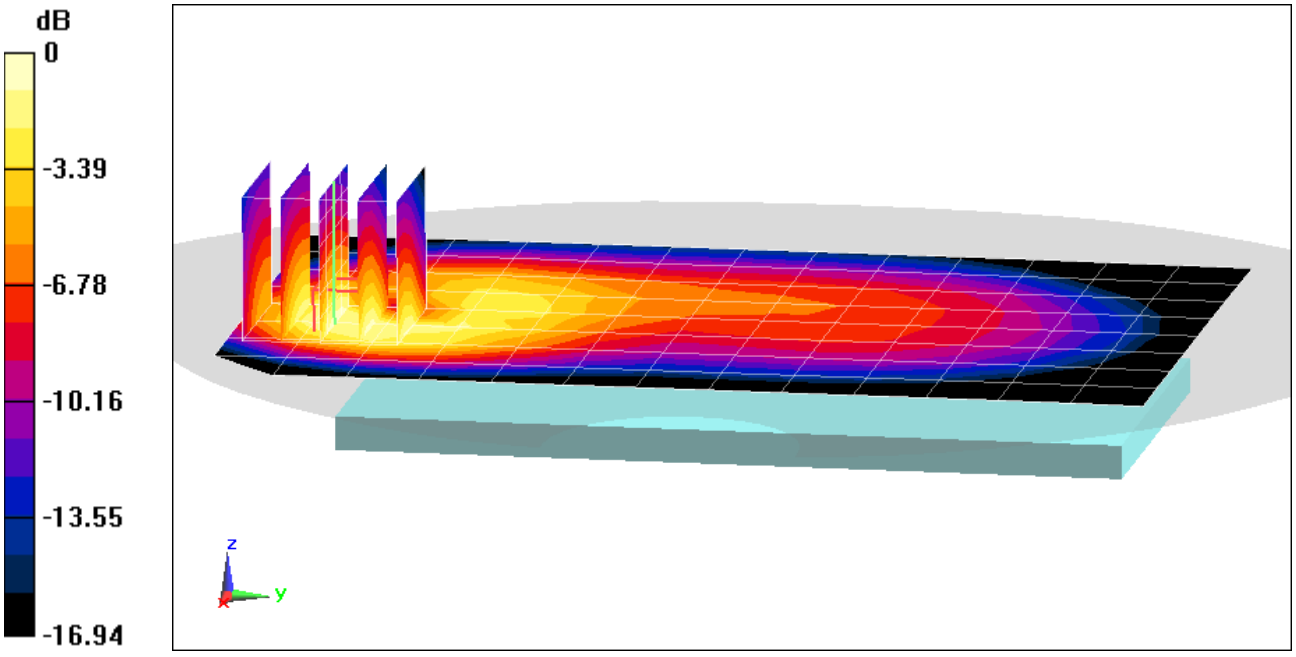
Communication System: UID 0, NR Band n5; Frequency: 836.5 MHz; Duty Cycle: 1:1
Medium: 835 Body; Medium parameters used (interpolated):
f = 836.5 MHz; σ = 0.962 S/m; ε_r = 54.145; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 05/04/2020; Ambient Temp: 22.2°C; Tissue Temp: 21.6°C

Probe: EX3DV4 - SN7570; ConvF(9.83, 9.83, 9.83) @ 836.5 MHz; Calibrated: 12/11/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn859; Calibrated: 12/18/2019
Phantom: Twin-SAM V8.0; Type: QD 000 P41 Ax; Serial: 1964
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: NR Band n5, Body SAR, Back Side,
20 MHz Bandwidth, DFT-s-OFDM QPSK, Ch. 167300, 50 RB, 28 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 = 26.92 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 1.12 W/kg
SAR(1 g) = 0.641 W/kg



0 dB = 0.937 W/kg = -0.28 dBW/kg

PCTEST

DUT: A3LSMA716U; Type: Portable Handset; Serial: 07217

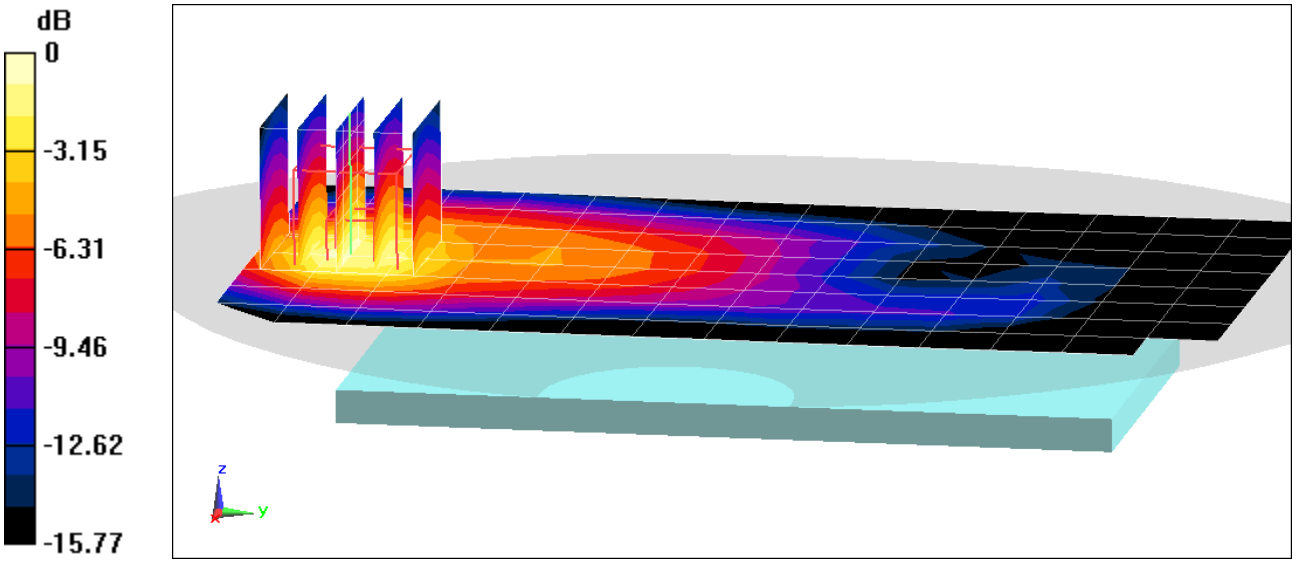
Communication System: UID 0, NR Band n66; Frequency: 1745 MHz; Duty Cycle: 1:1
Medium: 1750 Body; Medium parameters used:
f = 1745 MHz; σ = 1.492 S/m; ε_r = 52.646; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 05/06/2020; Ambient Temp: 21.1°C; Tissue Temp: 21.9°C

Probe: EX3DV4 - SN7527; ConvF(8.1, 8.1, 8.1) @ 1745 MHz; Calibrated: 3/17/2020
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1368; Calibrated: 3/12/2020
Phantom: Right Back Twin-SAM V5.0 (30); Type: QD 000 P40 CD; Serial: 1692
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: NR Band n66, Body SAR, Back Side,
20 MHz Bandwidth, DFT-s-OFDM QPSK, Ch. 349000, 50 RB, 28 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 = 20.78 V/m; Power Drift = 0.00 dB
Peak SAR (extrapolated) = 0.921 W/kg
SAR(1 g) = 0.579 W/kg



0 dB = 0.809 W/kg = -0.92 dBW/kg

DUT: A3LSMA716U; Type: Portable Handset; Serial: 07217

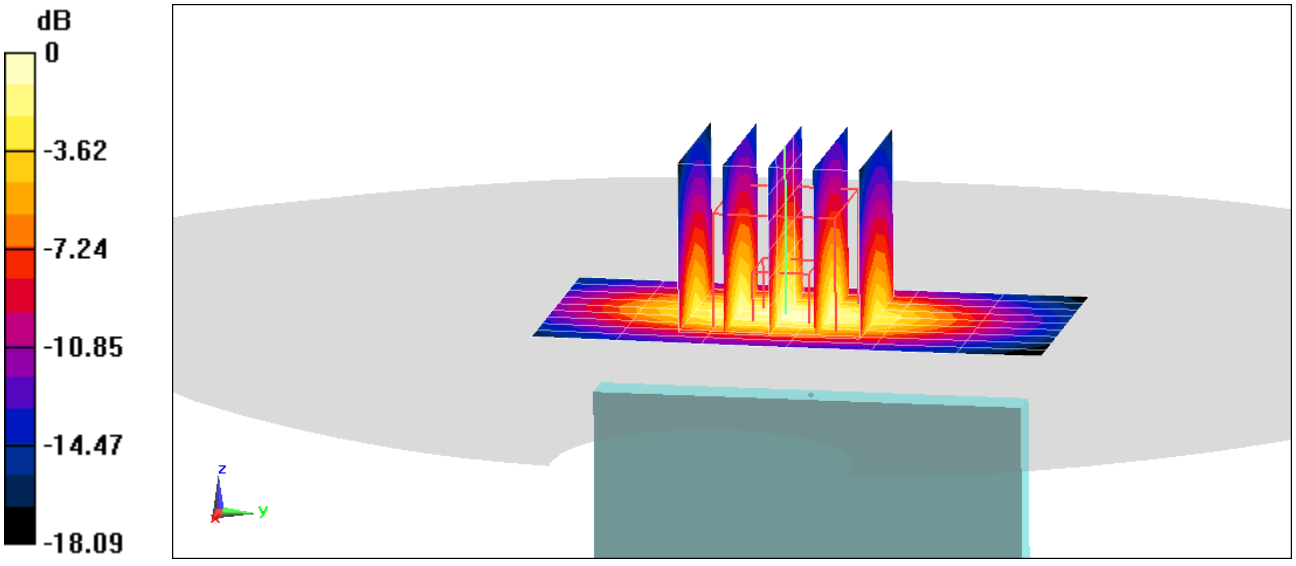
Communication System: UID 0, NR Band n66; Frequency: 1770 MHz; Duty Cycle: 1:1
Medium: 1750 Body; Medium parameters used (interpolated):
f = 1770 MHz; σ = 1.529 S/m; ε_r = 52.147; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 05/10/2020; Ambient Temp: 21.1°C; Tissue Temp: 21.5°C

Probe: EX3DV4 - SN7527; ConvF(8.1, 8.1, 8.1) @ 1770 MHz; Calibrated: 3/17/2020
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1368; Calibrated: 3/12/2020
Phantom: Right Back Twin-SAM V5.0 (30); Type: QD 000 P40 CD; Serial: 1692
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: NR Band n66, Body SAR, Bottom Edge,
20 MHz Bandwidth, DFT-s-OFDM QPSK, Ch. 354000, 50 RB, 0 RB Offset

Area Scan (10x7x1): Measurement grid: dx=5mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 22.19 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 1.13 W/kg
SAR(1 g) = 0.666 W/kg



0 dB = 0.984 W/kg = -0.07 dBW/kg

DUT: A3LSMA716U; Type: Portable Handset; Serial: 05583

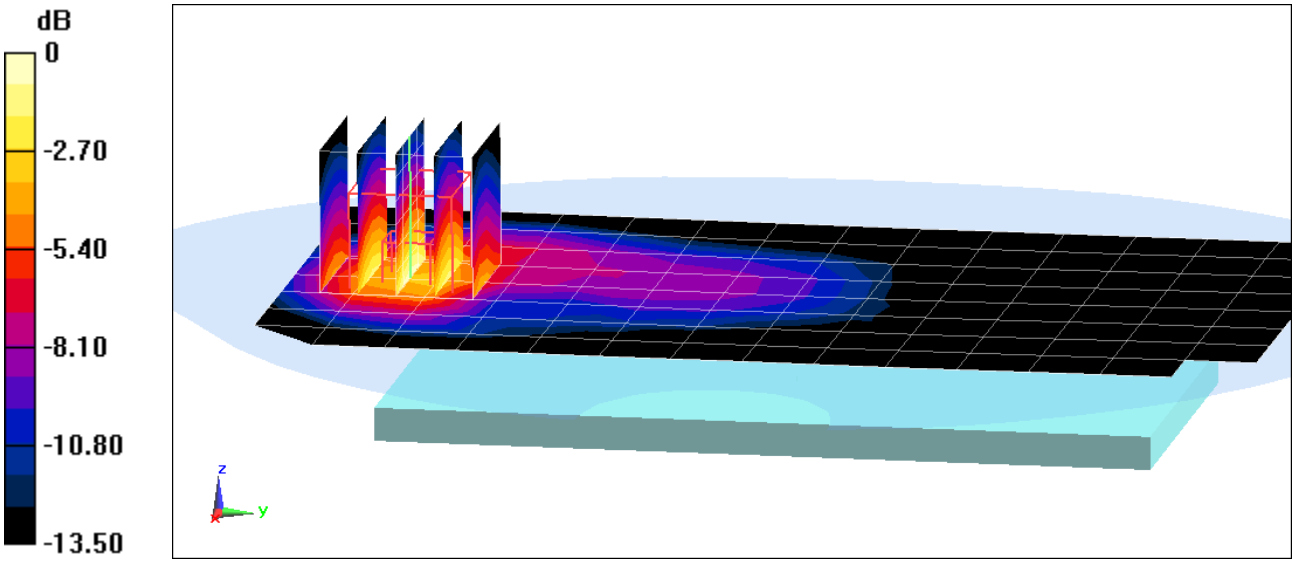
Communication System: UID 0, NR Band n2; Frequency: 1860 MHz; Duty Cycle: 1:1
Medium: 1900 Body; Medium parameters used:
f = 1860 MHz; σ = 1.538 S/m; ε_r = 55.809; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 05/05/2020; Ambient Temp: 20.9°C; Tissue Temp: 20.8°C

Probe: EX3DV4 - SN7571; ConvF(7.56, 7.56, 7.56) @ 1860 MHz; Calibrated: 12/11/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1533; Calibrated: 12/5/2019
Phantom: SAM Left; Type: QD000P40CC; Serial: TP: 1375
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: NR Band n2, Body SAR, Back Side,
20 MHz Bandwidth, DFT-s-OFDM QPSK, Ch. 372000, 1 RB, 53 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 = 23.22 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 1.20 W/kg
SAR(1 g) = 0.744 W/kg



0 dB = 1.05 W/kg = 0.21 dBW/kg

PCTEST

DUT: A3LSMA716U; Type: Portable Handset; Serial: 05583

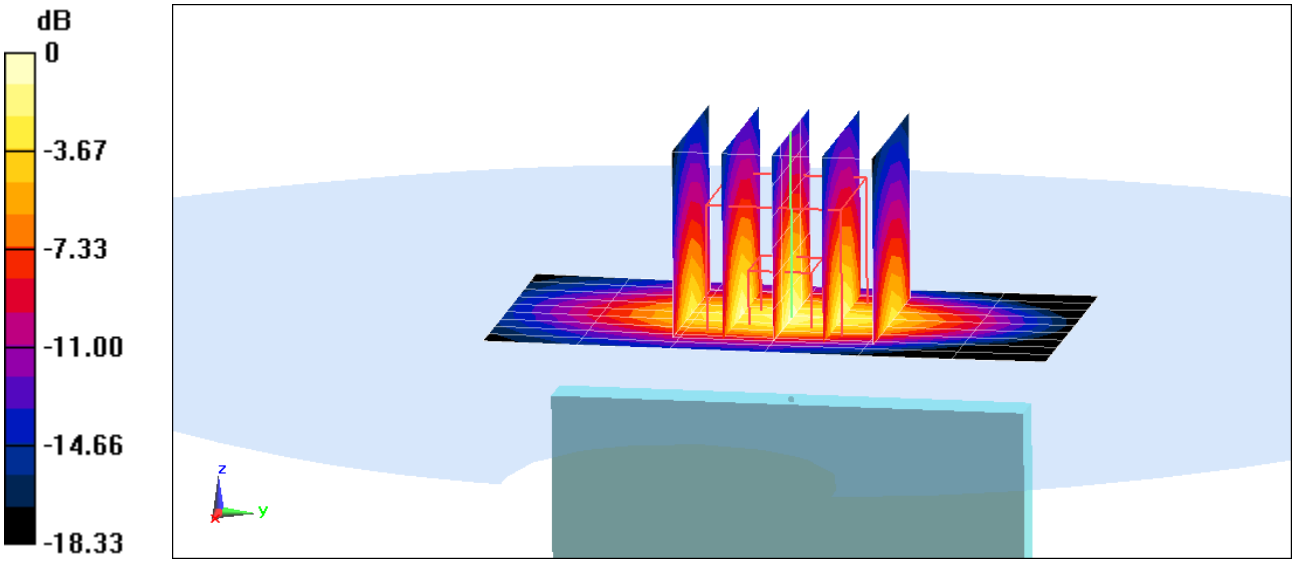
Communication System: UID 0, NR Band n2; Frequency: 1860 MHz; Duty Cycle: 1:1
Medium: 1900 Body; Medium parameters used:
f = 1860 MHz; σ = 1.538 S/m; ε_r = 55.809; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 05/05/2020; Ambient Temp: 20.9°C; Tissue Temp: 20.8°C

Probe: EX3DV4 - SN7571; ConvF(7.56, 7.56, 7.56) @ 1860 MHz; Calibrated: 12/11/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1533; Calibrated: 12/5/2019
Phantom: SAM Left; Type: QD000P40CC; Serial: TP: 1375
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: NR Band n2, Body SAR, Bottom Edge, 20 MHz Bandwidth, DFT-s-OFDM QPSK, Ch. 372000, 1 RB, 53 RB Offset

Area Scan (10x7x1): Measurement grid: dx=5mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 24.13 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 1.42 W/kg
SAR(1 g) = 0.811 W/kg



