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SAR EVALUATION REPORT

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

Date of Testing:
11/18/19 - 01/23/20
Test Site/Location:
PCTEST Lab, Columbia, MD, USA
Document Serial No.:
1M1911140187-01-R2.A3L

FCC ID: **A3LSMG988U**

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

DUT Type: Portable Handset
Application Type: Certification
FCC Rule Part(s): CFR §2.1093
Model: SM-G988U
Additional Model(s): SM-G988U1, SM-G988W

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	CDMA/EVDO BC10 (§90S)	817.90 - 823.10 MHz	0.21	0.33	0.72	N/A
PCE	CDMA/EVDO BC0 (§22H)	824.70 - 848.31 MHz	0.25	0.35	0.75	N/A
PCE	PCS CDMA/EVDO	1851.25 - 1908.75 MHz	0.19	0.77	0.87	2.96
PCE	GSM/GPRS/EDGE 850	824.20 - 848.80 MHz	0.19	0.23	0.71	N/A
PCE	GSM/GPRS/EDGE 1900	1850.20 - 1909.80 MHz	< 0.1	0.33	0.86	3.03
PCE	UMTS 850	826.40 - 846.60 MHz	0.27	0.31	0.70	N/A
PCE	UMTS 1750	1712.4 - 1752.6 MHz	0.10	0.84	1.08	2.64
PCE	UMTS 1900	1852.4 - 1907.6 MHz	0.15	0.77	0.93	3.10
PCE	LTE Band 71	665.5 - 695.5 MHz	0.16	0.23	0.31	N/A
PCE	LTE Band 12	699.7 - 715.3 MHz	0.19	0.29	0.41	N/A
PCE	LTE Band 13	779.5 - 784.5 MHz	0.19	0.27	0.49	N/A
PCE	LTE Band 14	790.5 - 795.5 MHz	0.23	0.29	0.53	N/A
PCE	LTE Band 26 (Cell)	814.7 - 848.3 MHz	0.17	0.31	0.65	N/A
PCE	LTE Band 5 (Cell)	824.7 - 848.3 MHz	0.21	0.32	0.71	N/A
PCE	LTE Band 66 (AWS)	1710.7 - 1779.3 MHz	0.14	0.89	1.04	3.14
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	0.85	2.82
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	0.61	0.99	2.08
PCE	LTE Band 7	2502.5 - 2567.5 MHz	0.11	0.26	0.90	2.30
CBE	LTE Band 48	3552.5 - 3697.5 MHz	0.94	0.29	0.97	N/A
PCE	LTE Band 41	2498.5 - 2687.5 MHz	0.11	0.42	1.00	2.29
PCE	LTE Band 38	2572.5 - 2617.5 MHz	N/A	N/A	N/A	N/A
PCE	NR Band n71	665.5 - 695.5 MHz	0.14	0.23	0.32	N/A
PCE	NR Band n5 (Cell)	826.5 - 846.5 MHz	0.19	0.32	0.70	N/A
PCE	NR Band n66 (AWS)	1712.5 - 1777.5 MHz	0.14	0.95	0.88	2.79
PCE	NR Band n2 (PCS)	1852.5 - 1907.5 MHz	0.15	0.92	0.97	3.10
PCE	NR Band n41	2506 - 2680 MHz	0.78	< 0.1	0.17	N/A
DTS	2.4 GHz WLAN	2412 - 2462 MHz	0.64	< 0.1	0.54	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	0.24	N/A	1.19
NII	U-NII-2C	5500 - 5720 MHz	< 0.1	0.79	N/A	1.98
NII	U-NII-3	5745 - 5825 MHz	< 0.1	0.45	0.81	N/A
DSS/DTS	Bluetooth	2402 - 2480 MHz	0.33	< 0.1	0.10	N/A
Simultaneous SAR per KDB 690783 D01v01r03:			1.58	1.59	1.59	3.98

Note: This revised Test Report (S/N: 1M1911140187-01-R2.A3L) supersedes and replaces the previously issued test report on the same subject device for the same type of testing as indicated. Please discard or destroy the previously issued test report(s) and dispose of it accordingly.
This wireless portable device has been shown to be capable of compliance for localized specific absorption rate (SAR) for uncontrolled environment/general population exposure limits specified in ANSI/IEEE C95.1-1992 and has been tested in accordance with the measurement procedures specified in Section 1.9 of this report; for North American frequency bands only.

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

Randy Ortanez
President

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

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1 DEVICE UNDER TEST

1.1 Device Overview

Band & Mode	Operating Modes	Tx Frequency
CDMA/EVDO BC10 (§90S)	Voice/Data	817.90 - 823.10 MHz
CDMA/EVDO BC0 (§22H)	Voice/Data	824.70 - 848.31 MHz
PCS CDMA/EVDO	Voice/Data	1851.25 - 1908.75 MHz
GSM/GPRS/EDGE 850	Voice/Data	824.20 - 848.80 MHz
GSM/GPRS/EDGE 1900	Voice/Data	1850.20 - 1909.80 MHz
UMTS 850	Voice/Data	826.40 - 846.60 MHz
UMTS 1750	Voice/Data	1712.4 - 1752.6 MHz
UMTS 1900	Voice/Data	1852.4 - 1907.6 MHz
LTE Band 71	Voice/Data	665.5 - 695.5 MHz
LTE Band 12	Voice/Data	699.7 - 715.3 MHz
LTE Band 13	Voice/Data	779.5 - 784.5 MHz
LTE Band 14	Voice/Data	790.5 - 795.5 MHz
LTE Band 26 (Cell)	Voice/Data	814.7 - 848.3 MHz
LTE Band 5 (Cell)	Voice/Data	824.7 - 848.3 MHz
LTE Band 66 (AWS)	Voice/Data	1710.7 - 1779.3 MHz
LTE Band 4 (AWS)	Voice/Data	1710.7 - 1754.3 MHz
LTE Band 25 (PCS)	Voice/Data	1850.7 - 1914.3 MHz
LTE Band 2 (PCS)	Voice/Data	1850.7 - 1909.3 MHz
LTE Band 30	Voice/Data	2307.5 - 2312.5 MHz
LTE Band 7	Voice/Data	2502.5 - 2567.5 MHz
LTE Band 48	Voice/Data	3552.5 - 3697.5 MHz
LTE Band 41	Voice/Data	2498.5 - 2687.5 MHz
LTE Band 38	Voice/Data	2572.5 - 2617.5 MHz
NR Band n71	Data	665.5 - 695.5 MHz
NR Band n5	Data	826.5 - 846.5 MHz
NR Band n66	Data	1712.5 - 1777.5 MHz
NR Band n2	Data	1852.5 - 1907.5 MHz
NR Band n41	Data	2506.02 - 2679.99 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
NR Band n260	Data	37000 - 40000 MHz
NR Band n261	Data	27500 - 28350 MHz

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1.2 Time-Averaging Algorithm for RF Exposure Compliance

The equipment under test (EUT) contains:

a. Qualcomm® SM8250 modem supporting 2G/3G/4G WWAN technologies

b. Qualcomm® SDX55M modem supporting 5G NR

Both of Qualcomm® SM8250 and SDX55M modems are enabled with Qualcomm® Smart Transmit feature. This feature performs time averaging algorithm in real time to control and manage transmitting power and ensure the time-averaged RF exposure is in compliance with FCC requirements all the time. Refer to Compliance Summary document for detailed description of Qualcomm® Smart Transmit feature (report SN could be found in Section 1.11 – Bibliography).

Note that WLAN operations are not enabled with Smart Transmit.

The Smart Transmit algorithm maintains the time-averaged transmit power, in turn, time-averaged RF exposure of *SAR_design_target* or *PD_design_target*, below the predefined time-averaged power limit (i.e., P_{limit} for sub-6 radio, and *input.power.limit* for 5G NR), for each characterized technology and band (see RF Exposure Part 0 Test Report, report SN could be found in Section 1.11 - Bibliography).

Smart Transmit allows the device to transmit at higher power instantaneously, as high as P_{max}, when needed, but enforces power limiting to maintain time-averaged transmit power to P_{limit}. Below table shows P_{limit} EFS settings and maximum tune up output power P_{max} configured for this EUT for various transmit conditions (Device State Index DSI). Note that the device uncertainty for sub-6GHz WWAN is 1.0dB for this EUT.

Exposure Scenario:		Body-Worn	Phablet	Phablet	Head	Hotspot	Earjack	Maximum Tune-up Output Power*
Averaging Volume:		1g	10g	10g	1g	1g	10g	
Spacing:		15 mm	7, 8, 12 mm	0 mm	0 mm	10 mm	0 mm	
DSI:		0	0	1	2	3	4	
Technology/Band	Antenna	Plimit corresponding to 1mW/g (SAR_design_target)						
GSM/GPRS/EDGE 850 MHz	A	30.7	30.7	27.6	31.5	27.5	27.6	25.3
GSM/GPRS/EDGE 1900 MHz	A	25.9	25.9	18.9	32.3	18.9	18.9	22.1
UMTS B5	A	30.9	30.9	26.2	31.6	27.4	26.2	24.8
UMTS B4	A	24.7	24.7	20.2	34.1	18.2	20.2	23.0
UMTS B2	A	25.1	25.1	19.9	32.4	17.0	19.9	23.0
CDMA/EVDO BC10	A	29.8	29.8	26.9	32.6	27.2	26.9	24.8
CDMA/EVDO BC0	A	29.8	29.8	26.4	31.9	27.0	26.4	24.8
CDMA/EVDO BC1	A	25.7	25.7	19.0	31.6	17.0	19.0	23.5
LTE FDD B71	A	32.2	32.2	27.1	33.9	30.9	27.1	24.8
LTE FDD B12	A	31.3	31.3	26.1	33.3	29.8	26.1	24.8
LTE FDD B13	A	31.4	31.4	27.2	32.9	28.9	27.2	24.8
LTE FDD B14	A	31.2	31.2	26.2	32.2	28.6	26.2	24.8
LTE FDD B26	A	30.9	30.9	26.8	33.4	27.7	26.8	24.8
LTE FDD B5	A	30.7	30.7	26.8	33.2	27.3	26.8	24.8
LTE FDD B66/4	A	25.1	25.1	20.2	34.4	18.5	20.2	23.5
LTE FDD B25	A	25.2	25.2	19.8	33.3	17.3	19.8	23.0
LTE FDD B2	A	25.0	25.0	19.8	33.3	17.3	19.8	23.0
LTE FDD B30	A	26.2	26.2	21.0	36.5	19.3	21.0	23.0
LTE FDD B7	B	28.4	28.4	20.9	34.0	20.2	20.9	23.0
LTE TDD B48	G	22.1	22.1	22.1	16.0	23.0	22.1	21.5
LTE TDD B38	B	27.3	27.3	19.8	34.5	19.8	19.8	22.0
LTE TDD B41 (PC3 & PC2)	B	27.3	27.3	19.8	34.5	19.8	19.8	23.4
NR FDD n71	A	32.0	32.0	27.5	33.9	30.4	27.5	24.5
NR FDD n5	A	30.4	30.4	26.7	33.4	27.0	26.7	24.5
NR FDD n66	A	23.6	23.6	19.0	33.0	18.0	19.0	23.6
NR FDD n2	A	24.6	24.6	19.4	32.2	17.4	19.4	23.0
NR TDD n41	F	22.5	22.5	22.5	20.1	26.9	22.5	18.0

*Note all P_{limit} EFS and maximum tune up output power P_{max} levels entered in above Table correspond to average power levels after accounting for duty cycle in the case of TDD modulation schemes (for e.g., GSM & LTE TDD).

*Maximum tune up output power P_{max} is used to configure EUT during RF tune up procedure. The maximum allowed output power is equal to maximum Tune up output power + 1dB device design uncertainty.

The maximum time-averaged output power (dBm) for any 2G/3G/4G WWAN technology, band, and DSI = minimum of "P_{limit} EFS" and "Maximum tune up output power P_{max}" + 1dB device uncertainty. SAR values in this report were scaled to this maximum time-averaged output power to determine compliance per KDB Publication 447498 D01v06.

The purpose of this report (Part 1 test) is to demonstrate that the EUT meets FCC SAR limits when transmitting in static transmission scenario at maximum allowable time-averaged power levels.

Measurement Condition: All conducted power and SAR measurements in this report (Part 1 test) were performed by setting *Reserve_power_margin* (Smart Transmit EFS entry) to 0dB.

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1.3 Power Reduction for SAR

This device uses an independent fixed level power reduction mechanism for WLAN operations when 5G NR is active and also 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.

1.4 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.

1.4.1 2G/3G/4G/5G Output Power

CDMA BC10 (815 MHz)				
Device State Index		Modulated Average Output Power (in dBm)		
		1x-RTT	EVDO Rev 0	EVDO Rev A
All DSI	Max allowed power	25.8	25.8	25.8
	Nominal	24.8	24.8	24.8
CDMA BC0 (835 MHz)				
Device State Index		Modulated Average Output Power (in dBm)		
		1x-RTT	EVDO Rev 0	EVDO Rev A
All DSI	Max allowed power	25.8	25.8	25.8
	Nominal	24.8	24.8	24.8
CDMA BC1 (1900 MHz)				
Device State Index		Modulated Average Output Power (in dBm)		
		1x-RTT	EVDO Rev 0	EVDO Rev A
DSI = 0 (Body-Worn or Phablet Max); DSI = 2 (Head)	Max allowed power	24.5	24.5	24.5
	Nominal	23.5	23.5	23.5
DSI = 3 (Hotspot)	Max allowed power	18.0	18.0	18.0
	Nominal	17.0	17.0	17.0
DSI = 1 (Phablet Reduced); DSI = 4 (Earjack)	Max allowed power	20.0	20.0	20.0
	Nominal	19.0	19.0	19.0

GSM/GPRS/EDGE 850										
Device State Index		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
All DSI	Max allowed power	33.5	33.5	32.5	30.5	28.5	28.0	26.0	24.0	23.0
	Nominal	32.5	32.5	31.5	29.5	27.5	27.0	25.0	23.0	22.0
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
DSI = 0 (Body-Worn or Phablet Max); DSI = 2 (Head)	Max allowed power	30.5	30.5	29.0	27.5	25.5	27.0	25.0	23.0	22.0
	Nominal	29.5	29.5	28.0	26.5	24.5	26.0	24.0	22.0	21.0
DSI = 3 (Hotspot)	Max allowed power	N/A	29.1	26.1	24.3	23.1	27.0	25.0	23.0	22.0
	Nominal	N/A	28.1	25.1	23.3	22.1	26.0	24.0	22.0	21.0
DSI = 1 (Phablet Reduced); DSI = 4 (Earjack)	Max allowed power	29.1	29.1	26.1	24.3	23.1	27.0	25.0	23.0	22.0
	Nominal	28.1	28.1	25.1	23.3	22.1	26.0	24.0	22.0	21.0

For GSM, the above listed powers are GSM burst average values

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UMTS Band 5 (850 MHz)					
Device State Index		Modulated Average Output Power (in dBm)			
		3GPP WCDMA Rel 99	3GPP HSDPA Rel 5	3GPP HSUPA Rel 6	3GPP DC-HSDPA Rel 8
All DSI	Max allowed power	25.8	24.8	24.8	24.8
	Nominal	24.8	23.8	23.8	23.8
UMTS Band 4 (1750 MHz)					
Device State Index		Modulated Average Output Power (in dBm)			
		3GPP WCDMA Rel 99	3GPP HSDPA Rel 5	3GPP HSUPA Rel 6	3GPP DC-HSDPA Rel 8
DSI = 0 (Body-Worn or Phablet Max); DSI = 2 (Head)	Max allowed power	24.0	23.0	23.0	23.0
	Nominal	23.0	22.0	22.0	22.0
DSI = 3 (Hotspot)	Max allowed power	19.2	19.2	19.2	19.2
	Nominal	18.2	18.2	18.2	18.2
DSI = 1 (Phablet Reduced); DSI = 4 (Earjack)	Max allowed power	21.2	21.2	21.2	21.2
	Nominal	20.2	20.2	20.2	20.2
UMTS Band 2 (1900 MHz)					
Device State Index		Modulated Average Output Power (in dBm)			
		3GPP WCDMA Rel 99	3GPP HSDPA Rel 5	3GPP HSUPA Rel 6	3GPP DC-HSDPA Rel 8
DSI = 0 (Body-Worn or Phablet Max); DSI = 2 (Head)	Max allowed power	24.0	23.0	23.0	23.0
	Nominal	23.0	22.0	22.0	22.0
DSI = 3 (Hotspot)	Max allowed power	18.0	18.0	18.0	18.0
	Nominal	17.0	17.0	17.0	17.0
DSI = 1 (Phablet Reduced); DSI = 4 (Earjack)	Max allowed power	20.9	20.9	20.9	20.9
	Nominal	19.9	19.9	19.9	19.9

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Mode / Band		Modulated Average Output Power (in dBm)			
		DSI = 0 (Body-Worn or Phablet Max)	DSI = 2 (Head)	DSI = 3 (Hotspot)	DSI = 1 (Phablet Reduced); DSI = 4 Earjack)
LTE FDD Band 71	Max allowed power	25.8	25.8	25.8	25.8
	Nominal	24.8	24.8	24.8	24.8
LTE FDD Band 12	Max allowed power	25.8	25.8	25.8	25.8
	Nominal	24.8	24.8	24.8	24.8
LTE FDD Band 13	Max allowed power	25.8	25.8	25.8	25.8
	Nominal	24.8	24.8	24.8	24.8
LTE FDD Band 14	Max allowed power	25.8	25.8	25.8	25.8
	Nominal	24.8	24.8	24.8	24.8
LTE FDD Band 5	Max allowed power	25.8	25.8	25.8	25.8
	Nominal	24.8	24.8	24.8	24.8
LTE FDD Band 26	Max allowed power	25.8	25.8	25.8	25.8
	Nominal	24.8	24.8	24.8	24.8
LTE FDD Band 4	Max allowed power	24.5	24.5	19.5	21.2
	Nominal	23.5	23.5	18.5	20.2
LTE FDD Band 66	Max allowed power	24.5	24.5	19.5	21.2
	Nominal	23.5	23.5	18.5	20.2
LTE FDD Band 2	Max allowed power	24.0	24.0	18.3	20.8
	Nominal	23.0	23.0	17.3	19.8
LTE FDD Band 25	Max allowed power	24.0	24.0	18.3	20.8
	Nominal	23.0	23.0	17.3	19.8
LTE FDD Band 30	Max allowed power	24.0	24.0	20.3	22.0
	Nominal	23.0	23.0	19.3	21.0
LTE FDD Band 7	Max allowed power	24.0	24.0	21.2	21.9
	Nominal	23.0	23.0	20.2	20.9
LTE TDD Band 38	Max allowed power	25.0	25.0	22.8	22.8
	Nominal	24.0	24.0	21.8	21.8
LTE TDD Band 48	Max allowed power	24.5	19.0	24.5	24.5
	Nominal	23.5	18.0	23.5	23.5
LTE TDD Band 41 (PC3)	Max allowed power	25.0	25.0	22.8	22.8
	Nominal	24.0	24.0	21.8	21.8
LTE TDD Band 41 (PC2)	Max allowed power	28.0	28.0	24.4	24.4
	Nominal	27.0	27.0	23.4	23.4
Mode / Band		Modulated Average Output Power (in dBm)			
		DSI = 0 (Body-Worn or Phablet Max)	DSI = 2 (Head)	DSI = 3 (Hotspot)	DSI = 1 (Phablet Reduced); DSI = 4 Earjack)
NR Band n71	Max allowed power	25.5	25.5	25.5	25.5
	Nominal	24.5	24.5	24.5	24.5
NR Band n5	Max allowed power	25.5	25.5	25.5	25.5
	Nominal	24.5	24.5	24.5	24.5
NR Band n66	Max allowed power	24.6	24.6	19.0	20.0
	Nominal	23.6	23.6	18.0	19.0
NR Band n2	Max allowed power	24.0	24.0	18.4	20.4
	Nominal	23.0	23.0	17.4	19.4
NR Band n41	Max allowed power	25.0	25.0	25.0	25.0
	Nominal	24.0	24.0	24.0	24.0

For LTE TDD and NR TDD, the above powers listed are TDD burst average values.

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1.4.2 Maximum Bluetooth and SISO/MIMO WLAN Output Power

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

Mode	Band	IEEE 802.11 (in dBm)													
		SISO								MIMO					
		Antenna 1 & Antenna 2													
		b		g		n		ax (SU)		g (CDD + STBC)		n (CDD+STBC, SDM)		ax (SU) (CDD+STBC, SDM)	
Maximum / Nominal Power		Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.
2.4 GHz WIFI	2.45 GHz	21.0	20.0	18.5	17.5	18.5	17.5	18.0	17.0	21.5	20.5	21.5	20.5	18.0	17.0

Mode	Band	IEEE 802.11 (in dBm)															
		SISO								MIMO							
		Antenna 1 & Antenna 2															
		a		n		ac		ax (SU)		a (CDD + STBC)		n (CDD+STBC, SDM)		ac (CDD+STBC, SDM)		ax (SU) (CDD+STBC, SDM)	
Maximum / Nominal Power		Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.
5 GHz WIFI (20MHz BW)	5200 MHz	18.5 ch. 36: 16.5	17.5 15.5	18.5 ch. 36: 16.5	17.5 15.5	18.5 ch. 36: 16.5	17.5 15.5	18.0 ch. 36: 15.0	17.0 14.0	21.5 ch. 36: 19.5	20.5 18.5	21.5 ch. 36: 19.5	20.5 18.5	21.5 ch. 36: 19.5	20.5 18.5	18.0 ch. 36: 15.0	17.0 14.0
	5300 MHz	18.5 ch. 64: 14.5	17.5 13.5	18.5 ch. 64: 14.5	17.5 13.5	18.5 ch. 64: 14.5	17.5 13.5	18.0 ch. 64: 14.0	17.0 13.0	21.5 ch. 64: 17.5	20.5 16.5	21.5 ch. 64: 17.5	20.5 16.5	21.5 ch. 64: 17.5	20.5 16.5	18.0 ch. 64: 14.0	17.0 13.0
	5500 MHz	18.5 ch. 100: 17.0	17.5 16.0	18.5 ch. 100: 17.0	17.5 16.0	18.5 ch. 100: 17.0	17.5 16.0	18.0 ch. 100: 16.5	17.0 15.5	21.5 ch. 100: 20.0	20.5 19.0	21.5 ch. 100: 20.0	20.5 19.0	21.5 ch. 100: 20.0	20.5 19.0	18.0 ch. 100: 16.5	17.0 15.5
	5800 MHz	18.5	17.5	18.5	17.5	18.5	17.5	18.0	17.0	21.5	20.5	21.5	20.5	21.5	20.5	18.0	17.0
5 GHz WIFI (40MHz BW)	5200 MHz	[redacted]		17.5 ch. 38: 13.5	16.5 12.5	17.5 ch. 38: 13.5	16.5 12.5	17.0 ch. 38: 12.5	16.0 11.5	[redacted]		20.5 ch. 38: 16.5	19.5 15.5	20.5 ch. 38: 16.5	19.5 15.5	17.0 ch. 38: 12.5	16.0 11.5
	5300 MHz	[redacted]		17.5 ch. 62: 13.5	16.5 12.5	17.5 ch. 62: 13.5	16.5 12.5	17.0 ch. 62: 12.5	16.0 11.5	[redacted]		20.5 ch. 62: 16.5	19.5 15.5	20.5 ch. 62: 16.5	19.5 15.5	17.0 ch. 62: 12.5	16.0 11.5
	5500 MHz	[redacted]		17.5 ch. 102: 14.0	16.5 13.0	17.5 ch. 102: 14.0	16.5 13.0	17.0 ch. 102: 13.5	16.0 12.5	[redacted]		20.5 ch. 102: 17.0	19.5 16.0	20.5 ch. 102: 17.0	19.5 16.0	17.0 ch. 102: 13.5	16.0 12.5
	5800 MHz	[redacted]		17.5	16.5	17.5	16.5	17.0	16.0	[redacted]		20.5	19.5	20.5	19.5	17.0	16.0
5 GHz WIFI (80MHz BW)	5200 MHz	[redacted]				13.0	12.0	12.5	11.5	[redacted]				16.0	15.0	12.5	11.5
	5300 MHz	[redacted]				13.0	12.0	12.0	11.0	[redacted]				16.0	15.0	12.0	11.0
	5500 MHz	[redacted]				16.5 ch. 106: 12.5	15.5 11.5	16.0 ch. 106: 12.5	15.0 11.5	[redacted]				19.5 ch. 106: 15.5	18.5 14.5	16.0 ch. 106: 12.5	15.0 11.5
	5800 MHz	[redacted]				16.5	15.5	16.0	15.0	[redacted]				19.5	18.5	16.0	15.0

Mode / Band		Modulated Average (dBm)
Bluetooth	Maximum	**13.5**
	Nominal	**12.5**
Bluetooth EDR	Maximum	**12.5**
	Nominal	**11.5**
Bluetooth LE (2 Mbps)	Maximum	**7.5**
	Nominal	**6.5**
Bluetooth LE (1 Mbps, 125/500 Kbps)	Maximum	**6.0**
	Nominal	**5.0**

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1.4.3 2.4 GHz Reduced WLAN Output Powers

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

The below table is applicable in the following conditions:

- Head Conditions
- Simultaneous conditions with 2.4 GHz WLAN and 5 GHz WLAN
- Simultaneous conditions with 5G NR and 2.4 GHz WLAN and/or 5 GHz WLAN

Mode	Band	IEEE 802.11 (in dBm)													
		SISO								MIMO					
		Antenna 1 & Antenna 2													
		b		g		n		ax (SU)		g (CDD + STBC)		n (CDD+STBC, SDM)		ax (SU) (CDD+STBC, SDM)	
Maximum / Nominal Power		Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.
2.4 GHz WIFI	2.45 GHz	17.0	16.0	17.0	16.0	17.0	16.0	17.0	16.0	20.0	19.0	20.0	19.0	18.0	17.0

The below table is applicable in the following conditions:

- Head Conditions during simultaneous conditions with 2.4 GHz WLAN and 5 GHz WLAN
- Head Conditions during simultaneous conditions with 5G NR and 2.4 GHz WLAN and/or 5 GHz WLAN

Mode	Band	IEEE 802.11 (in dBm)													
		SISO								MIMO					
		Antenna 1 & Antenna 2													
		b		g		n		ax (SU)		g (CDD + STBC)		n (CDD+STBC, SDM)		ax (SU) (CDD+STBC, SDM)	
Maximum / Nominal Power		Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	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	14.0	13.0	17.0	16.0	17.0	16.0	17.0	16.0

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1.4.4 5 GHz Reduced WLAN Output Powers

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

The below table is applicable in the following conditions:

- Head Conditions
- Simultaneous conditions with 2.4 GHz WLAN and 5 GHz WLAN
- Simultaneous conditions with 5G NR and 2.4 GHz WLAN and/or 5 GHz WLAN
- Head Conditions during simultaneous conditions with 2.4 GHz WLAN and 5 GHz WLAN
- Head Conditions during simultaneous conditions with 5G NR and 2.4 GHz WLAN and/or 5 GHz WLAN

Mode	Band	IEEE 802.11 (in dBm)															
		SISO								MIMO							
		Antenna 1 & Antenna 2															
		a		n		ac		ax (SU)		a (CDD + STBC)		n (CDD+STBC, SDM)		ac (CDD+STBC, SDM)		ax (SU) (CDD+STBC, SDM)	
Maximum / Nominal Power		Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.
5 GHz WIFI (20MHz BW)	5200 MHz	14.0	13.0	14.0	13.0	14.0	13.0	14.0	13.0	17.0	16.0	17.0	16.0	17.0	16.0	17.0 ch. 36: 15.0	16.0 14.0
	5300 MHz	14.0	13.0	14.0	13.0	14.0	13.0	14.0	13.0	17.0	16.0	17.0	16.0	17.0	16.0	17.0 ch. 64: 14.0	16.0 13.0
	5500 MHz	14.0	13.0	14.0	13.0	14.0	13.0	14.0	13.0	17.0	16.0	17.0	16.0	17.0	16.0	17.0 ch. 100: 16.5	16.0 15.5
	5800 MHz	14.0	13.0	14.0	13.0	14.0	13.0	14.0	13.0	17.0	16.0	17.0	16.0	17.0	16.0	17.0	16.0
5 GHz WIFI (40MHz BW)	5200 MHz			14.0 ch. 38: 13.5	13.0 12.5	14.0 ch. 38: 13.5	13.0 12.5	14.0 ch. 38: 12.5	13.0 11.5			17.0 ch. 38: 16.5	16.0 15.5	17.0 ch. 38: 16.5	16.0 15.5	17.0 ch. 38: 12.5	16.0 11.5
	5300 MHz			14.0 ch. 62: 13.5	13.0 12.5	14.0 ch. 62: 13.5	13.0 12.5	14.0 ch. 62: 12.5	13.0 11.5			17.0 ch. 62: 16.5	16.0 15.5	17.0 ch. 62: 16.5	16.0 15.5	17.0 ch. 62: 12.5	16.0 11.5
	5500 MHz			14.0	13.0	14.0	13.0	14.0 ch. 102: 13.5	13.0 12.5			17.0	16.0	17.0	16.0	17.0 ch. 102: 13.5	16.0 12.5
	5800 MHz			14.0	13.0	14.0	13.0	14.0	13.0			17.0	16.0	17.0	16.0	17.0	16.0
5 GHz WIFI (80MHz BW)	5200 MHz					13.0	12.0	12.5	11.5					16.0	15.0	12.5	11.5
	5300 MHz					13.0	12.0	12.0	11.0					16.0	15.0	12.0	11.0
	5500 MHz					14.0 ch. 106: 12.5	13.0 11.5	14.0 ch. 106: 12.5	13.0 11.5					17.0 ch. 106: 15.5	16.0 14.5	16.0 ch. 106: 12.5	15.0 11.5
	5800 MHz					14.0	13.0	14.0	13.0					17.0	16.0	16.0	15.0

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1.5 DUT Antenna Locations

The overall dimensions of this device are > 9 x 5 cm. The overall diagonal dimension of the device is ≤160 mm and the diagonal display is ≤150 mm. 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
EVDO BC10 (§90S)	Yes	Yes	No	Yes	Yes	Yes
EVDO BC0 (§22H)	Yes	Yes	No	Yes	Yes	Yes
PCS EVDO	Yes	Yes	No	Yes	Yes	Yes
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
LTE Band 71	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 26 (Cell)	Yes	Yes	No	Yes	Yes	Yes
LTE Band 5 (Cell)	Yes	Yes	No	Yes	Yes	Yes
LTE Band 66 (AWS)	Yes	Yes	No	Yes	Yes	Yes
LTE Band 25 (PCS)	Yes	Yes	No	Yes	Yes	Yes
LTE Band 30	Yes	Yes	No	Yes	Yes	Yes
LTE Band 7	Yes	Yes	No	Yes	No	Yes
LTE Band 48	Yes	Yes	Yes	No	No	Yes
LTE Band 41	Yes	Yes	No	Yes	No	Yes
NR Band n71	Yes	Yes	No	Yes	Yes	Yes
NR Band n5	Yes	Yes	No	Yes	Yes	Yes
NR Band n66	Yes	Yes	No	Yes	Yes	Yes
NR Band n2	Yes	Yes	No	Yes	Yes	Yes
NR Band n41	Yes	Yes	Yes	No	No	Yes
2.4 GHz WLAN Ant 1	Yes	Yes	Yes	No	No	Yes
2.4 GHz WLAN Ant 2	Yes	Yes	Yes	No	No	Yes
2.4 GHz WLAN MIMO	Yes	Yes	Yes	No	No	Yes
5 GHz WLAN Ant 1	Yes	Yes	Yes	No	No	Yes
5 GHz WLAN Ant 2	Yes	Yes	Yes	No	No	Yes
5GHz WLAN MIMO	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.

1.6 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.

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1.7 Simultaneous Transmission Capabilities

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

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

Table 1-2
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 + 5GHz WI-FI	Yes^	Yes	N/A	Yes	^Bluetooth Tethering is considered
5	1x CDMA voice + 2.4 GHz WI-FI MIMO	Yes	Yes	N/A	Yes	
6	1x CDMA voice + 5 GHz WI-FI MIMO	Yes	Yes	N/A	Yes	
7	1x CDMA voice + 2.4 GHz WI-FI + 5 GHz WI-FI	Yes	Yes	N/A	Yes	
8	1x CDMA voice + 2.4 GHz WI-FI MIMO + 5 GHz WI-FI MIMO	Yes	Yes	N/A	Yes	
9	1x CDMA voice + 2.4 GHz Bluetooth + 5GHz WI-FI MIMO	Yes^	Yes	N/A	Yes	^Bluetooth Tethering is considered
10	GSM voice + 2.4 GHz WI-FI	Yes	Yes	N/A	Yes	
11	GSM voice + 5 GHz WI-FI	Yes	Yes	N/A	Yes	
12	GSM voice + 2.4 GHz Bluetooth	Yes^	Yes	N/A	Yes	^Bluetooth Tethering is considered
13	GSM voice + 2.4 GHz Bluetooth + 5GHz WI-FI	Yes^	Yes	N/A	Yes	^Bluetooth Tethering is considered
14	GSM voice + 2.4 GHz WI-FI MIMO	Yes	Yes	N/A	Yes	
15	GSM voice + 5 GHz WI-FI MIMO	Yes	Yes	N/A	Yes	
16	GSM voice + 2.4 GHz WI-FI + 5 GHz WI-FI	Yes	Yes	N/A	Yes	
17	GSM voice + 2.4 GHz WI-FI MIMO + 5 GHz WI-FI MIMO	Yes	Yes	N/A	Yes	
18	GSM voice + 2.4 GHz Bluetooth + 5GHz WI-FI MIMO	Yes^	Yes	N/A	Yes	^Bluetooth Tethering is considered
19	UMTS + 2.4 GHz WI-FI	Yes	Yes	Yes	Yes	
20	UMTS + 5 GHz WI-FI	Yes	Yes	Yes	Yes	
21	UMTS + 2.4 GHz Bluetooth	Yes^	Yes	Yes^	Yes	^Bluetooth Tethering is considered
22	UMTS + 2.4 GHz Bluetooth + 5 GHz WI-FI	Yes^	Yes	Yes^	Yes	^Bluetooth Tethering is considered
23	UMTS + 2.4 GHz WI-FI MIMO	Yes	Yes	Yes	Yes	
24	UMTS + 5 GHz WI-FI MIMO	Yes	Yes	Yes	Yes	
25	UMTS + 2.4 GHz WI-FI + 5 GHz WI-FI	Yes	Yes	Yes	Yes	
26	UMTS + 2.4 GHz WI-FI MIMO + 5 GHz WI-FI MIMO	Yes	Yes	Yes	Yes	
27	UMTS + 2.4 GHz Bluetooth + 5 GHz WI-FI MIMO	Yes^	Yes	Yes^	Yes	^Bluetooth Tethering is considered
28	LTE + 5G NR	Yes	Yes	N/A	Yes	
29	LTE + 2.4 GHz WI-FI	Yes	Yes	Yes	Yes	
30	LTE + 2.4 GHz WI-FI + 5G NR	Yes	Yes	Yes	Yes	
31	LTE + 5 GHz WI-FI	Yes	Yes	Yes	Yes	
32	LTE + 5 GHz WI-FI + 5G NR	Yes	Yes	Yes	Yes	
33	LTE + 2.4 GHz Bluetooth	Yes^	Yes	Yes^	Yes	^Bluetooth Tethering is considered
34	LTE + 2.4 GHz Bluetooth + 5G NR	Yes^	Yes	Yes^	Yes	^Bluetooth Tethering is considered
35	LTE + 2.4 GHz Bluetooth + 5 GHz WI-FI	Yes^	Yes	Yes^	Yes	^Bluetooth Tethering is considered
36	LTE + 2.4 GHz Bluetooth + 5 GHz WI-FI + 5G NR	Yes^	Yes	Yes^	Yes	^Bluetooth Tethering is considered
37	LTE + 2.4 GHz WI-FI MIMO	Yes	Yes	Yes	Yes	
38	LTE + 2.4 GHz WI-FI MIMO + 5G NR	Yes	Yes	Yes	Yes	
39	LTE + 5 GHz WI-FI MIMO	Yes	Yes	Yes	Yes	
40	LTE + 5 GHz WI-FI MIMO + 5G NR	Yes	Yes	Yes	Yes	
41	LTE + 2.4 GHz WI-FI + 5 GHz WI-FI	Yes	Yes	Yes	Yes	
42	LTE + 2.4 GHz WI-FI + 5 GHz WI-FI + 5G NR	Yes	Yes	Yes	Yes	
43	LTE + 2.4 GHz WI-FI MIMO + 5 GHz WI-FI MIMO	Yes	Yes	Yes	Yes	
44	LTE + 2.4 GHz WI-FI MIMO + 5 GHz WI-FI MIMO + 5G NR	Yes	Yes	Yes	Yes	
45	LTE + 2.4 GHz Bluetooth + 5 GHz WI-FI MIMO	Yes^	Yes	Yes^	Yes	^Bluetooth Tethering is considered
46	LTE + 2.4 GHz Bluetooth + 5 GHz WI-FI MIMO + 5G NR	Yes^	Yes	Yes^	Yes	^Bluetooth Tethering is considered
47	CDMA/EVDO data + 2.4 GHz WI-FI	Yes*	Yes*	Yes	Yes	* Pre-installed VOIP applications are considered
48	CDMA/EVDO data + 5 GHz WI-FI	Yes*	Yes*	Yes	Yes	* Pre-installed VOIP applications are considered
49	CDMA/EVDO data + 2.4 GHz Bluetooth	Yes*^	Yes*	Yes^	Yes	* Pre-installed VOIP applications are considered ^Bluetooth Tethering is considered
50	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
51	CDMA/EVDO data + 2.4 GHz WI-FI MIMO	Yes*	Yes*	Yes	Yes	* Pre-installed VOIP applications are considered
52	CDMA/EVDO data + 5 GHz WI-FI MIMO	Yes*	Yes*	Yes	Yes	* Pre-installed VOIP applications are considered
53	CDMA/EVDO data + 2.4 GHz WI-FI + 5 GHz WI-FI	Yes*	Yes*	Yes	Yes	* Pre-installed VOIP applications are considered
54	CDMA/EVDO data + 2.4 GHz WI-FI MIMO + 5 GHz WI-FI MIMO	Yes*	Yes*	Yes	Yes	* Pre-installed VOIP applications are considered
55	CDMA/EVDO data + 2.4 GHz Bluetooth + 5 GHz WI-FI MIMO	Yes*^	Yes*	Yes^	Yes	* Pre-installed VOIP applications are considered ^Bluetooth Tethering is considered
56	GPRS/EDGE + 2.4 GHz WI-FI	N/A	N/A	Yes	Yes	
57	GPRS/EDGE + 5 GHz WI-FI	N/A	N/A	Yes	Yes	
58	GPRS/EDGE + 2.4 GHz Bluetooth	N/A	N/A	Yes^	Yes	^Bluetooth Tethering is considered
59	GPRS/EDGE + 2.4 GHz Bluetooth + 5 GHz WI-FI	N/A	N/A	Yes^	Yes	^Bluetooth Tethering is considered
60	GPRS/EDGE + 2.4 GHz WI-FI MIMO	N/A	N/A	Yes	Yes	
61	GPRS/EDGE + 5 GHz WI-FI MIMO	N/A	N/A	Yes	Yes	
62	GPRS/EDGE + 2.4 GHz WI-FI + 5 GHz WI-FI	N/A	N/A	Yes	Yes	
63	GPRS/EDGE + 2.4 GHz WI-FI MIMO + 5 GHz WI-FI MIMO	N/A	N/A	Yes	Yes	
64	GPRS/EDGE + 2.4 GHz Bluetooth + 5 GHz WI-FI MIMO	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.

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5. 5 GHz Wireless Router is only supported for the U-NII-3 by S/W, therefore U-NII-1, U-NII-2A, and U-NII-2C were not evaluated for wireless router conditions.
6. This device supports 2x2 MIMO Tx for WLAN 802.11a/g/n/ac/ax. 802.11a/g/n/ac/ax supports CDD and STBC and 802.11n/ac/ax additionally supports SDM. Each WLAN antenna can transmit independently or together when operating with MIMO.
7. This device supports VOLTE.
8. This device supports VOWIFI.
9. This device supports Bluetooth Tethering.
10. LTE + 5G NR FR1 Scenarios are limited to LTE Anchor Bands, LTE Band 2/7/66/5/12/13/30/48/25/41.
11. 5G NR FR2 n260 and n261 cannot transmit simultaneously.
12. LTE + 5G NR FR2 n260 and n261 operations are only possible with LTE B2/4/5/12/13/30/66 under EN-DC mode.

1.8 Miscellaneous SAR Test Considerations

(A) WIFI/BT

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

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

This device supports IEEE 802.11ax with the following features:

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

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 Bluetooth, 2.4 GHz and U-NII-3 WLAN operations since wireless router 1g SAR was < 1.2 W/kg.

Per April 2019 TCB Workshop Notes, SAR testing was not required for 802.11ax when applying the initial test configuration procedures of KDB 248227, with 802.11ax considered a higher order 802.11 mode.

(B) Licensed Transmitter(s)

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

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

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

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

This device supports LTE Carrier Aggregation (CA) in the downlink. All uplink communications are identical to Release 8 specifications. Per FCC KDB Publication 941225 D05A v01r02, SAR for 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.

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. Additional SAR tests for phablet SAR were evaluated per KDB 616217 Section 6 (See Section 6.9 for more information).

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 2 condition was evaluated for the highest configuration in Power Class 3 for each test configuration to confirm the results were scalable linearly (See Section 14.2).

This device supports LTE Carrier Aggregation (CA) for LTE Band 5, LTE Band 66, LTE Band 48, and LTE Band 41 with two component carriers in the uplink. SAR Measurements and conducted powers were evaluated per 2017 Fall TCB Workshop Notes.

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

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This device supports 5G NR for Bands n260, and n261. RF Exposure assessment and simultaneous transmission analysis for these bands can be found in test report 1M1911140187-29-R1.A3L

NR implementation of n71, n5, n66, n2, and n41 is limited to EN-DC operations only, with LTE Band 2/7/66/5/12/13/30/48/25/41 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.

1.9 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 (IEEE 802.11ax, Dynamic Antenna Tuning)

1.10 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.

1.11 Bibliography

Report Type	Report Serial Number
FCC/ISED Part 0 SAR Characterization Report	1M1911140187-28-R1.A3L
FCC Part 0 PD Characterization Report	Revision A
FCC PD Evaluation Report (Part 1)	1M1911140187-29-R1.A3L
RF Exposure Part 2 Test Report	80-W5681-6 Rev.B
RF Exposure Compliance Summary	1M1911140187-30.A3L

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2 LTE INFORMATION

LTE Information					
Form Factor	Portable Handset				
Frequency Range of each LTE transmission band	LTE Band 71 (665.5 - 695.5 MHz)				
	LTE Band 12 (699.7 - 715.3 MHz)				
	LTE Band 13 (779.5 - 784.5 MHz)				
	LTE Band 14 (790.5 - 795.5 MHz)				
	LTE Band 26 (Cell) (814.7 - 848.3 MHz)				
	LTE Band 5 (Cell) (824.7 - 848.3 MHz)				
	LTE Band 66 (AWS) (1710.7 - 1779.3 MHz)				
	LTE Band 4 (AWS) (1710.7 - 1754.3 MHz)				
	LTE Band 25 (PCS) (1850.7 - 1914.3 MHz)				
	LTE Band 2 (PCS) (1850.7 - 1909.3 MHz)				
	LTE Band 30 (2307.5 - 2312.5 MHz)				
	LTE Band 7 (2502.5 - 2567.5 MHz)				
	LTE Band 48 (3552.5 - 3697.5 MHz)				
	LTE Band 41 (2498.5 - 2687.5 MHz)				
	LTE Band 38 (2572.5 - 2617.5 MHz)				
Channel Bandwidths	LTE Band 71: 5 MHz, 10 MHz, 15 MHz, 20 MHz				
	LTE Band 12: 1.4 MHz, 3 MHz, 5 MHz, 10 MHz				
	LTE Band 13: 5 MHz, 10 MHz				
	LTE Band 14: 5 MHz, 10 MHz				
	LTE Band 26 (Cell): 1.4 MHz, 3 MHz, 5 MHz, 10 MHz, 15 MHz				
	LTE Band 5 (Cell): 1.4 MHz, 3 MHz, 5 MHz, 10 MHz				
	LTE Band 66 (AWS): 1.4 MHz, 3 MHz, 5 MHz, 10 MHz, 15 MHz, 20 MHz				
	LTE Band 4 (AWS): 1.4 MHz, 3 MHz, 5 MHz, 10 MHz, 15 MHz, 20 MHz				
	LTE Band 25 (PCS): 1.4 MHz, 3 MHz, 5 MHz, 10 MHz, 15 MHz, 20 MHz				
	LTE Band 2 (PCS): 1.4 MHz, 3 MHz, 5 MHz, 10 MHz, 15 MHz, 20 MHz				
	LTE Band 30: 5 MHz, 10 MHz				
	LTE Band 7: 5 MHz, 10 MHz, 15 MHz, 20 MHz				
	LTE Band 48: 5 MHz, 10 MHz, 15 MHz, 20 MHz				
	LTE Band 41: 5 MHz, 10 MHz, 15 MHz, 20 MHz				
	LTE Band 38: 5 MHz, 10 MHz, 15 MHz, 20 MHz				
Channel Numbers and Frequencies (MHz)	Low	Low-Mid	Mid	Mid-High	High
LTE Band 71: 5 MHz	665.5 (133147)		680.5 (133297)	695.5 (133447)	
LTE Band 71: 10 MHz	668 (133172)		680.5 (133297)	693 (133422)	
LTE Band 71: 15 MHz	670.5 (133197)		680.5 (133297)	690.5 (133397)	
LTE Band 71: 20 MHz	673 (133222)		680.5 (133297)	688 (133372)	
LTE Band 12: 1.4 MHz	699.7 (23017)		707.5 (23095)	715.3 (23173)	
LTE Band 12: 3 MHz	700.5 (23025)		707.5 (23095)	714.5 (23165)	
LTE Band 12: 5 MHz	701.5 (23035)		707.5 (23095)	713.5 (23155)	
LTE Band 12: 10 MHz	704 (23060)		707.5 (23095)	711 (23130)	
LTE Band 13: 5 MHz	779.5 (23205)		782 (23230)	784.5 (23255)	
LTE Band 13: 10 MHz	N/A		782 (23230)	N/A	
LTE Band 14: 5 MHz	790.5 (23305)		793 (23330)	795.5 (23355)	
LTE Band 14: 10 MHz	N/A		793 (23330)	N/A	
LTE Band 26 (Cell): 1.4 MHz	814.7 (26697)		831.5 (26865)	848.3 (27033)	
LTE Band 26 (Cell): 3 MHz	815.5 (26705)		831.5 (26865)	847.5 (27025)	
LTE Band 26 (Cell): 5 MHz	816.5 (26715)		831.5 (26865)	846.5 (27015)	
LTE Band 26 (Cell): 10 MHz	819 (26740)		831.5 (26865)	844 (26990)	
LTE Band 26 (Cell): 15 MHz	821.5 (26765)		831.5 (26865)	841.5 (26965)	
LTE Band 5 (Cell): 1.4 MHz	824.7 (20407)		836.5 (20525)	848.3 (20643)	
LTE Band 5 (Cell): 3 MHz	825.5 (20415)		836.5 (20525)	847.5 (20635)	
LTE Band 5 (Cell): 5 MHz	826.5 (20425)		836.5 (20525)	846.5 (20625)	
LTE Band 5 (Cell): 10 MHz	829 (20450)		836.5 (20525)	844 (20600)	
LTE Band 66 (AWS): 1.4 MHz	1710.7 (131979)		1745 (132322)	1779.3 (132665)	
LTE Band 66 (AWS): 3 MHz	1711.5 (131987)		1745 (132322)	1778.5 (132657)	
LTE Band 66 (AWS): 5 MHz	1712.5 (131997)		1745 (132322)	1777.5 (132647)	
LTE Band 66 (AWS): 10 MHz	1715 (132022)		1745 (132322)	1775 (132622)	
LTE Band 66 (AWS): 15 MHz	1717.5 (132047)		1745 (132322)	1772.5 (132597)	
LTE Band 66 (AWS): 20 MHz	1720 (132072)		1745 (132322)	1770 (132572)	
LTE Band 4 (AWS): 1.4 MHz	1710.7 (19957)		1732.5 (20175)	1754.3 (20393)	
LTE Band 4 (AWS): 3 MHz	1711.5 (19965)		1732.5 (20175)	1753.5 (20385)	
LTE Band 4 (AWS): 5 MHz	1712.5 (19975)		1732.5 (20175)	1752.5 (20375)	
LTE Band 4 (AWS): 10 MHz	1715 (20000)		1732.5 (20175)	1750 (20350)	
LTE Band 4 (AWS): 15 MHz	1717.5 (20025)		1732.5 (20175)	1747.5 (20325)	
LTE Band 4 (AWS): 20 MHz	1720 (20050)		1732.5 (20175)	1745 (20300)	
LTE Band 25 (PCS): 1.4 MHz	1850.7 (26047)		1882.5 (26365)	1914.3 (26683)	
LTE Band 25 (PCS): 3 MHz	1851.5 (26055)		1882.5 (26365)	1913.5 (26675)	
LTE Band 25 (PCS): 5 MHz	1852.5 (26065)		1882.5 (26365)	1912.5 (26665)	
LTE Band 25 (PCS): 10 MHz	1855 (26090)		1882.5 (26365)	1910 (26640)	
LTE Band 25 (PCS): 15 MHz	1857.5 (26115)		1882.5 (26365)	1907.5 (26615)	
LTE Band 25 (PCS): 20 MHz	1860 (26140)		1882.5 (26365)	1905 (26590)	
LTE Band 2 (PCS): 1.4 MHz	1850.7 (18607)		1880 (18900)	1909.3 (19193)	
LTE Band 2 (PCS): 3 MHz	1851.5 (18615)		1880 (18900)	1908.5 (19185)	
LTE Band 2 (PCS): 5 MHz	1852.5 (18625)		1880 (18900)	1907.5 (19175)	
LTE Band 2 (PCS): 10 MHz	1855 (18650)		1880 (18900)	1905 (19150)	
LTE Band 2 (PCS): 15 MHz	1857.5 (18675)		1880 (18900)	1902.5 (19125)	
LTE Band 2 (PCS): 20 MHz	1860 (18700)		1880 (18900)	1900 (19100)	
LTE Band 30: 5 MHz	2307.5 (27685)		2310 (27710)	2312.5 (27735)	
LTE Band 30: 10 MHz	N/A		2310 (27710)	N/A	
LTE Band 7: 5 MHz	2502.5 (20775)		2535 (21100)	2567.5 (21425)	
LTE Band 7: 10 MHz	2505 (20800)		2535 (21100)	2565 (21400)	
LTE Band 7: 15 MHz	2507.5 (20825)		2535 (21100)	2562.5 (21375)	
LTE Band 7: 20 MHz	2510 (20850)		2535 (21100)	2560 (21350)	
LTE Band 48: 5 MHz	3552.5 (55265)	3600.8 (55748)	N/A	3649.2 (56232)	3697.5 (56715)
LTE Band 48: 10 MHz	3555 (55290)	3601.7 (55757)	N/A	3648.3 (56223)	3695 (56690)
LTE Band 48: 15 MHz	3557.5 (55315)	3602.5 (55765)	N/A	3647.5 (56215)	3692.5 (56665)
LTE Band 48: 20 MHz	3560 (55340)	3603.3 (55773)	N/A	3646.7 (56207)	3690 (56640)
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 20, UL UE Cat 18				
Modulations Supported in UL	QPSK, 16QAM, 64QAM, 256QAM				
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 16. It supports carrier aggregation, downlink MIMO, and LAA features as shown in Section 9 and Appendix F. All uplink communications are identical to the Release 8 Specifications. Uplink communications are done on the PCC unless otherwise specified. The following LTE Release 16 Features are not supported: Relay, HetNet, Enhanced MIMO, eICIC, MDH, 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)		N/A	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)	1734.1 (346820)	N/A	1755.8 (351160)	1777.5 (355500)
NR Band n66 (AWS): 10 MHz	1715 (343000)	1735 (347000)	N/A	1755 (351000)	1775 (355000)
NR Band n66 (AWS): 15 MHz	1717.5 (343500)	1735.8 (347160)	N/A	1754.1 (350820)	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: 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 2/7/66				
LTE Anchor Bands for NR Band n5	LTE Band 2/30/66				
LTE Anchor Bands for NR Band n66	LTE Band 5/12/13/48				
LTE Anchor Bands for NR Band n2	LTE Band 5/12/13				
LTE Anchor Bands for NR Band n41	LTE Band 2/25/41/66				

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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:

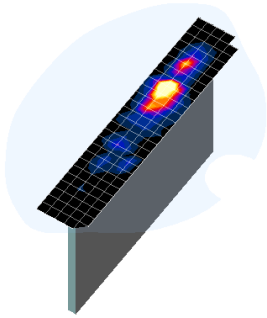

Figure 4-1
Sample SAR Area Scan

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].

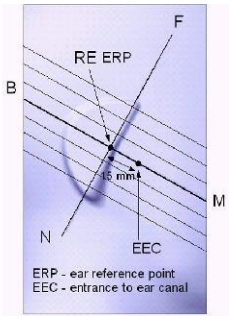

Figure 5-1
Close-Up Side view of ERP

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.

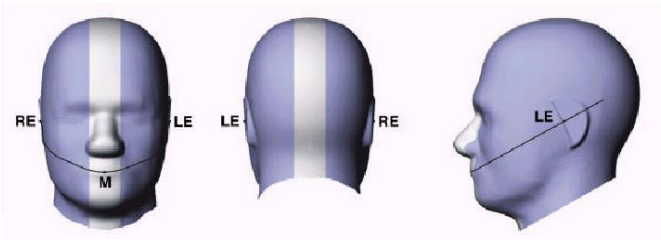

Figure 5-2
Front, back and side view of SAM Twin Phantom

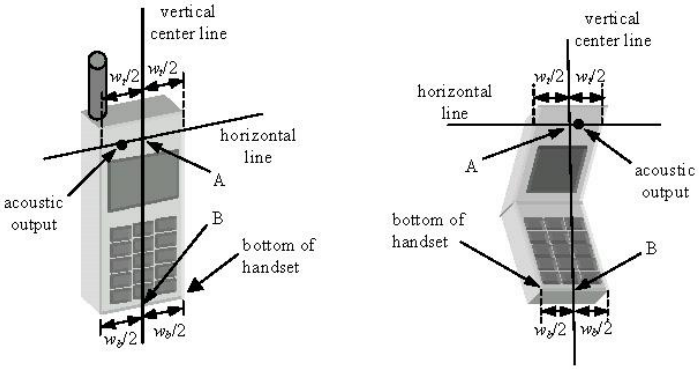

Figure 5-3
Handset Vertical Center & Horizontal Line Reference Points

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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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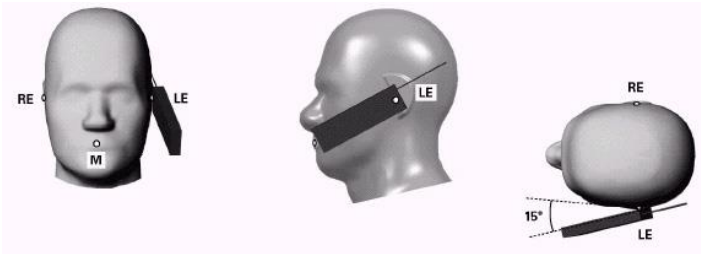

Figure 6-2 Front, Side and Top View of Ear/15º Tilt Position

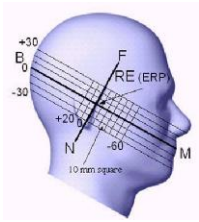

Figure 6-3
Side view w/ relevant markings

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.

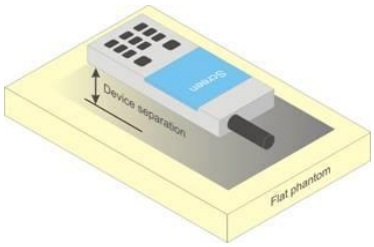

Figure 6-4
Sample Body-Worn Diagram

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 nonreduced 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 primary mode. Otherwise, SAR is measured for 12.2 kbps AMR in 3.4 kbps SRB (signaling radio bearer) using the highest reported SAR configuration in 12.2 kbps RMC for head exposure.

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8.5.3 Body SAR Measurements

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

8.5.4 SAR Measurements with Rel 5 HSDPA

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

8.5.5 SAR Measurements with Rel 6 HSUPA

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

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

8.5.6 SAR Measurement Conditions for DC-HSDPA

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

8.6 SAR Measurement Conditions for LTE

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

8.6.1 Spectrum Plots for RB Configurations

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

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8.6.2 MPR

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

8.6.3 A-MPR

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

8.6.4 Required RB Size and RB Offsets for SAR Testing

According to FCC KDB 941225 D05v02r04:

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

8.6.5 TDD

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

8.6.6 Downlink Only Carrier Aggregation

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

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

8.7 SAR Testing with 802.11 Transmitters

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

8.7.1 General Device Setup

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

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

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

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

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

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

8.7.4 Initial Test Position Procedure

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

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

8.7.6 OFDM Transmission Mode and SAR Test Channel Selection

When the same maximum output power was specified for multiple OFDM transmission mode configurations in a frequency band or aggregated band, SAR is measured using the configuration with the largest channel bandwidth, lowest order modulation and lowest data rate. When the maximum output power of a channel is the same for equivalent OFDM configurations; for example, 802.11a, 802.11n and 802.11ac or 802.11g and 802.11n with the same channel bandwidth, modulation and data rate etc., the lower order 802.11 mode i.e., 802.11a, then 802.11n and 802.11ac or 802.11g then 802.11n, is used for SAR measurement. Per April 2019 TCB Workshop guidance, 802.11ax was considered the highest order 802.11 mode. When the maximum output power are the same for multiple test channels, either according to the default or additional power measurement requirements, SAR is measured using the channel closest to the middle of the frequency band or aggregated band. When there are multiple channels with the same maximum output power, SAR is measured using the higher number channel.

8.7.7 Initial Test Configuration Procedure

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

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

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8.7.8 Subsequent Test Configuration Procedures

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

8.7.9 MIMO SAR considerations

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

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9 RF CONDUCTED POWERS

All conducted power measurements for 2G/3G/4G WWAN technologies and bands in this section were performed by setting Reserve_power_margin (Qualcomm® Smart Transmit EFS entry) to 0dB, so that the EUT transmits continuously at minimum (Plimit, maximum tune up output power Pmax).

9.1 CDMA Conducted Powers

Table 9-1
Measured P_{max}

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	24.82	24.81	24.90	24.82	24.84	24.54	24.54
Cellular	1013	22H	824.7	24.93	24.90	24.91	24.84	24.84	24.57	24.60
	384	22H	836.52	24.80	24.81	24.93	24.82	24.82	24.56	24.58
	777	22H	848.31	24.79	24.88	24.99	24.79	24.82	24.58	24.55
PCS	25	24E	1851.25	23.97	23.98	24.13	23.92	23.89	23.42	23.41
	600	24E	1880	23.94	23.90	24.03	23.87	23.85	23.38	23.34
	1175	24E	1908.75	23.87	23.89	24.02	23.81	23.84	23.34	23.32

Table 9-2
Measured P_{limit} for DSI = 3 (Hotspot Mode)

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	17.20	17.29	17.23	17.23
	600	24E	1880	17.21	17.22	17.22	17.21
	1175	24E	1908.75	17.19	17.21	17.19	17.21

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Table 9-3
Measured P_{limit} for DSI = 1 (Phablet with grip sensor active) and/or DSI = 4 (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	19.92	19.98	20.00	19.96	19.96	19.99	19.97
	600	24E	1880	19.91	19.94	19.95	19.93	19.94	19.93	19.98
	1175	24E	1908.75	19.92	19.93	19.93	19.92	19.89	19.97	20.00

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

Figure 9-1
Power Measurement Setup

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9.2 GSM Conducted Powers

Table 9-4
Measured P_{max}

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	32.24	32.27	31.48	**29.36**	27.30	26.84	24.87	22.71	21.83
	190	32.11	32.12	31.32	**29.43**	27.38	26.81	24.95	22.94	21.44
	251	32.16	32.13	30.95	**29.29**	27.14	26.79	24.62	22.87	21.64
GSM 1900	512	29.12	29.18	28.08	**26.01**	24.33	25.72	24.07	22.13	21.00
	661	29.03	29.09	28.15	**26.10**	24.66	25.90	24.30	22.28	21.08
	810	29.04	29.08	27.65	**25.62**	24.47	25.57	23.92	21.96	20.91

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	23.21	23.24	25.46	**25.10**	24.29	17.81	18.85	18.45	18.82
	190	23.08	23.09	25.30	**25.17**	24.37	17.78	18.93	18.68	18.43
	251	23.13	23.10	24.93	**25.03**	24.13	17.76	18.60	18.61	18.63
GSM 1900	512	20.09	20.15	22.06	**21.75**	21.32	16.69	18.05	17.87	17.99
	661	20.00	20.06	22.13	**21.84**	21.65	16.87	18.28	18.02	18.07
	810	20.01	20.05	21.63	**21.36**	21.46	16.54	17.90	17.70	17.90
GSM 850	**Frame Avg.Targets:**	23.30	23.30	25.31	**25.07**	24.32	17.80	18.81	18.57	18.82
GSM 1900		20.30	20.30	21.81	**22.07**	21.32	16.80	17.81	17.57	17.82

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Table 9-5
Measured P_{limit} for DSI = 3 (Hotspot mode), DSI = 1 (Phablet with grip sensor active), and/or DSI =4 (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	28.26	28.27	25.23	23.32	**21.87**	25.72	24.07	22.13	21.00
	661	28.12	28.13	25.51	23.47	**21.96**	25.90	24.30	22.28	21.08
	810	28.23	28.22	25.18	23.29	**21.87**	25.57	23.92	21.96	20.91

Calculated Maximum Frame-Averaged Output Power										
		Voice	*GPRS/EDGE Data (GMSK)*				*EDGE Data (8-PSK)*			
Band	**Channel**	**GSM [dBm] CS (1 Slot)**	**GPRS [dBm] 1 Tx Slot**	**GPRS [dBm] 2 Tx Slot**	**GPRS [dBm] 3 Tx Slot**	**GPRS [dBm] 4 Tx Slot**	**EDGE [dBm] 1 Tx Slot**	**EDGE [dBm] 2 Tx Slot**	**EDGE [dBm] 3 Tx Slot**	**EDGE [dBm] 4 Tx Slot**
GSM 1900	512	19.23	19.24	19.21	19.06	**18.86**	16.69	18.05	17.87	17.99
	661	19.09	19.10	19.49	19.21	**18.95**	16.87	18.28	18.02	18.07
	810	19.20	19.19	19.16	19.03	**18.86**	16.54	17.90	17.70	17.90
GSM 1900	**Frame Avg.Targets:**	18.90	18.90	18.91	18.87	**18.92**	16.80	17.81	17.57	17.82

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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 9-2
Power Measurement Setup

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9.3 UMTS Conducted Powers

Table 9-6
Measured P_{max}

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	24.92	24.93	24.86	23.38	23.51	23.74	23.48	23.44	23.40	-
99		12.2 kbps AMR	24.93	24.86	24.89	23.36	23.48	23.71	23.44	23.41	23.48	-
6	HSDPA	Subtest 1	23.90	23.97	23.91	22.38	22.54	22.75	22.44	22.43	22.41	0
6		Subtest 2	23.93	23.93	23.89	22.37	22.55	22.75	22.46	22.46	22.43	0
6		Subtest 3	23.41	23.47	23.41	21.91	22.05	22.24	21.95	21.94	21.93	0.5
6		Subtest 4	23.41	23.45	23.40	21.92	22.05	22.28	21.92	21.95	21.93	0.5
6	HSUPA	Subtest 1	23.91	23.95	23.94	22.38	22.52	22.74	22.46	22.47	22.46	0
6		Subtest 2	21.91	21.94	21.90	20.40	20.53	20.77	20.46	20.47	20.45	2
6		Subtest 3	22.94	22.94	22.92	21.39	21.53	21.77	21.48	21.48	21.46	1
6		Subtest 4	21.93	21.97	21.94	20.10	20.22	20.46	20.14	20.18	20.12	2
6		Subtest 5	23.94	23.96	23.92	22.11	22.24	22.45	22.17	22.16	22.12	0
8	DC-HSDPA	Subtest 1	23.91	23.92	23.91	22.43	22.56	22.79	22.47	22.47	22.45	0
8		Subtest 2	23.94	23.97	23.90	22.42	22.57	22.77	22.47	22.47	22.45	0
8		Subtest 3	23.45	23.43	23.42	21.92	22.05	22.27	21.97	21.98	21.94	0.5
8		Subtest 4	23.43	23.47	23.41	21.93	22.06	22.28	21.96	21.98	21.95	0.5

Table 9-7
Measured P_{limit} for DSI = 3 (Hotspot mode)

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	18.27	18.41	18.70	17.41	17.56	17.61	-
99		12.2 kbps AMR	18.26	18.46	18.69	17.43	17.57	17.59	-
6	HSDPA	Subtest 1	18.00	18.15	18.37	16.52	16.55	16.54	0
6		Subtest 2	17.99	18.15	18.35	16.54	16.57	16.54	0
6		Subtest 3	17.48	17.67	17.87	16.06	16.05	16.01	0.5
6		Subtest 4	17.49	17.63	17.84	16.01	16.03	16.04	0.5
6	HSUPA	Subtest 1	18.00	18.15	18.38	16.44	16.45	16.39	0
6		Subtest 2	16.03	16.17	16.36	14.59	14.57	14.55	2
6		Subtest 3	17.00	17.15	17.37	15.54	15.56	15.54	1
6		Subtest 4	16.02	16.14	16.41	14.53	14.56	14.53	2
6		Subtest 5	18.00	18.15	18.37	16.54	16.54	16.55	0
8	DC-HSDPA	Subtest 1	18.01	18.18	18.39	16.53	16.58	16.54	0
8		Subtest 2	18.00	18.15	18.37	16.53	16.57	16.51	0
8		Subtest 3	17.50	17.66	17.86	16.04	16.08	16.06	0.5
8		Subtest 4	17.50	17.65	17.88	16.05	16.06	16.05	0.5

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Table 9-8
Measured P_{limit} for DSI = 1 (Phablet with grip sensor active) and/or DSI = 4 (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	20.83	20.92	21.20	20.83	20.82	20.76	-
99		12.2 kbps AMR	20.79	20.90	21.20	20.79	20.80	20.75	-
6	HSDPA	Subtest 1	19.72	19.86	20.05	19.53	19.56	19.54	0
6		Subtest 2	19.72	19.86	20.07	19.55	19.58	19.56	0
6		Subtest 3	19.22	19.39	19.59	19.04	19.09	19.05	0.5
6		Subtest 4	19.23	19.38	19.56	19.05	19.07	19.05	0.5
6	HSUPA	Subtest 1	19.70	19.87	20.06	19.58	19.59	19.56	0
6		Subtest 2	17.70	17.83	18.05	17.57	17.57	17.57	2
6		Subtest 3	18.70	18.85	19.08	18.57	18.59	18.56	1
6		Subtest 4	17.71	17.84	18.08	17.57	17.57	17.53	2
6		Subtest 5	19.67	19.83	20.07	19.56	19.58	19.53	0
8	DC-HSDPA	Subtest 1	19.62	19.87	20.08	19.54	19.56	19.55	0
8		Subtest 2	19.62	19.88	20.06	19.55	19.60	19.55	0
8		Subtest 3	19.21	19.36	19.56	19.06	19.07	19.05	0.5
8		Subtest 4	19.21	19.37	19.54	19.03	19.07	19.07	0.5

DC-HSDPA considerations

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

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

Figure 9-3
Power Measurement Setup

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9.4 LTE Conducted Powers

9.4.1 LTE Band 71

Table 9-9
LTE Band 71 Measured P_{max} for all DSI - 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	25.28	0	0
	1	50	**25.55**		0
	1	99	25.45		0
	50	0	24.42	0-1	1
	50	25	**24.56**		1
	50	50	24.49		1
	100	0	24.55		1
16QAM	1	0	24.71	0-1	1
	1	50	24.79		1
	1	99	24.80		1
	50	0	23.75	0-2	2
	50	25	23.67		2
	50	50	23.56		2
	100	0	23.76		2
64QAM	1	0	23.12	0-2	2
	1	50	23.58		2
	1	99	23.19		2
	50	0	21.98	0-3	3
	50	25	22.39		3
	50	50	22.32		3
	100	0	22.30		3
256QAM	1	0	20.41	0-5	5
	1	50	20.69		5
	1	99	20.52		5
	50	0	20.60		5
	50	25	20.62		5
	50	50	20.57		5
	100	0	20.50		5

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

Table 9-10
LTE Band 71 Measured P_{max} for all DSI - 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	25.58	0	0
	1	36	25.58		0
	1	74	25.57		0
	36	0	24.77	0-1	1
	36	18	24.76		1
	36	37	24.75		1
	75	0	24.66		1
16QAM	1	0	24.80	0-1	1
	1	36	24.78		1
	1	74	24.75		1
	36	0	23.79	0-2	2
	36	18	23.76		2
	36	37	23.70		2
	75	0	23.70		2
64QAM	1	0	23.43	0-2	2
	1	36	23.80		2
	1	74	23.62		2
	36	0	22.28	0-3	3
	36	18	22.72		3
	36	37	22.74		3
	75	0	22.50		3
256QAM	1	0	20.59	0-5	5
	1	36	20.79		5
	1	74	20.74		5
	36	0	20.65		5
	36	18	20.70		5
	36	37	20.73		5
	75	0	20.64		5

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 9-11
LTE Band 71 Measured P_{max} for all DSI - 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	25.43	25.52	25.33	0	0
	1	25	25.30	25.40	25.40		0
	1	49	25.24	25.44	25.21		0
	25	0	24.59	24.44	24.39	0-1	1
	25	12	24.53	24.43	24.36		1
	25	25	24.45	24.43	24.38		1
	50	0	24.45	24.36	24.32		1
16QAM	1	0	24.78	24.79	24.77	0-1	1
	1	25	24.80	24.73	24.70		1
	1	49	24.75	24.74	24.75		1
	25	0	23.60	23.42	23.38	0-2	2
	25	12	23.54	23.40	23.37		2
	25	25	23.44	23.47	23.38		2
	50	0	23.47	23.38	23.27		2
64QAM	1	0	22.96	23.47	23.59	0-2	2
	1	25	23.58	23.57	23.52		2
	1	49	23.18	23.59	23.26		2
	25	0	22.31	22.44	22.40	0-3	3
	25	12	22.57	22.48	22.36		3
	25	25	22.16	22.43	22.37		3
	50	0	22.19	22.31	22.32		3
256QAM	1	0	20.43	20.21	20.33	0-5	5
	1	25	20.64	20.52	20.45		5
	1	49	20.27	20.33	20.33		5
	25	0	20.49	20.41	20.36		5
	25	12	20.56	20.42	20.44		5
	25	25	20.48	20.49	20.32		5
	50	0	20.47	20.39	20.38		5

Table 9-12
LTE Band 71 Measured P_{max} for all DSI - 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	25.59	25.32	25.13	0	0
	1	12	25.55	25.45	25.27		0
	1	24	25.48	25.44	25.27		0
	12	0	24.56	24.44	24.33	0-1	1
	12	6	24.61	24.47	24.36		1
	12	13	24.53	24.46	24.43		1
	25	0	24.61	24.40	24.36		1
16QAM	1	0	24.80	24.55	24.56	0-1	1
	1	12	24.78	24.66	24.57		1
	1	24	24.75	24.68	24.58		1
	12	0	23.67	23.36	23.39	0-2	2
	12	6	23.66	23.47	23.45		2
	12	13	23.64	23.48	23.47		2
	25	0	23.60	23.36	23.36		2
64QAM	1	0	23.12	23.49	23.42	0-2	2
	1	12	23.56	23.55	23.58		2
	1	24	23.79	23.60	23.10		2
	12	0	22.12	22.37	22.40	0-3	3
	12	6	22.49	22.44	22.46		3
	12	13	22.66	22.50	22.31		3
	25	0	22.38	22.36	22.32		3
256QAM	1	0	20.60	20.40	20.44	0-5	5
	1	12	20.68	20.60	20.65		5
	1	24	20.64	20.53	20.53		5
	12	0	20.58	20.43	20.38		5
	12	6	20.62	20.50	20.45		5
	12	13	20.61	20.47	20.47		5
	25	0	20.56	20.42	20.36		5

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9.4.2 LTE Band 12

Table 9-13
LTE Band 12 Measured P_{max} for all DSI - 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	25.00	0	0
	1	25	24.98		0
	1	49	**25.01**		0
	25	0	24.00	0-1	1
	25	12	**24.15**		1
	25	25	23.99		1
	50	0	24.08		1
16QAM	1	0	24.50	0-1	1
	1	25	24.45		1
	1	49	24.43		1
	25	0	23.09	0-2	2
	25	12	23.17		2
	25	25	23.08		2
	50	0	23.09		2
64QAM	1	0	23.15	0-2	2
	1	25	23.25		2
	1	49	23.21		2
	25	0	21.95	0-3	3
	25	12	22.16		3
	25	25	22.09		3
	50	0	22.09		3
256QAM	1	0	20.01	0-5	5
	1	25	20.19		5
	1	49	20.00		5
	25	0	20.02		5
	25	12	20.11		5
	25	25	20.04		5
	50	0	20.14		5

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

Table 9-14
LTE Band 12 Measured P_{max} for all DSI - 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	25.03	24.94	25.00	0	0
	1	12	25.11	24.98	25.04		0
	1	24	25.07	25.00	25.01		0
	12	0	24.09	24.13	24.15	0-1	1
	12	6	24.12	24.19	24.20		1
	12	13	24.11	24.13	24.21		1
	25	0	24.15	24.12	24.14		1
16QAM	1	0	24.41	24.47	24.48	0-1	1
	1	12	24.33	24.43	24.46		1
	1	24	24.30	24.48	24.48		1
	12	0	23.21	23.21	23.24	0-2	2
	12	6	23.25	23.28	23.33		2
	12	13	23.21	23.24	23.33		2
	25	0	23.18	23.23	23.25		2
64QAM	1	0	23.32	23.30	23.21	0-2	2
	1	12	23.37	23.34	23.29		2
	1	24	23.31	23.31	23.02		2
	12	0	22.20	22.18	22.07	0-3	3
	12	6	22.28	22.26	22.30		3
	12	13	22.23	22.25	22.11		3
	25	0	22.21	22.24	22.03		3
256QAM	1	0	20.19	20.21	20.24	0-5	5
	1	12	20.41	20.28	20.39		5
	1	24	20.24	20.28	20.32		5
	12	0	20.16	20.16	20.23		5
	12	6	20.22	20.27	20.24		5
	12	13	20.17	20.18	20.26		5
	25	0	20.19	20.17	20.17		5

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Table 9-15
LTE Band 12 Measured P_{max} for all DSI - 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	25.03	24.94	25.08	0	0
	1	7	25.11	25.09	25.11		0
	1	14	25.00	24.99	24.92		0
	8	0	24.11	24.06	24.20	0-1	1
	8	4	24.10	24.12	24.24		1
	8	7	24.10	24.10	24.22		1
	15	0	24.15	24.15	24.26		1
16QAM	1	0	24.38	24.43	24.57	0-1	1
	1	7	24.42	24.28	24.53		1
	1	14	24.41	24.42	24.51		1
	8	0	23.29	23.23	23.29	0-2	2
	8	4	23.25	23.31	23.38		2
	8	7	23.26	23.22	23.34		2
	15	0	23.19	23.18	23.29		2
64QAM	1	0	23.34	23.30	23.34	0-2	2
	1	7	23.35	23.18	23.26		2
	1	14	23.28	23.17	23.02		2
	8	0	22.19	22.17	22.26	0-3	3
	8	4	22.27	22.19	22.16		3
	8	7	22.24	22.07	22.08		3
	15	0	22.18	22.12	22.15		3
256QAM	1	0	20.21	20.23	20.35	0-5	5
	1	7	20.28	20.31	20.42		5
	1	14	20.22	20.27	20.35		5
	8	0	20.20	20.17	20.23		5
	8	4	20.21	20.25	20.29		5
	8	7	20.21	20.19	20.30		5
	15	0	20.24	20.24	20.31		5

Table 9-16
LTE Band 12 Measured P_{max} for all DSI -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	24.93	24.95	25.04	0	0
	1	2	24.98	25.07	25.15		0
	1	5	24.98	25.02	25.02		0
	3	0	24.93	25.00	25.06		0
	3	2	25.01	25.04	25.16		0
	3	3	24.99	25.02	25.05		0
	6	0	24.05	24.13	24.09	0-1	1
16QAM	1	0	24.29	24.37	24.43	0-1	1
	1	2	24.34	24.38	24.48		1
	1	5	24.33	24.33	24.38		1
	3	0	24.16	24.22	24.25		1
	3	2	24.24	24.21	24.36		1
	3	3	24.24	24.16	24.31		1
	6	0	23.14	23.18	23.23	0-2	2
64QAM	1	0	23.22	23.17	23.13	0-2	2
	1	2	23.29	23.33	23.07		2
	1	5	23.20	23.24	22.94		2
	3	0	23.10	23.19	23.08		2
	3	2	23.22	23.21	22.96		2
	3	3	23.18	23.23	22.90		2
	6	0	22.10	22.11	21.83	0-3	3
256QAM	1	0	20.08	20.15	20.22	0-5	5
	1	2	20.21	20.32	20.43		5
	1	5	20.15	20.23	20.30		5
	3	0	20.17	20.24	20.25		5
	3	2	20.25	20.26	20.36		5
	3	3	20.19	20.23	20.33		5
	6	0	20.08	20.14	20.13		5

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9.4.3 LTE Band 13

Table 9-17
LTE Band 13 Measured P_{max} for all DSI - 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	**25.23**	0	0
	1	25	25.06		0
	1	49	24.90		0
	25	0	**24.26**	0-1	1
	25	12	24.24		1
	25	25	24.19		1
	50	0	24.12		1
16QAM	1	0	24.77	0-1	1
	1	25	24.65		1
	1	49	24.56		1
	25	0	23.31	0-2	2
	25	12	23.17		2
	25	25	23.23		2
	50	0	23.22		2
64QAM	1	0	23.61	0-2	2
	1	25	23.41		2
	1	49	23.26		2
	25	0	22.21	0-3	3
	25	12	22.28		3
	25	25	22.19		3
	50	0	22.23		3
256QAM	1	0	20.20	0-5	5
	1	25	20.19		5
	1	49	20.02		5
	25	0	20.13		5
	25	12	20.19		5
	25	25	20.13		5
	50	0	20.16		5

Table 9-18
LTE Band 13 Measured P_{max} for all DSI - 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	25.22	0	0
	1	12	25.15		0
	1	24	25.21		0
	12	0	24.25	0-1	1
	12	6	24.24		1
	12	13	24.23		1
	25	0	24.25		1
16QAM	1	0	24.49	0-1	1
	1	12	24.41		1
	1	24	24.35		1
	12	0	23.28	0-2	2
	12	6	23.29		2
	12	13	23.29		2
	25	0	23.30		2
64QAM	1	0	23.56	0-2	2
	1	12	23.36		2
	1	24	23.48		2
	12	0	22.21	0-3	3
	12	6	22.25		3
	12	13	22.22		3
	25	0	22.26		3
256QAM	1	0	20.12	0-5	5
	1	12	20.16		5
	1	24	20.18		5
	12	0	20.25		5
	12	6	20.29		5
	12	13	20.26		5
	25	0	20.28		5

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 9-19
LTE Band 14 Measured P_{max} for all DSI - 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	**25.06**	0	0
	1	25	24.95		0
	1	49	24.83		0
	25	0	**24.04**	0-1	1
	25	12	23.93		1
	25	25	23.81		1
	50	0	23.89		1
16QAM	1	0	24.64	0-1	1
	1	25	24.38		1
	1	49	24.45		1
	25	0	23.01	0-2	2
	25	12	22.95		2
	25	25	22.89		2
	50	0	22.91		2
64QAM	1	0	23.56	0-2	2
	1	25	22.96		2
	1	49	23.12		2
	25	0	22.01	0-3	3
	25	12	22.01		3
	25	25	21.88		3
	50	0	21.99		3
256QAM	1	0	20.03	0-5	5
	1	25	20.17		5
	1	49	19.92		5
	25	0	20.11		5
	25	12	20.02		5
	25	25	19.82		5
	50	0	19.88		5

Table 9-20
LTE Band 14 Measured P_{max} for all DSI - 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	24.98	0	0
	1	12	24.99		0
	1	24	24.80		0
	12	0	24.12	0-1	1
	12	6	24.05		1
	12	13	23.90		1
	25	0	24.00		1
16QAM	1	0	24.35	0-1	1
	1	12	24.30		1
	1	24	24.21		1
	12	0	23.22	0-2	2
	12	6	23.16		2
	12	13	23.02		2
	25	0	23.00		2
64QAM	1	0	23.38	0-2	2
	1	12	23.42		2
	1	24	23.23		2
	12	0	22.21	0-3	3
	12	6	22.15		3
	12	13	22.19		3
	25	0	22.05		3
256QAM	1	0	20.20	0-5	5
	1	12	20.13		5
	1	24	20.05		5
	12	0	20.13		5
	12	6	20.01		5
	12	13	19.98		5
	25	0	20.04		5

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

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9.4.5 LTE Band 26 (Cell)

Table 9-21
LTE Band 26 (Cell) Measured P_{max} for all DSI - 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	**25.21**	0	0
	1	36	25.19		0
	1	74	25.07		0
	36	0	24.26	0-1	1
	36	18	**24.27**		1
	36	37	24.25		1
	75	0	24.23		1
16QAM	1	0	24.55	0-1	1
	1	36	24.57		1
	1	74	24.41		1
	36	0	23.21	0-2	2
	36	18	23.24		2
	36	37	23.29		2
	75	0	23.17		2
64QAM	1	0	23.25	0-2	2
	1	36	23.33		2
	1	74	23.58		2
	36	0	22.31	0-3	3
	36	18	22.29		3
	36	37	22.28		3
	75	0	22.39		3
256QAM	1	0	20.05	0-5	5
	1	36	20.48		5
	1	74	20.25		5
	36	0	20.15		5
	36	18	20.24		5
	36	37	20.20		5
	75	0	20.39		5

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

Table 9-22
LTE Band 26 (Cell) Measured P_{max} for all DSI - 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	25.22	25.19	25.08	0	0
	1	25	25.17	25.11	25.05		0
	1	49	25.09	25.03	25.00		0
	25	0	24.13	24.11	24.02	0-1	1
	25	12	24.30	24.18	24.14		1
	25	25	24.17	24.17	24.09		1
	50	0	24.18	24.09	24.10		1
16QAM	1	0	24.59	24.54	24.56	0-1	1
	1	25	24.54	24.57	24.46		1
	1	49	24.50	24.50	24.40		1
	25	0	23.06	23.04	22.94	0-2	2
	25	12	23.26	23.13	23.07		2
	25	25	23.15	23.11	23.06		2
	50	0	23.17	23.06	22.98		2
64QAM	1	0	23.33	23.31	23.32	0-2	2
	1	25	23.34	23.37	23.19		2
	1	49	23.20	23.25	23.24		2
	25	0	22.08	22.12	22.00	0-3	3
	25	12	22.29	22.20	22.17		3
	25	25	22.15	21.96	22.11		3
	50	0	22.17	22.07	22.01		3
256QAM	1	0	20.07	20.28	20.17	0-5	5
	1	25	20.30	20.31	20.26		5
	1	49	20.24	20.03	20.05		5
	25	0	20.12	20.10	20.03		5
	25	12	20.21	20.14	20.12		5
	25	25	20.12	20.09	20.11		5
	50	0	20.16	20.04	20.03		5

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Table 9-23
LTE Band 26 (Cell) Measured P_{max} for all DSI - 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	25.09	25.12	25.10	0	0
	1	12	25.19	25.18	25.07		0
	1	24	25.11	25.19	25.08		0
	12	0	24.19	24.17	24.10	0-1	1
	12	6	24.28	24.19	24.20		1
	12	13	24.26	24.27	24.17		1
	25	0	24.23	24.13	24.08		1
16QAM	1	0	24.33	24.43	24.39	0-1	1
	1	12	24.37	24.38	24.50		1
	1	24	24.36	24.47	24.40		1
	12	0	23.17	23.14	23.18	0-2	2
	12	6	23.28	23.22	23.26		2
	12	13	23.27	23.18	23.20		2
	25	0	23.22	23.09	23.13		2
64QAM	1	0	23.25	23.30	23.34	0-2	2
	1	12	23.28	23.35	23.38		2
	1	24	23.24	23.34	23.31		2
	12	0	22.19	22.17	22.15	0-3	3
	12	6	22.24	22.17	22.24		3
	12	13	22.27	22.21	22.23		3
	25	0	22.21	22.12	22.06		3
256QAM	1	0	20.16	20.18	20.15	0-5	5
	1	12	20.33	20.31	20.25		5
	1	24	20.26	20.25	20.14		5
	12	0	20.11	20.09	20.08		5
	12	6	20.24	20.17	20.25		5
	12	13	20.20	20.19	20.16		5
	25	0	20.21	20.17	20.12		5

Table 9-24
LTE Band 26 (Cell) Measured P_{max} for all DSI - 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	25.08	25.21	25.13	0	0
	1	7	25.18	25.23	25.08		0
	1	14	25.10	25.11	25.02		0
	8	0	24.28	24.21	24.13	0-1	1
	8	4	24.30	24.17	24.18		1
	8	7	24.27	24.22	24.13		1
	15	0	24.30	24.20	24.14		1
16QAM	1	0	24.42	24.41	24.42	0-1	1
	1	7	24.35	24.40	24.43		1
	1	14	24.45	24.49	24.43		1
	8	0	23.23	23.25	23.23	0-2	2
	8	4	23.33	23.30	23.20		2
	8	7	23.28	23.27	23.24		2
	15	0	23.24	23.13	23.18		2
64QAM	1	0	23.26	23.29	23.34	0-2	2
	1	7	23.33	23.39	23.35		2
	1	14	23.40	23.39	23.26		2
	8	0	22.18	22.18	22.21	0-3	3
	8	4	22.28	22.30	22.20		3
	8	7	22.28	22.25	22.19		3
	15	0	22.30	22.15	22.18		3
256QAM	1	0	20.25	20.24	20.28	0-5	5
	1	7	20.38	20.34	20.23		5
	1	14	20.28	20.28	20.23		5
	8	0	20.16	20.21	20.16		5
	8	4	20.29	20.26	20.28		5
	8	7	20.24	20.27	20.21		5
	15	0	20.28	20.28	20.21		5

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Table 9-25
LTE Band 26 (Cell) Measured P_{max} for all DSI -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	25.05	25.03	24.94	0	0
	1	2	25.12	25.12	25.01		0
	1	5	25.06	25.04	24.99		0
	3	0	25.12	25.07	24.98		0
	3	2	25.15	25.10	24.95		0
	3	3	25.11	25.02	24.97		0
	6	0	24.20	24.17	24.04	0-1	1
16QAM	1	0	24.30	24.47	24.36	0-1	1
	1	2	24.43	24.39	24.36		1
	1	5	24.34	24.39	24.22		1
	3	0	24.26	24.23	24.18		1
	3	2	24.32	24.22	24.23		1
	3	3	24.22	24.18	24.18		1
	6	0	23.18	23.15	23.06	0-2	2
64QAM	1	0	23.20	23.35	23.19	0-2	2
	1	2	23.31	23.36	23.30		2
	1	5	23.31	23.26	23.19		2
	3	0	23.20	23.13	23.13		2
	3	2	23.28	23.28	23.17		2
	3	3	23.26	23.16	23.11		2
	6	0	22.22	22.09	22.09	0-3	3
256QAM	1	0	20.15	20.13	20.18	0-5	5
	1	2	20.31	20.26	20.22		5
	1	5	20.18	20.23	20.02		5
	3	0	20.25	20.18	20.18		5
	3	2	20.35	20.36	20.26		5
	3	3	20.24	20.25	20.20		5
	6	0	20.17	20.16	20.11		5

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9.4.6 LTE Band 5 (Cell)

Table 9-26
LTE Band 5 (Cell) Measured P_{max} for all DSI - 10 MHz Bandwidth

LTE Band 5 (Cell) 10 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel 20525 (836.5 MHz) Conducted Power [dBm]	MPR Allowed per 3GPP [dB]	MPR [dB]
QPSK	1	0	24.93	0	0
	1	25	25.02		0
	1	49	**25.03**		0
	25	0	24.08	0-1	1
	25	12	24.09		1
	25	25	**24.10**		1
	50	0	24.01		1
16QAM	1	0	24.58	0-1	1
	1	25	24.53		1
	1	49	24.40		1
	25	0	23.14	0-2	2
	25	12	23.07		2
	25	25	23.16		2
	50	0	23.08		2
64QAM	1	0	23.31	0-2	2
	1	25	23.20		2
	1	49	23.26		2
	25	0	22.09	0-3	3
	25	12	22.23		3
	25	25	22.10		3
	50	0	22.08		3
256QAM	1	0	20.00	0-5	5
	1	25	20.11		5
	1	49	19.87		5
	25	0	19.93		5
	25	12	19.95		5
	25	25	19.98		5
	50	0	20.03		5

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

Table 9-27
LTE Band 5 (Cell) Measured P_{max} for all DSI - 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	24.92	24.97	25.02	0	0
	1	12	25.01	25.10	25.12		0
	1	24	24.98	25.06	25.11		0
	12	0	24.10	24.07	24.12	0-1	1
	12	6	24.17	24.13	24.14		1
	12	13	24.14	24.15	24.16		1
	25	0	24.18	24.06	24.11		1
16QAM	1	0	24.24	24.23	24.57	0-1	1
	1	12	24.36	24.38	24.72		1
	1	24	24.31	24.28	24.70		1
	12	0	23.21	23.16	23.24	0-2	2
	12	6	23.28	23.19	23.28		2
	12	13	23.24	23.20	23.33		2
	25	0	23.19	23.06	23.18		2
64QAM	1	0	22.99	23.35	23.35	0-2	2
	1	12	23.11	23.47	23.56		2
	1	24	23.08	23.51	23.51		2
	12	0	22.17	22.10	22.19	0-3	3
	12	6	22.25	22.13	22.24		3
	12	13	22.23	22.14	22.28		3
	25	0	22.17	22.09	22.16		3
256QAM	1	0	20.24	19.81	19.99	0-5	5
	1	12	20.41	19.91	20.11		5
	1	24	20.25	19.84	20.14		5
	12	0	20.17	20.07	20.25		5
	12	6	20.26	20.12	20.32		5
	12	13	20.24	20.18	20.34		5
	25	0	20.22	20.13	20.21		5

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Table 9-28
LTE Band 5 (Cell) Measured P_{max} for all DSI - 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	24.96	24.95	25.01	0	0
	1	7	25.00	25.11	25.10		0
	1	14	25.03	25.02	25.05		0
	8	0	24.14	24.08	24.09	0-1	1
	8	4	24.16	24.13	24.18		1
	8	7	24.15	24.18	24.17		1
	15	0	24.17	24.11	24.15		1
16QAM	1	0	24.45	24.09	24.45	0-1	1
	1	7	24.48	24.18	24.55		1
	1	14	24.52	24.22	24.56		1
	8	0	23.24	23.15	23.21	0-2	2
	8	4	23.29	23.20	23.29		2
	8	7	23.28	23.17	23.26		2
	15	0	23.24	23.09	23.18		2
64QAM	1	0	23.20	23.28	23.42	0-2	2
	1	7	23.26	23.36	23.48		2
	1	14	23.28	23.38	23.45		2
	8	0	22.25	22.17	22.20	0-3	3
	8	4	22.28	22.13	22.29		3
	8	7	22.24	22.13	22.26		3
	15	0	22.23	22.15	22.13		3
256QAM	1	0	20.02	20.00	20.26	0-5	5
	1	7	20.09	20.07	20.36		5
	1	14	20.06	20.07	20.35		5
	8	0	20.12	20.14	20.22		5
	8	4	20.16	20.15	20.29		5
	8	7	20.13	20.21	20.29		5
	15	0	20.27	20.16	20.16		5

Table 9-29
LTE Band 5 (Cell) Measured P_{max} for all DSI -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	24.89	25.10	24.95	0	0
	1	2	25.07	25.11	25.03		0
	1	5	24.98	25.09	24.97		0
	3	0	25.01	24.96	25.01		0
	3	2	25.07	25.00	25.07		0
	3	3	25.04	25.04	25.02		0
	6	0	24.08	24.01	24.13	0-1	1
16QAM	1	0	24.52	24.14	24.13	0-1	1
	1	2	24.59	24.24	24.18		1
	1	5	24.66	24.20	24.17		1
	3	0	24.29	24.07	24.29		1
	3	2	24.31	24.14	24.35		1
	3	3	24.27	24.16	24.28		1
	6	0	23.04	23.18	23.27	0-2	2
64QAM	1	0	23.15	23.19	23.47	0-2	2
	1	2	23.27	23.23	23.61		2
	1	5	23.19	23.34	23.48		2
	3	0	23.24	22.98	23.42		2
	3	2	23.28	23.03	23.46		2
	3	3	23.23	23.07	23.44		2
	6	0	22.44	22.15	22.11	0-3	3
256QAM	1	0	19.93	19.92	20.16	0-5	5
	1	2	20.05	19.96	20.22		5
	1	5	20.00	19.97	20.13		5
	3	0	20.15	20.12	20.19		5
	3	2	20.19	20.15	20.25		5
	3	3	20.12	20.14	20.17		5
	6	0	20.16	20.08	20.14		5

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9.4.7 LTE Band 66 (AWS)

Table 9-30
LTE Band 66 (AWS) Measured P_{max} for DSI = 2 (Head) or DSI = 0 (Body-worn, or Phablet with grip sensor not triggered) - 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	23.11	23.22	23.35	0	0
	1	50	**23.38**	23.34	23.29		0
	1	99	23.19	23.16	23.17		0
	50	0	22.38	22.46	22.31	0-1	1
	50	25	**22.55**	22.47	22.25		1
	50	50	22.43	22.45	22.33		1
	100	0	22.48	22.42	22.26		1
16QAM	1	0	22.39	22.44	22.76	0-1	1
	1	50	22.67	22.68	22.64		1
	1	99	22.53	22.51	22.63		1
	50	0	21.40	21.45	21.41	0-2	2
	50	25	21.54	21.52	21.44		2
	50	50	21.45	21.44	21.34		2
	100	0	21.47	21.47	21.32		2
64QAM	1	0	21.36	21.34	21.65	0-2	2
	1	50	21.62	21.46	21.51		2
	1	99	21.72	21.40	21.52		2
	50	0	20.40	20.50	20.44	0-3	3
	50	25	20.54	20.52	20.47		3
	50	50	20.44	20.44	20.37		3
	100	0	20.42	20.34	20.37		3
256QAM	1	0	18.35	18.11	18.28	0-5	5
	1	50	18.61	18.62	18.44		5
	1	99	18.42	18.31	18.22		5
	50	0	18.44	18.53	18.41		5
	50	25	18.56	18.54	18.31		5
	50	50	18.45	18.48	18.34		5
	100	0	18.48	18.44	18.36		5

Table 9-31
LTE Band 66 (AWS) Measured P_{max} for DSI = 2 (Head) or DSI = 0 (Body-worn, or Phablet with grip sensor not triggered) - 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	23.48	23.28	23.35	0	0
	1	36	23.38	23.48	23.36		0
	1	74	23.40	23.25	23.16		0
	36	0	22.44	22.53	22.38	0-1	1
	36	18	22.51	22.49	22.37		1
	36	37	22.43	22.47	22.34		1
	75	0	22.46	22.45	22.31		1
16QAM	1	0	22.52	22.61	22.69	0-1	1
	1	36	22.67	22.76	22.67		1
	1	74	22.72	22.52	22.42		1
	36	0	21.41	21.48	21.43	0-2	2
	36	18	21.54	21.39	21.38		2
	36	37	21.50	21.53	21.40		2
	75	0	21.54	21.47	21.32		2
64QAM	1	0	21.46	21.57	21.58	0-2	2
	1	36	21.62	21.74	21.57		2
	1	74	21.54	21.56	21.44		2
	36	0	20.49	20.53	20.45	0-3	3
	36	18	20.57	20.53	20.37		3
	36	37	20.51	20.55	20.42		3
	75	0	20.51	20.49	20.34		3
256QAM	1	0	18.41	18.47	18.40	0-5	5
	1	36	18.57	18.52	18.48		5
	1	74	18.64	18.55	18.25		5
	36	0	18.48	18.54	18.31		5
	36	18	18.54	18.56	18.37		5
	36	37	18.49	18.55	18.38		5
	75	0	18.47	18.43	18.36		5

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Table 9-32
LTE Band 66 (AWS) Measured P_{max} for DSI = 2 (Head) or DSI = 0 (Body-worn, or Phablet with grip sensor not triggered) - 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	23.05	23.02	22.98	0	0
	1	25	23.14	23.23	23.07		0
	1	49	23.04	23.06	22.95		0
	25	0	22.14	22.21	22.13	0-1	1
	25	12	22.29	22.36	22.24		1
	25	25	22.16	22.25	22.16		1
	50	0	22.22	22.25	22.17		1
16QAM	1	0	22.17	22.43	22.25	0-1	1
	1	25	22.54	22.61	22.47		1
	1	49	22.27	22.38	22.24		1
	25	0	21.11	21.26	21.10	0-2	2
	25	12	21.29	21.32	21.15		2
	25	25	21.16	21.30	21.11		2
	50	0	21.22	21.23	21.17		2
64QAM	1	0	21.15	21.18	21.01	0-2	2
	1	25	21.42	21.45	21.28		2
	1	49	21.25	21.22	21.08		2
	25	0	20.12	20.25	20.10	0-3	3
	25	12	20.31	20.32	20.18		3
	25	25	20.17	20.27	20.13		3
	50	0	20.20	20.31	20.23		3
256QAM	1	0	18.15	18.19	18.00	0-5	5
	1	25	18.34	18.13	18.25		5
	1	49	18.17	18.27	18.00		5
	25	0	18.15	18.25	18.08		5
	25	12	18.31	18.24	18.22		5
	25	25	18.12	18.24	18.13		5
	50	0	18.29	18.19	18.11		5

Table 9-33
LTE Band 66 (AWS) Measured P_{max} for DSI = 2 (Head) or DSI = 0 (Body-worn, or Phablet with grip sensor not triggered) - 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	23.10	23.21	23.06	0	0
	1	12	23.21	23.34	23.16		0
	1	24	23.09	23.18	22.98		0
	12	0	22.25	22.38	22.25	0-1	1
	12	6	22.33	22.38	22.25		1
	12	13	22.21	22.38	22.18		1
	25	0	22.26	22.33	22.17		1
16QAM	1	0	22.48	22.60	22.40	0-1	1
	1	12	22.54	22.64	22.45		1
	1	24	22.47	22.51	22.33		1
	12	0	21.27	21.40	21.28	0-2	2
	12	6	21.33	21.38	21.32		2
	12	13	21.37	21.39	21.20		2
	25	0	21.27	21.30	21.19		2
64QAM	1	0	21.35	21.22	21.32	0-2	2
	1	12	21.40	21.52	21.31		2
	1	24	21.30	21.44	21.28		2
	12	0	20.30	20.39	20.30	0-3	3
	12	6	20.32	20.41	20.34		3
	12	13	20.25	20.36	20.16		3
	25	0	20.23	20.30	20.23		3
256QAM	1	0	18.28	18.41	18.30	0-5	5
	1	12	18.39	18.43	18.35		5
	1	24	18.13	18.40	18.17		5
	12	0	18.36	18.35	18.21		5
	12	6	18.30	18.31	18.24		5
	12	13	18.25	18.27	18.11		5
	25	0	18.28	18.28	18.19		5

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Table 9-34
LTE Band 66 (AWS) Measured P_{max} for DSI = 2 (Head) or DSI = 0 (Body-worn, or Phablet with grip sensor not triggered) - 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	23.19	23.29	23.16	0	0
	1	7	23.25	23.31	23.17		0
	1	14	23.22	23.17	23.06		0
	8	0	22.28	22.34	22.24	0-1	1
	8	4	22.27	22.31	22.16		1
	8	7	22.23	22.36	22.23		1
	15	0	22.28	22.33	22.22		1
16QAM	1	0	22.46	22.66	22.54	0-1	1
	1	7	22.44	22.52	22.40		1
	1	14	22.57	22.56	22.34		1
	8	0	21.31	21.43	21.31	0-2	2
	8	4	21.38	21.46	21.37		2
	8	7	21.30	21.49	21.37		2
	15	0	21.29	21.31	21.30		2
64QAM	1	0	21.42	21.53	21.40	0-2	2
	1	7	21.41	21.49	21.25		2
	1	14	21.38	21.31	21.22		2
	8	0	20.26	20.34	20.27	0-3	3
	8	4	20.34	20.45	20.29		3
	8	7	20.10	20.31	20.27		3
	15	0	20.25	20.35	20.22		3
256QAM	1	0	18.32	18.37	18.32	0-5	5
	1	7	18.17	18.18	18.50		5
	1	14	18.27	18.35	18.32		5
	8	0	18.25	18.40	18.23		5
	8	4	18.28	18.25	18.18		5
	8	7	18.39	18.28	18.26		5
	15	0	18.26	18.37	18.41		5

Table 9-35
LTE Band 66 (AWS) Measured P_{max} for DSI = 2 (Head) or DSI = 0 (Body-worn, or Phablet with grip sensor not triggered) -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	23.05	23.11	23.02	0	0
	1	2	23.15	23.23	23.04		0
	1	5	23.07	23.21	22.94		0
	3	0	23.13	23.15	23.01		0
	3	2	23.09	23.23	23.05		0
	3	3	23.06	23.12	23.00		0
	6	0	22.14	22.30	22.15	0-1	1
16QAM	1	0	22.42	22.56	22.38	0-1	1
	1	2	22.53	22.51	22.45		1
	1	5	22.56	22.39	22.32		1
	3	0	22.25	22.31	22.20		1
	3	2	22.30	22.36	22.20		1
	3	3	22.22	22.39	22.15		1
	6	0	21.23	21.32	21.23	0-2	2
64QAM	1	0	21.28	21.48	21.27	0-2	2
	1	2	21.36	21.50	21.33		2
	1	5	21.30	21.45	21.20		2
	3	0	21.24	21.18	21.17		2
	3	2	21.33	21.26	21.23		2
	3	3	21.25	21.47	21.17		2
	6	0	20.13	20.21	20.14	0-3	3
256QAM	1	0	18.16	18.36	18.18	0-5	5
	1	2	18.35	18.45	18.38		5
	1	5	18.24	18.32	18.14		5
	3	0	18.37	18.33	18.25		5
	3	2	18.25	18.58	18.44		5
	3	3	18.42	18.38	18.15		5
	6	0	18.17	18.32	18.13		5

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Table 9-36
LTE Band 66 (AWS) Measured P_{limit} for DSI = 3 (Hotspot mode) - 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	18.42	18.34	**18.68**	0	0
	1	50	18.67	18.52	18.65		0
	1	99	18.38	18.29	18.57		0
	50	0	18.56	18.70	18.57	0-1	0
	50	25	18.74	18.74	**18.78**		0
	50	50	18.77	18.71	18.60		0
	100	0	18.66	18.64	18.62		0
16QAM	1	0	18.38	18.52	18.69	0-1	0
	1	50	18.72	18.51	18.73		0
	1	99	18.42	18.52	18.74		0
	50	0	18.49	18.46	18.36	0-2	0
	50	25	18.54	18.54	18.44		0
	50	50	18.54	18.52	18.44		0
	100	0	18.46	18.41	18.34		0
64QAM	1	0	18.40	18.44	18.65	0-2	0
	1	50	18.75	18.54	18.62		0
	1	99	18.46	18.50	18.59		0
	50	0	18.53	18.45	18.39	0-3	0
	50	25	18.59	18.57	18.45		0
	50	50	18.54	18.50	18.39		0
	100	0	18.52	18.39	18.44		0
256QAM	1	0	18.55	18.56	18.49	0-5	0
	1	50	18.83	18.93	18.77		0
	1	99	18.65	18.63	18.57		0
	50	0	18.77	18.75	18.69		0
	50	25	18.72	18.73	18.65		0
	50	50	18.71	18.75	18.67		0
	100	0	18.68	18.74	18.66		0

Table 9-37
LTE Band 66 (AWS) Measured P_{limit} for DSI = 3 (Hotspot mode) - 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	18.51	18.48	18.52	0	0
	1	36	18.60	18.59	18.44		0
	1	74	18.43	18.46	18.35		0
	36	0	18.56	18.58	18.56	0-1	0
	36	18	18.63	18.59	18.53		0
	36	37	18.64	18.59	18.50		0
	75	0	18.57	18.50	18.46		0
16QAM	1	0	18.61	18.60	18.57	0-1	0
	1	36	18.65	18.59	18.61		0
	1	74	18.59	18.56	18.62		0
	36	0	18.65	18.53	18.54	0-2	0
	36	18	18.64	18.57	18.55		0
	36	37	18.58	18.49	18.52		0
	75	0	18.63	18.49	18.51		0
64QAM	1	0	18.47	18.59	18.48	0-2	0
	1	36	18.63	18.54	18.49		0
	1	74	18.43	18.44	18.36		0
	36	0	18.57	18.61	18.63	0-3	0
	36	18	18.58	18.59	18.64		0
	36	37	18.58	18.47	18.62		0
	75	0	18.63	18.49	18.52		0
256QAM	1	0	18.56	18.82	18.41	0-5	0
	1	36	18.64	18.97	18.53		0
	1	74	18.70	18.75	18.72		0
	36	0	18.52	18.60	18.50		0
	36	18	18.60	18.59	18.66		0
	36	37	18.53	18.56	18.64		0
	75	0	18.53	18.56	18.51		0

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Table 9-38
LTE Band 66 (AWS) Measured P_{limit} for DSI = 3 (Hotspot mode) - 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	18.45	18.36	18.41	0	0
	1	25	18.53	18.53	18.55		0
	1	49	18.37	18.43	18.32		0
	25	0	18.45	18.61	18.31	0-1	0
	25	12	18.64	18.64	18.52		0
	25	25	18.50	18.62	18.36		0
	50	0	18.55	18.61	18.42		0
16QAM	1	0	18.47	18.56	18.65	0-1	0
	1	25	18.57	18.81	18.78		0
	1	49	18.49	18.55	18.63		0
	25	0	18.56	18.66	18.48	0-2	0
	25	12	18.47	18.70	18.59		0
	25	25	18.57	18.66	18.46		0
	50	0	18.48	18.58	18.46		0
64QAM	1	0	18.66	18.36	18.18	0-2	0
	1	25	18.52	18.62	18.52		0
	1	49	18.54	18.34	18.22		0
	25	0	18.47	18.70	18.42	0-3	0
	25	12	18.50	18.73	18.55		0
	25	25	18.53	18.72	18.41		0
	50	0	18.50	18.61	18.48		0
256QAM	1	0	18.43	18.52	18.69	0-5	0
	1	25	18.71	18.68	18.70		0
	1	49	18.72	18.56	18.98		0
	25	0	18.84	18.87	18.65		0
	25	12	18.70	18.88	18.76		0
	25	25	18.85	18.83	18.62		0
	50	0	18.82	18.77	18.70		0

Table 9-39
LTE Band 66 (AWS) Measured P_{limit} for DSI = 3 (Hotspot mode) - 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	18.55	18.71	18.80	0	0
	1	12	18.55	18.71	18.81		0
	1	24	18.55	18.65	18.81		0
	12	0	18.57	18.78	18.81	0-1	0
	12	6	18.56	18.75	18.78		0
	12	13	18.56	18.71	18.80		0
	25	0	18.56	18.70	18.80		0
16QAM	1	0	18.57	18.80	18.80	0-1	0
	1	12	18.55	18.86	18.82		0
	1	24	18.56	18.75	18.81		0
	12	0	18.57	18.76	18.81	0-2	0
	12	6	18.56	18.77	18.79		0
	12	13	18.57	18.71	18.78		0
	25	0	18.56	18.78	18.80		0
64QAM	1	0	18.56	18.89	18.81	0-2	0
	1	12	18.56	18.82	18.79		0
	1	24	18.56	18.86	18.81		0
	12	0	18.57	18.82	18.81	0-3	0
	12	6	18.57	18.82	18.79		0
	12	13	18.56	18.81	18.80		0
	25	0	18.55	18.80	18.80		0
256QAM	1	0	18.38	18.67	18.87	0-5	0
	1	12	18.48	18.68	18.84		0
	1	24	18.35	18.66	18.76		0
	12	0	18.79	18.94	18.76		0
	12	6	18.83	18.97	18.79		0
	12	13	18.78	18.92	18.65		0
	25	0	18.80	18.85	18.69		0

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Table 9-40
LTE Band 66 (AWS) Measured P_{limit} for DSI = 3 (Hotspot mode) - 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	18.79	18.61	18.67	0	0
	1	7	18.80	18.60	18.69		0
	1	14	18.77	18.60	18.69		0
	8	0	18.79	18.70	18.69	0-1	0
	8	4	18.77	18.68	18.67		0
	8	7	18.77	18.65	18.68		0
	15	0	18.82	18.68	18.69		0
16QAM	1	0	18.80	18.85	18.66	0-1	0
	1	7	18.79	18.85	18.69		0
	1	14	18.82	18.81	18.68		0
	8	0	18.78	18.74	18.70	0-2	0
	8	4	18.80	18.75	18.68		0
	8	7	18.80	18.70	18.67		0
	15	0	18.81	18.65	18.68		0
64QAM	1	0	18.83	18.58	18.66	0-2	0
	1	7	18.80	18.56	18.68		0
	1	14	18.84	18.58	18.69		0
	8	0	18.79	18.74	18.66	0-3	0
	8	4	18.77	18.76	18.67		0
	8	7	18.80	18.75	18.68		0
	15	0	18.76	18.75	18.68		0
256QAM	1	0	18.76	18.68	18.71	0-5	0
	1	7	18.84	18.60	18.91		0
	1	14	18.72	18.60	18.93		0
	8	0	18.85	18.82	18.73		0
	8	4	18.91	18.77	18.74		0
	8	7	18.83	18.76	18.74		0
	15	0	18.86	18.87	18.66		0

Table 9-41
LTE Band 66 (AWS) Measured P_{limit} for DSI = 3 (Hotspot mode) -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	18.76	18.58	18.76	0	0
	1	2	18.74	18.63	18.76		0
	1	5	18.75	18.55	18.77		0
	3	0	18.76	18.58	18.73		0
	3	2	18.76	18.60	18.77		0
	3	3	18.74	18.56	18.77		0
	6	0	18.74	18.66	18.84	0-1	0
16QAM	1	0	18.75	18.84	18.83	0-1	0
	1	2	18.75	18.85	18.85		0
	1	5	18.75	18.78	18.84		0
	3	0	18.77	18.84	18.83		0
	3	2	18.75	18.85	18.85		0
	3	3	18.77	18.81	18.83		0
	6	0	18.75	18.61	18.84	0-2	0
64QAM	1	0	18.73	18.58	18.85	0-2	0
	1	2	18.72	18.66	18.84		0
	1	5	18.73	18.50	18.83		0
	3	0	18.74	18.73	18.84		0
	3	2	18.76	18.78	18.84		0
	3	3	18.75	18.70	18.84		0
	6	0	18.75	18.72	18.84	0-3	0
256QAM	1	0	18.59	18.68	18.64	0-5	0
	1	2	18.69	18.69	18.69		0
	1	5	18.60	18.63	18.53		0
	3	0	18.79	18.92	18.69		0
	3	2	18.80	18.94	18.69		0
	3	3	18.75	18.84	18.66		0
	6	0	18.83	18.79	18.61		0

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Table 9-42
LTE Band 66 (AWS) Measured P_{limit} for DSI = 1 (Phablet with grip sensor active) and/or DSI = 4 (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	20.02	20.19	**20.60**	0	0
	1	50	20.24	20.34	20.15		0
	1	99	20.26	20.35	20.14		0
	50	0	20.25	20.42	**20.62**	0-1	0
	50	25	20.32	20.45	20.36		0
	50	50	20.47	20.48	20.34		0
	100	0	20.32	20.31	20.48		0
16QAM	1	0	20.31	20.52	20.61	0-1	0
	1	50	20.46	20.59	20.54		0
	1	99	20.42	20.51	20.71		0
	50	0	20.27	20.45	20.34	0-2	0
	50	25	20.44	20.52	20.40		0
	50	50	20.37	20.48	20.32		0
	100	0	20.36	20.34	20.36		0
64QAM	1	0	20.21	20.27	20.53	0-2	0
	1	50	20.31	20.67	20.59		0
	1	99	20.11	20.32	20.60		0
	50	0	20.20	20.46	20.35	0-3	0
	50	25	20.45	20.44	20.44		0
	50	50	20.38	20.44	20.47		0
	100	0	20.36	20.40	20.36		0
256QAM	1	0	18.66	19.03	18.63	0-5	1.7
	1	50	18.93	19.07	18.99		1.7
	1	99	18.78	18.91	18.82		1.7
	50	0	18.80	18.93	18.87		1.7
	50	25	18.88	19.00	18.81		1.7
	50	50	18.87	18.93	18.86		1.7
	100	0	18.90	18.87	18.75		1.7

Table 9-43
LTE Band 66 (AWS) Measured P_{limit} for DSI = 1 (Phablet with grip sensor active) and/or DSI = 4 (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	20.14	20.46	20.24	0	0
	1	36	20.32	20.41	20.26		0
	1	74	20.13	20.41	20.03		0
	36	0	20.42	20.41	20.29	0-1	0
	36	18	20.55	20.41	20.27		0
	36	37	20.44	20.41	20.22		0
	75	0	20.46	20.41	20.18		0
16QAM	1	0	20.26	20.42	20.67	0-1	0
	1	36	20.51	20.41	20.71		0
	1	74	20.25	20.40	20.50		0
	36	0	20.45	20.42	20.32	0-2	0
	36	18	20.59	20.43	20.31		0
	36	37	20.50	20.39	20.24		0
	75	0	20.46	20.39	20.27		0
64QAM	1	0	20.38	20.42	20.08	0-2	0
	1	36	20.68	20.42	20.15		0
	1	74	20.43	20.43	20.06		0
	36	0	20.50	20.42	20.06	0-3	0
	36	18	20.59	20.41	20.31		0
	36	37	20.54	20.41	20.37		0
	75	0	20.45	20.43	20.20		0
256QAM	1	0	19.09	18.92	18.69	0-5	1.7
	1	36	19.32	19.15	18.90		1.7
	1	74	19.10	18.86	18.60		1.7
	36	0	18.80	18.93	18.79		1.7
	36	18	18.85	18.95	18.77		1.7
	36	37	18.82	18.93	18.71		1.7
	75	0	18.79	18.85	18.69		1.7

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Table 9-44
LTE Band 66 (AWS) Measured P_{limit} for DSI = 1 (Phablet with grip sensor active) and/or DSI = 4 (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	20.22	20.19	20.10	0	0
	1	25	20.00	20.24	19.92		0
	1	49	20.09	20.27	19.98		0
	25	0	20.12	20.28	19.97	0-1	0
	25	12	20.25	20.26	20.07		0
	25	25	20.14	20.31	19.95		0
	50	0	20.19	20.31	20.35		0
16QAM	1	0	20.21	20.23	20.00	0-1	0
	1	25	20.12	20.22	19.99		0
	1	49	20.27	20.28	20.24		0
	25	0	20.21	20.24	20.07	0-2	0
	25	12	20.37	20.26	20.20		0
	25	25	20.27	20.29	20.06		0
	50	0	20.19	20.24	20.00		0
64QAM	1	0	19.90	20.25	19.99	0-2	0
	1	25	20.28	20.27	20.26		0
	1	49	20.06	20.22	19.99		0
	25	0	20.20	20.23	20.05	0-3	0
	25	12	20.32	20.26	20.16		0
	25	25	20.23	20.24	20.03		0
	50	0	20.12	20.25	20.07		0
256QAM	1	0	18.11	18.51	18.82	0-5	1.7
	1	25	18.49	18.82	19.13		1.7
	1	49	18.28	18.58	18.83		1.7
	25	0	18.65	18.76	18.52		1.7
	25	12	18.87	18.80	18.62		1.7
	25	25	18.74	18.74	18.57		1.7
	50	0	18.73	18.70	18.52		1.7

Table 9-45
LTE Band 66 (AWS) Measured P_{limit} for DSI = 1 (Phablet with grip sensor active) and/or DSI = 4 (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	20.14	20.42	20.43	0	0
	1	12	20.19	20.43	20.41		0
	1	24	20.11	20.44	20.40		0
	12	0	20.23	20.45	20.39	0-1	0
	12	6	20.25	20.47	20.39		0
	12	13	20.21	20.43	20.39		0
	25	0	20.26	20.42	20.38		0
16QAM	1	0	20.76	20.44	20.38	0-1	0
	1	12	20.84	20.46	20.41		0
	1	24	20.77	20.45	20.38		0
	12	0	20.31	20.42	20.38	0-2	0
	12	6	20.37	20.42	20.41		0
	12	13	20.32	20.42	20.40		0
	25	0	20.34	20.43	20.37		0
64QAM	1	0	20.34	20.45	20.38	0-2	0
	1	12	20.42	20.42	20.40		0
	1	24	20.32	20.42	20.38		0
	12	0	20.17	20.44	20.39	0-3	0
	12	6	20.25	20.45	20.39		0
	12	13	20.19	20.44	20.39		0
	25	0	20.29	20.46	20.39		0
256QAM	1	0	18.78	18.80	18.62	0-5	1.7
	1	12	18.90	18.88	18.56		1.7
	1	24	18.84	18.72	18.55		1.7
	12	0	18.81	18.83	18.70		1.7
	12	6	18.81	18.79	18.68		1.7
	12	13	18.79	18.80	18.57		1.7
	25	0	18.74	18.80	18.55		1.7

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Table 9-46
LTE Band 66 (AWS) Measured P_{limit} for DSI = 1 (Phablet with grip sensor active) and/or DSI = 4 (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	19.91	20.11	19.88	0	0
	1	7	19.88	20.08	19.94		0
	1	14	19.90	20.03	19.81		0
	8	0	20.02	20.15	20.00	0-1	0
	8	4	20.06	20.13	19.98		0
	8	7	20.05	20.16	19.99		0
	15	0	20.06	20.14	19.96		0
16QAM	1	0	20.27	20.41	20.31	0-1	0
	1	7	20.24	20.39	20.17		0
	1	14	20.24	20.38	20.23		0
	8	0	20.11	20.25	20.09	0-2	0
	8	4	20.18	20.25	20.10		0
	8	7	20.11	20.23	20.09		0
	15	0	20.09	20.16	19.97		0
64QAM	1	0	20.21	20.37	20.16	0-2	0
	1	7	20.14	20.34	20.17		0
	1	14	20.17	20.29	20.15		0
	8	0	20.06	20.25	20.07	0-3	0
	8	4	20.07	20.20	20.04		0
	8	7	20.03	20.22	20.03		0
	15	0	20.07	20.17	20.01		0
256QAM	1	0	18.64	18.76	18.54	0-5	1.7
	1	7	18.63	18.74	18.56		1.7
	1	14	18.60	18.71	18.55		1.7
	8	0	18.56	18.66	18.49		1.7
	8	4	18.60	18.69	18.48		1.7
	8	7	18.56	18.65	18.51		1.7
	15	0	18.58	18.65	18.47		1.7

Table 9-47
LTE Band 66 (AWS) Measured P_{limit} for DSI = 1 (Phablet with grip sensor active) and/or DSI = 4 (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	20.21	20.07	20.08	0	0
	1	2	20.16	20.09	19.91		0
	1	5	19.98	19.97	20.01		0
	3	0	19.96	20.04	19.91		0
	3	2	19.92	20.06	19.96		0
	3	3	19.86	20.00	19.94		0
	6	0	19.98	20.11	19.95	0-1	0
16QAM	1	0	20.20	20.32	20.21	0-1	0
	1	2	20.25	20.45	20.26		0
	1	5	20.18	20.32	20.11		0
	3	0	20.08	20.21	20.06		0
	3	2	20.10	20.22	20.06		0
	3	3	20.06	20.23	20.00		0
	6	0	20.04	20.18	19.97	0-2	0
64QAM	1	0	20.08	20.32	20.14	0-2	0
	1	2	20.15	20.39	20.20		0
	1	5	20.11	20.24	20.05		0
	3	0	20.04	20.21	20.03		0
	3	2	20.08	20.25	20.07		0
	3	3	20.01	20.18	20.01		0
	6	0	19.99	20.13	19.98	0-3	0
256QAM	1	0	18.48	18.71	18.53	0-5	1.7
	1	2	18.66	18.79	18.61		1.7
	1	5	18.54	18.65	18.48		1.7
	3	0	18.58	18.71	18.54		1.7
	3	2	18.63	18.73	18.57		1.7
	3	3	18.55	18.67	18.55		1.7
	6	0	18.46	18.60	18.46		1.7

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9.4.8 LTE Band 25 (PCS)

Table 9-48
LTE Band 25 (PCS) Measured P_{max} for DSI = 2 (Head) or DSI = 0 (Body-worn, or Phablet with grip sensor not triggered) - 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	23.75	23.68	23.39	0	0
	1	50	**23.76**	23.72	23.45		0
	1	99	23.69	23.66	23.37		0
	50	0	22.69	22.70	22.70	0-1	1
	50	25	**22.83**	22.76	22.80		1
	50	50	22.72	22.82	22.70		1
	100	0	22.76	22.67	22.70		1
16QAM	1	0	23.00	23.00	22.90	0-1	1
	1	50	22.99	22.99	23.00		1
	1	99	22.95	22.97	22.98		1
	50	0	21.70	21.76	21.68	0-2	2
	50	25	21.74	21.79	21.75		2
	50	50	21.68	21.76	21.69		2
	100	0	21.66	21.64	21.71		2
64QAM	1	0	21.70	21.44	22.00	0-2	2
	1	50	21.67	21.54	22.00		2
	1	99	21.63	21.47	21.85		2
	50	0	20.73	20.79	20.75	0-3	3
	50	25	20.79	20.80	20.82		3
	50	50	20.74	20.82	20.78		3
	100	0	20.68	20.66	20.72		3
256QAM	1	0	18.46	18.44	18.40	0-5	5
	1	50	18.67	18.67	18.52		5
	1	99	18.42	18.43	18.51		5
	50	0	18.45	18.35	18.43		5
	50	25	18.77	18.47	18.52		5
	50	50	18.45	18.51	18.44		5
	100	0	18.54	18.68	18.59		5

Table 9-49
LTE Band 25 (PCS) Measured P_{max} for DSI = 2 (Head) or DSI = 0 (Body-worn, or Phablet with grip sensor not triggered) - 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	23.42	23.64	23.52	0	0
	1	36	23.68	23.65	23.53		0
	1	74	23.47	23.68	23.50		0
	36	0	22.74	22.56	22.52	0-1	1
	36	18	22.81	22.63	22.70		1
	36	37	22.69	22.67	22.65		1
	75	0	22.71	22.56	22.59		1
16QAM	1	0	22.54	22.84	22.77	0-1	1
	1	36	22.71	22.80	22.71		1
	1	74	22.65	22.89	22.75		1
	36	0	21.70	21.56	21.47	0-2	2
	36	18	21.69	21.55	21.56		2
	36	37	21.79	21.76	21.60		2
	75	0	21.72	21.61	21.47		2
64QAM	1	0	21.60	21.86	21.59	0-2	2
	1	36	21.98	21.70	21.59		2
	1	74	21.70	21.85	21.47		2
	36	0	20.66	20.62	20.47	0-3	3
	36	18	20.73	20.69	20.60		3
	36	37	20.83	20.70	20.61		3
	75	0	20.66	20.60	20.51		3
256QAM	1	0	18.72	18.46	18.37	0-5	5
	1	36	18.83	18.73	18.53		5
	1	74	18.74	18.77	18.50		5
	36	0	18.63	18.61	18.46		5
	36	18	18.79	18.69	18.56		5
	36	37	18.75	18.72	18.51		5
	75	0	18.73	18.71	18.45		5

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Table 9-50
LTE Band 25 (PCS) Measured P_{max} for DSI = 2 (Head) or DSI = 0 (Body-worn, or Phablet with grip sensor not triggered)- 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	23.42	23.35	23.34	0	0
	1	25	23.51	23.36	23.22		0
	1	49	23.36	23.31	23.26		0
	25	0	22.46	22.37	22.31	0-1	1
	25	12	22.51	22.40	22.30		1
	25	25	22.48	22.45	22.36		1
	50	0	22.44	22.30	22.27		1
16QAM	1	0	22.51	22.68	22.63	0-1	1
	1	25	22.69	22.68	22.69		1
	1	49	22.53	22.64	22.75		1
	25	0	21.40	21.38	21.37	0-2	2
	25	12	21.46	21.36	21.55		2
	25	25	21.38	21.34	21.51		2
	50	0	21.41	21.26	21.45		2
64QAM	1	0	21.23	21.13	21.51	0-2	2
	1	25	21.48	21.40	21.50		2
	1	49	21.38	21.26	21.56		2
	25	0	20.40	20.20	20.37	0-3	3
	25	12	20.53	20.33	20.56		3
	25	25	20.45	20.39	20.49		3
	50	0	20.33	20.21	20.53		3
256QAM	1	0	18.36	18.18	18.02	0-5	5
	1	25	18.44	18.43	18.34		5
	1	49	18.27	18.28	18.09		5
	25	0	18.38	18.26	18.12		5
	25	12	18.45	18.40	18.32		5
	25	25	18.41	18.36	18.30		5
	50	0	18.42	18.32	18.22		5

Table 9-51
LTE Band 25 (PCS) Measured P_{max} for DSI = 2 (Head) or DSI = 0 (Body-worn, or Phablet with grip sensor not triggered) - 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	23.41	23.28	23.33	0	0
	1	12	23.44	23.37	23.24		0
	1	24	23.52	23.38	23.31		0
	12	0	22.48	22.42	22.39	0-1	1
	12	6	22.61	22.45	22.46		1
	12	13	22.50	22.43	22.54		1
	25	0	22.54	22.46	22.58		1
16QAM	1	0	22.69	22.54	22.47	0-1	1
	1	12	22.65	22.55	22.70		1
	1	24	22.74	22.60	22.59		1
	12	0	21.50	21.35	21.46	0-2	2
	12	6	21.51	21.40	21.49		2
	12	13	21.55	21.43	21.45		2
	25	0	21.46	21.34	21.43		2
64QAM	1	0	21.55	21.42	21.57	0-2	2
	1	12	21.59	21.56	21.58		2
	1	24	21.65	21.56	21.52		2
	12	0	20.70	20.35	20.55	0-3	3
	12	6	20.48	20.41	20.51		3
	12	13	20.49	20.48	20.53		3
	25	0	20.45	20.33	20.54		3
256QAM	1	0	18.49	18.38	18.27	0-5	5
	1	12	18.53	18.56	18.35		5
	1	24	18.53	18.61	18.34		5
	12	0	18.43	18.39	18.22		5
	12	6	18.45	18.40	18.28		5
	12	13	18.47	18.46	18.28		5
	25	0	18.45	18.41	18.24		5

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Table 9-52
LTE Band 25 (PCS) Measured P_{max} for DSI = 2 (Head) or DSI = 0 (Body-worn, or Phablet with grip sensor not triggered) - 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	23.34	23.34	23.33	0	0
	1	7	23.35	23.32	23.38		0
	1	14	23.36	23.39	23.36		0
	8	0	22.41	22.35	22.47	0-1	1
	8	4	22.47	22.49	22.54		1
	8	7	22.48	22.47	22.35		1
	15	0	22.45	22.37	22.54		1
16QAM	1	0	22.74	22.50	22.48	0-1	1
	1	7	22.58	22.61	22.66		1
	1	14	22.75	22.70	22.68		1
	8	0	21.51	21.38	21.53	0-2	2
	8	4	21.58	21.45	21.57		2
	8	7	21.56	21.49	21.51		2
	15	0	21.43	21.32	21.34		2
64QAM	1	0	21.56	21.45	21.54	0-2	2
	1	7	21.59	21.47	21.55		2
	1	14	21.66	21.57	21.62		2
	8	0	20.48	20.35	20.57	0-3	3
	8	4	20.54	20.41	20.56		3
	8	7	20.52	20.48	20.52		3
	15	0	20.49	20.36	20.54		3
256QAM	1	0	18.51	18.42	18.26	0-5	5
	1	7	18.56	18.45	18.31		5
	1	14	18.55	18.53	18.37		5
	8	0	18.46	18.40	18.24		5
	8	4	18.57	18.41	18.31		5
	8	7	18.52	18.51	18.33		5
	15	0	18.49	18.37	18.21		5

Table 9-53
LTE Band 25 (PCS) Measured P_{max} for DSI = 2 (Head) or DSI = 0 (Body-worn, or Phablet with grip sensor not triggered) -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	23.26	23.07	23.34	0	0
	1	2	23.39	23.22	23.26		0
	1	5	23.29	23.20	23.25		0
	3	0	23.10	23.15	23.27		0
	3	2	23.33	23.20	23.35		0
	3	3	23.25	23.21	23.28		0
	6	0	22.37	22.18	22.30	0-1	1
16QAM	1	0	22.71	22.62	22.54	0-1	1
	1	2	22.71	22.59	22.57		1
	1	5	22.67	22.54	22.62		1
	3	0	22.48	22.37	22.54		1
	3	2	22.50	22.38	22.53		1
	3	3	22.47	22.43	22.45		1
	6	0	21.41	21.32	21.62	0-2	2
64QAM	1	0	21.53	21.42	21.70	0-2	2
	1	2	21.60	21.49	21.68		2
	1	5	21.57	21.51	21.56		2
	3	0	21.40	21.36	21.58		2
	3	2	21.51	21.35	21.57		2
	3	3	21.46	21.37	21.54		2
	6	0	20.39	20.24	20.64	0-3	3
256QAM	1	0	18.47	18.35	18.23	0-5	5
	1	2	18.53	18.47	18.32		5
	1	5	18.50	18.45	18.34		5
	3	0	18.44	18.38	18.26		5
	3	2	18.48	18.47	18.35		5
	3	3	18.41	18.44	18.26		5
	6	0	18.36	18.30	18.19		5

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Table 9-54
LTE Band 25 (PCS) Measured P_{limit} for DSI = 3 (Hotspot mode) - 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	**18.30**	17.79	17.72	0	0
	1	50	18.29	17.89	17.80		0
	1	99	18.27	17.86	17.72		0
	50	0	18.13	17.99	17.96	0-1	0
	50	25	18.14	18.03	18.03		0
	50	50	**18.15**	18.07	18.01		0
	100	0	18.11	17.91	17.95		0
16QAM	1	0	18.29	18.25	18.29	0-1	0
	1	50	18.30	18.28	18.30		0
	1	99	18.28	18.24	18.28		0
	50	0	18.30	18.06	18.03	0-2	0
	50	25	18.30	18.06	18.08		0
	50	50	18.29	18.11	18.06		0
	100	0	18.30	17.93	17.92		0
64QAM	1	0	18.29	18.27	18.28	0-2	0
	1	50	18.29	18.22	18.21		0
	1	99	18.30	18.23	18.27		0
	50	0	18.30	18.22	18.24	0-3	0
	50	25	18.19	18.24	18.25		0
	50	50	18.21	18.25	18.30		0
	100	0	18.25	18.22	18.27		0
256QAM	1	0	17.75	17.80	17.93	0-5	0
	1	50	18.15	18.17	18.29		0
	1	99	17.95	17.92	18.11		0
	50	0	18.08	18.15	18.05		0
	50	25	18.20	18.10	18.09		0
	50	50	18.23	18.19	18.23		0
	100	0	18.10	18.16	18.16		0

Table 9-55
LTE Band 25 (PCS) Measured P_{limit} for DSI = 3 (Hotspot mode) - 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	17.72	18.02	17.86	0	0
	1	36	17.95	17.93	17.83		0
	1	74	17.81	17.98	17.91		0
	36	0	18.03	17.90	17.83	0-1	0
	36	18	18.10	18.01	18.03		0
	36	37	18.07	18.08	17.94		0
	75	0	18.05	18.01	17.99		0
16QAM	1	0	18.08	18.30	18.22	0-1	0
	1	36	18.30	18.13	18.30		0
	1	74	18.27	18.27	18.17		0
	36	0	18.09	17.95	17.86	0-2	0
	36	18	18.12	18.05	18.06		0
	36	37	18.08	18.06	17.91		0
	75	0	18.09	17.96	18.15		0
64QAM	1	0	18.07	18.22	18.19	0-2	0
	1	36	18.30	17.98	18.21		0
	1	74	18.19	18.25	17.88		0
	36	0	18.09	17.99	18.09	0-3	0
	36	18	18.19	18.08	18.06		0
	36	37	18.05	18.06	17.97		0
	75	0	18.10	17.97	18.02		0
256QAM	1	0	17.93	17.83	17.82	0-5	0
	1	36	18.04	18.15	18.10		0
	1	74	18.03	18.05	17.99		0
	36	0	18.05	17.94	17.88		0
	36	18	18.13	18.00	18.07		0
	36	37	18.19	18.04	18.02		0
	75	0	18.07	17.97	17.93		0

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Table 9-56
LTE Band 25 (PCS) Measured P_{limit} for DSI = 3 (Hotspot mode) - 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	17.53	17.68	17.58	0	0
	1	25	17.84	17.61	17.60		0
	1	49	17.48	17.60	17.66		0
	25	0	17.78	17.63	17.63	0-1	0
	25	12	17.88	17.78	17.75		0
	25	25	17.81	17.72	17.66		0
	50	0	17.79	17.68	17.64		0
16QAM	1	0	18.05	18.08	18.03	0-1	0
	1	25	17.99	18.15	18.02		0
	1	49	17.84	18.16	18.12		0
	25	0	17.85	17.58	17.60	0-2	0
	25	12	17.91	17.77	17.75		0
	25	25	17.86	17.78	17.78		0
	50	0	17.83	17.75	17.66		0
64QAM	1	0	17.80	17.84	18.01	0-2	0
	1	25	17.97	17.86	17.80		0
	1	49	17.75	17.92	17.53		0
	25	0	17.83	17.64	17.66	0-3	0
	25	12	17.94	17.83	17.79		0
	25	25	17.90	17.79	17.78		0
	50	0	17.86	17.82	17.66		0
256QAM	1	0	17.65	17.87	17.63	0-5	0
	1	25	17.80	17.74	17.81		0
	1	49	17.40	18.08	17.60		0
	25	0	17.86	17.72	17.68		0
	25	12	17.85	17.88	17.71		0
	25	25	17.94	17.73	17.83		0
	50	0	17.76	17.80	17.72		0

Table 9-57
LTE Band 25 (PCS) Measured P_{limit} for DSI = 3 (Hotspot mode) - 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	17.79	17.62	17.60	0	0
	1	12	17.86	17.80	17.56		0
	1	24	17.77	17.74	17.61		0
	12	0	17.82	17.76	17.69	0-1	0
	12	6	17.86	17.80	17.76		0
	12	13	17.88	17.82	17.77		0
	25	0	17.87	17.80	17.75		0
16QAM	1	0	18.11	17.95	17.99	0-1	0
	1	12	18.02	18.09	17.95		0
	1	24	18.30	18.11	18.05		0
	12	0	17.91	17.78	17.81	0-2	0
	12	6	17.98	17.93	17.96		0
	12	13	17.92	18.00	17.65		0
	25	0	17.91	17.77	17.78		0
64QAM	1	0	17.99	17.88	18.02	0-2	0
	1	12	18.11	17.86	17.91		0
	1	24	17.87	18.10	17.95		0
	12	0	17.90	17.75	17.83	0-3	0
	12	6	17.92	17.86	17.75		0
	12	13	17.93	17.91	17.78		0
	25	0	17.93	17.80	17.73		0
256QAM	1	0	18.00	17.88	17.83	0-5	0
	1	12	17.91	18.00	17.81		0
	1	24	17.97	18.20	17.87		0
	12	0	17.81	17.68	17.64		0
	12	6	17.89	17.75	17.79		0
	12	13	17.88	17.85	17.77		0
	25	0	17.86	17.74	17.74		0

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Table 9-58
LTE Band 25 (PCS) Measured P_{limit} for DSI = 3 (Hotspot mode) - 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	17.67	17.52	17.52	0	0
	1	7	17.57	17.65	17.61		0
	1	14	17.74	17.66	17.70		0
	8	0	17.79	17.69	17.60	0-1	0
	8	4	17.86	17.78	17.63		0
	8	7	17.80	17.79	17.66		0
	15	0	17.75	17.77	17.62		0
16QAM	1	0	18.03	17.92	17.86	0-1	0
	1	7	17.96	18.01	17.73		0
	1	14	17.98	18.03	17.82		0
	8	0	17.97	17.80	17.77	0-2	0
	8	4	17.92	17.87	17.70		0
	8	7	17.93	17.90	17.77		0
	15	0	17.91	17.65	17.69		0
64QAM	1	0	17.98	17.84	17.85	0-2	0
	1	7	17.90	17.83	17.78		0
	1	14	18.11	18.02	17.91		0
	8	0	17.87	17.81	17.64	0-3	0
	8	4	17.92	17.85	17.65		0
	8	7	17.88	17.83	17.74		0
	15	0	17.85	17.75	17.72		0
256QAM	1	0	17.98	17.88	17.75	0-5	0
	1	7	17.94	17.99	17.81		0
	1	14	17.78	17.55	17.86		0
	8	0	17.83	17.77	17.68		0
	8	4	17.75	17.81	17.64		0
	8	7	17.83	17.82	17.77		0
	15	0	17.84	17.70	17.63		0

Table 9-59
LTE Band 25 (PCS) Measured P_{limit} for DSI = 3 (Hotspot mode) -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	17.65	17.61	17.55	0	0
	1	2	17.67	17.62	17.64		0
	1	5	17.62	17.67	17.60		0
	3	0	17.70	17.66	17.52		0
	3	2	17.70	17.65	17.59		0
	3	3	17.68	17.73	17.69		0
	6	0	17.78	17.69	17.60	0-1	0
16QAM	1	0	18.06	17.97	18.01	0-1	0
	1	2	18.11	18.03	17.96		0
	1	5	18.05	18.03	17.75		0
	3	0	17.89	17.94	17.82		0
	3	2	17.84	17.80	17.89		0
	3	3	17.91	17.89	17.79		0
	6	0	17.87	17.84	17.64	0-2	0
64QAM	1	0	17.97	17.92	17.85	0-2	0
	1	2	17.94	17.99	17.96		0
	1	5	18.02	17.91	17.93		0
	3	0	17.93	17.81	17.85		0
	3	2	17.85	17.89	17.87		0
	3	3	17.88	17.84	17.84		0
	6	0	17.69	17.77	17.90	0-3	0
256QAM	1	0	17.88	17.80	17.86	0-5	0
	1	2	17.92	17.75	17.69		0
	1	5	17.79	17.59	17.58		0
	3	0	17.89	17.92	17.63		0
	3	2	17.95	17.75	17.68		0
	3	3	18.07	17.84	17.72		0
	6	0	17.76	17.75	17.78		0

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Table 9-60
LTE Band 25 (PCS) Measured P_{limit} for DSI = 1 (Phablet with grip sensor active) and/or DSI = 4 (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	20.55	20.53	20.61	0	0
	1	50	20.56	20.60	20.63		0
	1	99	**20.66**	20.58	20.44		0
	50	0	20.60	20.64	20.58	0-1	0
	50	25	**20.68**	20.56	20.61		0
	50	50	20.63	20.58	20.52		0
	100	0	20.65	20.48	20.55		0
16QAM	1	0	20.50	20.64	20.69	0-1	0
	1	50	20.76	20.56	20.43		0
	1	99	20.76	20.79	20.53		0
	50	0	20.59	20.66	20.55	0-2	0
	50	25	20.67	20.70	20.60		0
	50	50	20.56	20.64	20.60		0
	100	0	20.47	20.57	20.63		0
64QAM	1	0	20.71	20.73	20.77	0-2	0
	1	50	20.78	20.79	20.79		0
	1	99	20.70	20.75	20.71		0
	50	0	20.68	20.63	20.52	0-3	0
	50	25	20.74	20.69	20.62		0
	50	50	20.70	20.72	20.50		0
	100	0	20.62	20.61	20.60		0
256QAM	1	0	18.66	18.71	18.70	0-5	1.8
	1	50	18.98	18.77	18.73		1.8
	1	99	18.53	18.90	18.85		1.8
	50	0	18.77	18.65	18.70		1.8
	50	25	18.91	18.86	18.85		1.8
	50	50	18.93	18.84	18.82		1.8
	100	0	18.76	18.82	18.81		1.8

Table 9-61
LTE Band 25 (PCS) Measured P_{limit} for DSI = 1 (Phablet with grip sensor active) and/or DSI = 4 (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	20.17	20.46	20.35	0	0
	1	36	20.26	20.46	20.33		0
	1	74	19.96	20.45	20.28		0
	36	0	20.55	20.47	20.38	0-1	0
	36	18	20.58	20.59	20.59		0
	36	37	20.59	20.61	20.59		0
	75	0	20.56	20.52	20.52		0
16QAM	1	0	20.52	20.77	20.76	0-1	0
	1	36	20.77	20.80	20.70		0
	1	74	20.62	20.76	20.75		0
	36	0	20.61	20.55	20.42	0-2	0
	36	18	20.64	20.66	20.62		0
	36	37	20.60	20.64	20.57		0
	75	0	20.51	20.50	20.49		0
64QAM	1	0	20.60	20.76	20.72	0-2	0
	1	36	20.76	20.78	20.78		0
	1	74	20.74	20.80	20.70		0
	36	0	20.57	20.53	20.44	0-3	0
	36	18	20.73	20.62	20.67		0
	36	37	20.67	20.67	20.64		0
	75	0	20.60	20.56	20.55		0
256QAM	1	0	18.69	18.52	18.60	0-5	1.8
	1	36	18.87	18.88	18.81		1.8
	1	74	18.79	18.74	18.65		1.8
	36	0	18.78	18.77	18.66		1.8
	36	18	18.88	18.78	18.77		1.8
	36	37	18.83	18.84	18.79		1.8
	75	0	18.74	18.70	18.76		1.8

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Table 9-62
LTE Band 25 (PCS) Measured P_{limit} for DSI = 1 (Phablet with grip sensor active) and/or DSI = 4 (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	20.13	20.60	20.47	0	0
	1	25	20.42	20.71	20.58		0
	1	49	20.25	20.67	20.52		0
	25	0	20.41	20.50	20.58	0-1	0
	25	12	20.59	20.65	20.76		0
	25	25	20.55	20.68	20.76		0
	50	0	20.48	20.55	20.68		0
16QAM	1	0	20.63	20.67	20.55	0-1	0
	1	25	20.54	20.77	20.75		0
	1	49	20.78	20.73	20.61		0
	25	0	20.47	20.54	20.59	0-2	0
	25	12	20.59	20.66	20.60		0
	25	25	20.55	20.73	20.79		0
	50	0	20.51	20.58	20.74		0
64QAM	1	0	20.35	20.25	20.43	0-2	0
	1	25	20.50	20.64	20.47		0
	1	49	20.39	20.42	20.52		0
	25	0	20.37	20.33	20.21	0-3	0
	25	12	20.53	20.46	20.17		0
	25	25	20.40	20.43	20.07		0
	50	0	20.40	20.35	20.13		0
256QAM	1	0	18.63	18.50	18.37	0-5	1.8
	1	25	18.70	18.84	18.73		1.8
	1	49	18.43	18.51	18.43		1.8
	25	0	18.60	18.58	18.45		1.8
	25	12	18.68	18.65	18.52		1.8
	25	25	18.60	18.69	18.54		1.8
	50	0	18.63	18.60	18.44		1.8

Table 9-63
LTE Band 25 (PCS) Measured P_{limit} for DSI = 1 (Phablet with grip sensor active) and/or DSI = 4 (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	20.18	20.16	20.01	0	0
	1	12	20.29	20.27	19.98		0
	1	24	20.25	20.26	20.01		0
	12	0	20.31	20.23	20.09	0-1	0
	12	6	20.38	20.29	20.15		0
	12	13	20.36	20.37	20.15		0
	25	0	20.31	20.26	20.11		0
16QAM	1	0	20.56	20.42	20.39	0-1	0
	1	12	20.56	20.52	20.38		0
	1	24	20.56	20.52	20.36		0
	12	0	20.39	20.27	20.14	0-2	0
	12	6	20.41	20.34	20.18		0
	12	13	20.41	20.41	20.18		0
	25	0	20.33	20.26	20.10		0
64QAM	1	0	20.46	20.39	20.24	0-2	0
	1	12	20.44	20.51	20.27		0
	1	24	20.49	20.53	20.29		0
	12	0	20.36	20.30	20.14	0-3	0
	12	6	20.36	20.34	20.17		0
	12	13	20.41	20.37	20.10		0
	25	0	20.30	20.28	20.01		0
256QAM	1	0	18.55	18.53	18.36	0-5	1.8
	1	12	18.57	18.62	18.39		1.8
	1	24	18.65	18.65	18.48		1.8
	12	0	18.56	18.46	18.32		1.8
	12	6	18.57	18.55	18.39		1.8
	12	13	18.56	18.60	18.38		1.8
	25	0	18.51	18.49	18.33		1.8

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Table 9-64
LTE Band 25 (PCS) Measured P_{limit} for DSI = 1 (Phablet with grip sensor active) and/or DSI = 4 (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	20.12	20.08	19.95	0	0
	1	7	20.11	20.05	20.02		0
	1	14	20.14	20.17	20.02		0
	8	0	20.22	20.13	20.04	0-1	0
	8	4	20.19	20.15	20.13		0
	8	7	20.21	20.24	20.14		0
	15	0	20.24	20.15	20.08		0
16QAM	1	0	20.50	20.42	20.32	0-1	0
	1	7	20.45	20.35	20.47		0
	1	14	20.49	20.43	20.47		0
	8	0	20.27	20.23	20.12	0-2	0
	8	4	20.26	20.28	20.23		0
	8	7	20.29	20.31	20.24		0
	15	0	20.22	20.19	20.11		0
64QAM	1	0	20.35	20.29	20.20	0-2	0
	1	7	20.29	20.37	20.27		0
	1	14	20.42	20.44	20.33		0
	8	0	20.21	20.17	20.07	0-3	0
	8	4	20.30	20.24	20.18		0
	8	7	20.24	20.27	20.10		0
	15	0	20.28	20.21	20.09		0
256QAM	1	0	18.48	18.50	18.37	0-5	1.8
	1	7	18.44	18.59	18.39		1.8
	1	14	18.53	18.53	18.43		1.8
	8	0	18.50	18.40	18.30		1.8
	8	4	18.49	18.46	18.37		1.8
	8	7	18.52	18.47	18.39		1.8
	15	0	18.43	18.40	18.32		1.8

Table 9-65
LTE Band 25 (PCS) Measured P_{limit} for DSI = 1 (Phablet with grip sensor active) and/or DSI = 4 (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	20.01	19.98	19.89	0	0
	1	2	20.11	20.11	20.00		0
	1	5	20.02	20.03	19.91		0
	3	0	20.05	19.97	19.91		0
	3	2	20.11	20.09	19.96		0
	3	3	20.09	20.06	19.94		0
	6	0	20.14	20.10	20.02	0-1	0
16QAM	1	0	20.37	20.32	20.23	0-1	0
	1	2	20.42	20.44	20.33		0
	1	5	20.34	20.29	20.32		0
	3	0	20.18	20.18	20.09		0
	3	2	20.25	20.24	20.15		0
	3	3	20.21	20.19	20.07		0
	6	0	20.17	20.09	20.05	0-2	0
64QAM	1	0	20.29	20.26	20.18	0-2	0
	1	2	20.39	20.42	20.27		0
	1	5	20.33	20.29	20.19		0
	3	0	20.22	20.15	20.08		0
	3	2	20.27	20.29	20.16		0
	3	3	20.24	20.24	20.09		0
	6	0	20.12	20.10	20.03	0-3	0
256QAM	1	0	18.38	18.39	18.32	0-5	1.8
	1	2	18.51	18.52	18.43		1.8
	1	5	18.41	18.51	18.31		1.8
	3	0	18.39	18.40	18.34		1.8
	3	2	18.49	18.57	18.46		1.8
	3	3	18.39	18.44	18.43		1.8
	6	0	18.32	18.36	18.27		1.8

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9.4.9 LTE Band 30

Table 9-66
LTE Band 30 Measured P_{max} for DSI = 2 (Head) or DSI = 0 (Body-worn, or Phablet with grip sensor not triggered) - 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	**23.82**	0	0
	1	25	23.70		0
	1	49	23.56		0
	25	0	**22.79**	0-1	1
	25	12	22.77		1
	25	25	22.58		1
	50	0	22.77		1
16QAM	1	0	23.00	0-1	1
	1	25	22.81		1
	1	49	22.94		1
	25	0	21.78	0-2	2
	25	12	21.80		2
	25	25	21.65		2
	50	0	21.75		2
64QAM	1	0	21.82	0-2	2
	1	25	21.86		2
	1	49	21.78		2
	25	0	20.69	0-3	3
	25	12	20.87		3
	25	25	20.69		3
	50	0	20.77		3
256QAM	1	0	18.66	0-5	5
	1	25	18.80		5
	1	49	18.49		5
	25	0	18.67		5
	25	12	18.83		5
	25	25	18.62		5
	50	0	18.76		5

Table 9-67
LTE Band 30 Measured P_{max} for DSI = 2 (Head) or DSI = 0 (Body-worn, or Phablet with grip sensor not triggered) - 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	23.73	0	0
	1	12	23.66		0
	1	24	23.47		0
	12	0	22.74	0-1	1
	12	6	22.81		1
	12	13	22.71		1
	25	0	22.79		1
16QAM	1	0	22.97	0-1	1
	1	12	22.95		1
	1	24	22.83		1
	12	0	21.87	0-2	2
	12	6	21.92		2
	12	13	21.77		2
	25	0	21.76		2
64QAM	1	0	21.97	0-2	2
	1	12	21.96		2
	1	24	21.78		2
	12	0	20.83	0-3	3
	12	6	20.86		3
	12	13	20.77		3
	25	0	20.76		3
256QAM	1	0	18.90	0-5	5
	1	12	18.89		5
	1	24	18.76		5
	12	0	18.75		5
	12	6	18.81		5
	12	13	18.70		5
	25	0	18.77		5

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 9-68
LTE Band 30 Measured P_{limit} for DSI = 3 (Hotspot mode) - 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	**19.65**	0	0
	1	25	19.54		0
	1	49	19.50		0
	25	0	19.67	0-1	0
	25	12	**19.72**		0
	25	25	19.54		0
	50	0	19.62		0
16QAM	1	0	20.12	0-1	0
	1	25	20.00		0
	1	49	19.98		0
	25	0	19.73	0-2	0
	25	12	19.81		0
	25	25	19.62		0
	50	0	19.70		0
64QAM	1	0	19.93	0-2	0
	1	25	19.80		0
	1	49	19.75		0
	25	0	19.71	0-3	0
	25	12	19.84		0
	25	25	19.68		0
	50	0	19.70		0
256QAM	1	0	18.12	0-5	1.3
	1	25	18.32		1.3
	1	49	17.92		1.3
	25	0	18.48		1.3
	25	12	18.56		1.3
	25	25	18.31		1.3
	50	0	18.36		1.3

Table 9-69
LTE Band 30 Measured P_{limit} for DSI = 3 (Hotspot mode) - 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	19.58	0	0
	1	12	19.57		0
	1	24	19.44		0
	12	0	19.68	0-1	0
	12	6	19.74		0
	12	13	19.63		0
	25	0	19.72		0
16QAM	1	0	19.85	0-1	0
	1	12	19.90		0
	1	24	19.75		0
	12	0	19.77	0-2	0
	12	6	19.85		0
	12	13	19.76		0
	25	0	19.73		0
64QAM	1	0	19.66	0-2	0
	1	12	19.63		0
	1	24	19.50		0
	12	0	19.72	0-3	0
	12	6	19.80		0
	12	13	19.72		0
	25	0	19.70		0
256QAM	1	0	18.08	0-5	1.3
	1	12	18.09		1.3
	1	24	17.91		1.3
	12	0	18.40		1.3
	12	6	18.44		1.3
	12	13	18.34		1.3
	25	0	18.45		1.3

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 9-70
LTE Band 30 Measured P_{limit} for DSI = 1 (Phablet with grip sensor active) and/or DSI = 4 (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	**21.36**	0	0
	1	25	21.34		0
	1	49	21.25		0
	25	0	21.50	0-1	0
	25	12	**21.58**		0
	25	25	21.41		0
	50	0	21.35		0
16QAM	1	0	21.38	0-1	0
	1	25	21.20		0
	1	49	21.59		0
	25	0	21.66	0-2	0
	25	12	21.69		0
	25	25	21.51		0
	50	0	21.56		0
64QAM	1	0	21.76	0-2	0
	1	25	21.63		0
	1	49	21.59		0
	25	0	20.61	0-3	1
	25	12	20.64		1
	25	25	20.59		1
	50	0	20.50		1
256QAM	1	0	18.10	0-5	3
	1	25	18.26		3
	1	49	18.01		3
	25	0	18.54		3
	25	12	18.64		3
	25	25	18.47		3
	50	0	18.52		3

Table 9-71
LTE Band 30 Measured P_{limit} for DSI = 1 (Phablet with grip sensor active) and/or DSI = 4 (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	21.33	0	0
	1	12	21.43		0
	1	24	21.19		0
	12	0	21.47	0-1	0
	12	6	21.47		0
	12	13	21.35		0
	25	0	21.46		0
16QAM	1	0	21.74	0-1	0
	1	12	21.69		0
	1	24	21.56		0
	12	0	21.56	0-2	0
	12	6	21.57		0
	12	13	21.47		0
	25	0	21.48		0
64QAM	1	0	21.69	0-2	0
	1	12	21.66		0
	1	24	21.49		0
	12	0	20.54	0-3	1
	12	6	20.56		1
	12	13	20.43		1
	25	0	20.44		1
256QAM	1	0	18.56	0-5	3
	1	12	18.57		3
	1	24	18.39		3
	12	0	18.52		3
	12	6	18.50		3
	12	13	18.42		3
	25	0	18.46		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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9.4.10 LTE Band 7

Table 9-72
LTE Band 7 Measured P_{max} for DSI = 2 (Head) or DSI = 0 (Body-worn, or Phablet with grip sensor not triggered) - 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	23.64	23.63	23.55	0	0
	1	50	23.70	23.54	23.46		0
	1	99	**23.75**	23.44	23.32		0
	50	0	**22.94**	22.77	22.57	0-1	1
	50	25	22.88	22.73	22.55		1
	50	50	22.84	22.62	22.46		1
	100	0	22.81	22.70	22.40		1
16QAM	1	0	22.75	22.43	22.62	0-1	1
	1	50	22.74	22.63	22.47		1
	1	99	22.78	22.43	22.11		1
	50	0	21.91	21.77	21.60	0-2	2
	50	25	21.90	21.73	21.54		2
	50	50	21.84	21.61	21.51		2
	100	0	21.81	21.61	21.41		2
64QAM	1	0	21.38	21.39	21.75	0-2	2
	1	50	21.59	21.72	21.59		2
	1	99	21.81	21.57	21.60		2
	50	0	20.91	20.82	20.68	0-3	3
	50	25	20.90	20.77	20.51		3
	50	50	20.88	20.63	20.63		3
	100	0	20.79	20.96	20.46		3
256QAM	1	0	18.61	18.58	18.64	0-5	5
	1	50	18.70	18.56	18.46		5
	1	99	18.50	18.32	18.06		5
	50	0	18.76	18.68	18.54		5
	50	25	18.92	18.72	18.47		5
	50	50	18.78	18.59	18.47		5
	100	0	18.79	18.68	18.43		5

Table 9-73
LTE Band 7 Measured P_{max} for DSI = 2 (Head) or DSI = 0 (Body-worn, or Phablet with grip sensor not triggered) - 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	23.51	23.52	23.24	0	0
	1	36	23.61	23.34	23.16		0
	1	74	23.42	23.21	23.12		0
	36	0	22.70	22.63	22.39	0-1	1
	36	18	22.75	22.55	22.37		1
	36	37	22.83	22.60	22.36		1
	75	0	22.70	22.59	22.27		1
16QAM	1	0	22.38	22.33	22.30	0-1	1
	1	36	22.50	22.33	22.62		1
	1	74	22.89	22.56	22.52		1
	36	0	21.49	21.43	21.20	0-2	2
	36	18	21.61	21.40	21.09		2
	36	37	21.56	21.32	21.08		2
	75	0	21.50	21.29	21.02		2
64QAM	1	0	21.40	21.60	21.70	0-2	2
	1	36	21.88	21.45	21.43		2
	1	74	21.72	21.48	21.20		2
	36	0	20.54	20.51	20.18	0-3	3
	36	18	20.54	20.46	20.01		3
	36	37	20.62	20.36	20.20		3
	75	0	20.49	20.67	20.12		3
256QAM	1	0	18.40	18.06	18.44	0-5	5
	1	36	18.37	18.62	18.02		5
	1	74	18.51	18.65	18.51		5
	36	0	18.40	18.42	18.34		5
	36	18	18.58	18.42	18.27		5
	36	37	18.50	18.38	18.26		5
	75	0	18.51	18.38	18.08		5

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Table 9-74
LTE Band 7 Measured P_{max} for DSI = 2 (Head) or DSI = 0 (Body-worn, or Phablet with grip sensor not triggered) - 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	23.46	23.44	23.34	0	0
	1	25	23.28	23.30	23.20		0
	1	49	23.23	23.20	23.17		0
	25	0	22.51	22.33	22.31	0-1	1
	25	12	22.52	22.30	22.22		1
	25	25	22.46	22.27	22.25		1
	50	0	22.34	22.26	22.40		1
16QAM	1	0	22.28	22.55	21.99	0-1	1
	1	25	22.38	22.05	22.46		1
	1	49	22.56	22.37	22.15		1
	25	0	21.60	21.32	21.15	0-2	2
	25	12	21.45	21.35	21.24		2
	25	25	21.44	21.23	21.23		2
	50	0	21.35	21.30	21.25		2
64QAM	1	0	21.44	21.56	21.61	0-2	2
	1	25	21.73	21.56	21.43		2
	1	49	21.70	21.56	21.42		2
	25	0	20.39	20.32	20.26	0-3	3
	25	12	20.49	20.46	20.13		3
	25	25	20.42	20.28	20.11		3
	50	0	20.41	20.33	20.25		3
256QAM	1	0	18.41	18.63	18.61	0-5	5
	1	25	18.50	18.50	18.57		5
	1	49	18.60	18.21	18.48		5
	25	0	18.47	18.25	18.24		5
	25	12	18.49	18.42	18.19		5
	25	25	18.44	18.30	18.30		5
	50	0	18.47	18.26	18.30		5

Table 9-75
LTE Band 7 Measured P_{max} for DSI = 2 (Head) or DSI = 0 (Body-worn, or Phablet with grip sensor not triggered) - 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	23.41	23.26	23.25	0	0
	1	12	23.46	23.24	23.06		0
	1	24	23.51	23.23	23.06		0
	12	0	22.55	22.35	22.31	0-1	1
	12	6	22.51	22.41	22.30		1
	12	13	22.48	22.35	22.24		1
	25	0	22.50	22.36	22.27		1
16QAM	1	0	22.49	22.32	22.30	0-1	1
	1	12	22.77	22.77	22.18		1
	1	24	22.27	22.56	22.07		1
	12	0	21.51	21.41	21.31	0-2	2
	12	6	21.44	21.44	21.24		2
	12	13	21.48	21.40	21.29		2
	25	0	21.46	21.29	21.29		2
64QAM	1	0	21.88	21.87	21.42	0-2	2
	1	12	21.90	21.48	21.01		2
	1	24	21.81	21.44	21.19		2
	12	0	20.53	20.43	20.30	0-3	3
	12	6	20.58	20.43	20.41		3
	12	13	20.46	20.41	20.32		3
	25	0	20.50	20.44	20.27		3
256QAM	1	0	18.28	18.26	18.51	0-5	5
	1	12	18.28	18.47	18.27		5
	1	24	18.43	18.42	18.19		5
	12	0	18.24	18.58	18.33		5
	12	6	18.52	18.43	18.31		5
	12	13	18.43	18.36	18.42		5
	25	0	18.50	18.36	18.20		5

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Table 9-76
LTE Band 7 Measured P_{limit} for DSI = 3 (Hotspot mode) - 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	**20.45**	20.24	20.29	0	0
	1	50	20.34	20.22	20.21		0
	1	99	20.37	20.06	20.14		0
	50	0	20.57	20.25	20.35	0-1	0
	50	25	20.36	20.28	20.22		0
	50	50	**20.58**	20.34	20.25		0
	100	0	20.40	20.28	20.26		0
16QAM	1	0	20.33	20.18	20.19	0-1	0
	1	50	20.26	20.19	20.22		0
	1	99	20.28	20.09	20.15		0
	50	0	20.52	20.37	20.29	0-2	0
	50	25	20.59	20.44	20.31		0
	50	50	20.51	20.42	20.21		0
	100	0	20.46	20.18	20.15		0
64QAM	1	0	20.12	20.25	20.36	0-2	0
	1	50	20.55	20.33	20.21		0
	1	99	20.39	20.32	20.20		0
	50	0	20.22	20.54	20.18	0-3	0.2
	50	25	20.40	20.19	20.12		0.2
	50	50	20.26	20.27	20.05		0.2
	100	0	20.24	20.07	20.02		0.2
256QAM	1	0	18.05	18.17	18.15	0-5	2.2
	1	50	18.03	18.10	18.05		2.2
	1	99	18.10	17.95	17.90		2.2
	50	0	18.20	18.15	18.09		2.2
	50	25	18.31	18.18	18.07		2.2
	50	50	18.22	18.03	18.00		2.2
	100	0	18.22	18.16	17.98		2.2

Table 9-77
LTE Band 7 Measured P_{limit} for DSI = 3 (Hotspot mode) - 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	20.65	20.55	20.22	0	0
	1	36	20.71	20.47	20.24		0
	1	74	20.61	20.36	20.14		0
	36	0	20.85	20.70	20.50	0-1	0
	36	18	20.90	20.73	20.55		0
	36	37	20.83	20.64	20.55		0
	75	0	20.83	20.60	20.46		0
16QAM	1	0	20.40	20.29	20.22	0-1	0
	1	36	20.59	20.29	20.20		0
	1	74	20.59	20.26	20.08		0
	36	0	20.41	20.29	20.10	0-2	0
	36	18	20.52	20.29	20.09		0
	36	37	20.45	20.34	20.13		0
	75	0	20.40	20.21	19.99		0
64QAM	1	0	20.11	20.15	20.11	0-2	0
	1	36	20.30	20.30	20.13		0
	1	74	20.28	20.23	20.02		0
	36	0	20.28	20.16	20.02	0-3	0.2
	36	18	20.36	20.14	20.03		0.2
	36	37	20.29	20.09	19.98		0.2
	75	0	20.22	20.00	19.94		0.2
256QAM	1	0	18.12	18.17	18.15	0-5	2.2
	1	36	18.31	18.28	18.12		2.2
	1	74	18.30	17.81	17.86		2.2
	36	0	18.24	18.13	17.91		2.2
	36	18	18.47	18.15	17.87		2.2
	36	37	18.19	18.09	17.89		2.2
	75	0	18.29	18.00	17.85		2.2

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Table 9-78
LTE Band 7 Measured P_{limit} for DSI = 3 (Hotspot mode) - 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	20.54	20.31	20.21	0	0
	1	25	20.47	20.31	20.15		0
	1	49	20.49	20.34	20.16		0
	25	0	20.62	20.47	20.24	0-1	0
	25	12	20.62	20.46	20.29		0
	25	25	20.59	20.41	20.30		0
	50	0	20.57	20.41	20.28		0
16QAM	1	0	20.28	20.23	20.15	0-1	0
	1	25	20.24	20.31	20.10		0
	1	49	19.94	20.29	20.12		0
	25	0	20.63	20.50	20.26	0-2	0
	25	12	20.65	20.27	20.38		0
	25	25	20.61	20.27	20.30		0
	50	0	20.60	20.26	20.27		0
64QAM	1	0	20.04	20.25	19.91	0-2	0
	1	25	20.12	20.30	19.91		0
	1	49	20.27	20.37	19.89		0
	25	0	20.02	20.41	19.82	0-3	0.2
	25	12	20.06	20.42	19.84		0.2
	25	25	19.98	20.39	19.85		0.2
	50	0	19.91	20.32	19.85		0.2
256QAM	1	0	18.30	18.26	17.90	0-5	2.2
	1	25	18.33	17.85	17.90		2.2
	1	49	17.81	17.84	17.95		2.2
	25	0	18.02	18.41	17.86		2.2
	25	12	18.29	18.14	18.04		2.2
	25	25	18.03	18.15	17.85		2.2
	50	0	18.15	17.98	17.80		2.2