0 dB = 1.22 W/kg = 0.86 dBW/kg

DUT: A3LSMA716U; Type: Portable Handset; Serial: 19550

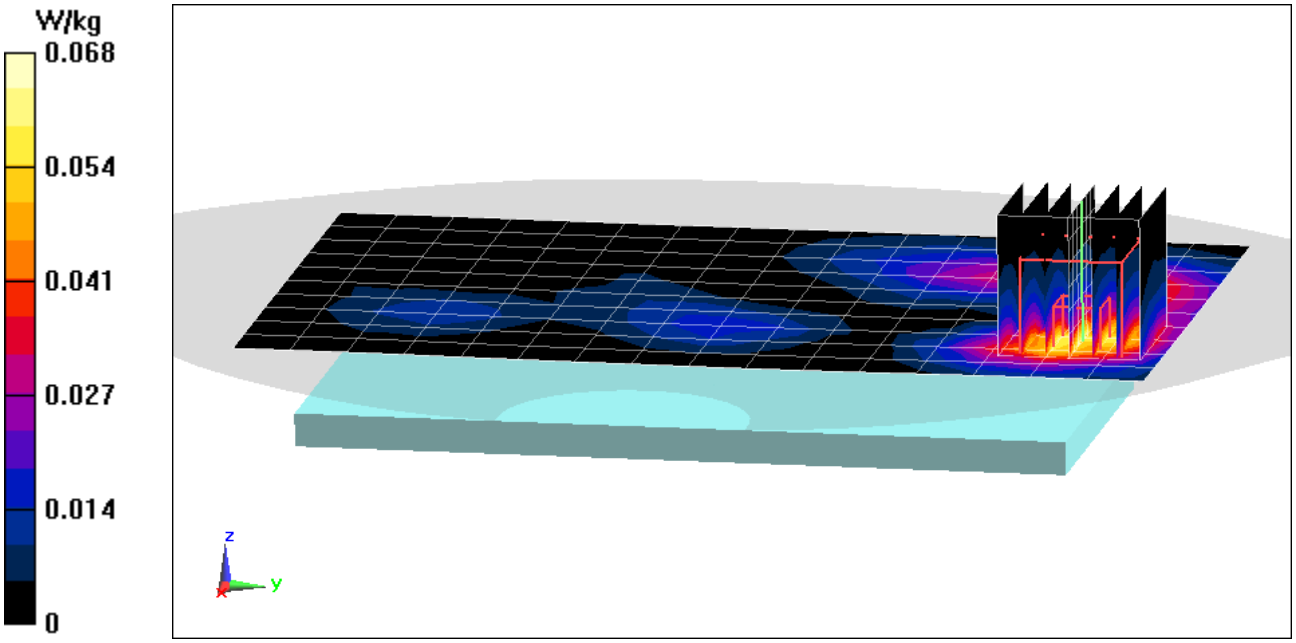
Communication System: UID 0, NR Band n41; Frequency: 2592.99 MHz; Duty Cycle: 1:4
Medium: 2450 Body; Medium parameters used (interpolated):
f = 2592.99 MHz; σ = 2.19 S/m; ε_r = 52.301; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 05/04/2020; Ambient Temp: 22.5°C; Tissue Temp: 21.9°C

Probe: EX3DV4 - SN7547; ConvF(7.18, 7.18, 7.18) @ 2592.99 MHz; Calibrated: 7/15/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1323; Calibrated: 7/11/2019
Phantom: LeftTwin-SAM V5.0; Type: QD 000 P40 CD; Serial: TP1375
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: NR Band n41, Body SAR, Back Side,
100 MHz Bandwidth, DFT-s-OFDM QPSK, Ch. 518598, 1 RB, 1 RB Offset

Area Scan (11x17x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 4.696 V/m; Power Drift = 0.21 dB
Peak SAR (extrapolated) = 0.0850 W/kg
SAR(1 g) = 0.043 W/kg



DUT: A3LSMA716U; Type: Portable Handset; Serial: 19550

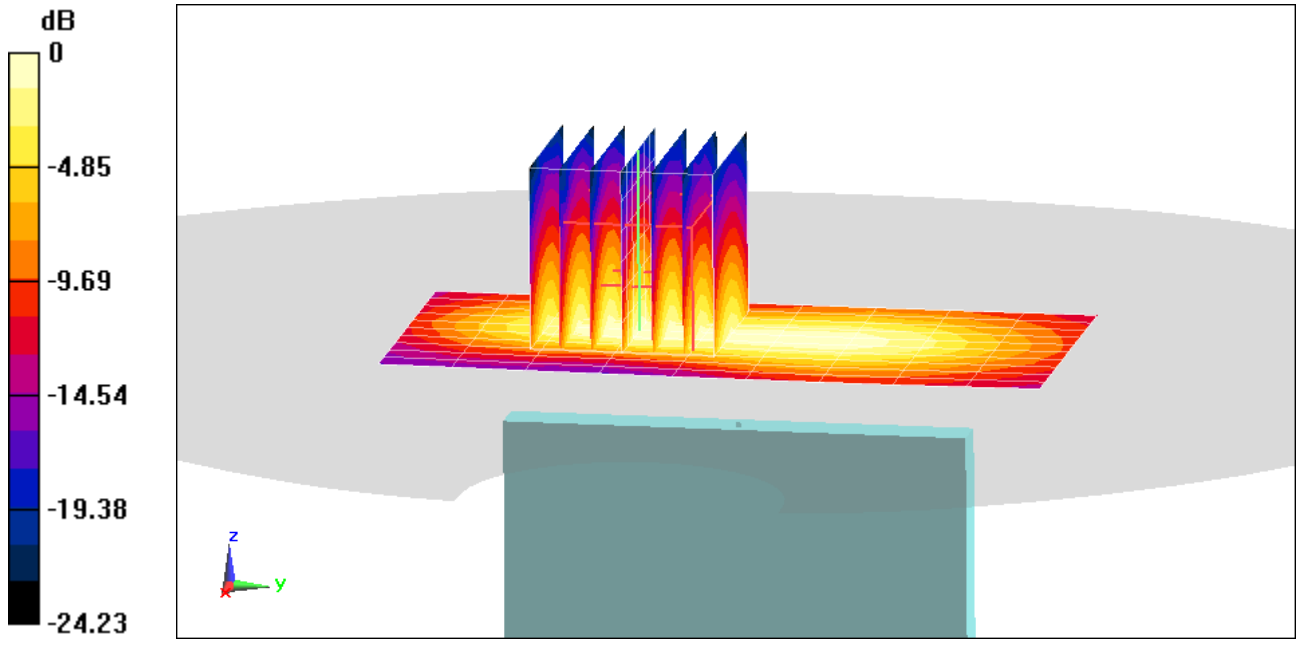
Communication System: UID 0, NR Band n41; Frequency: 2592.99 MHz; Duty Cycle: 1:4
Medium: 2450 Body; Medium parameters used (interpolated):
f = 2592.99 MHz; σ = 2.21 S/m; ε_r = 51.258; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 05/06/2020; Ambient Temp: 24.4°C; Tissue Temp: 21.9°C

Probe: EX3DV4 - SN7547; ConvF(7.18, 7.18, 7.18) @ 2592.99 MHz; Calibrated: 7/15/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1323; Calibrated: 7/11/2019
Phantom: LeftTwin-SAM V5.0; Type: QD 000 P40 CD; Serial: TP1375
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: NR Band n41, Body SAR, Top Edge,
100 MHz Bandwidth, DFT-s-OFDM QPSK, Ch. 518598, 1 RB, 1 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 = 8.983 V/m; Power Drift = 0.10 dB
Peak SAR (extrapolated) = 0.334 W/kg
SAR(1 g) = 0.157 W/kg



0 dB = 0.265 W/kg = -5.77 dBW/kg

DUT: A3LSMA716U; Type: Portable Handset; Serial: 28114

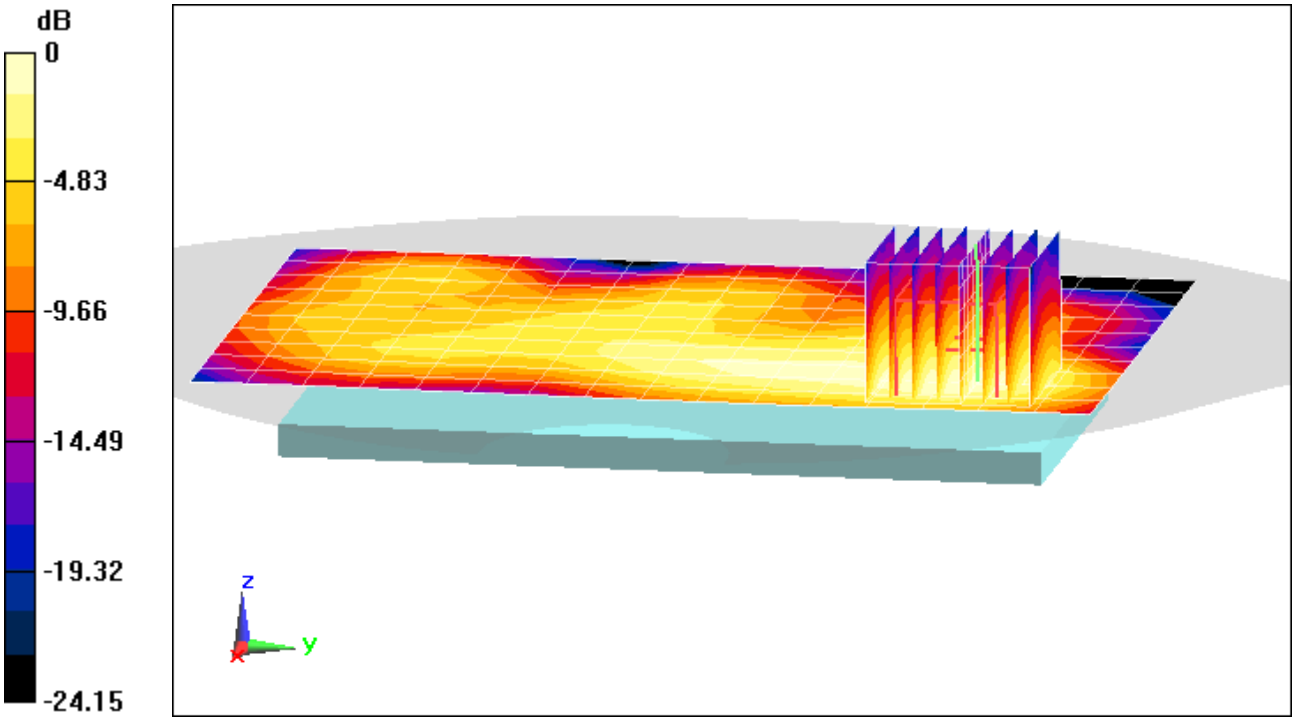
Communication System: UID 0, IEEE 802.11b; Frequency: 2412 MHz; Duty Cycle: 1:1
Medium: 2450 Body; Medium parameters used (interpolated):
f = 2412 MHz; σ = 1.998 S/m; ε_r = 50.623; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 04/15/2020; Ambient Temp: 22.9°C; Tissue Temp: 21.5°C

Probe: EX3DV4 - SN7547; ConvF(7.3, 7.3, 7.3) @ 2412 MHz; Calibrated: 7/15/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1323; Calibrated: 7/11/2019
Phantom: LeftTwin-SAM V5.0; Type: QD 000 P40 CD; Serial: TP1375
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: IEEE 802.11b, 22 MHz Bandwidth, Body SAR, Ch 1, 1 Mbps, Back Side

Area Scan (11x17x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 7.621 V/m; Power Drift = 0.10 dB
Peak SAR (extrapolated) = 0.193 W/kg
SAR(1 g) = 0.106 W/kg



0 dB = 0.159 W/kg = -7.99 dBW/kg

DUT: A3LSMA716U; Type: Portable Handset; Serial: 28114

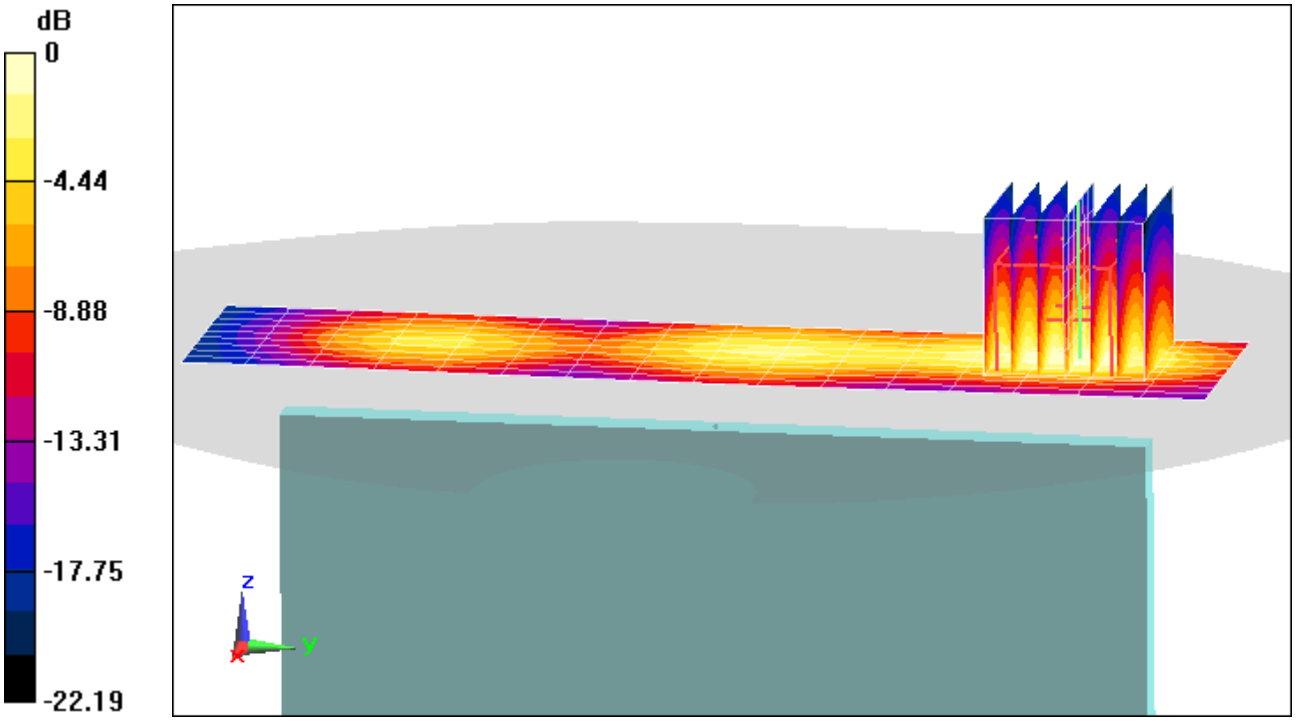
Communication System: UID 0, 802.11b; Frequency: 2412 MHz; Duty Cycle: 1:1
Medium: 2450 Body; Medium parameters used (interpolated):
f = 2412 MHz; σ = 1.998 S/m; ε_r = 50.623; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 04/15/2020; Ambient Temp: 22.9°C; Tissue Temp: 21.5°C

Probe: EX3DV4 - SN7547; ConvF(7.3, 7.3, 7.3) @ 2412 MHz; Calibrated: 7/15/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1323; Calibrated: 7/11/2019
Phantom: LeftTwin-SAM V5.0; Type: QD 000 P40 CD; Serial: TP1375
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: IEEE 802.11b, 22 MHz Bandwidth, Body SAR, Ch 1, 1 Mbps, Left Side

Area Scan (10x17x1): Measurement grid: dx=5mm, dy=12mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 12.13 V/m; Power Drift = 0.14 dB
Peak SAR (extrapolated) = 1.06 W/kg
SAR(1 g) = 0.519 W/kg;



0 dB = 0.857 W/kg = -0.67 dBW/kg

DUT: A3LSMA716U; Type: Portable Handset; Serial: 28338

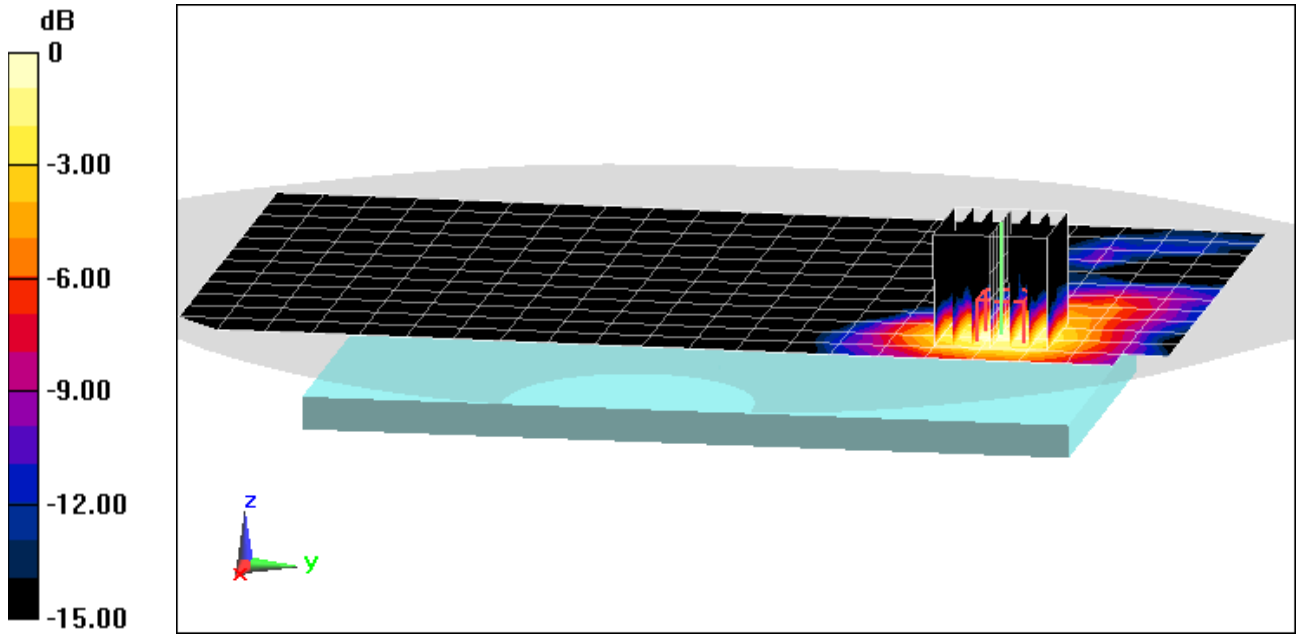
Communication System: UID 0, 802.11a 5.2-5.8 GHz Band; Frequency: 5745 MHz; Duty Cycle: 1:1
Medium: 5200-5800 Body; Medium parameters used:
f = 5745 MHz; σ = 6.169 S/m; ε_r = 46.957; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 04/02/2020; Ambient Temp: 22.7°C; Tissue Temp: 22.6°C

Probe: EX3DV4 - SN7409; ConvF(4.23, 4.23, 4.23) @ 5745 MHz; Calibrated: 6/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1334; Calibrated: 6/20/2019
Phantom: Front; Type: QD 000 P40 CD; Serial: 1686
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: IEEE 802.11a, UNII-3, 20 MHz Bandwidth, Body SAR, Ch 149, 6 Mbps, Back Side

Area Scan (13x22x1): 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 = 5.840 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 0.743 W/kg
SAR(1 g) = 0.194 W/kg