Table 9-79
LTE Band 7 Measured P_{limit} for DSI = 3 (Hotspot mode) - 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	20.44	20.39	20.16	0	0
	1	12	20.41	20.26	20.06		0
	1	24	20.45	20.26	20.10		0
	12	0	20.43	20.41	20.34	0-1	0
	12	6	20.43	20.48	20.33		0
	12	13	20.44	20.42	20.27		0
	25	0	20.44	20.46	20.32		0
16QAM	1	0	20.37	20.22	20.34	0-1	0
	1	12	20.42	20.24	20.29		0
	1	24	20.44	20.36	20.28		0
	12	0	20.66	20.49	20.36	0-2	0
	12	6	20.37	20.37	20.43		0
	12	13	20.35	20.31	20.33		0
	25	0	20.46	20.24	20.35		0
64QAM	1	0	20.21	20.15	20.01	0-2	0
	1	12	20.23	20.19	19.91		0
	1	24	20.24	20.12	19.95		0
	12	0	20.19	20.05	20.20	0-3	0.2
	12	6	20.22	20.20	20.21		0.2
	12	13	20.22	20.16	20.16		0.2
	25	0	20.23	20.05	20.12		0.2
256QAM	1	0	18.20	18.17	17.83	0-5	2.2
	1	12	18.14	18.06	17.77		2.2
	1	24	18.22	18.07	17.81		2.2
	12	0	18.31	17.95	17.96		2.2
	12	6	18.26	17.97	17.95		2.2
	12	13	18.21	17.94	17.91		2.2
	25	0	18.19	18.09	17.85		2.2

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Table 9-80
LTE Band 7 Measured P_{limit} for DSI = 1 (Phablet with grip sensor active) and/or DSI = 4 (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	**20.84**	20.71	20.71	0	0
	1	50	20.74	20.63	20.54		0
	1	99	20.74	20.77	20.57		0
	50	0	20.79	20.78	20.72	0-1	0
	50	25	20.83	20.81	20.63		0
	50	50	**20.88**	20.82	20.45		0
	100	0	20.79	20.78	20.50		0
16QAM	1	0	21.28	21.10	20.87	0-1	0
	1	50	21.20	21.11	20.87		0
	1	99	21.17	21.15	20.91		0
	50	0	20.79	20.85	20.81	0-2	0
	50	25	20.86	20.86	20.87		0
	50	50	20.82	20.87	20.85		0
	100	0	20.83	20.79	20.96		0
64QAM	1	0	20.91	21.14	21.00	0-2	0
	1	50	21.02	21.12	20.93		0
	1	99	21.03	21.14	21.02		0
	50	0	20.52	20.41	20.32	0-3	0.9
	50	25	20.66	20.61	20.22		0.9
	50	50	20.54	20.63	20.21		0.9
	100	0	20.41	20.57	20.19		0.9
256QAM	1	0	18.54	18.13	18.09	0-5	2.9
	1	50	18.22	18.25	18.01		2.9
	1	99	18.08	18.17	18.00		2.9
	50	0	18.13	18.22	18.04		2.9
	50	25	18.17	18.15	18.07		2.9
	50	50	18.10	17.98	18.12		2.9
	100	0	18.06	18.11	18.01		2.9

Table 9-81
LTE Band 7 Measured P_{limit} for DSI = 1 (Phablet with grip sensor active) and/or DSI = 4 (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	20.83	20.70	20.58	0	0
	1	36	20.82	20.73	20.59		0
	1	74	20.72	20.59	20.48		0
	36	0	21.03	20.91	20.73	0-1	0
	36	18	21.09	20.90	20.75		0
	36	37	21.04	20.87	20.75		0
	75	0	21.01	20.84	20.67		0
16QAM	1	0	21.04	20.93	20.91	0-1	0
	1	36	21.07	21.12	20.92		0
	1	74	21.08	21.13	20.80		0
	36	0	21.08	20.98	20.84	0-2	0
	36	18	21.17	21.03	20.80		0
	36	37	21.13	20.94	20.83		0
	75	0	21.03	20.89	20.70		0
64QAM	1	0	21.12	20.89	20.84	0-2	0
	1	36	21.14	20.81	20.91		0
	1	74	21.02	20.79	20.78		0
	36	0	20.64	20.66	20.45	0-3	0.9
	36	18	20.72	20.67	20.43		0.9
	36	37	20.67	20.62	20.46		0.9
	75	0	20.67	20.54	20.32		0.9
256QAM	1	0	18.59	17.82	17.71	0-5	2.9
	1	36	18.14	18.28	17.85		2.9
	1	74	18.04	18.26	17.78		2.9
	36	0	18.63	18.24	17.93		2.9
	36	18	18.54	18.24	17.95		2.9
	36	37	18.66	18.09	17.96		2.9
	75	0	18.66	18.04	17.83		2.9

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Table 9-82
LTE Band 7 Measured P_{limit} for DSI = 1 (Phablet with grip sensor active) and/or DSI = 4 (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	20.74	20.57	20.41	0	0
	1	25	20.68	20.57	20.37		0
	1	49	20.70	20.54	20.37		0
	25	0	20.85	20.69	20.48	0-1	0
	25	12	20.86	20.72	20.57		0
	25	25	20.82	20.66	20.51		0
	50	0	20.77	20.64	20.47		0
16QAM	1	0	21.01	20.92	20.72	0-1	0
	1	25	20.99	20.95	20.69		0
	1	49	20.98	21.00	20.59		0
	25	0	20.82	20.69	20.48	0-2	0
	25	12	20.84	20.72	20.57		0
	25	25	20.85	20.69	20.51		0
	50	0	20.81	20.68	20.51		0
64QAM	1	0	20.75	20.93	20.83	0-2	0
	1	25	20.78	21.03	20.89		0
	1	49	20.94	21.07	20.90		0
	25	0	20.52	20.45	19.87	0-3	0.9
	25	12	20.54	20.47	19.90		0.9
	25	25	20.52	20.45	19.82		0.9
	50	0	20.40	20.39	19.85		0.9
256QAM	1	0	18.25	18.00	17.88	0-5	2.9
	1	25	18.30	17.99	17.91		2.9
	1	49	18.48	18.07	17.87		2.9
	25	0	18.55	18.41	17.88		2.9
	25	12	18.58	18.35	18.11		2.9
	25	25	18.51	18.32	17.89		2.9
	50	0	18.42	18.34	17.82		2.9

Table 9-83
LTE Band 7 Measured P_{limit} for DSI = 1 (Phablet with grip sensor active) and/or DSI = 4 (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	20.63	20.57	20.37	0	0
	1	12	20.68	20.49	20.36		0
	1	24	20.68	20.51	20.36		0
	12	0	20.89	20.66	20.53	0-1	0
	12	6	20.92	20.67	20.56		0
	12	13	20.81	20.62	20.49		0
	25	0	20.86	20.64	20.54		0
16QAM	1	0	21.09	20.95	20.75	0-1	0
	1	12	20.98	20.92	20.70		0
	1	24	20.97	20.95	20.71		0
	12	0	20.87	20.71	20.58	0-2	0
	12	6	20.89	20.73	20.60		0
	12	13	20.84	20.68	20.56		0
	25	0	20.97	20.67	20.55		0
64QAM	1	0	20.95	20.92	20.72	0-2	0
	1	12	21.02	20.98	20.65		0
	1	24	20.90	20.96	20.68		0
	12	0	20.56	20.36	20.18	0-3	0.9
	12	6	20.55	20.41	20.19		0.9
	12	13	20.54	20.37	20.19		0.9
	25	0	20.55	20.28	20.07		0.9
256QAM	1	0	17.93	17.82	17.50	0-5	2.9
	1	12	17.95	17.78	17.43		2.9
	1	24	17.97	17.78	17.50		2.9
	12	0	17.96	17.86	17.98		2.9
	12	6	18.07	17.92	17.81		2.9
	12	13	18.03	17.87	17.89		2.9
	25	0	18.06	17.77	17.77		2.9

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9.4.11 LTE Band 48

Table 9-84
LTE Band 48 Measured P_{max} for DSI = 0 (Body-worn, or Phablet with grip sensor not triggered), or DSI = 1 (Phablet with grip sensor active), or DSI = 3 (Hotspot Mode), or DSI = 4 (Earjack active) - 20 MHz Bandwidth

LTE Band 48 20 MHz Bandwidth								
Modulation	RB Size	RB Offset	Low Channel 55340 (3560.0 MHz)	Low-Mid Channel 55773 (3603.3 MHz)	Mid-High Channel 56207 (3646.7 MHz)	High Channel 56640 (3690.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]					
QPSK	1	0	22.92	22.96	22.77	23.01	0	0
	1	50	23.35	23.18	23.11	**23.36**		0
	1	99	23.04	22.73	22.79	22.96		0
	50	0	22.23	22.21	22.18	22.31	0-1	1
	50	25	22.41	22.31	22.29	**22.43**		1
	50	50	22.26	22.11	22.23	22.22		1
	100	0	22.24	22.19	22.23	22.32		1
16QAM	1	0	21.62	21.61	21.58	22.35	0-1	1
	1	50	22.04	21.84	21.91	22.66		1
	1	99	21.78	21.58	21.65	22.27		1
	50	0	21.29	21.21	21.07	21.37	0-2	2
	50	25	21.41	21.30	21.18	21.43		2
	50	50	21.26	21.11	21.02	21.27		2
	100	0	21.23	21.18	21.07	21.36		2
64QAM	1	0	20.90	20.81	20.53	20.87	0-2	2
	1	50	21.26	21.11	20.72	21.18		2
	1	99	20.98	20.74	20.71	20.78		2
	50	0	20.28	20.21	19.78	20.39	0-3	3
	50	25	20.39	20.29	19.85	20.47		3
	50	50	20.28	20.10	19.77	20.28		3
	100	0	20.28	20.21	19.73	20.39		3
256QAM	1	0	18.42	18.23	17.71	18.30	0-5	5
	1	50	18.49	18.33	18.02	18.56		5
	1	99	18.10	17.85	17.67	18.17		5
	50	0	18.30	18.22	17.96	18.41		5
	50	25	18.45	18.29	18.11	18.54		5
	50	50	18.26	18.11	18.00	18.32		5
	100	0	18.15	18.17	17.95	18.32		5

Table 9-85
LTE Band 48 Measured P_{max} for DSI = 0 (Body-worn, or Phablet with grip sensor not triggered), or DSI = 1 (Phablet with grip sensor active), or DSI = 3 (Hotspot Mode), or DSI = 4 (Earjack active) - 15 MHz Bandwidth

LTE Band 48 15 MHz Bandwidth								
Modulation	RB Size	RB Offset	Low Channel 55315 (3557.5 MHz)	Low-Mid Channel 55765 (3602.5 MHz)	Mid-High Channel 56215 (3647.5 MHz)	High Channel 56665 (3692.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]					
QPSK	1	0	23.03	22.74	22.90	22.98	0	0
	1	36	23.48	22.73	23.11	23.21		0
	1	74	23.12	22.60	23.07	23.05		0
	36	0	22.23	22.06	22.01	22.20	0-1	1
	36	18	22.25	21.96	22.09	22.33		1
	36	37	22.11	21.77	21.97	22.32		1
	75	0	22.15	21.90	21.94	22.26		1
16QAM	1	0	22.07	21.98	21.98	22.22	0-1	1
	1	36	22.33	22.08	22.04	22.31		1
	1	74	22.22	21.88	22.08	22.42		1
	36	0	21.19	21.09	20.90	21.21	0-2	2
	36	18	21.20	21.07	21.08	21.35		2
	36	37	21.20	20.90	21.03	21.26		2
	75	0	21.10	20.94	21.04	21.21		2
64QAM	1	0	20.92	20.94	20.82	21.05	0-2	2
	1	36	21.15	20.85	20.96	21.22		2
	1	74	21.01	20.67	21.06	20.97		2
	36	0	20.17	20.10	20.09	20.29	0-3	3
	36	18	20.27	20.09	20.16	20.34		3
	36	37	20.14	19.97	19.98	20.23		3
	75	0	20.16	19.95	20.09	20.32		3
256QAM	1	0	18.04	18.06	17.97	18.20	0-5	5
	1	36	18.33	18.05	18.14	18.26		5
	1	74	18.22	17.86	18.02	18.13		5
	36	0	18.26	18.12	18.13	18.35		5
	36	18	18.22	18.10	18.15	18.34		5
	36	37	18.24	17.87	18.05	18.23		5
	75	0	18.23	17.96	18.12	18.30		5

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Table 9-86
LTE Band 48 Measured P_{max} for DSI = 0 (Body-worn, or Phablet with grip sensor not triggered), or DSI = 1 (Phablet with grip sensor active), or DSI = 3 (Hotspot Mode), or DSI = 4 (Earjack active) - 10 MHz Bandwidth

LTE Band 48 10 MHz Bandwidth								
Modulation	RB Size	RB Offset	Low Channel 55290 (3555.0 MHz)	Low-Mid Channel 55757 (3601.7 MHz)	Mid-High Channel 56223 (3648.3 MHz)	High Channel 56690 (3695.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]					
QPSK	1	0	23.05	22.84	23.00	22.91	0	0
	1	25	23.04	22.73	23.04	22.90		0
	1	49	23.16	22.95	23.05	23.14		0
	25	0	22.28	21.98	21.95	22.22	0-1	1
	25	12	22.24	22.16	22.13	22.45		1
	25	25	22.15	22.03	22.12	22.34		1
	50	0	22.19	21.97	21.97	22.27		1
16QAM	1	0	22.31	22.17	21.99	22.40	0-1	1
	1	25	22.56	22.21	22.36	22.67		1
	1	49	22.66	22.28	22.16	22.36		1
	25	0	21.22	21.05	21.04	21.32	0-2	2
	25	12	21.32	21.00	21.20	21.48		2
	25	25	21.18	21.02	20.97	21.32		2
	50	0	21.30	21.03	21.05	21.37		2
64QAM	1	0	21.00	20.72	21.16	21.13	0-2	2
	1	25	21.26	21.24	21.19	21.47		2
	1	49	21.06	20.87	20.84	21.19		2
	25	0	20.29	20.13	20.05	20.23	0-3	3
	25	12	20.26	20.17	19.92	20.45		3
	25	25	20.19	20.11	20.10	20.49		3
	50	0	20.38	20.04	20.10	20.35		3
256QAM	1	0	17.99	17.89	17.87	18.17	0-5	5
	1	25	18.46	18.22	18.15	18.18		5
	1	49	18.46	18.03	17.92	18.33		5
	25	0	18.22	18.03	18.10	18.38		5
	25	12	18.25	18.18	18.22	18.39		5
	25	25	18.30	18.07	18.26	18.51		5
	50	0	18.27	18.00	18.14	18.45		5

Table 9-87
LTE Band 48 Measured P_{max} for DSI = 0 (Body-worn, or Phablet with grip sensor not triggered), or DSI = 1 (Phablet with grip sensor active), or DSI = 3 (Hotspot Mode), or DSI = 4 (Earjack active) - 5 MHz Bandwidth

LTE Band 48 5 MHz Bandwidth								
Modulation	RB Size	RB Offset	Low Channel 55265 (3552.5 MHz)	Low-Mid Channel 55748 (3600.8 MHz)	Mid-High Channel 56232 (3649.2 MHz)	High Channel 56715 (3697.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]					
QPSK	1	0	22.81	22.82	22.65	22.82	0	0
	1	12	22.96	22.68	22.80	22.98		0
	1	24	23.00	22.89	22.75	22.87		0
	12	0	21.99	21.88	21.75	21.97	0-1	1
	12	6	22.09	21.91	21.94	22.12		1
	12	13	22.00	21.81	21.90	22.12		1
	25	0	22.07	21.87	21.89	22.07		1
16QAM	1	0	22.04	21.64	21.88	21.86	0-1	1
	1	12	22.35	21.98	22.00	22.16		1
	1	24	22.09	21.96	21.88	22.22		1
	12	0	20.93	20.90	20.84	21.08	0-2	2
	12	6	21.08	20.94	20.93	21.18		2
	12	13	21.05	20.89	20.90	21.08		2
	25	0	21.03	20.96	20.89	21.08		2
64QAM	1	0	20.88	20.77	20.68	20.98	0-2	2
	1	12	21.02	20.83	20.78	21.10		2
	1	24	21.03	20.81	20.77	21.04		2
	12	0	20.04	19.87	19.85	20.09	0-3	3
	12	6	20.18	19.99	19.89	20.18		3
	12	13	20.10	19.86	19.96	20.15		3
	25	0	20.13	19.96	19.95	20.18		3
256QAM	1	0	18.03	17.85	17.77	17.94	0-5	5
	1	12	18.08	18.09	18.02	18.30		5
	1	24	18.15	17.89	18.01	18.14		5
	12	0	17.99	17.90	17.83	18.17		5
	12	6	18.17	18.01	17.83	18.17		5
	12	13	18.09	17.95	17.94	18.22		5
	25	0	18.10	17.97	17.97	18.13		5

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Table 9-88
LTE Band 48 Measured P_{limit} for DSI = 2 (Head) - 20 MHz Bandwidth

LTE Band 48 20 MHz Bandwidth								
Modulation	RB Size	RB Offset	Low Channel 55340 (3560.0 MHz)	Low-Mid Channel 55773 (3603.3 MHz)	Mid-High Channel 56207 (3646.7 MHz)	High Channel 56640 (3690.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]					
QPSK	1	0	17.59	17.65	17.50	17.84	0	0
	1	50	**17.92**	17.74	17.84	17.90		0
	1	99	17.70	17.35	17.58	17.51		0
	50	0	17.96	17.89	17.81	17.97	0-1	0
	50	25	**18.10**	17.94	17.90	18.06		0
	50	50	17.92	17.66	17.77	17.84		0
	100	0	17.89	17.80	17.84	17.88		0
16QAM	1	0	17.70	17.91	17.85	17.67	0-1	0
	1	50	18.01	18.03	17.97	17.95		0
	1	99	18.03	17.79	17.72	17.50		0
	50	0	17.98	17.97	17.99	17.90	0-2	0
	50	25	18.09	18.00	18.02	17.98		0
	50	50	17.95	17.74	17.79	17.89		0
	100	0	17.94	17.91	17.94	17.90		0
64QAM	1	0	17.45	17.40	17.46	17.96	0-2	0
	1	50	17.71	17.50	17.57	17.36		0
	1	99	17.41	18.10	17.15	17.66		0
	50	0	18.03	18.00	17.99	17.30	0-3	0
	50	25	18.13	18.05	18.04	18.02		0
	50	50	17.99	17.83	17.85	18.04		0
	100	0	17.95	17.93	17.96	17.92		0
256QAM	1	0	17.57	17.72	17.71	17.98	0-5	0
	1	50	17.92	17.78	17.80	17.76		0
	1	99	17.64	17.38	17.36	17.51		0
	50	0	18.05	18.08	18.00	18.02		0
	50	25	18.14	18.13	18.09	18.00		0
	50	50	18.01	17.87	17.87	17.92		0
	100	0	17.97	17.99	18.00	17.82		0

Table 9-89
LTE Band 48 Measured P_{limit} for DSI = 2 (Head) - 15 MHz Bandwidth

LTE Band 48 15 MHz Bandwidth								
Modulation	RB Size	RB Offset	Low Channel 55315 (3557.5 MHz)	Low-Mid Channel 55765 (3602.5 MHz)	Mid-High Channel 56215 (3647.5 MHz)	High Channel 56665 (3692.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]					
QPSK	1	0	17.73	17.77	17.58	17.62	0	0
	1	36	17.99	17.80	17.80	17.76		0
	1	74	17.82	17.62	17.55	17.66		0
	36	0	18.02	17.95	17.85	17.90	0-1	0
	36	18	18.07	17.97	17.93	17.96		0
	36	37	17.92	17.85	17.90	17.93		0
	75	0	17.94	17.95	17.88	17.93		0
16QAM	1	0	18.17	18.12	17.96	17.98	0-1	0
	1	36	18.27	18.12	18.10	18.10		0
	1	74	18.17	18.03	18.04	18.11		0
	36	0	18.03	17.94	17.84	17.88	0-2	0
	36	18	18.06	17.95	17.90	17.92		0
	36	37	17.90	17.82	17.87	17.89		0
	75	0	17.96	17.96	17.88	17.94		0
64QAM	1	0	17.81	17.85	17.71	17.73	0-2	0
	1	36	18.03	17.85	17.86	17.86		0
	1	74	17.83	17.70	17.65	17.76		0
	36	0	18.08	18.02	17.91	17.95	0-3	0
	36	18	18.11	18.04	17.98	18.00		0
	36	37	17.90	17.89	17.92	17.98		0
	75	0	17.98	18.02	17.92	17.96		0
256QAM	1	0	17.86	17.92	17.72	17.75	0-5	0
	1	36	18.11	17.94	17.88	17.91		0
	1	74	17.87	17.68	17.66	17.75		0
	36	0	18.11	18.04	17.89	17.91		0
	36	18	18.14	18.08	17.96	18.01		0
	36	37	17.98	17.93	17.95	17.98		0
	75	0	17.88	18.00	17.91	17.99		0

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Table 9-90
LTE Band 48 Measured P_{limit} for DSI = 2 (Head) - 10 MHz Bandwidth

LTE Band 48 10 MHz Bandwidth								
Modulation	RB Size	RB Offset	Low Channel 55290 (3555.0 MHz)	Low-Mid Channel 55757 (3601.7 MHz)	Mid-High Channel 56223 (3648.3 MHz)	High Channel 56690 (3695.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]					
QPSK	1	0	17.83	17.48	17.47	17.34	0	0
	1	25	18.12	17.70	17.79	17.72		0
	1	49	17.88	17.51	17.49	17.51		0
	25	0	18.05	17.73	17.81	17.77	0-1	0
	25	12	18.09	17.88	17.94	17.92		0
	25	25	18.10	17.86	17.91	17.94		0
	50	0	18.00	17.78	17.84	17.83		0
16QAM	1	0	18.17	17.79	17.88	17.80	0-1	0
	1	25	18.12	18.16	18.19	18.23		0
	1	49	18.28	18.05	18.05	18.06		0
	25	0	18.05	17.72	17.77	17.78	0-2	0
	25	12	18.10	17.92	17.95	17.94		0
	25	25	18.04	17.77	17.91	17.89		0
	50	0	18.06	17.82	17.89	17.89		0
64QAM	1	0	17.85	17.42	17.58	17.51	0-2	0
	1	25	18.09	17.77	17.86	17.79		0
	1	49	17.85	17.62	17.62	17.74		0
	25	0	18.05	17.71	17.80	17.76	0-3	0
	25	12	18.11	17.87	17.96	17.93		0
	25	25	18.04	17.76	17.91	17.89		0
	50	0	18.04	17.85	17.90	17.89		0
256QAM	1	0	17.84	17.46	17.61	17.57	0-5	0
	1	25	18.14	17.85	17.98	17.93		0
	1	49	17.82	17.57	17.66	17.81		0
	25	0	18.12	17.83	17.91	17.88		0
	25	12	18.15	17.93	18.04	18.03		0
	25	25	18.11	17.77	17.98	18.00		0
	50	0	18.10	17.89	17.94	17.99		0

Table 9-91
LTE Band 48 Measured P_{limit} for DSI = 2 (Head) - 5 MHz Bandwidth

LTE Band 48 5 MHz Bandwidth								
Modulation	RB Size	RB Offset	Low Channel 55265 (3552.5 MHz)	Low-Mid Channel 55748 (3600.8 MHz)	Mid-High Channel 56232 (3649.2 MHz)	High Channel 56715 (3697.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]					
QPSK	1	0	17.85	17.64	17.76	17.65	0	0
	1	12	17.94	17.81	17.85	17.86		0
	1	24	17.94	17.75	17.75	17.81		0
	12	0	17.93	17.82	17.89	17.91	0-1	0
	12	6	18.01	17.90	17.97	18.00		0
	12	13	17.99	17.82	17.94	18.01		0
	25	0	17.94	17.79	17.95	17.97		0
16QAM	1	0	18.07	17.97	18.06	18.10	0-1	0
	1	12	18.21	18.09	18.26	18.27		0
	1	24	18.18	18.00	18.08	18.23		0
	12	0	17.91	17.83	17.89	17.88	0-2	0
	12	6	17.98	17.92	17.98	18.00		0
	12	13	17.98	17.86	17.93	17.99		0
	25	0	18.02	17.87	18.02	18.03		0
64QAM	1	0	17.84	17.73	17.83	17.77	0-2	0
	1	12	17.96	17.84	17.92	17.95		0
	1	24	17.94	17.79	17.85	17.93		0
	12	0	17.96	17.81	17.92	17.92	0-3	0
	12	6	18.01	17.91	18.01	17.99		0
	12	13	18.00	17.81	17.97	18.00		0
	25	0	17.98	17.80	17.96	17.98		0
256QAM	1	0	17.94	17.79	17.88	17.87	0-5	0
	1	12	17.97	17.91	18.00	17.99		0
	1	24	17.95	17.85	17.90	18.02		0
	12	0	18.05	17.97	18.06	18.05		0
	12	6	18.14	18.08	18.17	18.20		0
	12	13	18.10	17.95	18.15	18.17		0
	25	0	18.01	17.86	18.00	18.07		0

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9.4.12 LTE Band 41

Table 9-92
LTE Band 41 PC3 Measured P_{max} for DSI = 2 (Head) or DSI = 0 (Body-worn, or Phablet with grip sensor not triggered) - 20 MHz Bandwidth

LTE Band 41 20 MHz Bandwidth									
Modulation	RB Size	RB Offset	Low Channel 39750 (2506.0 MHz)	Low-Mid Channel 40185 (2549.5 MHz)	Mid Channel 40620 (2593.0 MHz)	Mid-High Channel 41055 (2636.5 MHz)	High Channel 41490 (2680.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]						
QPSK	1	0	24.37	24.42	24.10	24.14	23.95	0	0
	1	50	24.30	24.28	**24.48**	24.19	24.44		0
	1	99	24.25	24.42	24.07	23.87	24.28		0
	50	0	23.40	23.46	23.51	23.27	23.30	0-1	1
	50	25	23.40	23.55	**23.63**	23.33	23.49		1
	50	50	23.39	23.41	23.57	23.16	23.55		1
	100	0	23.35	23.35	23.48	23.25	23.39		1
16QAM	1	0	23.32	23.29	23.28	23.07	23.13	0-1	1
	1	50	23.27	23.34	23.59	23.07	23.57		1
	1	99	23.31	23.39	23.19	23.17	23.43		1
	50	0	22.37	22.46	22.52	22.32	22.31	0-2	2
	50	25	22.47	22.49	22.69	22.42	22.55		2
	50	50	22.37	22.49	22.59	22.16	22.70		2
	100	0	22.36	22.44	22.62	22.22	22.47		2
64QAM	1	0	22.18	22.09	22.01	21.89	22.04	0-2	2
	1	50	22.11	22.18	22.37	22.01	22.24		2
	1	99	22.07	22.24	22.07	21.58	22.30		2
	50	0	21.45	21.47	21.57	21.31	21.43	0-3	3
	50	25	21.40	21.61	21.75	21.49	21.57		3
	50	50	21.40	21.54	21.71	21.15	21.71		3
	100	0	21.39	21.42	21.53	21.25	21.52		3
256QAM	1	0	18.52	18.92	19.14	18.75	18.93	0-5	5
	1	50	19.05	19.06	19.16	18.79	19.18		5
	1	99	18.75	18.99	19.08	18.84	19.27		5
	50	0	19.46	18.88	19.00	18.55	19.44		5
	50	25	19.48	19.63	19.70	19.34	19.65		5
	50	50	19.35	19.45	19.69	19.47	19.77		5
	100	0	19.36	19.46	19.54	19.32	19.50		5

Table 9-93
LTE Band 41 PC3 Measured P_{max} for DSI = 2 (Head) or DSI = 0 (Body-worn, or Phablet with grip sensor not triggered) - 15 MHz Bandwidth

LTE Band 41 15 MHz Bandwidth									
Modulation	RB Size	RB Offset	Low Channel 39750 (2506.0 MHz)	Low-Mid Channel 40185 (2549.5 MHz)	Mid Channel 40620 (2593.0 MHz)	Mid-High Channel 41055 (2636.5 MHz)	High Channel 41490 (2680.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]						
QPSK	1	0	24.10	23.87	23.88	23.98	23.86	0	0
	1	36	24.05	23.93	24.01	24.01	24.12		0
	1	74	23.94	23.60	23.83	23.76	24.08		0
	36	0	23.19	23.00	23.03	23.07	23.03	0-1	1
	36	18	23.18	23.05	23.08	23.11	23.18		1
	36	37	23.10	22.94	23.11	22.96	23.29		1
	75	0	23.12	23.04	23.04	23.10	23.12		1
16QAM	1	0	23.21	23.02	22.96	23.07	23.03	0-1	1
	1	36	23.13	22.99	23.12	23.09	23.38		1
	1	74	23.10	22.73	22.98	22.71	23.37		1
	36	0	22.13	21.87	21.99	21.99	22.14	0-2	2
	36	18	22.15	22.08	22.04	22.13	22.25		2
	36	37	22.14	21.92	22.08	22.01	22.31		2
	75	0	22.13	22.04	22.03	22.07	22.22		2
64QAM	1	0	21.84	21.64	21.56	21.66	21.74	0-2	2
	1	36	21.79	21.68	21.80	21.73	22.04		2
	1	74	21.72	21.41	21.59	21.40	21.95		2
	36	0	21.21	21.07	21.09	21.10	21.23	0-3	3
	36	18	21.20	21.12	21.17	21.22	21.36		3
	36	37	21.13	20.95	21.14	21.06	21.37		3
	75	0	21.24	21.08	21.08	21.13	21.32		3
256QAM	1	0	19.01	18.77	18.76	18.91	18.84	0-5	5
	1	36	19.01	18.83	19.02	19.01	19.23		5
	1	74	18.90	18.59	18.83	18.71	19.17		5
	36	0	19.20	19.05	19.07	19.11	19.22		5
	36	18	19.32	19.21	19.14	19.24	19.35		5
	36	37	19.18	19.02	19.18	19.10	19.41		5
	75	0	19.20	19.03	19.09	19.15	19.28		5

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Table 9-94
LTE Band 41 PC3 Measured P_{max} for DSI = 2 (Head) or DSI = 0 (Body-worn, or Phablet with grip sensor not triggered) - 10 MHz Bandwidth

LTE Band 41 10 MHz Bandwidth									
Modulation	RB Size	RB Offset	Low Channel 39750 (2506.0 MHz)	Low-Mid Channel 40185 (2549.5 MHz)	Mid Channel 40620 (2593.0 MHz)	Mid-High Channel 41055 (2636.5 MHz)	High Channel 41490 (2680.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]						
QPSK	1	0	23.93	23.65	23.71	23.64	23.70	0	0
	1	25	23.84	23.83	23.88	23.77	23.94		0
	1	49	23.85	23.80	23.57	23.51	23.70		0
	25	0	22.99	22.82	22.82	22.77	22.90	0-1	1
	25	12	22.96	22.96	22.87	22.90	22.94		1
	25	25	22.96	22.79	22.81	22.75	22.95		1
	50	0	22.90	22.87	22.78	22.76	22.90		1
16QAM	1	0	23.06	22.82	22.79	22.80	22.88	0-1	1
	1	25	23.02	22.92	22.98	23.01	23.19		1
	1	49	22.94	22.62	23.00	22.62	22.89		1
	25	0	22.00	21.84	21.81	21.80	21.88	0-2	2
	25	12	21.99	21.97	21.92	21.94	22.00		2
	25	25	21.93	21.75	21.83	21.80	21.97		2
	50	0	21.95	21.93	21.87	21.88	21.95		2
64QAM	1	0	21.78	21.22	21.29	21.24	21.29	0-2	2
	1	25	21.59	21.41	21.53	21.41	21.61		2
	1	49	21.62	21.17	21.63	21.18	21.41		2
	25	0	20.99	20.81	20.82	20.80	20.91	0-3	3
	25	12	20.99	20.95	20.92	20.94	21.00		3
	25	25	21.03	20.82	20.83	20.73	20.94		3
	50	0	21.04	20.96	20.87	20.93	20.99		3
256QAM	1	0	18.59	18.60	18.49	18.39	18.52	0-5	5
	1	25	18.70	18.86	18.80	18.80	18.84		5
	1	49	18.44	18.54	18.46	18.54	18.56		5
	25	0	18.99	18.95	18.96	18.90	19.06		5
	25	12	19.07	19.03	18.99	19.01	19.07		5
	25	25	18.87	18.90	18.97	18.90	19.06		5
	50	0	18.98	18.98	18.94	18.95	18.97		5

Table 9-95
LTE Band 41 PC3 Measured P_{max} for DSI = 2 (Head) or DSI = 0 (Body-worn, or Phablet with grip sensor not triggered) - 5 MHz Bandwidth

LTE Band 41 5 MHz Bandwidth									
Modulation	RB Size	RB Offset	Low Channel 39750 (2506.0 MHz)	Low-Mid Channel 40185 (2549.5 MHz)	Mid Channel 40620 (2593.0 MHz)	Mid-High Channel 41055 (2636.5 MHz)	High Channel 41490 (2680.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]						
QPSK	1	0	23.91	23.75	23.78	23.78	23.99	0	0
	1	12	23.82	23.78	23.81	23.74	23.97		0
	1	24	23.88	23.73	23.75	23.73	23.95		0
	12	0	23.00	22.93	22.91	22.82	23.04	0-1	1
	12	6	23.06	22.99	22.91	22.92	23.07		1
	12	13	22.99	22.96	22.93	22.89	23.10		1
	25	0	23.00	22.95	22.90	22.90	23.02		1
16QAM	1	0	23.02	22.95	22.93	22.91	23.09	0-1	1
	1	12	23.03	23.00	23.00	22.93	23.16		1
	1	24	23.03	22.92	22.90	22.88	23.11		1
	12	0	21.93	21.86	21.85	21.83	21.91	0-2	2
	12	6	21.98	21.89	21.86	21.90	21.99		2
	12	13	21.97	21.86	21.87	21.85	22.05		2
	25	0	22.05	22.01	21.94	21.95	22.06		2
64QAM	1	0	21.66	21.52	21.53	21.54	21.69	0-2	2
	1	12	21.65	21.60	21.58	21.56	21.75		2
	1	24	21.66	21.58	21.54	21.51	21.86		2
	12	0	21.01	20.84	20.87	20.86	20.96	0-3	3
	12	6	21.02	20.94	20.92	20.95	21.04		3
	12	13	20.99	20.90	20.92	20.89	21.05		3
	25	0	21.01	20.95	20.94	20.96	21.07		3
256QAM	1	0	18.80	18.78	18.76	18.76	18.83	0-5	5
	1	12	18.80	18.79	18.81	18.79	18.88		5
	1	24	18.70	18.75	18.76	18.72	18.84		5
	12	0	19.13	19.00	19.05	18.98	19.15		5
	12	6	19.14	19.09	19.06	19.07	19.18		5
	12	13	19.08	19.07	19.07	19.02	19.23		5
	25	0	19.07	18.99	18.98	18.98	19.07		5

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Table 9-96
LTE Band 41 PC3 Measured P_{limit} for DSI = 3 (Hotspot mode), DSI = 1 (Phablet with grip sensor active), and/or DSI = 4 (Earjack active) - 20 MHz Bandwidth

LTE Band 41 20 MHz Bandwidth									
Modulation	RB Size	RB Offset	Low Channel 39750 (2506.0 MHz)	Low-Mid Channel 40185 (2549.5 MHz)	Mid Channel 40620 (2593.0 MHz)	Mid-High Channel 41055 (2636.5 MHz)	High Channel 41490 (2680.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]						
QPSK	1	0	21.73	21.70	21.65	21.72	21.51	0	0
	1	50	21.59	21.66	**22.25**	21.83	21.87		0
	1	99	21.56	21.69	21.70	21.35	21.79		0
	50	0	21.78	21.73	21.96	21.87	21.80	0-1	0
	50	25	21.77	21.80	22.05	21.94	21.95		0
	50	50	21.70	21.76	**22.12**	21.73	21.99		0
	100	0	21.68	21.72	21.95	21.86	21.94		0
16QAM	1	0	21.73	21.70	21.69	21.74	21.50	0-1	0
	1	50	21.61	21.69	22.13	21.33	21.92		0
	1	99	21.55	21.72	21.85	21.87	21.82		0
	50	0	21.80	21.70	21.98	21.95	21.81	0-2	0
	50	25	21.75	21.83	22.08	21.93	21.99		0
	50	50	21.69	21.76	22.07	21.77	22.09		0
	100	0	21.71	21.74	22.01	21.83	21.95		0
64QAM	1	0	21.46	21.48	21.29	21.45	21.52	0-2	0
	1	50	21.40	21.47	21.73	21.60	21.71		0
	1	99	21.36	21.52	21.41	21.38	21.62		0
	50	0	21.15	21.14	21.30	21.30	21.17	0-3	0.8
	50	25	21.08	21.16	21.39	21.32	21.31		0.8
	50	50	21.01	21.16	21.40	21.15	21.37		0.8
	100	0	20.97	21.03	21.26	21.23	21.21		0.8
256QAM	1	0	18.63	18.50	18.54	18.94	18.48	0-5	2.8
	1	50	18.85	18.95	18.88	19.11	18.84		2.8
	1	99	18.58	18.60	18.66	18.62	18.79		2.8
	50	0	19.06	19.04	19.27	19.31	19.17		2.8
	50	25	19.16	19.17	19.38	19.33	19.31		2.8
	50	50	19.03	19.03	19.39	19.21	19.42		2.8
	100	0	19.00	19.03	19.18	19.21	19.24		2.8

Table 9-97
LTE Band 41 PC3 Measured P_{limit} for DSI = 3 (Hotspot mode), DSI = 1 (Phablet with grip sensor active), and/or DSI = 4 (Earjack active) - 15 MHz Bandwidth

LTE Band 41 15 MHz Bandwidth									
Modulation	RB Size	RB Offset	Low Channel 39750 (2506.0 MHz)	Low-Mid Channel 40185 (2549.5 MHz)	Mid Channel 40620 (2593.0 MHz)	Mid-High Channel 41055 (2636.5 MHz)	High Channel 41490 (2680.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]						
QPSK	1	0	21.49	21.38	21.47	21.38	21.31	0	0
	1	36	21.43	21.40	21.65	21.47	21.53		0
	1	74	21.41	21.09	21.54	21.11	21.51		0
	36	0	21.60	21.42	21.62	21.54	21.49	0-1	0
	36	18	21.58	21.56	21.70	21.57	21.59		0
	36	37	21.52	21.45	21.72	21.47	21.68		0
	75	0	21.49	21.47	21.61	21.52	21.56		0
16QAM	1	0	21.47	21.33	21.45	21.59	21.28	0-1	0
	1	36	21.42	21.41	21.67	21.53	21.53		0
	1	74	21.40	21.16	21.56	21.18	21.55		0
	36	0	21.56	21.40	21.63	21.56	21.49	0-2	0
	36	18	21.57	21.59	21.78	21.65	21.58		0
	36	37	21.53	21.45	21.77	21.49	21.65		0
	75	0	21.50	21.46	21.64	21.54	21.56		0
64QAM	1	0	21.25	21.13	21.16	21.26	20.99	0-2	0
	1	36	21.26	21.14	21.43	21.29	21.37		0
	1	74	21.23	20.97	21.27	20.85	21.55		0
	36	0	20.90	20.82	20.93	20.92	20.81	0-3	0.8
	36	18	20.86	20.90	21.01	20.92	20.94		0.8
	36	37	20.83	20.72	21.07	20.90	21.02		0.8
	75	0	20.83	20.87	20.97	20.97	20.92		0.8
256QAM	1	0	18.60	18.48	18.62	18.79	18.45	0-5	2.8
	1	36	18.70	18.60	18.85	18.78	18.83		2.8
	1	74	18.54	18.38	18.70	18.44	18.80		2.8
	36	0	18.88	18.78	18.92	18.97	18.82		2.8
	36	18	18.90	18.91	18.94	19.02	18.93		2.8
	36	37	18.85	18.79	19.08	18.90	19.04		2.8
	75	0	18.83	18.82	18.94	18.98	18.86		2.8

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Table 9-98
LTE Band 41 PC3 Measured P_{limit} for DSI = 3 (Hotspot mode), DSI = 1 (Phablet with grip sensor active), and/or DSI = 4 (Earjack active) - 10 MHz Bandwidth

LTE Band 41 10 MHz Bandwidth									
Modulation	RB Size	RB Offset	Low Channel 39750 (2506.0 MHz)	Low-Mid Channel 40185 (2549.5 MHz)	Mid Channel 40620 (2593.0 MHz)	Mid-High Channel 41055 (2636.5 MHz)	High Channel 41490 (2680.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]						
QPSK	1	0	21.30	21.28	21.19	20.80	20.60	0	0
	1	25	21.24	21.35	21.48	20.86	20.88		0
	1	49	21.29	21.15	21.22	20.56	20.63		0
	25	0	21.41	21.48	21.41	20.80	20.85	0-1	0
	25	12	21.42	21.44	21.43	20.94	20.95		0
	25	25	21.34	21.29	21.43	20.75	20.91		0
	50	0	21.29	21.37	21.34	20.86	20.88		0
16QAM	1	0	21.42	21.28	21.31	20.82	20.75	0-1	0
	1	25	21.28	21.36	21.52	20.87	20.99		0
	1	49	21.33	21.18	21.54	20.60	20.86		0
	25	0	21.42	21.22	21.44	20.86	20.85	0-2	0
	25	12	21.43	21.54	21.56	20.95	20.95		0
	25	25	21.38	21.40	21.50	20.81	20.95		0
	50	0	21.36	21.46	21.46	20.89	20.88		0
64QAM	1	0	21.15	21.12	20.97	20.44	20.47	0-2	0
	1	25	21.10	21.49	21.30	20.62	20.88		0
	1	49	21.10	21.05	21.28	20.30	20.64		0
	25	0	20.76	20.70	20.83	20.13	20.23	0-3	0.8
	25	12	20.77	20.85	20.81	20.34	20.29		0.8
	25	25	20.75	20.70	20.82	20.16	20.32		0.8
	50	0	20.71	20.78	20.76	20.30	20.23		0.8
256QAM	1	0	18.33	18.30	18.28	17.77	17.81	0-5	2.8
	1	25	18.53	18.60	18.56	18.02	18.16		2.8
	1	49	18.27	18.30	18.28	17.66	17.83		2.8
	25	0	18.73	18.73	18.71	18.21	18.24		2.8
	25	12	18.80	18.81	18.75	18.33	18.34		2.8
	25	25	18.64	18.73	18.80	18.19	18.31		2.8
	50	0	18.73	18.76	18.79	18.25	18.27		2.8

Table 9-99
LTE Band 41 PC3 Measured P_{limit} for DSI = 3 (Hotspot mode), DSI = 1 (Phablet with grip sensor active), and/or DSI = 4 (Earjack active) - 5 MHz Bandwidth

LTE Band 41 5 MHz Bandwidth									
Modulation	RB Size	RB Offset	Low Channel 39750 (2506.0 MHz)	Low-Mid Channel 40185 (2549.5 MHz)	Mid Channel 40620 (2593.0 MHz)	Mid-High Channel 41055 (2636.5 MHz)	High Channel 41490 (2680.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]						
QPSK	1	0	21.42	21.28	21.11	20.92	20.88	0	0
	1	12	21.36	21.38	21.18	20.91	20.91		0
	1	24	21.37	21.38	21.16	20.85	20.90		0
	12	0	21.45	21.40	21.20	20.95	20.98	0-1	0
	12	6	21.43	21.49	21.18	20.96	21.00		0
	12	13	21.39	21.44	21.25	20.94	21.03		0
	25	0	21.45	21.43	21.17	20.95	20.95		0
16QAM	1	0	21.37	21.36	21.13	20.86	20.88	0-1	0
	1	12	21.31	21.31	21.08	20.75	20.94		0
	1	24	21.32	21.34	21.16	20.81	20.89		0
	12	0	21.42	21.43	21.19	20.86	20.95	0-2	0
	12	6	21.43	21.47	21.15	20.97	21.02		0
	12	13	21.37	21.44	21.23	20.84	21.04		0
	25	0	21.47	21.49	21.24	20.94	21.06		0
64QAM	1	0	21.25	21.15	20.97	20.71	20.70	0-2	0
	1	12	21.23	21.25	21.04	20.75	20.85		0
	1	24	21.18	21.25	21.01	20.66	20.79		0
	12	0	20.75	20.73	20.51	20.20	20.29	0-3	0.8
	12	6	20.77	20.83	20.56	20.27	20.33		0.8
	12	13	20.77	20.79	20.56	20.19	20.39		0.8
	25	0	20.80	20.85	20.57	20.27	20.33		0.8
256QAM	1	0	18.58	18.52	18.32	18.06	18.11	0-5	2.8
	1	12	18.57	18.53	18.38	18.04	18.21		2.8
	1	24	18.60	18.53	18.36	18.08	18.19		2.8
	12	0	18.73	18.72	18.52	18.19	18.29		2.8
	12	6	18.76	18.81	18.54	18.31	18.31		2.8
	12	13	18.69	18.78	18.53	18.22	18.30		2.8
	25	0	18.81	18.80	18.58	18.28	18.29		2.8

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Table 9-100
LTE Band 41 PC2 Measured P_{max} for DSI = 2 (Head) or DSI = 0 (Body-worn, or Phablet with grip sensor not triggered) - 20 MHz Bandwidth

LTE Band 41 20 MHz Bandwidth									
Modulation	RB Size	RB Offset	Low Channel 39750 (2506.0 MHz)	Low-Mid Channel 40185 (2549.5 MHz)	Mid Channel 40620 (2593.0 MHz)	Mid-High Channel 41055 (2636.5 MHz)	High Channel 41490 (2680.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]						
QPSK	1	0	27.07	27.06	26.81	26.83	27.10	0	0
	1	50	26.86	27.01	27.23	26.79	27.05		0
	1	99	26.82	27.08	26.90	26.87	27.11		0
	50	0	26.31	26.40	26.50	26.41	26.49	0-1	1
	50	25	26.31	26.45	26.60	26.49	26.56		1
	50	50	26.31	26.47	26.63	26.32	26.41		1
	100	0	26.05	26.34	26.58	26.41	26.49		1
16QAM	1	0	26.13	26.50	26.44	26.40	26.51	0-1	1
	1	50	26.40	26.53	26.71	26.54	26.60		1
	1	99	26.47	26.57	26.44	26.54	26.49		1
	50	0	25.38	25.47	25.58	25.21	25.61	0-2	2
	50	25	25.31	25.42	25.67	25.60	25.72		2
	50	50	25.39	25.43	25.56	25.38	25.81		2
	100	0	25.30	25.44	25.64	25.53	25.62		2
64QAM	1	0	24.86	24.87	24.83	24.74	25.16	0-2	2
	1	50	25.00	24.77	25.15	24.83	25.08		2
	1	99	25.05	24.91	25.00	24.62	25.01		2
	50	0	24.05	24.01	24.41	23.95	24.57	0-3	3
	50	25	23.93	24.09	24.43	23.96	24.18		3
	50	50	24.19	24.19	24.35	24.04	24.10		3
	100	0	23.97	23.99	24.28	23.88	24.16		3
256QAM	1	0	21.95	21.75	21.84	22.08	22.12	0-5	5
	1	50	22.01	22.22	22.38	22.28	22.52		5
	1	99	22.00	21.96	22.09	21.78	22.37		5
	50	0	22.43	22.39	22.60	22.53	22.71		5
	50	25	22.46	22.56	22.71	22.60	22.86		5
	50	50	22.39	22.42	22.66	22.35	22.91		5
	100	0	22.37	22.39	22.60	22.47	22.73		5

Table 9-101
LTE Band 41 PC2 Measured P_{max} for DSI = 2 (Head) or DSI = 0 (Body-worn, or Phablet with grip sensor not triggered) - 15 MHz Bandwidth

LTE Band 41 15 MHz Bandwidth									
Modulation	RB Size	RB Offset	Low Channel 39750 (2506.0 MHz)	Low-Mid Channel 40185 (2549.5 MHz)	Mid Channel 40620 (2593.0 MHz)	Mid-High Channel 41055 (2636.5 MHz)	High Channel 41490 (2680.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]						
QPSK	1	0	26.79	26.83	26.80	27.17	26.98	0	0
	1	36	26.75	26.91	26.99	27.18	27.21		0
	1	74	26.82	26.72	26.81	26.83	26.97		0
	36	0	25.96	25.98	26.01	26.20	26.26	0-1	1
	36	18	25.92	26.06	26.03	26.29	26.24		1
	36	37	26.10	25.93	26.08	26.17	26.18		1
	75	0	25.92	25.97	25.96	26.21	26.09		1
16QAM	1	0	26.22	26.23	26.20	26.52	26.44	0-1	1
	1	36	26.28	26.33	26.38	26.53	26.63		1
	1	74	26.29	25.99	26.18	26.19	26.35		1
	36	0	24.94	24.98	24.94	25.18	25.20	0-2	2
	36	18	24.93	25.03	25.00	25.25	25.28		2
	36	37	25.02	24.93	25.04	25.09	25.26		2
	75	0	25.00	25.01	25.03	25.30	25.19		2
64QAM	1	0	24.42	24.52	24.70	24.77	24.78	0-2	2
	1	36	24.40	24.46	24.50	24.69	24.72		2
	1	74	24.59	24.57	24.65	24.68	24.63		2
	36	0	23.46	23.58	23.64	23.82	23.94	0-3	3
	36	18	23.36	23.62	23.69	23.78	23.97		3
	36	37	23.47	23.69	23.72	23.83	23.82		3
	75	0	23.41	23.68	23.78	23.88	23.82		3
256QAM	1	0	21.94	21.82	21.93	22.18	22.08	0-5	5
	1	36	22.15	21.88	22.13	22.31	22.40		5
	1	74	21.97	21.82	21.94	22.01	22.31		5
	36	0	22.15	22.00	22.07	22.30	22.34		5
	36	18	22.25	22.18	22.15	22.42	22.47		5
	36	37	22.16	22.03	22.01	22.21	22.49		5
	75	0	22.12	22.06	22.07	22.28	22.34		5

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Table 9-102
LTE Band 41 PC2 Measured P_{max} for DSI = 2 (Head) or DSI = 0 (Body-worn, or Phablet with grip sensor not triggered) - 10 MHz Bandwidth

LTE Band 41 10 MHz Bandwidth									
Modulation	RB Size	RB Offset	Low Channel 39750 (2506.0 MHz)	Low-Mid Channel 40185 (2549.5 MHz)	Mid Channel 40620 (2593.0 MHz)	Mid-High Channel 41055 (2636.5 MHz)	High Channel 41490 (2680.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]						
QPSK	1	0	26.51	26.61	26.59	26.73	26.87	0	0
	1	25	26.43	26.72	26.83	26.87	27.12		0
	1	49	26.48	26.49	26.53	26.69	26.87		0
	25	0	25.65	25.81	25.83	26.00	25.88	0-1	1
	25	12	25.95	25.95	25.85	26.15	26.13		1
	25	25	25.66	25.77	25.84	25.95	25.87		1
	50	0	25.63	25.85	25.81	26.02	25.92		1
16QAM	1	0	26.03	26.03	26.01	26.31	26.18	0-1	1
	1	25	26.01	26.25	26.31	26.44	26.18		1
	1	49	26.02	25.91	25.86	26.05	26.05		1
	25	0	24.70	24.80	24.76	24.98	24.97	0-2	2
	25	12	24.76	25.00	24.85	25.24	25.07		2
	25	25	24.78	24.78	24.86	25.03	25.03		2
	50	0	24.81	24.91	24.87	25.13	24.96		2
64QAM	1	0	24.16	24.40	24.46	24.53	25.11	0-2	2
	1	25	24.13	24.43	24.51	24.63	24.28		2
	1	49	24.20	24.41	24.43	24.54	24.34		2
	25	0	23.22	23.50	23.63	23.71	23.41	0-3	3
	25	12	23.31	23.55	23.75	23.79	23.48		3
	25	25	23.18	23.55	23.69	23.74	23.52		3
	50	0	23.28	23.62	23.71	23.72	23.56		3
256QAM	1	0	21.75	21.66	21.61	21.89	21.96	0-5	5
	1	25	21.93	21.86	21.94	22.03	22.21		5
	1	49	21.60	21.52	21.59	21.73	21.96		5
	25	0	22.01	21.87	21.94	22.05	22.22		5
	25	12	22.06	22.02	21.96	22.17	22.26		5
	25	25	21.96	21.90	21.93	22.04	22.23		5
	50	0	21.97	21.99	21.91	22.18	22.21		5

Table 9-103
LTE Band 41 PC2 Measured P_{max} for DSI = 2 (Head) or DSI = 0 (Body-worn, or Phablet with grip sensor not triggered) - 5 MHz Bandwidth

LTE Band 41 5 MHz Bandwidth									
Modulation	RB Size	RB Offset	Low Channel 39750 (2506.0 MHz)	Low-Mid Channel 40185 (2549.5 MHz)	Mid Channel 40620 (2593.0 MHz)	Mid-High Channel 41055 (2636.5 MHz)	High Channel 41490 (2680.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]						
QPSK	1	0	26.56	26.73	26.72	26.94	26.79	0	0
	1	12	26.53	26.77	26.85	26.92	26.56		0
	1	24	26.52	26.80	26.76	26.94	26.74		0
	12	0	25.90	25.89	25.89	26.02	25.90	0-1	1
	12	6	25.93	25.91	25.92	26.11	25.97		1
	12	13	25.90	25.93	25.95	26.07	25.95		1
	25	0	25.79	25.94	25.88	26.16	25.84		1
16QAM	1	0	26.15	26.07	26.12	26.20	26.18	0-1	1
	1	12	26.06	26.16	26.21	26.24	26.29		1
	1	24	26.06	26.09	26.13	26.25	26.14		1
	12	0	24.90	24.89	24.87	25.03	24.86	0-2	2
	12	6	24.94	24.96	24.91	25.12	25.00		2
	12	13	24.91	24.92	24.93	25.08	24.93		2
	25	0	24.99	25.00	24.95	25.18	24.98		2
64QAM	1	0	24.38	24.49	24.51	24.71	24.47	0-2	2
	1	12	24.34	24.50	24.53	24.70	24.50		2
	1	24	24.37	24.52	24.66	24.69	24.52		2
	12	0	23.44	23.58	23.60	23.78	23.54	0-3	3
	12	6	23.49	23.64	23.65	23.82	23.76		3
	12	13	23.49	23.62	23.56	23.84	23.61		3
	25	0	23.45	23.60	23.54	23.79	23.51		3
256QAM	1	0	21.92	21.93	21.92	22.14	22.23	0-5	5
	1	12	21.93	21.94	21.94	22.14	22.24		5
	1	24	21.88	21.91	21.93	22.10	22.28		5
	12	0	22.07	22.07	22.05	22.21	22.36		5
	12	6	22.11	22.14	22.07	22.31	22.38		5
	12	13	22.04	22.06	22.10	22.23	22.45		5
	25	0	21.98	21.98	21.98	22.15	22.31		5

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Table 9-104
LTE Band 41 PC2 Measured P_{limit} for DSI = 3 (Hotspot mode), DSI = 1 (Phablet with grip sensor active), and/or DSI = 4 (Earjack active) - 20 MHz Bandwidth

LTE Band 41 20 MHz Bandwidth									
Modulation	RB Size	RB Offset	Low Channel 39750 (2506.0 MHz)	Low-Mid Channel 40185 (2549.5 MHz)	Mid Channel 40620 (2593.0 MHz)	Mid-High Channel 41055 (2636.5 MHz)	High Channel 41490 (2680.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]						
QPSK	1	0	23.02	22.98	22.99	22.95	23.11	0	0
	1	50	22.94	23.01	22.88	23.01	23.14		0
	1	99	22.85	23.04	23.01	22.97	23.12		0
	50	0	23.10	23.06	22.99	22.97	23.12	0-1	0
	50	25	23.05	23.13	23.11	23.20	23.28		0
	50	50	23.00	23.07	23.06	23.04	23.34		0
	100	0	23.00	23.05	23.00	22.98	23.10		0
16QAM	1	0	22.88	23.15	23.14	23.12	23.15	0-1	0
	1	50	22.85	23.17	23.10	23.11	23.39		0
	1	99	23.18	23.23	23.18	23.15	23.32		0
	50	0	23.12	23.08	23.06	23.04	23.16	0-2	0
	50	25	23.15	23.11	23.13	23.09	23.31		0
	50	50	23.08	23.07	22.95	23.08	23.38		0
	100	0	23.08	23.08	23.05	23.05	23.27		0
64QAM	1	0	23.27	23.01	23.00	23.13	23.11	0-2	0
	1	50	23.11	23.01	23.00	23.13	23.21		0
	1	99	23.15	23.05	23.02	23.12	23.19		0
	50	0	23.15	23.12	23.09	23.02	23.22	0-3	0
	50	25	23.14	23.18	23.15	23.07	23.37		0
	50	50	23.06	23.17	23.10	22.98	23.45		0
	100	0	23.07	23.05	23.06	23.03	23.24		0
256QAM	1	0	21.72	21.58	21.55	21.55	21.98	0-5	1.4
	1	50	21.97	22.05	22.01	22.05	22.45		1.4
	1	99	21.70	21.69	21.63	21.65	22.40		1.4
	50	0	22.03	21.98	21.95	21.96	22.34		1.4
	50	25	22.12	22.13	22.09	22.06	22.51		1.4
	50	50	22.00	21.90	21.94	21.92	22.34		1.4
	100	0	21.94	21.98	21.87	21.91	22.37		1.4

Table 9-105
LTE Band 41 PC2 Measured P_{limit} for DSI = 3 (Hotspot mode), DSI = 1 (Phablet with grip sensor active), and/or DSI = 4 (Earjack active) - 15 MHz Bandwidth

LTE Band 41 15 MHz Bandwidth									
Modulation	RB Size	RB Offset	Low Channel 39750 (2506.0 MHz)	Low-Mid Channel 40185 (2549.5 MHz)	Mid Channel 40620 (2593.0 MHz)	Mid-High Channel 41055 (2636.5 MHz)	High Channel 41490 (2680.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]						
QPSK	1	0	23.04	22.90	22.74	22.63	22.89	0	0
	1	36	23.06	23.12	22.99	22.77	23.17		0
	1	74	22.91	22.81	22.72	22.67	23.08		0
	36	0	23.03	22.83	22.85	22.65	22.99	0-1	0
	36	18	23.08	23.00	22.95	22.72	23.11		0
	36	37	22.95	22.87	22.96	22.66	23.18		0
	75	0	22.95	22.86	22.85	22.66	23.03		0
16QAM	1	0	23.40	22.87	23.13	23.18	23.20	0-1	0
	1	36	23.43	23.08	23.37	23.33	23.06		0
	1	74	23.28	22.86	23.16	22.95	23.05		0
	36	0	22.99	22.93	22.86	22.67	22.96	0-2	0
	36	18	22.99	23.09	22.90	22.80	22.98		0
	36	37	22.91	22.99	22.94	22.68	22.65		0
	75	0	22.95	22.91	22.81	22.66	22.75		0
64QAM	1	0	22.91	22.86	23.11	22.95	22.72	0-2	0
	1	36	22.93	23.10	22.90	22.88	23.04		0
	1	74	22.82	22.88	22.89	22.91	23.07		0
	36	0	23.00	22.92	22.79	22.66	22.94	0-3	0
	36	18	23.00	23.05	22.88	22.77	22.89		0
	36	37	22.91	22.94	22.89	22.61	22.80		0
	75	0	23.04	22.93	22.89	22.65	22.81		0
256QAM	1	0	21.41	21.88	21.91	21.65	21.66	0-5	1.4
	1	36	21.43	22.04	22.08	21.78	22.14		1.4
	1	74	21.32	21.88	22.16	21.44	22.10		1.4
	36	0	21.49	21.89	21.79	21.67	21.43		1.4
	36	18	21.48	21.74	21.89	21.80	21.56		1.4
	36	37	21.43	21.43	21.87	21.61	21.63		1.4
	75	0	21.52	21.45	21.90	21.67	21.61		1.4

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Table 9-106
LTE Band 41 PC2 Measured P_{limit} for DSI = 3 (Hotspot mode), DSI = 1 (Phablet with grip sensor active), and/or DSI = 4 (Earjack active) - 10 MHz Bandwidth

LTE Band 41 10 MHz Bandwidth									
Modulation	RB Size	RB Offset	Low Channel 39750 (2506.0 MHz)	Low-Mid Channel 40185 (2549.5 MHz)	Mid Channel 40620 (2593.0 MHz)	Mid-High Channel 41055 (2636.5 MHz)	High Channel 41490 (2680.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]						
QPSK	1	0	22.99	22.67	22.63	22.85	23.23	0	0
	1	25	22.91	22.82	22.87	23.06	23.01		0
	1	49	22.91	22.66	22.64	22.81	22.82		0
	25	0	22.93	22.71	22.73	22.97	22.87	0-1	0
	25	12	22.91	22.88	22.78	23.08	22.93		0
	25	25	22.88	22.76	22.76	22.95	22.93		0
	50	0	22.85	22.75	22.71	22.98	22.86		0
16QAM	1	0	23.26	23.23	22.98	22.75	23.05	0-1	0
	1	25	23.16	23.37	23.13	22.99	22.95		0
	1	49	23.19	23.15	22.94	22.70	23.09		0
	25	0	22.97	22.78	22.76	22.60	22.90	0-2	0
	25	12	22.96	22.89	22.84	22.64	22.80		0
	25	25	22.91	22.77	22.81	22.70	22.98		0
	50	0	22.85	22.79	22.74	22.68	22.91		0
64QAM	1	0	22.75	22.59	22.87	22.70	23.00	0-2	0
	1	25	22.69	22.86	22.69	22.96	22.88		0
	1	49	22.70	22.58	22.88	22.92	22.83		0
	25	0	22.96	22.78	22.80	22.93	22.93	0-3	0
	25	12	23.00	22.95	22.88	23.08	22.84		0
	25	25	22.93	22.84	22.83	22.92	22.90		0
	50	0	22.86	22.85	22.75	23.01	22.88		0
256QAM	1	0	22.26	21.58	21.92	21.72	21.51	0-5	1.4
	1	25	22.21	21.87	22.19	21.96	21.86		1.4
	1	49	22.16	21.62	21.94	21.68	21.66		1.4
	25	0	21.45	21.75	21.80	21.39	21.44		1.4
	25	12	21.49	21.98	21.90	21.55	21.52		1.4
	25	25	21.44	21.83	21.83	21.44	21.48		1.4
	50	0	21.36	21.84	21.74	21.52	21.37		1.4

Table 9-107
LTE Band 41 PC2 Measured P_{limit} for DSI = 3 (Hotspot mode), DSI = 1 (Phablet with grip sensor active), and/or DSI = 4 (Earjack active) - 5 MHz Bandwidth

LTE Band 41 5 MHz Bandwidth									
Modulation	RB Size	RB Offset	Low Channel 39750 (2506.0 MHz)	Low-Mid Channel 40185 (2549.5 MHz)	Mid Channel 40620 (2593.0 MHz)	Mid-High Channel 41055 (2636.5 MHz)	High Channel 41490 (2680.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]						
QPSK	1	0	22.97	22.81	22.83	22.86	22.93	0	0
	1	12	23.00	22.84	22.90	22.88	23.05		0
	1	24	22.88	22.78	22.80	22.82	22.96		0
	12	0	22.90	22.76	22.84	22.89	22.95	0-1	0
	12	6	22.92	22.86	22.83	22.97	22.98		0
	12	13	22.88	22.84	22.85	22.95	22.97		0
	25	0	22.88	22.83	22.82	22.96	22.94		0
16QAM	1	0	22.96	22.78	23.16	22.99	22.85	0-1	0
	1	12	22.98	22.85	23.48	23.03	23.06		0
	1	24	22.89	22.77	23.19	22.60	22.81		0
	12	0	23.04	22.85	22.98	22.60	22.76	0-2	0
	12	6	23.07	22.92	22.97	22.65	22.77		0
	12	13	23.02	22.90	22.96	22.62	22.79		0
	25	0	22.89	22.81	22.75	22.57	22.83		0
64QAM	1	0	22.85	23.04	22.71	22.81	22.86	0-2	0
	1	12	22.75	23.06	22.70	22.85	22.91		0
	1	24	22.74	23.10	22.72	22.99	22.88		0
	12	0	22.98	22.85	22.88	22.86	22.99	0-3	0
	12	6	22.99	22.92	22.88	22.92	23.06		0
	12	13	22.96	22.91	22.93	22.88	23.07		0
	25	0	22.84	22.87	22.76	22.84	23.00		0
256QAM	1	0	21.84	21.88	21.70	22.02	21.85	0-5	1.4
	1	12	21.76	21.93	21.69	22.05	21.92		1.4
	1	24	21.76	21.89	21.73	22.02	21.88		1.4
	12	0	21.01	21.85	21.88	21.73	21.79		1.4
	12	6	21.98	21.95	21.90	21.80	21.76		1.4
	12	13	21.95	21.90	21.94	21.78	21.67		1.4
	25	0	21.87	21.85	21.75	21.75	21.81		1.4

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9.4.13 LTE Uplink Carrier Aggregation Conducted Powers

Table 9-108
LTE Band 5 Uplink Carrier Aggregation Measured P_{max} for all DSI

	PCC									SCC									Power	
Combination	PCC Band	PCC Bandwidth [MHz]	PCC UL Channel	PCC UL Frequency [MHz]	PCC DL Channel	PCC DL Frequency [MHz]	Modulation	PCC UL# RB	PCC UL RB Offset	SCC Band	SCC Bandwidth [MHz]	SCC UL Channel	SCC UL Frequency [MHz]	SCC DL Channel	SCC DL Frequency [MHz]	Modulation	SCC UL# RB	SCC UL RB Offset	LTE Tx.Power with UL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_5B	LTE B5	10	20525	836.5	2525	881.5	QPSK	1	49	LTE B5	5	20597	843.7	2597	888.7	QPSK	1	0	25.36	25.03

Table 9-109
LTE Band 66 Uplink Carrier Aggregation Measured P_{max} for DSI = 0 (Body-worn, or Phablet with grip sensor not triggered) and DSI = 2 (Head)

	PCC									SCC									Power	
Combination	PCC Band	PCC Bandwidth [MHz]	PCC (UL) Channel	PCC (UL) Frequency [MHz]	PCC DL Channel	PCC DL Frequency [MHz]	Modulation	PCC UL# RB	PCC UL RB Offset	SCC Band	SCC Bandwidth [MHz]	SCC (UL) Channel	SCC (UL) Frequency [MHz]	SCC (DL) Channel	SCC (DL) Frequency [MHz]	Modulation	SCC UL# RB	SCC UL RB Offset	LTE Tx.Power with UL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_66C	LTE B66	20	132072	1720.0	66536	2120.0	QPSK	1	99	LTE B66	20	132270	1739.8	66734	2139.8	QPSK	1	0	23.89	23.19
CA_66C	LTE B66	20	132572	1770.0	67036	2170.0	QPSK	1	0	LTE B66	20	132374	1750.2	66838	2150.2	QPSK	1	99	23.90	23.35
CA_66B	LTE B66	10	132022	1715.0	66486	2115.0	QPSK	1	49	LTE B66	10	132121	1724.9	66585	2124.9	QPSK	1	0	23.93	23.04
CA_66B	LTE B66	10	132622	1775.0	67086	2175.0	QPSK	1	0	LTE B66	10	132523	1765.1	66987	2165.1	QPSK	1	49	23.45	22.98

Table 9-110
LTE Band 66 Uplink Carrier Aggregation Measured P_{limit} for DSI = 3 (Hotspot mode)

	PCC									SCC									Power	
Combination	PCC Band	PCC Bandwidth [MHz]	PCC (UL) Channel	PCC (UL) Frequency [MHz]	PCC DL Channel	PCC DL Frequency [MHz]	Modulation	PCC UL# RB	PCC UL RB Offset	SCC Band	SCC Bandwidth [MHz]	SCC (UL) Channel	SCC (UL) Frequency [MHz]	SCC (DL) Channel	SCC (DL) Frequency [MHz]	Modulation	SCC UL# RB	SCC UL RB Offset	LTE Tx.Power with UL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_66C	LTE B66	20	132572	1770.0	67036	2170.0	QPSK	50	0	LTE B66	20	132374	1750.2	66838	2150.2	QPSK	50	50	19.50	18.57
CA_66B	LTE B66	10	132622	1775.0	67086	2175.0	QPSK	25	0	LTE B66	10	132523	1765.1	66987	2165.1	QPSK	25	25	18.93	18.31

Table 9-111
LTE Band 66 Uplink Carrier Aggregation Measured P_{limit} for DSI = 1 (Phablet with grip sensor active) and/or DSI = 4 (Earjack active)

	PCC									SCC									Power	
Combination	PCC Band	PCC Bandwidth [MHz]	PCC (UL) Channel	PCC (UL) Frequency [MHz]	PCC DL Channel	PCC DL Frequency [MHz]	Modulation	PCC UL# RB	PCC UL RB Offset	SCC Band	SCC Bandwidth [MHz]	SCC (UL) Channel	SCC (UL) Frequency [MHz]	SCC (DL) Channel	SCC (DL) Frequency [MHz]	Modulation	SCC UL# RB	SCC UL RB Offset	LTE Tx.Power with UL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_66C	LTE B66	20	132572	1770	67036	2170	QPSK	100	0	LTE B66	20	132374	1750.2	66838	2150.2	QPSK	100	0	21.20	20.48
CA_66B	LTE B66	10	132622	1775	67086	2175	QPSK	50	0	LTE B66	10	132523	1765.1	66987	2165.1	QPSK	50	0	20.68	20.35

Table 9-112
LTE Band 48 Uplink Carrier Aggregation Measured P_{max} DSI = 0 (Body-worn, or Phablet with grip sensor not triggered), or DSI = 1 (Phablet with grip sensor active), or DSI = 3 (Hotspot Mode), or DSI = 4 (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_48C	LTE B48	20	55340	3560.0	QPSK	1	99	LTE B48	20	55538	3579.8	QPSK	1	0	24.20	23.04
CA_48C	LTE B48	20	56640	3690.0	QPSK	1	0	LTE B48	20	56442	3670.2	QPSK	1	99	23.95	23.01

Table 9-113
LTE Band 48 Uplink Carrier Aggregation P_{limit} for DSI = 2 (Head)

	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_48C	LTE B48	20	56640	3690.0	QPSK	50	0	LTE B48	20	56442	3670.2	QPSK	50	50	19.00	17.97

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Table 9-114
LTE Band 41 Uplink Carrier Aggregation Measured P_{max} for DSI = 0 (Body-worn, or Phablet with grip sensor not triggered) and DSI = 2 (Head)

	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	24.94	24.10
	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	27.99	26.81

Table 9-115
LTE Band 41 Uplink Carrier Aggregation Measured P_{limit} for DSI = 3 (Hotspot mode), DSI = 1 (Phablet with grip sensor active) and/or DSI = 4 (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	41055	2636.5	QPSK	50	0	LTE B41	20	40857	2616.7	QPSK	50	50	22.60	21.87
CA_41C	LTE B41	20	41490	2680.0	QPSK	50	0	LTE B41	20	41292	2660.2	QPSK	50	50	22.50	21.80
	PCC							SCC							Power	
Combination	PCC Band	PCC Bandwidth [MHz]	PCC (UL/DL) Channel	PCC (UL/DL) Frequency [MHz]	Modulation	PCC UL# RB	PCC UL RB Offset	SCC Band	SCC Bandwidth [MHz]	SCC (UL/DL) Channel	SCC (UL/DL) Frequency [MHz]	Modulation	SCC UL# RB	SCC UL RB Offset	LTE Tx.Power with UL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_41C	LTE B41 PC2	20	41055	2636.5	QPSK	50	0	LTE B41 PC2	20	40857	2616.7	QPSK	50	50	23.81	22.97
CA_41C	LTE B41 PC2	20	41490	2680.0	QPSK	50	0	LTE B41 PC2	20	41292	2660.2	QPSK	50	50	24.00	23.12

Notes:

1. This device supports uplink carrier aggregation for LTE CA_5B, LTE CA_66B, LTE CA_66C, LTE CA_48C, and LTE CA_41C with a maximum of two component carriers. For intraband contiguous carrier aggregation scenarios, 3GPP 36.101 Table 6.2.2A-1 specifies that the aggregate maximum allowed output power is equivalent to the single carrier scenario. 3GPP 36.101 6.2.3A allows for several dB of MPR to be applied when non-contiguous RB allocation is implemented. The conducted powers and MPR settings in this device are permanently implemented per the above 3GPP requirements.
2. Per FCC Guidance, the output power with uplink CA active was measured for the configuration with the highest reported SAR with single carrier for each exposure condition. The power was measured with wideband signal integration over both component carriers.

Figure 9-4
Power Measurement Setup

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9.5 NR Conducted Powers

9.5.1 NR Band n71

Table 9-116
NR Band n71 Measured P_{max} for all DSI - 20 MHz Bandwidth

NR Band n71 20 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	136100 (680.5 MHz) Conducted Power [dBm]		
DFT-s-OFDM QPSK	1	1	**24.32**	0	0
	1	53	23.87		0
	1	104	23.82		0
	50	0	23.00	0-1	1
	50	28	**23.81**	0	0
	50	56	22.82	0-1	1
	100	0	22.87		1
DFT-s-OFDM 16QAM	1	1	23.23	0-1	1
CP-OFDM QPSK	1	1	22.82	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.

Table 9-117
NR Band n71 Measured P_{max} for all DSI - 15 MHz Bandwidth

NR Band n71 15 MHz Bandwidth						
			Channel		MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	134100 (670.5 MHz)	138100 (690.5 MHz)		
			Conducted Power [dBm]			
DFT-s-OFDM QPSK	1	1	24.22	24.01	0	0
	1	40	24.23	23.80		0
	1	77	24.21	23.79		0
	36	0	23.51	23.03	0-1	1
	36	22	24.32	23.78	0	0
	36	43	23.11	22.88	0-1	1
	75	0	23.30	22.93		1
DFT-s-OFDM 16QAM	1	1	23.14	23.12	0-1	1
CP-OFDM QPSK	1	1	22.36	22.61	0-1.5	1.5

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Table 9-118
NR Band n71 Measured P_{max} for all DSI - 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 QPSK	1	1	24.02	23.91	23.80	0	0
	1	26	24.25	23.86	23.62		0
	1	50	24.12	23.77	23.50		0
	25	0	23.41	23.04	22.71	0-1	1
	25	14	24.28	23.86	23.58	0	0
	25	27	23.30	22.89	22.63	0-1	1
	50	0	23.36	22.97	22.71		1
DFT-s-OFDM 16QAM	1	1	23.26	23.20	22.81	0-1	1
CP-OFDM QPSK	1	1	22.63	22.54	22.36	0-1.5	1.5

Table 9-119
NR Band n71 Measured P_{max} for all DSI - 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 QPSK	1	1	24.08	23.88	23.64	0	0
	1	13	24.30	23.94	23.62		0
	1	23	24.33	23.87	23.54		0
	12	0	23.13	22.92	22.63	0-1	1
	12	7	24.32	23.86	23.51	0	0
	12	13	23.36	22.88	22.53	0-1	1
	25	0	23.34	22.95	22.62		1
DFT-s-OFDM 16QAM	1	1	23.11	23.14	22.66	0-1	1
CP-OFDM QPSK	1	1	22.51	22.47	22.20	0-1.5	1.5

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9.5.2 NR Band n5 (Cell)

Table 9-120
NR Band n5 (Cell) Measured P_{max} for all DSI - 20 MHz Bandwidth

NR Band n5 20 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	167300 (836.5 MHz) Conducted Power [dBm]		
DFT-s-OFDM QPSK	1	1	24.43	0	0
	1	53	24.22		0
	1	104	**24.47**		0
	50	0	23.37	0-1	1
	50	28	**24.21**	0	0
	50	56	23.32	0-1	1
	100	0	23.33		1
DFT-s-OFDM 16QAM	1	1	24.08	0-1	1
CP-OFDM QPSK	1	1	22.94	0-1.5	1.5

Note: NR Band n5 (Cell) 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.