0 dB = 0.439 W/kg = -3.58 dBW/kg

DUT: A3LSMA716U; Type: Portable Handset; Serial: 28338

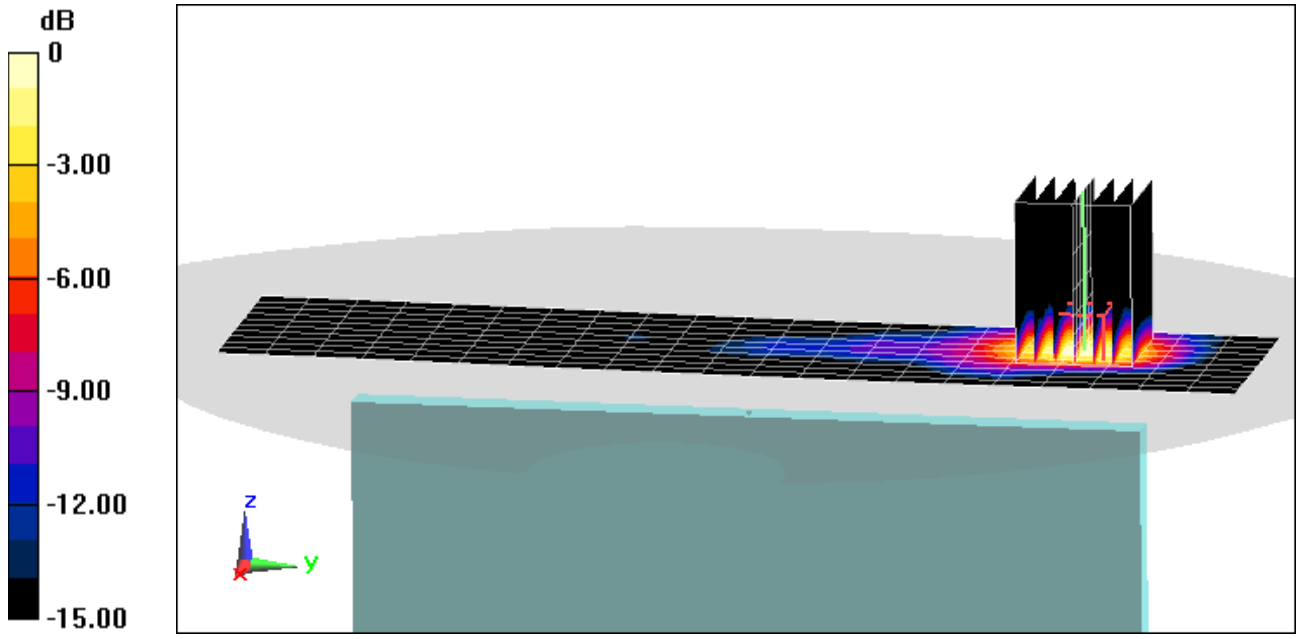
Communication System: UID 0, 802.11a 5.2-5.8 GHz Band; Frequency: 5745 MHz; Duty Cycle: 1:1
Medium: 5200-5800 Body; Medium parameters used:
f = 5745 MHz; σ = 6.169 S/m; ε_r = 46.957; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 04/02/2020; Ambient Temp: 22.7°C; Tissue Temp: 22.6°C

Probe: EX3DV4 - SN7409; ConvF(4.23, 4.23, 4.23) @ 5745 MHz; Calibrated: 6/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1334; Calibrated: 6/20/2019
Phantom: Front; Type: QD 000 P40 CD; Serial: 1686
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: IEEE 802.11a, U-NII-3, 20 MHz Bandwidth, Body SAR, Ch 149, 6 Mbps, Left Edge,

Area Scan (11x22x1): Measurement grid: dx=5mm, dy=10mm
Zoom Scan (7x7x8)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm; Graded Ratio: 1.4
Reference Value = 2.043 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 1.80 W/kg
SAR(1 g) = 0.413 W/kg



0 dB = 1.04 W/kg = 0.17 dBW/kg

DUT: A3LSMA716U; Type: Portable Handset; Serial: 28114

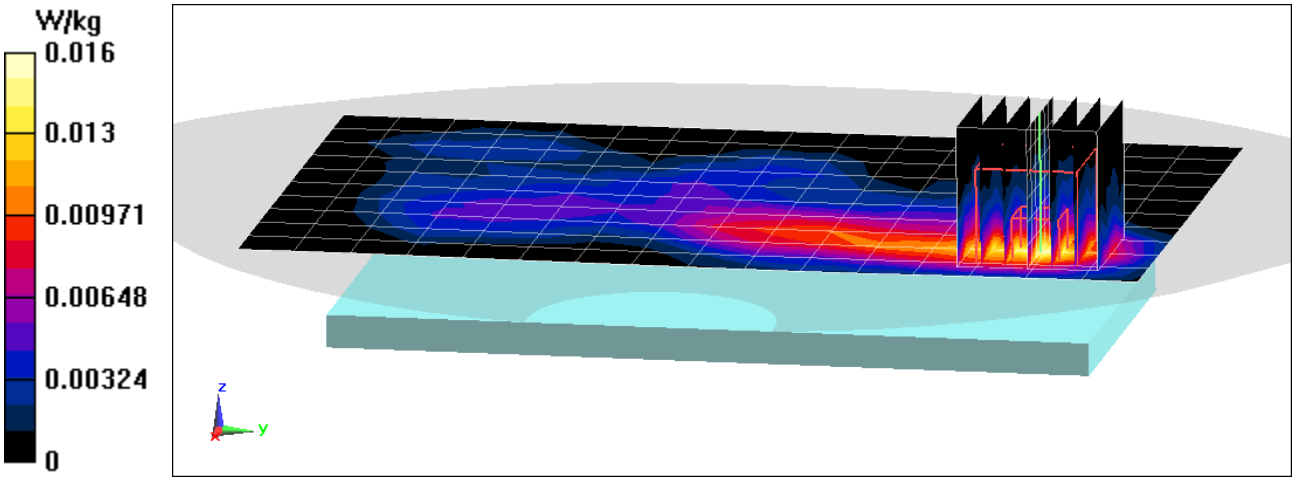
Communication System: UID 0, Bluetooth; Frequency: 2441 MHz; Duty Cycle: 1:1.297
Medium: 2450 Body; Medium parameters used (interpolated):
f = 2441 MHz; σ = 2.019 S/m; ε_r = 51.533; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 04/23/2020; Ambient Temp: 23.2°C; Tissue Temp: 21.6°C

Probe: EX3DV4 - SN7547; ConvF(7.3, 7.3, 7.3) @ 2441 MHz; Calibrated: 7/15/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1323; Calibrated: 7/11/2019
Phantom: LeftTwin-SAM V5.0; Type: QD 000 P40 CD; Serial: TP1375
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: Bluetooth, Body SAR, Ch 39, 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 = 2.261 V/m; Power Drift = 0.15 dB
Peak SAR (extrapolated) = 0.0200 W/kg
SAR(1 g) = 0.010 W/kg



PCTEST

DUT: A3LSMA716U; Type: Portable Handset; Serial: 28114

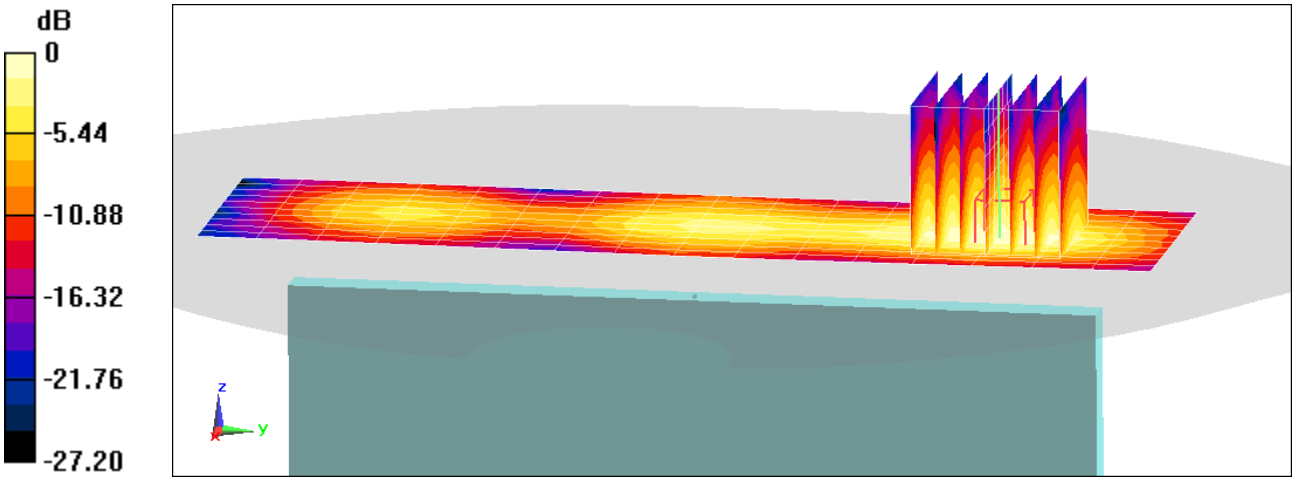
Communication System: UID 0, Bluetooth; Frequency: 2441 MHz; Duty Cycle: 1:1.297
Medium: 2450 Body; Medium parameters used (interpolated):
f = 2441 MHz; σ = 2.019 S/m; ε_r = 51.533; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 04/23/2020; Ambient Temp: 23.2°C; Tissue Temp: 21.6°C

Probe: EX3DV4 - SN7547; ConvF(7.3, 7.3, 7.3) @ 2441 MHz; Calibrated: 7/15/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1323; Calibrated: 7/11/2019
Phantom: LeftTwin-SAM V5.0; Type: QD 000 P40 CD; Serial: TP1375
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: Bluetooth, Body SAR, Ch 39, 1 Mbps, Left Edge

Area Scan (11x17x1): Measurement grid: dx=5mm, dy=12mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 5.270 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 0.102 W/kg
SAR(1 g) = 0.049 W/kg



0 dB = 0.0814 W/kg = -10.89 dBW/kg

DUT: A3LSMA716U; Type: Portable Handset; Serial: 05583

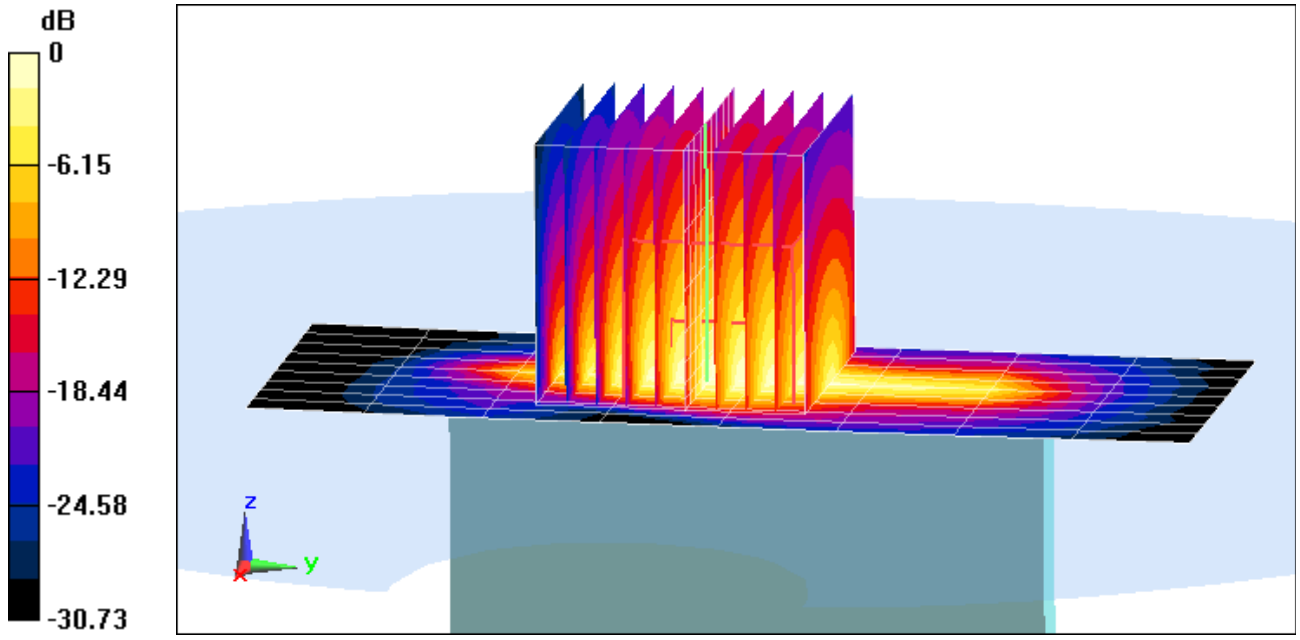
Communication System: UID 0, GSM GPRS; 2 Tx slots; Frequency: 1850.2 MHz; Duty Cycle: 1:4.15
Medium: 1900 Body; Medium parameters used (interpolated):
f = 1850.2 MHz; σ = 1.482 S/m; ε_r = 53.524; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 04/07/2020; Ambient Temp: 21.3°C; Tissue Temp: 24.4°C

Probe: EX3DV4 - SN7571; ConvF(7.56, 7.56, 7.56) @ 1850.2 MHz; Calibrated: 12/11/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1533; Calibrated: 12/5/2019
Phantom: SAM Left; Type: QD000P40CC; Serial: TP: 1375
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: GPRS 1900, Phablet SAR, Bottom Edge, Low.ch, 2 Tx Slots

Area Scan (10x9x1): Measurement grid: dx=5mm, dy=15mm
Zoom Scan (10x10x8)/Cube 0: Measurement grid: dx=3.8mm, dy=3.8mm, dz=1.4mm; Graded Ratio: 1.4
Reference Value = 48.93 V/m; Power Drift = 0.18 dB
Peak SAR (extrapolated) = 10.0 W/kg
SAR(10 g) = 1.62 W/kg



0 dB = 6.78 W/kg = 8.31 dBW/kg

DUT: A3LSMA716U; Type: Portable Handset; Serial: 05583

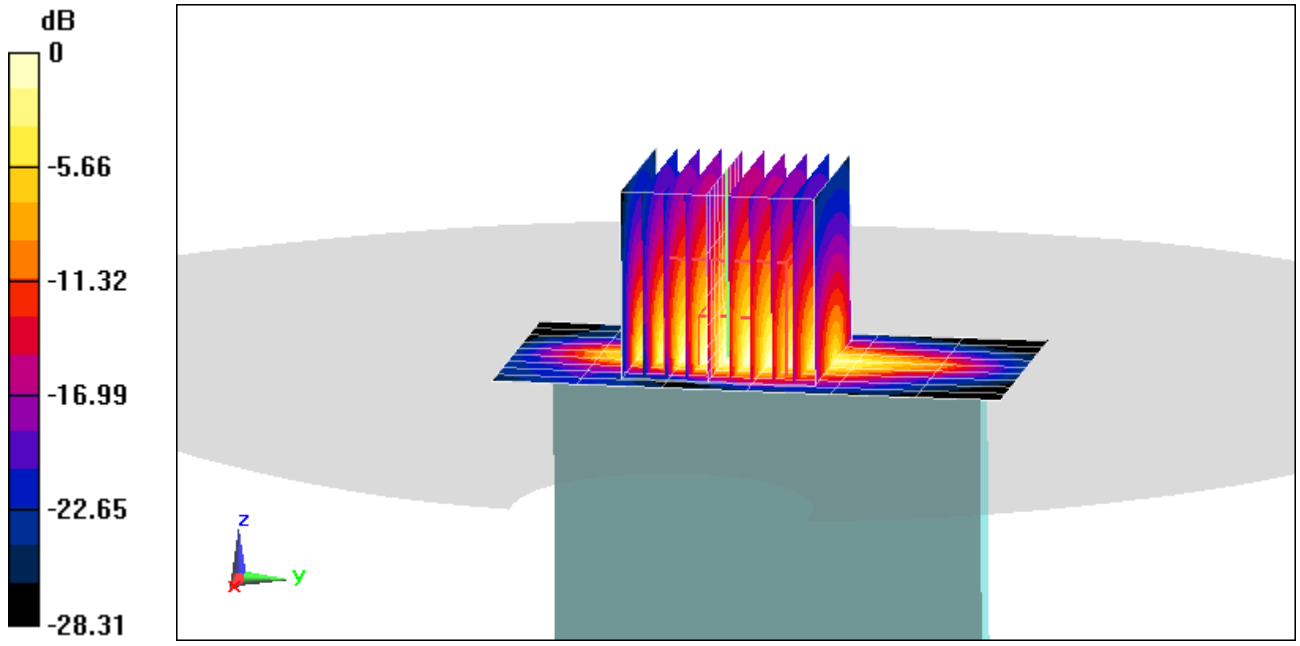
Communication System: UID 0, UMTS; Frequency: 1732.4 MHz; Duty Cycle: 1:1
Medium: 1750 Body; Medium parameters used (interpolated):
f = 1732.4 MHz; σ = 1.496 S/m; ε_r = 52.959; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 04/27/2020; Ambient Temp: 21.5°C; Tissue Temp: 20.5°C

Probe: EX3DV4 - SN7527; ConvF(8.1, 8.1, 8.1) @ 1732.4 MHz; Calibrated: 3/17/2020
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1368; Calibrated: 3/12/2020
Phantom: Right Back Twin-SAM V5.0 (30); Type: QD 000 P40 CD; Serial: 1692
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: UMTS 1750, Phablet SAR, Bottom Edge, Mid.ch

Area Scan (10x7x1): Measurement grid: dx=5mm, dy=15mm
Zoom Scan (10x10x8)/Cube 0: Measurement grid: dx=3.8mm, dy=3.8mm, dz=1.4mm; Graded Ratio: 1.4
Reference Value = 70.77 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 13.8 W/kg
SAR(10 g) = 2.3 W/kg