Table 9-121
NR Band n5 (Cell) Measured P_{max} for all DSI - 15 MHz Bandwidth

NR Band n5 15 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	167300 (836.5 MHz) Conducted Power [dBm]		
DFT-s-OFDM QPSK	1	1	24.30	0	0
	1	40	24.27		0
	1	77	24.15		0
	36	0	23.40	0-1	1
	36	22	24.30	0	0
	36	43	23.47	0-1	1
	75	0	23.25		1
DFT-s-OFDM 16QAM	1	1	23.63	0-1	1
CP-OFDM QPSK	1	1	22.84	0-1.5	1.5

Note: NR Band n5 (Cell) 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 9-122
NR Band n5 (Cell) Measured P_{max} for all DSI - 10 MHz Bandwidth

NR Band n5 10 MHz Bandwidth						
			Channel		MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	165800 (829 MHz)	168800 (844 MHz)		
			Conducted Power [dBm]			
DFT-s-OFDM QPSK	1	1	24.13	24.05	0	0
	1	26	24.07	24.09		0
	1	50	23.93	24.11		0
	25	0	23.12	23.12	0-1	1
	25	14	23.97	24.03	0	0
	25	27	23.01	23.09	0-1	1
	50	0	23.14	23.10		1
DFT-s-OFDM 16QAM	1	1	22.98	22.80	0-1	1
CP-OFDM QPSK	1	1	22.62	22.63	0-1.5	1.5

Table 9-123
NR Band n5 (Cell) Measured P_{max} for all DSI - 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 QPSK	1	1	24.04	24.07	24.15	0	0
	1	13	24.05	24.09	24.07		0
	1	23	24.02	24.07	24.11		0
	12	0	23.16	23.20	23.21	0-1	1
	12	7	24.01	24.10	24.11	0	0
	12	13	23.13	23.16	23.18	0-1	1
	25	0	23.09	23.15	23.18		1
DFT-s-OFDM 16QAM	1	1	22.94	22.89	22.95	0-1	1
CP-OFDM QPSK	1	1	22.55	22.77	22.66	0-1.5	1.5

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9.5.3 NR Band n66 (AWS)

Table 9-124
NR Band n66 (AWS) Measured P_{max} for DSI = 2 (Head) or DSI = 0 (Body-worn, or Phablet with grip sensor not triggered) - 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 QPSK	1	1	24.08	23.86	23.51	0	0
	1	53	24.37	**24.60**	23.89		0
	1	104	23.77	24.24	23.67		0
	50	0	23.22	23.02	22.20	0-1	1
	50	28	24.01	**24.51**	23.61	0	0
	50	56	22.72	23.48	22.96	0-1	1
	100	0	23.04	23.34	22.68		1
DFT-s-OFDM 16QAM	1	1	22.95	22.81	22.38	0-1	1
CP-OFDM QPSK	1	1	22.34	22.35	22.06	0-1.5	1.5

Table 9-125
NR Band n66 (AWS) Measured P_{max} for DSI = 2 (Head) or DSI = 0 (Body-worn, or Phablet with grip sensor not triggered) - 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)	347160 (1735.8 MHz)	350820 (1754.1 MHz)	354500 (1772.5 MHz)		
			Conducted Power [dBm]					
DFT-s-OFDM QPSK	1	1	24.29	23.76	24.31	23.52	0	0
	1	40	24.59	23.77	24.42	24.13		0
	1	77	24.31	24.14	23.49	24.19		0
	36	0	23.22	22.49	23.46	22.47	0-1	1
	36	22	24.38	23.72	24.31	23.92	0	0
	36	43	23.17	23.03	22.66	23.25	0-1	1
	75	0	23.16	22.80	23.14	22.94		1
DFT-s-OFDM 16QAM	1	1	23.25	22.73	23.26	22.45	0-1	1
CP-OFDM QPSK	1	1	22.71	22.34	22.83	22.00	0-1.5	1.5

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Table 9-126
NR Band n66 (AWS) Measured P_{max} for DSI = 2 (Head) or DSI = 0 (Body-worn, or Phablet with grip sensor not triggered) - 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)	347000 (1735 MHz)	351000 (1755 MHz)	355000 (1775 MHz)		
			Conducted Power [dBm]					
DFT-s-OFDM QPSK	1	1	23.68	23.51	24.08	23.63	0	0
	1	26	24.32	23.77	24.31	23.90		0
	1	50	23.97	23.70	23.60	23.60		0
	25	0	23.07	22.52	23.41	22.92	0-1	1
	25	14	24.12	23.52	24.08	24.11	0	0
	25	27	23.34	22.84	22.85	23.16	0-1	1
	50	0	23.25	22.65	23.15	23.06		1
DFT-s-OFDM 16QAM	1	1	22.81	22.56	23.00	22.47	0-1	1
CP-OFDM QPSK	1	1	22.36	22.09	22.67	22.08	0-1.5	1.5

Table 9-127
NR Band n66 (AWS) Measured P_{max} for DSI = 2 (Head) or DSI = 0 (Body-worn, or Phablet with grip sensor not triggered) - 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)	346820 (1734.1 MHz)	351160 (1755.8 MHz)	355500 (1777.5 MHz)		
			Conducted Power [dBm]					
DFT-s-OFDM QPSK	1	1	23.61	23.36	24.43	24.29	0	0
	1	13	23.87	23.44	24.30	24.33		0
	1	23	23.87	23.42	24.06	24.16		0
	12	0	23.23	22.59	23.31	23.36	0-1	1
	12	7	24.22	23.53	23.87	24.21	0	0
	12	13	23.29	22.63	22.82	23.20	0-1	1
	25	0	23.17	22.54	23.00	23.15		1
DFT-s-OFDM 16QAM	1	1	22.98	22.39	23.09	23.21	0-1	1
CP-OFDM QPSK	1	1	22.55	21.84	22.62	22.73	0-1.5	1.5

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Table 9-128
NR Band n66 (AWS) Measured P_{limit} for DSI = 3 (Hotspot mode) - 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 QPSK	1	1	18.66	18.83	18.62	0	0
	1	53	18.65	18.85	18.45		0
	1	104	18.63	**18.90**	18.59		0
	50	0	18.60	18.84	18.54	0-1	0
	50	28	18.53	18.79	18.56	0	0
	50	56	18.59	**18.86**	18.49	0-1	0
	100	0	18.61	18.77	18.53		0
DFT-s-OFDM 16QAM	1	1	18.79	18.92	18.54	0-1	0
CP-OFDM QPSK	1	1	18.63	18.88	18.64	0-1.5	0

Table 9-129
NR Band n66 (AWS) Measured P_{limit} for DSI = 3 (Hotspot mode) - 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)	347160 (1735.8 MHz)	350820 (1754.1 MHz)	354500 (1772.5 MHz)		
			Conducted Power [dBm]					
DFT-s-OFDM QPSK	1	1	18.80	18.92	18.81	18.30	0	0
	1	40	18.77	18.84	18.51	18.07		0
	1	77	18.89	18.93	18.43	18.02		0
	36	0	18.81	18.86	18.64	18.20	0-1	0
	36	22	18.76	18.80	18.48	18.04	0	0
	36	43	18.74	18.73	18.45	18.01	0-1	0
	75	0	18.72	18.85	18.51	18.13		0
DFT-s-OFDM 16QAM	1	1	18.73	18.87	18.69	18.32	0-1	0
CP-OFDM QPSK	1	1	18.67	18.75	18.73	18.25	0-1.5	0

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Table 9-130
NR Band n66 (AWS) Measured P_{limit} for DSI = 3 (Hotspot mode) - 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)	347000 (1735 MHz)	351000 (1755 MHz)	355000 (1775 MHz)		
			Conducted Power [dBm]					
DFT-s-OFDM QPSK	1	1	18.64	18.68	18.61	18.35	0	0
	1	26	18.60	18.64	18.54	18.26		0
	1	50	18.49	18.53	18.53	18.22		0
	25	0	18.53	18.58	18.56	18.26	0-1	0
	25	14	18.69	18.56	18.55	18.20	0	0
	25	27	18.64	18.56	18.56	18.27	0-1	0
	50	0	18.68	18.56	18.55	18.28		0
DFT-s-OFDM 16QAM	1	1	18.72	18.44	18.49	18.21	0-1	0
CP-OFDM QPSK	1	1	18.70	18.60	18.56	18.29	0-1.5	0

Table 9-131
NR Band n66 (AWS) Measured P_{limit} for DSI = 3 (Hotspot mode) - 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)	346820 (1734.1 MHz)	351160 (1755.8 MHz)	355500 (1777.5 MHz)		
			Conducted Power [dBm]					
DFT-s-OFDM QPSK	1	1	18.42	18.61	18.52	18.19	0	0
	1	13	18.36	18.57	18.52	18.25		0
	1	23	18.37	18.52	18.45	18.17		0
	12	0	18.44	18.58	18.58	18.23	0-1	0
	12	7	18.44	18.57	18.55	18.30	0	0
	12	13	18.37	18.52	18.48	18.26	0-1	0
	25	0	18.31	18.49	18.53	18.23		0
DFT-s-OFDM 16QAM	1	1	18.26	18.37	18.40	18.12	0-1	0
CP-OFDM QPSK	1	1	18.47	18.53	18.57	18.22	0-1.5	0

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Table 9-132
NR Band n66 (AWS) Measured P_{limit} for DSI = 1 (Phablet with grip sensor active) and/or DSI = 4 (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 QPSK	1	1	19.33	**19.70**	19.41	0	0
	1	53	19.20	19.46	19.31		0
	1	104	19.45	19.52	19.23		0
	50	0	19.40	**19.65**	19.36	0-1	0
	50	28	19.32	19.64	19.27	0	0
	50	56	19.29	19.54	19.28	0-1	0
	100	0	19.34	19.61	19.26		0
DFT-s-OFDM 16QAM	1	1	19.06	19.41	19.07	0-1	0
CP-OFDM QPSK	1	1	19.31	19.50	19.51	0-1.5	0

Table 9-133
NR Band n66 (AWS) Measured P_{limit} for DSI = 1 (Phablet with grip sensor active) and/or DSI = 4 (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)	347160 (1735.8 MHz)	350820 (1754.1 MHz)	354500 (1772.5 MHz)		
			Conducted Power [dBm]					
DFT-s-OFDM QPSK	1	1	19.77	19.90	19.82	19.21	0	0
	1	40	19.71	19.86	19.60	19.03		0
	1	77	19.76	19.93	19.50	18.96		0
	36	0	19.77	19.90	19.66	19.08	0-1	0
	36	22	19.65	19.80	19.55	19.00	0	0
	36	43	19.68	19.77	19.44	18.93	0-1	0
	75	0	19.70	19.82	19.60	19.02		0
DFT-s-OFDM 16QAM	1	1	19.68	19.80	19.75	19.24	0-1	0
CP-OFDM QPSK	1	1	19.67	19.88	19.65	19.17	0-1.5	0

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Table 9-134
NR Band n66 (AWS) Measured P_{limit} for DSI = 1 (Phablet with grip sensor active) and/or DSI = 4 (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)	347000 (1735 MHz)	351000 (1755 MHz)	355000 (1775 MHz)		
			Conducted Power [dBm]					
DFT-s-OFDM QPSK	1	1	19.61	19.83	19.50	19.05	0	0
	1	26	19.60	19.71	19.41	18.84		0
	1	50	19.59	19.64	19.27	18.82		0
	25	0	19.59	19.64	19.37	18.94	0-1	0
	25	14	19.52	19.69	19.32	18.85	0	0
	25	27	19.52	19.66	19.26	18.82	0-1	0
	50	0	19.56	19.71	19.38	18.83		0
DFT-s-OFDM 16QAM	1	1	19.57	19.73	19.45	18.98	0-1	0
CP-OFDM QPSK	1	1	19.53	19.68	19.37	18.90	0-1.5	0

Table 9-135
NR Band n66 (AWS) Measured P_{limit} for DSI = 1 (Phablet with grip sensor active) and/or DSI = 4 (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)	346820 (1734.1 MHz)	351160 (1755.8 MHz)	355500 (1777.5 MHz)		
			Conducted Power [dBm]					
DFT-s-OFDM QPSK	1	1	19.54	19.76	19.45	18.86	0	0
	1	13	19.64	19.77	19.44	18.80		0
	1	23	19.51	19.65	19.33	18.73		0
	12	0	19.53	19.68	19.37	18.73	0-1	0
	12	7	19.54	19.67	19.38	18.74	0	0
	12	13	19.55	19.63	19.29	18.68	0-1	0
	25	0	19.57	19.67	19.34	18.67		0
DFT-s-OFDM 16QAM	1	1	19.53	19.64	19.43	18.72	0-1	0
CP-OFDM QPSK	1	1	19.47	19.59	19.33	18.58	0-1.5	0

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9.5.4 NR Band n2 (PCS)

Table 9-136
NR Band n2 (PCS) Measured P_{max} for DSI = 2 (Head) or DSI = 0 (Body-worn, or Phablet with grip sensor not triggered) - 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 QPSK	1	1	23.04	**23.30**	23.14	0	0
	1	53	23.15	23.25	23.20		0
	1	104	23.23	23.23	23.17		0
	50	0	22.15	22.98	22.97	0-1	1
	50	28	23.07	**23.40**	23.30	0	0
	50	56	22.33	22.96	22.64	0-1	1
	100	0	22.22	22.95	22.65		1
DFT-s-OFDM 16QAM	1	1	21.66	22.61	22.74	0-1	1
CP-OFDM QPSK	1	1	21.24	22.08	22.38	0-1.5	1.5

Table 9-137
NR Band n2 (PCS) Measured P_{max} for DSI = 2 (Head) or DSI = 0 (Body-worn, or Phablet with grip sensor not triggered) - 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 QPSK	1	1	22.34	23.05	23.34	0	0
	1	40	22.46	23.03	23.33		0
	1	77	22.57	23.08	23.15		0
	36	0	21.83	22.79	22.96	0-1	1
	36	22	22.56	23.11	23.35	0	0
	36	43	22.16	22.98	22.94	0-1	1
	75	0	21.85	22.96	22.96		1
DFT-s-OFDM 16QAM	1	1	21.82	22.75	22.92	0-1	1
CP-OFDM QPSK	1	1	21.16	22.12	22.38	0-1.5	1.5

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Table 9-138
NR Band n2 (PCS) Measured P_{max} for DSI = 2 (Head) or DSI = 0 (Body-worn, or Phablet with grip sensor not triggered) - 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 QPSK	1	1	22.15	22.93	22.99	0	0
	1	26	22.27	22.98	23.10		0
	1	50	22.40	22.92	23.03		0
	25	0	21.53	22.77	22.97	0-1	1
	25	14	22.33	22.90	23.16	0	0
	25	27	21.88	22.88	22.66	0-1	1
	50	0	21.65	22.86	22.75		1
DFT-s-OFDM 16QAM	1	1	21.35	22.68	22.40	0-1	1
CP-OFDM QPSK	1	1	20.58	21.92	21.54	0-1.5	1.5

Table 9-139
NR Band n2 (PCS) Measured P_{max} for DSI = 2 (Head) or DSI = 0 (Body-worn, or Phablet with grip sensor not triggered) - 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 QPSK	1	1	22.13	22.90	22.81	0	0
	1	13	22.14	23.04	23.01		0
	1	23	22.17	22.98	22.98		0
	12	0	21.51	22.82	22.76	0-1	1
	12	7	22.27	22.92	23.11	0	0
	12	13	21.67	22.88	22.34	0-1	1
	25	0	21.53	22.81	22.41		1
DFT-s-OFDM 16QAM	1	1	21.53	22.80	22.75	0-1	1
CP-OFDM QPSK	1	1	20.68	21.96	21.86	0-1.5	1.5

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Table 9-140
NR Band n2 (PCS) Measured P_{limit} for DSI = 3 (Hotspot mode) - 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 QPSK	1	1	**18.02**	17.82	17.75	0	0
	1	53	17.80	17.64	17.57		0
	1	104	17.65	17.65	17.63		0
	50	0	**17.83**	17.71	17.67	0-1	0
	50	28	17.76	17.64	17.61	0	0
	50	56	17.71	17.66	17.56	0-1	0
	100	0	17.83	17.69	17.61		0
DFT-s-OFDM 16QAM	1	1	17.98	18.00	17.93	0-1	0
CP-OFDM QPSK	1	1	17.92	17.78	17.65	0-1.5	0

Table 9-141
NR Band n2 (PCS) Measured P_{limit} for DSI = 3 (Hotspot mode) - 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 QPSK	1	1	18.16	18.02	18.06	0	0
	1	40	18.02	17.94	17.92		0
	1	77	18.10	18.03	18.07		0
	36	0	18.13	18.04	18.08	0-1	0
	36	22	18.03	17.95	17.97	0	0
	36	43	18.03	17.99	17.99	0-1	0
	75	0	18.07	18.02	18.06		0
DFT-s-OFDM 16QAM	1	1	18.09	18.07	18.11	0-1	0
CP-OFDM QPSK	1	1	18.00	17.96	17.97	0-1.5	0

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Table 9-142
NR Band n2 (PCS) Measured P_{limit} for DSI = 3 (Hotspot mode) - 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 QPSK	1	1	18.09	17.84	17.85	0	0
	1	26	17.93	17.79	17.87		0
	1	50	17.96	17.84	17.82		0
	25	0	17.84	17.74	17.70	0-1	0
	25	14	17.85	17.82	17.81	0	0
	25	27	17.89	17.82	17.82	0-1	0
	50	0	17.88	17.84	17.82		0
DFT-s-OFDM 16QAM	1	1	18.11	17.86	17.79	0-1	0
CP-OFDM QPSK	1	1	17.90	17.75	17.75	0-1.5	0

Table 9-143
NR Band n2 (PCS) Measured P_{limit} for DSI = 3 (Hotspot mode) - 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 QPSK	1	1	17.94	17.94	17.82	0	0
	1	13	18.00	17.87	18.01		0
	1	23	17.93	17.82	17.90		0
	12	0	17.88	17.79	17.75	0-1	0
	12	7	17.89	17.82	17.81	0	0
	12	13	17.87	17.78	17.74	0-1	0
	25	0	17.92	17.81	17.82		0
DFT-s-OFDM 16QAM	1	1	18.05	17.87	17.81	0-1	0
CP-OFDM QPSK	1	1	17.89	17.72	17.71	0-1.5	0

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Table 9-144
NR Band n2 (PCS) Measured P_{limit} for DSI = 1 (Phablet with grip sensor active) and/or DSI = 4 (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 QPSK	1	1	**20.11**	19.97	19.82	0	0
	1	53	19.77	19.66	19.56		0
	1	104	19.75	19.65	19.71		0
	50	0	**20.09**	19.97	19.86	0-1	0
	50	28	19.78	19.72	19.67	0	0
	50	56	19.72	19.71	19.66	0-1	0
	100	0	19.97	19.68	19.73		0
DFT-s-OFDM 16QAM	1	1	20.07	20.04	19.99	0-1	0
CP-OFDM QPSK	1	1	20.09	19.96	19.85	0-1.5	0

Table 9-145
NR Band n2 (PCS) Measured P_{limit} for DSI = 1 (Phablet with grip sensor active) and/or DSI = 4 (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 QPSK	1	1	20.21	20.10	20.09	0	0
	1	40	20.08	19.97	20.09		0
	1	77	20.12	20.08	20.15		0
	36	0	20.16	20.08	20.08	0-1	0
	36	22	20.03	20.03	20.04	0	0
	36	43	20.05	20.02	20.03	0-1	0
	75	0	20.10	20.03	20.10		0
DFT-s-OFDM 16QAM	1	1	20.22	20.14	20.13	0-1	0
CP-OFDM QPSK	1	1	20.05	20.00	20.05	0-1.5	0

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Table 9-146
NR Band n2 (PCS) Measured P_{limit} for DSI = 1 (Phablet with grip sensor active) and/or DSI = 4 (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 QPSK	1	1	20.15	20.00	20.08	0	0
	1	26	20.11	19.92	19.92		0
	1	50	20.01	19.97	19.88		0
	25	0	19.97	19.88	19.86	0-1	0
	25	14	19.92	19.87	19.90	0	0
	25	27	19.95	19.86	19.90	0-1	0
	50	0	19.89	19.85	19.89		0
DFT-s-OFDM 16QAM	1	1	20.04	19.91	19.85	0-1	0
CP-OFDM QPSK	1	1	19.98	19.77	19.86	0-1.5	0

Table 9-147
NR Band n2 (PCS) Measured P_{limit} for DSI = 1 (Phablet with grip sensor active) and/or DSI = 4 (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 QPSK	1	1	19.90	20.13	19.89	0	0
	1	13	20.14	20.01	19.96		0
	1	23	19.94	19.79	19.86		0
	12	0	19.95	19.78	19.79	0-1	0
	12	7	19.95	19.79	19.86	0	0
	12	13	19.91	19.82	19.78	0-1	0
	25	0	19.94	19.83	19.83		0
DFT-s-OFDM 16QAM	1	1	20.01	19.96	19.85	0-1	0
CP-OFDM QPSK	1	1	19.87	19.72	19.78	0-1.5	0

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9.5.1 NR Band n41

Table 9-148
NR Band n41 Measured P_{max} for all DSI - 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 QPSK	1	1	24.19	0	0
	1	137	**24.71**		0
	1	271	24.44		0
	135	0	23.72	0-1	1
	135	69	**24.53**	0	0
	135	138	23.70	0-1	1
	270	0	23.66		1
DFT-s-OFDM 16QAM	1	1	23.87	0-1	1
CP-OFDM QPSK	1	1	22.76	0-1.5	1.5

Note: NR Band n41 at 100 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 9-149
NR Band n41 Measured P_{max} for all DSI - 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 QPSK	1	1	24.06	24.00	0	0
	1	123	24.32	24.20		0
	1	243	24.34	24.12		0
	120	0	23.27	23.25	0-1	1
	120	63	24.15	23.96	0	0
	120	125	23.43	23.35	0-1	1
	243	0	23.43	23.11		1
DFT-s-OFDM 16QAM	1	1	22.63	23.13	0-1	1
CP-OFDM QPSK	1	1	22.32	22.02	0-1.5	1.5

Table 9-150
NR Band n41 Measured P_{max} for all DSI - 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 QPSK	1	1	23.94	23.89	0	0
	1	109	24.22	24.11		0
	1	215	24.29	24.07		0
	108	0	23.42	23.28	0-1	1
	108	55	24.23	24.11	0	0
	108	109	23.52	23.48	0-1	1
	216	0	23.41	23.38		1
DFT-s-OFDM 16QAM	1	1	22.65	23.43	0-1	1
CP-OFDM QPSK	1	1	22.43	22.39	0-1.5	1.5

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Table 9-151
NR Band n41 Measured P_{max} for all DSI - 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 QPSK	1	1	23.69	23.89	23.53	0	0
	1	81	23.72	23.76	23.81		0
	1	160	23.86	23.61	23.85		0
	81	0	22.92	22.88	22.94	0-1	1
	81	41	23.64	23.67	23.73	0	0
	81	81	23.04	22.71	23.29	0-1	1
	162	0	23.11	22.82	23.09		1
DFT-s-OFDM 16QAM	1	1	22.91	23.19	23.04	0-1	1
CP-OFDM QPSK	1	1	22.11	22.33	22.25	0-1.5	1.5

Table 9-152
NR Band n41 Measured P_{max} for all DSI - 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 QPSK	1	1	23.90	23.77	23.81	0	0
	1	67	23.92	23.73	23.69		0
	1	131	23.97	23.78	23.15		0
	64	0	22.82	22.78	22.98	0-1	1
	64	35	23.88	23.55	23.67	0	0
	64	69	23.05	22.74	22.92	0-1	1
	128	0	22.98	22.71	22.97		1
DFT-s-OFDM 16QAM	1	1	22.37	22.81	23.08	0-1	1
CP-OFDM QPSK	1	1	22.02	22.12	22.38	0-1.5	1.5

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Table 9-153
NR Band n41 Measured P_{max} for all DSI - 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 QPSK	1	1	23.85	24.31	24.19	24.38	0	0
	1	53	24.36	24.15	24.13	23.85		0
	1	104	24.38	24.36	24.18	23.55		0
	50	0	23.52	23.34	23.36	23.52	0-1	1
	50	28	24.21	24.11	24.02	23.89	0	0
	50	56	23.64	23.27	23.22	23.39	0-1	1
	100	0	23.45	23.27	23.16	23.47		1
DFT-s-OFDM 16QAM	1	1	22.91	23.32	23.42	23.01	0-1	1
CP-OFDM QPSK	1	1	22.23	22.28	22.25	22.34	0-1.5	1.5

Table 9-154
NR Band n41 Measured P_{max} for all DSI - 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 QPSK	1	1	23.82	23.85	23.81	23.62	23.87	0	0
	1	26	23.99	23.82	23.68	23.55	23.59		0
	1	49	23.94	23.89	23.54	23.52	23.16		0
	25	0	23.03	23.06	22.83	22.67	23.12	0-1	1
	25	13	23.90	23.81	23.52	23.40	23.48	0	0
	25	26	23.05	23.04	22.69	22.67	23.02	0-1	1
	50	0	22.86	23.04	22.72	22.62	22.92		1
DFT-s-OFDM 16QAM	1	1	22.93	23.06	23.06	22.71	23.06	0-1	1
CP-OFDM QPSK	1	1	22.24	22.28	22.24	22.08	22.61	0-1.5	1.5

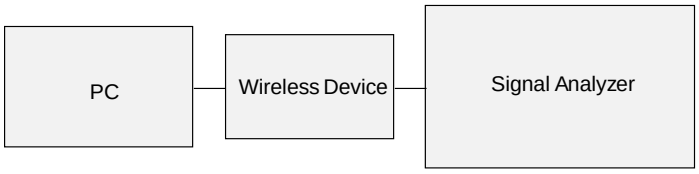

Figure 9-5
Power Measurement Setup

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9.6 WLAN Conducted Powers

Table 9-155
2.4 GHz WLAN Maximum Average RF Power – Ant 1

2.4GHz Conducted Power [dBm]					
Freq [MHz]	Channel	IEEE Transmission Mode			
		802.11b	802.11g	802.11n	802.11ax
		Average	Average	Average	Average
2412	1	20.76	17.47	17.45	17.57
2437	6	20.54	17.95	17.57	17.90
2462	11	20.98	18.08	17.96	17.82

Table 9-156
2.4 GHz WLAN Maximum Average RF Power – Ant 2

2.4GHz Conducted Power [dBm]					
Freq [MHz]	Channel	IEEE Transmission Mode			
		802.11b	802.11g	802.11n	802.11ax
		Average	Average	Average	Average
2412	1	20.69	17.68	17.56	17.43
2437	6	20.22	18.44	18.39	17.15
2462	11	20.43	18.22	17.09	17.22

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Table 9-157
5 GHz WLAN Maximum Average RF Power – Ant 1

5GHz (20MHz) Conducted Power [dBm]					
Freq [MHz]	Channel	IEEE Transmission Mode			
		802.11a	802.11n	802.11ac	802.11ax
		Average	Average	Average	Average
5180	36	16.46	16.45	16.33	14.98
5200	40	18.20	18.10	17.93	17.35
5220	44	18.15	18.06	17.83	17.33
5240	48	18.28	18.12	17.99	17.44
5260	52	18.04	17.73	17.72	17.98
5280	56	18.04	17.84	17.90	17.25
5300	60	18.17	18.04	17.79	17.30
5320	64	14.12	14.06	14.08	13.44
5500	100	16.63	16.66	16.98	15.91
5520	104	17.81	17.80	17.61	17.83
5600	120	17.89	17.84	17.65	17.82
5620	124	17.80	17.83	17.62	17.82
5720	144	17.65	17.64	17.51	17.75
5745	149	17.84	17.98	17.87	17.07
5785	157	18.00	17.89	17.90	16.95
5825	165	17.66	17.62	17.50	17.80

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Table 9-158
5 GHz WLAN Maximum Average RF Power – Ant 2

5GHz (20MHz) Conducted Power [dBm]					
Freq [MHz]	Channel	IEEE Transmission Mode			
		802.11a	802.11n	802.11ac	802.11ax
		Average	Average	Average	Average
5180	36	15.83	15.82	16.12	14.61
5200	40	18.00	17.95	18.15	17.64
5220	44	17.09	17.18	18.18	17.59
5240	48	17.22	17.18	18.29	17.71
5260	52	17.85	17.73	18.03	17.57
5280	56	17.94	17.92	18.12	17.54
5300	60	17.85	17.98	18.12	17.62
5320	64	13.77	13.81	14.28	13.97
5500	100	16.39	16.36	16.82	15.86
5520	104	17.75	17.69	17.93	17.34
5600	120	17.77	17.82	18.03	17.55
5620	124	17.87	17.86	18.17	17.64
5720	144	17.20	17.32	18.21	17.73
5745	149	17.42	17.45	18.36	17.88
5785	157	17.49	17.65	17.74	17.98
5825	165	17.43	17.48	17.64	17.92

Table 9-159
5 GHz WLAN Maximum Average RF Power – MIMO

5GHz (20MHz) 802.11n Conducted Power [dBm]				
Freq [MHz]	Channel	ANT1	ANT2	MIMO
5180	36	16.45	15.82	19.16
5200	40	18.10	17.95	21.04
5220	44	18.06	17.18	20.65
5240	48	18.12	17.18	20.69
5260	52	17.73	17.73	20.74
5280	56	17.84	17.92	20.89
5300	60	18.04	17.98	21.02
5320	64	14.06	13.81	16.95
5500	100	16.66	16.36	19.52
5520	104	17.80	17.69	20.76
5600	120	17.84	17.82	20.84
5620	124	17.83	17.86	20.86
5720	144	17.64	17.32	20.49
5745	149	17.98	17.45	20.73
5785	157	17.89	17.65	20.78
5825	165	17.62	17.48	20.56

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Table 9-160
Max Output Powers During Conditions with 2.4 GHz and 5 GHz WLAN

2.4GHz 802.11n Conducted Power [dBm]			
Freq [MHz]	Channel	ANT1	ANT2
2412	1	15.84	15.56
2437	6	16.41	16.81
2462	11	16.13	15.66
5GHz (40MHz) 802.11n Conducted Power [dBm]			
Freq [MHz]	Channel	ANT1	ANT2
5190	38	12.82	12.91
5230	46	13.94	13.45
5270	54	13.89	13.21
5310	62	13.03	12.94
5GHz (80MHz) 802.11ac Conducted Power [dBm]			
Freq [MHz]	Channel	ANT1	ANT2
5210	42	12.71	12.64
5290	58	12.43	12.05
5530	106	11.78	11.75
5610	122	13.51	13.25
5690	138	13.61	13.55
5775	155	13.24	13.09

Table 9-161
2.4 GHz WLAN Reduced Average RF Power – Ant 1

2.4GHz Conducted Power [dBm]					
Freq [MHz]	Channel	IEEE Transmission Mode			
		802.11b	802.11g	802.11n	802.11ax
		Average	Average	Average	Average
2412	1	16.73	15.72	15.84	16.10
2437	6	16.23	16.41	16.41	16.64
2462	11	16.84	16.17	16.13	16.51

Table 9-162
2.4 GHz WLAN Reduced Average RF Power – Ant 2

2.4GHz Conducted Power [dBm]					
Freq [MHz]	Channel	IEEE Transmission Mode			
		802.11b	802.11g	802.11n	802.11ax
		Average	Average	Average	Average
2412	1	16.50	15.69	15.56	16.02
2437	6	16.45	16.90	16.81	15.86
2462	11	16.38	15.57	15.66	15.81

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Table 9-163
2.4 GHz WLAN Reduced Average RF Power – MIMO

2.4GHz 802.11n Conducted Power [dBm]				
Freq [MHz]	Channel	ANT1	ANT2	MIMO
2412	1	15.84	15.56	18.71
2437	6	16.41	16.81	19.62
2462	11	16.13	15.66	18.91

Table 9-164
5 GHz WLAN Reduced Average RF Power – Ant 1

5GHz (40MHz) Conducted Power [dBm]				
Freq [MHz]	Channel	IEEE Transmission Mode		
		802.11n	802.11ac	802.11ax
		Average	Average	Average
5190	38	12.82	13.46	12.05
5230	46	13.94	13.96	13.03
5270	54	13.89	13.85	13.85
5310	62	13.03	12.77	12.09

5GHz (80MHz) Conducted Power [dBm]			
Freq [MHz]	Channel	IEEE Transmission Mode	
		802.11ac	802.11ax
		Average	Average
5210	42	12.71	11.93
5290	58	12.43	11.75
5530	106	11.78	11.99
5610	122	13.51	13.86
5690	138	13.61	13.84
5775	155	13.24	13.61

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Table 9-165
5 GHz WLAN Reduced Average RF Power – Ant 2

5GHz (40MHz) Conducted Power [dBm]				
Freq [MHz]	Channel	IEEE Transmission Mode		
		802.11n	802.11ac	802.11ax
		Average	Average	Average
5190	38	12.91	13.01	12.02
5230	46	13.45	13.36	13.63
5270	54	13.21	13.14	13.06
5310	62	12.94	12.76	11.98

5GHz (80MHz) Conducted Power [dBm]			
Freq [MHz]	Channel	IEEE Transmission Mode	
		802.11ac	802.11ax
		Average	Average
5210	42	12.64	11.99
5290	58	12.05	11.39
5530	106	11.75	12.11
5610	122	13.25	13.19
5690	138	13.55	13.56
5775	155	13.09	13.33

Table 9-166
5 GHz WLAN Reduced Average RF Power – MIMO

5GHz (40MHz) 802.11n Conducted Power [dBm]				
Freq [MHz]	Channel	ANT1	ANT2	MIMO
5190	38	12.82	12.91	15.88
5230	46	13.94	13.45	16.71
5270	54	13.89	13.21	16.57
5310	62	13.03	12.94	16.00
5GHz (80MHz) 802.11ac Conducted Power [dBm]				
Freq [MHz]	Channel	ANT1	ANT2	MIMO
5210	42	12.71	12.64	15.69
5290	58	12.43	12.05	15.25
5530	106	11.78	11.75	14.78
5610	122	13.51	13.25	16.39
5690	138	13.61	13.55	16.59
5775	155	13.24	13.09	16.18

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Table 9-167
Reduced Output Powers During Conditions with 2.4 GHz and 5 GHz WLAN

2.4GHz 802.11n Conducted Power [dBm]			
Freq [MHz]	**Channel**	**ANT1**	**ANT2**
2412	1	13.15	13.65
2437	6	13.55	13.62
2462	11	13.77	13.47

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.

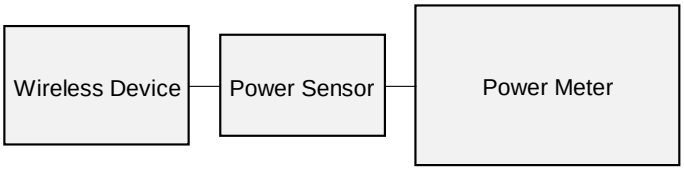

Figure 9-6
Power Measurement Setup

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9.7 Bluetooth Conducted Powers

Table 9-168
Bluetooth Average RF Power

Frequency [MHz]	Data Rate [Mbps]	Channel No.	Avg Conducted Power	
			[dBm]	[mW]
2402	1.0	0	12.47	17.641
2441	1.0	39	13.43	22.049
2480	1.0	78	13.13	20.575
2402	2.0	0	10.27	10.649
2441	2.0	39	11.89	15.467
2480	2.0	78	10.25	10.591
2402	3.0	0	10.50	11.209
2441	3.0	39	12.01	15.882
2480	3.0	78	10.47	11.156

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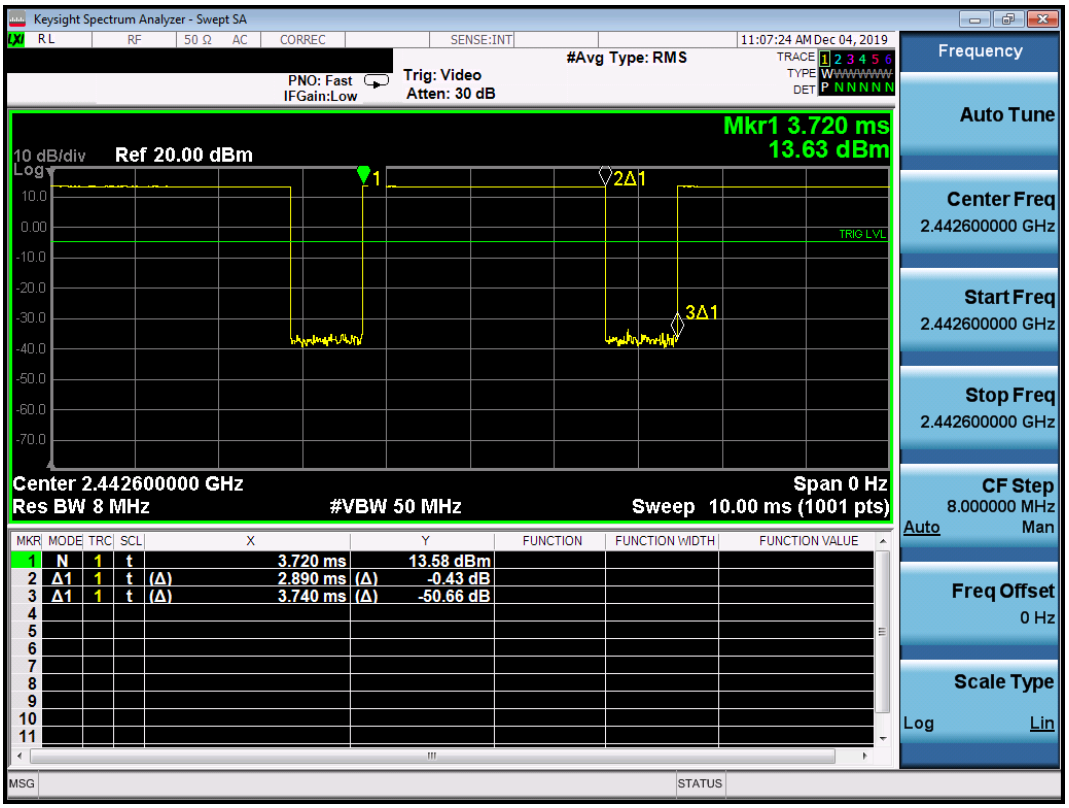

Figure 9-7
Bluetooth Transmission Plot

Equation 9-1
Bluetooth Duty Cycle Calculation

$$Duty\ Cycle = \frac{Pulse\ Width}{Period} * 100\% = \frac{2.89ms}{3.74ms} * 100\% = 77.3\%$$

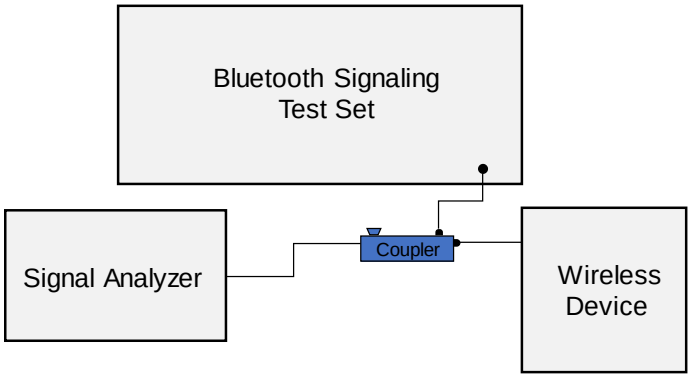

Figure 9-8
Power Measurement Setup

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10 SYSTEM VERIFICATION

10.1 Tissue Verification

Table 10-1
Measured Tissue Properties - Head

Calibrated for Tests Performed on:	Tissue Type	Tissue Temp During Calibration (˚C)	Measured Frequency (MHz)	Measured Conductivity, σ (S/m)	Measured Dielectric Constant, ε	TARGET Conductivity, σ (S/m)	TARGET Dielectric Constant, ε	% dev σ	% dev ε
12/04/2019	750 Head	21.6	680	0.867	40.936	0.888	42.305	-2.36%	-3.24%
			695	0.871	40.864	0.889	42.227	-2.02%	-3.23%
			750	0.893	40.731	0.894	41.942	-0.11%	-2.89%
			770	0.899	40.681	0.895	41.838	0.45%	-2.77%
			785	0.904	40.627	0.896	41.760	0.89%	-2.71%
12/29/2019	750 Head	21.0	695	0.878	41.925	0.889	42.227	-1.24%	-0.72%
			700	0.879	41.914	0.889	42.201	-1.12%	-0.68%
			710	0.883	41.886	0.890	42.149	-0.79%	-0.62%
			750	0.897	41.772	0.894	41.942	0.34%	-0.41%
			785	0.909	41.678	0.896	41.760	1.45%	-0.20%
			800	0.914	41.638	0.897	41.682	1.90%	-0.11%
1/1/2020	835 Head	21.9	820	0.880	40.966	0.899	41.578	-2.11%	-1.47%
			835	0.896	40.765	0.900	41.500	-0.44%	-1.77%
			850	0.911	40.562	0.916	41.500	-0.55%	-2.26%
1/3/2020	835 Head	21.6	820	0.868	40.350	0.899	41.578	-3.45%	-2.95%
			835	0.883	40.150	0.900	41.500	-1.89%	-3.25%
			850	0.897	39.954	0.916	41.500	-2.07%	-3.73%
1/13/2020	835 Head	20.9	820	0.908	40.192	0.899	41.578	1.00%	-3.33%
			835	0.913	40.142	0.900	41.500	1.44%	-3.27%
			850	0.919	40.091	0.916	41.500	0.33%	-3.40%
12/20/2019	1750 Head	21.7	1710	1.339	39.891	1.348	40.142	-0.67%	-0.63%
			1720	1.349	39.840	1.354	40.126	-0.37%	-0.71%
			1745	1.374	39.724	1.368	40.087	0.44%	-0.91%
			1750	1.379	39.702	1.371	40.079	0.58%	-0.94%
			1770	1.399	39.610	1.383	40.047	1.16%	-1.09%
			1790	1.419	39.519	1.394	40.016	1.79%	-1.24%
12/26/2019	1750 Head	20.7	1710	1.364	38.582	1.348	40.142	1.19%	-3.89%
			1720	1.375	38.541	1.354	40.126	1.55%	-3.95%
			1745	1.401	38.417	1.368	40.087	2.41%	-4.17%
			1750	1.405	38.409	1.371	40.079	2.48%	-4.17%
			1770	1.426	38.315	1.383	40.047	3.11%	-4.32%
			1790	1.447	38.203	1.394	40.016	3.80%	-4.53%
12/19/2019	1900 Head	20.9	1850	1.369	41.465	1.400	40.000	-2.21%	3.66%
			1860	1.375	41.458	1.400	40.000	-1.79%	3.65%
			1880	1.388	41.429	1.400	40.000	-0.86%	3.57%
			1900	1.401	41.402	1.400	40.000	0.07%	3.51%
			1905	1.404	41.394	1.400	40.000	0.29%	3.49%
			1910	1.407	41.386	1.400	40.000	0.50%	3.47%
12/21/2019	1900 Head	20.0	1850	1.361	41.237	1.400	40.000	-2.79%	3.09%
			1860	1.367	41.226	1.400	40.000	-2.36%	3.07%
			1880	1.380	41.200	1.400	40.000	-1.43%	3.00%
			1900	1.393	41.173	1.400	40.000	-0.50%	2.93%
			1905	1.396	41.165	1.400	40.000	-0.29%	2.91%
			1910	1.399	41.156	1.400	40.000	-0.07%	2.89%
1/4/2020	1900 Head	21.6	1850	1.406	39.411	1.400	40.000	0.43%	-1.47%
			1860	1.412	39.397	1.400	40.000	0.86%	-1.51%
			1880	1.423	39.364	1.400	40.000	1.64%	-1.59%
			1900	1.433	39.339	1.400	40.000	2.36%	-1.65%
			1905	1.436	39.332	1.400	40.000	2.57%	-1.67%
			1910	1.438	39.326	1.400	40.000	2.71%	-1.69%
1/13/2020	1900 Head	20.6	1850	1.431	39.014	1.400	40.000	2.21%	-2.46%
			1860	1.436	39.003	1.400	40.000	2.57%	-2.49%
			1880	1.448	38.978	1.400	40.000	3.43%	-2.56%
			1900	1.460	38.946	1.400	40.000	4.29%	-2.64%
			1905	1.463	38.935	1.400	40.000	4.50%	-2.66%
			1910	1.466	38.925	1.400	40.000	4.71%	-2.69%

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Table 10-2
Measured Tissue Properties – Head 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
11/18/2019	2450 Head	21.2	2300	1.714	37.980	1.670	39.500	2.63%	-3.85%
			2310	1.722	37.970	1.679	39.480	2.56%	-3.82%
			2320	1.729	37.958	1.687	39.460	2.49%	-3.81%
12/29/2019	2450 Head	24.3	2400	1.814	37.626	1.756	39.289	3.30%	-4.23%
			2450	1.851	37.535	1.800	39.200	2.83%	-4.25%
			2500	1.886	37.457	1.855	39.136	1.67%	-4.29%
01/06/2020	2450 Head	20.9	2550	1.900	37.694	1.909	39.073	-0.47%	-3.53%
			2560	1.907	37.680	1.920	39.060	-0.68%	-3.53%
			2600	1.937	37.622	1.964	39.009	-1.37%	-3.56%
01/08/2020	2450 Head	20.7	2400	1.814	38.303	1.756	39.289	3.30%	-2.51%
			2450	1.855	38.213	1.800	39.200	3.06%	-2.52%
			2500	1.895	38.134	1.855	39.136	2.16%	-2.56%
			2510	1.903	38.107	1.866	39.123	1.98%	-2.60%
			2535	1.924	38.058	1.893	39.092	1.64%	-2.65%
			2550	1.939	38.044	1.909	39.073	1.57%	-2.63%
			2560	1.948	38.036	1.920	39.060	1.46%	-2.62%
			2600	1.981	37.959	1.964	39.009	0.87%	-2.69%
			2650	2.025	37.855	2.018	38.945	0.35%	-2.80%
			2680	2.053	37.822	2.051	38.907	0.10%	-2.79%
			2700	2.067	37.769	2.073	38.882	-0.29%	-2.86%
01/10/2020	2450 Head	23.2	2400	1.781	37.564	1.756	39.289	1.42%	-4.39%
			2450	1.818	37.483	1.800	39.200	1.00%	-4.38%
			2500	1.853	37.413	1.855	39.136	-0.11%	-4.40%
			2510	1.861	37.400	1.866	39.123	-0.27%	-4.40%
			2535	1.881	37.360	1.893	39.092	-0.63%	-4.43%
			2550	1.893	37.336	1.909	39.073	-0.84%	-4.45%
			2560	1.901	37.322	1.920	39.060	-0.99%	-4.45%
			2600	1.930	37.273	1.964	39.009	-1.73%	-4.45%
			2650	1.970	37.193	2.018	38.945	-2.38%	-4.50%
			2680	1.994	37.144	2.051	38.907	-2.78%	-4.53%
			2700	2.009	37.110	2.073	38.882	-3.09%	-4.56%
01/22/2020	2450 Head	20.8	2400	1.792	40.477	1.756	39.289	2.05%	3.02%
			2450	1.835	40.405	1.800	39.200	1.94%	3.07%
			2500	1.873	40.321	1.855	39.136	0.97%	3.03%
1/15/2020	3500 - 3700 Head	21.2	3500	2.789	38.485	2.913	37.929	-4.26%	1.47%
			3550	2.832	38.385	2.964	37.871	-4.45%	1.36%
			3560	2.840	38.371	2.974	37.860	-4.51%	1.35%
			3600	2.883	38.311	3.015	37.814	-4.38%	1.31%
			3650	2.927	38.225	3.066	37.757	-4.53%	1.24%
			3690	2.967	38.163	3.107	37.711	-4.51%	1.20%
			3700	2.974	38.139	3.117	37.700	-4.59%	1.16%
01/13/2020	5200 - 5800 Head	21.5	5180	4.606	35.800	4.635	36.009	-0.63%	-0.58%
			5190	4.615	35.795	4.645	35.998	-0.65%	-0.56%
			5200	4.625	35.781	4.655	35.986	-0.64%	-0.57%
			5210	4.635	35.759	4.666	35.975	-0.66%	-0.60%
			5220	4.647	35.732	4.676	35.963	-0.62%	-0.64%
			5240	4.673	35.677	4.696	35.940	-0.49%	-0.73%
			5250	4.685	35.654	4.706	35.929	-0.45%	-0.77%
			5260	4.699	35.632	4.717	35.917	-0.38%	-0.79%
			5270	4.713	35.616	4.727	35.906	-0.30%	-0.81%
			5280	4.726	35.605	4.737	35.894	-0.23%	-0.81%
			5290	4.736	35.593	4.748	35.883	-0.25%	-0.81%
			5300	4.748	35.583	4.758	35.871	-0.21%	-0.80%
			5310	4.756	35.562	4.768	35.860	-0.25%	-0.83%
			5320	4.766	35.541	4.778	35.849	-0.25%	-0.86%
			5500	4.977	35.202	4.963	35.643	0.28%	-1.24%
			5510	4.992	35.192	4.973	35.632	0.38%	-1.23%
			5520	5.004	35.187	4.983	35.620	0.42%	-1.22%
			5530	5.014	35.177	4.994	35.609	0.40%	-1.21%
			5540	5.022	35.159	5.004	35.597	0.36%	-1.23%
			5550	5.028	35.134	5.014	35.586	0.28%	-1.27%
			5560	5.036	35.102	5.024	35.574	0.24%	-1.33%
			5580	5.064	35.049	5.045	35.551	0.38%	-1.41%
			5600	5.094	35.009	5.065	35.529	0.57%	-1.46%
			5610	5.106	34.997	5.076	35.518	0.59%	-1.47%
			5620	5.120	34.987	5.086	35.506	0.67%	-1.46%
			5640	5.146	34.969	5.106	35.483	0.78%	-1.45%
			5660	5.164	34.928	5.127	35.460	0.72%	-1.50%
			5670	5.173	34.905	5.137	35.449	0.70%	-1.53%
			5680	5.185	34.873	5.147	35.437	0.74%	-1.59%
			5690	5.199	34.847	5.158	35.426	0.79%	-1.63%
			5700	5.213	34.822	5.168	35.414	0.87%	-1.67%
			5710	5.227	34.808	5.178	35.403	0.95%	-1.68%
			5720	5.241	34.797	5.188	35.391	1.02%	-1.68%
			5745	5.273	34.772	5.214	35.363	1.13%	-1.67%
			5750	5.278	34.766	5.219	35.357	1.13%	-1.67%
			5755	5.283	34.759	5.224	35.351	1.13%	-1.67%
			5765	5.293	34.745	5.234	35.340	1.13%	-1.68%
			5775	5.303	34.719	5.245	35.329	1.11%	-1.73%
			5785	5.312	34.694	5.255	35.317	1.08%	-1.76%
			5795	5.324	34.665	5.265	35.305	1.12%	-1.81%
			5800	5.329	34.654	5.270	35.300	1.12%	-1.83%
			5805	5.338	34.647	5.275	35.294	1.19%	-1.83%
			5825	5.364	34.614	5.296	35.271	1.28%	-1.86%

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Table 10-3
Measured Tissue Properties - Body

Calibrated for Tests Performed on:	Tissue Type	Tissue Temp During Calibration (°C)	Measured Frequency (MHz)	Measured Conductivity, σ (S/m)	Measured Dielectric Constant, ε	TARGET Conductivity, σ (S/m)	TARGET Dielectric Constant, ε	% dev σ	% dev ε
11/20/2019	750 Body	21.7	680	0.920	55.175	0.958	55.804	-3.97%	-1.13%
			695	0.925	55.137	0.959	55.745	-3.55%	-1.09%
			700	0.926	55.126	0.959	55.726	-3.44%	-1.08%
			710	0.929	55.107	0.960	55.687	-3.23%	-1.04%
			750	0.944	55.048	0.964	55.531	-2.07%	-0.87%
			755	0.946	55.036	0.964	55.512	-1.87%	-0.86%
			770	0.952	54.994	0.965	55.453	-1.35%	-0.83%
			785	0.958	54.944	0.966	55.395	-0.83%	-0.81%
			800	0.964	54.898	0.967	55.336	-0.31%	-0.79%
11/23/2019	750 Body	21.3	680	0.923	55.094	0.958	55.804	-3.65%	-1.27%
			695	0.929	55.065	0.959	55.745	-3.13%	-1.22%
			750	0.950	54.899	0.964	55.531	-1.45%	-1.14%
12/3/2019	835 Body	21.6	820	0.980	53.690	0.969	55.258	1.14%	-2.84%
			835	0.985	53.644	0.970	55.200	1.55%	-2.82%
			850	0.991	53.596	0.988	55.154	0.30%	-2.82%
12/5/2019	835 Body	21.2	820	0.977	53.700	0.969	55.258	0.83%	-2.82%
			835	0.984	53.684	0.970	55.200	1.44%	-2.75%
			850	0.991	53.665	0.988	55.154	0.30%	-2.70%
12/13/2019	835 Body	20.4	820	0.957	53.818	0.969	55.258	-1.24%	-2.61%
			835	0.964	53.751	0.970	55.200	-0.62%	-2.63%
			850	0.970	53.679	0.988	55.154	-1.82%	-2.67%
12/20/2019	835 Body	19.7	820	0.959	54.036	0.969	55.258	-1.03%	-2.21%
			835	0.965	54.007	0.970	55.200	-0.52%	-2.16%
			850	0.971	53.986	0.988	55.154	-1.72%	-2.12%
12/10/2019	1750 Body	20.2	1710	1.493	52.133	1.463	53.537	2.05%	-2.62%
			1720	1.505	52.085	1.469	53.511	2.45%	-2.66%
			1745	1.533	51.974	1.485	53.445	3.23%	-2.75%
			1750	1.538	51.952	1.488	53.432	3.36%	-2.77%
			1770	1.559	51.866	1.501	53.379	3.86%	-2.83%
			1790	1.581	51.785	1.514	53.326	4.43%	-2.89%
12/22/2019	1750 Body	20.3	1710	1.487	52.588	1.463	53.537	1.64%	-1.77%
			1720	1.499	52.549	1.469	53.511	2.04%	-1.80%
			1745	1.528	52.447	1.485	53.445	2.90%	-1.87%
			1750	1.534	52.426	1.488	53.432	3.09%	-1.88%
			1770	1.555	52.339	1.501	53.379	3.60%	-1.95%
			1790	1.577	52.250	1.514	53.326	4.16%	-2.02%
1/1/2020	1750 Body	21.6	1710	1.442	53.322	1.463	53.537	-1.44%	-0.40%
			1720	1.453	53.280	1.469	53.511	-1.09%	-0.43%
			1745	1.480	53.185	1.485	53.445	-0.34%	-0.49%
			1750	1.485	53.166	1.488	53.432	-0.20%	-0.50%
			1770	1.504	53.096	1.501	53.379	0.20%	-0.53%
			1790	1.525	53.026	1.514	53.326	0.73%	-0.56%
1/6/2020	1750 Body	21.0	1710	1.442	53.851	1.463	53.537	-1.44%	0.59%
			1720	1.454	53.808	1.469	53.511	-1.02%	0.56%
			1745	1.481	53.712	1.485	53.445	-0.27%	0.50%
			1750	1.487	53.692	1.488	53.432	-0.07%	0.49%
			1770	1.508	53.611	1.501	53.379	0.47%	0.43%
			1790	1.528	53.534	1.514	53.326	0.92%	0.39%
1/13/2020	1750 Body	20.8	1710	1.415	53.796	1.463	53.537	-3.28%	0.48%
			1720	1.427	53.763	1.469	53.511	-2.86%	0.47%
			1745	1.454	53.672	1.485	53.445	-2.09%	0.42%
			1750	1.459	53.654	1.488	53.432	-1.95%	0.42%
			1770	1.479	53.579	1.501	53.379	-1.47%	0.37%
			1790	1.500	53.506	1.514	53.326	-0.92%	0.34%
1/15/2020	1750 Body	21.1	1710	1.449	54.803	1.463	53.537	-0.96%	2.36%
			1720	1.461	54.763	1.469	53.511	-0.54%	2.34%
			1745	1.488	54.663	1.485	53.445	0.20%	2.28%
			1750	1.493	54.644	1.488	53.432	0.34%	2.27%
			1770	1.514	54.570	1.501	53.379	0.87%	2.23%
			1790	1.536	54.498	1.514	53.326	1.45%	2.20%
1/17/2020	1750 Body	21.0	1710	1.460	53.723	1.463	53.537	-0.21%	0.35%
			1720	1.472	53.679	1.469	53.511	0.20%	0.31%
			1745	1.500	53.579	1.485	53.445	1.01%	0.25%
			1750	1.505	53.556	1.488	53.432	1.14%	0.23%
			1770	1.525	53.466	1.501	53.379	1.60%	0.16%
			1790	1.546	53.379	1.514	53.326	2.11%	0.10%
01/22/2020	1750 Body	21.1	1710	1.464	54.124	1.463	53.537	0.07%	1.10%
			1720	1.476	54.083	1.469	53.511	0.48%	1.07%
			1745	1.504	53.986	1.485	53.445	1.28%	1.01%
			1750	1.510	53.969	1.488	53.432	1.48%	1.01%
			1770	1.531	53.889	1.501	53.379	2.00%	0.96%
			1790	1.552	53.810	1.514	53.326	2.51%	0.91%
12/18/2019	1900 Body	22.6	1850	1.476	52.262	1.520	53.300	-2.89%	-1.95%
			1860	1.486	52.230	1.520	53.300	-2.24%	-2.01%
			1880	1.508	52.172	1.520	53.300	-0.79%	-2.12%
			1900	1.529	52.109	1.520	53.300	0.59%	-2.23%
			1905	1.534	52.093	1.520	53.300	0.92%	-2.26%
			1910	1.539	52.075	1.520	53.300	1.25%	-2.30%
12/22/2019	1900 Body	24.9	1850	1.458	51.984	1.520	53.300	-4.08%	-2.47%
			1860	1.468	51.952	1.520	53.300	-3.42%	-2.53%
			1880	1.488	51.890	1.520	53.300	-2.11%	-2.65%
			1900	1.509	51.837	1.520	53.300	-0.72%	-2.74%
			1905	1.515	51.823	1.520	53.300	-0.33%	-2.77%
			1910	1.520	51.810	1.520	53.300	0.00%	-2.80%
12/24/2019	1900 Body	24.0	1850	1.521	51.150	1.520	53.300	0.07%	-4.03%
			1860	1.532	51.115	1.520	53.300	0.79%	-4.10%
			1880	1.554	51.044	1.520	53.300	2.24%	-4.23%
			1900	1.577	50.970	1.520	53.300	3.75%	-4.37%
			1905	1.582	50.950	1.520	53.300	4.08%	-4.41%
			1910	1.588	50.931	1.520	53.300	4.47%	-4.44%
12/26/2019	1900 Body	23.5	1850	1.521	51.683	1.520	53.300	0.07%	-3.03%
			1860	1.533	51.638	1.520	53.300	0.86%	-3.12%
			1880	1.555	51.548	1.520	53.300	2.30%	-3.29%
			1900	1.577	51.490	1.520	53.300	3.75%	-3.40%
			1905	1.583	51.460	1.520	53.300	4.14%	-3.45%
			1910	1.590	51.451	1.520	53.300	4.61%	-3.47%
1/6/2020	1900 Body	23.2	1850	1.513	52.000	1.520	53.300	-0.46%	-2.44%
			1860	1.523	51.968	1.520	53.300	0.20%	-2.50%
			1880	1.546	51.901	1.520	53.300	1.71%	-2.62%
			1900	1.569	51.832	1.520	53.300	3.22%	-2.75%
			1905	1.574	51.812	1.520	53.300	3.55%	-2.79%
			1910	1.580	51.793	1.520	53.300	3.95%	-2.83%
1/9/2020	1900 Body	24.3	1850	1.495	52.292	1.520	53.300	-1.64%	-1.89%
			1860	1.505	52.263	1.520	53.300	-0.99%	-1.95%
			1880	1.526	52.202	1.520	53.300	0.39%	-2.06%
			1900	1.548	52.138	1.520	53.300	1.84%	-2.18%
			1905	1.553	52.119	1.520	53.300	2.17%	-2.22%
			1910	1.559	52.102	1.520	53.300	2.57%	-2.25%
1/13/2020	1900 Body	22.5	1850	1.523	51.243	1.520	53.300	0.20%	-3.86%
			1860	1.535	51.250	1.520	53.300	0.99%	-3.85%
			1880	1.558	51.254	1.520	53.300	2.50%	-3.84%
			1900	1.579	51.161	1.520	53.300	3.88%	-4.01%
			1905	1.584	51.120	1.520	53.300	4.21%	-4.09%
			1910	1.589	51.076	1.520	53.300	4.54%	-4.17%
1/15/2020	1900 Body	22.2	1850	1.525	51.093	1.520	53.300	0.33%	-4.14%
			1860	1.536	51.055	1.520	53.300	1.05%	-4.21%
			1880	1.557	50.987	1.520	53.300	2.43%	-4.34%
			1900	1.578	50.921	1.520	53.300	3.82%	-4.46%
			1905	1.584	50.904	1.520	53.300	4.21%	-4.50%
			1910	1.589	50.886	1.520	53.300	4.54%	-4.53%
1/17/2020	1900 Body	21.4	1850	1.509	51.108	1.520	53.300	-0.72%	-4.11%
			1860	1.520	51.073	1.520	53.300	0.00%	-4.18%
			1880	1.543	51.009	1.520	53.300	1.51%	-4.30%
			1900	1.565	50.943	1.520	53.300	2.96%	-4.42%
			1905	1.571	50.926	1.520	53.300	3.36%	-4.45%
			1910	1.577	50.909	1.520	53.300	3.75%	-4.49%

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Table 10-4
Measured Tissue Properties – Body 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
12/24/2019	2450 Body	21.2	2300	1.875	51.543	1.809	52.900	3.65%	-2.57%
			2310	1.887	51.515	1.816	52.887	3.91%	-2.59%
			2320	1.898	51.489	1.826	52.873	3.94%	-2.62%
1/5/2020	2450 Body	23.2	2400	1.984	51.751	1.902	52.767	4.31%	-1.93%
			2450	2.041	51.608	1.950	52.700	4.67%	-2.07%
			2500	2.099	51.452	2.021	52.636	3.86%	-2.25%
			2510	2.112	51.433	2.035	52.623	3.78%	-2.26%
			2535	2.142	51.351	2.071	52.592	3.43%	-2.36%
			2550	2.160	51.312	2.092	52.573	3.25%	-2.40%
			2560	2.172	51.281	2.106	52.560	3.13%	-2.43%
			2600	2.222	51.175	2.163	52.509	2.73%	-2.54%
			2650	2.279	51.032	2.234	52.445	2.01%	-2.69%
			2680	2.318	50.935	2.277	52.407	1.80%	-2.81%
			2700	2.343	50.869	2.305	52.382	1.65%	-2.89%
1/9/2020	2450 Body	21.7	2400	1.972	51.581	1.902	52.767	3.68%	-2.25%
			2450	2.020	51.511	1.950	52.700	3.59%	-2.26%
			2500	2.063	51.442	2.021	52.636	2.08%	-2.27%
01/13/2020	2450 Body	21.9	2400	1.973	50.578	1.902	52.767	3.73%	-4.15%
			2450	2.012	50.309	1.950	52.700	3.18%	-4.54%
			2500	2.065	50.418	2.021	52.636	2.18%	-4.21%
			2510	2.071	50.375	2.035	52.623	1.77%	-4.27%
			2535	2.087	50.197	2.071	52.592	0.77%	-4.55%
			2550	2.101	50.135	2.092	52.573	0.43%	-4.64%
			2560	2.114	50.142	2.106	52.560	0.38%	-4.60%
			2600	2.161	50.264	2.163	52.509	-0.09%	-4.28%
			2650	2.197	49.959	2.234	52.445	-1.66%	-4.74%
			2680	2.236	50.043	2.277	52.407	-1.80%	-4.51%
			2700	2.257	50.099	2.305	52.382	-2.08%	-4.36%
1/16/2020	2450 Body	22.8	2300	1.825	51.607	1.809	52.900	0.88%	-2.44%
			2310	1.839	51.567	1.816	52.887	1.27%	-2.50%
			2320	1.852	51.529	1.826	52.873	1.42%	-2.54%
			2400	1.960	51.215	1.902	52.767	3.05%	-2.94%
			2450	2.026	51.020	1.950	52.700	3.90%	-3.19%
			2500	2.093	50.818	2.021	52.636	3.56%	-3.45%
			2510	2.106	50.783	2.035	52.623	3.49%	-3.50%
			2535	2.140	50.691	2.071	52.592	3.33%	-3.61%
			2550	2.160	50.628	2.092	52.573	3.25%	-3.70%
			2560	2.174	50.586	2.106	52.560	3.23%	-3.76%
			2600	2.231	50.438	2.163	52.509	3.14%	-3.94%
			2650	2.299	50.242	2.234	52.445	2.91%	-4.20%
			2680	2.341	50.120	2.277	52.407	2.81%	-4.36%
			2700	2.369	50.042	2.305	52.382	2.78%	-4.47%
1/20/2020	2450 Body	21.8	2400	1.904	51.125	1.902	52.767	0.11%	-3.11%
			2450	1.968	50.949	1.950	52.700	0.92%	-3.32%
			2500	2.037	50.770	2.021	52.636	0.79%	-3.55%
			2510	2.050	50.737	2.035	52.623	0.74%	-3.58%
			2535	2.085	50.645	2.071	52.592	0.68%	-3.70%
			2550	2.106	50.585	2.092	52.573	0.67%	-3.78%
			2560	2.121	50.544	2.106	52.560	0.71%	-3.84%
			2600	2.178	50.401	2.163	52.509	0.69%	-4.01%
			2650	2.248	50.211	2.234	52.445	0.63%	-4.26%
			2680	2.289	50.091	2.277	52.407	0.53%	-4.42%
			2700	2.317	50.017	2.305	52.382	0.52%	-4.51%
1/22/2020	2450 Body	22.5	2300	1.808	51.874	1.809	52.900	-0.06%	-1.94%
			2310	1.820	51.834	1.816	52.887	0.22%	-1.99%
			2320	1.833	51.799	1.826	52.873	0.38%	-2.03%
1/23/2020	2450 Body	22.7	2400	1.988	50.938	1.902	52.767	4.52%	-3.47%
			2450	2.047	50.787	1.950	52.700	4.97%	-3.63%
			2500	2.105	50.634	2.021	52.636	4.16%	-3.80%
			2510	2.118	50.603	2.035	52.623	4.08%	-3.84%
			2535	2.147	50.519	2.071	52.592	3.67%	-3.94%
			2550	2.165	50.476	2.092	52.573	3.49%	-3.99%
			2560	2.176	50.451	2.106	52.560	3.32%	-4.01%
			2600	2.224	50.339	2.163	52.509	2.82%	-4.13%
			2650	2.282	50.170	2.234	52.445	2.15%	-4.34%
			2680	2.318	50.079	2.277	52.407	1.80%	-4.44%
			2700	2.343	50.014	2.305	52.382	1.65%	-4.52%
1/5/2020	3500 - 3700 Body	22.0	3500	3.370	49.574	3.310	51.320	1.81%	-3.40%
			3550	3.418	49.499	3.370	51.250	1.42%	-3.42%
			3560	3.426	49.492	3.382	51.238	1.30%	-3.41%
			3600	3.470	49.426	3.430	51.190	1.17%	-3.45%
			3650	3.518	49.378	3.489	51.118	0.83%	-3.40%
			3690	3.561	49.306	3.536	51.063	0.71%	-3.44%
			3700	3.579	49.284	3.548	51.050	0.87%	-3.46%
1/8/2020	3500 - 3700 Body	21.0	3500	3.424	49.633	3.310	51.320	3.44%	-3.29%
			3550	3.475	49.559	3.370	51.250	3.12%	-3.30%
			3560	3.486	49.538	3.382	51.238	3.08%	-3.32%
			3600	3.532	49.464	3.430	51.190	2.97%	-3.37%
			3650	3.586	49.407	3.489	51.118	2.78%	-3.35%
			3690	3.630	49.343	3.536	51.063	2.66%	-3.37%
			3700	3.641	49.328	3.548	51.050	2.62%	-3.37%
1/18/2020	3500 - 3700 Body	21.5	3500	3.368	49.370	3.314	51.321	1.63%	-3.80%
			3550	3.420	49.295	3.372	51.254	1.42%	-3.82%
			3560	3.430	49.283	3.384	51.240	1.36%	-3.82%
			3600	3.472	49.209	3.431	51.186	1.19%	-3.86%

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Table 10-5
Measured Tissue Properties – Body 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
12/29/2019	5200 - 5800 Body	22.9	5180	5.394	47.031	5.276	49.041	2.24%	-4.10%
			5190	5.407	47.011	5.288	49.028	2.25%	-4.11%
			5200	5.419	46.993	5.299	49.014	2.26%	-4.12%
			5210	5.429	46.968	5.311	49.001	2.22%	-4.15%
			5220	5.435	46.971	5.323	48.987	2.10%	-4.12%
			5240	5.463	46.953	5.346	48.960	2.19%	-4.10%
			5250	5.478	46.920	5.358	48.947	2.24%	-4.14%
			5260	5.490	46.897	5.369	48.933	2.25%	-4.16%
			5270	5.502	46.889	5.381	48.919	2.25%	-4.15%
			5280	5.524	46.878	5.393	48.906	2.43%	-4.15%
			5290	5.545	46.848	5.404	48.892	2.61%	-4.18%
			5300	5.557	46.819	5.416	48.879	2.60%	-4.21%
			5310	5.565	46.803	5.428	48.865	2.52%	-4.22%
			5320	5.571	46.794	5.439	48.851	2.43%	-4.21%
			5500	5.816	46.501	5.650	48.607	2.94%	-4.33%
			5510	5.829	46.481	5.661	48.594	2.97%	-4.35%
			5520	5.840	46.480	5.673	48.580	2.94%	-4.32%
			5530	5.855	46.474	5.685	48.566	2.99%	-4.31%
			5540	5.865	46.458	5.696	48.553	2.97%	-4.31%
			5550	5.871	46.433	5.708	48.539	2.86%	-4.34%
			5560	5.881	46.423	5.720	48.526	2.81%	-4.33%
			5580	5.918	46.395	5.743	48.499	3.05%	-4.34%
			5600	5.948	46.339	5.766	48.471	3.16%	-4.40%
			5610	5.961	46.322	5.778	48.458	3.17%	-4.41%
			5620	5.980	46.308	5.790	48.444	3.28%	-4.41%
			5640	6.009	46.277	5.813	48.417	3.37%	-4.42%
			5660	6.031	46.263	5.837	48.390	3.32%	-4.40%
			5670	6.048	46.260	5.848	48.376	3.42%	-4.37%
			5680	6.058	46.231	5.860	48.363	3.38%	-4.41%
			5690	6.070	46.210	5.872	48.349	3.37%	-4.42%
			5700	6.085	46.197	5.883	48.336	3.43%	-4.43%
			5710	6.102	46.196	5.895	48.322	3.51%	-4.40%
			5720	6.122	46.182	5.907	48.309	3.64%	-4.40%
			5745	6.153	46.103	5.936	48.275	3.66%	-4.50%
			5750	6.158	46.092	5.942	48.268	3.64%	-4.51%
			5755	6.164	46.088	5.947	48.261	3.65%	-4.50%
			5765	6.180	46.087	5.959	48.248	3.71%	-4.48%
			5775	6.198	46.081	5.971	48.234	3.80%	-4.46%
			5785	6.213	46.063	5.982	48.220	3.86%	-4.47%
			5795	6.226	46.045	5.994	48.207	3.87%	-4.48%
			5800	6.234	46.039	6.000	48.200	3.90%	-4.48%
			5805	6.242	46.039	6.006	48.193	3.93%	-4.47%
			5825	6.272	46.002	6.029	48.166	4.03%	-4.49%
1/13/2020	5200 - 5800 Body	22.1	5180	5.428	47.232	5.276	49.041	2.88%	-3.69%
			5190	5.438	47.214	5.288	49.028	2.84%	-3.70%
			5200	5.451	47.196	5.299	49.014	2.87%	-3.71%
			5210	5.466	47.176	5.311	49.001	2.92%	-3.72%
			5220	5.479	47.158	5.323	48.987	2.93%	-3.73%
			5240	5.502	47.116	5.346	48.960	2.92%	-3.77%
			5250	5.518	47.094	5.358	48.947	2.99%	-3.79%
			5260	5.535	47.075	5.369	48.933	3.09%	-3.80%
			5270	5.551	47.060	5.381	48.919	3.16%	-3.80%
			5280	5.563	47.047	5.393	48.906	3.15%	-3.80%
			5290	5.575	47.032	5.404	48.892	3.16%	-3.80%
			5300	5.586	47.020	5.416	48.879	3.14%	-3.80%
			5310	5.596	46.998	5.428	48.865	3.10%	-3.82%
			5320	5.607	46.970	5.439	48.851	3.09%	-3.85%
			5500	5.846	46.669	5.650	48.607	3.47%	-3.99%
			5510	5.860	46.650	5.661	48.594	3.52%	-4.00%
			5520	5.871	46.641	5.673	48.580	3.49%	-3.99%
			5530	5.881	46.633	5.685	48.566	3.45%	-3.98%
			5540	5.890	46.614	5.696	48.553	3.41%	-3.99%
			5550	5.901	46.593	5.708	48.539	3.38%	-4.01%
			5560	5.914	46.570	5.720	48.526	3.39%	-4.03%
			5580	5.942	46.533	5.743	48.499	3.47%	-4.05%
			5600	5.978	46.497	5.766	48.471	3.68%	-4.07%
			5610	5.995	46.481	5.778	48.458	3.76%	-4.08%
			5620	6.008	46.475	5.790	48.444	3.77%	-4.06%
			5640	6.036	46.449	5.813	48.417	3.84%	-4.06%
			5660	6.059	46.403	5.837	48.390	3.80%	-4.11%
			5670	6.069	46.389	5.848	48.376	3.78%	-4.11%
			5680	6.081	46.370	5.860	48.363	3.77%	-4.12%
			5690	6.095	46.346	5.872	48.349	3.80%	-4.14%
			5700	6.110	46.317	5.883	48.336	3.86%	-4.18%
			5710	6.127	46.305	5.895	48.322	3.94%	-4.17%
			5720	6.141	46.292	5.907	48.309	3.96%	-4.18%
			5745	6.180	46.273	5.936	48.275	4.11%	-4.15%
			5750	6.187	46.260	5.942	48.268	4.12%	-4.16%
			5755	6.193	46.253	5.947	48.261	4.14%	-4.16%
			5765	6.201	46.239	5.959	48.248	4.06%	-4.16%
			5775	6.210	46.221	5.971	48.234	4.00%	-4.17%
			5785	6.225	46.207	5.982	48.220	4.06%	-4.17%
			5795	6.242	46.177	5.994	48.207	4.14%	-4.21%
			5800	6.250	46.167	6.000	48.200	4.17%	-4.22%
			5805	6.257	46.157	6.006	48.193	4.18%	-4.22%
			5825	6.289	46.125	6.029	48.166	4.31%	-4.24%

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 10-6
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	12/04/2019	22.8	21.6	0.200	1054	7551	1.630	8.290	8.150	-1.69%
L	750	HEAD	12/29/2019	22.3	21.0	0.200	1161	7410	1.710	8.030	8.550	6.48%
D	835	HEAD	01/01/2020	22.3	21.9	0.200	4d133	3914	1.970	9.430	9.850	4.45%
D	835	HEAD	01/03/2020	22.3	21.6	0.200	4d133	3914	1.970	9.430	9.850	4.45%
M	835	HEAD	01/13/2020	21.9	20.9	0.200	4d047	7308	2.030	9.420	10.150	7.75%
H	1750	HEAD	12/20/2019	20.4	21.7	0.100	1148	7406	3.560	37.000	35.600	-3.78%
H	1750	HEAD	12/26/2020	21.4	20.7	0.100	1148	7406	3.440	37.000	34.400	-7.03%
D	1900	HEAD	12/19/2019	21.3	20.9	0.100	5d149	3914	4.190	39.300	41.900	6.62%
D	1900	HEAD	12/21/2019	22.5	20.0	0.100	5d149	3914	4.090	39.300	40.900	4.07%
L	1900	HEAD	01/04/2020	23.2	21.6	0.100	5d148	7410	4.150	39.100	41.500	6.14%
H	1900	HEAD	01/13/2020	22.1	20.6	0.100	5d148	7406	4.170	39.100	41.700	6.65%
E	2300	HEAD	11/18/2019	21.4	21.2	0.100	1073	7417	4.920	49.200	49.200	0.00%
E	2450	HEAD	12/29/2019	22.1	22.8	0.100	797	7417	5.530	52.700	55.300	4.93%
E	2450	HEAD	01/08/2020	22.9	20.7	0.100	719	7417	5.550	53.100	55.500	4.52%
E	2450	HEAD	01/10/2020	23.1	22.2	0.100	981	7417	5.360	52.300	53.600	2.49%
E	2450	HEAD	01/22/2020	21.8	21.8	0.100	981	7417	5.450	52.300	54.500	4.21%
E	2600	HEAD	01/06/2020	21.8	20.9	0.100	1064	7417	5.830	58.100	58.300	0.34%
E	2600	HEAD	01/08/2020	22.9	20.7	0.100	1004	7417	6.030	55.900	60.300	7.87%
E	2600	HEAD	01/10/2020	23.1	22.2	0.100	1064	7417	6.070	58.100	60.700	4.48%
D	3500	HEAD	01/15/2020	22.2	21.2	0.100	1059	3914	6.730	64.600	67.300	4.18%
D	3700	HEAD	01/15/2020	22.2	21.2	0.100	1018	3914	7.080	65.800	70.800	7.60%
H	5250	HEAD	01/13/2020	21.5	23.0	0.050	1191	7406	3.740	80.800	74.800	-7.43%
H	5600	HEAD	01/13/2020	21.5	23.0	0.050	1191	7406	3.780	82.700	75.600	-8.59%
H	5750	HEAD	01/13/2020	21.5	23.0	0.050	1191	7406	3.710	80.200	74.200	-7.48%

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Table 10-7
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)	$Deviation_{1g}$ (%)
L	750	BODY	11/20/2019	23.0	21.7	0.200	1161	7410	1.710	8.430	8.550	1.42%
L	750	BODY	11/23/2019	22.6	21.3	0.200	1161	7410	1.750	8.430	8.750	3.80%
L	835	BODY	12/03/2019	23.5	21.6	0.200	4d047	7410	2.010	9.470	10.050	6.12%
L	835	BODY	12/05/2019	23.9	21.2	0.200	4d047	7410	1.970	9.470	9.850	4.01%
L	835	BODY	12/13/2019	21.8	20.4	0.200	4d047	7410	2.020	9.470	10.100	6.65%
L	835	BODY	12/20/2019	20.3	19.7	0.200	4d047	7410	2.020	9.470	10.100	6.65%
I	1750	BODY	12/10/2019	22.1	20.2	0.100	1148	7357	3.930	37.700	39.300	4.24%
I	1750	BODY	12/22/2019	20.6	20.3	0.100	1150	7357	3.930	36.600	39.300	7.38%
I	1750	BODY	01/01/2020	23.4	21.6	0.100	1150	7357	3.840	36.600	38.400	4.92%
I	1750	BODY	01/13/2020	21.2	20.8	0.100	1008	7357	3.790	37.400	37.900	1.34%
I	1750	BODY	01/22/2020	21.1	22.8	0.100	1148	7357	4.020	37.700	40.200	6.63%
P	1900	BODY	12/18/2019	23.1	22.0	0.100	5d080	7551	4.090	39.200	40.900	4.34%
J	1900	BODY	12/22/2019	24.6	24.9	0.100	5d080	7488	3.980	39.200	39.800	1.53%
J	1900	BODY	12/24/2019	21.3	24.0	0.100	5d149	7488	4.240	39.400	42.400	7.61%
J	1900	BODY	12/26/2019	21.9	21.8	0.100	5d080	7488	4.110	39.200	41.100	4.85%
J	1900	BODY	01/09/2020	24.5	24.2	0.100	5d149	7571	4.220	39.400	42.200	7.11%
P	1900	BODY	01/13/2020	22.7	22.5	0.100	5d149	7551	4.180	39.400	41.800	6.09%
P	1900	BODY	01/15/2020	22.5	22.2	0.100	5d149	7551	4.030	39.400	40.300	2.28%
P	1900	BODY	01/17/2020	20.3	20.5	0.100	5d080	7551	4.070	39.200	40.700	3.83%
K	2300	BODY	12/24/2019	23.7	21.5	0.100	1073	7547	5.030	47.700	50.300	5.45%
L	2300	BODY	01/22/2020	22.7	22.5	0.100	1073	7410	4.830	47.700	48.300	1.26%
K	2450	BODY	01/05/2020	23.4	22.2	0.100	719	7547	5.300	50.800	53.000	4.33%
L	2450	BODY	01/09/2020	21.8	20.2	0.100	719	7410	5.410	50.800	54.100	6.50%
L	2450	BODY	01/13/2020	22.7	21.9	0.100	719	7410	5.450	50.800	54.500	7.28%
L	2450	BODY	01/16/2020	20.9	22.5	0.100	797	7410	5.540	51.100	55.400	8.41%
L	2450	BODY	01/20/2020	20.9	20.3	0.100	797	7410	5.320	51.100	53.200	4.11%
K	2600	BODY	01/05/2020	23.4	22.2	0.100	1004	7547	5.500	54.800	55.000	0.36%
L	2600	BODY	01/13/2020	22.7	21.9	0.100	1004	7410	5.340	54.800	53.400	-2.55%
L	2600	BODY	01/16/2020	20.9	22.5	0.100	1004	7410	5.600	54.800	56.000	2.19%
L	2600	BODY	01/20/2020	20.9	20.3	0.100	1004	7410	5.550	54.800	55.500	1.28%
D	3500	BODY	01/05/2020	22.6	22.0	0.100	1059	3914	6.610	65.100	66.100	1.54%
D	3500	BODY	01/08/2020	21.6	21.0	0.100	1059	3914	6.650	65.100	66.500	2.15%
D	3500	BODY	01/18/2020	21.9	21.5	0.100	1059	3914	6.530	65.100	65.300	0.31%
D	3700	BODY	01/05/2020	22.6	22.0	0.100	1018	3914	6.540	64.300	65.400	1.71%
D	3700	BODY	01/08/2020	21.6	21.0	0.100	1018	3914	6.590	64.300	65.900	2.49%
G	5250	BODY	12/29/2019	23.9	22.5	0.050	1191	7409	3.770	77.000	75.400	-2.08%
G	5250	BODY	01/13/2020	23.2	22.4	0.050	1191	7409	3.720	77.000	74.400	-3.38%
G	5600	BODY	12/29/2019	23.9	22.5	0.050	1191	7409	4.110	78.600	82.200	4.58%
G	5600	BODY	01/13/2020	23.2	22.4	0.050	1191	7409	4.040	78.600	80.800	2.80%
G	5750	BODY	12/29/2019	23.9	22.5	0.050	1191	7409	3.880	76.900	77.600	0.91%
G	5750	BODY	01/13/2020	23.2	22.4	0.050	1191	7409	3.810	76.900	76.200	-0.91%

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Table 10-8
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	01/06/2020	22.7	21.0	0.100	1150	7357	1.970	19.400	19.700	1.55%
I	1750	BODY	01/15/2020	22.7	21.1	0.100	1008	7357	2.080	19.900	20.800	4.52%
I	1750	BODY	01/17/2020	22.9	21.0	0.100	1008	7357	2.080	19.900	20.800	4.52%
J	1900	BODY	01/06/2020	22.7	22.9	0.100	5d080	7571	2.160	20.600	21.600	4.85%
J	1900	BODY	01/09/2020	24.5	24.2	0.100	5d149	7571	2.160	20.700	21.600	4.35%
P	1900	BODY	01/15/2020	22.5	22.2	0.100	5d149	7551	2.090	20.700	20.900	0.97%
L	2300	BODY	01/16/2020	20.9	22.5	0.100	1073	7410	2.500	23.200	25.000	7.76%
K	2450	BODY	01/23/2020	23.7	22.0	0.100	981	7547	2.380	24.200	23.800	-1.65%
K	2600	BODY	01/23/2020	23.7	22.0	0.100	1064	7547	2.490	25.000	24.900	-0.40%
G	5250	BODY	01/13/2020	23.2	22.4	0.050	1191	7409	1.030	21.400	20.600	-3.74%
G	5600	BODY	01/13/2020	23.2	22.4	0.050	1191	7409	1.110	21.900	22.200	1.37%
G	5750	BODY	01/13/2020	23.2	22.4	0.050	1191	7409	1.040	21.300	20.800	-2.35%

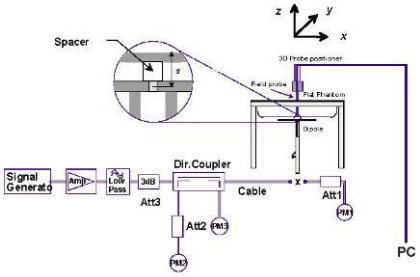

Figure 10-1
System Verification Setup Diagram

Figure 10-2
System Verification Setup Photo

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11 SAR DATA SUMMARY

11.1 Standalone Head SAR Data

Table 11-1
CDMA BC10 (§90S) Head SAR

MEASUREMENT RESULTS															
FREQUENCY		Mode	Service	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Side	Test Position	Ant State	Device Serial Number	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.											(W/kg)		(W/kg)	
820.10	564	CDMA BC10 (§90S)	RC3 / SO55	25.8	24.81	0.07	Right	Cheek	112	1791S	1:1	0.165	1.256	0.207	A1
820.10	564	CDMA BC10 (§90S)	RC3 / SO55	25.8	24.81	0.10	Right	Tilt	112	1791S	1:1	0.080	1.256	0.100	
820.10	564	CDMA BC10 (§90S)	RC3 / SO55	25.8	24.81	0.14	Left	Cheek	112	1791S	1:1	0.121	1.256	0.152	
820.10	564	CDMA BC10 (§90S)	RC3 / SO55	25.8	24.81	-0.01	Left	Tilt	112	1791S	1:1	0.073	1.256	0.092	
820.10	564	CDMA BC10 (§90S)	EVDO Rev. A	25.8	24.54	0.03	Right	Cheek	112	1791S	1:1	0.144	1.337	0.193	
820.10	564	CDMA BC10 (§90S)	EVDO Rev. A	25.8	24.54	0.07	Right	Tilt	112	1791S	1:1	0.075	1.337	0.100	
820.10	564	CDMA BC10 (§90S)	EVDO Rev. A	25.8	24.54	0.08	Left	Cheek	112	1791S	1:1	0.119	1.337	0.159	
820.10	564	CDMA BC10 (§90S)	EVDO Rev. A	25.8	24.54	0.04	Left	Tilt	112	1791S	1:1	0.074	1.337	0.099	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population							Head 1.6 W/kg (mW/g) averaged over 1 gram								

Table 11-2
CDMA BC0 (§22H) Head SAR

MEASUREMENT RESULTS															
FREQUENCY		Mode	Service	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Side	Test Position	Ant State	Device Serial Number	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.											(W/kg)		(W/kg)	
836.52	384	CDMA BC0 (§22H)	RC3 / SO55	25.8	24.81	-0.07	Right	Cheek	66	1791S	1:1	0.197	1.256	0.247	A2
836.52	384	CDMA BC0 (§22H)	RC3 / SO55	25.8	24.81	0.13	Right	Tilt	66	1791S	1:1	0.103	1.256	0.129	
836.52	384	CDMA BC0 (§22H)	RC3 / SO55	25.8	24.81	-0.02	Left	Cheek	66	1791S	1:1	0.159	1.256	0.200	
836.52	384	CDMA BC0 (§22H)	RC3 / SO55	25.8	24.81	0.06	Left	Tilt	66	1791S	1:1	0.097	1.256	0.122	
836.52	384	CDMA BC0 (§22H)	EVDO Rev. A	25.8	24.58	0.04	Right	Cheek	66	1791S	1:1	0.177	1.324	0.234	
836.52	384	CDMA BC0 (§22H)	EVDO Rev. A	25.8	24.58	0.03	Right	Tilt	66	1791S	1:1	0.094	1.324	0.124	
836.52	384	CDMA BC0 (§22H)	EVDO Rev. A	25.8	24.58	0.14	Left	Cheek	66	1791S	1:1	0.145	1.324	0.192	
836.52	384	CDMA BC0 (§22H)	EVDO Rev. A	25.8	24.58	0.07	Left	Tilt	66	1791S	1:1	0.100	1.324	0.132	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population							Head 1.6 W/kg (mW/g) averaged over 1 gram								

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Table 11-3
PCS CDMA Head SAR

MEASUREMENT RESULTS															
FREQUENCY		Mode	Service	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Side	Test Position	Ant State	Device Serial Number	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.											(W/kg)		(W/kg)	
1880.00	600	PCS CDMA	RC3 / SO55	24.5	23.90	0.17	Right	Cheek	112	1786S	1:1	0.109	1.148	0.125	
1880.00	600	PCS CDMA	RC3 / SO55	24.5	23.90	0.05	Right	Tilt	112	1786S	1:1	0.083	1.148	0.095	
1880.00	600	PCS CDMA	RC3 / SO55	24.5	23.90	0.11	Left	Cheek	112	1786S	1:1	0.169	1.148	0.194	A3
1880.00	600	PCS CDMA	RC3 / SO55	24.5	23.90	0.20	Left	Tilt	112	1786S	1:1	0.097	1.148	0.111	
1880.00	600	PCS CDMA	EVDO Rev. A	24.5	23.34	0.11	Right	Cheek	112	1786S	1:1	0.099	1.306	0.129	
1880.00	600	PCS CDMA	EVDO Rev. A	24.5	23.34	0.12	Right	Tilt	112	1786S	1:1	0.050	1.306	0.065	
1880.00	600	PCS CDMA	EVDO Rev. A	24.5	23.34	0.00	Left	Cheek	112	1786S	1:1	0.148	1.306	0.193	
1880.00	600	PCS CDMA	EVDO Rev. A	24.5	23.34	0.11	Left	Tilt	112	1786S	1:1	0.058	1.306	0.076	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population							Head 1.6 W/kg (mW/g) averaged over 1 gram								

Table 11-4
GSM 850 Head SAR

MEASUREMENT RESULTS															
FREQUENCY		Mode	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	33.5	32.11	0.10	Right	Cheek	1791S	1:8.3	0.139	1.377	0.191	A4
836.60	190	GSM 850	GSM	33.5	32.11	0.02	Right	Tilt	1791S	1:8.3	0.078	1.377	0.107	
836.60	190	GSM 850	GSM	33.5	32.11	-0.06	Left	Cheek	1791S	1:8.3	0.108	1.377	0.149	
836.60	190	GSM 850	GSM	33.5	32.11	0.17	Left	Tilt	1791S	1:8.3	0.065	1.377	0.090	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population							Head 1.6 W/kg (mW/g) averaged over 1 gram							

Table 11-5
GSM 1900 Head SAR

MEASUREMENT RESULTS															
FREQUENCY		Mode	Service	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Side	Test Position	Device Serial Number	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.										(W/kg)		(W/kg)	
1880.00	661	GSM 1900	GSM	30.5	29.03	0.14	Right	Cheek	1786S	1:8.3	0.028	1.403	0.039	
1880.00	661	GSM 1900	GSM	30.5	29.03	0.02	Right	Tilt	1786S	1:8.3	0.041	1.403	0.058	
1880.00	661	GSM 1900	GSM	30.5	29.03	0.13	Left	Cheek	1786S	1:8.3	0.057	1.403	0.080	A5
1880.00	661	GSM 1900	GSM	30.5	29.03	0.12	Left	Tilt	1786S	1:8.3	0.049	1.403	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							

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Table 11-6
UMTS 850 Head SAR

MEASUREMENT RESULTS															
FREQUENCY		Mode	Service	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Side	Test Position	Ant State	Device Serial Number	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.											(W/kg)		(W/kg)	
836.60	4183	UMTS 850	RMC	25.8	24.93	0.04	Right	Cheek	66	1791S	1:1	0.217	1.222	0.265	A6
836.60	4183	UMTS 850	RMC	25.8	24.93	0.06	Right	Tilt	66	1791S	1:1	0.107	1.222	0.131	
836.60	4183	UMTS 850	RMC	25.8	24.93	0.18	Left	Cheek	66	1791S	1:1	0.181	1.222	0.221	
836.60	4183	UMTS 850	RMC	25.8	24.93	-0.10	Left	Tilt	66	1791S	1:1	0.110	1.222	0.134	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population							Head 1.6 W/kg (mW/g) averaged over 1 gram								

Table 11-7
UMTS 1750 Head SAR

MEASUREMENT RESULTS															
FREQUENCY		Mode	Service	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Side	Test Position	Ant State	Device Serial Number	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.											(W/kg)		(W/kg)	
1732.40	1412	UMTS 1750	RMC	24.0	23.51	0.18	Right	Cheek	112	1786S	1:1	0.082	1.119	0.092	
1732.40	1412	UMTS 1750	RMC	24.0	23.51	0.05	Right	Tilt	112	1786S	1:1	0.046	1.119	0.051	
1732.40	1412	UMTS 1750	RMC	24.0	23.51	0.01	Left	Cheek	112	1786S	1:1	0.087	1.119	0.097	A7
1732.40	1412	UMTS 1750	RMC	24.0	23.51	0.13	Left	Tilt	112	1786S	1:1	0.053	1.119	0.059	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population							Head 1.6 W/kg (mW/g) averaged over 1 gram								

Table 11-8
UMTS 1900 Head SAR

MEASUREMENT RESULTS															
FREQUENCY		Mode	Service	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Side	Test Position	Ant State	Device Serial Number	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.											(W/kg)		(W/kg)	
1880.00	9400	UMTS 1900	RMC	24.0	23.44	0.18	Right	Cheek	112	1786S	1:1	0.078	1.138	0.089	
1880.00	9400	UMTS 1900	RMC	24.0	23.44	0.16	Right	Tilt	112	1786S	1:1	0.087	1.138	0.099	
1880.00	9400	UMTS 1900	RMC	24.0	23.44	0.15	Left	Cheek	112	1786S	1:1	0.127	1.138	0.145	A8
1880.00	9400	UMTS 1900	RMC	24.0	23.44	0.12	Left	Tilt	112	1786S	1:1	0.101	1.138	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 11-9
LTE Band 71 Head SAR

MEASUREMENT RESULTS																				
FREQUENCY			Mode	Bandwidth [MHz]	Ant State	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)	
680.50	133297	Mid	LTE Band 71	20	0	25.8	25.55	0.05	0	Right	Cheek	QPSK	1	50	1342S	1:1	0.146	1.059	0.155	A9
680.50	133297	Mid	LTE Band 71	20	0	24.8	24.56	0.03	1	Right	Cheek	QPSK	50	25	1342S	1:1	0.108	1.057	0.114	
680.50	133297	Mid	LTE Band 71	20	0	25.8	25.55	-0.16	0	Right	Tilt	QPSK	1	50	1342S	1:1	0.054	1.059	0.057	
680.50	133297	Mid	LTE Band 71	20	0	24.8	24.56	-0.15	1	Right	Tilt	QPSK	50	25	1342S	1:1	0.042	1.057	0.044	
680.50	133297	Mid	LTE Band 71	20	0	25.8	25.55	-0.03	0	Left	Cheek	QPSK	1	50	1342S	1:1	0.124	1.059	0.131	
680.50	133297	Mid	LTE Band 71	20	0	24.8	24.56	0.06	1	Left	Cheek	QPSK	50	25	1342S	1:1	0.098	1.057	0.104	
680.50	133297	Mid	LTE Band 71	20	0	25.8	25.55	-0.16	0	Left	Tilt	QPSK	1	50	1342S	1:1	0.064	1.059	0.068	
680.50	133297	Mid	LTE Band 71	20	0	24.8	24.56	-0.07	1	Left	Tilt	QPSK	50	25	1342S	1:1	0.049	1.057	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										

Table 11-10
LTE Band 12 Head SAR

MEASUREMENT RESULTS																				
FREQUENCY			Mode	Bandwidth [MHz]	Ant State	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)	
707.50	23095	Mid	LTE Band 12	10	5	25.8	25.01	0.04	0	Right	Cheek	QPSK	1	49	1342S	1:1	0.155	1.199	0.186	A10
707.50	23095	Mid	LTE Band 12	10	5	24.8	24.15	0.15	1	Right	Cheek	QPSK	25	12	1342S	1:1	0.134	1.161	0.156	
707.50	23095	Mid	LTE Band 12	10	5	25.8	25.01	0.03	0	Right	Tilt	QPSK	1	49	1342S	1:1	0.069	1.199	0.083	
707.50	23095	Mid	LTE Band 12	10	5	24.8	24.15	-0.18	1	Right	Tilt	QPSK	25	12	1342S	1:1	0.058	1.161	0.067	
707.50	23095	Mid	LTE Band 12	10	5	25.8	25.01	-0.14	0	Left	Cheek	QPSK	1	49	1342S	1:1	0.135	1.199	0.162	
707.50	23095	Mid	LTE Band 12	10	5	24.8	24.15	0.16	1	Left	Cheek	QPSK	25	12	1342S	1:1	0.115	1.161	0.134	
707.50	23095	Mid	LTE Band 12	10	5	25.8	25.01	-0.14	0	Left	Tilt	QPSK	1	49	1342S	1:1	0.076	1.199	0.091	
707.50	23095	Mid	LTE Band 12	10	5	24.8	24.15	0.12	1	Left	Tilt	QPSK	25	12	1342S	1:1	0.061	1.161	0.071	
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]	Ant State	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)	
782.00	23230	Mid	LTE Band 13	10	0	25.8	25.23	0.00	0	Right	Cheek	QPSK	1	0	1342S	1:1	0.170	1.140	0.194	A11
782.00	23230	Mid	LTE Band 13	10	0	24.8	24.26	0.00	1	Right	Cheek	QPSK	25	0	1342S	1:1	0.138	1.132	0.156	
782.00	23230	Mid	LTE Band 13	10	0	25.8	25.23	-0.19	0	Right	Tilt	QPSK	1	0	1342S	1:1	0.075	1.140	0.086	
782.00	23230	Mid	LTE Band 13	10	0	24.8	24.26	-0.13	1	Right	Tilt	QPSK	25	0	1342S	1:1	0.061	1.132	0.069	
782.00	23230	Mid	LTE Band 13	10	0	25.8	25.23	0.03	0	Left	Cheek	QPSK	1	0	1342S	1:1	0.139	1.140	0.158	
782.00	23230	Mid	LTE Band 13	10	0	24.8	24.26	0.04	1	Left	Cheek	QPSK	25	0	1342S	1:1	0.114	1.132	0.129	
782.00	23230	Mid	LTE Band 13	10	0	25.8	25.23	-0.13	0	Left	Tilt	QPSK	1	0	1342S	1:1	0.082	1.140	0.093	
782.00	23230	Mid	LTE Band 13	10	0	24.8	24.26	-0.12	1	Left	Tilt	QPSK	25	0	1342S	1:1	0.054	1.132	0.061	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population										Head 1.6 W/kg (mW/g) averaged over 1 gram										

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Table 11-12
LTE Band 14 Head SAR

MEASUREMENT RESULTS																					
FREQUENCY			Mode	Bandwidth [MHz]	Ant State	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)	
793.00	23330	Mid	LTE Band 14	10	112	25.8	25.06	-0.15	0	Right	Cheek	QPSK	1	0	1342S	1:1	0.195	1.186	0.231	A12
793.00	23330	Mid	LTE Band 14	10	112	24.8	24.04	-0.15	1	Right	Cheek	QPSK	25	0	1342S	1:1	0.141	1.191	0.168	
793.00	23330	Mid	LTE Band 14	10	112	25.8	25.06	0.04	0	Right	Tilt	QPSK	1	0	1342S	1:1	0.092	1.186	0.109	
793.00	23330	Mid	LTE Band 14	10	112	24.8	24.04	0.17	1	Right	Tilt	QPSK	25	0	1342S	1:1	0.070	1.191	0.083	
793.00	23330	Mid	LTE Band 14	10	112	25.8	25.06	-0.14	0	Left	Cheek	QPSK	1	0	1342S	1:1	0.129	1.186	0.153	
793.00	23330	Mid	LTE Band 14	10	112	24.8	24.04	0.18	1	Left	Cheek	QPSK	25	0	1342S	1:1	0.093	1.191	0.111	
793.00	23330	Mid	LTE Band 14	10	112	25.8	25.06	-0.05	0	Left	Tilt	QPSK	1	0	1342S	1:1	0.073	1.186	0.087	
793.00	23330	Mid	LTE Band 14	10	112	24.8	24.04	0.07	1	Left	Tilt	QPSK	25	0	1342S	1:1	0.058	1.191	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 11-13
LTE Band 26 (Cell) Head SAR

MEASUREMENT RESULTS																					
FREQUENCY			Mode	Bandwidth [MHz]	Ant State	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)	
831.50	26865	Mid	LTE Band 26 (Cell)	15	112	25.8	25.21	0.07	0	Right	Cheek	QPSK	1	0	1342S	1:1	0.150	1.146	0.172	A13
831.50	26865	Mid	LTE Band 26 (Cell)	15	112	24.8	24.27	0.05	1	Right	Cheek	QPSK	36	18	1342S	1:1	0.138	1.130	0.156	
831.50	26865	Mid	LTE Band 26 (Cell)	15	112	25.8	25.21	0.10	0	Right	Tilt	QPSK	1	0	1342S	1:1	0.078	1.146	0.089	
831.50	26865	Mid	LTE Band 26 (Cell)	15	112	24.8	24.27	-0.17	1	Right	Tilt	QPSK	36	18	1342S	1:1	0.074	1.130	0.084	
831.50	26865	Mid	LTE Band 26 (Cell)	15	112	25.8	25.21	0.13	0	Left	Cheek	QPSK	1	0	1342S	1:1	0.148	1.146	0.170	
831.50	26865	Mid	LTE Band 26 (Cell)	15	112	24.8	24.27	0.03	1	Left	Cheek	QPSK	36	18	1342S	1:1	0.110	1.130	0.124	
831.50	26865	Mid	LTE Band 26 (Cell)	15	112	25.8	25.21	0.01	0	Left	Tilt	QPSK	1	0	1342S	1:1	0.097	1.146	0.111	
831.50	26865	Mid	LTE Band 26 (Cell)	15	112	24.8	24.27	0.05	1	Left	Tilt	QPSK	36	18	1342S	1:1	0.070	1.130	0.079	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population										Head 1.6 W/kg (mW/g) averaged over 1 gram										

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

MEASUREMENT RESULTS																						
1 CC Uplink | 2 CC Uplink	Component Carrier	FREQUENCY			Mode	Bandwidth [MHz]	Ant State	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	N/A	836.50	20525	Mid	LTE Band 5 (Cell)	10	0	25.8	25.03	-0.12	0	Right	Cheek	QPSK	1	49	1342S	1:1	0.174	1.194	0.208	
1 CC Uplink	N/A	836.50	20525	Mid	LTE Band 5 (Cell)	10	0	24.8	24.10	0.00	1	Right	Cheek	QPSK	25	25	1342S	1:1	0.134	1.175	0.157	
2 CC Uplink	PCC	836.50	20525	Mid	LTE Band 5 (Cell)	10	0	25.8	25.36	0.04	0	Right	Cheek	QPSK	1	49	1342S	1:1	0.187	1.107	0.207	A14
	SCC	843.70	20597			5									1	0						
1 CC Uplink	N/A	836.50	20525	Mid	LTE Band 5 (Cell)	10	66	25.8	25.03	0.12	0	Right	Tilt	QPSK	1	49	1342S	1:1	0.074	1.194	0.088	
1 CC Uplink	N/A	836.50	20525	Mid	LTE Band 5 (Cell)	10	66	24.8	24.10	0.08	1	Right	Tilt	QPSK	25	25	1342S	1:1	0.062	1.175	0.073	
1 CC Uplink	N/A	836.50	20525	Mid	LTE Band 5 (Cell)	10	66	25.8	25.03	0.03	0	Left	Cheek	QPSK	1	49	1342S	1:1	0.132	1.194	0.158	
1 CC Uplink	N/A	836.50	20525	Mid	LTE Band 5 (Cell)	10	66	24.8	24.10	0.15	1	Left	Cheek	QPSK	25	25	1342S	1:1	0.106	1.175	0.125	
1 CC Uplink	N/A	836.50	20525	Mid	LTE Band 5 (Cell)	10	66	25.8	25.03	0.18	0	Left	Tilt	QPSK	1	49	1342S	1:1	0.079	1.194	0.094	
1 CC Uplink	N/A	836.50	20525	Mid	LTE Band 5 (Cell)	10	66	24.8	24.10	0.12	1	Left	Tilt	QPSK	25	25	1342S	1:1	0.064	1.175	0.075	
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																							
1 CC Uplink | 2 CC Uplink	Component Carrier	FREQUENCY MHz	FREQUENCY Ch.		Mode	Bandwidth [MHz]	Ant State	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Side	Test Position	Modulation	RB Size	RB Offset	Device Serial Number	Duty Cycle	SAR (1g) (W/kg)	Scaling Factor	Reported SAR (1g) (W/kg)	Plot #
1 CC Uplink	N/A	1720.00	132072	Low	LTE Band 66 (AWS)	20	0	24.5	23.38	0.12	0	Right	Cheek	QPSK	1	50	0671M	1:1	0.043	1.294	0.056	
1 CC Uplink	N/A	1720.00	132072	Low	LTE Band 66 (AWS)	20	0	23.5	22.55	0.01	1	Right	Cheek	QPSK	50	25	0671M	1:1	0.037	1.245	0.046	
1 CC Uplink	N/A	1720.00	132072	Low	LTE Band 66 (AWS)	20	0	24.5	23.38	0.07	0	Right	Tilt	QPSK	1	50	0671M	1:1	0.037	1.294	0.048	
1 CC Uplink	N/A	1720.00	132072	Low	LTE Band 66 (AWS)	20	0	23.5	22.55	0.15	1	Right	Tilt	QPSK	50	25	0671M	1:1	0.033	1.245	0.041	
1 CC Uplink	N/A	1720.00	132072	Low	LTE Band 66 (AWS)	20	0	24.5	23.38	0.11	0	Left	Cheek	QPSK	1	50	0671M	1:1	0.077	1.294	0.100	
1 CC Uplink	N/A	1720.00	132072	Low	LTE Band 66 (AWS)	20	0	24.5	23.19	0.05	0	Left	Cheek	QPSK	1	99	0671M	1:1	0.102	1.352	0.138	
1 CC Uplink	N/A	1715.00	132022	Low	LTE Band 66 (AWS)	10	0	24.5	23.04	0.09	0	Left	Cheek	QPSK	1	49	0671M	1:1	0.067	1.400	0.094	
1 CC Uplink	N/A	1720.00	132072	Low	LTE Band 66 (AWS)	20	0	23.5	22.55	-0.12	1	Left	Cheek	QPSK	50	25	0671M	1:1	0.065	1.245	0.081	
2 CC Uplink CA_66C	PCC	1720.00	132072	Low	LTE Band 66 (AWS)	20	0	24.5	23.89	0.06	0	Left	Cheek	QPSK	1	99	0671M	1:1	0.115	1.151	0.132	A15
	SCC	1739.80	132270			20									1	0						
2 CC Uplink CA_66B	PCC	1715.00	132022	Low	LTE Band 66 (AWS)	10	0	24.5	23.93	0.02	0	Left	Cheek	QPSK	1	49	0671M	1:1	0.086	1.140	0.098	
	SCC	1724.90	132121			10									1	0						
1 CC Uplink	N/A	1720.00	132072	Low	LTE Band 66 (AWS)	20	0	24.5	23.38	0.07	0	Left	Tilt	QPSK	1	50	0671M	1:1	0.023	1.294	0.030	
1 CC Uplink	N/A	1720.00	132072	Low	LTE Band 66 (AWS)	20	0	23.5	22.55	0.09	1	Left	Tilt	QPSK	50	25	0671M	1:1	0.019	1.245	0.024	
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 MHz	FREQUENCY Ch.		Mode	Bandwidth [MHz]	Ant State	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Side	Test Position	Modulation	RB Size	RB Offset	Device Serial Number	Duty Cycle	SAR (1g) (W/kg)	Scaling Factor	Reported SAR (1g) (W/kg)	Plot #
1860.00	26140	Low	LTE Band 25 (PCS)	20	112	24.0	23.76	-0.02	0	Right	Cheek	QPSK	1	50	1768S	1:1	0.089	1.057	0.094	
1860.00	26140	Low	LTE Band 25 (PCS)	20	112	23.0	22.83	0.17	1	Right	Cheek	QPSK	50	25	1768S	1:1	0.067	1.040	0.070	
1860.00	26140	Low	LTE Band 25 (PCS)	20	112	24.0	23.76	-0.01	0	Right	Tilt	QPSK	1	50	1768S	1:1	0.085	1.057	0.090	
1860.00	26140	Low	LTE Band 25 (PCS)	20	112	23.0	22.83	0.00	1	Right	Tilt	QPSK	50	25	1768S	1:1	0.066	1.040	0.069	
1860.00	26140	Low	LTE Band 25 (PCS)	20	112	24.0	23.76	0.14	0	Left	Cheek	QPSK	1	50	1768S	1:1	0.111	1.057	0.117	A16
1860.00	26140	Low	LTE Band 25 (PCS)	20	112	23.0	22.83	0.09	1	Left	Cheek	QPSK	50	25	1768S	1:1	0.095	1.040	0.099	
1860.00	26140	Low	LTE Band 25 (PCS)	20	112	24.0	23.76	0.14	0	Left	Tilt	QPSK	1	50	1768S	1:1	0.092	1.057	0.097	
1860.00	26140	Low	LTE Band 25 (PCS)	20	112	23.0	22.83	0.14	1	Left	Tilt	QPSK	50	25	1768S	1:1	0.080	1.040	0.083	
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 MHz	FREQUENCY Ch.		Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Side	Test Position	Modulation	RB Size	RB Offset	Device Serial Number	Duty Cycle	SAR (1g) (W/kg)	Scaling Factor	Reported SAR (1g) (W/kg)	Plot #
2310.00	27710	Mid	LTE Band 30	10	24.0	23.82	0.07	0	Right	Cheek	QPSK	1	0	1766S	1:1	0.054	1.042	0.056	A17
2310.00	27710	Mid	LTE Band 30	10	23.0	22.79	0.06	1	Right	Cheek	QPSK	25	0	1766S	1:1	0.048	1.050	0.050	
2310.00	27710	Mid	LTE Band 30	10	24.0	23.82	0.13	0	Right	Tilt	QPSK	1	0	1766S	1:1	0.044	1.042	0.046	
2310.00	27710	Mid	LTE Band 30	10	23.0	22.79	0.15	1	Right	Tilt	QPSK	25	0	1766S	1:1	0.040	1.050	0.042	
2310.00	27710	Mid	LTE Band 30	10	24.0	23.82	0.16	0	Left	Cheek	QPSK	1	0	1766S	1:1	0.031	1.042	0.032	
2310.00	27710	Mid	LTE Band 30	10	23.0	22.79	0.15	1	Left	Cheek	QPSK	25	0	1766S	1:1	0.029	1.050	0.030	
2310.00	27710	Mid	LTE Band 30	10	24.0	23.82	0.14	0	Left	Tilt	QPSK	1	0	1766S	1:1	0.044	1.042	0.046	
2310.00	27710	Mid	LTE Band 30	10	23.0	22.79	0.14	1	Left	Tilt	QPSK	25	0	1766S	1:1	0.037	1.050	0.039	
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)	
2510.00	20850	Low	LTE Band 7	20	24.0	23.75	0.16	0	Right	Cheek	QPSK	1	99	0669M	1:1	0.064	1.059	0.068	
2510.00	20850	Low	LTE Band 7	20	23.0	22.94	0.13	1	Right	Cheek	QPSK	50	0	0669M	1:1	0.061	1.014	0.062	
2510.00	20850	Low	LTE Band 7	20	24.0	23.75	0.17	0	Right	Tilt	QPSK	1	99	0669M	1:1	0.101	1.059	0.107	
2510.00	20850	Low	LTE Band 7	20	23.0	22.94	0.12	1	Right	Tilt	QPSK	50	0	0669M	1:1	0.089	1.014	0.090	
2510.00	20850	Low	LTE Band 7	20	24.0	23.75	0.08	0	Left	Cheek	QPSK	1	99	0669M	1:1	0.106	1.059	0.112	A18
2510.00	20850	Low	LTE Band 7	20	23.0	22.94	0.13	1	Left	Cheek	QPSK	50	0	0669M	1:1	0.090	1.014	0.091	
2510.00	20850	Low	LTE Band 7	20	24.0	23.75	0.19	0	Left	Tilt	QPSK	1	99	0669M	1:1	0.068	1.059	0.072	
2510.00	20850	Low	LTE Band 7	20	23.0	22.94	0.18	1	Left	Tilt	QPSK	50	0	0669M	1:1	0.047	1.014	0.048	
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 48 Head SAR

MEASUREMENT RESULTS																					
1 CC Uplink | 2 CC Uplink	Component Carrier	FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Side	Test Position	Modulation	RB Size	RB Offset	Device Serial Number	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
		MHz	Ch.															(W/kg)		(W/kg)	
1 CC Uplink	N/A	3560.00	55340	Low	LTE Band 48	20	19.0	17.92	-0.07	0	Right	Cheek	QPSK	1	50	1766S	1:1.58	0.657	1.282	0.842	
1 CC Uplink	N/A	3603.30	55773	Low-Mid	LTE Band 48	20	19.0	17.74	0.04	0	Right	Cheek	QPSK	1	50	1766S	1:1.58	0.568	1.337	0.759	
1 CC Uplink	N/A	3646.70	56207	Mid-High	LTE Band 48	20	19.0	17.84	-0.01	0	Right	Cheek	QPSK	1	50	1766S	1:1.58	0.481	1.306	0.628	
1 CC Uplink	N/A	3690.00	56640	High	LTE Band 48	20	19.0	17.90	-0.06	0	Right	Cheek	QPSK	1	50	1766S	1:1.58	0.513	1.288	0.661	
1 CC Uplink	N/A	3560.00	55340	Low	LTE Band 48	20	19.0	18.10	0.04	0	Right	Cheek	QPSK	50	25	1766S	1:1.58	0.670	1.230	0.824	
1 CC Uplink	N/A	3603.30	55773	Low-Mid	LTE Band 48	20	19.0	17.94	0.04	0	Right	Cheek	QPSK	50	25	1766S	1:1.58	0.599	1.276	0.764	
1 CC Uplink	N/A	3646.70	56207	Mid-High	LTE Band 48	20	19.0	17.90	-0.04	0	Right	Cheek	QPSK	50	25	1766S	1:1.58	0.499	1.288	0.643	
1 CC Uplink	N/A	3690.00	56640	High	LTE Band 48	20	19.0	18.06	0.01	0	Right	Cheek	QPSK	50	25	1766S	1:1.58	0.536	1.242	0.666	
1 CC Uplink	N/A	3560.00	55340	Low	LTE Band 48	20	19.0	17.89	-0.17	0	Right	Cheek	QPSK	100	0	1766S	1:1.58	0.607	1.291	0.784	
1 CC Uplink	N/A	3560.00	55340	Low	LTE Band 48	20	19.0	17.92	0.01	0	Right	Tilt	QPSK	1	50	1766S	1:1.58	0.682	1.282	0.874	
1 CC Uplink	N/A	3603.30	55773	Low-Mid	LTE Band 48	20	19.0	17.74	-0.05	0	Right	Tilt	QPSK	1	50	1766S	1:1.58	0.616	1.337	0.824	
1 CC Uplink	N/A	3646.70	56207	Mid-High	LTE Band 48	20	19.0	17.84	0.08	0	Right	Tilt	QPSK	1	50	1766S	1:1.58	0.686	1.306	0.896	
1 CC Uplink	N/A	3690.00	56640	High	LTE Band 48	20	19.0	17.90	0.16	0	Right	Tilt	QPSK	1	50	1766S	1:1.58	0.728	1.288	**0.938**	
1 CC Uplink	N/A	3560.00	55340	Low	LTE Band 48	20	19.0	18.10	0.02	0	Right	Tilt	QPSK	50	25	1766S	1:1.58	0.689	1.230	0.847	
1 CC Uplink	N/A	3603.30	55773	Low-Mid	LTE Band 48	20	19.0	17.94	-0.12	0	Right	Tilt	QPSK	50	25	1766S	1:1.58	0.636	1.276	0.812	
1 CC Uplink	N/A	3646.70	56207	Mid-High	LTE Band 48	20	19.0	17.90	0.17	0	Right	Tilt	QPSK	50	25	1766S	1:1.58	0.696	1.288	0.896	
1 CC Uplink	N/A	3690.00	56640	High	LTE Band 48	20	19.0	17.97	-0.11	0	Right	Tilt	QPSK	50	0	1766S	1:1.58	0.742	1.268	**0.941**	
1 CC Uplink	N/A	3690.00	56640	High	LTE Band 48	20	19.0	18.06	0.12	0	Right	Tilt	QPSK	50	25	1766S	1:1.58	0.758	1.242	**0.941**	
1 CC Uplink	N/A	3560.00	55340	Low	LTE Band 48	20	19.0	17.89	0.13	0	Right	Tilt	QPSK	100	0	1766S	1:1.58	0.721	1.291	0.931	
2 CC Uplink	PCC	3690.00	56640	High	LTE Band 48	20	19.0	19.00	-0.03	0	Right	Tilt	QPSK	50	0	1766S	1:1.58	0.942	1.000	**0.942**	A19
	SCC	3670.20	56442			20								50	50						
1 CC Uplink	N/A	3560.00	55340	Low	LTE Band 48	20	19.0	17.92	0.04	0	Left	Cheek	QPSK	1	50	1766S	1:1.58	0.143	1.282	0.183	
1 CC Uplink	N/A	3560.00	55340	Low	LTE Band 48	20	19.0	18.10	0.03	0	Left	Cheek	QPSK	50	25	1766S	1:1.58	0.143	1.230	0.176	
1 CC Uplink	N/A	3560.00	55340	Low	LTE Band 48	20	19.0	17.92	0.18	0	Left	Tilt	QPSK	1	50	1766S	1:1.58	0.174	1.282	0.223	
1 CC Uplink	N/A	3560.00	55340	Low	LTE Band 48	20	19.0	18.10	0.10	0	Left	Tilt	QPSK	50	25	1766S	1:1.58	0.173	1.230	0.213	
2 CC Uplink	PCC	3690.00	56640	High	LTE Band 48	20	19.0	19.00	-0.03	0	Right	Tilt	QPSK	50	0	1766S	1:1.58	0.936	1.000	**0.936**	
	SCC	3670.20	56442											50	50						
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Note: Blue entry represents variability measurement

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Table 11-20
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	25.0	24.10	0.15	0	Right	Cheek	QPSK	1	0	1790S	1:1.58	0.063	1.230	0.077	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	25.0	24.48	0.12	0	Right	Cheek	QPSK	1	50	1790S	1:1.58	0.070	1.127	0.079	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	24.0	23.63	0.14	1	Right	Cheek	QPSK	50	25	1790S	1:1.58	0.058	1.089	0.063	
1 CC Uplink - Power Class 2	N/A	2593.00	40620	Mid	LTE Band 41	20	28.0	26.81	0.17	0	Right	Cheek	QPSK	1	0	1790S	1:2.31	0.082	1.315	0.108	
1 CC Uplink - Power Class 2	N/A	2593.00	40620	Mid	LTE Band 41	20	28.0	27.23	-0.14	0	Right	Cheek	QPSK	1	50	1790S	1:2.31	0.090	1.194	0.107	
2 CC Uplink - Power Class 3	PCC	2593.00	40620	Mid	LTE Band 41	20	25.0	24.94	0.13	0	Right	Cheek	QPSK	1	0	1790S	1:1.58	0.076	1.014	0.077	
	SCC	2573.20	40422			20								1	99						
2 CC Uplink - Power Class 2	PCC	2593.00	40620	Mid	LTE Band 41	20	28.0	27.99	-0.01	0	Right	Cheek	QPSK	1	0	1790S	1:2.31	0.104	1.002	0.104	A20
	SCC	2573.20	40422			20								1	99						
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	25.0	24.48	0.09	0	Right	Tilt	QPSK	1	50	1790S	1:1.58	0.064	1.127	0.072	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	24.0	23.63	0.14	1	Right	Tilt	QPSK	50	25	1790S	1:1.58	0.050	1.089	0.054	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	25.0	24.48	0.19	0	Left	Cheek	QPSK	1	50	1790S	1:1.58	0.069	1.127	0.078	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	24.0	23.63	0.13	1	Left	Cheek	QPSK	50	25	1790S	1:1.58	0.050	1.089	0.054	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	25.0	24.48	0.12	0	Left	Tilt	QPSK	1	50	1790S	1:1.58	0.058	1.127	0.065	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	24.0	23.63	0.15	1	Left	Tilt	QPSK	50	25	1790S	1:1.58	0.039	1.089	0.042	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population											Head 1.6 W/kg (mW/g) averaged over 1 gram										

Table 11-21
NR Band n71 Head SAR

MEASUREMENT RESULTS																					
FREQUENCY			Mode	Bandwidth [MHz]	Ant State	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)	
680.50	136100	Mid	NR Band n71	20	0	25.5	24.32	0.09	0	Right	Cheek	DFT-S-OFDM QPSK	1	1	1764S	1:1	0.090	1.312	0.118	
680.50	136100	Mid	NR Band n71	20	0	25.5	23.81	0.04	0	Right	Cheek	DFT-S-OFDM QPSK	50	28	1764S	1:1	0.097	1.476	0.143	A21
680.50	136100	Mid	NR Band n71	20	0	24.0	22.82	0.08	1.5	Right	Cheek	CP-OFDM QPSK	1	1	1764S	1:1	0.060	1.312	0.079	
680.50	136100	Mid	NR Band n71	20	0	25.5	24.32	0.01	0	Right	Tilt	DFT-S-OFDM QPSK	1	1	1764S	1:1	0.035	1.312	0.046	
680.50	136100	Mid	NR Band n71	20	0	25.5	23.81	0.15	0	Right	Tilt	DFT-S-OFDM QPSK	50	28	1764S	1:1	0.042	1.476	0.062	
680.50	136100	Mid	NR Band n71	20	0	25.5	24.32	0.04	0	Left	Cheek	DFT-S-OFDM QPSK	1	1	1764S	1:1	0.089	1.312	0.117	
680.50	136100	Mid	NR Band n71	20	0	25.5	23.81	0.14	0	Left	Cheek	DFT-S-OFDM QPSK	50	28	1764S	1:1	0.096	1.476	0.142	
680.50	136100	Mid	NR Band n71	20	0	25.5	24.32	0.19	0	Left	Tilt	DFT-S-OFDM QPSK	1	1	1764S	1:1	0.046	1.312	0.060	
680.50	136100	Mid	NR Band n71	20	0	25.5	23.81	0.04	0	Left	Tilt	DFT-S-OFDM QPSK	50	28	1764S	1:1	0.049	1.476	0.072	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population											Head 1.6 W/kg (mW/g) averaged over 1 gram										

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Table 11-22
NR Band n5 (Cell) Head SAR

MEASUREMENT RESULTS																					
FREQUENCY			Mode	Bandwidth [MHz]	Ant State	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)	
836.50	167300	Mid	NR Band n5 (Cell)	20	0	25.5	24.47	-0.10	0	Right	Cheek	DFT-S-OFDM QPSK	1	104	1764S	1:1	0.125	1.268	0.159	
836.50	167300	Mid	NR Band n5 (Cell)	20	0	25.5	24.21	-0.15	0	Right	Cheek	DFT-S-OFDM QPSK	50	28	1764S	1:1	0.138	1.346	0.186	A22
836.50	167300	Mid	NR Band n5 (Cell)	20	0	24.0	22.94	-0.13	1.5	Right	Cheek	CP-OFDM QPSK	1	1	1764S	1:1	0.109	1.276	0.139	
836.50	167300	Mid	NR Band n5 (Cell)	20	66	25.5	24.47	0.09	0	Right	Tilt	DFT-S-OFDM QPSK	1	104	1764S	1:1	0.071	1.268	0.090	
836.50	167300	Mid	NR Band n5 (Cell)	20	66	25.5	24.21	-0.13	0	Right	Tilt	DFT-S-OFDM QPSK	50	28	1764S	1:1	0.062	1.346	0.083	
836.50	167300	Mid	NR Band n5 (Cell)	20	66	25.5	24.47	0.08	0	Left	Cheek	DFT-S-OFDM QPSK	1	104	1764S	1:1	0.094	1.268	0.119	
836.50	167300	Mid	NR Band n5 (Cell)	20	66	25.5	24.21	0.07	0	Left	Cheek	DFT-S-OFDM QPSK	50	28	1764S	1:1	0.097	1.346	0.131	
836.50	167300	Mid	NR Band n5 (Cell)	20	66	25.5	24.47	0.10	0	Left	Tilt	DFT-S-OFDM QPSK	1	104	1764S	1:1	0.064	1.268	0.081	
836.50	167300	Mid	NR Band n5 (Cell)	20	66	25.5	24.21	0.11	0	Left	Tilt	DFT-S-OFDM QPSK	50	28	1764S	1:1	0.061	1.346	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 11-23
NR Band n66 (AWS) Head SAR

MEASUREMENT RESULTS																					
FREQUENCY			Mode	Bandwidth [MHz]	Ant State	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)	
1745.00	349000	Mid	NR Band n66 (AWS)	20	0	24.6	24.60	0.05	0	Right	Cheek	DFT-S-OFDM QPSK	1	53	1788S	1:1	0.121	1.000	0.121	
1745.00	349000	Mid	NR Band n66 (AWS)	20	0	24.6	24.51	0.11	0	Right	Cheek	DFT-S-OFDM QPSK	50	28	1788S	1:1	0.101	1.021	0.103	
1745.00	349000	Mid	NR Band n66 (AWS)	20	0	24.6	24.60	0.15	0	Right	Tilt	DFT-S-OFDM QPSK	1	53	1788S	1:1	0.095	1.000	0.095	
1745.00	349000	Mid	NR Band n66 (AWS)	20	0	24.6	24.51	0.16	0	Right	Tilt	DFT-S-OFDM QPSK	50	28	1788S	1:1	0.090	1.021	0.092	
1745.00	349000	Mid	NR Band n66 (AWS)	20	0	24.6	24.60	-0.17	0	Left	Cheek	DFT-S-OFDM QPSK	1	53	1788S	1:1	0.138	1.000	0.138	A23
1745.00	349000	Mid	NR Band n66 (AWS)	20	0	24.6	24.51	-0.16	0	Left	Cheek	DFT-S-OFDM QPSK	50	28	1788S	1:1	0.131	1.021	0.134	
1745.00	349000	Mid	NR Band n66 (AWS)	20	0	23.1	22.35	0.14	1.5	Left	Cheek	CP-OFDM QPSK	1	1	1788S	1:1	0.087	1.189	0.103	
1745.00	349000	Mid	NR Band n66 (AWS)	20	0	24.6	24.60	-0.16	0	Left	Tilt	DFT-S-OFDM QPSK	1	53	1788S	1:1	0.096	1.000	0.096	
1745.00	349000	Mid	NR Band n66 (AWS)	20	0	24.6	24.51	-0.16	0	Left	Tilt	DFT-S-OFDM QPSK	50	28	1788S	1:1	0.088	1.021	0.090	
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 11-24
NR Band n2 (PCS) Head SAR

MEASUREMENT RESULTS																					
FREQUENCY			Mode	Bandwidth [MHz]	Ant State	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)	
1880.00	376000	Mid	NR Band n2 (PCS)	20	112	24.0	23.30	0.17	0	Right	Cheek	DFT-S-OFDM QPSK	1	1	1788S	1:1	0.092	1.175	0.108	
1880.00	376000	Mid	NR Band n2 (PCS)	20	112	24.0	23.40	0.08	0	Right	Cheek	DFT-S-OFDM QPSK	50	28	1788S	1:1	0.076	1.148	0.087	
1880.00	376000	Mid	NR Band n2 (PCS)	20	112	24.0	23.30	0.14	0	Right	Tilt	DFT-S-OFDM QPSK	1	1	1788S	1:1	0.068	1.175	0.080	
1880.00	376000	Mid	NR Band n2 (PCS)	20	112	24.0	23.40	0.12	0	Right	Tilt	DFT-S-OFDM QPSK	50	28	1788S	1:1	0.062	1.148	0.071	
1880.00	376000	Mid	NR Band n2 (PCS)	20	112	24.0	23.30	0.21	0	Left	Cheek	DFT-S-OFDM QPSK	1	1	1788S	1:1	0.127	1.175	0.149	A24
1880.00	376000	Mid	NR Band n2 (PCS)	20	112	24.0	23.40	0.11	0	Left	Cheek	DFT-S-OFDM QPSK	50	28	1788S	1:1	0.102	1.148	0.117	
1900.00	380000	High	NR Band n2 (PCS)	20	112	22.5	22.38	0.01	1.5	Left	Cheek	CP-OFDM QPSK	1	1	1788S	1:1	0.087	1.028	0.089	
1880.00	376000	Mid	NR Band n2 (PCS)	20	112	24.0	23.30	0.19	0	Left	Tilt	DFT-S-OFDM QPSK	1	1	1788S	1:1	0.093	1.175	0.109	
1880.00	376000	Mid	NR Band n2 (PCS)	20	112	24.0	23.40	0.13	0	Left	Tilt	DFT-S-OFDM QPSK	50	28	1788S	1:1	0.058	1.148	0.067	
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 11-25
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	25.0	24.71	0.00	0	Right	Cheek	DFT-S-OFDM QPSK	1	137	1764S	1:4	0.508	1.069	0.543	
2592.99	518598	Mid	NR Band n41	100	25.0	24.53	0.08	0	Right	Cheek	DFT-S-OFDM QPSK	135	69	1764S	1:4	0.393	1.114	0.438	
2592.99	518598	Mid	NR Band n41	100	25.0	24.71	-0.02	0	Right	Tilt	DFT-S-OFDM QPSK	1	137	1764S	1:4	0.728	1.069	**0.778**	A25
2592.99	518598	Mid	NR Band n41	100	25.0	24.53	-0.01	0	Right	Tilt	DFT-S-OFDM QPSK	135	69	1764S	1:4	0.576	1.114	0.642	
2592.99	518598	Mid	NR Band n41	100	24.0	23.66	0.16	1	Right	Tilt	DFT-S-OFDM QPSK	270	0	1764S	1:4	0.428	1.081	0.463	
2592.99	518598	Mid	NR Band n41	100	23.5	22.76	-0.09	1.5	Right	Tilt	CP-OFDM QPSK	1	1	1764S	1:4	0.191	1.186	0.227	
2592.99	518598	Mid	NR Band n41	100	25.0	24.71	-0.04	0	Left	Cheek	DFT-S-OFDM QPSK	1	137	1764S	1:4	0.310	1.069	0.331	
2592.99	518598	Mid	NR Band n41	100	25.0	24.53	0.10	0	Left	Cheek	DFT-S-OFDM QPSK	135	69	1764S	1:4	0.264	1.114	0.294	
2592.99	518598	Mid	NR Band n41	100	25.0	24.71	0.01	0	Left	Tilt	DFT-S-OFDM QPSK	1	137	1764S	1:4	0.363	1.069	0.388	
2592.99	518598	Mid	NR Band n41	100	25.0	24.53	0.03	0	Left	Tilt	DFT-S-OFDM QPSK	135	69	1764S	1:4	0.293	1.114	0.326	
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
DTS Head SAR

MEASUREMENT RESULTS																			
FREQUENCY		Mode	Service	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Side	Test Position	Antenna Config.	Device Serial Number	Data Rate (Mbps)	Duty Cycle (%)	Peak SAR of Area Scan	SAR (1g)	Scaling Factor (Power)	Scaling Factor (Duty Cycle)	Reported SAR (1g)	Plot #
MHz	Ch.													W/kg	(W/kg)			(W/kg)	
2462	11	802.11b	DSSS	22	17.0	16.84	-0.05	Right	Cheek	1	0405M	1	98.8	0.645	-	1.038	1.012	-	
2412	1	802.11b	DSSS	22	17.0	16.73	-0.17	Right	Tilt	1	0405M	1	98.8	0.947	0.555	1.064	1.012	0.598	A26
2437	6	802.11b	DSSS	22	17.0	16.23	-0.16	Right	Tilt	1	0405M	1	98.8	0.986	0.530	1.194	1.012	**0.640**	
2462	11	802.11b	DSSS	22	17.0	16.84	-0.17	Right	Tilt	1	0405M	1	98.8	0.992	0.523	1.038	1.012	0.549	
2462	11	802.11b	DSSS	22	17.0	16.84	0.12	Left	Cheek	1	0405M	1	98.8	0.631	-	1.038	1.012	-	
2462	11	802.11b	DSSS	22	17.0	16.84	0.12	Left	Tilt	1	0405M	1	98.8	0.842	0.509	1.038	1.012	0.535	
2412	1	802.11b	DSSS	22	17.0	16.50	0.19	Right	Cheek	2	0396M	1	99.1	0.037	0.020	1.122	1.009	0.023	
2412	1	802.11b	DSSS	22	17.0	16.50	0.19	Right	Tilt	2	0396M	1	99.1	0.015	-	1.122	1.009	-	
2412	1	802.11b	DSSS	22	17.0	16.50	0.12	Left	Cheek	2	0396M	1	99.1	0.008	-	1.122	1.009	-	
2412	1	802.11b	DSSS	22	17.0	16.50	0.19	Left	Tilt	2	0396M	1	99.1	0.015	-	1.122	1.009	-	
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 11-27
DTS MIMO Head SAR

MEASUREMENT RESULTS																					
FREQUENCY		Mode	Service	Bandwidth [MHz]	Maximum Allowed Power (Ant 1) [dBm]	Conducted Power (Ant 1) [dBm]	Maximum Allowed Power (Ant 2) [dBm]	Conducted Power (Ant 2) [dBm]	Power Drift [dB]	Side	Test Position	Antenna Config.	Device Serial Number	Data Rate (Mbps)	Duty Cycle (%)	Peak SAR of Area Scan	SAR (1g)	Scaling Factor (Power)	Scaling Factor (Duty Cycle)	Reported SAR (1g)	Plot #
MHz	Ch.															W/kg	(W/kg)			(W/kg)	
2437	6	802.11n	OFDM	20	17.0	16.41	17.0	16.81	0.13	Right	Cheek	MIMO	0405M	13	98.6	0.776	-	1.146	1.014	-	
2437	6	802.11n	OFDM	20	17.0	16.41	17.0	16.81	-0.16	Right	Tilt	MIMO	0405M	13	98.6	0.906	0.509	1.146	1.014	0.591	
2437	6	802.11n	OFDM	20	17.0	16.41	17.0	16.81	0.15	Left	Cheek	MIMO	0405M	13	98.6	0.546	-	1.146	1.014	-	
2437	6	802.11n	OFDM	20	17.0	16.41	17.0	16.81	-0.17	Left	Tilt	MIMO	0405M	13	98.6	0.904	0.458	1.146	1.014	0.532	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population									**Head 1.6 W/kg (mW/g)** averaged over 1 gram												

Note: To achieve the 20.0 dBm maximum allowed MIMO power shown in the documentation, each antenna transmits at a maximum allowed power of 17.0 dBm.

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Table 11-28
DTS Head SAR for Conditions with 2.4 GHz and 5 GHz WLAN SAR

MEASUREMENT RESULTS																					
FREQUENCY		Mode	Service	Bandwidth [MHz]	Maximum Allowed Power (Ant 1) [dBm]	Conducted Power (Ant 1) [dBm]	Maximum Allowed Power (Ant 2) [dBm]	Conducted Power (Ant 2) [dBm]	Power Drift [dB]	Side	Test Position	Antenna Config.	Device Serial Number	Data Rate (Mbps)	Duty Cycle (%)	Peak SAR of Area Scan	SAR (1g)	Scaling Factor (Power)	Scaling Factor (Duty Cycle)	Reported SAR (1g)	Plot #
MHz	Ch.															W/kg	(W/kg)			(W/kg)	
2462	11	802.11n	OFDM	20	14.0	13.77	14.0	13.47	0.17	Right	Cheek	MIMO	0396M	13	98.6	0.165	-	1.130	1.014	-	
2462	11	802.11n	OFDM	20	14.0	13.77	14.0	13.47	0.13	Right	Tilt	MIMO	0396M	13	98.6	0.312	0.145	1.130	1.014	0.166	
2462	11	802.11n	OFDM	20	14.0	13.77	14.0	13.47	0.15	Left	Cheek	MIMO	0396M	13	98.6	0.202	-	1.130	1.014	-	
2462	11	802.11n	OFDM	20	14.0	13.77	14.0	13.47	0.14	Left	Tilt	MIMO	0396M	13	98.6	0.261	-	1.130	1.014	-	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population										Head 1.6 W/kg (mW/g) averaged over 1 gram											

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

Table 11-29
NII Head SAR

MEASUREMENT RESULTS																					
FREQUENCY		Mode	Service	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Side	Test Position	Antenna Config.	Device Serial Number	Data Rate (Mbps)	Duty Cycle (%)	Peak SAR of Area Scan	SAR (1g)	Scaling Factor (Power)	Scaling Factor (Duty Cycle)	Reported SAR (1g)	Plot #
MHz	Ch.													W/kg	(W/kg)			(W/kg)	
5270	54	802.11n	OFDM	40	14.0	13.89	0.15	Right	Cheek	1	0396M	13.5	97.3	0.161	0.050	1.026	1.028	0.053	
5270	54	802.11n	OFDM	40	14.0	13.89	0.19	Right	Tilt	1	0396M	13.5	97.3	0.055	-	1.026	1.028	-	
5270	54	802.11n	OFDM	40	14.0	13.89	0.16	Left	Cheek	1	0396M	13.5	97.3	0.027	-	1.026	1.028	-	
5270	54	802.11n	OFDM	40	14.0	13.89	0.19	Left	Tilt	1	0396M	13.5	97.3	0.027	-	1.026	1.028	-	
5270	54	802.11n	OFDM	40	14.0	13.21	0.15	Right	Cheek	2	0396M	13.5	97.3	0.409	0.193	1.199	1.028	**0.238**	
5270	54	802.11n	OFDM	40	14.0	13.21	0.13	Right	Tilt	2	0396M	13.5	97.3	0.138	-	1.199	1.028	-	
5270	54	802.11n	OFDM	40	14.0	13.21	0.14	Left	Cheek	2	0396M	13.5	97.3	0.063	-	1.199	1.028	-	
5270	54	802.11n	OFDM	40	14.0	13.21	0.19	Left	Tilt	2	0396M	13.5	97.3	0.060	-	1.199	1.028	-	
5690	138	802.11ac	OFDM	80	14.0	13.61	0.00	Right	Cheek	1	0396M	29.3	94.6	0.074	-	1.094	1.057	-	
5690	138	802.11ac	OFDM	80	14.0	13.61	0.19	Right	Tilt	1	0396M	29.3	94.6	0.084	0.015	1.094	1.057	0.017	
5690	138	802.11ac	OFDM	80	14.0	13.61	0.02	Left	Cheek	1	0396M	29.3	94.6	0.081	-	1.094	1.057	-	
5690	138	802.11ac	OFDM	80	14.0	13.61	0.19	Left	Tilt	1	0396M	29.3	94.6	0.070	-	1.094	1.057	-	
5690	138	802.11ac	OFDM	80	14.0	13.55	0.19	Right	Cheek	2	0396M	29.3	94.7	0.142	0.057	1.109	1.056	0.067	
5690	138	802.11ac	OFDM	80	14.0	13.55	0.19	Right	Tilt	2	0396M	29.3	94.7	0.086	-	1.109	1.056	-	
5690	138	802.11ac	OFDM	80	14.0	13.55	0.18	Left	Cheek	2	0396M	29.3	94.7	0.072	-	1.109	1.056	-	
5690	138	802.11ac	OFDM	80	14.0	13.55	0.19	Left	Tilt	2	0396M	29.3	94.7	0.079	-	1.109	1.056	-	
5775	155	802.11ac	OFDM	80	14.0	13.24	0.19	Right	Cheek	1	0396M	29.3	94.6	0.077	-	1.191	1.057	-	
5775	155	802.11ac	OFDM	80	14.0	13.24	0.19	Right	Tilt	1	0396M	29.3	94.6	0.098	0.019	1.191	1.057	0.024	
5775	155	802.11ac	OFDM	80	14.0	13.24	0.13	Left	Cheek	1	0396M	29.3	94.6	0.018	-	1.191	1.057	-	
5775	155	802.11ac	OFDM	80	14.0	13.24	0.00	Left	Tilt	1	0396M	29.3	94.6	0.019	-	1.191	1.057	-	
5775	155	802.11ac	OFDM	80	14.0	13.09	0.19	Right	Cheek	2	0396M	29.3	94.7	0.110	0.050	1.233	1.056	0.065	
5775	155	802.11ac	OFDM	80	14.0	13.09	0.19	Right	Tilt	2	0396M	29.3	94.7	0.091	-	1.233	1.056	-	
5775	155	802.11ac	OFDM	80	14.0	13.09	0.19	Left	Cheek	2	0396M	29.3	94.7	0.063	-	1.233	1.056	-	
5775	155	802.11ac	OFDM	80	14.0	13.09	0.00	Left	Tilt	2	0396M	29.3	94.7	0.077	-	1.233	1.056	-	
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 11-30
NII MIMO Head SAR

MEASUREMENT RESULTS																					
FREQUENCY		Mode	Service	Bandwidth [MHz]	Maximum Allowed Power (Ant 1) [dBm]	Conducted Power (Ant 1) [dBm]	Maximum Allowed Power (Ant 2) [dBm]	Conducted Power (Ant 2) [dBm]	Power Drift [dB]	Side	Test Position	Antenna Config.	Device Serial Number	Data Rate (Mbps)	Duty Cycle (%)	Peak SAR of Area Scan	SAR (1g)	Scaling Factor (Power)	Scaling Factor (Duty Cycle)	Reported SAR (1g)	Plot #
MHz	Ch.															W/kg	(W/kg)			(W/kg)	
5270	54	802.11n	OFDM	40	14.0	13.89	14.0	13.21	0.10	Right	Cheek	MIMO	0396M	27	97.5	0.568	0.272	1.199	1.026	0.335	A27
5270	54	802.11n	OFDM	40	14.0	13.89	14.0	13.21	0.12	Right	Tilt	MIMO	0396M	27	97.5	0.178	0.099	1.199	1.026	0.122	
5270	54	802.11n	OFDM	40	14.0	13.89	14.0	13.21	0.16	Left	Cheek	MIMO	0396M	27	97.5	0.104	-	1.199	1.026	-	
5270	54	802.11n	OFDM	40	14.0	13.89	14.0	13.21	0.14	Left	Tilt	MIMO	0396M	27	97.5	0.097	-	1.199	1.026	-	
5690	138	802.11ac	OFDM	80	14.0	13.61	14.0	13.55	0.19	Right	Cheek	MIMO	0396M	58.5	91.3	0.126	0.059	1.109	1.095	0.072	
5690	138	802.11ac	OFDM	80	14.0	13.61	14.0	13.55	0.14	Right	Tilt	MIMO	0396M	58.5	91.3	0.115	0.047	1.109	1.095	0.057	
5690	138	802.11ac	OFDM	80	14.0	13.61	14.0	13.55	0.19	Left	Cheek	MIMO	0396M	58.5	91.3	0.079	-	1.109	1.095	-	
5690	138	802.11ac	OFDM	80	14.0	13.61	14.0	13.55	0.19	Left	Tilt	MIMO	0396M	58.5	91.3	0.093	-	1.109	1.095	-	
5775	155	802.11ac	OFDM	80	14.0	13.24	14.0	13.09	0.14	Right	Cheek	MIMO	0396M	58.5	91.3	0.130	0.058	1.233	1.095	0.078	
5775	155	802.11ac	OFDM	80	14.0	13.24	14.0	13.09	0.19	Right	Tilt	MIMO	0396M	58.5	91.3	0.121	0.055	1.233	1.095	0.074	
5775	155	802.11ac	OFDM	80	14.0	13.24	14.0	13.09	0.00	Left	Cheek	MIMO	0396M	58.5	91.3	0.072	-	1.233	1.095	-	
5775	155	802.11ac	OFDM	80	14.0	13.24	14.0	13.09	0.19	Left	Tilt	MIMO	0396M	58.5	91.3	0.087	-	1.233	1.095	-	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population										Head 1.6 W/kg (mW/g) averaged over 1 gram											

Note: To achieve the 17.0 dBm maximum allowed MIMO power shown in the documentation, each antenna transmits at a maximum allowed power of 14.0 dBm.

Table 11-31
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	13.5	13.43	-0.14	Right	Cheek	0396M	1	77.3	0.181	1.016	1.294	0.238	
2441.00	39	Bluetooth	FHSS	13.5	13.43	-0.13	Right	Tilt	0396M	1	77.3	0.252	1.016	1.294	**0.331**	A28
2441.00	39	Bluetooth	FHSS	13.5	13.43	-0.14	Left	Cheek	0396M	1	77.3	0.151	1.016	1.294	0.199	
2441.00	39	Bluetooth	FHSS	13.5	13.43	0.14	Left	Tilt	0396M	1	77.3	0.199	1.016	1.294	0.262	
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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11.2 Standalone Body-Worn SAR Data

Table 11-32
GSM/UMTS/CDMA Body-Worn SAR Data

MEASUREMENT RESULTS															
FREQUENCY		Mode	Service	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Spacing	Ant State	Device Serial Number	Duty Cycle	Side	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.											(W/kg)		(W/kg)	
820.10	564	CDMA BC10 (§90S)	TDSO / SO32	25.8	24.84	-0.06	15 mm	112	1786S	1:1	back	0.261	1.247	0.325	A29
836.52	384	CDMA BC0 (§22H)	TDSO / SO32	25.8	24.82	-0.02	15 mm	66	1786S	1:1	back	0.279	1.253	0.350	A31
1851.25	25	PCS CDMA	TDSO / SO32	24.5	23.89	0.05	15 mm	112	1791S	1:1	back	0.666	1.151	0.767	A33
1880.00	600	PCS CDMA	TDSO / SO32	24.5	23.85	0.04	15 mm	112	1791S	1:1	back	0.619	1.161	0.719	
1908.75	1175	PCS CDMA	TDSO / SO32	24.5	23.84	0.02	15 mm	112	1791S	1:1	back	0.627	1.164	0.730	
836.60	190	GSM 850	GSM	33.5	32.11	-0.04	15 mm	N/A	1786S	1:8.3	back	0.166	1.377	0.229	A35
1880.00	661	GSM 1900	GSM	30.5	29.03	-0.03	15 mm	N/A	1791S	1:8.3	back	0.232	1.403	0.325	A37
836.60	4183	UMTS 850	RMC	25.8	24.93	-0.02	15 mm	112	1786S	1:1	back	0.255	1.222	0.312	A39
1712.40	1312	UMTS 1750	RMC	24.0	23.38	0.00	15 mm	112	1791S	1:1	back	0.729	1.153	0.841	
1732.40	1412	UMTS 1750	RMC	24.0	23.51	-0.01	15 mm	112	1791S	1:1	back	0.754	1.119	0.844	A41
1752.60	1513	UMTS 1750	RMC	24.0	23.74	0.00	15 mm	112	1791S	1:1	back	0.707	1.062	0.751	
1852.40	9262	UMTS 1900	RMC	24.0	23.48	-0.01	15 mm	0	1791S	1:1	back	0.664	1.127	0.748	
1880.00	9400	UMTS 1900	RMC	24.0	23.44	-0.04	15 mm	0	1791S	1:1	back	0.679	1.138	0.773	A43
1907.60	9538	UMTS 1900	RMC	24.0	23.40	0.01	15 mm	0	1791S	1:1	back	0.648	1.148	0.744	
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 11-33
LTE Band Body-Worn SAR

MEASUREMENT RESULTS																				
FREQUENCY			Mode	Bandwidth [MHz]	Ant State	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)	
680.50	133297	Mid	LTE Band 71	20	0	25.8	25.55	-0.03	0	1342S	QPSK	1	50	15 mm	back	1:1	0.217	1.059	0.230	A45
680.50	133297	Mid	LTE Band 71	20	0	24.8	24.56	0.05	1	1342S	QPSK	50	25	15 mm	back	1:1	0.175	1.057	0.185	
707.50	23095	Mid	LTE Band 12	10	5	25.8	25.01	-0.07	0	1342S	QPSK	1	49	15 mm	back	1:1	0.241	1.199	0.289	A47
707.50	23095	Mid	LTE Band 12	10	5	24.8	24.15	-0.12	1	1342S	QPSK	25	12	15 mm	back	1:1	0.196	1.161	0.228	
782.00	23230	Mid	LTE Band 13	10	0	25.8	25.23	0.04	0	1342S	QPSK	1	0	15 mm	back	1:1	0.240	1.140	0.274	A49
782.00	23230	Mid	LTE Band 13	10	0	24.8	24.26	0.18	1	1342S	QPSK	25	0	15 mm	back	1:1	0.198	1.132	0.224	
793.00	23330	Mid	LTE Band 14	10	13	25.8	25.06	-0.01	0	1342S	QPSK	1	0	15 mm	back	1:1	0.246	1.186	0.292	A51
793.00	23330	Mid	LTE Band 14	10	13	24.8	24.04	-0.01	1	1342S	QPSK	25	0	15 mm	back	1:1	0.194	1.191	0.231	
831.50	26865	Mid	LTE Band 26 (Cell)	15	26	25.8	25.21	-0.01	0	1342S	QPSK	1	0	15 mm	back	1:1	0.268	1.146	0.307	A53
831.50	26865	Mid	LTE Band 26 (Cell)	15	26	24.8	24.27	0.00	1	1342S	QPSK	36	18	15 mm	back	1:1	0.228	1.130	0.258	
1860.00	26140	Low	LTE Band 25 (PCS)	20	112	24.0	23.76	0.06	0	1766S	QPSK	1	50	15 mm	back	1:1	0.721	1.057	0.762	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	112	24.0	23.72	-0.04	0	1766S	QPSK	1	50	15 mm	back	1:1	0.754	1.067	0.805	A59
1905.00	26590	High	LTE Band 25 (PCS)	20	112	24.0	23.45	0.03	0	1766S	QPSK	1	50	15 mm	back	1:1	0.687	1.135	0.780	
1860.00	26140	Low	LTE Band 25 (PCS)	20	112	23.0	22.83	-0.15	1	1766S	QPSK	50	25	15 mm	back	1:1	0.625	1.040	0.650	
1860.00	26140	Low	LTE Band 25 (PCS)	20	112	23.0	22.76	-0.05	1	1766S	QPSK	100	0	15 mm	back	1:1	0.574	1.057	0.607	
2310.00	27710	Mid	LTE Band 30	10	N/A	24.0	23.82	-0.03	0	1768S	QPSK	1	0	15 mm	back	1:1	0.581	1.042	0.605	A61
2310.00	27710	Mid	LTE Band 30	10	N/A	23.0	22.79	-0.01	1	1768S	QPSK	25	0	15 mm	back	1:1	0.466	1.050	0.489	
2510.00	20850	Low	LTE Band 7	20	N/A	24.0	23.75	-0.14	0	0669M	QPSK	1	99	15 mm	back	1:1	0.241	1.059	0.255	A63
2510.00	20850	Low	LTE Band 7	20	N/A	23.0	22.94	-0.01	1	0669M	QPSK	50	0	15 mm	back	1:1	0.171	1.014	0.173	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population											Body 1.6 W/kg (mW/g) averaged over 1 gram									

Table 11-34
LTE Band 5 Body-Worn SAR

MEASUREMENT RESULTS																						
1 CC Uplink | 2 CC Uplink	Component Carrier	FREQUENCY			Mode	Bandwidth [MHz]	Ant State	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	N/A	836.50	20525	Mid	LTE Band 5 (Cell)	10	112	25.8	25.03	-0.05	0	0671M	QPSK	1	49	15 mm	back	1:1	0.268	1.194	0.320	
1 CC Uplink	N/A	836.50	20525	Mid	LTE Band 5 (Cell)	10	112	24.8	24.10	-0.01	1	0671M	QPSK	25	25	15 mm	back	1:1	0.228	1.175	0.268	
2 CC Uplink	PCC	836.50	20525	Mid	LTE Band 5 (Cell)	10	112	25.8	25.36	-0.05	0	0671M	QPSK	1	49	15 mm	back	1:1	0.280	1.107	0.310	A55
	SCC	843.70	20597			5								1	0							
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population												Body 1.6 W/kg (mW/g) averaged over 1 gram										

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Table 11-35
LTE Band 66 Body-Worn SAR

MEASUREMENT RESULTS																						
1 CC Uplink | 2 CC Uplink	Component Carrier	FREQUENCY			Mode	Bandwidth [MHz]	Ant State	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	N/A	1720.00	132072	Low	LTE Band 66 (AWS)	20	112	24.5	23.38	0.00	0	0671M	QPSK	1	50	15 mm	back	1:1	0.671	1.294	0.868	
1 CC Uplink	N/A	1745.00	132322	Mid	LTE Band 66 (AWS)	20	112	24.5	23.34	0.00	0	0671M	QPSK	1	50	15 mm	back	1:1	0.659	1.306	0.861	
1 CC Uplink	N/A	1770.00	132572	High	LTE Band 66 (AWS)	20	112	24.5	23.35	-0.14	0	0671M	QPSK	1	0	15 mm	back	1:1	0.673	1.303	0.877	
1 CC Uplink	N/A	1775.00	132622	High	LTE Band 66 (AWS)	10	112	24.5	22.98	0.03	0	0671M	QPSK	1	0	15 mm	back	1:1	0.589	1.419	0.836	
1 CC Uplink	N/A	1720.00	132072	Low	LTE Band 66 (AWS)	20	112	23.5	22.55	0.01	1	0671M	QPSK	50	25	15 mm	back	1:1	0.565	1.245	0.703	
1 CC Uplink	N/A	1720.00	132072	Low	LTE Band 66 (AWS)	20	112	23.5	22.48	0.10	1	0671M	QPSK	100	0	15 mm	back	1:1	0.541	1.265	0.684	
2 CC Uplink CA_66C	PCC	1770.00	132572	High	LTE Band 66 (AWS)	20	112	24.5	23.90	-0.10	0	0671M	QPSK	1	0	15 mm	back	1:1	0.772	1.148	0.886	A57
	SCC	1750.20	132374			20								1	99	15 mm						
2 CC Uplink CA_66B	PCC	1775.00	132622	High	LTE Band 66 (AWS)	10	112	24.5	23.45	-0.04	0	0671M	QPSK	1	0	15 mm	back	1:1	0.677	1.274	0.862	
	SCC	1765.10	132523			10								1	49	15 mm						
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population														Body 1.6 W/kg (mW/g) averaged over 1 gram								

Table 11-36
LTE Band 48 Body-Worn SAR

MEASUREMENT RESULTS																						
1 CC Uplink | 2 CC Uplink	Component Carrier	FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Device Serial Number	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
		MHz	Ch.															(W/kg)		(W/kg)	
1 CC Uplink	N/A	3690.00	56640	High	LTE Band 48	20	24.5	23.01	0.10	0	1766S	QPSK	1	0	15 mm	back	1:1.58	0.195	1.409	0.275	
1 CC Uplink	N/A	3690.00	56640	High	LTE Band 48	20	24.5	23.36	0.00	0	1766S	QPSK	1	50	15 mm	back	1:1.58	0.198	1.300	0.257	
1 CC Uplink	N/A	3690.00	56640	High	LTE Band 48	20	23.5	22.43	0.08	1	1766S	QPSK	50	25	15 mm	back	1:1.58	0.160	1.279	0.205	
2 CC Uplink	PCC	3690.00	56640	High	LTE Band 48	20	24.5	23.95	-0.12	0	1766S	QPSK	1	0	15 mm	back	1:1.58	0.254	1.135	0.288	A65
	SCC	3670.20	56442			20							1	99							
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 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	25.0	24.10	-0.18	0	1790S	QPSK	1	0	15 mm	back	1:1.58	0.248	1.230	0.305	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	25.0	24.48	-0.04	0	1790S	QPSK	1	50	15 mm	back	1:1.58	0.285	1.127	0.321	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	24.0	23.63	-0.01	1	1790S	QPSK	50	25	15 mm	back	1:1.58	0.224	1.089	0.244	
1 CC Uplink - Power Class 2	N/A	2593.00	40620	Mid	LTE Band 41	20	28.0	26.81	-0.03	0	1790S	QPSK	1	0	15 mm	back	1:2.31	0.311	1.315	0.409	
1 CC Uplink - Power Class 2	N/A	2593.00	40620	Mid	LTE Band 41	20	28.0	27.23	0.02	0	1790S	QPSK	1	50	15 mm	back	1:2.31	0.334	1.194	0.399	
2 CC Uplink - Power Class 3	PCC	2593.00	40620	Mid	LTE Band 41	20	25.0	24.94	0.13	0	1790S	QPSK	1	0	15 mm	back	1:1.58	0.313	1.014	0.317	
	SCC	2573.20	40422			20							1	99							
2 CC Uplink - Power Class 2	PCC	2593.00	40620	Mid	LTE Band 41	20	28.0	27.99	0.01	0	1790S	QPSK	1	0	15 mm	back	1:2.31	0.420	1.002	0.421	A67
	SCC	2573.20	40422			20							1	99							
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 11-38
NR Body-Worn SAR

MEASUREMENT RESULTS																				
FREQUENCY			Mode	Bandwidth [MHz]	Ant State	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)	
680.50	136100	Mid	NR Band n71	20	0	25.5	24.32	-0.04	0	1764S	DFT-S-OFDM QPSK	1	1	15 mm	back	1:1	0.138	1.312	0.181	
680.50	136100	Mid	NR Band n71	20	0	25.5	23.81	-0.02	0	1764S	DFT-S-OFDM QPSK	50	28	15 mm	back	1:1	0.153	1.476	0.226	A69
680.50	136100	Mid	NR Band n71	20	0	24.0	22.82	0.03	1.5	1764S	CP-OFDM QPSK	1	1	15 mm	back	1:1	0.100	1.312	0.131	
836.50	167300	Mid	NR Band n5 (Cell)	20	112	25.5	24.47	-0.02	0	1764S	DFT-S-OFDM QPSK	1	104	15 mm	back	1:1	0.245	1.268	0.311	A71
836.50	167300	Mid	NR Band n5 (Cell)	20	112	25.5	24.21	0.02	0	1764S	DFT-S-OFDM QPSK	50	28	15 mm	back	1:1	0.240	1.346	0.323	
836.50	167300	Mid	NR Band n5 (Cell)	20	112	24.0	22.94	0.03	1.5	1764S	CP-OFDM QPSK	1	1	15 mm	back	1:1	0.168	1.276	0.214	
1720.00	344000	Low	NR Band n66 (AWS)	20	112	24.6	24.37	0.02	0	1787S	DFT-S-OFDM QPSK	1	53	15 mm	back	1:1	0.649	1.054	0.684	
1745.00	349000	Mid	NR Band n66 (AWS)	20	112	24.6	24.60	-0.06	0	1787S	DFT-S-OFDM QPSK	1	53	15 mm	back	1:1	0.914	1.000	0.914	A73
1770.00	354000	High	NR Band n66 (AWS)	20	112	24.6	23.89	0.00	0	1787S	DFT-S-OFDM QPSK	1	53	15 mm	back	1:1	0.744	1.178	0.876	
1720.00	344000	Low	NR Band n66 (AWS)	20	112	24.6	24.01	-0.03	0	1787S	DFT-S-OFDM QPSK	50	28	15 mm	back	1:1	0.645	1.146	0.739	
1745.00	349000	Mid	NR Band n66 (AWS)	20	112	24.6	24.51	-0.02	0	1787S	DFT-S-OFDM QPSK	50	28	15 mm	back	1:1	0.886	1.021	0.905	
1770.00	354000	High	NR Band n66 (AWS)	20	112	24.6	23.61	-0.03	0	1787S	DFT-S-OFDM QPSK	50	28	15 mm	back	1:1	0.755	1.256	**0.948**	
1745.00	349000	Mid	NR Band n66 (AWS)	20	112	23.6	23.34	0.00	1	1787S	DFT-S-OFDM QPSK	100	0	15 mm	back	1:1	0.749	1.062	0.795	
1745.00	349000	Mid	NR Band n66 (AWS)	20	112	23.1	22.35	0.01	1.5	1787S	CP-OFDM QPSK	1	1	15 mm	back	1:1	0.481	1.189	0.572	
1860.00	372000	Low	NR Band n2 (PCS)	20	112	24.0	23.23	-0.05	0	1788S	DFT-S-OFDM QPSK	1	104	15 mm	back	1:1	0.753	1.194	0.899	
1880.00	376000	Mid	NR Band n2 (PCS)	20	112	24.0	23.30	0.11	0	1788S	DFT-S-OFDM QPSK	1	1	15 mm	back	1:1	0.750	1.175	0.881	
1900.00	380000	High	NR Band n2 (PCS)	20	112	24.0	23.20	-0.01	0	1788S	DFT-S-OFDM QPSK	1	53	15 mm	back	1:1	0.721	1.202	0.867	
1860.00	372000	Low	NR Band n2 (PCS)	20	112	24.0	23.07	-0.04	0	1788S	DFT-S-OFDM QPSK	50	28	15 mm	back	1:1	0.746	1.239	0.924	
1880.00	376000	Mid	NR Band n2 (PCS)	20	112	24.0	23.40	-0.05	0	1788S	DFT-S-OFDM QPSK	50	28	15 mm	back	1:1	0.762	1.148	0.875	A75
1900.00	380000	High	NR Band n2 (PCS)	20	112	24.0	23.30	-0.01	0	1788S	DFT-S-OFDM QPSK	50	28	15 mm	back	1:1	0.736	1.175	0.865	
1880.00	376000	Mid	NR Band n2 (PCS)	20	112	23.0	22.95	-0.03	1	1788S	DFT-S-OFDM QPSK	100	0	15 mm	back	1:1	0.695	1.012	0.703	
1900.00	380000	High	NR Band n2 (PCS)	20	112	22.5	22.38	0.06	1.5	1788S	CP-OFDM QPSK	1	1	15 mm	back	1:1	0.575	1.028	0.591	
2592.99	518598	Mid	NR Band n41	100	N/A	25.0	24.71	0.13	0	1764S	DFT-S-OFDM QPSK	1	137	15 mm	back	1:4	0.043	1.069	0.046	A77
2592.99	518598	Mid	NR Band n41	100	N/A	25.0	24.53	0.12	0	1764S	DFT-S-OFDM QPSK	135	69	15 mm	back	1:4	0.041	1.114	0.046	
2592.99	518598	Mid	NR Band n41	100	N/A	23.5	22.76	0.12	1.5	1764S	CP-OFDM QPSK	1	1	15 mm	back	1:4	0.014	1.186	0.017	
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 11-39
DTS Body-Worn SAR

MEASUREMENT RESULTS																				
FREQUENCY		Mode	Service	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Spacing	Antenna Config.	Device Serial Number	Data Rate (Mbps)	Side	Duty Cycle (%)	Peak SAR of Area Scan	SAR (1g)	Scaling Factor (Power)	Scaling Factor (Duty Cycle)	Reported SAR (1g)	Plot #
MHz	Ch.													W/kg	(W/kg)			(W/kg)	
2462	11	802.11b	DSSS	22	21.0	20.98	0.18	15 mm	1	0405M	1	back	98.8	0.131	0.088	1.005	1.012	**0.090**	A79
2412	1	802.11b	DSSS	22	21.0	20.69	0.00	15 mm	2	0405M	1	back	99.1	0.061	0.038	1.074	1.009	0.041	
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
DTS Body-Worn SAR for Conditions with 2.4 GHz and 5 GHz WLAN SAR

MEASUREMENT RESULTS																				
FREQUENCY		Mode	Service	Bandwidth [MHz]	Maximum Allowed Power (Ant 1) [dBm]	Conducted Power (Ant 1) [dBm]	Maximum Allowed Power (Ant 2) [dBm]	Conducted Power (Ant 2) [dBm]	Power Drift [dB]	Spacing	Antenna Config.	Device Serial Number	Data Rate (Mbps)	Side	Duty Cycle (%)	Peak SAR of Area Scan	SAR (1g)	Scaling Factor (Power)	Scaling Factor (Duty Cycle)	Reported SAR (1g)	Plot #
MHz	Ch.															W/kg	(W/kg)			(W/kg)	
2437	6	802.11n	OFDM	20	17.0	16.41	17.0	16.81	0.12	15 mm	MIMO	0405M	13	back	98.6	0.064	0.044	1.146	1.014	0.051	
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: DTS MIMO was additionally evaluated at the maximum allowed output power during operations with Simultaneous 2.4 GHz and 5 GHz WLAN. 5 GHz WIFI was not transmitting during the above evaluations.

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Table 11-41
NII Body-Worn SAR

MEASUREMENT RESULTS																			
FREQUENCY		Mode	Service	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Spacing	Antenna Config.	Device Serial Number	Data Rate (Mbps)	Side	Duty Cycle (%)	Peak SAR of Area Scan	SAR (1g)	Scaling Factor (Power)	Scaling Factor (Duty Cycle)	Reported SAR (1g)	Plot #
MHz	Ch.													W/kg	(W/kg)			(W/kg)	
5300	60	802.11a	OFDM	20	18.5	18.17	0.04	15 mm	1	0405M	6	back	98.8	0.266	0.111	1.079	1.012	0.121	
5280	56	802.11a	OFDM	20	18.5	17.94	-0.02	15 mm	2	0405M	6	back	98.8	0.464	0.209	1.138	1.012	0.241	
5600	120	802.11a	OFDM	20	18.5	17.89	0.19	15 mm	1	0405M	6	back	98.8	0.109	0.045	1.151	1.012	0.052	
5520	104	802.11a	OFDM	20	18.5	17.75	-0.04	15 mm	2	0405M	6	back	98.8	1.060	0.508	1.189	1.012	0.611	
5600	120	802.11a	OFDM	20	18.5	17.77	-0.03	15 mm	2	0405M	6	back	98.8	1.364	0.657	1.183	1.012	**0.787**	A81
5620	124	802.11a	OFDM	20	18.5	17.87	-0.06	15 mm	2	0405M	6	back	98.8	1.084	0.636	1.156	1.012	0.744	
5720	144	802.11a	OFDM	20	18.5	17.20	0.09	15 mm	2	0405M	6	back	98.8	1.085	0.498	1.349	1.012	0.680	
5785	157	802.11a	OFDM	20	18.5	18.00	0.15	15 mm	1	0405M	6	back	98.8	0.135	0.057	1.122	1.012	0.065	
5785	157	802.11a	OFDM	20	18.5	17.49	0.14	15 mm	2	0405M	6	back	98.8	0.818	0.353	1.262	1.012	0.451	
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 11-42
NII MIMO Body-Worn SAR

MEASUREMENT RESULTS																					
FREQUENCY		Mode	Service	Bandwidth [MHz]	Maximum Allowed Power (Ant 1) [dBm]	Conducted Power (Ant 1) [dBm]	Maximum Allowed Power (Ant 2) [dBm]	Conducted Power (Ant 2) [dBm]	Power Drift [dB]	Spacing	Antenna Config.	Device Serial Number	Data Rate (Mbps)	Side	Duty Cycle (%)	Peak SAR of Area Scan	SAR (1g)	Scaling Factor (Power)	Scaling Factor (Duty Cycle)	Reported SAR (1g)	Plot #
MHz	Ch.															W/kg	(W/kg)			(W/kg)	
5300	60	802.11n	OFDM	20	18.5	18.04	18.5	17.98	0.13	15 mm	MIMO	0405M	13	back	98.9	0.566	0.270	1.127	1.011	0.308	
5520	104	802.11n	OFDM	20	18.5	17.80	18.5	17.69	-0.11	15 mm	MIMO	0405M	13	back	98.9	1.150	0.555	1.205	1.011	0.676	
5600	120	802.11n	OFDM	20	18.5	17.84	18.5	17.82	0.12	15 mm	MIMO	0405M	13	back	98.9	1.359	0.642	1.169	1.011	0.759	
5620	124	802.11n	OFDM	20	18.5	17.83	18.5	17.86	-0.08	15 mm	MIMO	0405M	13	back	98.9	1.242	0.616	1.167	1.011	0.727	
5720	144	802.11n	OFDM	20	18.5	17.64	18.5	17.32	0.13	15 mm	MIMO	0405M	13	back	98.9	1.247	0.557	1.312	1.011	0.739	
5785	157	802.11n	OFDM	20	18.5	17.89	18.5	17.65	0.12	15 mm	MIMO	0405M	13	back	98.9	1.079	0.485	1.216	1.011	0.596	
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: To achieve the 21.5 dBm maximum allowed MIMO power shown in the documentation, each antenna transmits at a maximum allowed power of 18.5 dBm

Table 11-43
NII Body-Worn SAR for Conditions with 2.4 GHz and 5 GHz WLAN SAR

MEASUREMENT RESULTS																					
FREQUENCY		Mode	Service	Bandwidth [MHz]	Maximum Allowed Power (Ant 1) [dBm]	Conducted Power (Ant 1) [dBm]	Maximum Allowed Power (Ant 2) [dBm]	Conducted Power (Ant 2) [dBm]	Power Drift [dB]	Spacing	Antenna Config.	Device Serial Number	Data Rate (Mbps)	Side	Duty Cycle (%)	Peak SAR of Area Scan	SAR (1g)	Scaling Factor (Power)	Scaling Factor (Duty Cycle)	Reported SAR (1g)	Plot #
MHz	Ch.															W/kg	(W/kg)			(W/kg)	
5270	54	802.11n	OFDM	40	14.0	13.89	14.0	13.21	0.10	15 mm	MIMO	0405M	27	back	97.5	0.194	0.083	1.199	1.026	0.102	
5690	138	802.11ac	OFDM	80	14.0	13.61	14.0	13.55	-0.10	15 mm	MIMO	0405M	58.5	back	91.3	0.339	0.150	1.109	1.095	0.182	
5775	155	802.11ac	OFDM	80	14.0	13.24	14.0	13.09	-0.16	15 mm	MIMO	0405M	58.5	back	91.3	0.318	0.124	1.233	1.095	0.167	
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: NII MIMO was additionally evaluated at the maximum allowed output power during operations with Simultaneous 2.4 GHz and 5 GHz WLAN. 2.4 GHz WIFI was not transmitting during the above evaluations.