0 dB = 10.0 W/kg = 10.00 dBW/kg

DUT: A3LSMA716U; Type: Portable Handset; Serial: 05583

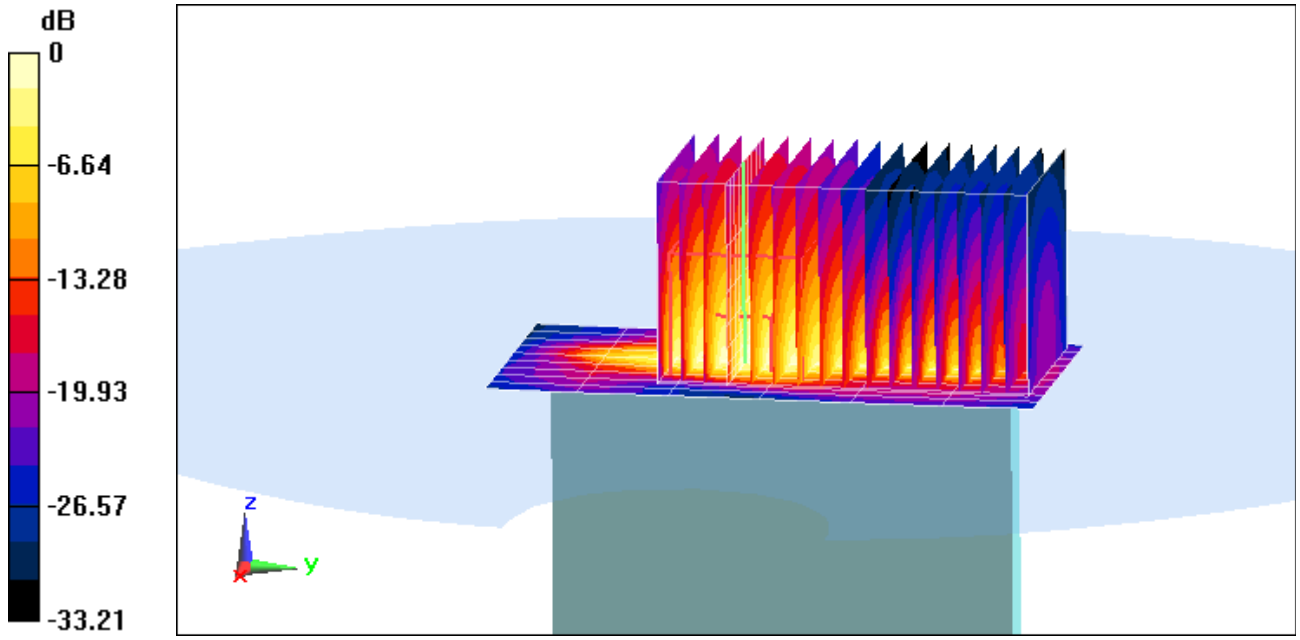
Communication System: UID 0, UMTS; Frequency: 1852.4 MHz; Duty Cycle: 1:1
Medium: 1900 Body; Medium parameters used (interpolated):
f = 1852.4 MHz; σ = 1.485 S/m; ε_r = 53.519; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 04/07/2020; Ambient Temp: 21.3°C; Tissue Temp: 24.4°C

Probe: EX3DV4 - SN7571; ConvF(7.56, 7.56, 7.56) @ 1852.4 MHz; Calibrated: 12/11/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1533; Calibrated: 12/5/2019
Phantom: SAM Left; Type: QD000P40CC; Serial: TP: 1375
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: UMTS 1900, Phablet SAR, Bottom Edge, Low.ch

Area Scan (10x7x1): Measurement grid: dx=5mm, dy=15mm
Zoom Scan (10x17x8)/Cube 0: Measurement grid: dx=3.8mm, dy=3.8mm, dz=1.4mm; Graded Ratio: 1.4
Reference Value = 33.26 V/m; Power Drift = -0.09 dB
Peak SAR (extrapolated) = 14.6 W/kg
SAR(10 g) = 2.23 W/kg



0 dB = 10.1 W/kg = 10.04 dBW/kg

DUT: A3LSMA716U; Type: Portable Handset; Serial: 05583

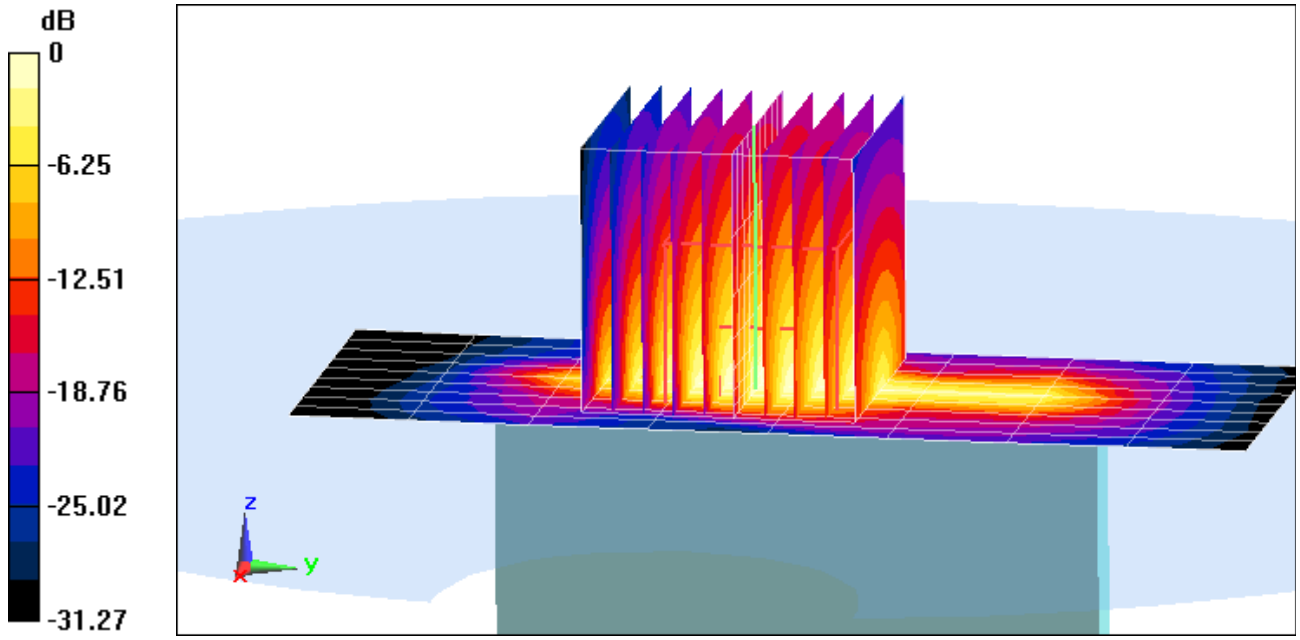
Communication System: UID 0, CDMA; Frequency: 1851.25 MHz; Duty Cycle: 1:1
Medium: 1900 Body; Medium parameters used (interpolated):
f = 1851.25 MHz; σ = 1.483 S/m; ε_r = 53.521; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 04/07/2020; Ambient Temp: 21.3°C; Tissue Temp: 24.4°C

Probe: EX3DV4 - SN7571; ConvF(7.56, 7.56, 7.56) @ 1851.25 MHz; Calibrated: 12/11/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1533; Calibrated: 12/5/2019
Phantom: SAM Left; Type: QD000P40CC; Serial: TP: 1375
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: PCS EVDO, Phablet SAR, Bottom Edge, Low.ch

Area Scan (10x9x1): Measurement grid: dx=5mm, dy=15mm
Zoom Scan (10x10x8)/Cube 0: Measurement grid: dx=3.8mm, dy=3.8mm, dz=1.4mm; Graded Ratio: 1.4
Reference Value = 68.61 V/m; Power Drift = -0.09 dB
Peak SAR (extrapolated) = 16.1 W/kg
SAR(10 g) = 2.45 W/kg



0 dB = 10.5 W/kg = 10.21 dBW/kg

DUT: A3LSMA716U; Type: Portable Handset; Serial: 06318

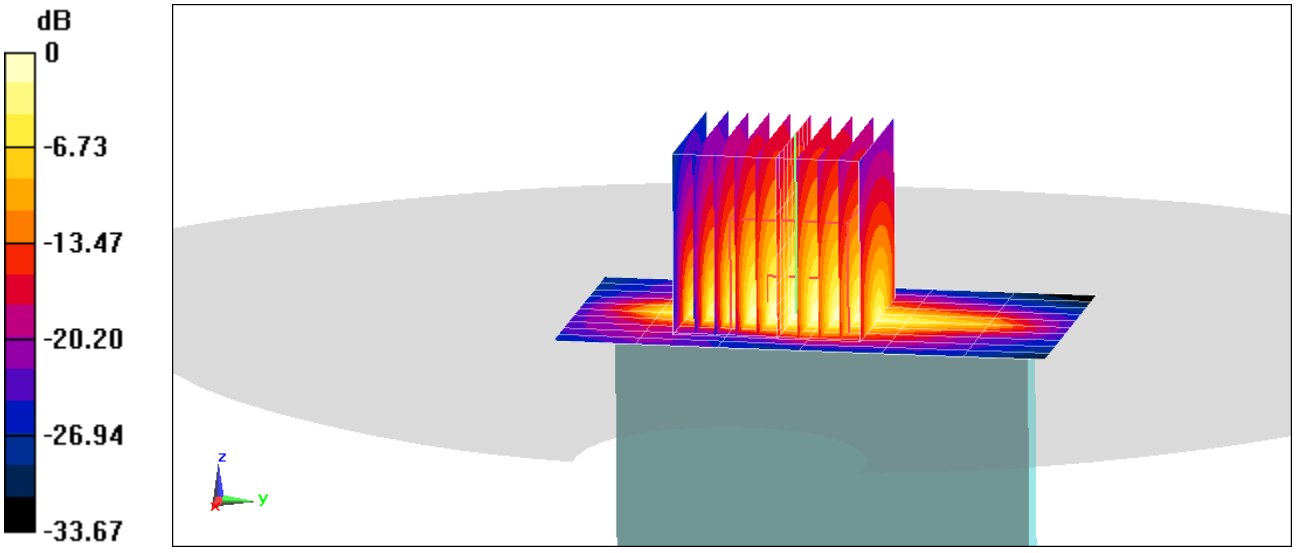
Communication System: UID 0, LTE Band 66 (AWS); Frequency: 1720 MHz; Duty Cycle: 1:1
Medium: 1750 Body; Medium parameters used:
f = 1720 MHz; σ = 1.464 S/m; ε_r = 52.746; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 05/06/2020; Ambient Temp: 21.1°C; Tissue Temp: 21.9°C

Probe: EX3DV4 - SN7527; ConvF(8.1, 8.1, 8.1) @ 1720 MHz; Calibrated: 3/17/2020
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1368; Calibrated: 3/12/2020
Phantom: Right Back Twin-SAM V5.0 (30); Type: QD 000 P40 CD; Serial: 1692
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: LTE Band 66 (AWS), Phablet SAR, Bottom Edge, Low.ch, 20 MHz Bandwidth, QPSK, 50 RB, 25 RB Offset

Area Scan (11x7x1): Measurement grid: dx=5mm, dy=15mm
Zoom Scan (10x10x8)/Cube 0: Measurement grid: dx=3.8mm, dy=3.8mm, dz=1.4mm; Graded Ratio: 1.4
Reference Value = 71.13 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 15.9 W/kg
SAR(10 g) = 2.56 W/kg



0 dB = 10.9 W/kg = 10.37 dBW/kg

DUT: A3LSMA716U; Type: Portable Handset; Serial: 06938

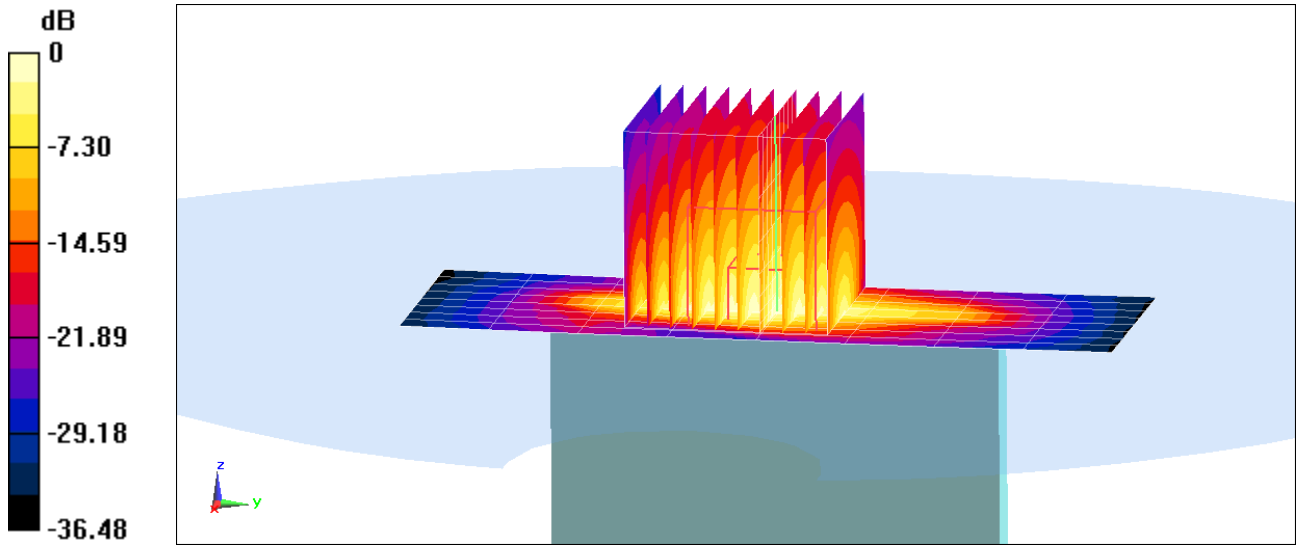
Communication System: UID 0, LTE Band 25 (PCS); Frequency: 1905 MHz; Duty Cycle: 1:1
Medium: 1900 Body; Medium parameters used:
f = 1905 MHz; σ = 1.571 S/m; ε_r = 55.036; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 04/12/2020; Ambient Temp: 21.1°C; Tissue Temp: 21.4°C

Probe: EX3DV4 - SN7571; ConvF(7.56, 7.56, 7.56) @ 1905 MHz; Calibrated: 12/11/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1533; Calibrated: 12/5/2019
Phantom: SAM Left; Type: QD000P40CC; Serial: TP: 1375
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: LTE Band 25 (PCS), Phablet SAR, Bottom Edge, High.ch, 20 MHz Bandwidth, QPSK, 50 RB, 25 RB Offset

Area Scan (9x9x1): Measurement grid: dx=5mm, dy=15mm
Zoom Scan (10x10x8)/Cube 0: Measurement grid: dx=3.8mm, dy=3.8mm, dz=1.4mm; Graded Ratio: 1.4
Reference Value = 66.56 V/m; Power Drift = -0.17 dB
Peak SAR (extrapolated) = 19.9 W/kg
SAR(10 g) = 2.86 W/kg



0 dB = 12.9 W/kg = 11.11 dBW/kg

DUT: A3LSMA716U; Type: Portable Handset; Serial: 19469

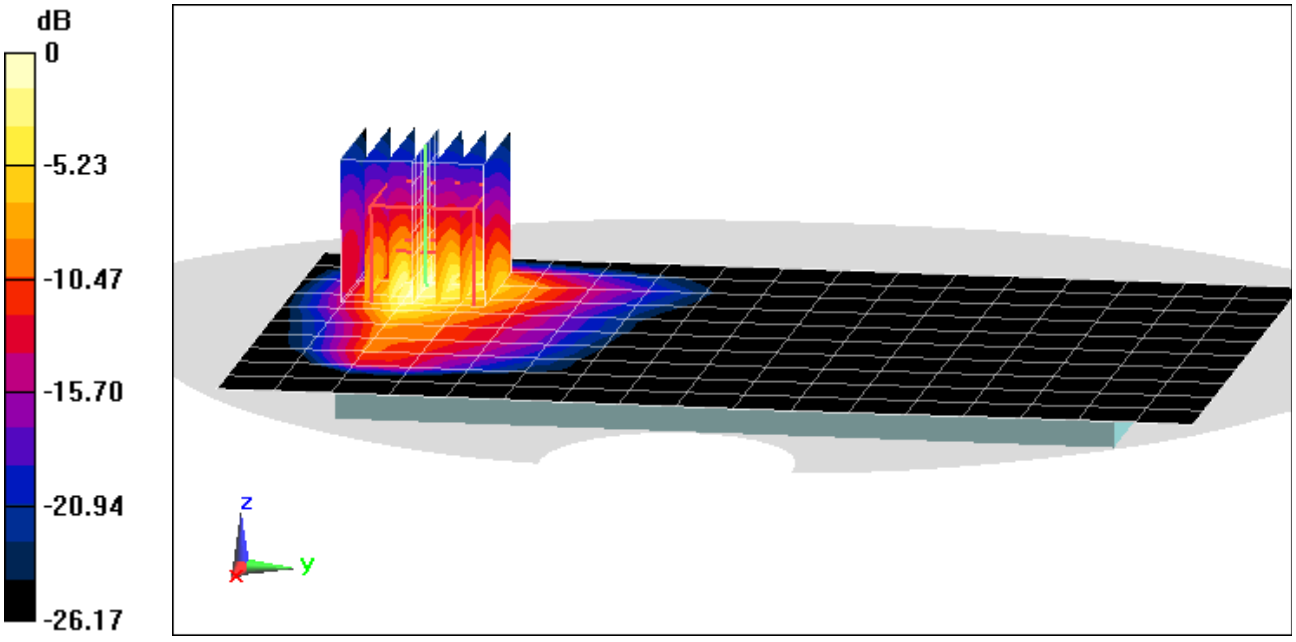
Communication System: UID 0, LTE Band 30; Frequency: 2310 MHz; Duty Cycle: 1:1
Medium: 2450 Body; Medium parameters used:
f = 2310 MHz; σ = 1.88 S/m; ε_r = 51.806; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 04/06/2020; Ambient Temp: 23.1°C; Tissue Temp: 21.6°C

Probe: EX3DV4 - SN7547; ConvF(7.47, 7.47, 7.47) @ 2310 MHz; Calibrated: 7/15/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1323; Calibrated: 7/11/2019
Phantom: LeftTwin-SAM V5.0; Type: QD 000 P40 CD; Serial: TP1375
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: LTE Band 30, Phablet SAR, Front side, Mid.ch,
10 MHz Bandwidth, QPSK, 25 RB, 12 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 = 49.63 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 12.7 W/kg
SAR(10 g) = 1.7 W/kg



0 dB = 8.55 W/kg = 9.32 dBW/kg

DUT: A3LSMA716U; Type: Portable Handset; Serial: 19469

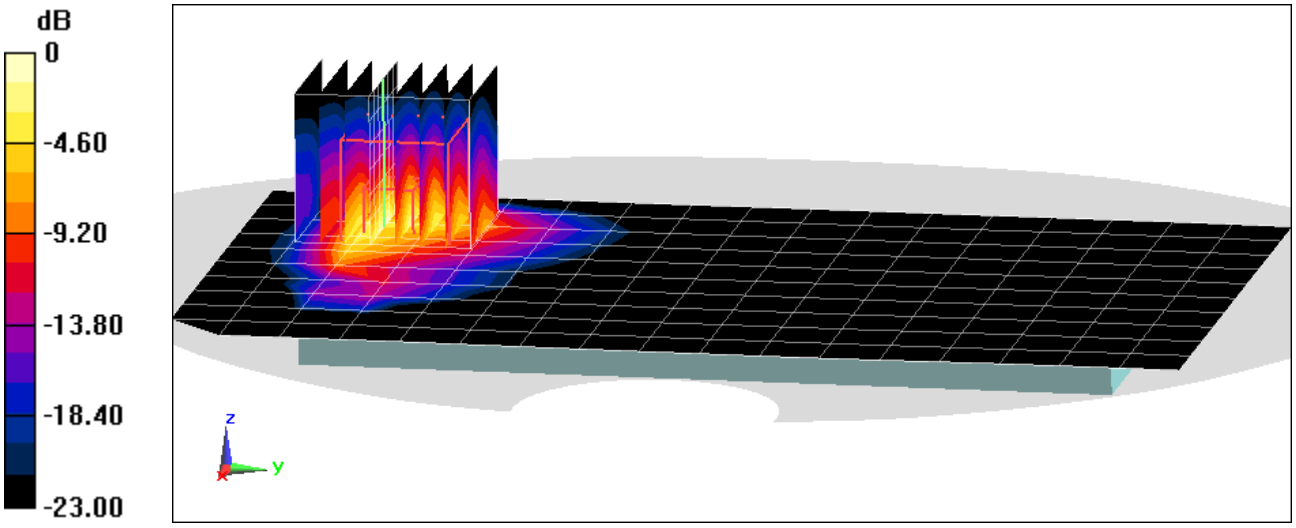
Communication System: UID 0, LTE Band 7; Frequency: 2510 MHz; Duty Cycle: 1:1
Medium: 2450 Body; Medium parameters used:
f = 2510 MHz; σ = 2.112 S/m; ε_r = 50.309; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 04/15/2020; Ambient Temp: 22.9°C; Tissue Temp: 21.5°C

Probe: EX3DV4 - SN7547; ConvF(7.3, 7.3, 7.3) @ 2510 MHz; Calibrated: 7/15/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1323; Calibrated: 7/11/2019
Phantom: LeftTwin-SAM V5.0; Type: QD 000 P40 CD; Serial: TP1375
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

**Mode: LTE Band 7, Phablet SAR, Front side, Low.ch,
20 MHz Bandwidth, QPSK, 50 RB, 50 RB Offset**

Area Scan (11x18x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (7x8x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 49.10 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 13.9 W/kg
SAR(10 g) = 1.66 W/kg



0 dB = 9.61 W/kg = 9.83 dBW/kg

DUT: A3LSMA716U; Type: Portable Handset; Serial: 19410

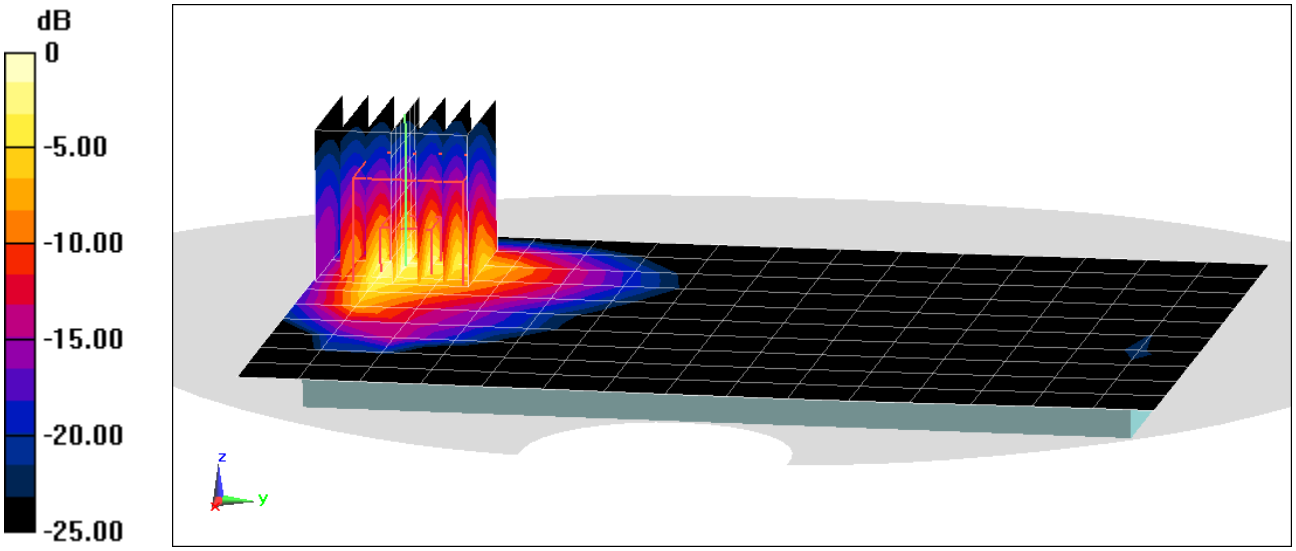
Communication System: UID 0, LTE Band 41 (Class 3); Frequency: 2593 MHz; Duty Cycle: 1:1.58
Medium: 2450 Body; Medium parameters used (interpolated):
f = 2593 MHz; σ = 2.197 S/m; ε_r = 51.114; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 04/23/2020; Ambient Temp: 23.2°C; Tissue Temp: 21.6°C

Probe: EX3DV4 - SN7547; ConvF(7.18, 7.18, 7.18) @ 2593 MHz; Calibrated: 7/15/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1323; Calibrated: 7/11/2019
Phantom: LeftTwin-SAM V5.0; Type: QD 000 P40 CD; Serial: TP1375
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: LTE Band 41, PC3, ULCA, Phablet SAR, Front side, Mid.ch, QPSK,
PCC: Ch. 40620, 20 MHz Bandwidth, QPSK, 50 RB, 50 RB Offset
SCC: Ch. 40818, 20 MHz Bandwidth, QPSK, 50 RB, 0 RB Offset

Area Scan (11x16x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 38.92 V/m; Power Drift = -0.13 dB
Peak SAR (extrapolated) = 8.70 W/kg
SAR(10 g) = 0.999 W/kg



0 dB = 6.13 W/kg = 7.87 dBW/kg

DUT: A3LSMA716U; Type: Portable Handset; Serial: 07217

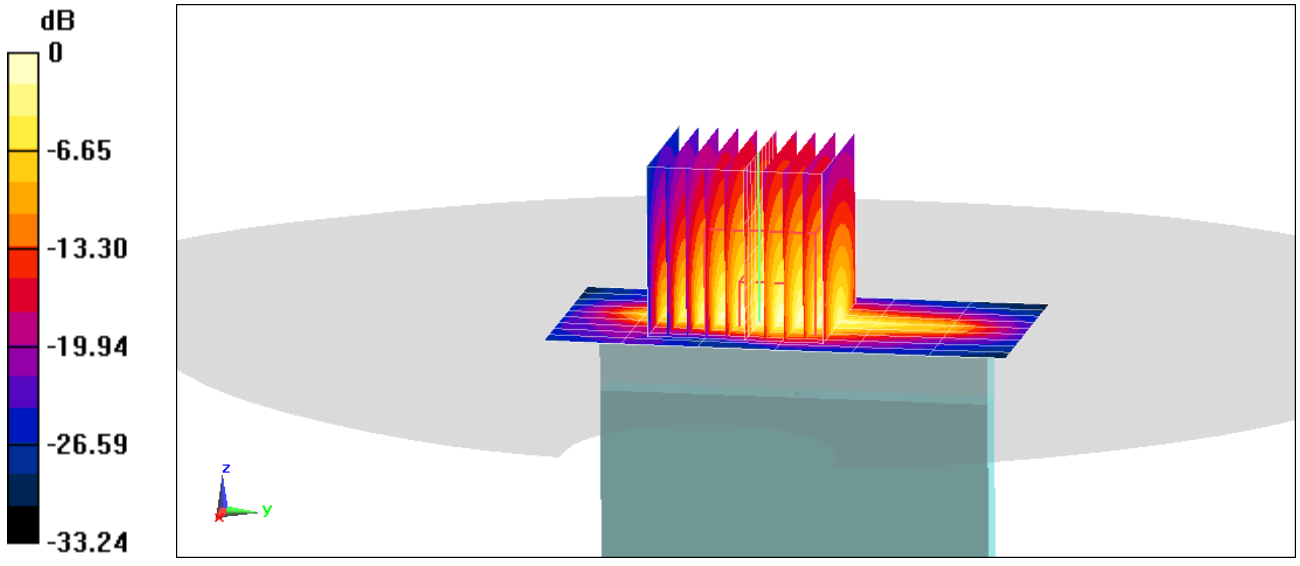
Communication System: UID 0, NR Band n66; Frequency: 1720 MHz; Duty Cycle: 1:1
Medium: 1750 Body; Medium parameters used:
f = 1720 MHz; σ = 1.478 S/m; ε_r = 53.229; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 05/14/2020; Ambient Temp: 21.6°C; Tissue Temp: 21.6°C

Probe: EX3DV4 - SN7527; ConvF(8.1, 8.1, 8.1) @ 1720 MHz; Calibrated: 3/17/2020
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1368; Calibrated: 3/12/2020
Phantom: Right Back Twin-SAM V5.0 (30); Type: QD 000 P40 CD; Serial: 1692
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: NR Band n66, Phablet SAR, Bottom Edge,
20 MHz Bandwidth, DFT-s-OFDM QPSK, Ch. 344000, 1 RB, 53 RB Offset

Area Scan (10x7x1): Measurement grid: dx=5mm, dy=15mm
Zoom Scan (10x10x8)/Cube 0: Measurement grid: dx=3.8mm, dy=3.8mm, dz=1.4mm; Graded Ratio: 1.4
Reference Value = 73.92 V/m; Power Drift = -0.09 dB
Peak SAR (extrapolated) = 17.7 W/kg
SAR(10 g) = 2.94 W/kg



0 dB = 12.1 W/kg = 10.83 dBW/kg

DUT: A3LSMA716U; Type: Portable Handset; Serial: 05583

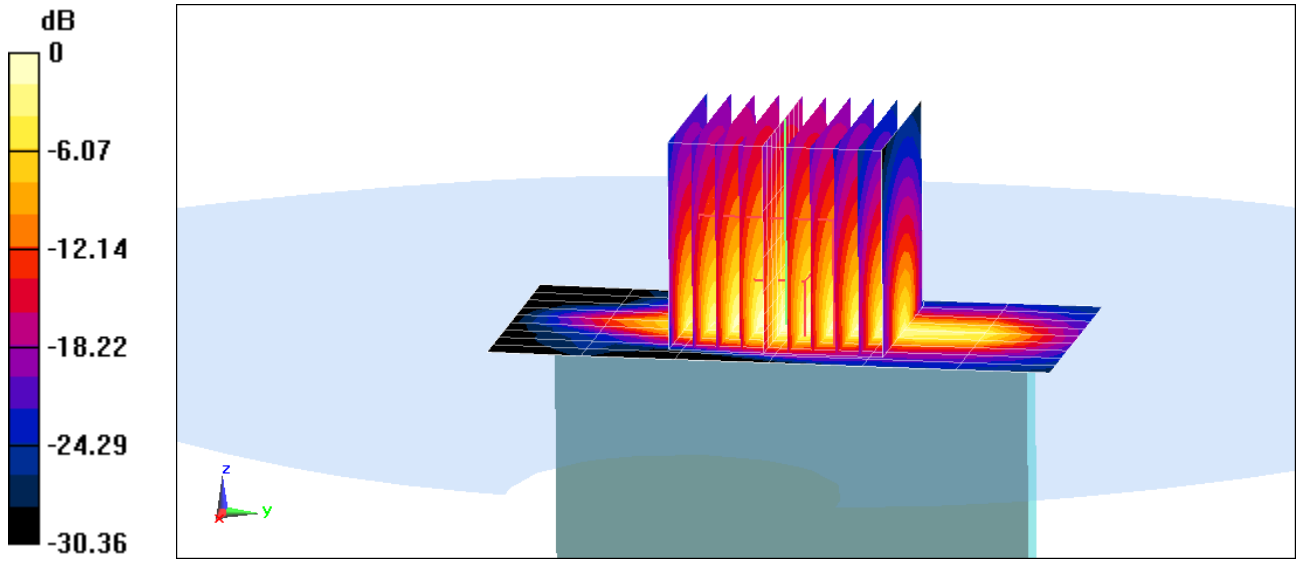
Communication System: UID 0, NR Band n2; Frequency: 1900 MHz; Duty Cycle: 1:1
Medium: 1900 Body; Medium parameters used:
f = 1900 MHz; σ = 1.569 S/m; ε_r = 55.589; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 05/08/2020; Ambient Temp: 22.7°C; Tissue Temp: 23.9°C

Probe: EX3DV4 - SN7571; ConvF(7.56, 7.56, 7.56) @ 1900 MHz; Calibrated: 12/11/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1533; Calibrated: 12/5/2019
Phantom: SAM Left; Type: QD000P40CC; Serial: TP: 1375
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: NR Band n2, Phablet SAR, Bottom Edge,
20 MHz Bandwidth, DFT-s-OFDM QPSK, Ch. 380000, 100 RB, 0 RB Offset

Area Scan (10x7x1): Measurement grid: dx=5mm, dy=15mm
Zoom Scan (10x10x8)/Cube 0: Measurement grid: dx=3.8mm, dy=3.8mm, dz=1.4mm; Graded Ratio: 1.4
Reference Value = 71.84 V/m; Power Drift = 0.00 dB
Peak SAR (extrapolated) = 19.5 W/kg
SAR(10 g) = 2.87 W/kg



0 dB = 12.5 W/kg = 10.97 dBW/kg

DUT: A3LSMA716U; Type: Portable Handset; Serial: 28338

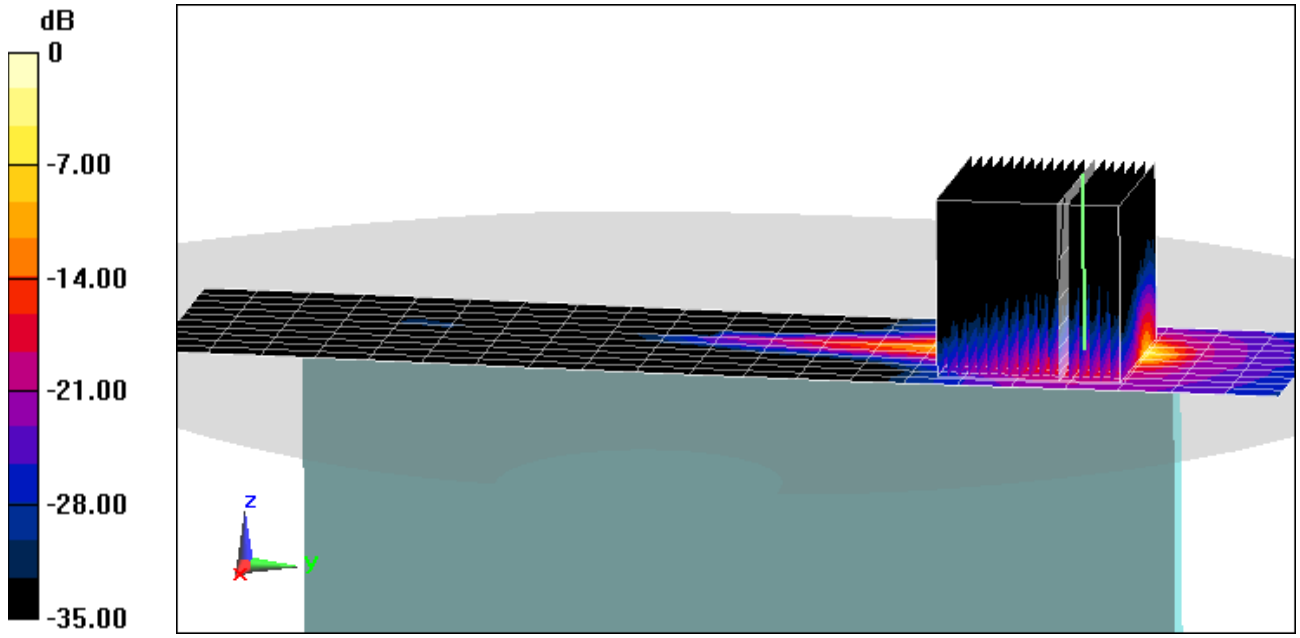
Communication System: UID 0, 802.11a 5.2-5.8 GHz Band; Frequency: 5260 MHz; Duty Cycle: 1:1
Medium: 5200-5800 Body; Medium parameters used:
f = 5260 MHz; σ = 5.523 S/m; ε_r = 47.764; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 0.0 cm

Test Date: 04/02/2020; Ambient Temp: 22.7°C; Tissue Temp: 22.6°C

Probe: EX3DV4 - SN7409; ConvF(4.7, 4.7, 4.7) @ 5260 MHz; Calibrated: 6/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1334; Calibrated: 6/20/2019
Phantom: Front; Type: QD 000 P40 CD; Serial: 1686
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

Mode: IEEE 802.11a, U-NII-2A, 20 MHz Bandwidth,
Phablet SAR, Ch 52, 6 Mbps, Left Edge,

Area Scan (11x22x1): Measurement grid: dx=5mm, dy=10mm
Zoom Scan (20x19x8)/Cube 0: Measurement grid: dx=1.9mm, dy=1.9mm, dz=1.4mm; Graded Ratio: 1.4
Reference Value = 45.14 V/m; Power Drift = -0.15 dB
Peak SAR (extrapolated) = 46.4 W/kg
SAR(10 g) = 1.43 W/kg



0 dB = 25.5 W/kg = 14.07 dBW/kg

APPENDIX B: SYSTEM VERIFICATION

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DUT: Dipole 750 MHz; Type: D750V3; Serial: 1161