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Table 11-44
NII Body-Worn SAR for Conditions with 5G NR FR2

MEASUREMENT RESULTS																			
FREQUENCY		Mode	Service	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Spacing	Antenna Config.	Device Serial Number	Data Rate (Mbps)	Side	Duty Cycle (%)	Peak SAR of Area Scan	SAR (1g)	Scaling Factor (Power)	Scaling Factor (Duty Cycle)	Reported SAR (1g)	Plot #
MHz	Ch.													W/kg	(W/kg)			(W/kg)	
5270	54	802.11n	OFDM	40	14.0	13.21	-0.14	15 mm	2	0396M	13.5	back	97.3	0.145	0.059	1.199	1.028	0.073	
5690	138	802.11ac	OFDM	80	14.0	13.55	0.16	15 mm	2	0396M	29.3	back	94.7	0.346	0.162	1.109	1.056	0.190	
5775	155	802.11ac	OFDM	80	14.0	13.09	0.13	15 mm	2	0396M	29.3	back	94.7	0.325	0.139	1.233	1.056	0.181	
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
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	13.5	13.43	0.13	15 mm	0405M	1	back	77.3	0.015	1.016	1.294	**0.020**	A83
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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11.3 Standalone Hotspot SAR Data

Table 11-46
GPRS/UMTS/CDMA Hotspot SAR Data

MEASUREMENT RESULTS																	
FREQUENCY		Mode	Service	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Spacing	Ant State	Device Serial Number	# of Time Slots	Duty Cycle	Side	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.												(W/kg)		(W/kg)	
820.10	564	CDMA BC10 (§90S)	EVDO Rev. 0	25.8	24.54	-0.01	10 mm	112	1786S	N/A	1:1	back	0.538	1.337	0.719	A30
820.10	564	CDMA BC10 (§90S)	EVDO Rev. 0	25.8	24.54	-0.02	10 mm	112	1786S	N/A	1:1	front	0.382	1.337	0.511	
820.10	564	CDMA BC10 (§90S)	EVDO Rev. 0	25.8	24.54	-0.07	10 mm	112	1786S	N/A	1:1	bottom	0.309	1.337	0.413	
820.10	564	CDMA BC10 (§90S)	EVDO Rev. 0	25.8	24.54	0.02	10 mm	112	1786S	N/A	1:1	right	0.242	1.337	0.324	
820.10	564	CDMA BC10 (§90S)	EVDO Rev. 0	25.8	24.54	-0.03	10 mm	112	1786S	N/A	1:1	left	0.078	1.337	0.104	
824.70	1013	CDMA BC0 (§22H)	EVDO Rev. 0	25.8	24.57	0.02	10 mm	66	1786S	N/A	1:1	back	0.517	1.327	0.686	
836.52	384	CDMA BC0 (§22H)	EVDO Rev. 0	25.8	24.56	-0.06	10 mm	66	1786S	N/A	1:1	back	0.529	1.330	0.704	
848.31	777	CDMA BC0 (§22H)	EVDO Rev. 0	25.8	24.58	-0.01	10 mm	66	1786S	N/A	1:1	back	0.565	1.324	0.748	A32
836.52	384	CDMA BC0 (§22H)	EVDO Rev. 0	25.8	24.56	0.04	10 mm	66	1786S	N/A	1:1	front	0.376	1.330	0.500	
836.52	384	CDMA BC0 (§22H)	EVDO Rev. 0	25.8	24.56	-0.07	10 mm	66	1786S	N/A	1:1	bottom	0.338	1.330	0.450	
836.52	384	CDMA BC0 (§22H)	EVDO Rev. 0	25.8	24.56	-0.01	10 mm	66	1786S	N/A	1:1	right	0.180	1.330	0.239	
836.52	384	CDMA BC0 (§22H)	EVDO Rev. 0	25.8	24.56	0.08	10 mm	66	1786S	N/A	1:1	left	0.047	1.330	0.063	
1880.00	600	PCS CDMA	EVDO Rev. 0	18.0	17.22	-0.08	10 mm	112	1786S	N/A	1:1	back	0.351	1.197	0.420	
1880.00	600	PCS CDMA	EVDO Rev. 0	18.0	17.22	-0.04	10 mm	112	1786S	N/A	1:1	front	0.247	1.197	0.296	
1851.25	25	PCS CDMA	EVDO Rev. 0	18.0	17.23	-0.05	10 mm	112	1786S	N/A	1:1	bottom	0.631	1.194	0.753	
1880.00	600	PCS CDMA	EVDO Rev. 0	18.0	17.22	-0.06	10 mm	112	1786S	N/A	1:1	bottom	0.681	1.197	0.815	
1908.75	1175	PCS CDMA	EVDO Rev. 0	18.0	17.19	0.00	10 mm	112	1786S	N/A	1:1	bottom	0.719	1.205	0.866	A34
1880.00	600	PCS CDMA	EVDO Rev. 0	18.0	17.22	-0.02	10 mm	112	1786S	N/A	1:1	right	0.044	1.197	0.053	
1880.00	600	PCS CDMA	EVDO Rev. 0	18.0	17.22	0.12	10 mm	112	1786S	N/A	1:1	left	0.035	1.197	0.042	
824.20	128	GSM 850	GPRS	30.5	29.36	-0.13	10 mm	N/A	1786S	3	1:2.76	back	0.548	1.300	0.712	A36
836.60	190	GSM 850	GPRS	30.5	29.43	-0.12	10 mm	N/A	1786S	3	1:2.76	back	0.531	1.279	0.679	
848.80	251	GSM 850	GPRS	30.5	29.29	-0.11	10 mm	N/A	1786S	3	1:2.76	back	0.428	1.321	0.565	
836.60	190	GSM 850	GPRS	30.5	29.43	-0.18	10 mm	N/A	1786S	3	1:2.76	front	0.348	1.279	0.445	
836.60	190	GSM 850	GPRS	30.5	29.43	-0.08	10 mm	N/A	1786S	3	1:2.76	bottom	0.256	1.279	0.327	
836.60	190	GSM 850	GPRS	30.5	29.43	0.14	10 mm	N/A	1786S	3	1:2.76	right	0.157	1.279	0.201	
836.60	190	GSM 850	GPRS	30.5	29.43	0.01	10 mm	N/A	1786S	3	1:2.76	left	0.054	1.279	0.069	
1880.00	661	GSM 1900	GPRS	23.1	21.96	-0.02	10 mm	N/A	1786S	4	1:2.076	back	0.271	1.300	0.352	
1880.00	661	GSM 1900	GPRS	23.1	21.96	0.01	10 mm	N/A	1786S	4	1:2.076	front	0.245	1.300	0.319	
1850.20	512	GSM 1900	GPRS	23.1	21.87	0.08	10 mm	N/A	1786S	4	1:2.076	bottom	0.490	1.327	0.650	
1880.00	661	GSM 1900	GPRS	23.1	21.96	-0.04	10 mm	N/A	1786S	4	1:2.076	bottom	0.664	1.300	0.863	A38
1909.80	810	GSM 1900	GPRS	23.1	21.87	0.04	10 mm	N/A	1786S	4	1:2.076	bottom	0.633	1.327	0.840	
1880.00	661	GSM 1900	GPRS	23.1	21.96	0.02	10 mm	N/A	1786S	4	1:2.076	right	0.036	1.300	0.047	
1880.00	661	GSM 1900	GPRS	23.1	21.96	0.04	10 mm	N/A	1786S	4	1:2.076	left	0.039	1.300	0.051	
826.40	4132	UMTS 850	RMC	25.8	24.92	-0.04	10 mm	112	1786S	N/A	1:1	back	0.509	1.225	0.624	
836.60	4183	UMTS 850	RMC	25.8	24.93	0.02	10 mm	112	1786S	N/A	1:1	back	0.570	1.222	0.697	A40
846.60	4233	UMTS 850	RMC	25.8	24.86	-0.04	10 mm	112	1786S	N/A	1:1	back	0.554	1.242	0.688	
836.60	4183	UMTS 850	RMC	25.8	24.93	0.02	10 mm	112	1786S	N/A	1:1	front	0.402	1.222	0.491	
836.60	4183	UMTS 850	RMC	25.8	24.93	-0.12	10 mm	112	1786S	N/A	1:1	bottom	0.312	1.222	0.381	
836.60	4183	UMTS 850	RMC	25.8	24.93	0.00	10 mm	112	1786S	N/A	1:1	right	0.234	1.222	0.286	
836.60	4183	UMTS 850	RMC	25.8	24.93	0.09	10 mm	112	1786S	N/A	1:1	left	0.062	1.222	0.076	
1732.40	1412	UMTS 1750	RMC	19.2	18.41	-0.02	10 mm	112	0671M	N/A	1:1	back	0.525	1.199	0.629	
1732.40	1412	UMTS 1750	RMC	19.2	18.41	-0.03	10 mm	112	0671M	N/A	1:1	front	0.408	1.199	0.489	
1712.40	1312	UMTS 1750	RMC	19.2	18.27	-0.02	10 mm	112	0671M	N/A	1:1	bottom	0.722	1.239	0.895	
1732.40	1412	UMTS 1750	RMC	19.2	18.41	-0.03	10 mm	112	0671M	N/A	1:1	bottom	0.903	1.199	**1.083**	
1752.60	1513	UMTS 1750	RMC	19.2	18.70	0.03	10 mm	112	0671M	N/A	1:1	bottom	0.910	1.122	1.021	A42
1732.40	1412	UMTS 1750	RMC	19.2	18.41	0.02	10 mm	112	0671M	N/A	1:1	right	0.077	1.199	0.092	
1732.40	1412	UMTS 1750	RMC	19.2	18.41	0.20	10 mm	112	0671M	N/A	1:1	left	0.043	1.199	0.052	
1880.00	9400	UMTS 1900	RMC	18.0	17.56	-0.19	10 mm	0	1786S	N/A	1:1	back	0.417	1.107	0.462	
1880.00	9400	UMTS 1900	RMC	18.0	17.56	-0.11	10 mm	0	1786S	N/A	1:1	front	0.264	1.107	0.292	
1852.40	9262	UMTS 1900	RMC	18.0	17.41	-0.04	10 mm	0	1786S	N/A	1:1	bottom	0.700	1.146	0.802	
1880.00	9400	UMTS 1900	RMC	18.0	17.56	-0.02	10 mm	0	1786S	N/A	1:1	bottom	0.785	1.107	0.869	
1907.60	9538	UMTS 1900	RMC	18.0	17.61	-0.16	10 mm	0	1786S	N/A	1:1	bottom	0.850	1.094	0.930	A44
1880.00	9400	UMTS 1900	RMC	18.0	17.56	0.00	10 mm	0	1786S	N/A	1:1	right	0.049	1.107	0.054	
1880.00	9400	UMTS 1900	RMC	18.0	17.56	-0.05	10 mm	0	1786S	N/A	1:1	left	0.041	1.107	0.045	
1907.60	9538	UMTS 1900	RMC	18.0	17.61	0.03	10 mm	0	1786S	N/A	1:1	bottom	0.784	1.094	0.858	
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 11-47
LTE Band 71 Hotspot SAR

MEASUREMENT RESULTS																					
FREQUENCY			Mode	Bandwidth [MHz]	Ant State	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)	
680.50	133297	Mid	LTE Band 71	20	0	25.8	25.55	0.11	0	1342S	QPSK	1	50	10 mm	back	1:1	0.291	1.059	0.308	A46
680.50	133297	Mid	LTE Band 71	20	0	24.8	24.56	-0.07	1	1342S	QPSK	50	25	10 mm	back	1:1	0.249	1.057	0.263	
680.50	133297	Mid	LTE Band 71	20	0	25.8	25.55	-0.02	0	1342S	QPSK	1	50	10 mm	front	1:1	0.241	1.059	0.255	
680.50	133297	Mid	LTE Band 71	20	0	24.8	24.56	0.01	1	1342S	QPSK	50	25	10 mm	front	1:1	0.193	1.057	0.204	
680.50	133297	Mid	LTE Band 71	20	0	25.8	25.55	-0.17	0	1342S	QPSK	1	50	10 mm	bottom	1:1	0.168	1.059	0.178	
680.50	133297	Mid	LTE Band 71	20	0	24.8	24.56	0.02	1	1342S	QPSK	50	25	10 mm	bottom	1:1	0.136	1.057	0.144	
680.50	133297	Mid	LTE Band 71	20	0	25.8	25.55	-0.02	0	1342S	QPSK	1	50	10 mm	right	1:1	0.240	1.059	0.254	
680.50	133297	Mid	LTE Band 71	20	0	24.8	24.56	-0.04	1	1342S	QPSK	50	25	10 mm	right	1:1	0.197	1.057	0.208	
680.50	133297	Mid	LTE Band 71	20	0	25.8	25.55	-0.06	0	1342S	QPSK	1	50	10 mm	left	1:1	0.143	1.059	0.151	
680.50	133297	Mid	LTE Band 71	20	0	24.8	24.56	-0.04	1	1342S	QPSK	50	25	10 mm	left	1:1	0.121	1.057	0.128	
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
LTE Band 12 Hotspot SAR

MEASUREMENT RESULTS																					
FREQUENCY			Mode	Bandwidth [MHz]	Ant State	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)	
707.50	23095	Mid	LTE Band 12	10	5	25.8	25.01	-0.02	0	1342S	QPSK	1	49	10 mm	back	1:1	0.341	1.199	0.409	A48
707.50	23095	Mid	LTE Band 12	10	5	24.8	24.15	0.04	1	1342S	QPSK	25	12	10 mm	back	1:1	0.291	1.161	0.338	
707.50	23095	Mid	LTE Band 12	10	5	25.8	25.01	-0.01	0	1342S	QPSK	1	49	10 mm	front	1:1	0.254	1.199	0.305	
707.50	23095	Mid	LTE Band 12	10	5	24.8	24.15	0.03	1	1342S	QPSK	25	12	10 mm	front	1:1	0.213	1.161	0.247	
707.50	23095	Mid	LTE Band 12	10	5	25.8	25.01	-0.13	0	1342S	QPSK	1	49	10 mm	bottom	1:1	0.180	1.199	0.216	
707.50	23095	Mid	LTE Band 12	10	5	24.8	24.15	-0.05	1	1342S	QPSK	25	12	10 mm	bottom	1:1	0.163	1.161	0.189	
707.50	23095	Mid	LTE Band 12	10	5	25.8	25.01	0.00	0	1342S	QPSK	1	49	10 mm	right	1:1	0.268	1.199	0.321	
707.50	23095	Mid	LTE Band 12	10	5	24.8	24.15	0.05	1	1342S	QPSK	25	12	10 mm	right	1:1	0.227	1.161	0.264	
707.50	23095	Mid	LTE Band 12	10	5	25.8	25.01	0.05	0	1342S	QPSK	1	49	10 mm	left	1:1	0.168	1.199	0.201	
707.50	23095	Mid	LTE Band 12	10	5	24.8	24.15	0.13	1	1342S	QPSK	25	12	10 mm	left	1:1	0.145	1.161	0.168	
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 11-49
LTE Band 13 Hotspot SAR

MEASUREMENT RESULTS																					
FREQUENCY			Mode	Bandwidth [MHz]	Ant State	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)	
782.00	23230	Mid	LTE Band 13	10	0	25.8	25.23	-0.03	0	1342S	QPSK	1	0	10 mm	back	1:1	0.427	1.140	0.487	A50
782.00	23230	Mid	LTE Band 13	10	0	24.8	24.26	-0.03	1	1342S	QPSK	25	0	10 mm	back	1:1	0.352	1.132	0.398	
782.00	23230	Mid	LTE Band 13	10	0	25.8	25.23	0.01	0	1342S	QPSK	1	0	10 mm	front	1:1	0.347	1.140	0.396	
782.00	23230	Mid	LTE Band 13	10	0	24.8	24.26	0.00	1	1342S	QPSK	25	0	10 mm	front	1:1	0.275	1.132	0.311	
782.00	23230	Mid	LTE Band 13	10	0	25.8	25.23	-0.15	0	1342S	QPSK	1	0	10 mm	bottom	1:1	0.279	1.140	0.318	
782.00	23230	Mid	LTE Band 13	10	0	24.8	24.26	0.06	1	1342S	QPSK	25	0	10 mm	bottom	1:1	0.217	1.132	0.246	
782.00	23230	Mid	LTE Band 13	10	0	25.8	25.23	-0.04	0	1342S	QPSK	1	0	10 mm	right	1:1	0.315	1.140	0.359	
782.00	23230	Mid	LTE Band 13	10	0	24.8	24.26	-0.01	1	1342S	QPSK	25	0	10 mm	right	1:1	0.253	1.132	0.286	
782.00	23230	Mid	LTE Band 13	10	0	25.8	25.23	-0.05	0	1342S	QPSK	1	0	10 mm	left	1:1	0.124	1.140	0.141	
782.00	23230	Mid	LTE Band 13	10	0	24.8	24.26	-0.03	1	1342S	QPSK	25	0	10 mm	left	1:1	0.099	1.132	0.112	
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 11-50
LTE Band 14 Hotspot SAR

MEASUREMENT RESULTS																					
FREQUENCY			Mode	Bandwidth [MHz]	Ant State	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)	
793.00	23330	Mid	LTE Band 14	10	13	25.8	25.06	-0.01	0	1342S	QPSK	1	0	10 mm	back	1:1	0.447	1.186	0.530	A52
793.00	23330	Mid	LTE Band 14	10	13	24.8	24.04	-0.02	1	1342S	QPSK	25	0	10 mm	back	1:1	0.363	1.191	0.432	
793.00	23330	Mid	LTE Band 14	10	13	25.8	25.06	0.00	0	1342S	QPSK	1	0	10 mm	front	1:1	0.358	1.186	0.425	
793.00	23330	Mid	LTE Band 14	10	13	24.8	24.04	0.00	1	1342S	QPSK	25	0	10 mm	front	1:1	0.291	1.191	0.347	
793.00	23330	Mid	LTE Band 14	10	13	25.8	25.06	0.18	0	1342S	QPSK	1	0	10 mm	bottom	1:1	0.287	1.186	0.340	
793.00	23330	Mid	LTE Band 14	10	13	24.8	24.04	0.00	1	1342S	QPSK	25	0	10 mm	bottom	1:1	0.232	1.191	0.276	
793.00	23330	Mid	LTE Band 14	10	13	25.8	25.06	-0.02	0	1342S	QPSK	1	0	10 mm	right	1:1	0.307	1.186	0.364	
793.00	23330	Mid	LTE Band 14	10	13	24.8	24.04	-0.05	1	1342S	QPSK	25	0	10 mm	right	1:1	0.262	1.191	0.312	
793.00	23330	Mid	LTE Band 14	10	13	25.8	25.06	0.09	0	1342S	QPSK	1	0	10 mm	left	1:1	0.125	1.186	0.148	
793.00	23330	Mid	LTE Band 14	10	13	24.8	24.04	0.03	1	1342S	QPSK	25	0	10 mm	left	1:1	0.093	1.191	0.111	
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 11-51
LTE Band 26 (Cell) Hotspot SAR

MEASUREMENT RESULTS																					
FREQUENCY			Mode	Bandwidth [MHz]	Ant State	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)	
831.50	26865	Mid	LTE Band 26 (Cell)	15	26	25.8	25.21	-0.01	0	1342S	QPSK	1	0	10 mm	back	1:1	0.567	1.146	0.650	A54
831.50	26865	Mid	LTE Band 26 (Cell)	15	26	24.8	24.27	-0.04	1	1342S	QPSK	36	18	10 mm	back	1:1	0.498	1.130	0.563	
831.50	26865	Mid	LTE Band 26 (Cell)	15	26	25.8	25.21	-0.02	0	1342S	QPSK	1	0	10 mm	front	1:1	0.383	1.146	0.439	
831.50	26865	Mid	LTE Band 26 (Cell)	15	26	24.8	24.27	0.01	1	1342S	QPSK	36	18	10 mm	front	1:1	0.322	1.130	0.364	
831.50	26865	Mid	LTE Band 26 (Cell)	15	26	25.8	25.21	-0.10	0	1342S	QPSK	1	0	10 mm	bottom	1:1	0.304	1.146	0.348	
831.50	26865	Mid	LTE Band 26 (Cell)	15	26	24.8	24.27	-0.10	1	1342S	QPSK	36	18	10 mm	bottom	1:1	0.279	1.130	0.315	
831.50	26865	Mid	LTE Band 26 (Cell)	15	26	25.8	25.21	-0.02	0	1342S	QPSK	1	0	10 mm	right	1:1	0.219	1.146	0.251	
831.50	26865	Mid	LTE Band 26 (Cell)	15	26	24.8	24.27	0.01	1	1342S	QPSK	36	18	10 mm	right	1:1	0.167	1.130	0.189	
831.50	26865	Mid	LTE Band 26 (Cell)	15	26	25.8	25.21	-0.03	0	1342S	QPSK	1	0	10 mm	left	1:1	0.081	1.146	0.093	
831.50	26865	Mid	LTE Band 26 (Cell)	15	26	24.8	24.27	0.00	1	1342S	QPSK	36	18	10 mm	left	1:1	0.058	1.130	0.066	
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 11-52
LTE Band 5 (Cell) Hotspot SAR

MEASUREMENT RESULTS																						
1 CC Uplink | 2 CC Uplink	Component Carrier	FREQUENCY			Mode	Bandwidth [MHz]	Ant State	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	N/A	836.50	20525	Mid	LTE Band 5 (Cell)	10	112	25.8	25.03	-0.07	0	0671M	QPSK	1	49	10 mm	back	1:1	0.593	1.194	0.708	
1 CC Uplink	N/A	836.50	20525	Mid	LTE Band 5 (Cell)	10	112	24.8	24.10	-0.04	1	0671M	QPSK	25	25	10 mm	back	1:1	0.492	1.175	0.578	
2 CC Uplink	PCC	836.50	20525	Mid	LTE Band 5 (Cell)	10	112	25.8	25.36	-0.05	0	0671M	QPSK	1	49	10 mm	back	1:1	0.631	1.107	0.699	A56
	SCC	843.70	20597			5								1	0							
1 CC Uplink	N/A	836.50	20525	Mid	LTE Band 5 (Cell)	10	112	25.8	25.03	-0.04	0	0671M	QPSK	1	49	10 mm	front	1:1	0.432	1.194	0.516	
1 CC Uplink	N/A	836.50	20525	Mid	LTE Band 5 (Cell)	10	112	24.8	24.10	0.00	1	0671M	QPSK	25	25	10 mm	front	1:1	0.356	1.175	0.418	
1 CC Uplink	N/A	836.50	20525	Mid	LTE Band 5 (Cell)	10	112	25.8	25.03	0.07	0	0671M	QPSK	1	49	10 mm	bottom	1:1	0.316	1.194	0.377	
1 CC Uplink	N/A	836.50	20525	Mid	LTE Band 5 (Cell)	10	112	24.8	24.10	-0.18	1	0671M	QPSK	25	25	10 mm	bottom	1:1	0.264	1.175	0.310	
1 CC Uplink	N/A	836.50	20525	Mid	LTE Band 5 (Cell)	10	112	25.8	25.03	0.00	0	0671M	QPSK	1	49	10 mm	right	1:1	0.196	1.194	0.234	
1 CC Uplink	N/A	836.50	20525	Mid	LTE Band 5 (Cell)	10	112	24.8	24.10	0.02	1	0671M	QPSK	25	25	10 mm	right	1:1	0.168	1.175	0.197	
1 CC Uplink	N/A	836.50	20525	Mid	LTE Band 5 (Cell)	10	112	25.8	25.03	-0.04	0	0671M	QPSK	1	49	10 mm	left	1:1	0.057	1.194	0.068	
1 CC Uplink	N/A	836.50	20525	Mid	LTE Band 5 (Cell)	10	112	24.8	24.10	-0.03	1	0671M	QPSK	25	25	10 mm	left	1:1	0.050	1.175	0.059	
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 11-53
LTE Band 66 (AWS) Hotspot SAR

MEASUREMENT RESULTS																						
1 CC Uplink | 2 CC Uplink	Component Carrier	FREQUENCY MHz	FREQUENCY Ch.		Mode	Bandwidth [MHz]	Ant State	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Device Serial Number	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (1g) (W/kg)	Scaling Factor	Reported SAR (1g) (W/kg)	Plot #
1 CC Uplink	N/A	1770.00	132572	High	LTE Band 66 (AWS)	20	65	19.5	18.68	-0.04	0	0671M	QPSK	1	0	10 mm	back	1:1	0.429	1.208	0.518	
1 CC Uplink	N/A	1770.00	132572	High	LTE Band 66 (AWS)	20	65	19.5	18.78	0.03	0	0671M	QPSK	50	25	10 mm	back	1:1	0.454	1.180	0.536	
1 CC Uplink	N/A	1770.00	132572	High	LTE Band 66 (AWS)	20	65	19.5	18.68	0.03	0	0671M	QPSK	1	0	10 mm	front	1:1	0.387	1.208	0.467	
1 CC Uplink	N/A	1770.00	132572	High	LTE Band 66 (AWS)	20	65	19.5	18.78	-0.02	0	0671M	QPSK	50	25	10 mm	front	1:1	0.405	1.180	0.478	
1 CC Uplink	N/A	1720.00	132072	Low	LTE Band 66 (AWS)	20	112	19.5	18.67	0.00	0	0671M	QPSK	1	50	10 mm	bottom	1:1	0.632	1.211	0.765	
1 CC Uplink	N/A	1745.00	132322	Mid	LTE Band 66 (AWS)	20	112	19.5	18.52	-0.01	0	0671M	QPSK	1	50	10 mm	bottom	1:1	0.709	1.253	0.888	
1 CC Uplink	N/A	1770.00	132572	High	LTE Band 66 (AWS)	20	112	19.5	18.68	-0.02	0	0671M	QPSK	1	0	10 mm	bottom	1:1	0.779	1.208	0.941	
1 CC Uplink	N/A	1720.00	132072	Low	LTE Band 66 (AWS)	20	112	19.5	18.77	0.01	0	0671M	QPSK	50	50	10 mm	bottom	1:1	0.652	1.183	0.771	
1 CC Uplink	N/A	1745.00	132322	Mid	LTE Band 66 (AWS)	20	112	19.5	18.74	0.12	0	0671M	QPSK	50	25	10 mm	bottom	1:1	0.717	1.191	0.854	
1 CC Uplink	N/A	1770.00	132572	High	LTE Band 66 (AWS)	20	112	19.5	18.57	0.04	0	0671M	QPSK	50	0	10 mm	bottom	1:1	0.797	1.239	0.987	
1 CC Uplink	N/A	1770.00	132572	High	LTE Band 66 (AWS)	20	112	19.5	18.78	-0.02	0	0671M	QPSK	50	25	10 mm	bottom	1:1	0.848	1.180	1.001	
1 CC Uplink	N/A	1775.00	132622	High	LTE Band 66 (AWS)	10	112	19.5	18.31	-0.03	0	0671M	QPSK	25	0	10 mm	bottom	1:1	0.787	1.315	1.035	
1 CC Uplink	N/A	1720.00	132072	Low	LTE Band 66 (AWS)	20	112	19.5	18.66	-0.01	0	0671M	QPSK	100	0	10 mm	bottom	1:1	0.602	1.213	0.730	
2 CC Uplink CA_66C	PCC	1770.00	132572	High	LTE Band 66 (AWS)	20	112	19.5	19.50	-0.14	0	0671M	QPSK	50	0	10 mm	bottom	1:1	0.959	1.000	0.959	A58
	SCC	1750.20	132374			20								50	50							
2 CC Uplink CA_66B	PCC	1775.00	132622	High	LTE Band 66 (AWS)	10	112	19.5	18.93	-0.03	0	0671M	QPSK	25	0	10 mm	bottom	1:1	0.890	1.140	1.015	
	SCC	1765.10	132523			10								25	25							
1 CC Uplink	N/A	1770.00	132572	High	LTE Band 66 (AWS)	20	112	19.5	18.68	0.06	0	0671M	QPSK	1	0	10 mm	right	1:1	0.077	1.208	0.093	
1 CC Uplink	N/A	1770.00	132572	High	LTE Band 66 (AWS)	20	112	19.5	18.78	0.06	0	0671M	QPSK	50	25	10 mm	right	1:1	0.081	1.180	0.096	
1 CC Uplink	N/A	1770.00	132572	High	LTE Band 66 (AWS)	20	112	19.5	18.68	0.11	0	0671M	QPSK	1	0	10 mm	left	1:1	0.064	1.208	0.077	
1 CC Uplink	N/A	1770.00	132572	High	LTE Band 66 (AWS)	20	112	19.5	18.78	0.04	0	0671M	QPSK	50	25	10 mm	left	1:1	0.065	1.180	0.077	
2 CC Uplink CA_66C	PCC	1770.00	132572	High	LTE Band 66 (AWS)	20	112	19.5	19.50	-0.13	0	0671M	QPSK	50	0	10 mm	bottom	1:1	0.951	1.000	0.951	
	SCC	1750.20	132374			20								50	50							
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 11-54
LTE Band 25 (PCS) Hotspot SAR

MEASUREMENT RESULTS																					
FREQUENCY MHz	FREQUENCY Ch.		Mode	Bandwidth [MHz]	Ant State	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Device Serial Number	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (1g) (W/kg)	Scaling Factor	Reported SAR (1g) (W/kg)	Plot #
1860.00	26140	Low	LTE Band 25 (PCS)	20	112	18.3	18.30	0.04	0	1767S	QPSK	1	0	10 mm	back	1:1	0.354	1.000	0.354	
1860.00	26140	Low	LTE Band 25 (PCS)	20	112	18.3	18.15	-0.05	0	1767S	QPSK	50	50	10 mm	back	1:1	0.381	1.035	0.394	
1860.00	26140	Low	LTE Band 25 (PCS)	20	112	18.3	18.30	0.01	0	1767S	QPSK	1	0	10 mm	front	1:1	0.350	1.000	0.350	
1860.00	26140	Low	LTE Band 25 (PCS)	20	112	18.3	18.15	0.00	0	1767S	QPSK	50	50	10 mm	front	1:1	0.351	1.035	0.363	
1860.00	26140	Low	LTE Band 25 (PCS)	20	112	18.3	18.30	-0.11	0	1767S	QPSK	1	0	10 mm	bottom	1:1	0.660	1.000	0.660	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	112	18.3	17.89	-0.07	0	1767S	QPSK	1	50	10 mm	bottom	1:1	0.724	1.099	0.796	
1905.00	26590	High	LTE Band 25 (PCS)	20	112	18.3	17.80	-0.10	0	1767S	QPSK	1	50	10 mm	bottom	1:1	0.760	1.122	0.853	
1860.00	26140	Low	LTE Band 25 (PCS)	20	112	18.3	18.15	-0.10	0	1767S	QPSK	50	50	10 mm	bottom	1:1	0.712	1.035	0.737	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	112	18.3	18.07	-0.09	0	1767S	QPSK	50	50	10 mm	bottom	1:1	0.775	1.054	0.817	
1905.00	26590	High	LTE Band 25 (PCS)	20	112	18.3	18.03	-0.08	0	1767S	QPSK	50	25	10 mm	bottom	1:1	0.791	1.064	0.842	A60
1860.00	26140	Low	LTE Band 25 (PCS)	20	112	18.3	18.11	-0.09	0	1767S	QPSK	100	0	10 mm	bottom	1:1	0.687	1.045	0.718	
1860.00	26140	Low	LTE Band 25 (PCS)	20	112	18.3	18.30	0.20	0	1767S	QPSK	1	0	10 mm	right	1:1	0.053	1.000	0.053	
1860.00	26140	Low	LTE Band 25 (PCS)	20	112	18.3	18.15	0.05	0	1767S	QPSK	50	50	10 mm	right	1:1	0.053	1.035	0.055	
1860.00	26140	Low	LTE Band 25 (PCS)	20	112	18.3	18.30	0.03	0	1767S	QPSK	1	0	10 mm	left	1:1	0.043	1.000	0.043	
1860.00	26140	Low	LTE Band 25 (PCS)	20	112	18.3	18.15	-0.03	0	1767S	QPSK	50	50	10 mm	left	1:1	0.040	1.035	0.041	
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 11-55
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	20.3	19.65	0.00	0	1332S	QPSK	1	0	10 mm	back	1:1	0.425	1.161	0.493	
2310.00	27710	Mid	LTE Band 30	10	20.3	19.72	-0.03	0	1332S	QPSK	25	12	10 mm	back	1:1	0.424	1.143	0.485	
2310.00	27710	Mid	LTE Band 30	10	20.3	19.65	0.00	0	1332S	QPSK	1	0	10 mm	front	1:1	0.310	1.161	0.360	
2310.00	27710	Mid	LTE Band 30	10	20.3	19.72	0.00	0	1332S	QPSK	25	12	10 mm	front	1:1	0.311	1.143	0.355	
2310.00	27710	Mid	LTE Band 30	10	20.3	19.65	-0.03	0	1332S	QPSK	1	0	10 mm	bottom	1:1	0.833	1.161	0.967	
2310.00	27710	Mid	LTE Band 30	10	20.3	19.72	-0.11	0	1332S	QPSK	25	12	10 mm	bottom	1:1	0.869	1.143	0.993	A62
2310.00	27710	Mid	LTE Band 30	10	20.3	19.62	-0.05	0	1332S	QPSK	50	0	10 mm	bottom	1:1	0.815	1.169	0.953	
2310.00	27710	Mid	LTE Band 30	10	20.3	19.65	0.04	0	1332S	QPSK	1	0	10 mm	right	1:1	0.027	1.161	0.031	
2310.00	27710	Mid	LTE Band 30	10	20.3	19.72	0.01	0	1332S	QPSK	25	12	10 mm	right	1:1	0.031	1.143	0.035	
2310.00	27710	Mid	LTE Band 30	10	20.3	19.65	-0.17	0	1332S	QPSK	1	0	10 mm	left	1:1	0.038	1.161	0.044	
2310.00	27710	Mid	LTE Band 30	10	20.3	19.72	0.12	0	1332S	QPSK	25	12	10 mm	left	1:1	0.038	1.143	0.043	
2310.00	27710	Mid	LTE Band 30	10	20.3	19.72	-0.03	0	1332S	QPSK	25	12	10 mm	bottom	1:1	0.842	1.143	0.962	
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 11-56
LTE Band 7 Hotspot SAR

MEASUREMENT RESULTS																				
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Device Serial Number	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.															(W/kg)		(W/kg)	
2510.00	20850	Low	LTE Band 7	20	21.2	20.45	-0.14	0	0669M	QPSK	1	0	10 mm	back	1:1	0.424	1.189	0.504	
2510.00	20850	Low	LTE Band 7	20	21.2	20.58	-0.05	0	0669M	QPSK	50	50	10 mm	back	1:1	0.420	1.153	0.484	
2510.00	20850	Low	LTE Band 7	20	21.2	20.45	-0.04	0	0669M	QPSK	1	0	10 mm	front	1:1	0.344	1.189	0.409	
2510.00	20850	Low	LTE Band 7	20	21.2	20.58	0.02	0	0669M	QPSK	50	50	10 mm	front	1:1	0.314	1.153	0.362	
2510.00	20850	Low	LTE Band 7	20	21.2	20.45	-0.02	0	0669M	QPSK	1	0	10 mm	bottom	1:1	0.447	1.189	0.531	
2510.00	20850	Low	LTE Band 7	20	21.2	20.58	0.03	0	0669M	QPSK	50	50	10 mm	bottom	1:1	0.521	1.153	0.601	
2535.00	21100	Mid	LTE Band 7	20	21.2	20.34	-0.03	0	0669M	QPSK	50	50	10 mm	bottom	1:1	0.628	1.219	0.766	
2560.00	21350	High	LTE Band 7	20	21.2	20.35	-0.02	0	0669M	QPSK	50	0	10 mm	bottom	1:1	0.737	1.216	0.896	A64
2510.00	20850	Low	LTE Band 7	20	21.2	20.40	-0.02	0	0669M	QPSK	100	0	10 mm	bottom	1:1	0.510	1.202	0.613	
2510.00	20850	Low	LTE Band 7	20	21.2	20.45	-0.01	0	0669M	QPSK	1	0	10 mm	left	1:1	0.106	1.189	0.126	
2510.00	20850	Low	LTE Band 7	20	21.2	20.58	0.04	0	0669M	QPSK	50	50	10 mm	left	1:1	0.107	1.153	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 11-57
LTE Band 48 Hotspot SAR

MEASUREMENT RESULTS																					
1 CC Uplink | 2 CC Uplink	Component Carrier	FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Device Serial Number	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
		MHz	Ch.															(W/kg)		(W/kg)	
1 CC Uplink	N/A	3690.00	56640	High	LTE Band 48	20	24.5	23.36	0.00	0	1766S	QPSK	1	50	10 mm	back	1:1.58	0.456	1.300	0.593	
1 CC Uplink	N/A	3690.00	56640	High	LTE Band 48	20	23.5	22.43	0.00	1	1766S	QPSK	50	25	10 mm	back	1:1.58	0.367	1.279	0.469	
1 CC Uplink	N/A	3690.00	56640	High	LTE Band 48	20	24.5	23.36	-0.01	0	1766S	QPSK	1	50	10 mm	front	1:1.58	0.221	1.300	0.287	
1 CC Uplink	N/A	3690.00	56640	High	LTE Band 48	20	23.5	22.43	-0.04	1	1766S	QPSK	50	25	10 mm	front	1:1.58	0.183	1.279	0.234	
1 CC Uplink	N/A	3560.00	55340	Low	LTE Band 48	20	24.5	23.35	-0.05	0	1766S	QPSK	1	50	10 mm	top	1:1.58	0.695	1.303	0.906	
1 CC Uplink	N/A	3560.00	55340	Low	LTE Band 48	20	24.5	23.04	-0.01	0	1766S	QPSK	1	99	10 mm	top	1:1.58	0.659	1.400	0.923	
1 CC Uplink	N/A	3603.30	55773	Low-Mid	LTE Band 48	20	24.5	23.18	0.08	0	1766S	QPSK	1	50	10 mm	top	1:1.58	0.595	1.355	0.806	
1 CC Uplink	N/A	3646.70	56207	Mid-High	LTE Band 48	20	24.5	23.11	-0.15	0	1766S	QPSK	1	50	10 mm	top	1:1.58	0.548	1.377	0.755	
1 CC Uplink	N/A	3690.00	56640	High	LTE Band 48	20	24.5	23.36	-0.08	0	1766S	QPSK	1	50	10 mm	top	1:1.58	0.645	1.300	0.839	
1 CC Uplink	N/A	3560.00	55340	Low	LTE Band 48	20	23.5	22.41	-0.05	1	1766S	QPSK	50	25	10 mm	top	1:1.58	0.566	1.285	0.727	
1 CC Uplink	N/A	3603.30	55773	Low-Mid	LTE Band 48	20	23.5	22.31	0.01	1	1766S	QPSK	50	25	10 mm	top	1:1.58	0.477	1.315	0.627	
1 CC Uplink	N/A	3646.70	56207	Mid-High	LTE Band 48	20	23.5	22.29	-0.13	1	1766S	QPSK	50	25	10 mm	top	1:1.58	0.452	1.321	0.597	
1 CC Uplink	N/A	3690.00	56640	High	LTE Band 48	20	23.5	22.43	-0.01	1	1766S	QPSK	50	25	10 mm	top	1:1.58	0.518	1.279	0.663	
1 CC Uplink	N/A	3690.00	56640	High	LTE Band 48	20	23.5	22.32	-0.05	1	1766S	QPSK	100	0	10 mm	top	1:1.58	0.509	1.312	0.668	
2 CC Uplink	PCC	3560.00	55340	Low	LTE Band 48	20	24.5	24.20	-0.17	0	1766S	QPSK	1	99	10 mm	top	1:1.58	0.901	1.072	0.966	A66
	SCC	3579.80	55538			20							1	0							
1 CC Uplink	N/A	3690.00	56640	High	LTE Band 48	20	24.5	23.36	-0.07	0	1766S	QPSK	1	50	10 mm	left	1:1.58	0.396	1.300	0.515	
1 CC Uplink	N/A	3690.00	56640	High	LTE Band 48	20	23.5	22.43	-0.02	1	1766S	QPSK	50	25	10 mm	left	1:1.58	0.323	1.279	0.413	
2 CC Uplink	PCC	3560.00	55340	Low	LTE Band 48	20	24.5	24.20	0.03	0	1766S	QPSK	1	99	10 mm	top	1:1.58	0.898	1.072	0.963	
	SCC	3579.80	55538			20							1	0							
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population										Body 1.6 W/kg (mW/g) averaged over 1 gram											

Note: Blue entry represents variability measurement.

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Table 11-58
LTE Band 41 Hotspot SAR

MEASUREMENT RESULTS																					
1 CC Uplink | 2 CC Uplink, Power Class	Component Carrier	FREQUENCY MHz	FREQUENCY Ch.		Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Device Serial Number	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (1g) (W/kg)	Scaling Factor	Reported SAR (1g) (W/kg)	Plot #
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	22.8	22.25	0.03	0	1790S	QPSK	1	50	10 mm	back	1:1.58	0.229	1.135	0.260	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	22.8	22.12	-0.05	0	1790S	QPSK	50	50	10 mm	back	1:1.58	0.233	1.169	0.272	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	22.8	22.25	-0.02	0	1790S	QPSK	1	50	10 mm	front	1:1.58	0.228	1.135	0.259	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	22.8	22.12	-0.01	0	1790S	QPSK	50	50	10 mm	front	1:1.58	0.236	1.169	0.276	
1 CC Uplink - Power Class 3	N/A	2506.00	39750	Low	LTE Band 41	20	22.8	21.73	-0.18	0	1790S	QPSK	1	0	10 mm	bottom	1:1.58	0.349	1.279	0.446	
1 CC Uplink - Power Class 3	N/A	2549.50	40185	Low-Mid	LTE Band 41	20	22.8	21.70	-0.19	0	1790S	QPSK	1	0	10 mm	bottom	1:1.58	0.536	1.288	0.690	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	22.8	22.25	-0.06	0	1790S	QPSK	1	50	10 mm	bottom	1:1.58	0.623	1.135	0.707	
1 CC Uplink - Power Class 3	N/A	2636.50	41055	Mid-High	LTE Band 41	20	22.8	21.83	-0.05	0	1790S	QPSK	1	50	10 mm	bottom	1:1.58	0.651	1.250	0.814	
1 CC Uplink - Power Class 3	N/A	2680.00	41490	High	LTE Band 41	20	22.8	21.87	-0.16	0	1790S	QPSK	1	50	10 mm	bottom	1:1.58	0.785	1.239	0.973	
1 CC Uplink - Power Class 3	N/A	2506.00	39750	Low	LTE Band 41	20	22.8	21.78	0.00	0	1790S	QPSK	50	0	10 mm	bottom	1:1.58	0.366	1.265	0.463	
1 CC Uplink - Power Class 3	N/A	2549.50	40185	Low-Mid	LTE Band 41	20	22.8	21.80	-0.14	0	1790S	QPSK	50	25	10 mm	bottom	1:1.58	0.598	1.259	0.753	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	22.8	22.12	-0.03	0	1790S	QPSK	50	50	10 mm	bottom	1:1.58	0.626	1.169	0.732	
1 CC Uplink - Power Class 3	N/A	2636.50	41055	Mid-High	LTE Band 41	20	22.8	21.94	-0.11	0	1790S	QPSK	50	25	10 mm	bottom	1:1.58	0.677	1.219	0.825	
1 CC Uplink - Power Class 3	N/A	2680.00	41490	High	LTE Band 41	20	22.8	21.80	-0.17	0	1790S	QPSK	50	0	10 mm	bottom	1:1.58	0.778	1.259	0.980	
1 CC Uplink - Power Class 3	N/A	2680.00	41490	High	LTE Band 41	20	22.8	21.99	-0.15	0	1790S	QPSK	50	50	10 mm	bottom	1:1.58	0.826	1.205	0.995	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	22.8	21.95	-0.04	0	1790S	QPSK	100	0	10 mm	bottom	1:1.58	0.606	1.216	0.737	
1 CC Uplink - Power Class 2	N/A	2680.00	41490	High	LTE Band 41	20	24.4	23.12	-0.12	0	1790S	QPSK	50	0	10 mm	bottom	1:2.31	0.676	1.343	0.908	
1 CC Uplink - Power Class 2	N/A	2680.00	41490	High	LTE Band 41	20	24.4	23.34	-0.15	0	1790S	QPSK	50	50	10 mm	bottom	1:2.31	0.718	1.276	0.916	
2 CC Uplink - Power Class 3	PCC	2680.00	41490	High	LTE Band 41	20	22.8	22.50	0.05	0	1790S	QPSK	50	0	10 mm	bottom	1:1.58	0.915	1.072	0.981	A68
	SCC	2660.20	41292			20							50	50							
2 CC Uplink - Power Class 2	PCC	2680.00	41490	High	LTE Band 41	20	24.4	24.00	-0.12	0	1790S	QPSK	50	0	10 mm	bottom	1:2.31	0.840	1.096	0.921	
	SCC	2660.20	41292			20							50	50							
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	22.8	22.25	-0.04	0	1790S	QPSK	1	50	10 mm	left	1:1.58	0.088	1.135	0.100	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	22.8	22.12	-0.02	0	1790S	QPSK	50	50	10 mm	left	1:1.58	0.093	1.169	0.109	
2 CC Uplink - Power Class 3	PCC	2680.00	41490	High	LTE Band 41	20	22.8	22.50	-0.03	0	1790S	QPSK	50	0	10 mm	bottom	1:1.58	0.912	1.072	0.978	
	SCC	2660.20	41292			20							50	50							
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 11-59
NR Band n71 Hotspot SAR

MEASUREMENT RESULTS																					
FREQUENCY MHz	FREQUENCY Ch.		Mode	Bandwidth [MHz]	Ant State	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Device Serial Number	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (1g) (W/kg)	Scaling Factor	Reported SAR (1g) (W/kg)	Plot #
680.50	136100	Mid	NR Band n71	20	0	25.5	24.32	-0.03	0	1764S	DFT-S-OFDM QPSK	1	1	10 mm	back	1:1	0.205	1.312	0.269	
680.50	136100	Mid	NR Band n71	20	0	25.5	23.81	0.00	0	1764S	DFT-S-OFDM QPSK	50	28	10 mm	back	1:1	0.219	1.476	0.323	A70
680.50	136100	Mid	NR Band n71	20	0	24.0	22.82	0.04	1.5	1764S	CP-OFDM QPSK	1	1	10 mm	back	1:1	0.148	1.312	0.194	
680.50	136100	Mid	NR Band n71	20	0	25.5	24.32	0.00	0	1764S	DFT-S-OFDM QPSK	1	1	10 mm	front	1:1	0.160	1.312	0.210	
680.50	136100	Mid	NR Band n71	20	0	25.5	23.81	0.01	0	1764S	DFT-S-OFDM QPSK	50	28	10 mm	front	1:1	0.173	1.476	0.255	
680.50	136100	Mid	NR Band n71	20	0	25.5	24.32	0.09	0	1764S	DFT-S-OFDM QPSK	1	1	10 mm	bottom	1:1	0.103	1.312	0.135	
680.50	136100	Mid	NR Band n71	20	0	25.5	23.81	-0.05	0	1764S	DFT-S-OFDM QPSK	50	28	10 mm	bottom	1:1	0.119	1.476	0.176	
680.50	136100	Mid	NR Band n71	20	0	25.5	24.32	-0.09	0	1764S	DFT-S-OFDM QPSK	1	1	10 mm	right	1:1	0.170	1.312	0.223	
680.50	136100	Mid	NR Band n71	20	0	25.5	23.81	-0.05	0	1764S	DFT-S-OFDM QPSK	50	28	10 mm	right	1:1	0.191	1.476	0.282	
680.50	136100	Mid	NR Band n71	20	0	25.5	24.32	0.14	0	1764S	DFT-S-OFDM QPSK	1	1	10 mm	left	1:1	0.114	1.312	0.150	
680.50	136100	Mid	NR Band n71	20	0	25.5	23.81	0.05	0	1764S	DFT-S-OFDM QPSK	50	28	10 mm	left	1:1	0.121	1.476	0.179	
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 11-60
NR Band n5 (Cell) Hotspot SAR

MEASUREMENT RESULTS																					
FREQUENCY			Mode	Bandwidth [MHz]	Ant State	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)	
836.50	167300	Mid	NR Band n5 (Cell)	20	112	25.5	24.47	-0.04	0	1764S	DFT-S-OFDM QPSK	1	104	10 mm	back	1:1	0.520	1.268	0.659	
836.50	167300	Mid	NR Band n5 (Cell)	20	112	25.5	24.21	-0.04	0	1764S	DFT-S-OFDM QPSK	50	28	10 mm	back	1:1	0.520	1.346	0.700	A72
836.50	167300	Mid	NR Band n5 (Cell)	20	112	24.0	22.94	-0.03	1.5	1764S	CP-OFDM QPSK	1	1	10 mm	back	1:1	0.373	1.276	0.476	
836.50	167300	Mid	NR Band n5 (Cell)	20	112	25.5	24.47	0.02	0	1764S	DFT-S-OFDM QPSK	1	104	10 mm	front	1:1	0.358	1.268	0.454	
836.50	167300	Mid	NR Band n5 (Cell)	20	112	25.5	24.21	0.00	0	1764S	DFT-S-OFDM QPSK	50	28	10 mm	front	1:1	0.358	1.346	0.482	
836.50	167300	Mid	NR Band n5 (Cell)	20	112	25.5	24.47	-0.04	0	1764S	DFT-S-OFDM QPSK	1	104	10 mm	bottom	1:1	0.281	1.268	0.356	
836.50	167300	Mid	NR Band n5 (Cell)	20	112	25.5	24.21	-0.06	0	1764S	DFT-S-OFDM QPSK	50	28	10 mm	bottom	1:1	0.254	1.346	0.342	
836.50	167300	Mid	NR Band n5 (Cell)	20	112	25.5	24.47	0.04	0	1764S	DFT-S-OFDM QPSK	1	104	10 mm	right	1:1	0.147	1.268	0.186	
836.50	167300	Mid	NR Band n5 (Cell)	20	112	25.5	24.21	-0.02	0	1764S	DFT-S-OFDM QPSK	50	28	10 mm	right	1:1	0.171	1.346	0.230	
836.50	167300	Mid	NR Band n5 (Cell)	20	112	25.5	24.47	0.05	0	1764S	DFT-S-OFDM QPSK	1	104	10 mm	left	1:1	0.039	1.268	0.049	
836.50	167300	Mid	NR Band n5 (Cell)	20	112	25.5	24.21	-0.05	0	1764S	DFT-S-OFDM QPSK	50	28	10 mm	left	1:1	0.037	1.346	0.050	
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 11-61
NR Band n66 (AWS) Hotspot SAR

MEASUREMENT RESULTS																					
FREQUENCY			Mode	Bandwidth [MHz]	Ant State	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)	
1745.00	349000	Mid	NR Band n66 (AWS)	20	65	19.0	18.90	-0.16	0	1788S	DFT-S-OFDM QPSK	1	104	10 mm	back	1:1	0.473	1.023	0.484	
1745.00	349000	Mid	NR Band n66 (AWS)	20	65	19.0	18.86	0.08	0	1788S	DFT-S-OFDM QPSK	50	56	10 mm	back	1:1	0.481	1.033	0.497	
1745.00	349000	Mid	NR Band n66 (AWS)	20	65	19.0	18.90	0.17	0	1788S	DFT-S-OFDM QPSK	1	104	10 mm	front	1:1	0.364	1.023	0.372	
1745.00	349000	Mid	NR Band n66 (AWS)	20	65	19.0	18.86	-0.02	0	1788S	DFT-S-OFDM QPSK	50	56	10 mm	front	1:1	0.379	1.033	0.392	
1720.00	344000	Low	NR Band n66 (AWS)	20	112	19.0	18.66	-0.04	0	1788S	DFT-S-OFDM QPSK	1	1	10 mm	bottom	1:1	0.577	1.081	0.624	
1745.00	349000	Mid	NR Band n66 (AWS)	20	112	19.0	18.90	-0.13	0	1788S	DFT-S-OFDM QPSK	1	104	10 mm	bottom	1:1	0.780	1.023	0.798	
1770.00	354000	High	NR Band n66 (AWS)	20	112	19.0	18.62	0.05	0	1788S	DFT-S-OFDM QPSK	1	1	10 mm	bottom	1:1	0.806	1.091	0.879	A74
1745.00	349000	Mid	NR Band n66 (AWS)	20	112	19.0	18.86	0.16	0	1788S	DFT-S-OFDM QPSK	50	56	10 mm	bottom	1:1	0.758	1.033	0.783	
1745.00	349000	Mid	NR Band n66 (AWS)	20	112	19.0	18.77	0.01	0	1788S	DFT-S-OFDM QPSK	100	0	10 mm	bottom	1:1	0.759	1.054	0.800	
1745.00	349000	Mid	NR Band n66 (AWS)	20	112	19.0	18.88	0.06	0	1788S	CP-OFDM QPSK	1	1	10 mm	bottom	1:1	0.735	1.028	0.756	
1745.00	349000	Mid	NR Band n66 (AWS)	20	112	19.0	18.90	0.13	0	1788S	DFT-S-OFDM QPSK	1	104	10 mm	right	1:1	0.066	1.023	0.068	
1745.00	349000	Mid	NR Band n66 (AWS)	20	112	19.0	18.86	0.12	0	1788S	DFT-S-OFDM QPSK	50	56	10 mm	right	1:1	0.066	1.033	0.068	
1745.00	349000	Mid	NR Band n66 (AWS)	20	112	19.0	18.90	0.14	0	1788S	DFT-S-OFDM QPSK	1	104	10 mm	left	1:1	0.061	1.023	0.062	
1745.00	349000	Mid	NR Band n66 (AWS)	20	112	19.0	18.86	-0.04	0	1788S	DFT-S-OFDM QPSK	50	56	10 mm	left	1:1	0.061	1.033	0.063	
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 11-62
NR Band n2 (PCS) Hotspot SAR

MEASUREMENT RESULTS																					
FREQUENCY			Mode	Bandwidth [MHz]	Ant State	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Device Serial Number	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.																(W/kg)		(W/kg)	
1860.00	372000	Low	NR Band n2 (PCS)	20	112	18.4	18.02	-0.07	0	1787S	DFT-S-OFDM QPSK	1	1	10 mm	back	1:1	0.404	1.091	0.441	
1860.00	372000	Low	NR Band n2 (PCS)	20	112	18.4	17.83	-0.01	0	1787S	DFT-S-OFDM QPSK	50	0	10 mm	back	1:1	0.397	1.140	0.453	
1860.00	372000	Low	NR Band n2 (PCS)	20	112	18.4	18.02	0.04	0	1787S	DFT-S-OFDM QPSK	1	1	10 mm	front	1:1	0.340	1.091	0.371	
1860.00	372000	Low	NR Band n2 (PCS)	20	112	18.4	17.83	0.01	0	1787S	DFT-S-OFDM QPSK	50	0	10 mm	front	1:1	0.331	1.140	0.377	
1860.00	372000	Low	NR Band n2 (PCS)	20	112	18.4	18.02	0.01	0	1787S	DFT-S-OFDM QPSK	1	1	10 mm	bottom	1:1	0.759	1.091	0.828	
1880.00	376000	Mid	NR Band n2 (PCS)	20	112	18.4	17.82	0.04	0	1787S	DFT-S-OFDM QPSK	1	1	10 mm	bottom	1:1	0.800	1.143	0.914	
1900.00	380000	High	NR Band n2 (PCS)	20	112	18.4	17.75	-0.01	0	1787S	DFT-S-OFDM QPSK	1	1	10 mm	bottom	1:1	0.818	1.161	0.950	A76
1860.00	372000	Low	NR Band n2 (PCS)	20	112	18.4	17.83	0.03	0	1787S	DFT-S-OFDM QPSK	50	0	10 mm	bottom	1:1	0.750	1.140	0.855	
1880.00	376000	Mid	NR Band n2 (PCS)	20	112	18.4	17.71	-0.01	0	1787S	DFT-S-OFDM QPSK	50	0	10 mm	bottom	1:1	0.792	1.172	0.928	
1900.00	380000	High	NR Band n2 (PCS)	20	112	18.4	17.67	-0.02	0	1787S	DFT-S-OFDM QPSK	50	0	10 mm	bottom	1:1	0.816	1.183	0.965	
1860.00	372000	Low	NR Band n2 (PCS)	20	112	18.4	17.83	0.01	0	1787S	DFT-S-OFDM QPSK	100	0	10 mm	bottom	1:1	0.760	1.140	0.866	
1860.00	372000	Low	NR Band n2 (PCS)	20	112	18.4	17.92	0.00	0	1787S	CP-OFDM QPSK	1	1	10 mm	bottom	1:1	0.758	1.117	0.847	
1860.00	372000	Low	NR Band n2 (PCS)	20	112	18.4	18.02	-0.04	0	1787S	DFT-S-OFDM QPSK	1	1	10 mm	right	1:1	0.062	1.091	0.068	
1860.00	372000	Low	NR Band n2 (PCS)	20	112	18.4	17.83	0.04	0	1787S	DFT-S-OFDM QPSK	50	0	10 mm	right	1:1	0.065	1.140	0.074	
1860.00	372000	Low	NR Band n2 (PCS)	20	112	18.4	18.02	0.03	0	1787S	DFT-S-OFDM QPSK	1	1	10 mm	left	1:1	0.048	1.091	0.052	
1860.00	372000	Low	NR Band n2 (PCS)	20	112	18.4	17.83	0.05	0	1787S	DFT-S-OFDM QPSK	50	0	10 mm	left	1:1	0.049	1.140	0.056	
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Table 11-63
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	25.0	24.71	0.05	0	1764S	DFT-S-OFDM QPSK	1	137	10 mm	back	1:4	0.157	1.069	0.168	A78
2592.99	518598	Mid	NR Band n41	100	25.0	24.53	0.00	0	1764S	DFT-S-OFDM QPSK	135	69	10 mm	back	1:4	0.152	1.114	0.169	
2592.99	518598	Mid	NR Band n41	100	23.5	22.76	0.11	1.5	1764S	CP-OFDM QPSK	1	1	10 mm	back	1:4	0.031	1.186	0.037	
2592.99	518598	Mid	NR Band n41	100	25.0	24.71	0.02	0	1764S	DFT-S-OFDM QPSK	1	137	10 mm	front	1:4	0.062	1.069	0.066	
2592.99	518598	Mid	NR Band n41	100	25.0	24.53	0.14	0	1764S	DFT-S-OFDM QPSK	135	69	10 mm	front	1:4	0.053	1.114	0.059	
2592.99	518598	Mid	NR Band n41	100	25.0	24.71	0.14	0	1764S	DFT-S-OFDM QPSK	1	137	10 mm	top	1:4	0.147	1.069	0.157	
2592.99	518598	Mid	NR Band n41	100	25.0	24.53	0.04	0	1764S	DFT-S-OFDM QPSK	135	69	10 mm	top	1:4	0.123	1.114	0.137	
2592.99	518598	Mid	NR Band n41	100	25.0	24.71	0.09	0	1764S	DFT-S-OFDM QPSK	1	137	10 mm	left	1:4	0.040	1.069	0.043	
2592.99	518598	Mid	NR Band n41	100	25.0	24.53	0.13	0	1764S	DFT-S-OFDM QPSK	135	69	10 mm	left	1:4	0.038	1.114	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 11-64
WLAN Hotspot SAR

MEASUREMENT RESULTS																			
FREQUENCY		Mode	Service	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Spacing	Antenna Config.	Device Serial Number	Data Rate (Mbps)	Side	Duty Cycle (%)	Peak SAR of Area Scan	SAR (1g)	Scaling Factor (Power)	Scaling Factor (Duty Cycle)	Reported SAR (1g)	Plot #
MHz	Ch.													W/kg	(W/kg)			(W/kg)	
2462	11	802.11b	DSSS	22	21.0	20.98	0.15	10 mm	1	0405M	1	back	98.8	0.226	0.159	1.005	1.012	0.162	
2462	11	802.11b	DSSS	22	21.0	20.98	-0.05	10 mm	1	0405M	1	front	98.8	0.292	0.183	1.005	1.012	0.186	
2462	11	802.11b	DSSS	22	21.0	20.98	0.01	10 mm	1	0405M	1	top	98.8	0.881	0.527	1.005	1.012	**0.536**	A80
2462	11	802.11b	DSSS	22	21.0	20.98	-0.16	10 mm	1	0405M	1	left	98.8	0.123	0.093	1.005	1.012	0.095	
2412	1	802.11b	DSSS	22	21.0	20.69	0.17	10 mm	2	0405M	1	back	99.1	0.119	0.082	1.074	1.009	0.089	
2412	1	802.11b	DSSS	22	21.0	20.69	0.14	10 mm	2	0405M	1	front	99.1	0.024	-	1.074	1.009	-	
2412	1	802.11b	DSSS	22	21.0	20.69	0.00	10 mm	2	0405M	1	top	99.1	0.050	-	1.074	1.009	-	
2412	1	802.11b	DSSS	22	21.0	20.69	0.15	10 mm	2	0405M	1	left	99.1	0.118	-	1.074	1.009	-	
5785	157	802.11a	OFDM	20	18.5	18.00	0.12	10 mm	1	0405M	6	back	98.8	0.274	0.129	1.122	1.012	0.146	
5785	157	802.11a	OFDM	20	18.5	18.00	-0.14	10 mm	1	0405M	6	front	98.8	0.021	0.006	1.122	1.012	0.007	
5785	157	802.11a	OFDM	20	18.5	18.00	0.19	10 mm	1	0405M	6	top	98.8	0.071	0.029	1.122	1.012	0.033	
5785	157	802.11a	OFDM	20	18.5	18.00	0.14	10 mm	1	0405M	6	left	98.8	0.119	-	1.122	1.012	-	
5745	149	802.11a	OFDM	20	18.5	17.42	-0.11	10 mm	2	0405M	6	back	98.8	1.415	0.626	1.282	1.012	**0.812**	
5785	157	802.11a	OFDM	20	18.5	17.49	-0.05	10 mm	2	0405M	6	back	98.8	1.400	0.623	1.262	1.012	0.796	
5825	165	802.11a	OFDM	20	18.5	17.43	-0.13	10 mm	2	0405M	6	back	98.8	1.104	0.475	1.279	1.012	0.615	
5785	157	802.11a	OFDM	20	18.5	17.49	0.13	10 mm	2	0405M	6	front	98.8	0.056	0.023	1.262	1.012	0.029	
5785	157	802.11a	OFDM	20	18.5	17.49	0.08	10 mm	2	0405M	6	top	98.8	0.204	0.100	1.262	1.012	0.128	
5785	157	802.11a	OFDM	20	18.5	17.49	-0.19	10 mm	2	0405M	6	left	98.8	0.309	0.114	1.262	1.012	0.146	
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 11-65
DTS Hotspot SAR for Conditions with 2.4 GHz and 5 GHz WLAN SAR

MEASUREMENT RESULTS																					
FREQUENCY		Mode	Service	Bandwidth [MHz]	Maximum Allowed Power (Ant 1) [dBm]	Conducted Power (Ant 1) [dBm]	Maximum Allowed Power (Ant 2) [dBm]	Conducted Power (Ant 2) [dBm]	Power Drift [dB]	Spacing	Antenna Config.	Device Serial Number	Data Rate (Mbps)	Side	Duty Cycle (%)	Peak SAR of Area Scan	SAR (1g)	Scaling Factor (Power)	Scaling Factor (Duty Cycle)	Reported SAR (1g)	Plot #
MHz	Ch.															W/kg	(W/kg)			(W/kg)	
2437	6	802.11n	OFDM	20	17.0	16.41	17.0	16.81	-0.05	10 mm	MIMO	0405M	13	back	98.6	0.120	0.060	1.146	1.014	0.070	
2437	6	802.11n	OFDM	20	17.0	16.41	17.0	16.81	0.04	10 mm	MIMO	0405M	13	front	98.6	0.067	-	1.146	1.014	-	
2437	6	802.11n	OFDM	20	17.0	16.41	17.0	16.81	0.17	10 mm	MIMO	0405M	13	top	98.6	0.267	0.173	1.146	1.014	0.201	
2437	6	802.11n	OFDM	20	17.0	16.41	17.0	16.81	0.12	10 mm	MIMO	0405M	13	left	98.6	0.077	-	1.146	1.014	-	
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: DTS MIMO was additionally evaluated at the maximum allowed output power during operations with Simultaneous 2.4 GHz and 5 GHz WLAN. 5 GHz WIFI was not transmitting during the above evaluations

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Table 11-66
NII MIMO Hotspot SAR

MEASUREMENT RESULTS																						
FREQUENCY		Mode	Service	Bandwidth [MHz]	Maximum Allowed Power (Ant 1) [dBm]	Conducted Power (Ant 1) [dBm]	Maximum Allowed Power (Ant 2) [dBm]	Conducted Power (Ant 2) [dBm]	Power Drift [dB]	Spacing	Antenna Config.	Device Serial Number	Data Rate (Mbps)	Side	Duty Cycle (%)	Peak SAR of Area Scan	SAR (1g)	Scaling Factor (Power)	Scaling Factor (Duty Cycle)	Reported SAR (1g)	Plot #
MHz	Ch.															W/kg	(W/kg)			(W/kg)	
5745	149	802.11n	OFDM	20	18.5	17.98	18.5	17.45	0.02	10 mm	MIMO	0405M	13	back	98.9	1.960	0.721	1.274	1.011	0.929	A82
5785	157	802.11n	OFDM	20	18.5	17.89	18.5	17.65	-0.12	10 mm	MIMO	0405M	13	back	98.9	1.838	0.671	1.216	1.011	0.825	
5825	165	802.11n	OFDM	20	18.5	17.62	18.5	17.48	-0.03	10 mm	MIMO	0405M	13	back	98.9	1.586	0.559	1.265	1.011	0.715	
5785	157	802.11n	OFDM	20	18.5	17.89	18.5	17.65	-0.12	10 mm	MIMO	0405M	13	front	98.9	0.085	0.036	1.216	1.011	0.044	
5785	157	802.11n	OFDM	20	18.5	17.89	18.5	17.65	0.15	10 mm	MIMO	0405M	13	top	98.9	0.338	0.146	1.216	1.011	0.179	
5785	157	802.11n	OFDM	20	18.5	17.89	18.5	17.65	0.18	10 mm	MIMO	0405M	13	left	98.9	0.468	0.193	1.216	1.011	0.237	
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: To achieve the 21.5 dBm maximum allowed MIMO power shown in the documentation, each antenna transmits at a maximum allowed power of 18.5 dBm

Table 11-67
NII Hotspot SAR for Conditions with 2.4 GHz and 5 GHz WLAN SAR and/or with NR Active

MEASUREMENT RESULTS																						
FREQUENCY		Mode	Service	Bandwidth [MHz]	Maximum Allowed Power (Ant 1) [dBm]	Conducted Power (Ant 1) [dBm]	Maximum Allowed Power (Ant 2) [dBm]	Conducted Power (Ant 2) [dBm]	Power Drift [dB]	Spacing	Antenna Config.	Device Serial Number	Data Rate (Mbps)	Side	Duty Cycle (%)	Peak SAR of Area Scan	SAR (1g)	Scaling Factor (Power)	Scaling Factor (Duty Cycle)	Reported SAR (1g)	Plot #
MHz	Ch.															W/kg	(W/kg)			(W/kg)	
5775	155	802.11ac	OFDM	80	14.0	13.24	14.0	13.09	-0.16	10 mm	MIMO	0405M	58.5	back	91.3	0.553	0.247	1.233	1.095	0.333	
5775	155	802.11ac	OFDM	80	14.0	13.24	14.0	13.09	-0.16	10 mm	MIMO	0405M	58.5	front	91.3	0.031	0.012	1.233	1.095	0.016	
5775	155	802.11ac	OFDM	80	14.0	13.24	14.0	13.09	0.17	10 mm	MIMO	0405M	58.5	top	91.3	0.093	0.037	1.233	1.095	0.050	
5775	155	802.11ac	OFDM	80	14.0	13.24	14.0	13.09	0.15	10 mm	MIMO	0405M	58.5	left	91.3	0.116	0.043	1.233	1.095	0.058	
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: NII MIMO was additionally evaluated at the maximum allowed output power during operations with Simultaneous 2.4 GHz and 5 GHz WLAN. 2.4 GHz WIFI was not transmitting during the above evaluations.

Table 11-68
NII Hotspot SAR for Conditions with 5G NR FR2 Active

MEASUREMENT RESULTS																					
FREQUENCY		Mode	Service	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Spacing	Antenna Config.	Device Serial Number	Data Rate (Mbps)	Side	Duty Cycle (%)	Peak SAR of Area Scan	SAR (1g)	Scaling Factor (Power)	Scaling Factor (Duty Cycle)	Reported SAR (1g)	Plot #
MHz	Ch.													W/kg	(W/kg)			(W/kg)	
5775	155	802.11ac	OFDM	80	14.0	13.09	0.18	10 mm	2	0396M	29.3	back	94.7	0.552	0.256	1.233	1.056	0.333	
5775	155	802.11ac	OFDM	80	14.0	13.09	-0.16	10 mm	2	0396M	29.3	front	94.7	0.029	0.014	1.233	1.056	0.018	
5775	155	802.11ac	OFDM	80	14.0	13.09	-0.18	10 mm	2	0396M	29.3	top	94.7	0.087	0.035	1.233	1.056	0.046	
5775	155	802.11ac	OFDM	80	14.0	13.09	-0.19	10 mm	2	0396M	29.3	left	94.7	0.143	0.060	1.233	1.056	0.078	
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 11-69
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	13.5	13.43	0.02	10 mm	0405M	1	back	77.3	0.025	1.016	1.294	0.033	
2441	39	Bluetooth	FHSS	13.5	13.43	-0.02	10 mm	0405M	1	front	77.3	0.032	1.016	1.294	0.042	
2441	39	Bluetooth	FHSS	13.5	13.43	0.05	10 mm	0405M	1	top	77.3	0.073	1.016	1.294	**0.096**	A84
2441	39	Bluetooth	FHSS	13.5	13.43	-0.13	10 mm	0405M	1	left	77.3	0.015	1.016	1.294	0.020	
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 11-70
GPRS/UMTS/CDMA Phablet SAR Data

MEASUREMENT RESULTS																	
FREQUENCY		Mode	Service	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Spacing	Ant State	Device Serial Number	# of Time Slots	Duty Cycle	Side	SAR (10g)	Scaling Factor	Reported SAR (10g)	Plot #
MHz	Ch.												(W/kg)		(W/kg)	
1880.00	600	PCS CDMA	EVDO Rev. 0	24.5	23.38	-0.02	8 mm	112	1786S	N/A	1:1	back	1.030	1.294	1.333	
1880.00	600	PCS CDMA	EVDO Rev. 0	24.5	23.38	-0.03	7 mm	112	1786S	N/A	1:1	front	1.470	1.294	1.902	
1880.00	600	PCS CDMA	EVDO Rev. 0	24.5	23.38	-0.04	12 mm	112	1786S	N/A	1:1	bottom	1.380	1.294	1.786	
1880.00	600	PCS CDMA	EVDO Rev. 0	24.5	23.38	-0.06	0 mm	112	1786S	N/A	1:1	right	0.489	1.294	0.633	
1880.00	600	PCS CDMA	EVDO Rev. 0	24.5	23.38	-0.08	0 mm	112	1786S	N/A	1:1	left	0.441	1.294	0.571	
1851.25	25	PCS CDMA	EVDO Rev. 0	20.0	19.99	-0.04	0 mm	112	1786S	N/A	1:1	back	2.160	1.002	2.164	
1880.00	600	PCS CDMA	EVDO Rev. 0	20.0	19.93	0.00	0 mm	112	1786S	N/A	1:1	back	2.190	1.016	2.225	
1908.75	1175	PCS CDMA	EVDO Rev. 0	20.0	19.97	-0.01	0 mm	112	1786S	N/A	1:1	back	2.200	1.007	2.215	
1851.25	25	PCS CDMA	EVDO Rev. 0	20.0	19.99	0.01	0 mm	112	1786S	N/A	1:1	front	2.120	1.002	2.124	
1880.00	600	PCS CDMA	EVDO Rev. 0	20.0	19.93	-0.01	0 mm	112	1786S	N/A	1:1	front	2.060	1.016	2.093	
1908.75	1175	PCS CDMA	EVDO Rev. 0	20.0	19.97	-0.04	0 mm	112	1786S	N/A	1:1	front	1.930	1.007	1.944	
1851.25	25	PCS CDMA	EVDO Rev. 0	20.0	19.99	-0.01	0 mm	112	1786S	N/A	1:1	bottom	2.900	1.002	2.906	
1880.00	600	PCS CDMA	EVDO Rev. 0	20.0	19.93	0.01	0 mm	112	1786S	N/A	1:1	bottom	2.910	1.016	2.957	A85
1908.75	1175	PCS CDMA	EVDO Rev. 0	20.0	19.97	0.01	0 mm	112	1786S	N/A	1:1	bottom	2.810	1.007	2.830	
1880.00	661	GSM 1900	GPRS	27.5	26.10	-0.09	8 mm	N/A	1791S	3	1:2.76	back	0.487	1.380	0.672	
1880.00	661	GSM 1900	GPRS	27.5	26.10	0.03	7 mm	N/A	1791S	3	1:2.76	front	0.547	1.380	0.755	
1880.00	661	GSM 1900	GPRS	27.5	26.10	0.01	12 mm	N/A	1791S	3	1:2.76	bottom	0.728	1.380	1.005	
1880.00	661	GSM 1900	GPRS	27.5	26.10	-0.19	0 mm	N/A	1791S	3	1:2.76	right	0.209	1.380	0.288	
1880.00	661	GSM 1900	GPRS	27.5	26.10	0.09	0 mm	N/A	1791S	3	1:2.76	left	0.246	1.380	0.339	
1880.00	661	GSM 1900	GPRS	23.1	21.96	-0.17	0 mm	N/A	1791S	4	1:2.076	back	1.150	1.300	1.495	
1880.00	661	GSM 1900	GPRS	23.1	21.96	0.18	0 mm	N/A	1791S	4	1:2.076	front	1.190	1.300	1.547	
1850.20	512	GSM 1900	GPRS	23.1	21.87	0.13	0 mm	N/A	1791S	4	1:2.076	bottom	1.970	1.327	2.614	
1880.00	661	GSM 1900	GPRS	23.1	21.96	0.08	0 mm	N/A	1791S	4	1:2.076	bottom	1.970	1.300	2.561	
1909.80	810	GSM 1900	GPRS	23.1	21.87	0.13	0 mm	N/A	1791S	4	1:2.076	bottom	2.280	1.327	3.026	A86
1732.40	1412	UMTS 1750	RMC	24.0	23.51	-0.04	8 mm	112	1791S	N/A	1:1	back	1.000	1.119	1.119	
1732.40	1412	UMTS 1750	RMC	24.0	23.51	-0.06	7 mm	112	1791S	N/A	1:1	front	1.140	1.119	1.276	
1732.40	1412	UMTS 1750	RMC	24.0	23.51	-0.01	12 mm	112	1791S	N/A	1:1	bottom	0.971	1.119	1.087	
1732.40	1412	UMTS 1750	RMC	24.0	23.51	0.02	0 mm	112	1791S	N/A	1:1	right	0.445	1.119	0.498	
1732.40	1412	UMTS 1750	RMC	24.0	23.51	0.02	0 mm	112	1791S	N/A	1:1	left	0.240	1.119	0.269	
1712.40	1312	UMTS 1750	RMC	21.2	20.83	-0.03	0 mm	112	1791S	N/A	1:1	back	2.330	1.089	2.537	
1732.40	1412	UMTS 1750	RMC	21.2	20.92	-0.03	0 mm	112	1791S	N/A	1:1	back	2.220	1.067	2.369	
1752.60	1513	UMTS 1750	RMC	21.2	21.20	-0.04	0 mm	112	1791S	N/A	1:1	back	2.130	1.000	2.130	
1712.40	1312	UMTS 1750	RMC	21.2	20.83	-0.10	0 mm	112	1791S	N/A	1:1	front	1.910	1.089	2.080	
1732.40	1412	UMTS 1750	RMC	21.2	20.92	-0.10	0 mm	112	1791S	N/A	1:1	front	1.930	1.067	2.059	
1752.60	1513	UMTS 1750	RMC	21.2	21.20	-0.09	0 mm	112	1791S	N/A	1:1	front	1.920	1.000	1.920	
1712.40	1312	UMTS 1750	RMC	21.2	20.83	-0.04	0 mm	112	1791S	N/A	1:1	bottom	2.260	1.089	2.461	
1732.40	1412	UMTS 1750	RMC	21.2	20.92	-0.06	0 mm	112	1791S	N/A	1:1	bottom	2.140	1.067	2.283	
1752.60	1513	UMTS 1750	RMC	21.2	21.20	-0.06	0 mm	112	1791S	N/A	1:1	bottom	2.640	1.000	2.640	A87
1880.00	9400	UMTS 1900	RMC	24.0	23.44	-0.02	8 mm	0	1786S	N/A	1:1	back	0.963	1.138	1.096	
1880.00	9400	UMTS 1900	RMC	24.0	23.44	0.00	7 mm	0	1786S	N/A	1:1	front	0.940	1.138	1.070	
1852.40	9262	UMTS 1900	RMC	24.0	23.48	-0.05	12 mm	0	1786S	N/A	1:1	bottom	1.210	1.127	1.364	
1880.00	9400	UMTS 1900	RMC	24.0	23.44	-0.05	12 mm	0	1786S	N/A	1:1	bottom	1.370	1.138	1.559	
1907.60	9538	UMTS 1900	RMC	24.0	23.40	-0.04	12 mm	0	1786S	N/A	1:1	bottom	1.440	1.148	1.653	
1880.00	9400	UMTS 1900	RMC	24.0	23.44	-0.15	0 mm	0	1786S	N/A	1:1	right	0.470	1.138	0.535	
1880.00	9400	UMTS 1900	RMC	24.0	23.44	-0.09	0 mm	0	1786S	N/A	1:1	left	0.380	1.138	0.432	
1852.40	9262	UMTS 1900	RMC	20.9	20.83	-0.06	0 mm	0	1786S	N/A	1:1	back	2.190	1.016	2.225	
1880.00	9400	UMTS 1900	RMC	20.9	20.82	-0.03	0 mm	0	1786S	N/A	1:1	back	2.330	1.019	2.374	
1907.60	9538	UMTS 1900	RMC	20.9	20.76	0.00	0 mm	0	1786S	N/A	1:1	back	2.330	1.033	2.407	
1852.40	9262	UMTS 1900	RMC	20.9	20.83	-0.09	0 mm	0	1786S	N/A	1:1	front	2.160	1.016	2.195	
1880.00	9400	UMTS 1900	RMC	20.9	20.82	-0.14	0 mm	0	1786S	N/A	1:1	front	2.180	1.019	2.221	
1907.60	9538	UMTS 1900	RMC	20.9	20.76	-0.20	0 mm	0	1786S	N/A	1:1	front	2.090	1.033	2.159	
1852.40	9262	UMTS 1900	RMC	20.9	20.83	-0.05	0 mm	0	1786S	N/A	1:1	bottom	3.010	1.016	3.058	
1880.00	9400	UMTS 1900	RMC	20.9	20.82	-0.17	0 mm	0	1786S	N/A	1:1	bottom	3.040	1.019	3.098	A88
1907.60	9538	UMTS 1900	RMC	20.9	20.76	-0.02	0 mm	0	1786S	N/A	1:1	bottom	2.850	1.033	2.944	
1880.00	9400	UMTS 1900	RMC	20.9	20.82	0.00	0 mm	0	1786S	N/A	1:1	bottom	3.040	1.019	3.098	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population							Phablet 4.0 W/kg (mW/g) averaged over 10 grams									

Note: Blue entry represents variability measurement.

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Table 11-71
LTE Band 66 (AWS) Phablet SAR

MEASUREMENT RESULTS																							
1 CC Uplink | 2 CC Uplink	Component Carrier	FREQUENCY			Mode	Bandwidth [MHz]	Ant State	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	N/A	1720.00	132072	Low	LTE Band 66 (AWS)	20	112	24.5	23.38	0.02	0	1767S	QPSK	1	50	8 mm	back	1:1	0.899	1.294	1.163	
1 CC Uplink	N/A	1720.00	132072	Low	LTE Band 66 (AWS)	20	112	23.5	22.55	0.00	1	1767S	QPSK	50	25	8 mm	back	1:1	0.752	1.245	0.936	
1 CC Uplink	N/A	1720.00	132072	Low	LTE Band 66 (AWS)	20	112	24.5	23.38	-0.01	0	1767S	QPSK	1	50	7 mm	front	1:1	0.869	1.294	1.124	
1 CC Uplink	N/A	1720.00	132072	Low	LTE Band 66 (AWS)	20	112	23.5	22.55	0.02	1	1767S	QPSK	50	25	7 mm	front	1:1	0.739	1.245	0.920	
1 CC Uplink	N/A	1720.00	132072	Low	LTE Band 66 (AWS)	20	112	24.5	23.38	-0.01	0	1767S	QPSK	1	50	12 mm	bottom	1:1	0.781	1.294	1.011	
1 CC Uplink	N/A	1720.00	132072	Low	LTE Band 66 (AWS)	20	112	23.5	22.55	0.00	1	1767S	QPSK	50	25	12 mm	bottom	1:1	0.679	1.245	0.845	
1 CC Uplink	N/A	1720.00	132072	Low	LTE Band 66 (AWS)	20	112	24.5	23.38	0.00	0	1767S	QPSK	1	50	0 mm	right	1:1	0.437	1.294	0.565	
1 CC Uplink	N/A	1720.00	132072	Low	LTE Band 66 (AWS)	20	112	23.5	22.55	-0.04	1	1767S	QPSK	50	25	0 mm	right	1:1	0.366	1.245	0.456	
1 CC Uplink	N/A	1720.00	132072	Low	LTE Band 66 (AWS)	20	112	24.5	23.38	-0.08	0	1767S	QPSK	1	50	0 mm	left	1:1	0.113	1.294	0.146	
1 CC Uplink	N/A	1720.00	132072	Low	LTE Band 66 (AWS)	20	112	23.5	22.55	0.04	1	1767S	QPSK	50	25	0 mm	left	1:1	0.098	1.245	0.122	
1 CC Uplink	N/A	1770.00	132572	High	LTE Band 66 (AWS)	20	112	21.2	20.60	-0.04	0	0671M	QPSK	1	0	0 mm	back	1:1	1.740	1.148	1.998	
1 CC Uplink	N/A	1720.00	132072	Low	LTE Band 66 (AWS)	20	112	21.2	20.47	0.01	0	0671M	QPSK	50	50	0 mm	back	1:1	2.070	1.183	2.449	
1 CC Uplink	N/A	1745.00	132322	Mid	LTE Band 66 (AWS)	20	112	21.2	20.48	-0.13	0	0671M	QPSK	50	50	0 mm	back	1:1	2.370	1.180	2.797	
1 CC Uplink	N/A	1770.00	132572	High	LTE Band 66 (AWS)	20	112	21.2	20.62	-0.02	0	0671M	QPSK	50	0	0 mm	back	1:1	1.820	1.143	2.080	
1 CC Uplink	N/A	1770.00	132572	High	LTE Band 66 (AWS)	20	112	21.2	20.48	0.05	0	0671M	QPSK	100	0	0 mm	back	1:1	2.500	1.180	2.950	
1 CC Uplink	N/A	1720.00	132072	Low	LTE Band 66 (AWS)	20	65	21.2	20.26	-0.11	0	0671M	QPSK	1	99	0 mm	front	1:1	1.710	1.242	2.124	
1 CC Uplink	N/A	1745.00	132322	Mid	LTE Band 66 (AWS)	20	65	21.2	20.35	-0.08	0	0671M	QPSK	1	99	0 mm	front	1:1	2.020	1.216	2.456	
1 CC Uplink	N/A	1770.00	132572	High	LTE Band 66 (AWS)	20	65	21.2	20.60	0.11	0	0671M	QPSK	1	0	0 mm	front	1:1	1.890	1.148	2.170	
1 CC Uplink	N/A	1720.00	132072	Low	LTE Band 66 (AWS)	20	65	21.2	20.47	-0.10	0	0671M	QPSK	50	50	0 mm	front	1:1	1.790	1.183	2.118	
1 CC Uplink	N/A	1745.00	132322	Mid	LTE Band 66 (AWS)	20	65	21.2	20.48	-0.11	0	0671M	QPSK	50	50	0 mm	front	1:1	2.150	1.180	2.537	
1 CC Uplink	N/A	1770.00	132572	High	LTE Band 66 (AWS)	20	65	21.2	20.62	-0.11	0	0671M	QPSK	50	0	0 mm	front	1:1	1.970	1.143	2.252	
1 CC Uplink	N/A	1770.00	132572	High	LTE Band 66 (AWS)	20	65	21.2	20.48	-0.11	0	0671M	QPSK	100	0	0 mm	front	1:1	2.330	1.180	2.749	
1 CC Uplink	N/A	1720.00	132072	Low	LTE Band 66 (AWS)	20	7	21.2	20.26	-0.09	0	0671M	QPSK	1	99	0 mm	bottom	1:1	2.340	1.242	2.906	
1 CC Uplink	N/A	1745.00	132322	Mid	LTE Band 66 (AWS)	20	7	21.2	20.35	-0.09	0	0671M	QPSK	1	99	0 mm	bottom	1:1	2.330	1.216	2.833	
1 CC Uplink	N/A	1770.00	132572	High	LTE Band 66 (AWS)	20	7	21.2	20.60	-0.16	0	0671M	QPSK	1	0	0 mm	bottom	1:1	2.540	1.148	2.916	
1 CC Uplink	N/A	1720.00	132072	Low	LTE Band 66 (AWS)	20	7	21.2	20.47	-0.08	0	0671M	QPSK	50	50	0 mm	bottom	1:1	2.530	1.183	2.993	
1 CC Uplink	N/A	1745.00	132322	Mid	LTE Band 66 (AWS)	20	7	21.2	20.48	-0.09	0	0671M	QPSK	50	50	0 mm	bottom	1:1	2.520	1.180	2.974	
1 CC Uplink	N/A	1770.00	132572	High	LTE Band 66 (AWS)	20	7	21.2	20.62	0.15	0	0671M	QPSK	50	0	0 mm	bottom	1:1	2.620	1.143	2.995	
1 CC Uplink	N/A	1770.00	132572	High	LTE Band 66 (AWS)	20	7	21.2	20.48	-0.05	0	0671M	QPSK	100	0	0 mm	bottom	1:1	2.660	1.180	3.139	
1 CC Uplink	N/A	1775.00	132622	High	LTE Band 66 (AWS)	10	7	21.2	20.35	0.02	0	0671M	QPSK	50	0	0 mm	bottom	1:1	2.480	1.216	3.016	
2 CC Uplink CA_66C	PCC	1770.00	132572	High	LTE Band 66 (AWS)	20	7	21.2	21.20	-0.19	0	0671M	QPSK	100	0	0 mm	bottom	1:1	3.120	1.000	3.120	A89
	SCC	1750.20	132374			20								100	0							
2 CC Uplink CA_66B	PCC	1775.00	132622	High	LTE Band 66 (AWS)	10	7	21.2	20.68	-0.02	0	0671M	QPSK	50	0	0 mm	bottom	1:1	2.780	1.127	3.133	
	SCC	1765.10	132523			10								50	0							
2 CC Uplink CA_66C	PCC	1770.00	132572	High	LTE Band 66 (AWS)	20	7	21.2	21.20	-0.19	0	0671M	QPSK	100	0	0 mm	bottom	1:1	3.020	1.000	3.020	
	SCC	1750.20	132374			20								100	0							
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Note: Blue entry represents variability measurement.

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Table 11-72
LTE Band 25 (PCS) Phablet SAR

MEASUREMENT RESULTS																					
FREQUENCY			Mode	Bandwidth [MHz]	Ant State	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)	
1860.00	26140	Low	LTE Band 25 (PCS)	20	112	24.0	23.76	-0.03	0	1766S	QPSK	1	50	8 mm	back	1:1	0.978	1.057	1.034	
1860.00	26140	Low	LTE Band 25 (PCS)	20	112	23.0	22.83	-0.07	1	1766S	QPSK	50	25	8 mm	back	1:1	0.810	1.040	0.842	
1860.00	26140	Low	LTE Band 25 (PCS)	20	112	24.0	23.76	-0.01	0	1766S	QPSK	1	50	7 mm	front	1:1	1.310	1.057	1.385	
1860.00	26140	Low	LTE Band 25 (PCS)	20	112	23.0	22.83	0.02	1	1766S	QPSK	50	25	7 mm	front	1:1	1.090	1.040	1.134	
1860.00	26140	Low	LTE Band 25 (PCS)	20	112	24.0	23.76	0.01	0	1766S	QPSK	1	50	12 mm	bottom	1:1	1.210	1.057	1.279	
1860.00	26140	Low	LTE Band 25 (PCS)	20	112	23.0	22.83	-0.01	1	1766S	QPSK	50	25	12 mm	bottom	1:1	1.030	1.040	1.071	
1860.00	26140	Low	LTE Band 25 (PCS)	20	112	24.0	23.76	0.01	0	1766S	QPSK	1	50	0 mm	right	1:1	0.499	1.057	0.527	
1860.00	26140	Low	LTE Band 25 (PCS)	20	112	23.0	22.83	-0.01	1	1766S	QPSK	50	25	0 mm	right	1:1	0.406	1.040	0.422	
1860.00	26140	Low	LTE Band 25 (PCS)	20	112	24.0	23.76	0.11	0	1766S	QPSK	1	50	0 mm	left	1:1	0.450	1.057	0.476	
1860.00	26140	Low	LTE Band 25 (PCS)	20	112	23.0	22.83	-0.02	1	1766S	QPSK	50	25	0 mm	left	1:1	0.370	1.040	0.385	
1860.00	26140	Low	LTE Band 25 (PCS)	20	0	20.8	20.66	0.05	0	1767S	QPSK	1	99	0 mm	back	1:1	1.880	1.033	1.942	
1860.00	26140	Low	LTE Band 25 (PCS)	20	0	20.8	20.68	0.03	0	1767S	QPSK	50	25	0 mm	back	1:1	2.010	1.028	2.066	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	0	20.8	20.64	0.05	0	1767S	QPSK	50	0	0 mm	back	1:1	1.970	1.038	2.045	
1905.00	26590	High	LTE Band 25 (PCS)	20	0	20.8	20.61	0.07	0	1767S	QPSK	50	25	0 mm	back	1:1	1.920	1.045	2.006	
1860.00	26140	Low	LTE Band 25 (PCS)	20	0	20.8	20.65	0.03	0	1767S	QPSK	100	0	0 mm	back	1:1	1.950	1.035	2.018	
1860.00	26140	Low	LTE Band 25 (PCS)	20	0	20.8	20.66	-0.01	0	1767S	QPSK	1	99	0 mm	front	1:1	1.820	1.033	1.880	
1860.00	26140	Low	LTE Band 25 (PCS)	20	0	20.8	20.68	0.00	0	1767S	QPSK	50	25	0 mm	front	1:1	1.930	1.028	1.984	
1860.00	26140	Low	LTE Band 25 (PCS)	20	18	20.8	20.66	-0.12	0	1767S	QPSK	1	99	0 mm	bottom	1:1	2.530	1.033	2.613	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	18	20.8	20.60	-0.09	0	1767S	QPSK	1	50	0 mm	bottom	1:1	2.560	1.047	2.680	
1905.00	26590	High	LTE Band 25 (PCS)	20	18	20.8	20.63	-0.04	0	1767S	QPSK	1	50	0 mm	bottom	1:1	2.450	1.040	2.548	
1860.00	26140	Low	LTE Band 25 (PCS)	20	18	20.8	20.68	-0.07	0	1767S	QPSK	50	25	0 mm	bottom	1:1	2.740	1.028	2.817	A90
1882.50	26365	Mid	LTE Band 25 (PCS)	20	18	20.8	20.64	-0.07	0	1767S	QPSK	50	0	0 mm	bottom	1:1	2.670	1.038	2.771	
1905.00	26590	High	LTE Band 25 (PCS)	20	18	20.8	20.61	-0.11	0	1767S	QPSK	50	25	0 mm	bottom	1:1	2.580	1.045	2.696	
1860.00	26140	Low	LTE Band 25 (PCS)	20	18	20.8	20.65	-0.07	0	1767S	QPSK	100	0	0 mm	bottom	1:1	2.690	1.035	2.784	
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 11-73
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)	Scaling Factor	Reported SAR (10g)	Plot #
MHz	Ch.															(W/kg)		(W/kg)	
2310.00	27710	Mid	LTE Band 30	10	24.0	23.82	0.02	0	1766S	QPSK	1	0	8 mm	back	1:1	0.739	1.042	0.770	
2310.00	27710	Mid	LTE Band 30	10	23.0	22.79	0.00	1	1766S	QPSK	25	0	8 mm	back	1:1	0.589	1.050	0.618	
2310.00	27710	Mid	LTE Band 30	10	24.0	23.82	-0.05	0	1766S	QPSK	1	0	7 mm	front	1:1	0.786	1.042	0.819	
2310.00	27710	Mid	LTE Band 30	10	23.0	22.79	-0.08	1	1766S	QPSK	25	0	7 mm	front	1:1	0.622	1.050	0.653	
2310.00	27710	Mid	LTE Band 30	10	24.0	23.82	-0.06	0	1766S	QPSK	1	0	12 mm	bottom	1:1	1.210	1.042	1.261	
2310.00	27710	Mid	LTE Band 30	10	23.0	22.79	0.05	1	1766S	QPSK	25	0	12 mm	bottom	1:1	0.957	1.050	1.005	
2310.00	27710	Mid	LTE Band 30	10	24.0	23.82	0.00	0	1766S	QPSK	1	0	0 mm	right	1:1	0.310	1.042	0.323	
2310.00	27710	Mid	LTE Band 30	10	23.0	22.79	0.01	1	1766S	QPSK	25	0	0 mm	right	1:1	0.248	1.050	0.260	
2310.00	27710	Mid	LTE Band 30	10	24.0	23.82	-0.16	0	1766S	QPSK	1	0	0 mm	left	1:1	0.390	1.042	0.406	
2310.00	27710	Mid	LTE Band 30	10	23.0	22.79	-0.16	1	1766S	QPSK	25	0	0 mm	left	1:1	0.306	1.050	0.321	
2310.00	27710	Mid	LTE Band 30	10	22.0	21.36	0.12	0	1332S	QPSK	1	0	0 mm	back	1:1	1.220	1.159	1.414	
2310.00	27710	Mid	LTE Band 30	10	22.0	21.58	0.16	0	1332S	QPSK	25	12	0 mm	back	1:1	1.240	1.102	1.366	
2310.00	27710	Mid	LTE Band 30	10	22.0	21.36	-0.15	0	1332S	QPSK	1	0	0 mm	front	1:1	1.220	1.159	1.414	
2310.00	27710	Mid	LTE Band 30	10	22.0	21.58	0.13	0	1332S	QPSK	25	12	0 mm	front	1:1	1.110	1.102	1.223	
2310.00	27710	Mid	LTE Band 30	10	22.0	21.36	-0.13	0	1332S	QPSK	1	0	0 mm	bottom	1:1	1.790	1.159	2.075	A91
2310.00	27710	Mid	LTE Band 30	10	22.0	21.58	-0.20	0	1332S	QPSK	25	12	0 mm	bottom	1:1	1.700	1.102	1.873	
2310.00	27710	Mid	LTE Band 30	10	22.0	21.35	-0.13	0	1332S	QPSK	50	0	0 mm	bottom	1:1	1.640	1.161	1.904	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population								Phablet 4.0 W/kg (mW/g) averaged over 10 grams											

Table 11-74
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)	Scaling Factor	Reported SAR (10g)	Plot #
MHz	Ch.															(W/kg)		(W/kg)	
2510.00	20850	Low	LTE Band 7	20	24.0	23.75	0.02	0	1768S	QPSK	1	99	8 mm	back	1:1	0.486	1.059	0.515	
2510.00	20850	Low	LTE Band 7	20	23.0	22.94	0.00	1	1768S	QPSK	50	0	8 mm	back	1:1	0.389	1.014	0.394	
2510.00	20850	Low	LTE Band 7	20	24.0	23.75	-0.06	0	1768S	QPSK	1	99	7 mm	front	1:1	0.669	1.059	0.708	
2510.00	20850	Low	LTE Band 7	20	23.0	22.94	-0.04	1	1768S	QPSK	50	0	7 mm	front	1:1	0.540	1.014	0.548	
2510.00	20850	Low	LTE Band 7	20	24.0	23.75	-0.01	0	1768S	QPSK	1	99	12 mm	bottom	1:1	0.698	1.059	0.739	
2510.00	20850	Low	LTE Band 7	20	23.0	22.94	0.00	1	1768S	QPSK	50	0	12 mm	bottom	1:1	0.556	1.014	0.564	
2510.00	20850	Low	LTE Band 7	20	24.0	23.75	-0.03	0	1768S	QPSK	1	99	0 mm	left	1:1	0.660	1.059	0.699	
2510.00	20850	Low	LTE Band 7	20	23.0	22.94	-0.09	1	1768S	QPSK	50	0	0 mm	left	1:1	0.566	1.014	0.574	
2510.00	20850	Low	LTE Band 7	20	21.9	20.84	-0.05	0	0669M	QPSK	1	0	0 mm	back	1:1	1.510	1.276	1.927	
2510.00	20850	Low	LTE Band 7	20	21.9	20.88	-0.06	0	0669M	QPSK	50	50	0 mm	back	1:1	1.580	1.265	1.999	
2510.00	20850	Low	LTE Band 7	20	21.9	20.84	-0.01	0	0669M	QPSK	1	0	0 mm	front	1:1	1.260	1.276	1.608	
2510.00	20850	Low	LTE Band 7	20	21.9	20.88	0.02	0	0669M	QPSK	50	50	0 mm	front	1:1	1.280	1.265	1.619	
2510.00	20850	Low	LTE Band 7	20	21.9	20.84	-0.20	0	0669M	QPSK	1	0	0 mm	bottom	1:1	1.590	1.276	2.029	
2535.00	21100	Mid	LTE Band 7	20	21.9	20.77	-0.15	0	0669M	QPSK	1	99	0 mm	bottom	1:1	1.700	1.297	2.205	
2560.00	21350	High	LTE Band 7	20	21.9	20.71	-0.11	0	0669M	QPSK	1	0	0 mm	bottom	1:1	1.750	1.315	2.301	A92
2510.00	20850	Low	LTE Band 7	20	21.9	20.88	0.12	0	0669M	QPSK	50	50	0 mm	bottom	1:1	1.570	1.265	1.986	
2510.00	20850	Low	LTE Band 7	20	21.9	20.79	-0.21	0	0669M	QPSK	100	0	0 mm	bottom	1:1	1.560	1.291	2.014	
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 11-75
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	25.0	24.48	0.00	0	1790S	QPSK	1	50	8 mm	back	1:1.58	0.297	1.127	0.335	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	24.0	23.63	0.00	1	1790S	QPSK	50	25	8 mm	back	1:1.58	0.242	1.089	0.264	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	25.0	24.48	0.02	0	1790S	QPSK	1	50	7 mm	front	1:1.58	0.351	1.127	0.396	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	24.0	23.63	0.05	1	1790S	QPSK	50	25	7 mm	front	1:1.58	0.288	1.089	0.314	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	25.0	24.48	-0.02	0	1790S	QPSK	1	50	12 mm	bottom	1:1.58	0.566	1.127	0.638	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	24.0	23.63	-0.03	1	1790S	QPSK	50	25	12 mm	bottom	1:1.58	0.458	1.089	0.499	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	25.0	24.48	-0.12	0	1790S	QPSK	1	50	0 mm	left	1:1.58	0.492	1.127	0.554	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	24.0	23.63	-0.12	1	1790S	QPSK	50	25	0 mm	left	1:1.58	0.405	1.089	0.441	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	22.8	22.25	0.14	0	1790S	QPSK	1	50	0 mm	back	1:1.58	1.170	1.135	1.328	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	22.8	22.12	0.13	0	1790S	QPSK	50	50	0 mm	back	1:1.58	1.200	1.169	1.403	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	22.8	22.25	0.19	0	1790S	QPSK	1	50	0 mm	front	1:1.58	1.320	1.135	1.498	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	22.8	22.12	0.16	0	1790S	QPSK	50	50	0 mm	front	1:1.58	1.280	1.169	1.496	
1 CC Uplink - Power Class 3	N/A	2506.00	39750	Low	LTE Band 41	20	22.8	21.73	-0.13	0	1790S	QPSK	1	0	0 mm	bottom	1:1.58	1.500	1.279	1.919	
1 CC Uplink - Power Class 3	N/A	2549.50	40185	Low-Mid	LTE Band 41	20	22.8	21.70	-0.12	0	1790S	QPSK	1	0	0 mm	bottom	1:1.58	1.340	1.288	1.726	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	22.8	22.25	-0.11	0	1790S	QPSK	1	50	0 mm	bottom	1:1.58	1.590	1.135	1.805	
1 CC Uplink - Power Class 3	N/A	2636.50	41055	Mid-High	LTE Band 41	20	22.8	21.83	-0.18	0	1790S	QPSK	1	50	0 mm	bottom	1:1.58	1.560	1.250	1.950	
1 CC Uplink - Power Class 3	N/A	2680.00	41490	High	LTE Band 41	20	22.8	21.87	-0.20	0	1790S	QPSK	1	50	0 mm	bottom	1:1.58	1.480	1.239	1.834	
1 CC Uplink - Power Class 3	N/A	2506.00	39750	Low	LTE Band 41	20	22.8	21.78	-0.14	0	1790S	QPSK	50	0	0 mm	bottom	1:1.58	1.460	1.265	1.847	
1 CC Uplink - Power Class 3	N/A	2549.50	40185	Low-Mid	LTE Band 41	20	22.8	21.80	-0.15	0	1790S	QPSK	50	25	0 mm	bottom	1:1.58	1.480	1.259	1.863	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	22.8	22.12	-0.13	0	1790S	QPSK	50	50	0 mm	bottom	1:1.58	1.640	1.169	1.917	
1 CC Uplink - Power Class 3	N/A	2636.50	41055	Mid-High	LTE Band 41	20	22.8	21.87	-0.16	0	1790S	QPSK	50	0	0 mm	bottom	1:1.58	1.810	1.239	2.243	
1 CC Uplink - Power Class 3	N/A	2636.50	41055	Mid-High	LTE Band 41	20	22.8	21.94	-0.16	0	1790S	QPSK	50	25	0 mm	bottom	1:1.58	1.650	1.219	2.011	
1 CC Uplink - Power Class 3	N/A	2680.00	41490	High	LTE Band 41	20	22.8	21.99	-0.20	0	1790S	QPSK	50	50	0 mm	bottom	1:1.58	1.500	1.205	1.808	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	22.8	21.95	-0.15	0	1790S	QPSK	100	0	0 mm	bottom	1:1.58	1.610	1.216	1.958	
1 CC Uplink - Power Class 2	N/A	2636.50	41055	Mid-High	LTE Band 41	20	24.4	22.97	-0.16	0	1790S	QPSK	50	0	0 mm	bottom	1:2.31	1.610	1.390	2.238	
1 CC Uplink - Power Class 2	N/A	2636.50	41055	Mid-High	LTE Band 41	20	24.4	23.20	-0.15	0	1790S	QPSK	50	25	0 mm	bottom	1:2.31	1.650	1.318	2.175	
2 CC Uplink - Power Class 3	PCC	2636.50	41055	Mid-High	LTE Band 41	20	22.8	22.60	-0.13	0	1790S	QPSK	50	0	0 mm	bottom	1:1.58	2.190	1.047	2.293	A93
	SCC	2616.70	40857			20							50	50							
2 CC Uplink - Power Class 2	PCC	2636.50	41055	Mid-High	LTE Band 41	20	24.4	23.81	-0.14	0	1790S	QPSK	50	0	0 mm	bottom	1:2.31	1.900	1.146	2.177	
	SCC	2616.70	40857			20							50	50							
2 CC Uplink - Power Class 3	PCC	2636.50	41055	Mid-High	LTE Band 41	20	22.8	22.60	-0.14	0	1790S	QPSK	50	0	0 mm	bottom	1:1.58	2.060	1.047	2.157	
	SCC	2616.70	40857			20							50	50							
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population										Phablet 4.0 W/kg (mW/g) averaged over 10 grams											

Note: Blue entry represents variability measurement.

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Table 11-76
NR Band n66 (AWS) Phablet SAR

MEASUREMENT RESULTS																					
FREQUENCY			Mode	Bandwidth [MHz]	Ant State	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)	
1745.00	349000	Mid	NR Band n66 (AWS)	20	112	24.6	24.60	-0.17	0	1787S	DFT-S-OFDM QPSK	1	53	8 mm	back	1:1	1.250	1.000	1.250	
1745.00	349000	Mid	NR Band n66 (AWS)	20	112	24.6	24.51	-0.03	0	1787S	DFT-S-OFDM QPSK	50	28	8 mm	back	1:1	1.290	1.021	1.317	
1745.00	349000	Mid	NR Band n66 (AWS)	20	112	24.6	24.60	-0.02	0	1787S	DFT-S-OFDM QPSK	1	53	7 mm	front	1:1	1.560	1.000	1.560	
1745.00	349000	Mid	NR Band n66 (AWS)	20	112	24.6	24.51	0.14	0	1787S	DFT-S-OFDM QPSK	50	28	7 mm	front	1:1	1.520	1.021	1.552	
1745.00	349000	Mid	NR Band n66 (AWS)	20	112	24.6	24.60	0.19	0	1787S	DFT-S-OFDM QPSK	1	53	12 mm	bottom	1:1	1.400	1.000	1.400	
1745.00	349000	Mid	NR Band n66 (AWS)	20	112	24.6	24.51	-0.03	0	1787S	DFT-S-OFDM QPSK	50	28	12 mm	bottom	1:1	1.390	1.021	1.419	
1745.00	349000	Mid	NR Band n66 (AWS)	20	112	24.6	24.60	-0.01	0	1787S	DFT-S-OFDM QPSK	1	53	0 mm	right	1:1	0.570	1.000	0.570	
1745.00	349000	Mid	NR Band n66 (AWS)	20	112	24.6	24.51	0.19	0	1787S	DFT-S-OFDM QPSK	50	28	0 mm	right	1:1	0.546	1.021	0.557	
1745.00	349000	Mid	NR Band n66 (AWS)	20	112	24.6	24.60	0.04	0	1787S	DFT-S-OFDM QPSK	1	53	0 mm	left	1:1	0.472	1.000	0.472	
1745.00	349000	Mid	NR Band n66 (AWS)	20	112	24.6	24.51	0.00	0	1787S	DFT-S-OFDM QPSK	50	28	0 mm	left	1:1	0.449	1.021	0.458	
1745.00	349000	Mid	NR Band n66 (AWS)	20	112	20.0	19.70	0.00	0	1788S	DFT-S-OFDM QPSK	1	1	0 mm	back	1:1	1.580	1.072	1.694	
1745.00	349000	Mid	NR Band n66 (AWS)	20	112	20.0	19.65	0.00	0	1788S	DFT-S-OFDM QPSK	50	0	0 mm	back	1:1	1.670	1.084	1.810	
1745.00	349000	Mid	NR Band n66 (AWS)	20	65	20.0	19.70	0.16	0	1788S	DFT-S-OFDM QPSK	1	1	0 mm	front	1:1	1.540	1.072	1.651	
1745.00	349000	Mid	NR Band n66 (AWS)	20	65	20.0	19.65	-0.08	0	1788S	DFT-S-OFDM QPSK	50	0	0 mm	front	1:1	1.620	1.084	1.756	
1720.00	344000	Low	NR Band n66 (AWS)	20	7	20.0	19.45	0.05	0	1788S	DFT-S-OFDM QPSK	1	104	0 mm	bottom	1:1	2.260	1.135	2.565	
1745.00	349000	Mid	NR Band n66 (AWS)	20	7	20.0	19.70	0.00	0	1788S	DFT-S-OFDM QPSK	1	1	0 mm	bottom	1:1	2.520	1.072	2.701	
1770.00	354000	High	NR Band n66 (AWS)	20	7	20.0	19.41	0.02	0	1788S	DFT-S-OFDM QPSK	1	1	0 mm	bottom	1:1	2.360	1.146	2.705	
1720.00	344000	Low	NR Band n66 (AWS)	20	7	20.0	19.40	0.00	0	1788S	DFT-S-OFDM QPSK	50	0	0 mm	bottom	1:1	2.340	1.148	2.686	
1745.00	349000	Mid	NR Band n66 (AWS)	20	7	20.0	19.65	-0.12	0	1788S	DFT-S-OFDM QPSK	50	0	0 mm	bottom	1:1	2.570	1.084	2.786	A94
1770.00	354000	High	NR Band n66 (AWS)	20	7	20.0	19.36	0.01	0	1788S	DFT-S-OFDM QPSK	50	0	0 mm	bottom	1:1	2.290	1.159	2.654	
1745.00	349000	Mid	NR Band n66 (AWS)	20	7	20.0	19.61	-0.04	0	1788S	DFT-S-OFDM QPSK	100	0	0 mm	bottom	1:1	2.540	1.094	2.779	
1770.00	354000	High	NR Band n66 (AWS)	20	7	20.0	19.51	-0.03	0	1788S	CP-OFDM QPSK	1	1	0 mm	bottom	1:1	2.450	1.119	2.742	
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Table 11-77
NR Band n2 (PCS) Phablet SAR

MEASUREMENT RESULTS																					
FREQUENCY			Mode	Bandwidth [MHz]	Ant State	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)	
1880.00	376000	Mid	NR Band n2 (PCS)	20	112	24.0	23.30	-0.04	0	1788S	DFT-S-OFDM QPSK	1	1	8 mm	back	1:1	0.936	1.175	1.100	
1880.00	376000	Mid	NR Band n2 (PCS)	20	112	24.0	23.40	0.06	0	1788S	DFT-S-OFDM QPSK	50	28	8 mm	back	1:1	0.962	1.148	1.104	
1880.00	376000	Mid	NR Band n2 (PCS)	20	112	24.0	23.30	-0.06	0	1788S	DFT-S-OFDM QPSK	1	1	7 mm	front	1:1	1.180	1.175	1.387	
1880.00	376000	Mid	NR Band n2 (PCS)	20	112	24.0	23.40	-0.07	0	1788S	DFT-S-OFDM QPSK	50	28	7 mm	front	1:1	1.190	1.148	1.366	
1880.00	376000	Mid	NR Band n2 (PCS)	20	112	24.0	23.30	-0.05	0	1788S	DFT-S-OFDM QPSK	1	1	12 mm	bottom	1:1	1.460	1.175	1.716	
1880.00	376000	Mid	NR Band n2 (PCS)	20	112	24.0	23.40	-0.05	0	1788S	DFT-S-OFDM QPSK	50	28	12 mm	bottom	1:1	1.470	1.148	1.688	
1880.00	376000	Mid	NR Band n2 (PCS)	20	112	24.0	23.30	-0.19	0	1788S	DFT-S-OFDM QPSK	1	1	0 mm	right	1:1	0.486	1.175	0.571	
1880.00	376000	Mid	NR Band n2 (PCS)	20	112	24.0	23.40	0.10	0	1788S	DFT-S-OFDM QPSK	50	28	0 mm	right	1:1	0.484	1.148	0.556	
1880.00	376000	Mid	NR Band n2 (PCS)	20	112	24.0	23.30	0.07	0	1788S	DFT-S-OFDM QPSK	1	1	0 mm	left	1:1	0.382	1.175	0.449	
1880.00	376000	Mid	NR Band n2 (PCS)	20	112	24.0	23.40	-0.05	0	1788S	DFT-S-OFDM QPSK	50	28	0 mm	left	1:1	0.390	1.148	0.448	
1860.00	372000	Low	NR Band n2 (PCS)	20	0	20.4	20.11	0.08	0	1788S	DFT-S-OFDM QPSK	1	1	0 mm	back	1:1	1.980	1.069	2.117	
1880.00	376000	Mid	NR Band n2 (PCS)	20	0	20.4	19.97	0.00	0	1788S	DFT-S-OFDM QPSK	1	1	0 mm	back	1:1	2.060	1.104	2.274	
1900.00	380000	High	NR Band n2 (PCS)	20	0	20.4	19.82	0.03	0	1788S	DFT-S-OFDM QPSK	1	1	0 mm	back	1:1	2.010	1.143	2.297	
1860.00	372000	Low	NR Band n2 (PCS)	20	0	20.4	20.09	0.03	0	1788S	DFT-S-OFDM QPSK	50	0	0 mm	back	1:1	1.990	1.074	2.137	
1880.00	376000	Mid	NR Band n2 (PCS)	20	0	20.4	19.97	0.01	0	1788S	DFT-S-OFDM QPSK	50	0	0 mm	back	1:1	2.060	1.104	2.274	
1900.00	380000	High	NR Band n2 (PCS)	20	0	20.4	19.86	0.07	0	1788S	DFT-S-OFDM QPSK	50	0	0 mm	back	1:1	2.040	1.132	2.309	
1860.00	372000	Low	NR Band n2 (PCS)	20	0	20.4	19.97	0.07	0	1788S	DFT-S-OFDM QPSK	100	0	0 mm	back	1:1	1.980	1.104	2.186	
1860.00	372000	Low	NR Band n2 (PCS)	20	0	20.4	20.11	0.00	0	1788S	DFT-S-OFDM QPSK	1	1	0 mm	front	1:1	1.900	1.069	2.031	
1880.00	376000	Mid	NR Band n2 (PCS)	20	0	20.4	19.97	-0.04	0	1788S	DFT-S-OFDM QPSK	1	1	0 mm	front	1:1	1.870	1.104	2.064	
1900.00	380000	High	NR Band n2 (PCS)	20	0	20.4	19.82	-0.03	0	1788S	DFT-S-OFDM QPSK	1	1	0 mm	front	1:1	1.790	1.143	2.046	
1860.00	372000	Low	NR Band n2 (PCS)	20	0	20.4	20.09	0.02	0	1788S	DFT-S-OFDM QPSK	50	0	0 mm	front	1:1	1.880	1.074	2.019	
1880.00	376000	Mid	NR Band n2 (PCS)	20	0	20.4	19.97	-0.08	0	1788S	DFT-S-OFDM QPSK	50	0	0 mm	front	1:1	1.880	1.104	2.076	
1900.00	380000	High	NR Band n2 (PCS)	20	0	20.4	19.86	-0.05	0	1788S	DFT-S-OFDM QPSK	50	0	0 mm	front	1:1	1.790	1.132	2.026	
1860.00	372000	Low	NR Band n2 (PCS)	20	0	20.4	19.97	-0.07	0	1788S	DFT-S-OFDM QPSK	100	0	0 mm	front	1:1	1.860	1.104	2.053	
1860.00	372000	Low	NR Band n2 (PCS)	20	18	20.4	20.11	0.01	0	1788S	DFT-S-OFDM QPSK	1	1	0 mm	bottom	1:1	2.820	1.069	3.015	
1880.00	376000	Mid	NR Band n2 (PCS)	20	18	20.4	19.97	0.01	0	1788S	DFT-S-OFDM QPSK	1	1	0 mm	bottom	1:1	2.790	1.104	3.080	
1900.00	380000	High	NR Band n2 (PCS)	20	18	20.4	19.82	-0.03	0	1788S	DFT-S-OFDM QPSK	1	1	0 mm	bottom	1:1	2.680	1.143	3.063	
1860.00	372000	Low	NR Band n2 (PCS)	20	18	20.4	20.09	-0.02	0	1788S	DFT-S-OFDM QPSK	50	0	0 mm	bottom	1:1	2.890	1.074	3.104	A95
1880.00	376000	Mid	NR Band n2 (PCS)	20	18	20.4	19.97	-0.03	0	1788S	DFT-S-OFDM QPSK	50	0	0 mm	bottom	1:1	2.790	1.104	3.080	
1900.00	380000	High	NR Band n2 (PCS)	20	18	20.4	19.86	-0.04	0	1788S	DFT-S-OFDM QPSK	50	0	0 mm	bottom	1:1	2.670	1.132	3.022	
1860.00	372000	Low	NR Band n2 (PCS)	20	18	20.4	19.97	-0.01	0	1788S	DFT-S-OFDM QPSK	100	0	0 mm	bottom	1:1	2.780	1.104	3.069	
1860.00	372000	Low	NR Band n2 (PCS)	20	18	20.4	20.09	-0.09	0	1788S	CP-OFDM QPSK	1	1	0 mm	bottom	1:1	2.760	1.074	2.964	
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Table 11-78
WLAN Phablet SAR

MEASUREMENT RESULTS																			
FREQUENCY		Mode	Service	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Spacing	Antenna Config.	Device Serial Number	Data Rate (Mbps)	Side	Duty Cycle (%)	Peak SAR of Area Scan	SAR (10g)	Scaling Factor (Power)	Scaling Factor (Duty Cycle)	Reported SAR (10g)	Plot #
MHz	Ch.													W/kg	(W/kg)			(W/kg)	
5300	60	802.11a	OFDM	20	18.5	18.17	0.18	0 mm	1	0405M	6	back	98.8	8.285	1.090	1.079	1.012	1.190	
5300	60	802.11a	OFDM	20	18.5	18.17	0.15	0 mm	1	0405M	6	front	98.8	0.577	0.072	1.079	1.012	0.079	
5300	60	802.11a	OFDM	20	18.5	18.17	0.14	0 mm	1	0405M	6	top	98.8	0.244	-	1.079	1.012	-	
5300	60	802.11a	OFDM	20	18.5	18.17	0.18	0 mm	1	0405M	6	left	98.8	6.613	0.534	1.079	1.012	0.583	
5280	56	802.11a	OFDM	20	18.5	17.94	-0.14	0 mm	2	0405M	6	back	98.8	5.509	0.775	1.138	1.012	0.893	
5280	56	802.11a	OFDM	20	18.5	17.94	0.19	0 mm	2	0405M	6	front	98.8	2.414	0.269	1.138	1.012	0.310	
5280	56	802.11a	OFDM	20	18.5	17.94	0.13	0 mm	2	0405M	6	top	98.8	0.664	-	1.138	1.012	-	
5280	56	802.11a	OFDM	20	18.5	17.94	0.19	0 mm	2	0405M	6	left	98.8	4.624	-	1.138	1.012	-	
5600	120	802.11a	OFDM	20	18.5	17.89	0.16	0 mm	1	0405M	6	back	98.8	4.985	0.599	1.151	1.012	0.698	
5600	120	802.11a	OFDM	20	18.5	17.89	0.12	0 mm	1	0405M	6	front	98.8	0.611	0.041	1.151	1.012	0.048	
5600	120	802.11a	OFDM	20	18.5	17.89	0.19	0 mm	1	0405M	6	top	98.8	0.938	-	1.151	1.012	-	
5600	120	802.11a	OFDM	20	18.5	17.89	0.19	0 mm	1	0405M	6	left	98.8	4.904	-	1.151	1.012	-	
5520	104	802.11a	OFDM	20	18.5	17.75	-0.16	0 mm	2	0405M	6	back	98.8	9.611	1.360	1.189	1.012	1.636	
5620	124	802.11a	OFDM	20	18.5	17.87	0.13	0 mm	2	0405M	6	back	98.8	13.122	1.590	1.156	1.012	1.860	
5720	144	802.11a	OFDM	20	18.5	17.20	-0.12	0 mm	2	0405M	6	back	98.8	9.781	1.450	1.349	1.012	1.980	
5620	124	802.11a	OFDM	20	18.5	17.87	0.19	0 mm	2	0405M	6	front	98.8	0.642	0.095	1.156	1.012	0.111	
5620	124	802.11a	OFDM	20	18.5	17.87	0.12	0 mm	2	0405M	6	top	98.8	0.726	-	1.156	1.012	-	
5620	124	802.11a	OFDM	20	18.5	17.87	-0.15	0 mm	2	0405M	6	left	98.8	5.568	0.471	1.156	1.012	0.551	
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 11-79
NII MIMO Phablet SAR

MEASUREMENT RESULTS																					
FREQUENCY		Mode	Service	Bandwidth [MHz]	Maximum Allowed Power (Ant 1) [dBm]	Conducted Power (Ant 1) [dBm]	Maximum Allowed Power (Ant 2) [dBm]	Conducted Power (Ant 2) [dBm]	Power Drift [dB]	Spacing	Antenna Config.	Device Serial Number	Data Rate (Mbps)	Side	Duty Cycle (%)	Peak SAR of Area Scan	SAR (10g)	Scaling Factor (Power)	Scaling Factor (Duty Cycle)	Reported SAR (10g)	Plot #
MHz	Ch.															W/kg	(W/kg)			(W/kg)	
5300	60	802.11n	OFDM	20	18.5	18.04	18.5	17.98	0.12	0 mm	MIMO	0405M	13	back	98.9	12.233	1.750	1.127	1.011	1.994	
5300	60	802.11n	OFDM	20	18.5	18.04	18.5	17.98	0.19	0 mm	MIMO	0405M	13	front	98.9	2.989	0.352	1.127	1.011	0.401	
5300	60	802.11n	OFDM	20	18.5	18.04	18.5	17.98	0.19	0 mm	MIMO	0405M	13	top	98.9	1.025	-	1.127	1.011	-	
5300	60	802.11n	OFDM	20	18.5	18.04	18.5	17.98	-0.18	0 mm	MIMO	0405M	13	left	98.9	13.341	0.979	1.127	1.011	1.115	
5520	104	802.11n	OFDM	20	18.5	17.80	18.5	17.69	0.17	0 mm	MIMO	0405M	13	back	98.9	10.949	1.810	1.205	1.011	2.205	
5600	120	802.11n	OFDM	20	18.5	17.84	18.5	17.82	-0.13	0 mm	MIMO	0405M	13	back	98.9	10.915	1.860	1.169	1.011	2.198	
5620	124	802.11n	OFDM	20	18.5	17.83	18.5	17.86	0.17	0 mm	MIMO	0405M	13	back	98.9	14.142	1.940	1.167	1.011	2.289	A96
5720	144	802.11n	OFDM	20	18.5	17.64	18.5	17.32	0.15	0 mm	MIMO	0405M	13	back	98.9	15.905	1.740	1.312	1.011	2.308	
5620	124	802.11n	OFDM	20	18.5	17.83	18.5	17.86	0.20	0 mm	MIMO	0405M	13	front	98.9	1.118	0.132	1.167	1.011	0.156	
5620	124	802.11n	OFDM	20	18.5	17.83	18.5	17.86	0.19	0 mm	MIMO	0405M	13	top	98.9	1.722	-	1.167	1.011	-	
5620	124	802.11n	OFDM	20	18.5	17.83	18.5	17.86	0.16	0 mm	MIMO	0405M	13	left	98.9	6.454	0.760	1.167	1.011	0.897	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population											Phablet 4.0 W/kg (mW/g) averaged over 10 grams										

Note: To achieve the 21.5 dBm maximum allowed MIMO power shown in the documentation, each antenna transmits at a maximum allowed power of 18.5 dBm.

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Table 11-80
WLAN Phablet SAR for Conditions with 5G NR FR2 Active

MEASUREMENT RESULTS																			
FREQUENCY		Mode	Service	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Spacing	Antenna Config.	Device Serial Number	Data Rate (Mbps)	Side	Duty Cycle (%)	Peak SAR of Area Scan	SAR (10g)	Scaling Factor (Power)	Scaling Factor (Duty Cycle)	Reported SAR (10g)	Plot #
MHz	Ch.													W/kg	(W/kg)			(W/kg)	
5270	54	802.11n	OFDM	40	14.0	13.89	0.13	0 mm	1	0405M	13.5	back	97.3	3.588	0.403	1.026	1.028	0.425	
5270	54	802.11n	OFDM	40	14.0	13.89	0.05	0 mm	1	0405M	13.5	front	97.3	0.201	0.025	1.026	1.028	0.026	
5270	54	802.11n	OFDM	40	14.0	13.89	0.13	0 mm	1	0405M	13.5	top	97.3	0.105	-	1.026	1.028	-	
5270	54	802.11n	OFDM	40	14.0	13.89	0.19	0 mm	1	0405M	13.5	left	97.3	3.085	-	1.026	1.028	-	
5270	54	802.11n	OFDM	40	14.0	13.21	0.17	0 mm	2	0405M	13.5	back	97.3	2.132	0.277	1.199	1.028	0.341	
5270	54	802.11n	OFDM	40	14.0	13.21	0.18	0 mm	2	0405M	13.5	front	97.3	0.703	0.086	1.199	1.028	0.106	
5270	54	802.11n	OFDM	40	14.0	13.21	0.02	0 mm	2	0405M	13.5	top	97.3	0.199	-	1.199	1.028	-	
5270	54	802.11n	OFDM	40	14.0	13.21	0.19	0 mm	2	0405M	13.5	left	97.3	2.000	-	1.199	1.028	-	
5690	138	802.11ac	OFDM	80	14.0	13.61	0.15	0 mm	1	0405M	29.3	back	94.6	3.364	0.246	1.094	1.057	0.284	
5690	138	802.11ac	OFDM	80	14.0	13.61	0.19	0 mm	1	0405M	29.3	front	94.6	0.269	0.008	1.094	1.057	0.009	
5690	138	802.11ac	OFDM	80	14.0	13.61	0.19	0 mm	1	0405M	29.3	top	94.6	0.236	-	1.094	1.057	-	
5690	138	802.11ac	OFDM	80	14.0	13.61	-0.19	0 mm	1	0405M	29.3	left	94.6	1.411	-	1.094	1.057	-	
5690	138	802.11ac	OFDM	80	14.0	13.55	-0.17	0 mm	2	0405M	29.3	back	94.7	3.620	0.470	1.109	1.056	0.550	
5690	138	802.11ac	OFDM	80	14.0	13.55	0.19	0 mm	2	0405M	29.3	front	94.7	0.191	0.021	1.109	1.056	0.025	
5690	138	802.11ac	OFDM	80	14.0	13.55	0.17	0 mm	2	0405M	29.3	top	94.7	0.268	-	1.109	1.056	-	
5690	138	802.11ac	OFDM	80	14.0	13.55	0.19	0 mm	2	0405M	29.3	left	94.7	1.510	-	1.109	1.056	-	
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 for 1g SAR measurements and greater than or equal to 2.0 W/kg for 10g SAR measurements. 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.

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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 1.4. The maximum output power allowed for each transmitter and exposure condition was evaluated for SAR compliance based on expected use conditions and simultaneous transmission scenarios.
13. Unless otherwise noted, when 10g SAR measurement is considered, a factor of 2.5 is applied to the thresholds below.
14. Additional SAR tests for phablet SAR were evaluated per KDB 616217 Section 6 (See Section 6.9 for more information).
15. This device uses Qualcomm Smart Transmit for 2G/3G/4G/5G operations to control and manage transmitting power in real time to ensure RF Exposure compliance. Per FCC Guidance, compliance for was assessed at the minimum of the time averaged power and the maximum output power for each band/mode/exposure condition (DSI).

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.

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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.
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 or LTE Band 48 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 5, LTE Band 66, LTE Band 41, and LTE Band 48, 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 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, and n41 is limited to EN-DC operations only, with LTE Bands 2/5/7/12/13/25/30/41/48/66 acting as anchor bands. 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.

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3. Simultaneous transmission analysis for EN-DC operations is addressed in the Part 2 Test Report (Serial Number can be found in the bibliography). This device additionally supports some EN-DC conditions where additional LTE carriers are added on the downlink only.
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, TDD 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 positions was required. Otherwise, SAR is evaluated at the subsequent highest peak SAR positions until the reported SAR result is ≤ 0.8 W/kg or all test positions are measured.
2. Justification for test configurations for WLAN per KDB Publication 248227 D01v02r02 for 2.4 GHz WIFI single transmission chain operations, the highest measured maximum output power channel for DSSS was selected for SAR measurement. SAR for OFDM modes (2.4 GHz 802.11g/n/ax) was not required due to the maximum allowed powers and the highest reported DSSS SAR. See Section 8.7.5 for more information.
3. Justification for test configurations for WLAN per KDB Publication 248227 D01v02r02 for 5 GHz WIFI single transmission chain operations, the initial test configuration was selected according to the transmission mode with the highest maximum allowed powers. Other transmission modes were not investigated since the highest reported SAR for initial test configuration adjusted by the ratio of maximum output powers is less than 1.2 W/kg for 1g evaluations. See Section 8.7.6 for more information.
4. Per KDB Publication 248227 D01v02r02, SAR for MIMO was evaluated by following the simultaneous SAR provisions from KDB Publication 447498 D01v06 by either evaluating the sum of the 1g SAR values of each antenna transmitting independently or making a SAR measurement with both antennas transmitting simultaneously. Please see Section 12 for complete analysis.
5. When the maximum reported 1g averaged SAR is ≤0.8 W/kg, SAR testing on additional channels was not required. Otherwise, SAR for the next highest output power channel was required until the reported SAR result was ≤ 1.20 W/kg for 1g evaluations or all test channels were measured.
6. The device was configured to transmit continuously at the required data rate, channel bandwidth and signal modulation, using the highest transmission duty factor supported by the test mode tools. The reported SAR was scaled to the 100% transmission duty factor to determine compliance. Procedures used to measure the duty factor are identical to that in the associated EMC test reports.
7. When 10-g 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 9.7 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.

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.

(*) 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 941225 D06v02r01, the devices edges with antennas more than 2.5 cm from edge are not required to be evaluated for SAR (“-“).

Qualcomm Smart Transmit algorithm in WWAN adds directly the time-averaged RF exposure from 4G and time-averaged RF exposure from 5G NR. Smart Transmit algorithm controls the total RF exposure from both 4G and 5G NR to not exceed FCC limit. Therefore, simultaneous transmission compliance between 4G+5G operations is demonstrated in the Qualcomm Part 2 Report during algorithm validation.

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12.3 Head SAR Simultaneous Transmission Analysis

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

Configuration	Mode	2G/3G/4G /5G SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)	
		1	2	3	1+2	1+3
Head	CDMA/EVDO BC10 (§90S)	0.207	0.640	0.023	0.847	0.230
	CDMA/EVDO BC0 (§22H)	0.247	0.640	0.023	0.887	0.270
	PCS CDMA/EVDO	0.194	0.640	0.023	0.834	0.217
	GSM 850	0.191	0.640	0.023	0.831	0.214
	GSM 1900	0.080	0.640	0.023	0.720	0.103
	UMTS 850	0.265	0.640	0.023	0.905	0.288
	UMTS 1750	0.097	0.640	0.023	0.737	0.120
	UMTS 1900	0.145	0.640	0.023	0.785	0.168
	LTE Band 71	0.155	0.640	0.023	0.795	0.178
	LTE Band 12	0.186	0.640	0.023	0.826	0.209
	LTE Band 13	0.194	0.640	0.023	0.834	0.217
	LTE Band 14	0.231	0.640	0.023	0.871	0.254
	LTE Band 26 (Cell)	0.172	0.640	0.023	0.812	0.195
	LTE Band 5 (Cell)	0.208	0.640	0.023	0.848	0.231
	LTE Band 66 (AWS)	0.138	0.640	0.023	0.778	0.161
	LTE Band 25 (PCS)	0.117	0.640	0.023	0.757	0.140
	LTE Band 30	0.056	0.640	0.023	0.696	0.079
	LTE Band 7	0.112	0.640	0.023	0.752	0.135
	LTE Band 48	0.942	0.640	0.023	**1.582**	0.965
	LTE Band 41	0.108	0.640	0.023	0.748	0.131
	NR Band n71	0.143	0.640	0.023	0.783	0.166
	NR Band n5 (Cell)	0.186	0.640	0.023	0.826	0.209
	NR Band n66 (AWS)	0.138	0.640	0.023	0.778	0.161
	NR Band n2 (PCS)	0.149	0.640	0.023	0.789	0.172
	NR Band n41	0.778	0.640	0.023	1.418	0.801

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Configuration	Mode	2G/3G/4G /5G SAR (W/kg)	2.4 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2
Head	CDMA/EVDO BC10 (§90S)	0.207	0.591	0.798
	CDMA/EVDO BC0 (§22H)	0.247	0.591	0.838
	PCS CDMA/EVDO	0.194	0.591	0.785
	GSM 850	0.191	0.591	0.782
	GSM 1900	0.080	0.591	0.671
	UMTS 850	0.265	0.591	0.856
	UMTS 1750	0.097	0.591	0.688
	UMTS 1900	0.145	0.591	0.736
	LTE Band 71	0.155	0.591	0.746
	LTE Band 12	0.186	0.591	0.777
	LTE Band 13	0.194	0.591	0.785
	LTE Band 14	0.231	0.591	0.822
	LTE Band 26 (Cell)	0.172	0.591	0.763
	LTE Band 5 (Cell)	0.208	0.591	0.799
	LTE Band 66 (AWS)	0.138	0.591	0.729
	LTE Band 25 (PCS)	0.117	0.591	0.708
	LTE Band 30	0.056	0.591	0.647
	LTE Band 7	0.112	0.591	0.703
	LTE Band 48	0.942	0.591	**1.533**
	LTE Band 41	0.108	0.591	0.699
	NR Band n71	0.143	0.591	0.734
	NR Band n5 (Cell)	0.186	0.591	0.777
	NR Band n66 (AWS)	0.138	0.591	0.729
	NR Band n2 (PCS)	0.149	0.591	0.740
	NR Band n41	0.778	0.591	1.369

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

Configuration	Mode	2G/3G/4G /5G SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)	
		1	2	3	1+2	1+3
Head	CDMA/EVDO BC10 (§90S)	0.207	0.053	0.238	0.260	0.445
	CDMA/EVDO BC0 (§22H)	0.247	0.053	0.238	0.300	0.485
	PCS CDMA/EVDO	0.194	0.053	0.238	0.247	0.432
	GSM 850	0.191	0.053	0.238	0.244	0.429
	GSM 1900	0.080	0.053	0.238	0.133	0.318
	UMTS 850	0.265	0.053	0.238	0.318	0.503
	UMTS 1750	0.097	0.053	0.238	0.150	0.335
	UMTS 1900	0.145	0.053	0.238	0.198	0.383
	LTE Band 71	0.155	0.053	0.238	0.208	0.393
	LTE Band 12	0.186	0.053	0.238	0.239	0.424
	LTE Band 13	0.194	0.053	0.238	0.247	0.432
	LTE Band 14	0.231	0.053	0.238	0.284	0.469
	LTE Band 26 (Cell)	0.172	0.053	0.238	0.225	0.410
	LTE Band 5 (Cell)	0.208	0.053	0.238	0.261	0.446
	LTE Band 66 (AWS)	0.138	0.053	0.238	0.191	0.376
	LTE Band 25 (PCS)	0.117	0.053	0.238	0.170	0.355
	LTE Band 30	0.056	0.053	0.238	0.109	0.294
	LTE Band 7	0.112	0.053	0.238	0.165	0.350
	LTE Band 48	0.942	0.053	0.238	0.995	**1.180**
	LTE Band 41	0.108	0.053	0.238	0.161	0.346
	NR Band n71	0.143	0.053	0.238	0.196	0.381
	NR Band n5 (Cell)	0.186	0.053	0.238	0.239	0.424
	NR Band n66 (AWS)	0.138	0.053	0.238	0.191	0.376
	NR Band n2 (PCS)	0.149	0.053	0.238	0.202	0.387
	NR Band n41	0.778	0.053	0.238	0.831	1.016

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Configuration	Mode	2G/3G/4G /5G SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2
Head	CDMA/EVDO BC10 (§90S)	0.207	0.335	0.542
	CDMA/EVDO BC0 (§22H)	0.247	0.335	0.582
	PCS CDMA/EVDO	0.194	0.335	0.529
	GSM 850	0.191	0.335	0.526
	GSM 1900	0.080	0.335	0.415
	UMTS 850	0.265	0.335	0.600
	UMTS 1750	0.097	0.335	0.432
	UMTS 1900	0.145	0.335	0.480
	LTE Band 71	0.155	0.335	0.490
	LTE Band 12	0.186	0.335	0.521
	LTE Band 13	0.194	0.335	0.529
	LTE Band 14	0.231	0.335	0.566
	LTE Band 26 (Cell)	0.172	0.335	0.507
	LTE Band 5 (Cell)	0.208	0.335	0.543
	LTE Band 66 (AWS)	0.138	0.335	0.473
	LTE Band 25 (PCS)	0.117	0.335	0.452
	LTE Band 30	0.056	0.335	0.391
	LTE Band 7	0.112	0.335	0.447
	LTE Band 48	0.942	0.335	**1.277**
	LTE Band 41	0.108	0.335	0.443
	NR Band n71	0.143	0.335	0.478
	NR Band n5 (Cell)	0.186	0.335	0.521
	NR Band n66 (AWS)	0.138	0.335	0.473
	NR Band n2 (PCS)	0.149	0.335	0.484
	NR Band n41	0.778	0.335	1.113

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

Configuration	Mode	2G/3G/4G /5G SAR (W/kg)	2.4 GHz WLAN MIMO at 16 dBm SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Head	CDMA/EVDO BC10 (§90S)	0.207	0.166	0.335	0.708
	CDMA/EVDO BC0 (§22H)	0.247	0.166	0.335	0.748
	PCS CDMA/EVDO	0.194	0.166	0.335	0.695
	GSM 850	0.191	0.166	0.335	0.692
	GSM 1900	0.080	0.166	0.335	0.581
	UMTS 850	0.265	0.166	0.335	0.766
	UMTS 1750	0.097	0.166	0.335	0.598
	UMTS 1900	0.145	0.166	0.335	0.646
	LTE Band 71	0.155	0.166	0.335	0.656
	LTE Band 12	0.186	0.166	0.335	0.687
	LTE Band 13	0.194	0.166	0.335	0.695
	LTE Band 14	0.231	0.166	0.335	0.732
	LTE Band 26 (Cell)	0.172	0.166	0.335	0.673
	LTE Band 5 (Cell)	0.208	0.166	0.335	0.709
	LTE Band 66 (AWS)	0.138	0.166	0.335	0.639
	LTE Band 25 (PCS)	0.117	0.166	0.335	0.618
	LTE Band 30	0.056	0.166	0.335	0.557
	LTE Band 7	0.112	0.166	0.335	0.613
	LTE Band 48	0.942	0.166	0.335	**1.443**
	LTE Band 41	0.108	0.166	0.335	0.609
	NR Band n71	0.143	0.166	0.335	0.644
	NR Band n5 (Cell)	0.186	0.166	0.335	0.687
	NR Band n66 (AWS)	0.138	0.166	0.335	0.639
	NR Band n2 (PCS)	0.149	0.166	0.335	0.650
	NR Band n41	0.778	0.166	0.335	1.279

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

Configuration	Mode	2G/3G/4G /5G SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2
Head	CDMA/EVDO BC10 (§90S)	0.207	0.331	0.538
	CDMA/EVDO BC0 (§22H)	0.247	0.331	0.578
	PCS CDMA/EVDO	0.194	0.331	0.525
	GSM 850	0.191	0.331	0.522
	GSM 1900	0.080	0.331	0.411
	UMTS 850	0.265	0.331	0.596
	UMTS 1750	0.097	0.331	0.428
	UMTS 1900	0.145	0.331	0.476
	LTE Band 71	0.155	0.331	0.486
	LTE Band 12	0.186	0.331	0.517
	LTE Band 13	0.194	0.331	0.525
	LTE Band 14	0.231	0.331	0.562
	LTE Band 26 (Cell)	0.172	0.331	0.503
	LTE Band 5 (Cell)	0.208	0.331	0.539
	LTE Band 66 (AWS)	0.138	0.331	0.469
	LTE Band 25 (PCS)	0.117	0.331	0.448
	LTE Band 30	0.056	0.331	0.387
	LTE Band 7	0.112	0.331	0.443
	LTE Band 48	0.942	0.331	**1.273**
	LTE Band 41	0.108	0.331	0.439
	NR Band n71	0.143	0.331	0.474
	NR Band n5 (Cell)	0.186	0.331	0.517
	NR Band n66 (AWS)	0.138	0.331	0.469
	NR Band n2 (PCS)	0.149	0.331	0.480
	NR Band n41	0.778	0.331	1.109

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

Configuration	Mode	2G/3G/4G /5G SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Head	CDMA/EVDO BC10 (§90S)	0.207	0.331	0.053	0.591
	CDMA/EVDO BC0 (§22H)	0.247	0.331	0.053	0.631
	PCS CDMA/EVDO	0.194	0.331	0.053	0.578
	GSM 850	0.191	0.331	0.053	0.575
	GSM 1900	0.080	0.331	0.053	0.464
	UMTS 850	0.265	0.331	0.053	0.649
	UMTS 1750	0.097	0.331	0.053	0.481
	UMTS 1900	0.145	0.331	0.053	0.529
	LTE Band 71	0.155	0.331	0.053	0.539
	LTE Band 12	0.186	0.331	0.053	0.570
	LTE Band 13	0.194	0.331	0.053	0.578
	LTE Band 14	0.231	0.331	0.053	0.615
	LTE Band 26 (Cell)	0.172	0.331	0.053	0.556
	LTE Band 5 (Cell)	0.208	0.331	0.053	0.592
	LTE Band 66 (AWS)	0.138	0.331	0.053	0.522
	LTE Band 25 (PCS)	0.117	0.331	0.053	0.501
	LTE Band 30	0.056	0.331	0.053	0.440
	LTE Band 7	0.112	0.331	0.053	0.496
	LTE Band 48	0.942	0.331	0.053	**1.326**
	LTE Band 41	0.108	0.331	0.053	0.492
	NR Band n71	0.143	0.331	0.053	0.527
	NR Band n5 (Cell)	0.186	0.331	0.053	0.570
	NR Band n66 (AWS)	0.138	0.331	0.053	0.522
	NR Band n2 (PCS)	0.149	0.331	0.053	0.533
	NR Band n41	0.778	0.331	0.053	1.162

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Configuration	Mode	2G/3G/4G /5G SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Head	CDMA/EVDO BC10 (§90S)	0.207	0.331	0.238	0.776
	CDMA/EVDO BC0 (§22H)	0.247	0.331	0.238	0.816
	PCS CDMA/EVDO	0.194	0.331	0.238	0.763
	GSM 850	0.191	0.331	0.238	0.760
	GSM 1900	0.080	0.331	0.238	0.649
	UMTS 850	0.265	0.331	0.238	0.834
	UMTS 1750	0.097	0.331	0.238	0.666
	UMTS 1900	0.145	0.331	0.238	0.714
	LTE Band 71	0.155	0.331	0.238	0.724
	LTE Band 12	0.186	0.331	0.238	0.755
	LTE Band 13	0.194	0.331	0.238	0.763
	LTE Band 14	0.231	0.331	0.238	0.800
	LTE Band 26 (Cell)	0.172	0.331	0.238	0.741
	LTE Band 5 (Cell)	0.208	0.331	0.238	0.777
	LTE Band 66 (AWS)	0.138	0.331	0.238	0.707
	LTE Band 25 (PCS)	0.117	0.331	0.238	0.686
	LTE Band 30	0.056	0.331	0.238	0.625
	LTE Band 7	0.112	0.331	0.238	0.681
	LTE Band 48	0.942	0.331	0.238	**1.511**
	LTE Band 41	0.108	0.331	0.238	0.677
	NR Band n71	0.143	0.331	0.238	0.712
	NR Band n5 (Cell)	0.186	0.331	0.238	0.755
	NR Band n66 (AWS)	0.138	0.331	0.238	0.707
	NR Band n2 (PCS)	0.149	0.331	0.238	0.718
	NR Band n41	0.778	0.331	0.238	1.347

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Configuration	Mode	2G/3G/4G /5G SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Head	CDMA/EVDO BC10 (§90S)	0.207	0.331	0.335	0.873
	CDMA/EVDO BC0 (§22H)	0.247	0.331	0.335	0.913
	PCS CDMA/EVDO	0.194	0.331	0.335	0.860
	GSM 850	0.191	0.331	0.335	0.857
	GSM 1900	0.080	0.331	0.335	0.746
	UMTS 850	0.265	0.331	0.335	0.931
	UMTS 1750	0.097	0.331	0.335	0.763
	UMTS 1900	0.145	0.331	0.335	0.811
	LTE Band 71	0.155	0.331	0.335	0.821
	LTE Band 12	0.186	0.331	0.335	0.852
	LTE Band 13	0.194	0.331	0.335	0.860
	LTE Band 14	0.231	0.331	0.335	0.897
	LTE Band 26 (Cell)	0.172	0.331	0.335	0.838
	LTE Band 5 (Cell)	0.208	0.331	0.335	0.874
	LTE Band 66 (AWS)	0.138	0.331	0.335	0.804
	LTE Band 25 (PCS)	0.117	0.331	0.335	0.783
	LTE Band 30	0.056	0.331	0.335	0.722
	LTE Band 7	0.112	0.331	0.335	0.778
	LTE Band 48	0.942	0.331	0.335	See Table Below
	LTE Band 41	0.108	0.331	0.335	0.774
	NR Band n71	0.143	0.331	0.335	0.809
	NR Band n5 (Cell)	0.186	0.331	0.335	0.852
	NR Band n66 (AWS)	0.138	0.331	0.335	0.804
	NR Band n2 (PCS)	0.149	0.331	0.335	0.815
	NR Band n41	0.778	0.331	0.335	**1.444**

Simult Tx	Configuration	LTE Band 48 SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Head SAR	Right Cheek	0.842	0.238	0.335	**1.415**
	Right Tilt	0.942	0.331	0.122	1.395
	Left Cheek	0.183	0.199	0.335*	0.717
	Left Tilt	0.223	0.262	0.335*	0.820

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12.4 Body-Worn Simultaneous Transmission Analysis

Table 12-6
Simultaneous Transmission Scenario with 2.4 GHz WLAN (Body-Worn at 1.5 cm)

Configuration	Mode	2G/3G/4G /5G SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		
		1	2	3	1+2	1+3	1+2+3
Body - Worn	CDMA BC10 (§90S)	0.325	0.090	0.041	0.415	0.366	0.456
	CDMA BC0 (§22H)	0.350	0.090	0.041	0.440	0.391	0.481
	PCS CDMA	0.767	0.090	0.041	0.857	0.808	0.898
	GSM 850	0.229	0.090	0.041	0.319	0.270	0.360
	GSM 1900	0.325	0.090	0.041	0.415	0.366	0.456
	UMTS 850	0.312	0.090	0.041	0.402	0.353	0.443
	UMTS 1750	0.844	0.090	0.041	0.934	0.885	0.975
	UMTS 1900	0.773	0.090	0.041	0.863	0.814	0.904
	LTE Band 71	0.230	0.090	0.041	0.320	0.271	0.361
	LTE Band 12	0.289	0.090	0.041	0.379	0.330	0.420
	LTE Band 13	0.274	0.090	0.041	0.364	0.315	0.405
	LTE Band 14	0.292	0.090	0.041	0.382	0.333	0.423
	LTE Band 26 (Cell)	0.307	0.090	0.041	0.397	0.348	0.438
	LTE Band 5 (Cell)	0.320	0.090	0.041	0.410	0.361	0.451
	LTE Band 66 (AWS)	0.886	0.090	0.041	0.976	0.927	1.017
	LTE Band 25 (PCS)	0.805	0.090	0.041	0.895	0.846	0.936
	LTE Band 30	0.605	0.090	0.041	0.695	0.646	0.736
	LTE Band 7	0.255	0.090	0.041	0.345	0.296	0.386
	LTE Band 48	0.288	0.090	0.041	0.378	0.329	0.419
	LTE Band 41	0.421	0.090	0.041	0.511	0.462	0.552
	NR Band n71	0.226	0.090	0.041	0.316	0.267	0.357
	NR Band n5 (Cell)	0.323	0.090	0.041	0.413	0.364	0.454
	NR Band n66 (AWS)	0.948	0.090	0.041	1.038	0.989	**1.079**
	NR Band n2 (PCS)	0.924	0.090	0.041	1.014	0.965	1.055
	NR Band n41	0.046	0.090	0.041	0.136	0.087	0.177

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Table 12-7
Simultaneous Transmission Scenario with 5 GHz WLAN (Body-Worn at 1.5 cm)

Configuration	Mode	2G/3G/4G /5G SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		SPLSR
		1	2	3	1+2	1+3	1+3
Body - Worn	CDMA BC10 (§90S)	0.325	0.121	0.787	0.446	1.112	N/A
	CDMA BC0 (§22H)	0.350	0.121	0.787	0.471	1.137	N/A
	PCS CDMA	0.767	0.121	0.787	0.888	1.554	N/A
	GSM 850	0.229	0.121	0.787	0.350	1.016	N/A
	GSM 1900	0.325	0.121	0.787	0.446	1.112	N/A
	UMTS 850	0.312	0.121	0.787	0.433	1.099	N/A
	UMTS 1750	0.844	0.121	0.787	0.965	See Note 1	0.01
	UMTS 1900	0.773	0.121	0.787	0.894	1.560	N/A
	LTE Band 71	0.230	0.121	0.787	0.351	1.017	N/A
	LTE Band 12	0.289	0.121	0.787	0.410	1.076	N/A
	LTE Band 13	0.274	0.121	0.787	0.395	1.061	N/A
	LTE Band 14	0.292	0.121	0.787	0.413	1.079	N/A
	LTE Band 26 (Cell)	0.307	0.121	0.787	0.428	1.094	N/A
	LTE Band 5 (Cell)	0.320	0.121	0.787	0.441	1.107	N/A
	LTE Band 66 (AWS)	0.886	0.121	0.787	1.007	See Note 1	0.01
	LTE Band 25 (PCS)	0.805	0.121	0.787	0.926	**1.592**	N/A
	LTE Band 30	0.605	0.121	0.787	0.726	1.392	N/A
	LTE Band 7	0.255	0.121	0.787	0.376	1.042	N/A
	LTE Band 48	0.288	0.121	0.787	0.409	1.075	N/A
	LTE Band 41	0.421	0.121	0.787	0.542	1.208	N/A
	NR Band n71	0.226	0.121	0.787	0.347	1.013	N/A
	NR Band n5 (Cell)	0.323	0.121	0.787	0.444	1.110	N/A
	NR Band n66 (AWS)	0.948	0.121	0.787	1.069	See Note 1	0.02
	NR Band n2 (PCS)	0.924	0.121	0.787	1.045	See Note 1	0.02
	NR Band n41	0.046	0.121	0.787	0.167	0.833	N/A

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Configuration	Mode	2G/3G/4G /5G SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)	SPLSR
		1	2	1+2	1+2
Body - Worn	CDMA BC10 (§90S)	0.325	0.759	1.084	N/A
	CDMA BC0 (§22H)	0.350	0.759	1.109	N/A
	PCS CDMA	0.767	0.759	1.526	N/A
	GSM 850	0.229	0.759	0.988	N/A
	GSM 1900	0.325	0.759	1.084	N/A
	UMTS 850	0.312	0.759	1.071	N/A
	UMTS 1750	0.844	0.759	See Note 1	0.01
	UMTS 1900	0.773	0.759	1.532	N/A
	LTE Band 71	0.230	0.759	0.989	N/A
	LTE Band 12	0.289	0.759	1.048	N/A
	LTE Band 13	0.274	0.759	1.033	N/A
	LTE Band 14	0.292	0.759	1.051	N/A
	LTE Band 26 (Cell)	0.307	0.759	1.066	N/A
	LTE Band 5 (Cell)	0.320	0.759	1.079	N/A
	LTE Band 66 (AWS)	0.886	0.759	See Note 1	0.01
	LTE Band 25 (PCS)	0.805	0.759	**1.564**	N/A
	LTE Band 30	0.605	0.759	1.364	N/A
	LTE Band 7	0.255	0.759	1.014	N/A
	LTE Band 48	0.288	0.759	1.047	N/A
	LTE Band 41	0.421	0.759	1.180	N/A
	NR Band n71	0.226	0.759	0.985	N/A
	NR Band n5 (Cell)	0.323	0.759	1.082	N/A
	NR Band n66 (AWS)	0.948	0.759	See Note 1	0.02
	NR Band n2 (PCS)	0.924	0.759	See Note 1	0.02
	NR Band n41	0.046	0.759	0.805	N/A

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Table 12-8
Simultaneous Transmission Scenario with 2.4 GHz WLAN MIMO and 5 GHz WLAN MIMO (Body-Worn at 1.5 cm)

Configuration	Mode	2G/3G/4G /5G SAR (W/kg)	2.4 GHz WLAN MIMO at 19 dBm SAR (W/kg)	5 GHz WLAN MIMO at 16 dBm SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Body - Worn	CDMA BC10 (§90S)	0.325	0.051	0.182	0.558
	CDMA BC0 (§22H)	0.350	0.051	0.182	0.583
	PCS CDMA	0.767	0.051	0.182	1.000
	GPRS 850	0.229	0.051	0.182	0.462
	GPRS 1900	0.325	0.051	0.182	0.558
	UMTS 850	0.312	0.051	0.182	0.545
	UMTS 1750	0.844	0.051	0.182	1.077
	UMTS 1900	0.773	0.051	0.182	1.006
	LTE Band 71	0.230	0.051	0.182	0.463
	LTE Band 12	0.289	0.051	0.182	0.522
	LTE Band 13	0.274	0.051	0.182	0.507
	LTE Band 14	0.292	0.051	0.182	0.525
	LTE Band 26 (Cell)	0.307	0.051	0.182	0.540
	LTE Band 5 (Cell)	0.320	0.051	0.182	0.553
	LTE Band 66 (AWS)	0.886	0.051	0.182	1.119
	LTE Band 25 (PCS)	0.805	0.051	0.182	1.038
	LTE Band 30	0.605	0.051	0.182	0.838
	LTE Band 7	0.255	0.051	0.182	0.488
	LTE Band 48	0.288	0.051	0.182	0.521
	LTE Band 41	0.421	0.051	0.182	0.654
	NR Band n71	0.226	0.051	0.182	0.459
	NR Band n5 (Cell)	0.323	0.051	0.182	0.556
	NR Band n66 (AWS)	0.948	0.051	0.182	**1.181**
	NR Band n2 (PCS)	0.924	0.051	0.182	1.157
	NR Band n41	0.046	0.051	0.182	0.279

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Table 12-9
Simultaneous Transmission Scenario with Bluetooth (Body-Worn at 1.5 cm)

Configuration	Mode	2G/3G/4G /5G SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2
Body - Worn	CDMA BC10 (§90S)	0.325	0.020	0.345
	CDMA BC0 (§22H)	0.350	0.020	0.370
	PCS CDMA	0.767	0.020	0.787
	GPRS 850	0.229	0.020	0.249
	GPRS 1900	0.325	0.020	0.345
	UMTS 850	0.312	0.020	0.332
	UMTS 1750	0.844	0.020	0.864
	UMTS 1900	0.773	0.020	0.793
	LTE Band 71	0.230	0.020	0.250
	LTE Band 12	0.289	0.020	0.309
	LTE Band 13	0.274	0.020	0.294
	LTE Band 14	0.292	0.020	0.312
	LTE Band 26 (Cell)	0.307	0.020	0.327
	LTE Band 5 (Cell)	0.320	0.020	0.340
	LTE Band 66 (AWS)	0.886	0.020	0.906
	LTE Band 25 (PCS)	0.805	0.020	0.825
	LTE Band 30	0.605	0.020	0.625
	LTE Band 7	0.255	0.020	0.275
	LTE Band 48	0.288	0.020	0.308
	LTE Band 41	0.421	0.020	0.441
	NR Band n71	0.226	0.020	0.246
	NR Band n5 (Cell)	0.323	0.020	0.343
	NR Band n66 (AWS)	0.948	0.020	**0.968**
	NR Band n2 (PCS)	0.924	0.020	0.944
	NR Band n41	0.046	0.020	0.066

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

Mode	2G/3G/4G /5G SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		SPLSR		
	1	2	3	4	1+2+3	1+2+4	1+2	1+4	2+4
CDMA BC10 (§90S)	0.325	0.020	0.121	0.787	0.466	1.132	N/A	N/A	N/A
CDMA BC0 (§22H)	0.350	0.020	0.121	0.787	0.491	1.157	N/A	N/A	N/A
PCS CDMA	0.767	0.020	0.121	0.787	0.908	1.574	N/A	N/A	N/A
GPRS 850	0.229	0.020	0.121	0.787	0.370	1.036	N/A	N/A	N/A
GPRS 1900	0.325	0.020	0.121	0.787	0.466	1.132	N/A	N/A	N/A
UMTS 850	0.312	0.020	0.121	0.787	0.453	1.119	N/A	N/A	N/A
UMTS 1750	0.844	0.020	0.121	0.787	0.985	See Note 1	0.00	0.01	0.02
UMTS 1900	0.773	0.020	0.121	0.787	0.914	**1.580**	N/A	N/A	N/A
LTE Band 71	0.230	0.020	0.121	0.787	0.371	1.037	N/A	N/A	N/A
LTE Band 12	0.289	0.020	0.121	0.787	0.430	1.096	N/A	N/A	N/A
LTE Band 13	0.274	0.020	0.121	0.787	0.415	1.081	N/A	N/A	N/A
LTE Band 14	0.292	0.020	0.121	0.787	0.433	1.099	N/A	N/A	N/A
LTE Band 26 (Cell)	0.307	0.020	0.121	0.787	0.448	1.114	N/A	N/A	N/A
LTE Band 5 (Cell)	0.320	0.020	0.121	0.787	0.461	1.127	N/A	N/A	N/A
LTE Band 66 (AWS)	0.886	0.020	0.121	0.787	1.027	See Note 1	0.01	0.01	0.02
LTE Band 25 (PCS)	0.805	0.020	0.121	0.787	0.946	See Note 1	0.00	0.01	0.02
LTE Band 30	0.605	0.020	0.121	0.787	0.746	1.412	N/A	N/A	N/A
LTE Band 7	0.255	0.020	0.121	0.787	0.396	1.062	N/A	N/A	N/A
LTE Band 48	0.288	0.020	0.121	0.787	0.429	1.095	N/A	N/A	N/A
LTE Band 41	0.421	0.020	0.121	0.787	0.562	1.228	N/A	N/A	N/A
NR Band n71	0.226	0.020	0.121	0.787	0.367	1.033	N/A	N/A	N/A
NR Band n5 (Cell)	0.323	0.020	0.121	0.787	0.464	1.130	N/A	N/A	N/A
NR Band n66 (AWS)	0.948	0.020	0.121	0.787	1.089	See Note 1	0.01	0.02	0.02
NR Band n2 (PCS)	0.924	0.020	0.121	0.787	1.065	See Note 1	0.01	0.02	0.02
NR Band n41	0.046	0.020	0.121	0.787	0.187	0.853	N/A	N/A	N/A

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Configuration	Mode	2G/3G/4G /5G SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)	SPLSR		
		1	2	3	1+2+3	1+2	1+3	2+3
Body - Worn	CDMA BC10 (§90S)	0.325	0.020	0.759	1.104	N/A	N/A	N/A
	CDMA BC0 (§22H)	0.350	0.020	0.759	1.129	N/A	N/A	N/A
	PCS CDMA	0.767	0.020	0.759	1.546	N/A	N/A	N/A
	GPRS 850	0.229	0.020	0.759	1.008	N/A	N/A	N/A
	GPRS 1900	0.325	0.020	0.759	1.104	N/A	N/A	N/A
	UMTS 850	0.312	0.020	0.759	1.091	N/A	N/A	N/A
	UMTS 1750	0.844	0.020	0.759	See Note 1	0.00	0.01	0.02
	UMTS 1900	0.773	0.020	0.759	1.552	N/A	N/A	N/A
	LTE Band 71	0.230	0.020	0.759	1.009	N/A	N/A	N/A
	LTE Band 12	0.289	0.020	0.759	1.068	N/A	N/A	N/A
	LTE Band 13	0.274	0.020	0.759	1.053	N/A	N/A	N/A
	LTE Band 14	0.292	0.020	0.759	1.071	N/A	N/A	N/A
	LTE Band 26 (Cell)	0.307	0.020	0.759	1.086	N/A	N/A	N/A
	LTE Band 5 (Cell)	0.320	0.020	0.759	1.099	N/A	N/A	N/A
	LTE Band 66 (AWS)	0.886	0.020	0.759	See Note 1	0.01	0.01	0.02
	LTE Band 25 (PCS)	0.805	0.020	0.759	**1.584**	N/A	N/A	N/A
	LTE Band 30	0.605	0.020	0.759	1.384	N/A	N/A	N/A
	LTE Band 7	0.255	0.020	0.759	1.034	N/A	N/A	N/A
	LTE Band 48	0.288	0.020	0.759	1.067	N/A	N/A	N/A
	LTE Band 41	0.421	0.020	0.759	1.200	N/A	N/A	N/A
	NR Band n71	0.226	0.020	0.759	1.005	N/A	N/A	N/A
	NR Band n5 (Cell)	0.323	0.020	0.759	1.102	N/A	N/A	N/A
	NR Band n66 (AWS)	0.948	0.020	0.759	See Note 1	0.01	0.02	0.02
	NR Band n2 (PCS)	0.924	0.020	0.759	See Note 1	0.01	0.02	0.02
	NR Band n41	0.046	0.020	0.759	0.825	N/A	N/A	N/A

Notes:
1. No evaluation was performed to determine the aggregate 1g SAR for these configurations as the SPLS ratio between the antenna pairs was not greater than 0.04 per FCC KDB 447498 D01v06. See Section 12.7 for detailed SPLS ratio analysis.