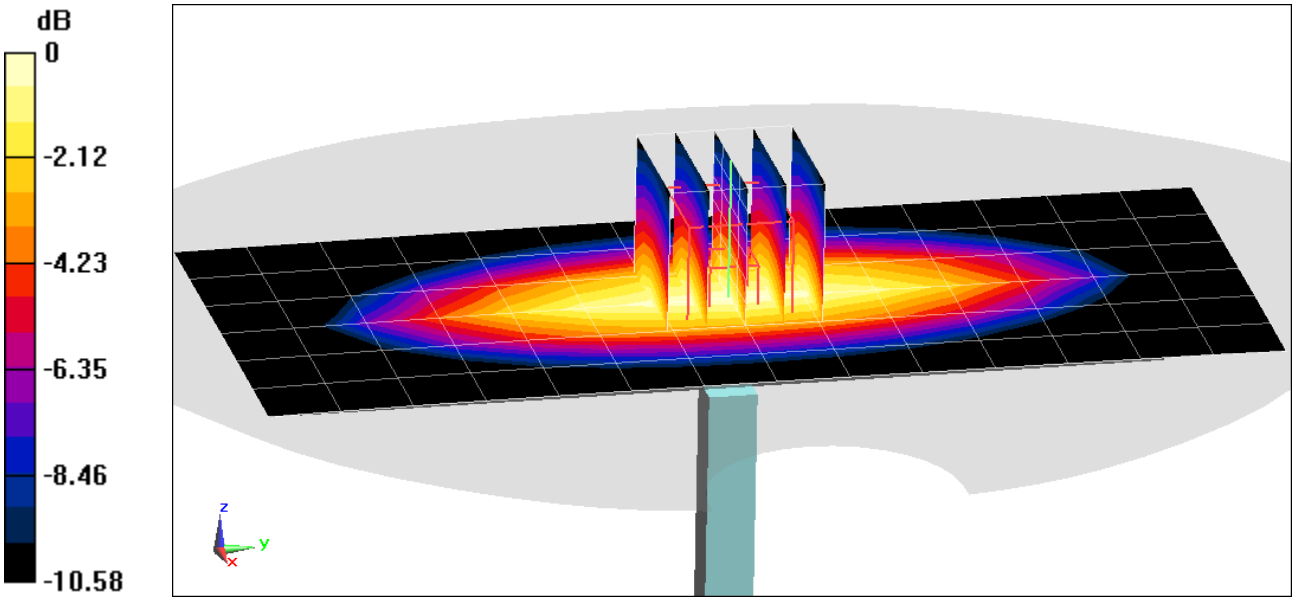
Communication System: UID 0, CW; Frequency: 750 MHz; Duty Cycle: 1:1
Medium: 750 Head; Medium parameters used:
f = 750 MHz; σ = 0.879 S/m; ε_r = 41.289; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 04/02/2020; Ambient Temp: 21.1°C; Tissue Temp: 20.6°C

Probe: EX3DV4 - SN7551; ConvF(10.11, 10.11, 10.11) @ 750 MHz; Calibrated: 9/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1333; Calibrated: 9/17/2019
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1792
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

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) = 2.52 W/kg
SAR(1 g) = 1.65 W/kg
Deviation(1 g) = 2.74%



0 dB = 2.23 W/kg = 3.48 dBW/kg

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DUT: Dipole 750 MHz; Type: D750V3; Serial: 1161

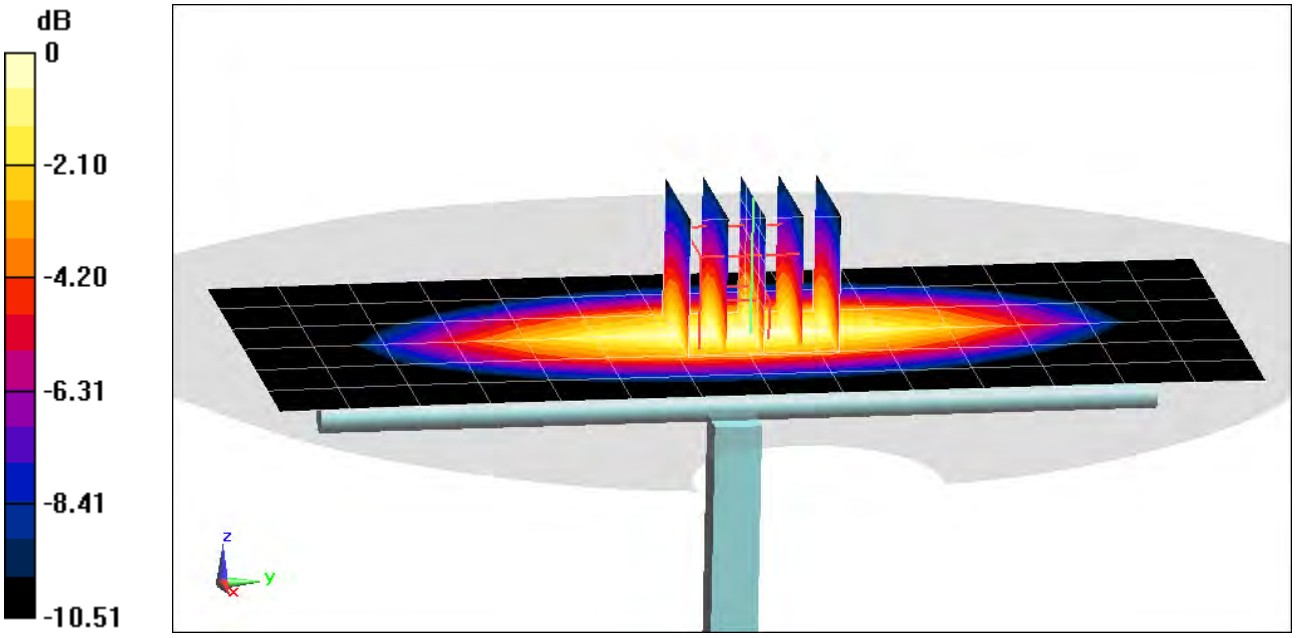
Communication System: UID 0, CW; Frequency: 750 MHz; Duty Cycle: 1:1
Medium: 750 Head; Medium parameters used:
f = 750 MHz; σ = 0.884 S/m; ε_r = 43.556; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 04/19/2020; Ambient Temp: 21.3°C; Tissue Temp: 20.1°C

Probe: EX3DV4 - SN7551; ConvF(10.11, 10.11, 10.11) @ 750 MHz; Calibrated: 9/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1333; Calibrated: 9/17/2019
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1792
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

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) = 2.49 W/kg
SAR(1 g) = 1.62 W/kg
Deviation(1 g) = 0.87%



0 dB = 2.19 W/kg = 3.40 dBW/kg

PCTEST

DUT: Dipole 835 MHz; Type: D835V2; Serial: 4d132

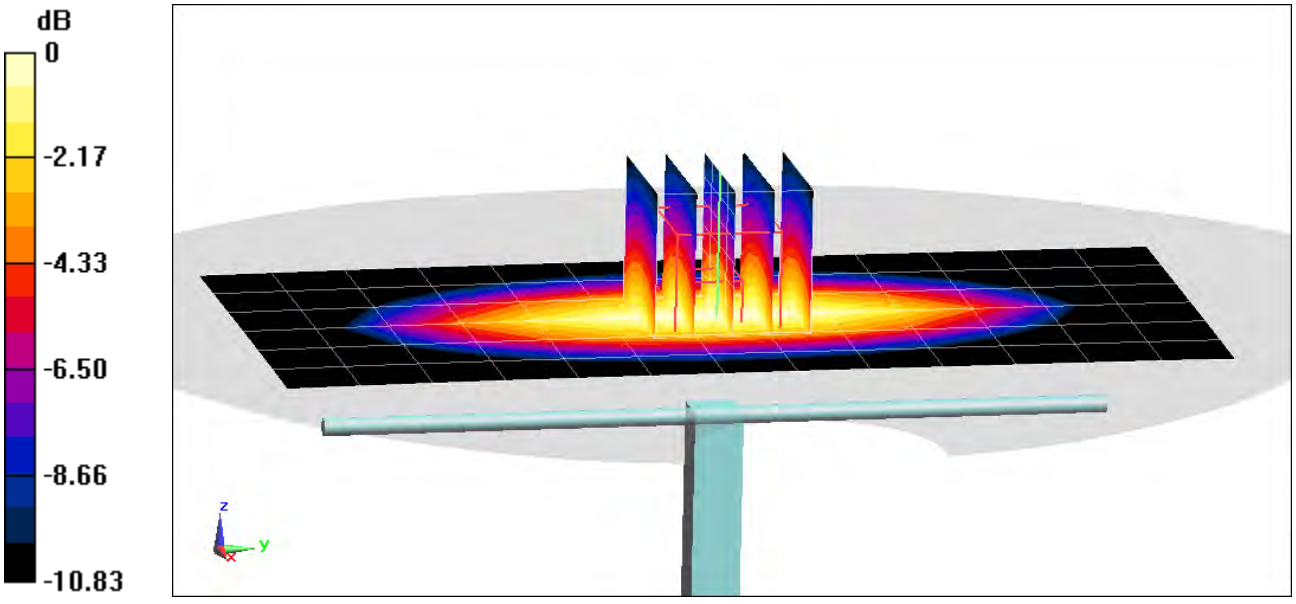
Communication System: UID 0, CW; Frequency: 835 MHz; Duty Cycle: 1:1
Medium: 835 Head; Medium parameters used:
f = 835 MHz; σ = 0.906 S/m; ε_r = 41.473; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 04/05/2020; Ambient Temp: 21.0°C; Tissue Temp: 20.2°C

Probe: EX3DV4 - SN7551; ConvF(9.88, 9.88, 9.88) @ 835 MHz; Calibrated: 9/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1333; Calibrated: 9/17/2019
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1792
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

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) = 2.87 W/kg
SAR(1 g) = 1.88 W/kg
Deviation(1 g) = -2.59%



0 dB = 2.53 W/kg = 4.03 dBW/kg

DUT: Dipole 835 MHz; Type: D835V2; Serial: 4d133

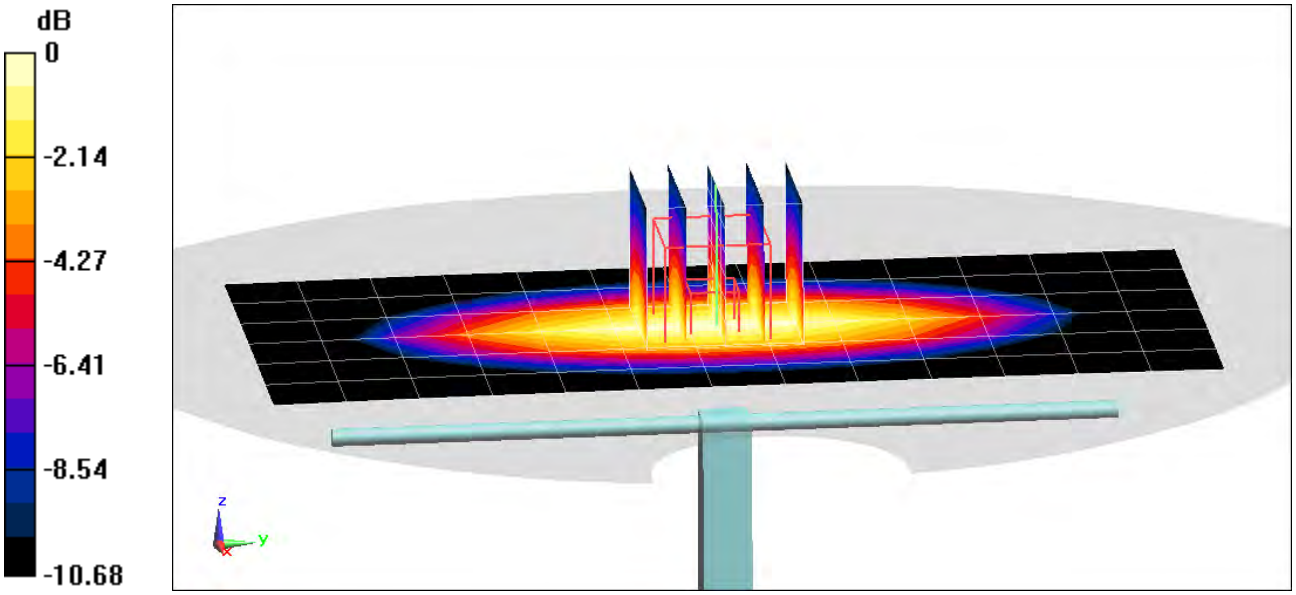
Communication System: UID 0, CW; Frequency: 835 MHz; Duty Cycle: 1:1
Medium: 835 Head; Medium parameters used:
f = 835 MHz; σ = 0.892 S/m; ε_r = 42.901; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 04/25/2020; Ambient Temp: 20.5°C; Tissue Temp: 19.9°C

Probe: EX3DV4 - SN7551; ConvF(9.88, 9.88, 9.88) @ 835 MHz; Calibrated: 9/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1333; Calibrated: 9/17/2019
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1792
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

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) = 2.84 W/kg
SAR(1 g) = 1.86 W/kg
Deviation(1 g) = -1.38%



0 dB = 2.50 W/kg = 3.98 dBW/kg

PCTEST

DUT: Dipole 835 MHz; Type: D835V2; Serial: 4d133

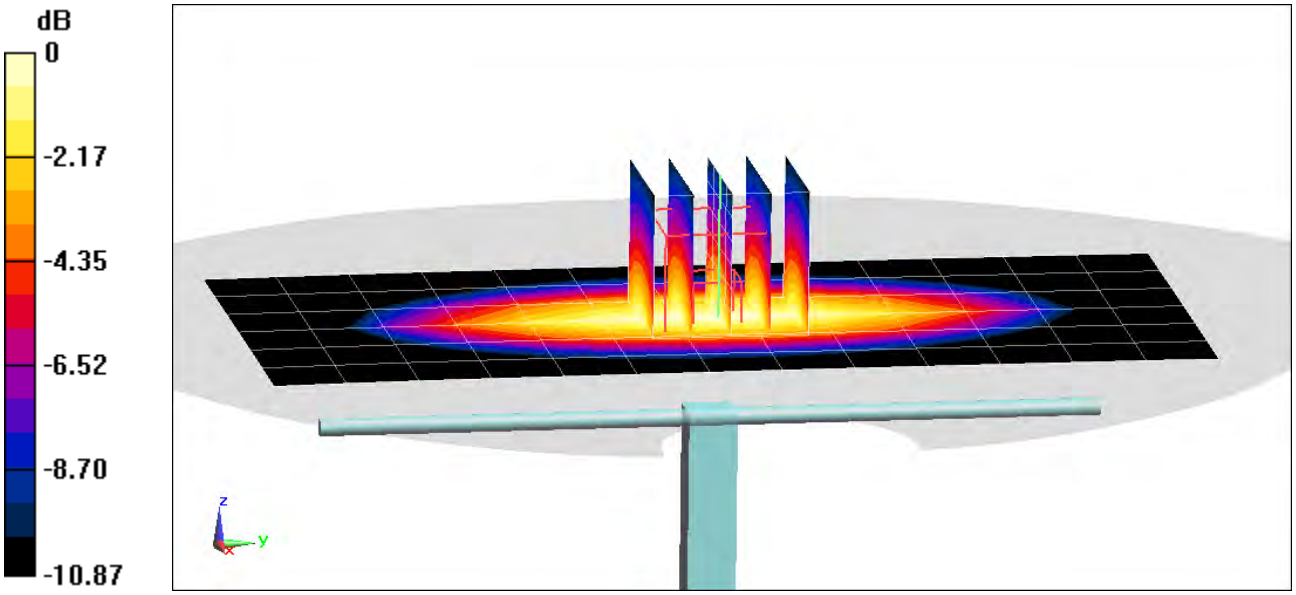
Communication System: UID 0, CW; Frequency: 835 MHz; Duty Cycle: 1:1
Medium: 835 Head; Medium parameters used:
f = 835 MHz; σ = 0.91 S/m; ε_r = 42.953; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 04/27/2020; Ambient Temp: 20.8°C; Tissue Temp: 20.1°C

Probe: EX3DV4 - SN7551; ConvF(9.88, 9.88, 9.88) @ 835 MHz; Calibrated: 9/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1333; Calibrated: 9/17/2019
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1792
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

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) = 2.98 W/kg
SAR(1 g) = 1.93 W/kg
Deviation(1 g) = 2.33%



0 dB = 2.62 W/kg = 4.18 dBW/kg

DUT: Dipole 835 MHz; Type: D835V2; Serial: 4d133

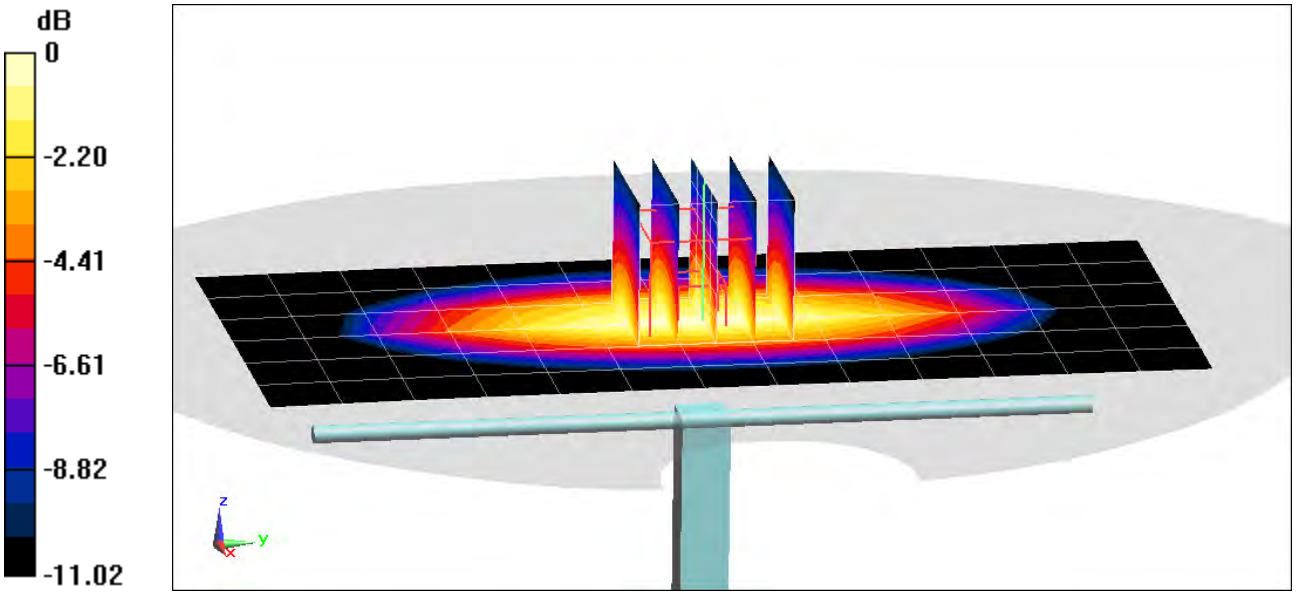
Communication System: UID 0, CW; Frequency: 835 MHz; Duty Cycle: 1:1
Medium: 835 Head; Medium parameters used:
f = 835 MHz; σ = 0.936 S/m; ε_r = 42.833; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 05/04/2020; Ambient Temp: 23.3°C; Tissue Temp: 22.3°C

Probe: EX3DV4 - SN7551; ConvF(9.88, 9.88, 9.88) @ 835 MHz; Calibrated: 9/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1333; Calibrated: 9/17/2019
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1792
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

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) = 3.02 W/kg
SAR(1 g) = 1.96 W/kg
Deviation(1 g) = 3.92%



0 dB = 2.66 W/kg = 4.25 dBW/kg

PCTEST

DUT: Dipole 1750 MHz; Type: D1750V2; Serial: 1150

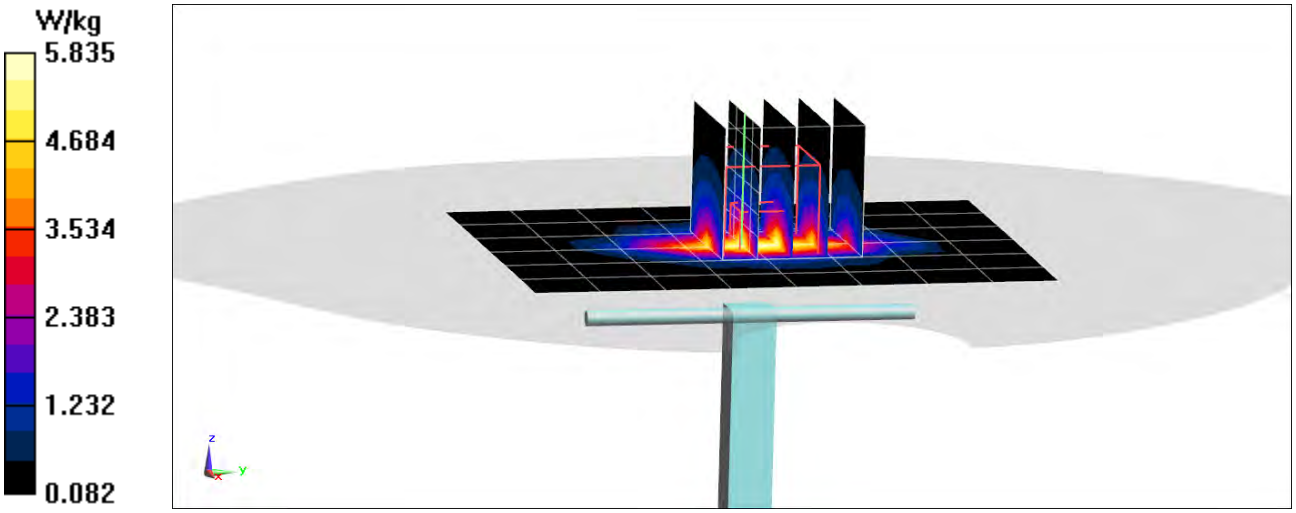
Communication System: UID 0, CW; Frequency: 1750 MHz; Duty Cycle: 1:1
Medium: 1750 Head Medium parameters used:
f = 1750 MHz; σ = 1.408 S/m; ε_r = 38.636; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 04/28/2020; Ambient Temp: 21.4°C; Tissue Temp: 21.1°C

Probe: EX3DV4 - SN7570; ConvF(8.68, 8.68, 8.68) @ 1750 MHz; Calibrated: 12/11/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn859; Calibrated: 12/18/2019
Phantom: Twin-SAM V8.0; Type: QD 000 P41 Ax; Serial: 1964
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

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) = 7.26 W/kg
SAR(1 g) = 3.75 W/kg
Deviation(1 g) = 2.74%



PCTEST

DUT: Dipole 1750 MHz; Type: D1750V2; Serial: 1150

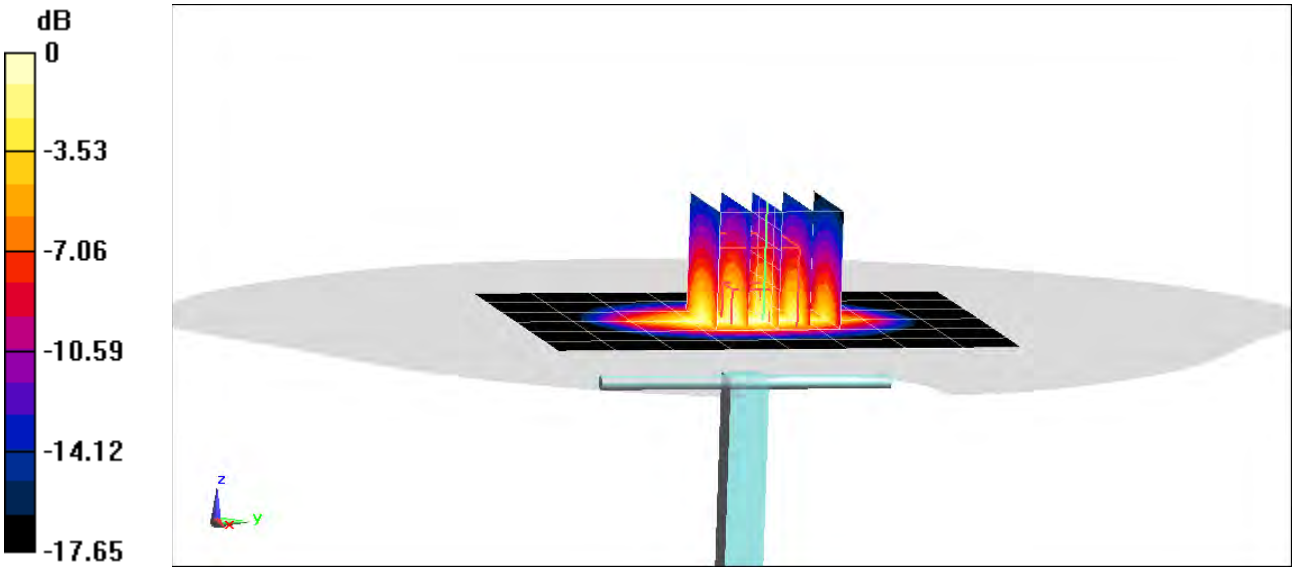
Communication System: UID 0, CW; Frequency: 1750 MHz; Duty Cycle: 1:1
Medium: 1750 Head Medium parameters used:
f = 1750 MHz; σ = 1.338 S/m; ε_r = 40.62; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 05/13/2020; Ambient Temp 23.9°C; Tissue Temp: 20.5°C

Probe: EX3DV4 - SN7410; ConvF(8.46, 8.46, 8.46) @ 1750 MHz; Calibrated: 7/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2019
Phantom: Twin-SAM V8.0; Type: QD 000 P41 Ax; Serial: 1966
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

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) = 6.55 W/kg
SAR(1 g) = 3.61 W/kg
Deviation(1 g) = -1.10%



0 dB = 5.44 W/kg = 7.36 dBW/kg

DUT: Dipole 1900 MHz; Type: D1900V2; Serial: 5d148

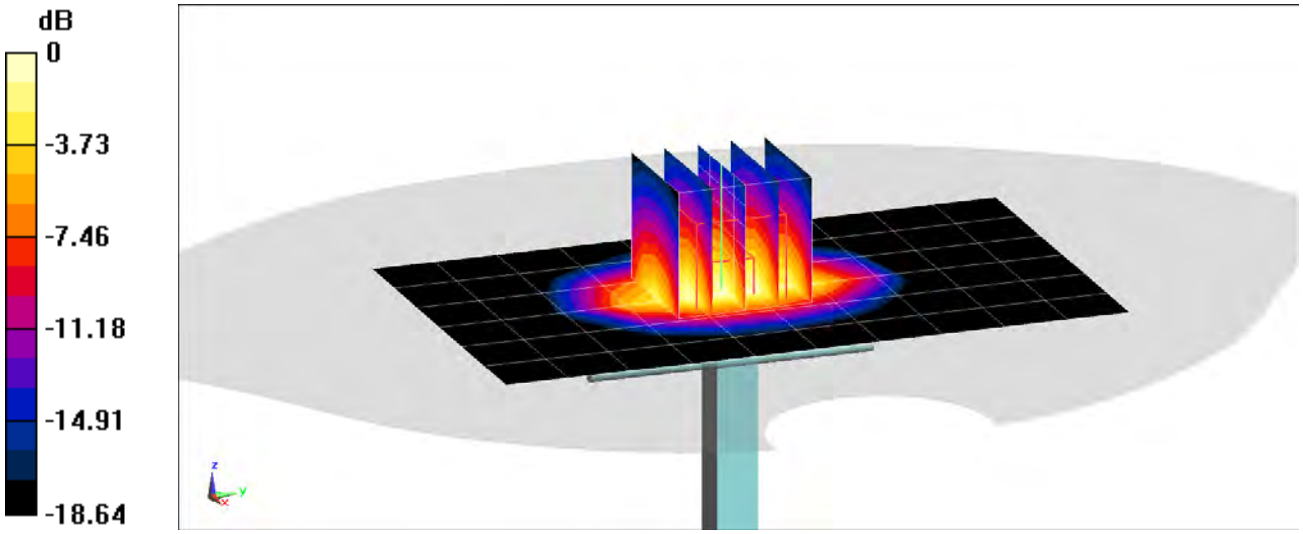
Communication System: UID 0, CW; Frequency: 1900 MHz; Duty Cycle: 1:1
Medium: 1900 Head Medium parameters used:
f = 1900 MHz; σ = 1.452 S/m; ε_r = 38.988; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 03/30/2020; Ambient Temp: 21.2°C; Tissue Temp: 21.2°C

Probe: EX3DV4 - SN7406; ConvF(8.18, 8.18, 8.18) @ 1900 MHz; Calibrated: 5/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn728; Calibrated: 5/8/2019
Phantom: Twin-SAM V5.0 Left 30; Type: QD 000 P40 CD; Serial: 1715
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

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) = 8.02 W/kg
SAR(1 g) = 4.21 W/kg
Deviation(1 g) = 7.67%



0 dB = 6.66 W/kg = 8.23 dBW/kg

DUT: Dipole 1900 MHz; Type: D1900V2; Serial: 5d149

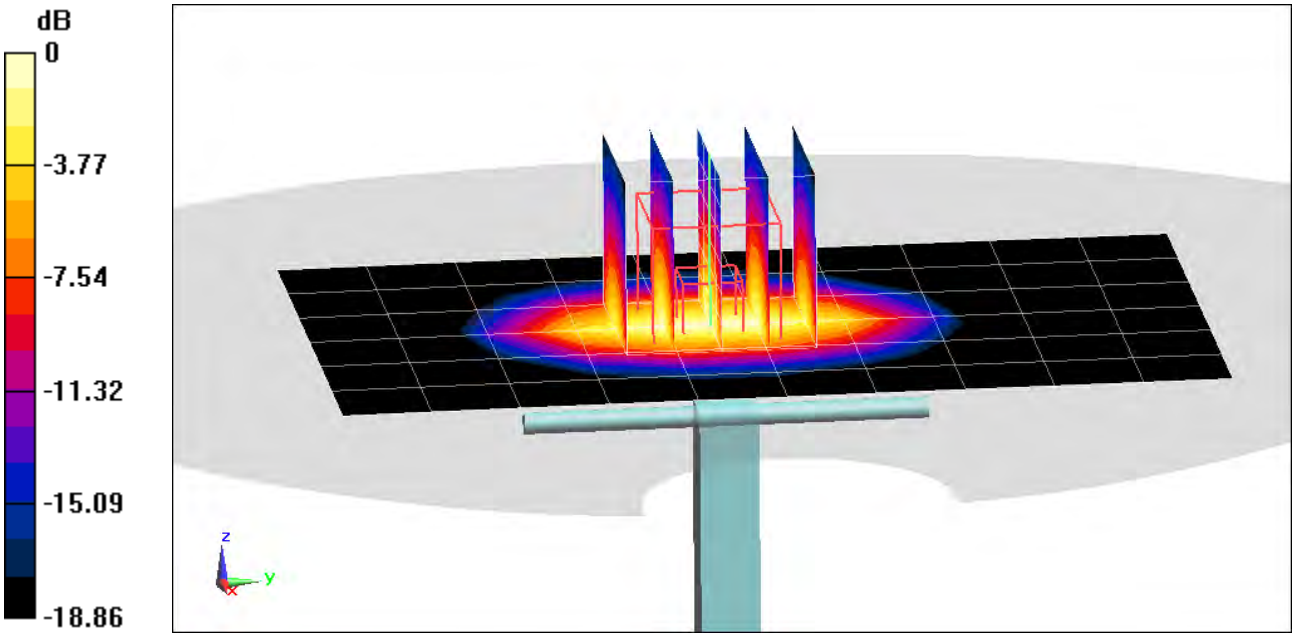
Communication System: UID 0, CW; Frequency: 1900 MHz; Duty Cycle: 1:1
Medium: 1900 Head; Medium parameters used:
f = 1900 MHz; σ = 1.444 S/m; ε_r = 38.8; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 04/20/2020; Ambient Temp: 20.3°C; Tissue Temp: 21.5°C

Probe: EX3DV4 - SN7551; ConvF(8.05, 8.05, 8.05) @ 1900 MHz; Calibrated: 9/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1333; Calibrated: 9/17/2019
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1792
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

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) = 8.28 W/kg
SAR(1 g) = 4.25 W/kg
Deviation(1 g) = 8.14%



0 dB = 6.82 W/kg = 8.34 dBW/kg

DUT: Dipole 1900 MHz; Type: D1900V2; Serial: 5d148

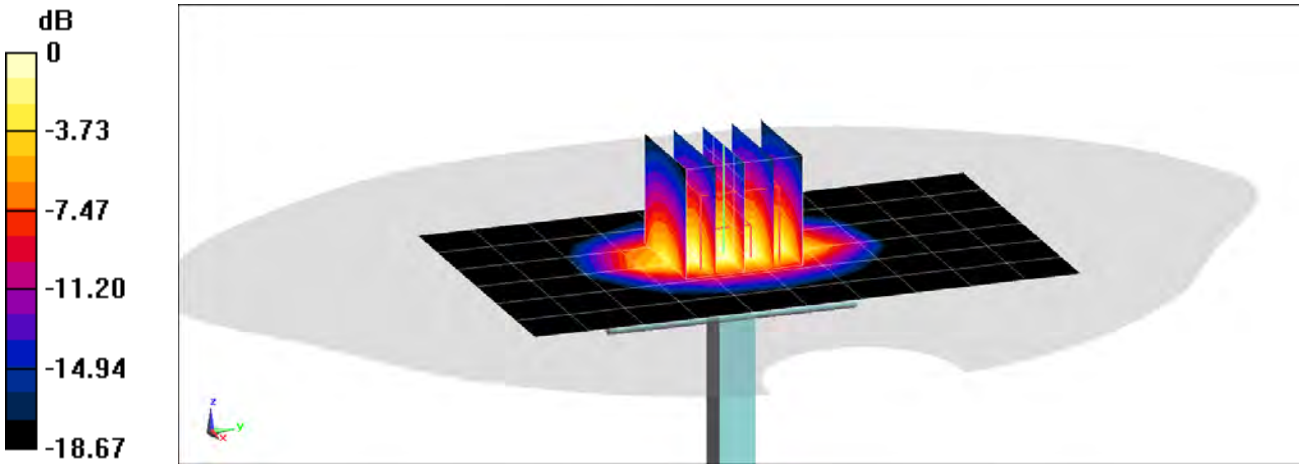
Communication System: UID 0, CW; Frequency: 1900 MHz; Duty Cycle: 1:1
Medium: 1900 Head Medium parameters used:
f = 1900 MHz; σ = 1.426 S/m; ε_r = 38.266; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 05/04/2020; Ambient Temp: 23.0°C; Tissue Temp: 21.5°C

Probe: EX3DV4 - SN7406; ConvF(8.18, 8.18, 8.18) @ 1900 MHz; Calibrated: 5/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn728; Calibrated: 5/8/2019
Phantom: Twin-SAM V5.0 Left 20; Type: QD 000 P40 CD; Serial: 1715
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

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) = 7.92 W/kg
SAR(1 g) = 4.17 W/kg
Deviation(1 g) = 6.65%



0 dB = 6.58 W/kg = 8.18 dBW/kg

DUT: Dipole 1900 MHz; Type: D1900V2; Serial: 5d080

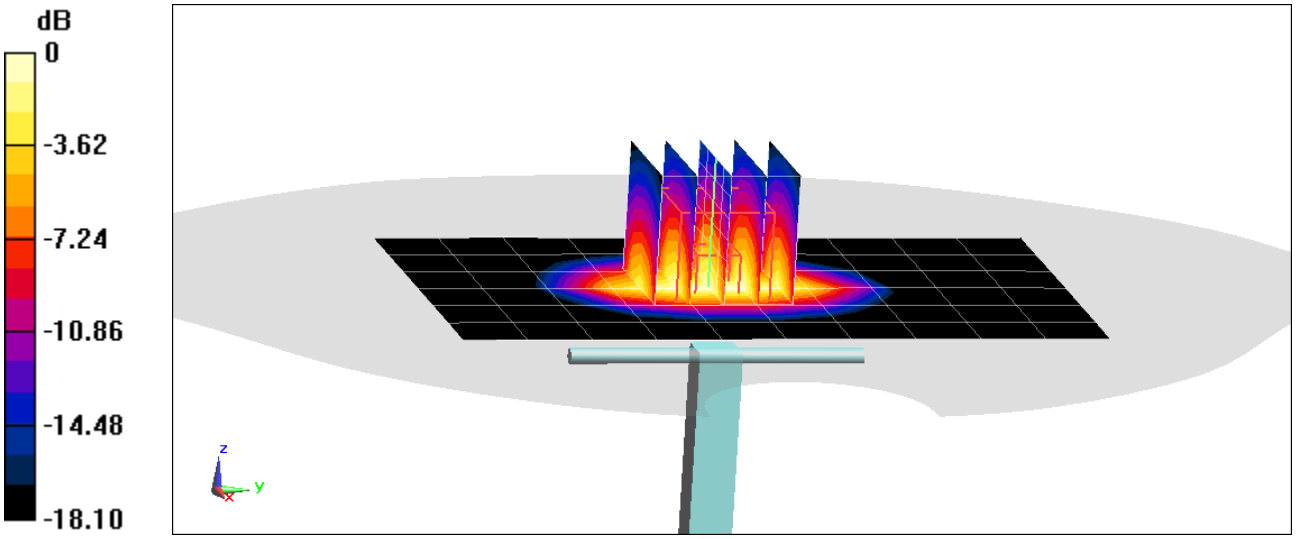
Communication System: UID 0, CW; Frequency: 1900 MHz; Duty Cycle: 1:1
Medium: 1900 Head Medium parameters used:
f = 1900 MHz; σ = 1.45 S/m; ε_r = 40.959; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 05/11/2020; Ambient Temp: 21.8°C; Tissue Temp: 21.0°C

Probe: EX3DV4 - SN7410; ConvF(8.11, 8.11, 8.11) @ 1900 MHz; Calibrated: 7/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2019
Phantom: Twin-SAM V8.0; Type: QD 000 P41 Ax; Serial: 1966
Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

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) = 7.95 W/kg
SAR(1 g) = 4.29 W/kg
Deviation(1 g) = 7.79%



0 dB = 6.68 W/kg = 8.25 dBW/kg

PCTEST

DUT: Dipole 2300 MHz; Type: D2300V2; Serial: 1073

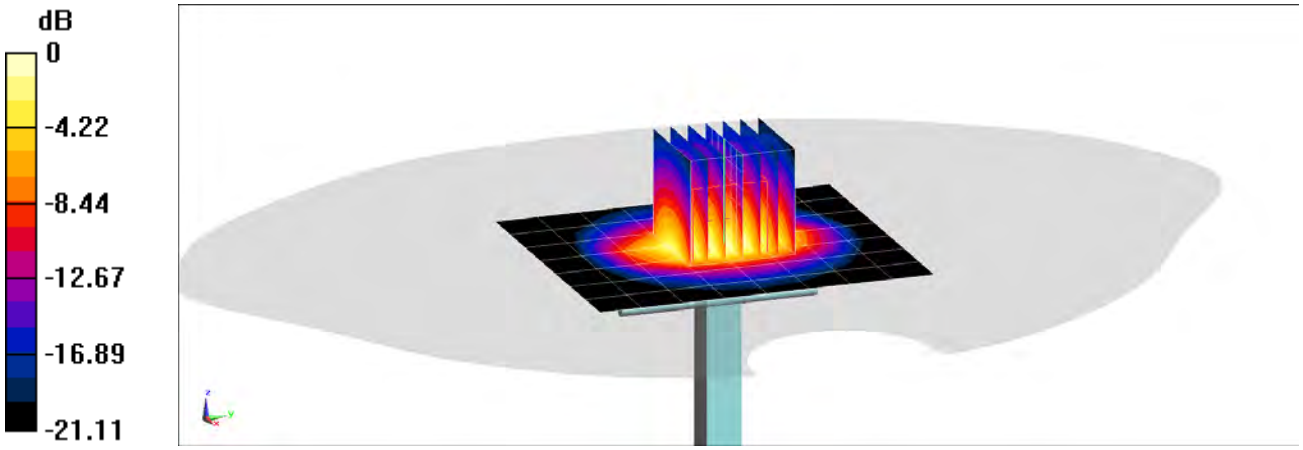
Communication System: UID 0, CW; Frequency: 2300 MHz; Duty Cycle: 1:1
Medium: 2450 Head Medium parameters used:
f = 2300 MHz; σ = 1.704 S/m; ε_r = 38.357; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 04/02/2020; Ambient Temp: 21.1°C; Tissue Temp: 20.5°C

Probe: EX3DV4 - SN3589; ConvF(7.11, 7.11, 7.11) @ 2300 MHz; Calibrated: 1/21/2020
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1558; Calibrated: 1/13/2020
Phantom: Twin-SAM V5.0 (30); Type: QD 000 P40 CD; Serial: 1647
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

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) = 9.16 W/kg
SAR(1 g) = 4.53 W/kg
Deviation(1 g) = -7.93%



0 dB = 7.36 W/kg = 8.67 dBW/kg

DUT: Dipole 2450 MHz; Type: D2450V2; Serial: 719

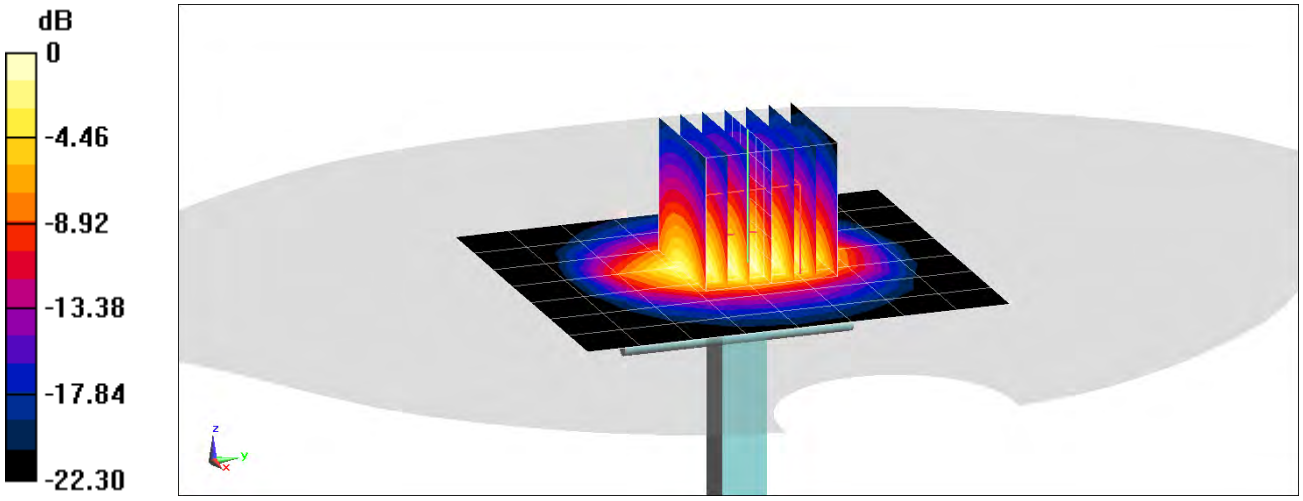
Communication System: UID 0, CW; Frequency: 2450 MHz; Duty Cycle: 1:1
Medium: 2450 Head Medium parameters used:
f = 2450 MHz; σ = 1.818 S/m; ε_r = 38.229; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 04/05/2020; Ambient Temp: 22.5°C; Tissue Temp: 22.4°C

Probe: EX3DV4 - SN3589; ConvF(6.85, 6.85, 6.85) @ 2450 MHz; Calibrated: 1/21/2020
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1558; Calibrated: 1/13/2020
Phantom: Twin-SAM V5.0 (30); Type: QD 000 P40 CD; Serial: 1647
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

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) = 5.3 W/kg
Deviation(1 g) = -0.19%



0 dB = 8.76 W/kg = 9.43 dBW/kg

PCTEST

DUT: Dipole 2450 MHz; Type: D2450V2; Serial: 797

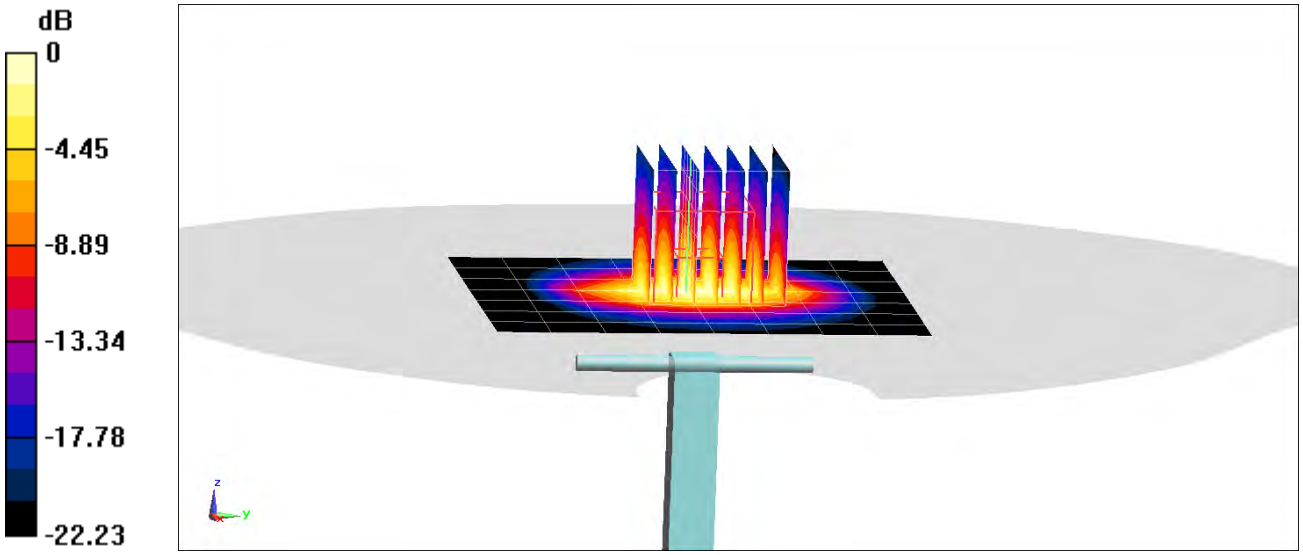
Communication System: UID 0, CW; Frequency: 2450 MHz; Duty Cycle: 1:1
Medium: 2450 Head Medium parameters used:
f = 2450 MHz; σ = 1.804 S/m; ε_r = 39.074; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 04/26/2020; Ambient Temp: 22.1°C; Tissue Temp: 22.3°C

Probe: EX3DV4 - SN3589; ConvF(6.85, 6.85, 6.85) @ 2450 MHz; Calibrated: 1/21/2020
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1558; Calibrated: 1/13/2020
Phantom: Twin-SAM V5.0 (30); Type: QD 000 P40 CD; Serial: 1647
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

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) = 11.4 W/kg
SAR(1 g) = 5.36 W/kg
Deviation(1 g) = 1.71%



0 dB = 8.98 W/kg = 9.53 dBW/kg

DUT: Dipole 2600 MHz; Type: D2600V2; Serial: 1064

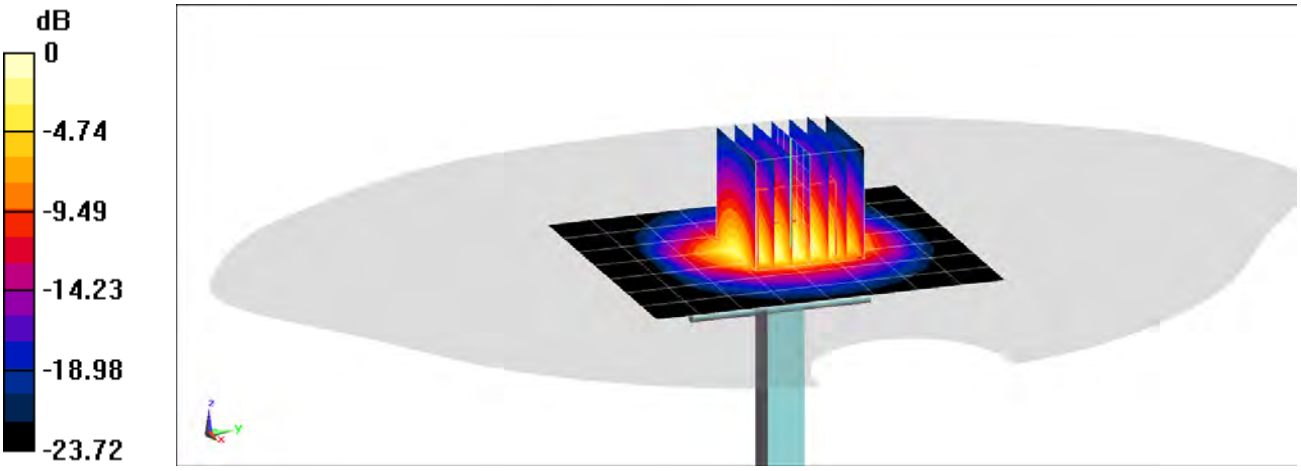
Communication System: UID 0, CW; Frequency: 2600 MHz; Duty Cycle: 1:1
Medium: 2450 Head Medium parameters used:
f = 2600 MHz; σ = 1.937 S/m; ε_r = 37.985; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 04/05/2020; Ambient Temp: 22.5°C; Tissue Temp: 22.4°C

Probe: EX3DV4 - SN3589; ConvF(6.6, 6.6, 6.6) @ 2600 MHz; Calibrated: 1/21/2020
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1558; Calibrated: 1/13/2020
Phantom: Twin-SAM V5.0 (30); Type: QD 000 P40 CD; Serial: 1647
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

2600 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) = 13.1 W/kg
SAR(1 g) = 6.05 W/kg
Deviation(1 g) = 4.13%



0 dB = 10.3 W/kg = 10.13 dBW/kg

DUT: Dipole 2600 MHz; Type: D2600V2; Serial: 1064

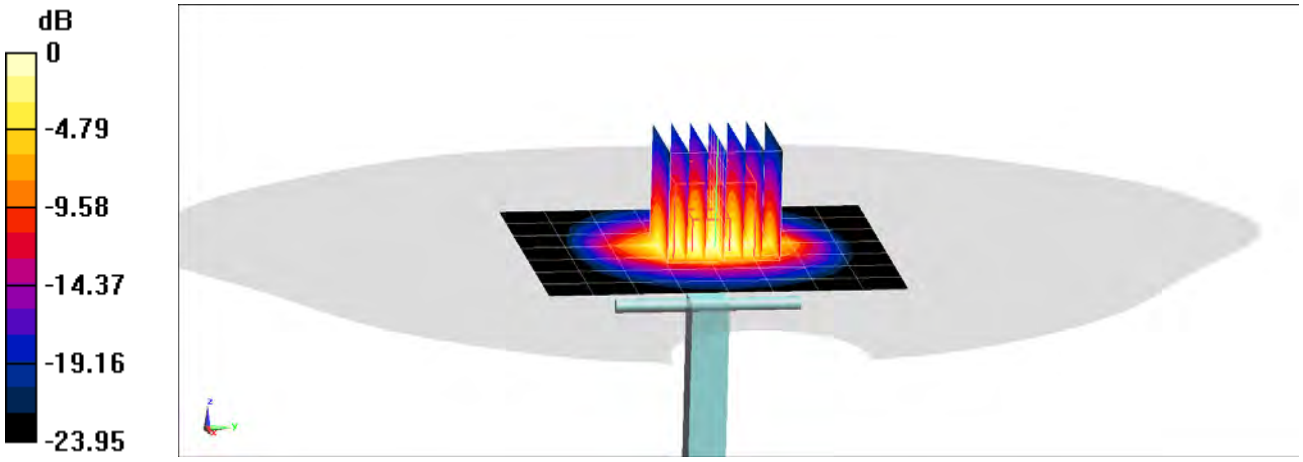
Communication System: UID 0, CW; Frequency: 2600 MHz; Duty Cycle: 1:1
Medium: 2450 Head Medium parameters used:
f = 2600 MHz; σ = 1.896 S/m; ε_r = 39.1; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 05/10/2020; Ambient Temp: 23.2°C; Tissue Temp: 22.8°C

Probe: EX3DV4 - SN3589; ConvF(6.6, 6.6, 6.6) @ 2600 MHz; Calibrated: 1/21/2020
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1558; Calibrated: 1/13/2020
Phantom: Twin-SAM V5.0 (30); Type: QD 000 P40 CD; Serial: 1647
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

2600 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) = 12.7 W/kg
SAR(1 g) = 5.78 W/kg
Deviation(1 g) = -0.52%



0 dB = 9.96 W/kg = 9.98 dBW/kg

DUT: Dipole 5 GHz; Type: D5GHzV2; Serial: 1191

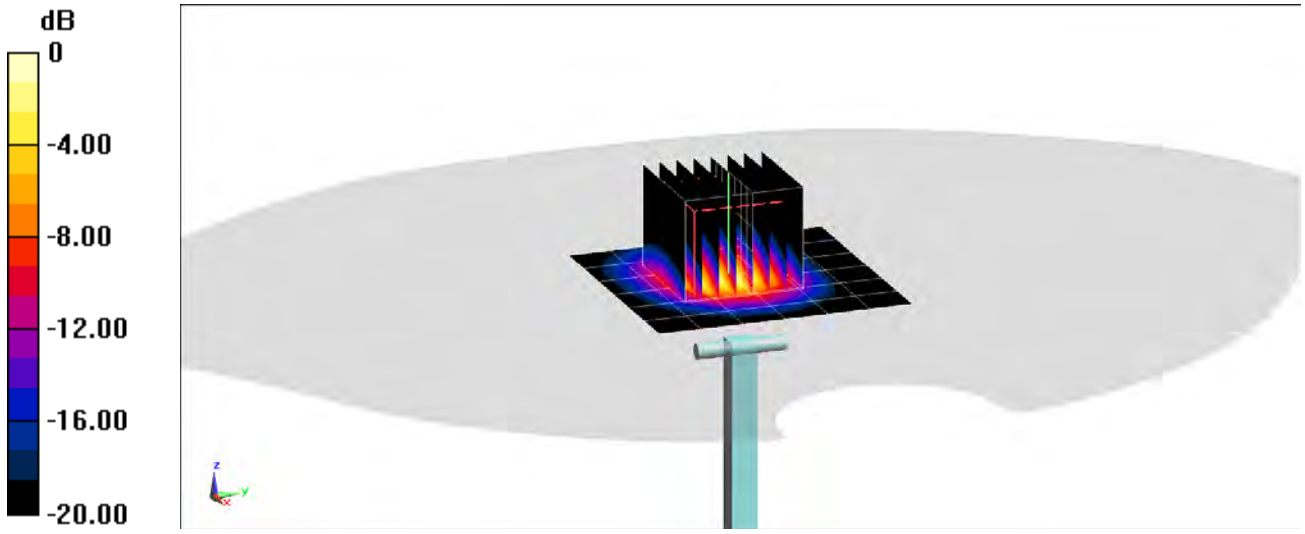
Communication System: UID 0, CW; Frequency: 5250 MHz; Duty Cycle: 1:1
Medium: 5200-5800 Head Medium parameters used:
f = 5250 MHz; σ = 4.594 S/m; ε_r = 34.644; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 04/13/2020; Ambient Temp: 23.0°C; Tissue Temp: 21.0°C

Probe: EX3DV4 - SN7406; ConvF(5.54, 5.54, 5.54) @ 5250 MHz; Calibrated: 5/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn728; Calibrated: 5/8/2019
Phantom: Twin-SAM V5.0 Left 20; Type: QD 000 P40 CD; Serial: 1715
Measurement SW: DASY52, Version 52.10 (4);SEMCAD X Version 14.6.14 (7483)

5250 MHz System Verification at 17.0 dBm (50 mW)

Area Scan (7x7x1): Measurement grid: dx=10mm, dy=10mm
Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm; Graded Ratio: 1.4
Peak SAR (extrapolated) = 16.1 W/kg
SAR(1 g) = 3.84 W/kg
Deviation(1 g) = -4.95%



0 dB = 8.98 W/kg = 9.53 dBW/kg