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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 12-11
Simultaneous Transmission Scenario with 2.4 GHz WLAN (Hotspot at 1.0 cm)

Configuration	Mode	2G/3G/4G /5G SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		
		1	2	3	1+2	1+3	1+2+3
Hotspot	EVDO BC10 (§90S)	0.719	0.536	0.089	1.255	0.808	1.344
	EVDO BC0 (§22H)	0.748	0.536	0.089	1.284	0.837	1.373
	PCS EVDO	0.866	0.536	0.089	1.402	0.955	1.491
	GPRS 850	0.712	0.536	0.089	1.248	0.801	1.337
	GPRS 1900	0.863	0.536	0.089	1.399	0.952	1.488
	UMTS 850	0.697	0.536	0.089	1.233	0.786	1.322
	UMTS 1750	1.083	0.536	0.089	See Table Below	1.172	See Table Below
	UMTS 1900	0.930	0.536	0.089	1.466	1.019	1.555
	LTE Band 71	0.308	0.536	0.089	0.844	0.397	0.933
	LTE Band 12	0.409	0.536	0.089	0.945	0.498	1.034
	LTE Band 13	0.487	0.536	0.089	1.023	0.576	1.112
	LTE Band 14	0.530	0.536	0.089	1.066	0.619	1.155
	LTE Band 26 (Cell)	0.650	0.536	0.089	1.186	0.739	1.275
	LTE Band 5 (Cell)	0.708	0.536	0.089	1.244	0.797	1.333
	LTE Band 66 (AWS)	1.035	0.536	0.089	1.571	1.124	See Table Below
	LTE Band 25 (PCS)	0.853	0.536	0.089	1.389	0.942	1.478
	LTE Band 30	0.993	0.536	0.089	1.529	1.082	See Table Below
	LTE Band 7	0.896	0.536	0.089	1.432	0.985	1.521
	LTE Band 48	0.966	0.536	0.089	1.502	1.055	**1.591**
	LTE Band 41	0.995	0.536	0.089	1.531	1.084	See Table Below
	NR Band n71	0.323	0.536	0.089	0.859	0.412	0.948
	NR Band n5 (Cell)	0.700	0.536	0.089	1.236	0.789	1.325
	NR Band n66 (AWS)	0.879	0.536	0.089	1.415	0.968	1.504
	NR Band n2 (PCS)	0.965	0.536	0.089	1.501	1.054	1.590
	NR Band n41	0.169	0.536	0.089	0.705	0.258	0.794

Simult Tx	Configuration	UMTS 1750 SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		
		1	2	3	1+2	1+3	1+2+3
Hotspot SAR	Back	0.629	0.162	0.089	0.791	0.718	0.880
	Front	0.489	0.186	0.089*	0.675	0.578	0.764
	Top	-	0.536	0.089*	0.536	0.089	0.625
	Bottom	1.083	-	-	**1.083**	**1.083**	**1.083**
	Right	0.092	-	-	0.092	0.092	0.092
	Left	0.052	0.095	0.089*	0.147	0.141	0.236

Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		
		1	2	3	1+2	1+3	1+2+3
Hotspot SAR	Back	0.536	0.162	0.089	0.698	0.625	0.787
	Front	0.478	0.186	0.089*	0.664	0.567	0.753
	Top	-	0.536	0.089*	0.536	0.089	0.625
	Bottom	1.035	-	-	**1.035**	**1.035**	**1.035**
	Right	0.096	-	-	0.096	0.096	0.096
	Left	0.077	0.095	0.089*	0.172	0.166	0.261

Simult Tx	Configuration	LTE Band 30 SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		
		1	2	3	1+2	1+3	1+2+3
Hotspot SAR	Back	0.493	0.162	0.089	0.655	0.582	0.744
	Front	0.360	0.186	0.089*	0.546	0.449	0.635
	Top	-	0.536	0.089*	0.536	0.089	0.625
	Bottom	0.993	-	-	**0.993**	**0.993**	**0.993**
	Right	0.035	-	-	0.035	0.035	0.035
	Left	0.044	0.095	0.089*	0.139	0.133	0.228

Simult Tx	Configuration	LTE Band 41 SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		
		1	2	3	1+2	1+3	1+2+3
Hotspot SAR	Back	0.272	0.162	0.089	0.434	0.361	0.523
	Front	0.276	0.186	0.089*	0.462	0.365	0.551
	Top	-	0.536	0.089*	0.536	0.089	0.625
	Bottom	0.995	-	-	**0.995**	**0.995**	**0.995**
	Right	-	-	-	-	-	-
	Left	0.109	0.095	0.089*	0.204	0.198	0.293

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

Configuration	Mode	2G/3G/4G /5G SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)	
		1	2	3	1+2	1+3
Hotspot	EVDO BC10 (§90S)	0.719	0.146	0.812	0.865	1.531
	EVDO BC0 (§22H)	0.748	0.146	0.812	0.894	**1.560**
	PCS EVDO	0.866	0.146	0.812	1.012	See Table Below
	GPRS 850	0.712	0.146	0.812	0.858	1.524
	GPRS 1900	0.863	0.146	0.812	1.009	See Table Below
	UMTS 850	0.697	0.146	0.812	0.843	1.509
	UMTS 1750	1.083	0.146	0.812	1.229	See Table Below
	UMTS 1900	0.930	0.146	0.812	1.076	See Table Below
	LTE Band 71	0.308	0.146	0.812	0.454	1.120
	LTE Band 12	0.409	0.146	0.812	0.555	1.221
	LTE Band 13	0.487	0.146	0.812	0.633	1.299
	LTE Band 14	0.530	0.146	0.812	0.676	1.342
	LTE Band 26 (Cell)	0.650	0.146	0.812	0.796	1.462
	LTE Band 5 (Cell)	0.708	0.146	0.812	0.854	1.520
	LTE Band 66 (AWS)	1.035	0.146	0.812	1.181	See Table Below
	LTE Band 25 (PCS)	0.853	0.146	0.812	0.999	See Table Below
	LTE Band 30	0.993	0.146	0.812	1.139	See Table Below
	LTE Band 7	0.896	0.146	0.812	1.042	See Table Below
	LTE Band 48	0.966	0.146	0.812	1.112	See Table Below
	LTE Band 41	0.995	0.146	0.812	1.141	See Table Below
	NR Band n71	0.323	0.146	0.812	0.469	1.135
	NR Band n5 (Cell)	0.700	0.146	0.812	0.846	1.512
	NR Band n66 (AWS)	0.879	0.146	0.812	1.025	See Table Below
	NR Band n2 (PCS)	0.965	0.146	0.812	1.111	See Table Below
	NR Band n41	0.169	0.146	0.812	0.315	0.981

Simult Tx	Configuration	PCS EVDO SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)	
		1	2	3	1+2	1+3
Hotspot SAR	Back	0.420	0.146	0.812	0.566	**1.232**
	Front	0.296	0.007	0.029	0.303	0.325
	Top	-	0.033	0.128	0.033	0.128
	Bottom	0.866	-	-	0.866	0.866
	Right	0.053	-	-	0.053	0.053
	Left	0.042	0.146*	0.146	0.188	0.188

Simult Tx	Configuration	GPRS 1900 SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)	
		1	2	3	1+2	1+3
Hotspot SAR	Back	0.352	0.146	0.812	0.498	**1.164**
	Front	0.319	0.007	0.029	0.326	0.348
	Top	-	0.033	0.128	0.033	0.128
	Bottom	0.863	-	-	0.863	0.863
	Right	0.047	-	-	0.047	0.047
	Left	0.051	0.146*	0.146	0.197	0.197

Simult Tx	Configuration	UMTS 1750 SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)	
		1	2	3	1+2	1+3
Hotspot SAR	Back	0.629	0.146	0.812	0.775	**1.441**
	Front	0.489	0.007	0.029	0.496	0.518
	Top	-	0.033	0.128	0.033	0.128
	Bottom	1.083	-	-	1.083	1.083
	Right	0.092	-	-	0.092	0.092
	Left	0.052	0.146*	0.146	0.198	0.198

Simult Tx	Configuration	UMTS 1900 SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)	
		1	2	3	1+2	1+3
Hotspot SAR	Back	0.462	0.146	0.812	0.608	**1.274**
	Front	0.292	0.007	0.029	0.299	0.321
	Top	-	0.033	0.128	0.033	0.128
	Bottom	0.930	-	-	0.930	0.930
	Right	0.054	-	-	0.054	0.054
	Left	0.045	0.146*	0.146	0.191	0.191

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Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)	
		1	2	3	1+2	1+3
Hotspot SAR	Back	0.536	0.146	0.812	0.682	**1.348**
	Front	0.478	0.007	0.029	0.485	0.507
	Top	-	0.033	0.128	0.033	0.128
	Bottom	1.035	-	-	1.035	1.035
	Right	0.096	-	-	0.096	0.096
	Left	0.077	0.146*	0.146	0.223	0.223

Simult Tx	Configuration	LTE Band 25 (PCS) SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)	
		1	2	3	1+2	1+3
Hotspot SAR	Back	0.394	0.146	0.812	0.540	**1.206**
	Front	0.363	0.007	0.029	0.370	0.392
	Top	-	0.033	0.128	0.033	0.128
	Bottom	0.853	-	-	0.853	0.853
	Right	0.055	-	-	0.055	0.055
	Left	0.043	0.146*	0.146	0.189	0.189

Simult Tx	Configuration	LTE Band 30 SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)	
		1	2	3	1+2	1+3
Hotspot SAR	Back	0.493	0.146	0.812	0.639	**1.305**
	Front	0.360	0.007	0.029	0.367	0.389
	Top	-	0.033	0.128	0.033	0.128
	Bottom	0.993	-	-	0.993	0.993
	Right	0.035	-	-	0.035	0.035
	Left	0.044	0.146*	0.146	0.190	0.190

Simult Tx	Configuration	LTE Band 7 SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)	
		1	2	3	1+2	1+3
Hotspot SAR	Back	0.504	0.146	0.812	0.650	**1.316**
	Front	0.409	0.007	0.029	0.416	0.438
	Top	-	0.033	0.128	0.033	0.128
	Bottom	0.896	-	-	0.896	0.896
	Right	-	-	-	-	-
	Left	0.126	0.146*	0.146	0.272	0.272

Configuration	LTE Band 48 SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)	
	1	2	3	1+2	1+3
Back	0.593	0.146	0.812	0.739	**1.405**
Front	0.287	0.007	0.029	0.294	0.316
Top	0.966	0.033	0.128	0.999	1.094
Bottom	-	-	-	-	-
Right	-	-	-	-	-
Left	0.515	0.146*	0.146	0.661	0.661

Simult Tx	Configuration	LTE Band 41 SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)	
		1	2	3	1+2	1+3
Hotspot SAR	Back	0.272	0.146	0.812	0.418	**1.084**
	Front	0.276	0.007	0.029	0.283	0.305
	Top	-	0.033	0.128	0.033	0.128
	Bottom	0.995	-	-	0.995	0.995
	Right	-	-	-	-	-
	Left	0.109	0.146*	0.146	0.255	0.255

Simult Tx	Configuration	NR Band n66 (AWS) SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)	
		1	2	3	1+2	1+3
Hotspot SAR	Back	0.497	0.146	0.812	0.643	**1.309**
	Front	0.392	0.007	0.029	0.399	0.421
	Top	-	0.033	0.128	0.033	0.128
	Bottom	0.879	-	-	0.879	0.879
	Right	0.068	-	-	0.068	0.068
	Left	0.063	0.146*	0.146	0.209	0.209

Simult Tx	Configuration	NR Band n2 (PCS) SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)	
		1	2	3	1+2	1+3
Hotspot SAR	Back	0.453	0.146	0.812	0.599	**1.265**
	Front	0.377	0.007	0.029	0.384	0.406
	Top	-	0.033	0.128	0.033	0.128
	Bottom	0.965	-	-	0.965	0.965
	Right	0.074	-	-	0.074	0.074
	Left	0.056	0.146*	0.146	0.202	0.202

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Configuration	Mode	2G/3G/4G /5G SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2
Hotspot	EVDO BC10 (§90S)	0.719	0.929	See Table Below
	EVDO BC0 (§22H)	0.748	0.929	See Table Below
	PCS EVDO	0.866	0.929	See Table Below
	GPRS 850	0.712	0.929	See Table Below
	GPRS 1900	0.863	0.929	See Table Below
	UMTS 850	0.697	0.929	See Table Below
	UMTS 1750	1.083	0.929	See Table Below
	UMTS 1900	0.930	0.929	See Table Below
	LTE Band 71	0.308	0.929	1.237
	LTE Band 12	0.409	0.929	1.338
	LTE Band 13	0.487	0.929	1.416
	LTE Band 14	0.530	0.929	1.459
	LTE Band 26 (Cell)	0.650	0.929	**1.579**
	LTE Band 5 (Cell)	0.708	0.929	See Table Below
	LTE Band 66 (AWS)	1.035	0.929	See Table Below
	LTE Band 25 (PCS)	0.853	0.929	See Table Below
	LTE Band 30	0.993	0.929	See Table Below
	LTE Band 7	0.896	0.929	See Table Below
	LTE Band 48	0.966	0.929	See Table Below
	LTE Band 41	0.995	0.929	See Table Below
	NR Band n71	0.323	0.929	1.252
	NR Band n5 (Cell)	0.700	0.929	See Table Below
	NR Band n66 (AWS)	0.879	0.929	See Table Below
	NR Band n2 (PCS)	0.965	0.929	See Table Below
	NR Band n41	0.169	0.929	1.098

Simult Tx	Configuration	EVDO BC10 (§90S) SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)	SPLSR
		1	2	1+2	1+2
Hotspot SAR	Back	0.719	0.929	See Note 1	0.02
	Front	0.511	0.044	**0.555**	N/A
	Top	-	0.179	0.179	N/A
	Bottom	0.413	-	0.413	N/A
	Right	0.324	-	0.324	N/A
	Left	0.104	0.237	0.341	N/A

Simult Tx	Configuration	EVDO BC0 (§22H) SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)	SPLSR
		1	2	1+2	1+2
Hotspot SAR	Back	0.748	0.929	See Note 1	0.02
	Front	0.500	0.044	**0.544**	N/A
	Top	-	0.179	0.179	N/A
	Bottom	0.450	-	0.450	N/A
	Right	0.239	-	0.239	N/A
	Left	0.063	0.237	0.300	N/A

Simult Tx	Configuration	PCS EVDO SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2
Hotspot SAR	Back	0.420	0.929	**1.349**
	Front	0.296	0.044	0.340
	Top	-	0.179	0.179
	Bottom	0.866	-	0.866
	Right	0.053	-	0.053
	Left	0.042	0.237	0.279

Simult Tx	Configuration	GPRS 850 SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)	SPLSR
		1	2	1+2	1+2
Hotspot SAR	Back	0.712	0.929	See Note 1	0.02
	Front	0.445	0.044	**0.489**	N/A
	Top	-	0.179	0.179	N/A
	Bottom	0.327	-	0.327	N/A
	Right	0.201	-	0.201	N/A
	Left	0.069	0.237	0.306	N/A

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Simult Tx	Configuration	GPRS 1900 SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)	Simult Tx	Configuration	UMTS 850 SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)	SPLSR
		1	2	1+2			1	2	1+2	1+2
Hotspot SAR	Back	0.352	0.929	**1.281**	Hotspot SAR	Back	0.697	0.929	See Note 1	0.01
	Front	0.319	0.044	0.363		Front	0.491	0.044	**0.535**	N/A
	Top	-	0.179	0.179		Top	-	0.179	0.179	N/A
	Bottom	0.863	-	0.863		Bottom	0.381	-	0.381	N/A
	Right	0.047	-	0.047		Right	0.286	-	0.286	N/A
	Left	0.051	0.237	0.288		Left	0.076	0.237	0.313	N/A

Simult Tx	Configuration	UMTS 1750 SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)	Simult Tx	Configuration	UMTS 1900 SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2			1	2	1+2
Hotspot SAR	Back	0.629	0.929	**1.558**	Hotspot SAR	Back	0.462	0.929	**1.391**
	Front	0.489	0.044	0.533		Front	0.292	0.044	0.336
	Top	-	0.179	0.179		Top	-	0.179	0.179
	Bottom	1.083	-	1.083		Bottom	0.930	-	0.930
	Right	0.092	-	0.092		Right	0.054	-	0.054
	Left	0.052	0.237	0.289		Left	0.045	0.237	0.282

Simult Tx	Configuration	LTE Band 5 (Cell) SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)	SPLSR	Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2	1+2			1	2	1+2
Hotspot SAR	Back	0.708	0.929	See Note 1	0.01	Hotspot SAR	Back	0.536	0.929	**1.465**
	Front	0.516	0.044	**0.560**	N/A		Front	0.478	0.044	0.522
	Top	-	0.179	0.179	N/A		Top	-	0.179	0.179
	Bottom	0.377	-	0.377	N/A		Bottom	1.035	-	1.035
	Right	0.234	-	0.234	N/A		Right	0.096	-	0.096
	Left	0.068	0.237	0.305	N/A		Left	0.077	0.237	0.314

Simult Tx	Configuration	LTE Band 25 (PCS) SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)	Simult Tx	Configuration	LTE Band 30 SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)	Simult Tx	Configuration	LTE Band 7 SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2			1	2	1+2			1	2	1+2
Hotspot SAR	Back	0.394	0.929	**1.323**	Hotspot SAR	Back	0.493	0.929	**1.422**	Hotspot SAR	Back	0.504	0.929	**1.433**
	Front	0.363	0.044	0.407		Front	0.360	0.044	0.404		Front	0.409	0.044	0.453
	Top	-	0.179	0.179		Top	-	0.179	0.179		Top	-	0.179	0.179
	Bottom	0.853	-	0.853		Bottom	0.993	-	0.993		Bottom	0.896	-	0.896
	Right	0.055	-	0.055		Right	0.035	-	0.035		Right	-	-	-
	Left	0.043	0.237	0.280		Left	0.044	0.237	0.281		Left	0.126	0.237	0.363

Simult Tx	Configuration	LTE Band 48 SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)	Simult Tx	Configuration	LTE Band 41 SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2			1	2	1+2
Hotspot SAR	Back	0.593	0.929	**1.522**	Hotspot SAR	Back	0.272	0.929	**1.201**
	Front	0.287	0.044	0.331		Front	0.276	0.044	0.320
	Top	0.966	0.179	1.145		Top	-	0.179	0.179
	Bottom	-	-	-		Bottom	0.995	-	0.995
	Right	-	-	-		Right	-	-	-
	Left	0.515	0.237	0.752		Left	0.109	0.237	0.346

Simult Tx	Configuration	NR Band n5 (Cell) SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)	SPLSR	Simult Tx	Configuration	NR Band n66 (AWS) SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2	1+2			1	2	1+2
Hotspot SAR	Back	0.700	0.929	See Note 1	0.01	Hotspot SAR	Back	0.497	0.929	**1.426**
	Front	0.482	0.044	**0.526**	N/A		Front	0.392	0.044	0.436
	Top	-	0.179	0.179	N/A		Top	-	0.179	0.179
	Bottom	0.356	-	0.356	N/A		Bottom	0.879	-	0.879
	Right	0.230	-	0.230	N/A		Right	0.068	-	0.068
	Left	0.050	0.237	0.287	N/A		Left	0.063	0.237	0.300

Simult Tx	Configuration	NR Band n2 (PCS) SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2
Hotspot SAR	Back	0.453	0.929	**1.382**
	Front	0.377	0.044	0.421
	Top	-	0.179	0.179
	Bottom	0.965	-	0.965
	Right	0.074	-	0.074
	Left	0.056	0.237	0.293

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Table 12-13
Simultaneous Transmission Scenario with 2.4 GHz WLAN MIMO and 5 GHz WLAN MIMO (Hotspot at 1.0 cm)

Configuration	Mode	2G/3G/4G /5G SAR (W/kg)	2.4 GHz WLAN MIMO at 19 dBm SAR (W/kg)	5 GHz WLAN MIMO at 16 dBm SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Hotspot	EVDO BC10 (§90S)	0.719	0.201	0.333	1.253
	EVDO BC0 (§22H)	0.748	0.201	0.333	1.282
	PCS EVDO	0.866	0.201	0.333	1.400
	GPRS 850	0.712	0.201	0.333	1.246
	GPRS 1900	0.863	0.201	0.333	1.397
	UMTS 850	0.697	0.201	0.333	1.231
	UMTS 1750	1.083	0.201	0.333	See Table Below
	UMTS 1900	0.930	0.201	0.333	1.464
	LTE Band 71	0.308	0.201	0.333	0.842
	LTE Band 12	0.409	0.201	0.333	0.943
	LTE Band 13	0.487	0.201	0.333	1.021
	LTE Band 14	0.530	0.201	0.333	1.064
	LTE Band 26 (Cell)	0.650	0.201	0.333	1.184
	LTE Band 5 (Cell)	0.708	0.201	0.333	1.242
	LTE Band 66 (AWS)	1.035	0.201	0.333	**1.569**
	LTE Band 25 (PCS)	0.853	0.201	0.333	1.387
	LTE Band 30	0.993	0.201	0.333	1.527
	LTE Band 7	0.896	0.201	0.333	1.430
	LTE Band 48	0.966	0.201	0.333	1.500
	LTE Band 41	0.995	0.201	0.333	1.529
	NR Band n71	0.323	0.201	0.333	0.857
	NR Band n5 (Cell)	0.700	0.201	0.333	1.234
	NR Band n66 (AWS)	0.879	0.201	0.333	1.413
	NR Band n2 (PCS)	0.965	0.201	0.333	1.499
	NR Band n41	0.169	0.201	0.333	0.703

Simult Tx	Configuration	UMTS 1750 SAR (W/kg)	2.4 GHz WLAN MIMO at 19 dBm SAR (W/kg)	5 GHz WLAN MIMO at 16 dBm SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Hotspot SAR	Back	0.629	0.070	0.333	1.032
	Front	0.489	0.201*	0.016	0.706
	Top	-	0.201	0.050	0.251
	Bottom	1.083	-	-	**1.083**
	Right	0.092	-	-	0.092
	Left	0.052	0.201*	0.058	0.311

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Table 12-14
Simultaneous Transmission Scenario with Bluetooth (Hotspot at 1.0 cm)

Configuration	Mode	2G/3G/4G /5G SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2
Hotspot	EVDO BC10 (§90S)	0.719	0.096	0.815
	EVDO BC0 (§22H)	0.748	0.096	0.844
	PCS EVDO	0.866	0.096	0.962
	GPRS 850	0.712	0.096	0.808
	GPRS 1900	0.863	0.096	0.959
	UMTS 850	0.697	0.096	0.793
	UMTS 1750	1.083	0.096	**1.179**
	UMTS 1900	0.930	0.096	1.026
	LTE Band 71	0.308	0.096	0.404
	LTE Band 12	0.409	0.096	0.505
	LTE Band 13	0.487	0.096	0.583
	LTE Band 14	0.530	0.096	0.626
	LTE Band 26 (Cell)	0.650	0.096	0.746
	LTE Band 5 (Cell)	0.708	0.096	0.804
	LTE Band 66 (AWS)	1.035	0.096	1.131
	LTE Band 25 (PCS)	0.853	0.096	0.949
	LTE Band 30	0.993	0.096	1.089
	LTE Band 7	0.896	0.096	0.992
	LTE Band 48	0.966	0.096	1.062
	LTE Band 41	0.995	0.096	1.091
	NR Band n71	0.323	0.096	0.419
	NR Band n5 (Cell)	0.700	0.096	0.796
	NR Band n66 (AWS)	0.879	0.096	0.975
	NR Band n2 (PCS)	0.965	0.096	1.061
	NR Band n41	0.169	0.096	0.265

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Table 12-15
Simultaneous Transmission Scenario with Bluetooth and 5 GHz WLAN (Hotspot at 1.0 cm)

Configuration	Mode	2G/3G/4G /5G SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Hotspot	EVDO BC10 (§90S)	0.719	0.096	0.146	0.961
	EVDO BC0 (§22H)	0.748	0.096	0.146	0.990
	PCS EVDO	0.866	0.096	0.146	1.108
	GPRS 850	0.712	0.096	0.146	0.954
	GPRS 1900	0.863	0.096	0.146	1.105
	UMTS 850	0.697	0.096	0.146	0.939
	UMTS 1750	1.083	0.096	0.146	**1.325**
	UMTS 1900	0.930	0.096	0.146	1.172
	LTE Band 71	0.308	0.096	0.146	0.550
	LTE Band 12	0.409	0.096	0.146	0.651
	LTE Band 13	0.487	0.096	0.146	0.729
	LTE Band 14	0.530	0.096	0.146	0.772
	LTE Band 26 (Cell)	0.650	0.096	0.146	0.892
	LTE Band 5 (Cell)	0.708	0.096	0.146	0.950
	LTE Band 66 (AWS)	1.035	0.096	0.146	1.277
	LTE Band 25 (PCS)	0.853	0.096	0.146	1.095
	LTE Band 30	0.993	0.096	0.146	1.235
	LTE Band 7	0.896	0.096	0.146	1.138
	LTE Band 48	0.966	0.096	0.146	1.208
	LTE Band 41	0.995	0.096	0.146	1.237
	NR Band n71	0.323	0.096	0.146	0.565
	NR Band n5 (Cell)	0.700	0.096	0.146	0.942
	NR Band n66 (AWS)	0.879	0.096	0.146	1.121
	NR Band n2 (PCS)	0.965	0.096	0.146	1.207
	NR Band n41	0.169	0.096	0.146	0.411

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Configuration	Mode	2G/3G/4G /5G SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Hotspot	EVDO BC10 (§90S)	0.719	0.096	0.812	See Table Below
	EVDO BC0 (§22H)	0.748	0.096	0.812	See Table Below
	PCS EVDO	0.866	0.096	0.812	See Table Below
	GPRS 850	0.712	0.096	0.812	See Table Below
	GPRS 1900	0.863	0.096	0.812	See Table Below
	UMTS 850	0.697	0.096	0.812	See Table Below
	UMTS 1750	1.083	0.096	0.812	See Table Below
	UMTS 1900	0.930	0.096	0.812	See Table Below
	LTE Band 71	0.308	0.096	0.812	1.216
	LTE Band 12	0.409	0.096	0.812	1.317
	LTE Band 13	0.487	0.096	0.812	1.395
	LTE Band 14	0.530	0.096	0.812	1.438
	LTE Band 26 (Cell)	0.650	0.096	0.812	**1.558**
	LTE Band 5 (Cell)	0.708	0.096	0.812	See Table Below
	LTE Band 66 (AWS)	1.035	0.096	0.812	See Table Below
	LTE Band 25 (PCS)	0.853	0.096	0.812	See Table Below
	LTE Band 30	0.993	0.096	0.812	See Table Below
	LTE Band 7	0.896	0.096	0.812	See Table Below
	LTE Band 48	0.966	0.096	0.812	See Table Below
	LTE Band 41	0.995	0.096	0.812	See Table Below
	NR Band n71	0.323	0.096	0.812	1.231
	NR Band n5 (Cell)	0.700	0.096	0.812	See Table Below
	NR Band n66 (AWS)	0.879	0.096	0.812	See Table Below
	NR Band n2 (PCS)	0.965	0.096	0.812	See Table Below
	NR Band n41	0.169	0.096	0.812	1.077

Simult Tx	Configuration	EVDO BC10 (§90S) SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Hotspot SAR	Back	0.719	0.033	0.812	**1.564**
	Front	0.511	0.042	0.029	0.582
	Top	-	0.096	0.128	0.224
	Bottom	0.413	-	-	0.413
	Right	0.324	-	-	0.324
	Left	0.104	0.020	0.146	0.270

Simult Tx	Configuration	EVDO BC0 (§22H) SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Hotspot SAR	Back	0.748	0.033	0.812	**1.593**
	Front	0.500	0.042	0.029	0.571
	Top	-	0.096	0.128	0.224
	Bottom	0.450	-	-	0.450
	Right	0.239	-	-	0.239
	Left	0.063	0.020	0.146	0.229

Simult Tx	Configuration	PCS EVDO SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Hotspot SAR	Back	0.420	0.033	0.812	**1.265**
	Front	0.296	0.042	0.029	0.367
	Top	-	0.096	0.128	0.224
	Bottom	0.866	-	-	0.866
	Right	0.053	-	-	0.053
	Left	0.042	0.020	0.146	0.208

Simult Tx	Configuration	GPRS 850 SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Hotspot SAR	Back	0.712	0.033	0.812	**1.557**
	Front	0.445	0.042	0.029	0.516
	Top	-	0.096	0.128	0.224
	Bottom	0.327	-	-	0.327
	Right	0.201	-	-	0.201
	Left	0.069	0.020	0.146	0.235

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Simult Tx	Configuration	GPRS 1900 SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)	Simult Tx	Configuration	UMTS 850 SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3			1	2	3	1+2+3
Hotspot SAR	Back	0.352	0.033	0.812	**1.197**	Hotspot SAR	Back	0.697	0.033	0.812	**1.542**
	Front	0.319	0.042	0.029	0.390		Front	0.491	0.042	0.029	0.562
	Top	-	0.096	0.128	0.224		Top	-	0.096	0.128	0.224
	Bottom	0.863	-	-	0.863		Bottom	0.381	-	-	0.381
	Right	0.047	-	-	0.047		Right	0.286	-	-	0.286
	Left	0.051	0.020	0.146	0.217		Left	0.076	0.020	0.146	0.242

Simult Tx	Configuration	UMTS 1750 SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)	Simult Tx	Configuration	UMTS 1900 SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3			1	2	3	1+2+3
Hotspot SAR	Back	0.629	0.033	0.812	**1.474**	Hotspot SAR	Back	0.462	0.033	0.812	**1.307**
	Front	0.489	0.042	0.029	0.560		Front	0.292	0.042	0.029	0.363
	Top	-	0.096	0.128	0.224		Top	-	0.096	0.128	0.224
	Bottom	1.083	-	-	1.083		Bottom	0.930	-	-	0.930
	Right	0.092	-	-	0.092		Right	0.054	-	-	0.054
	Left	0.052	0.020	0.146	0.218		Left	0.045	0.020	0.146	0.211

Simult Tx	Configuration	LTE Band 5 (Cell) SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Hotspot SAR	Back	0.708	0.033	0.812	**1.553**
	Front	0.516	0.042	0.029	0.587
	Top	-	0.096	0.128	0.224
	Bottom	0.377	-	-	0.377
	Right	0.234	-	-	0.234
	Left	0.068	0.020	0.146	0.234

Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)	Simult Tx	Configuration	LTE Band 25 (PCS) SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3			1	2	3	1+2+3
Hotspot SAR	Back	0.536	0.033	0.812	**1.381**	Hotspot SAR	Back	0.394	0.033	0.812	**1.239**
	Front	0.478	0.042	0.029	0.549		Front	0.363	0.042	0.029	0.434
	Top	-	0.096	0.128	0.224		Top	-	0.096	0.128	0.224
	Bottom	1.035	-	-	1.035		Bottom	0.853	-	-	0.853
	Right	0.096	-	-	0.096		Right	0.055	-	-	0.055
	Left	0.077	0.020	0.146	0.243		Left	0.043	0.020	0.146	0.209

Simult Tx	Configuration	LTE Band 30 SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)	Simult Tx	Configuration	LTE Band 7 SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3			1	2	3	1+2+3
Hotspot SAR	Back	0.493	0.033	0.812	**1.338**	Hotspot SAR	Back	0.504	0.033	0.812	**1.349**
	Front	0.360	0.042	0.029	0.431		Front	0.409	0.042	0.029	0.480
	Top	-	0.096	0.128	0.224		Top	-	0.096	0.128	0.224
	Bottom	0.993	-	-	0.993		Bottom	0.896	-	-	0.896
	Right	0.035	-	-	0.035		Right	-	-	-	-
	Left	0.044	0.020	0.146	0.210		Left	0.126	0.020	0.146	0.292

Simult Tx	Configuration	LTE Band 48 SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)	Simult Tx	Configuration	LTE Band 41 SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3			1	2	3	1+2+3
Hotspot SAR	Back	0.593	0.033	0.812	**1.438**	Hotspot SAR	Back	0.272	0.033	0.812	**1.117**
	Front	0.287	0.042	0.029	0.358		Front	0.276	0.042	0.029	0.347
	Top	0.966	0.096	0.128	1.190		Top	-	0.096	0.128	0.224
	Bottom	-	-	-	-		Bottom	0.995	-	-	0.995
	Right	-	-	-	-		Right	-	-	-	-
	Left	0.515	0.020	0.146	0.681		Left	0.109	0.020	0.146	0.275

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Simult Tx	Configuration	NR Band n5 (Cell) SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Hotspot SAR	Back	0.700	0.033	0.812	**1.545**
	Front	0.482	0.042	0.029	0.553
	Top	-	0.096	0.128	0.224
	Bottom	0.356	-	-	0.356
	Right	0.230	-	-	0.230
	Left	0.050	0.020	0.146	0.216

Simult Tx	Configuration	NR Band n66 (AWS) SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Hotspot SAR	Back	0.497	0.033	0.812	**1.342**
	Front	0.392	0.042	0.029	0.463
	Top	-	0.096	0.128	0.224
	Bottom	0.879	-	-	0.879
	Right	0.068	-	-	0.068
	Left	0.063	0.020	0.146	0.229

Simult Tx	Configuration	NR Band n2 (PCS) SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Hotspot SAR	Back	0.453	0.033	0.812	**1.298**
	Front	0.377	0.042	0.029	0.448
	Top	-	0.096	0.128	0.224
	Bottom	0.965	-	-	0.965
	Right	0.074	-	-	0.074
	Left	0.056	0.020	0.146	0.222

Configuration	Mode	2G/3G/4G /5G SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Hotspot	EVDO BC10 (§90S)	0.719	0.096	0.929	See Table Below
	EVDO BC0 (§22H)	0.748	0.096	0.929	See Table Below
	PCS EVDO	0.866	0.096	0.929	See Table Below
	GPRS 850	0.712	0.096	0.929	See Table Below
	GPRS 1900	0.863	0.096	0.929	See Table Below
	UMTS 850	0.697	0.096	0.929	See Table Below
	UMTS 1750	1.083	0.096	0.929	See Table Below
	UMTS 1900	0.930	0.096	0.929	See Table Below
	LTE Band 71	0.308	0.096	0.929	1.333
	LTE Band 12	0.409	0.096	0.929	1.434
	LTE Band 13	0.487	0.096	0.929	1.512
	LTE Band 14	0.530	0.096	0.929	**1.555**
	LTE Band 26 (Cell)	0.650	0.096	0.929	See Table Below
	LTE Band 5 (Cell)	0.708	0.096	0.929	See Table Below
	LTE Band 66 (AWS)	1.035	0.096	0.929	See Table Below
	LTE Band 25 (PCS)	0.853	0.096	0.929	See Table Below
	LTE Band 30	0.993	0.096	0.929	See Table Below
	LTE Band 7	0.896	0.096	0.929	See Table Below
	LTE Band 48	0.966	0.096	0.929	See Table Below
	LTE Band 41	0.995	0.096	0.929	See Table Below
	NR Band n71	0.323	0.096	0.929	1.348
	NR Band n5 (Cell)	0.700	0.096	0.929	See Table Below
	NR Band n66 (AWS)	0.879	0.096	0.929	See Table Below
	NR Band n2 (PCS)	0.965	0.096	0.929	See Table Below
	NR Band n41	0.169	0.096	0.929	1.194

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Simult Tx	Configuration	EVDO BC10 (§90S) SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)	SPLSR		
		1	2	3	1+2+3	1+2	1+3	2+3
Hotspot SAR	Back	0.719	0.033	0.929	See Note 1	0.00	0.02	0.02
	Front	0.511	0.042	0.044	**0.597**	N/A	N/A	N/A
	Top	-	0.096	0.179	0.275	N/A	N/A	N/A
	Bottom	0.413	-	-	0.413	N/A	N/A	N/A
	Right	0.324	-	-	0.324	N/A	N/A	N/A
	Left	0.104	0.020	0.237	0.361	N/A	N/A	N/A

Simult Tx	Configuration	EVDO BC0 (§22H) SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)	SPLSR		
		1	2	3	1+2+3	1+2	1+3	2+3
Hotspot SAR	Back	0.748	0.033	0.929	See Note 1	0.00	0.02	0.02
	Front	0.500	0.042	0.044	**0.586**	N/A	N/A	N/A
	Top	-	0.096	0.179	0.275	N/A	N/A	N/A
	Bottom	0.450	-	-	0.450	N/A	N/A	N/A
	Right	0.239	-	-	0.239	N/A	N/A	N/A
	Left	0.063	0.020	0.237	0.320	N/A	N/A	N/A

Simult Tx	Configuration	PCS EVDO SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Hotspot SAR	Back	0.420	0.033	0.929	**1.382**
	Front	0.296	0.042	0.044	0.382
	Top	-	0.096	0.179	0.275
	Bottom	0.866	-	-	0.866
	Right	0.053	-	-	0.053
	Left	0.042	0.020	0.237	0.299

Simult Tx	Configuration	GPRS 850 SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)	SPLSR		
		1	2	3	1+2+3	1+2	1+3	2+3
Hotspot SAR	Back	0.712	0.033	0.929	See Note 1	0.00	0.02	0.02
	Front	0.445	0.042	0.044	**0.531**	N/A	N/A	N/A
	Top	-	0.096	0.179	0.275	N/A	N/A	N/A
	Bottom	0.327	-	-	0.327	N/A	N/A	N/A
	Right	0.201	-	-	0.201	N/A	N/A	N/A
	Left	0.069	0.020	0.237	0.326	N/A	N/A	N/A

Simult Tx	Configuration	GPRS 1900 SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Hotspot SAR	Back	0.352	0.033	0.929	**1.314**
	Front	0.319	0.042	0.044	0.405
	Top	-	0.096	0.179	0.275
	Bottom	0.863	-	-	0.863
	Right	0.047	-	-	0.047
	Left	0.051	0.020	0.237	0.308

Simult Tx	Configuration	UMTS 850 SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)	SPLSR		
		1	2	3	1+2+3	1+2	1+3	2+3
Hotspot SAR	Back	0.697	0.033	0.929	See Note 1	0.00	0.01	0.02
	Front	0.491	0.042	0.044	**0.577**	N/A	N/A	N/A
	Top	-	0.096	0.179	0.275	N/A	N/A	N/A
	Bottom	0.381	-	-	0.381	N/A	N/A	N/A
	Right	0.286	-	-	0.286	N/A	N/A	N/A
	Left	0.076	0.020	0.237	0.333	N/A	N/A	N/A

Simult Tx	Configuration	UMTS 1750 SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Hotspot SAR	Back	0.629	0.033	0.929	**1.591**
	Front	0.489	0.042	0.044	0.575
	Top	-	0.096	0.179	0.275
	Bottom	1.083	-	-	1.083
	Right	0.092	-	-	0.092
	Left	0.052	0.020	0.237	0.309

Simult Tx	Configuration	UMTS 1900 SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)	SPLSR		
		1	2	3	1+2+3	1+2	1+3	2+3
Hotspot SAR	Back	0.462	0.033	0.929	**1.424**	See Note 1	0.00	0.01	0.02
	Front	0.292	0.042	0.044	0.378	N/A	N/A	N/A	N/A
	Top	-	0.096	0.179	0.275	N/A	N/A	N/A	N/A
	Bottom	0.930	-	-	0.930	N/A	N/A	N/A	N/A
	Right	0.054	-	-	0.054	N/A	N/A	N/A	N/A
	Left	0.045	0.020	0.237	0.302	N/A	N/A	N/A	N/A

Simult Tx	Configuration	LTE Band 26 (Cell) SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Hotspot SAR	Back	0.650	0.033	0.929	See Note 1
	Front	0.439	0.042	0.044	**0.525**
	Top	-	0.096	0.179	0.275
	Bottom	0.348	-	-	0.348
	Right	0.251	-	-	0.251
	Left	0.093	0.020	0.237	0.350

Simult Tx	Configuration	LTE Band 5 (Cell) SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)	SPLSR		
		1	2	3	1+2+3	1+2	1+3	2+3
Hotspot SAR	Back	0.708	0.033	0.929	See Note 1	0.00	0.01	0.02
	Front	0.516	0.042	0.044	**0.602**	N/A	N/A	N/A
	Top	-	0.096	0.179	0.275	N/A	N/A	N/A
	Bottom	0.377	-	-	0.377	N/A	N/A	N/A
	Right	0.234	-	-	0.234	N/A	N/A	N/A
	Left	0.068	0.020	0.237	0.325	N/A	N/A	N/A

Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Hotspot SAR	Back	0.536	0.033	0.929	**1.498**
	Front	0.478	0.042	0.044	0.564
	Top	-	0.096	0.179	0.275
	Bottom	1.035	-	-	1.035
	Right	0.096	-	-	0.096
	Left	0.077	0.020	0.237	0.334

Simult Tx	Configuration	LTE Band 25 (PCS) SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Hotspot SAR	Back	0.394	0.033	0.929	**1.356**
	Front	0.363	0.042	0.044	0.449
	Top	-	0.096	0.179	0.275
	Bottom	0.853	-	-	0.853
	Right	0.055	-	-	0.055
	Left	0.043	0.020	0.237	0.300

Simult Tx	Configuration	LTE Band 30 SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Hotspot SAR	Back	0.493	0.033	0.929	**1.455**
	Front	0.360	0.042	0.044	0.446
	Top	-	0.096	0.179	0.275
	Bottom	0.993	-	-	0.993
	Right	0.035	-	-	0.035
	Left	0.044	0.020	0.237	0.301

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Simult Tx	Configuration	LTE Band 7 SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)	Simult Tx	Configuration	LTE Band 48 SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3			1	2	3	1+2+3
Hotspot SAR	Back	0.504	0.033	0.929	**1.466**	Hotspot SAR	Back	0.593	0.033	0.929	**1.555**
	Front	0.409	0.042	0.044	0.495		Front	0.287	0.042	0.044	0.373
	Top	-	0.096	0.179	0.275		Top	0.966	0.096	0.179	1.241
	Bottom	0.896	-	-	0.896		Bottom	-	-	-	-
	Right	-	-	-	-		Right	-	-	-	-
	Left	0.126	0.020	0.237	0.383		Left	0.515	0.020	0.237	0.772

Simult Tx	Configuration	LTE Band 41 SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)	Configuration	NR Band n5 (Cell) SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)	SPLSR		
		1	2	3	1+2+3		1	2	3	1+2+3	1+2	1+3	2+3
Hotspot SAR	Back	0.272	0.033	0.929	**1.234**	Back	0.700	0.033	0.929	See Note 1	0.00	0.01	0.02
	Front	0.276	0.042	0.044	0.362	Front	0.482	0.042	0.044	**0.568**	N/A	N/A	N/A
	Top	-	0.096	0.179	0.275	Top	-	0.096	0.179	0.275	N/A	N/A	N/A
	Bottom	0.995	-	-	0.995	Bottom	0.356	-	-	0.356	N/A	N/A	N/A
	Right	-	-	-	-	Right	0.230	-	-	0.230	N/A	N/A	N/A
	Left	0.109	0.020	0.237	0.366	Left	0.050	0.020	0.237	0.307	N/A	N/A	N/A

Simult Tx	Configuration	NR Band n66 (AWS) SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)	Simult Tx	Configuration	NR Band n2 (PCS) SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3			1	2	3	1+2+3
Hotspot SAR	Back	0.497	0.033	0.929	**1.459**	Hotspot SAR	Back	0.453	0.033	0.929	**1.415**
	Front	0.392	0.042	0.044	0.478		Front	0.377	0.042	0.044	0.463
	Top	-	0.096	0.179	0.275		Top	-	0.096	0.179	0.275
	Bottom	0.879	-	-	0.879		Bottom	0.965	-	-	0.965
	Right	0.068	-	-	0.068		Right	0.074	-	-	0.074
	Left	0.063	0.020	0.237	0.320		Left	0.056	0.020	0.237	0.313

Notes:

1. No evaluation was performed to determine the aggregate 1g SAR for these configurations as the SPLS ratio between the antenna pairs was not greater than 0.04 per FCC KDB 447498 D01v06. See Section 12.7 for detailed SPLS ratio analysis.

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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 12-16
Simultaneous Transmission Scenario with 5 GHz WLAN (Phablet)

Simult Tx	Configuration	PCS EVDO SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		SPLSR	
		1	2	3	1+2	1+3	1+2	1+3
Phablet SAR	Back	2.225	1.190	1.980	**3.415**	See Note 1	N/A	0.06
	Front	2.124	0.079	0.310	2.203	2.434	N/A	N/A
	Top	-	1.190*	1.980*	1.190	1.980	N/A	N/A
	Bottom	2.957	-	-	2.957	2.957	N/A	N/A
	Right	0.633	-	-	0.633	0.633	N/A	N/A
	Left	0.571	0.583	0.551	1.154	1.122	N/A	N/A

Simult Tx	Configuration	GPRS 1900 SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)	
		1	2	3	1+2	1+3
Phablet SAR	Back	1.495	1.190	1.980	2.685	**3.475**
	Front	1.547	0.079	0.310	1.626	1.857
	Top	-	1.190*	1.980*	1.190	1.980
	Bottom	3.026	-	-	3.026	3.026
	Right	0.288	-	-	0.288	0.288
	Left	0.339	0.583	0.551	0.922	0.890

Simult Tx	Configuration	UMTS 1750 SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		SPLSR	
		1	2	3	1+2	1+3	1+2	1+3
Phablet SAR	Back	2.537	1.190	1.980	**3.727**	See Note 1	N/A	0.07
	Front	2.080	0.079	0.310	2.159	2.390	N/A	N/A
	Top	-	1.190*	1.980*	1.190	1.980	N/A	N/A
	Bottom	2.640	-	-	2.640	2.640	N/A	N/A
	Right	0.498	-	-	0.498	0.498	N/A	N/A
	Left	0.269	0.583	0.551	0.852	0.820	N/A	N/A

Simult Tx	Configuration	UMTS 1900 SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		SPLSR	
		1	2	3	1+2	1+3	1+2	1+3
Phablet SAR	Back	2.407	1.190	1.980	**3.597**	See Note 1	N/A	0.07
	Front	2.221	0.079	0.310	2.300	2.531	N/A	N/A
	Top	-	1.190*	1.980*	1.190	1.980	N/A	N/A
	Bottom	3.098	-	-	3.098	3.098	N/A	N/A
	Right	0.535	-	-	0.535	0.535	N/A	N/A
	Left	0.432	0.583	0.551	1.015	0.983	N/A	N/A

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Configuration	LTE Band 66 (AWS) SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		SPLSR	
	1	2	3	1+2	1+3	1+2	1+3
Back	2.950	1.190	1.980	See Note 1	See Note 1	0.05	0.08
Front	2.749	0.079	0.310	2.828	3.059	N/A	N/A
Top	-	1.190*	1.980*	1.190	1.980	N/A	N/A
Bottom	3.139	-	-	**3.139**	**3.139**	N/A	N/A
Right	0.565	-	-	0.565	0.565	N/A	N/A
Left	0.146	0.583	0.551	0.729	0.697	N/A	N/A

Simult Tx	Configuration	LTE Band 25 (PCS) SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		SPLSR	
		1	2	3	1+2	1+3	1+2	1+3
Phablet SAR	Back	2.066	1.190	1.980	**3.256**	See Note 1	N/A	0.06
	Front	1.984	0.079	0.310	2.063	2.294	N/A	N/A
	Top	-	1.190*	1.980*	1.190	1.980	N/A	N/A
	Bottom	2.817	-	-	2.817	2.817	N/A	N/A
	Right	0.527	-	-	0.527	0.527	N/A	N/A
	Left	0.476	0.583	0.551	1.059	1.027	N/A	N/A

Simult Tx	Configuration	LTE Band 30 SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)	
		1	2	3	1+2	1+3
Phablet SAR	Back	1.414	1.190	1.980	2.604	**3.394**
	Front	1.414	0.079	0.310	1.493	1.724
	Top	-	1.190*	1.980*	1.190	1.980
	Bottom	2.075	-	-	2.075	2.075
	Right	0.323	-	-	0.323	0.323
	Left	0.406	0.583	0.551	0.989	0.957

Simult Tx	Configuration	LTE Band 7 SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)	
		1	2	3	1+2	1+3
Phablet SAR	Back	1.999	1.190	1.980	3.189	**3.979**
	Front	1.619	0.079	0.310	1.698	1.929
	Top	-	1.190*	1.980*	1.190	1.980
	Bottom	2.301	-	-	2.301	2.301
	Right	-	-	-	-	-
	Left	0.699	0.583	0.551	1.282	1.250

Simult Tx	Configuration	LTE Band 41 SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)	
		1	2	3	1+2	1+3
Phablet SAR	Back	1.403	1.190	1.980	2.593	**3.383**
	Front	1.498	0.079	0.310	1.577	1.808
	Top	-	1.190*	1.980*	1.190	1.980
	Bottom	2.293	-	-	2.293	2.293
	Right	-	-	-	-	-
	Left	0.554	0.583	0.551	1.137	1.105

Simult Tx	Configuration	NR Band n66 (AWS) SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)	
		1	2	3	1+2	1+3
Phablet SAR	Back	1.810	1.190	1.980	3.000	**3.790**
	Front	1.756	0.079	0.310	1.835	2.066
	Top	-	1.190*	1.980*	1.190	1.980
	Bottom	2.786	-	-	2.786	2.786
	Right	0.570	-	-	0.570	0.570
	Left	0.472	0.583	0.551	1.055	1.023

Simult Tx	Configuration	NR Band n2 (PCS) SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		SPLSR	
		1	2	3	1+2	1+3	1+2	1+3
Phablet SAR	Back	2.309	1.190	1.980	**3.499**	See Note 1	N/A	0.06
	Front	2.076	0.079	0.310	2.155	2.386	N/A	N/A
	Top	-	1.190*	1.980*	1.190	1.980	N/A	N/A
	Bottom	3.104	-	-	3.104	3.104	N/A	N/A
	Right	0.571	-	-	0.571	0.571	N/A	N/A
	Left	0.449	0.583	0.551	1.032	1.000	N/A	N/A

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Simult Tx	Configuration	PCS EVDO SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)	SPLSR
		1	2	1+2	1+2
Phablet SAR	Back	2.225	2.308	See Note 1	0.07
	Front	2.124	0.401	2.525	N/A
	Top	-	2.308*	2.308	N/A
	Bottom	2.957	-	**2.957**	N/A
	Right	0.633	-	0.633	N/A
	Left	0.571	1.115	1.686	N/A

Simult Tx	Configuration	GPRS 1900 SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2
Phablet SAR	Back	1.495	2.308	**3.803**
	Front	1.547	0.401	1.948
	Top	-	2.308*	2.308
	Bottom	3.026	-	3.026
	Right	0.288	-	0.288
	Left	0.339	1.115	1.454

Simult Tx	Configuration	UMTS 1750 SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)	SPLSR
		1	2	1+2	1+2
Phablet SAR	Back	2.537	2.308	See Note 1	0.07
	Front	2.080	0.401	2.481	N/A
	Top	-	2.308*	2.308	N/A
	Bottom	2.640	-	**2.640**	N/A
	Right	0.498	-	0.498	N/A
	Left	0.269	1.115	1.384	N/A

Simult Tx	Configuration	UMTS 1900 SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)	SPLSR
		1	2	1+2	1+2
Phablet SAR	Back	2.407	2.308	See Note 1	0.07
	Front	2.221	0.401	2.622	N/A
	Top	-	2.308*	2.308	N/A
	Bottom	3.098	-	**3.098**	N/A
	Right	0.535	-	0.535	N/A
	Left	0.432	1.115	1.547	N/A

Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)	SPLSR
		1	2	1+2	1+2
Phablet SAR	Back	2.950	2.308	See Note 1	0.08
	Front	2.749	0.401	**3.150**	N/A
	Top	-	2.308*	2.308	N/A
	Bottom	3.139	-	3.139	N/A
	Right	0.565	-	0.565	N/A
	Left	0.146	1.115	1.261	N/A

Simult Tx	Configuration	LTE Band 25 (PCS) SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)	SPLSR
		1	2	1+2	1+2
Phablet SAR	Back	2.066	2.308	See Note 1	0.07
	Front	1.984	0.401	2.385	N/A
	Top	-	2.308*	2.308	N/A
	Bottom	2.817	-	**2.817**	N/A
	Right	0.527	-	0.527	N/A
	Left	0.476	1.115	1.591	N/A

Simult Tx	Configuration	LTE Band 30 SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2
Phablet SAR	Back	1.414	2.308	**3.722**
	Front	1.414	0.401	1.815
	Top	-	2.308*	2.308
	Bottom	2.075	-	2.075
	Right	0.323	-	0.323
	Left	0.406	1.115	1.521

Simult Tx	Configuration	LTE Band 7 SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)	SPLSR
		1	2	1+2	1+2
Phablet SAR	Back	1.999	2.308	See Note 1	0.07
	Front	1.619	0.401	2.020	N/A
	Top	-	2.308*	**2.308**	N/A
	Bottom	2.301	-	2.301	N/A
	Right	-	-	-	N/A
	Left	0.699	1.115	1.814	N/A

Simult Tx	Configuration	LTE Band 41 SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2
Phablet SAR	Back	1.403	2.308	**3.711**
	Front	1.498	0.401	1.899
	Top	-	2.308*	2.308
	Bottom	2.293	-	2.293
	Right	-	-	-
	Left	0.554	1.115	1.669

Simult Tx	Configuration	NR Band n66 (AWS) SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)	SPLSR
		1	2	1+2	1+2
Phablet SAR	Back	1.810	2.308	See Note 1	0.06
	Front	1.756	0.401	2.157	N/A
	Top	-	2.308*	2.308	N/A
	Bottom	2.786	-	**2.786**	N/A
	Right	0.570	-	0.570	N/A
	Left	0.472	1.115	1.587	N/A

Simult Tx	Configuration	NR Band n2 (PCS) SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)	SPLSR
		1	2	1+2	1+2
Phablet SAR	Back	2.309	2.308	See Note 1	0.07
	Front	2.076	0.401	2.477	N/A
	Top	-	2.308*	2.308	N/A
	Bottom	3.104	-	**3.104**	N/A
	Right	0.571	-	0.571	N/A
	Left	0.449	1.115	1.564	N/A

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.

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

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

12.7.1 Body-worn Back Side SPLSR Evaluation and Analysis

Table 12-17
Peak SAR Locations for Body-worn Back Side

Mode/Band	x (mm)	y (mm)
5 GHz WLAN Ant 2	-3.00	56.00
5 GHz WLAN MIMO	-4.00	55.00
Bluetooth	-44.20	72.20
UMTS 1750	-28.00	-88.50
LTE Band 66 (AWS)	-28.00	-87.00
LTE Band 25 (PCS)	-29.50	-84.00
NR Band n66 (AWS)	-25.00	-87.00
NR Band n2 (PCS)	-18.50	-81.00

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Table 12-18
Body-worn 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	Plot Number
Ant "a"	Ant "b"	a	b	a+b	D_{a-b}	$(a+b)^{1.5}/D_{a-b}$	
UMTS 1750	5 GHz WLAN Ant 2	0.844	0.787	1.631	146.65	0.01	1
LTE Band 66 (AWS)	5 GHz WLAN Ant 2	0.886	0.787	1.673	145.17	0.01	2
NR Band n66 (AWS)	5 GHz WLAN Ant 2	0.948	0.787	1.735	144.68	0.02	3
NR Band n2 (PCS)	5 GHz WLAN Ant 2	0.924	0.787	1.711	137.87	0.02	4
UMTS 1750	5 GHz WLAN MIMO	0.844	0.759	1.603	145.49	0.01	5
LTE Band 66 (AWS)	5 GHz WLAN MIMO	0.886	0.759	1.645	144.01	0.01	6
NR Band n66 (AWS)	5 GHz WLAN MIMO	0.948	0.759	1.707	143.54	0.02	7
NR Band n2 (PCS)	5 GHz WLAN MIMO	0.924	0.759	1.683	136.77	0.02	8
UMTS 1750	Bluetooth	0.844	0.020	0.864	161.51	0.00	9
UMTS 1750	5 GHz WLAN Ant 2	0.844	0.787	1.631	146.65	0.01	
Bluetooth	5 GHz WLAN Ant 2	0.020	0.787	0.807	44.27	0.02	
LTE Band 66 (AWS)	Bluetooth	0.886	0.020	0.906	160.02	0.01	10
LTE Band 66 (AWS)	5 GHz WLAN Ant 2	0.886	0.787	1.673	145.17	0.01	
Bluetooth	5 GHz WLAN Ant 2	0.020	0.787	0.807	44.27	0.02	
LTE Band 25 (PCS)	Bluetooth	0.805	0.020	0.825	156.89	0.00	11
LTE Band 25 (PCS)	5 GHz WLAN Ant 2	0.805	0.787	1.592	142.49	0.01	
Bluetooth	5 GHz WLAN Ant 2	0.020	0.787	0.807	44.27	0.02	
NR Band n66 (AWS)	Bluetooth	0.948	0.020	0.968	160.35	0.01	12
NR Band n66 (AWS)	5 GHz WLAN Ant 2	0.948	0.787	1.735	144.68	0.02	
Bluetooth	5 GHz WLAN Ant 2	0.020	0.787	0.807	44.27	0.02	
NR Band n2 (PCS)	Bluetooth	0.924	0.020	0.944	155.34	0.01	13
NR Band n2 (PCS)	5 GHz WLAN Ant 2	0.924	0.787	1.711	137.87	0.02	
Bluetooth	5 GHz WLAN Ant 2	0.020	0.787	0.807	44.27	0.02	
UMTS 1750	Bluetooth	0.844	0.020	0.864	161.51	0.00	14
UMTS 1750	5 GHz WLAN MIMO	0.844	0.759	1.603	145.49	0.01	
Bluetooth	5 GHz WLAN MIMO	0.020	0.759	0.779	43.73	0.02	
LTE Band 66 (AWS)	Bluetooth	0.886	0.020	0.906	160.02	0.01	15
LTE Band 66 (AWS)	5 GHz WLAN MIMO	0.886	0.759	1.645	144.01	0.01	
Bluetooth	5 GHz WLAN MIMO	0.020	0.759	0.779	43.73	0.02	
NR Band n66 (AWS)	Bluetooth	0.948	0.020	0.968	160.35	0.01	16
NR Band n66 (AWS)	5 GHz WLAN MIMO	0.948	0.759	1.707	143.54	0.02	
Bluetooth	5 GHz WLAN MIMO	0.020	0.759	0.779	43.73	0.02	
NR Band n2 (PCS)	Bluetooth	0.924	0.020	0.944	155.34	0.01	17
NR Band n2 (PCS)	5 GHz WLAN MIMO	0.924	0.759	1.683	136.77	0.02	
Bluetooth	5 GHz WLAN MIMO	0.020	0.759	0.779	43.73	0.02	

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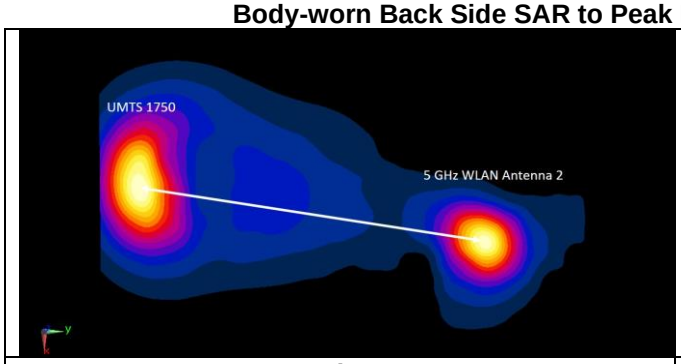
Table 12-19
Body-worn Back Side SAR to Peak Location Separation Ratio Plots



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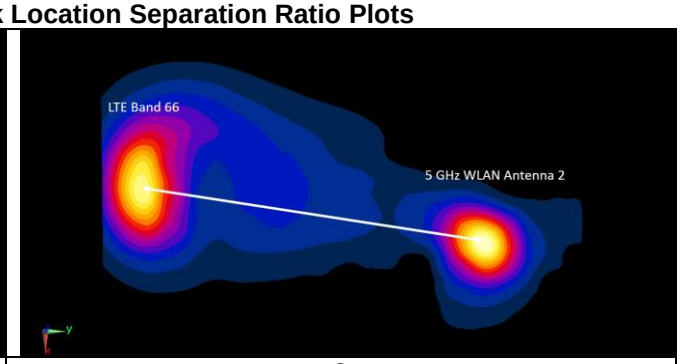

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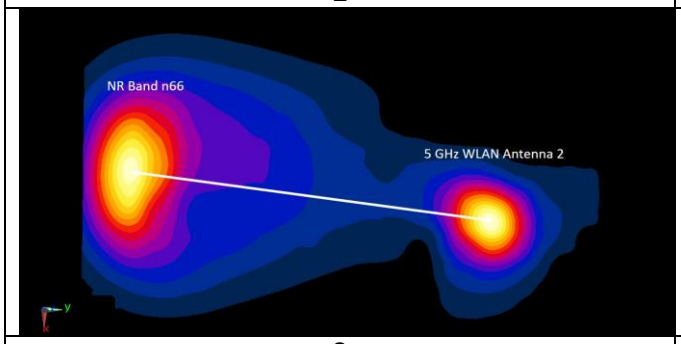

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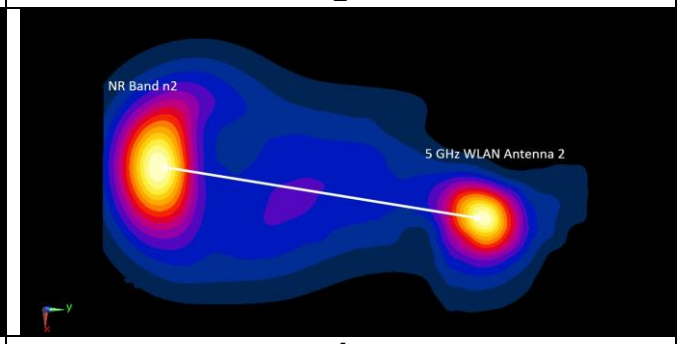

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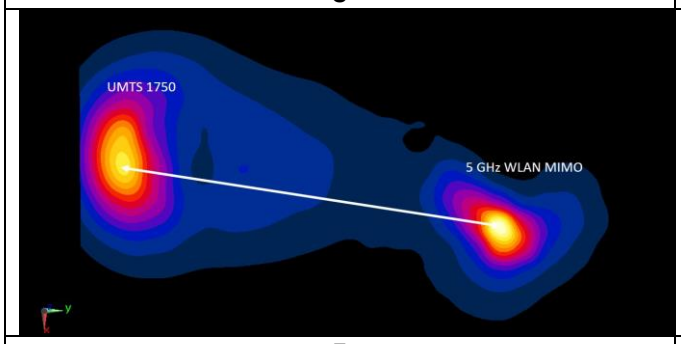

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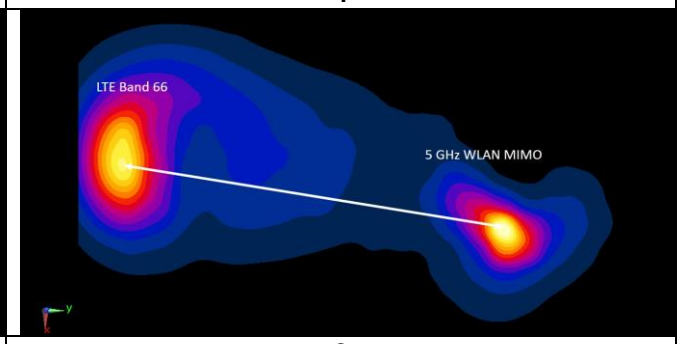

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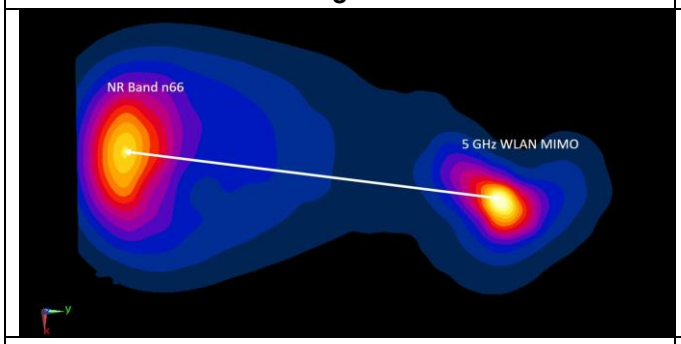

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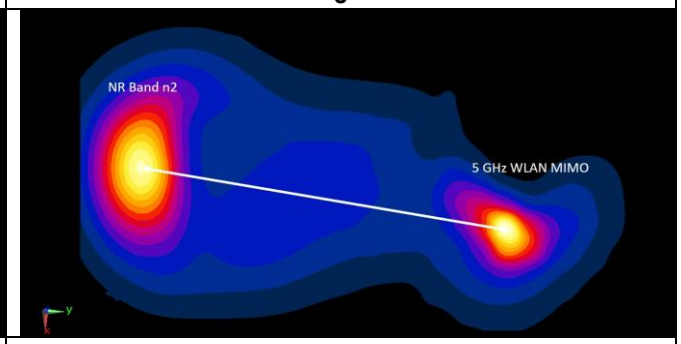

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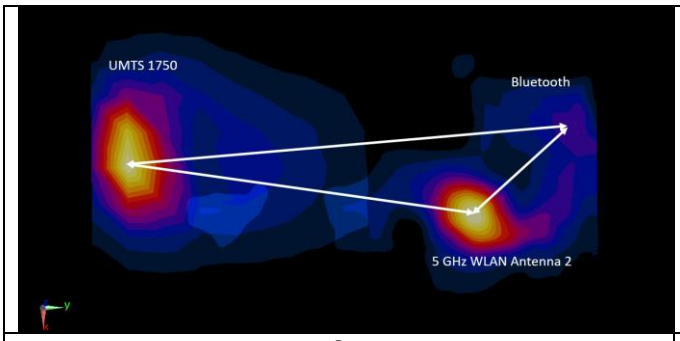

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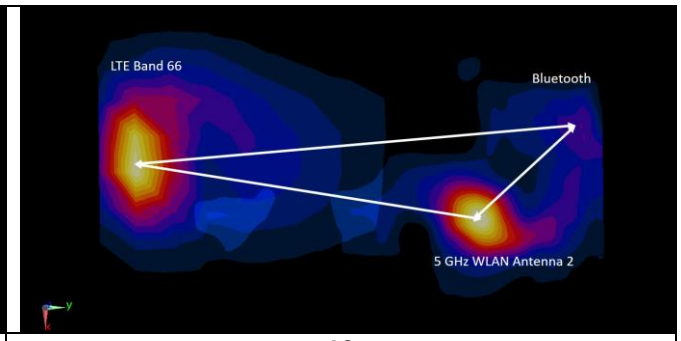

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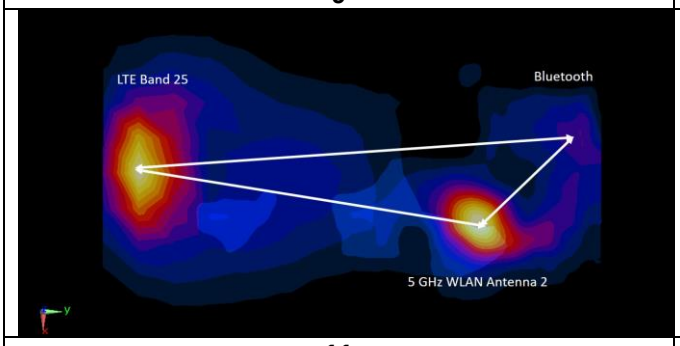

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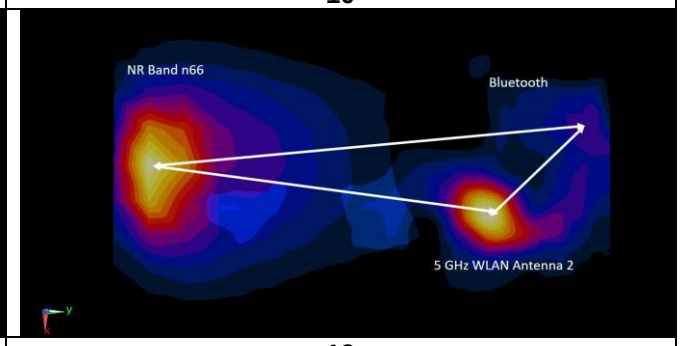

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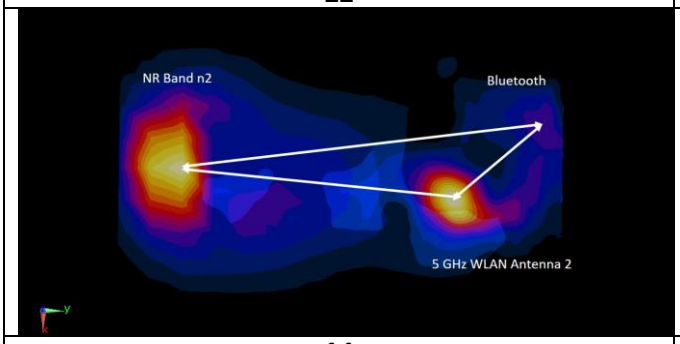

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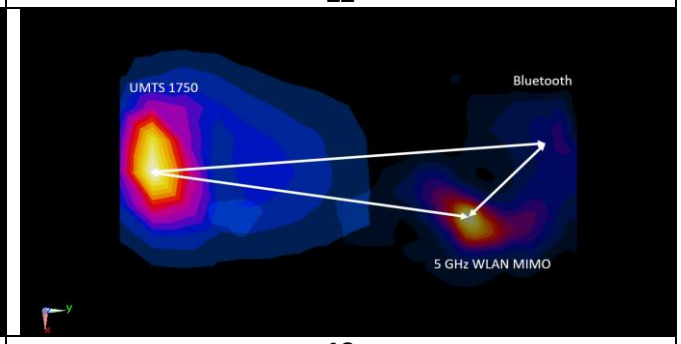

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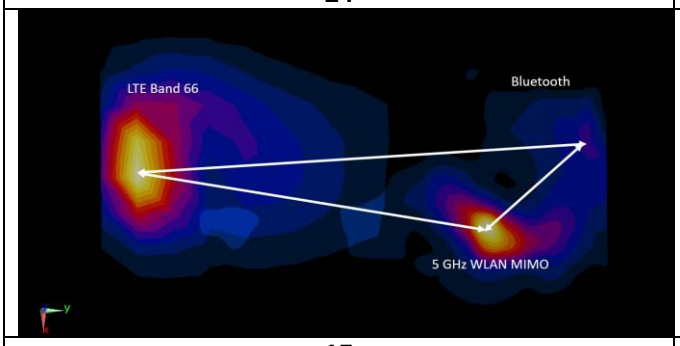

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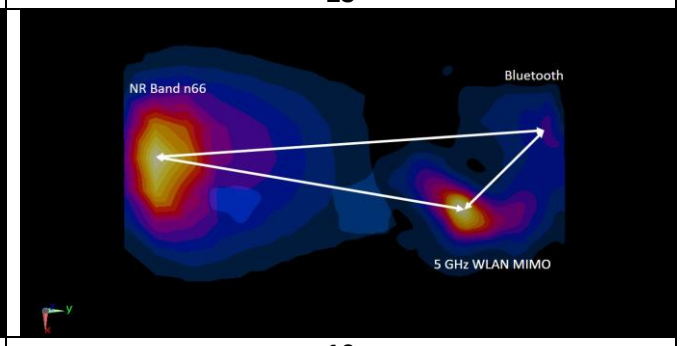

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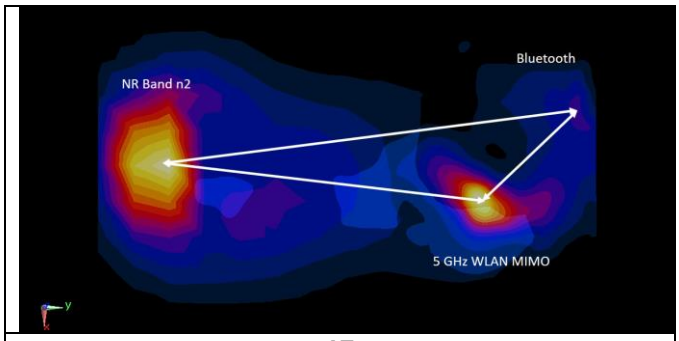

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12.7.2 Hotspot Back Side SPLSR Evaluation and Analysis

Table 12-20
Peak SAR Locations for Hotspot Back Side

Mode/Band	x (mm)	y (mm)
5 GHz WLAN MIMO	0.00	54.00
Bluetooth	-37.00	85.20
EVDO BC10 (§90S)	-10.00	-84.00
EVDO BC0 (§22H)	-10.00	-85.50
GPRS 850	-10.00	-80.50
UMTS 850	-10.00	-85.50
LTE Band 26 (Cell)	-10.00	-84.00
LTE Band 5 (Cell)	-10.00	-85.50
NR Band n5 (Cell)	-10.00	-85.50

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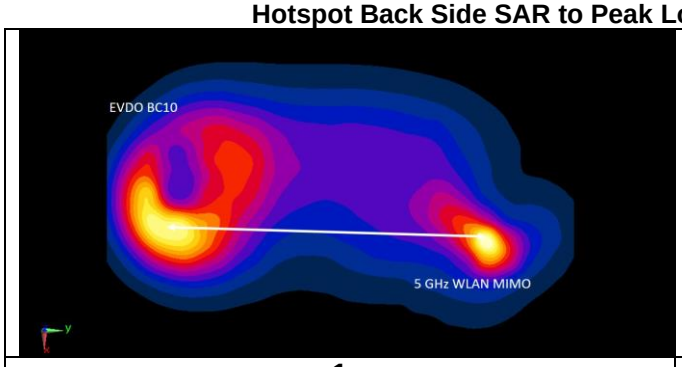
Table 12-21
Hotspot Back Side SAR to Peak Location Separation Ratio Calculations

Antenna Pair		Standalone SAR (W/kg)		Standalone SAR Sum (W/kg)	Peak SAR Separation Distance (mm)	SPLS Ratio	Plot Number
Ant "a"	Ant "b"	a	b	a+b	D_{a-b}	$(a+b)^{1.5}/D_{a-b}$	
EVDO BC10 (§90S)	5 GHz WLAN MIMO	0.719	0.929	1.648	138.36	0.02	1
EVDO BC0 (§22H)	5 GHz WLAN MIMO	0.748	0.929	1.677	139.86	0.02	2
GPRS 850	5 GHz WLAN MIMO	0.712	0.929	1.641	134.87	0.02	3
UMTS 850	5 GHz WLAN MIMO	0.697	0.929	1.626	139.86	0.01	4
LTE Band 5 (Cell)	5 GHz WLAN MIMO	0.708	0.929	1.637	139.86	0.01	5
NR Band n5 (Cell)	5 GHz WLAN MIMO	0.700	0.929	1.629	139.86	0.01	6
EVDO BC10 (§90S)	Bluetooth	0.719	0.033	0.752	171.34	0.00	7
EVDO BC10 (§90S)	5 GHz WLAN MIMO	0.719	0.929	1.648	138.36	0.02	
Bluetooth	5 GHz WLAN MIMO	0.033	0.929	0.962	48.40	0.02	
EVDO BC0 (§22H)	Bluetooth	0.748	0.033	0.781	172.82	0.00	8
EVDO BC0 (§22H)	5 GHz WLAN MIMO	0.748	0.929	1.677	139.86	0.02	
Bluetooth	5 GHz WLAN MIMO	0.033	0.929	0.962	48.40	0.02	
GPRS 850	Bluetooth	0.712	0.033	0.745	167.89	0.00	9
GPRS 850	5 GHz WLAN MIMO	0.712	0.929	1.641	134.87	0.02	
Bluetooth	5 GHz WLAN MIMO	0.033	0.929	0.962	48.40	0.02	
UMTS 850	Bluetooth	0.697	0.033	0.73	172.82	0.00	10
UMTS 850	5 GHz WLAN MIMO	0.697	0.929	1.626	139.86	0.01	
Bluetooth	5 GHz WLAN MIMO	0.033	0.929	0.962	48.40	0.02	
LTE Band 26 (Cell)	Bluetooth	0.650	0.033	0.683	171.34	0.00	11
LTE Band 26 (Cell)	5 GHz WLAN MIMO	0.650	0.929	1.579	138.36	0.01	
Bluetooth	5 GHz WLAN MIMO	0.033	0.929	0.962	48.40	0.02	
LTE Band 5 (Cell)	Bluetooth	0.708	0.033	0.741	172.82	0.00	12
LTE Band 5 (Cell)	5 GHz WLAN MIMO	0.708	0.929	1.637	139.86	0.01	
Bluetooth	5 GHz WLAN MIMO	0.033	0.929	0.962	48.40	0.02	
NR Band n5 (Cell)	Bluetooth	0.700	0.033	0.733	172.82	0.00	13
NR Band n5 (Cell)	5 GHz WLAN MIMO	0.700	0.929	1.629	139.86	0.01	
Bluetooth	5 GHz WLAN MIMO	0.033	0.929	0.962	48.40	0.02	

Table 12-22
Hotspot Back Side SAR to Peak Location Separation Ratio Plots



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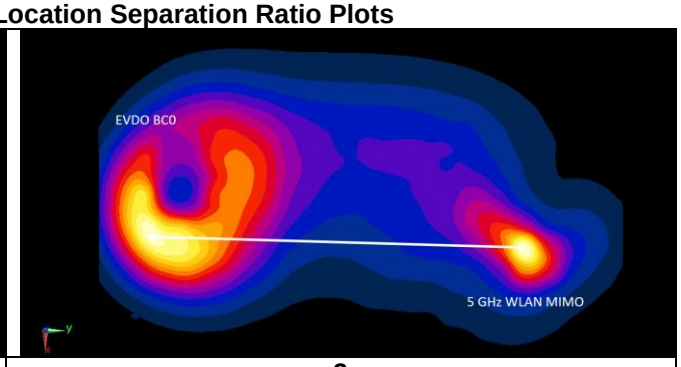

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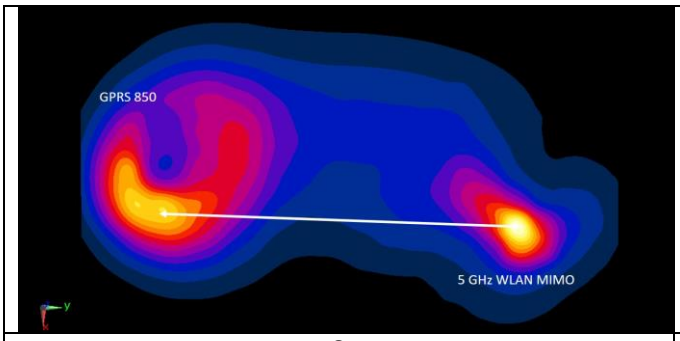

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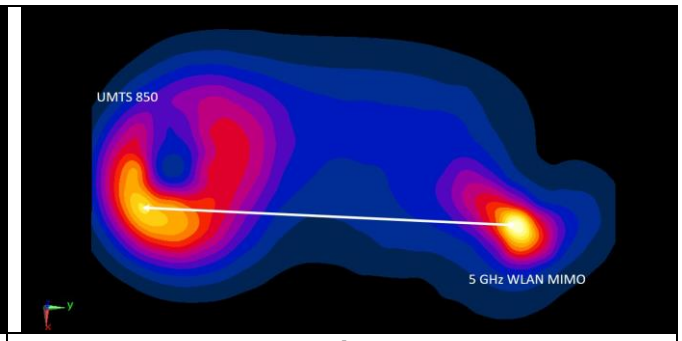

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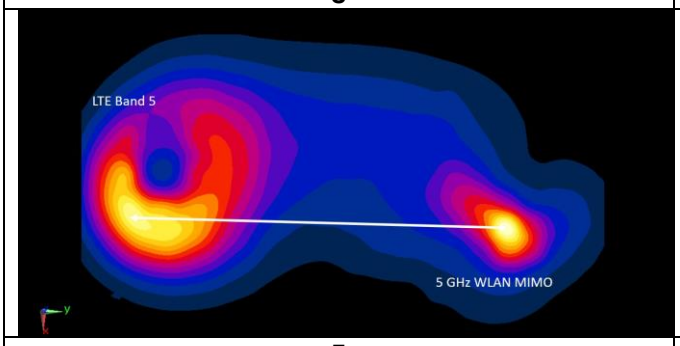

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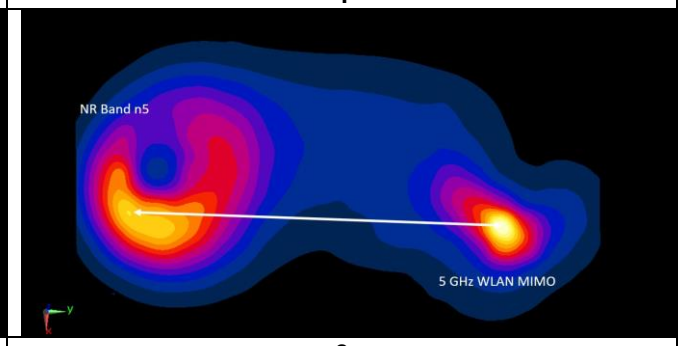

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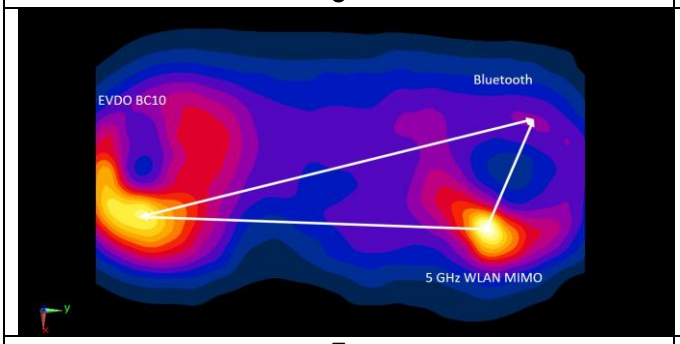

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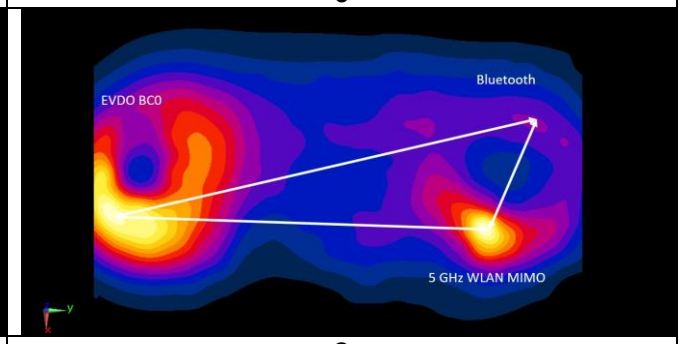

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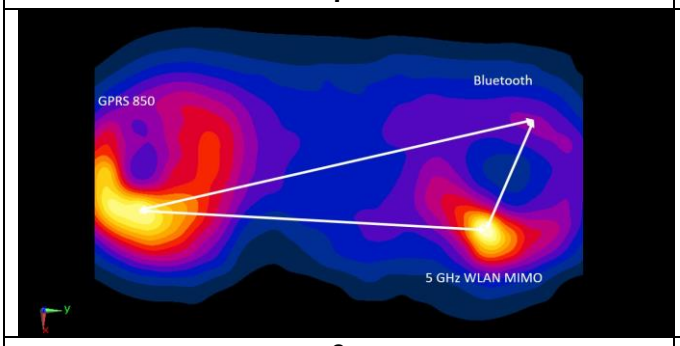

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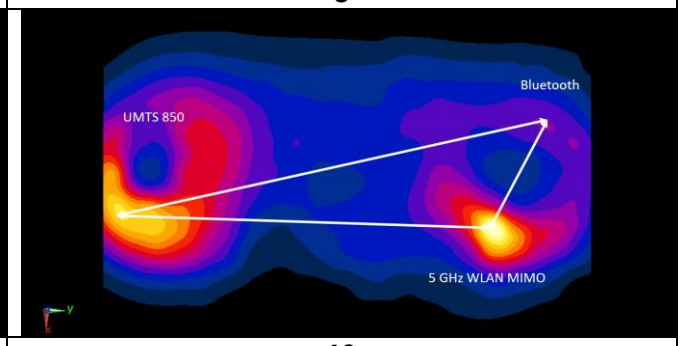

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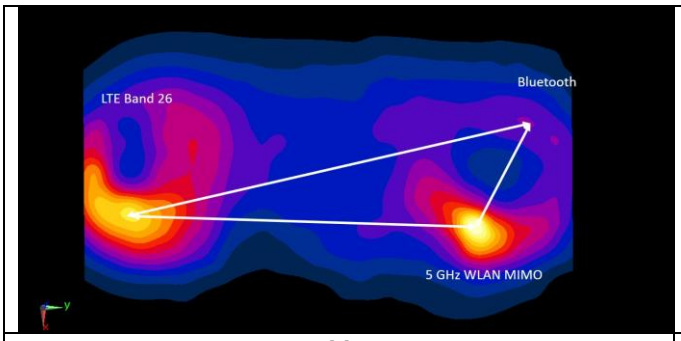

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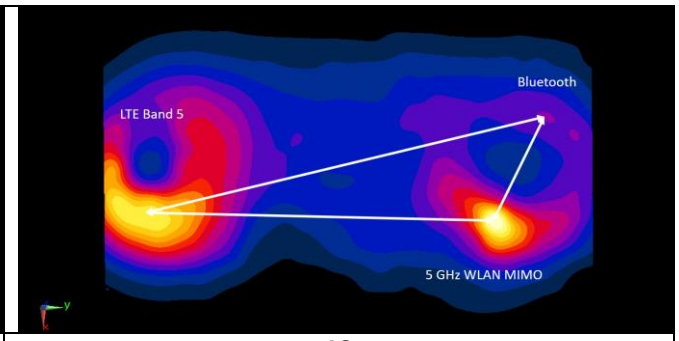

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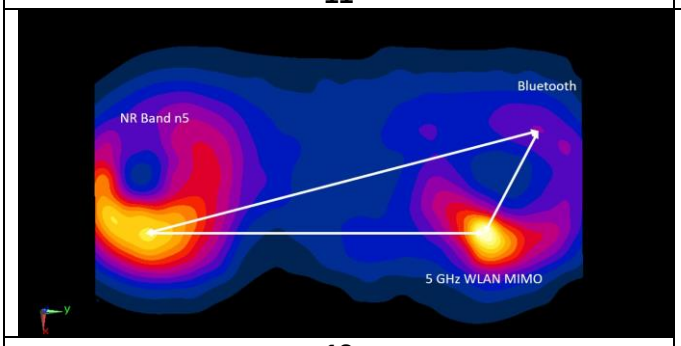

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12.7.3 Phablet Back Side SPLSR Evaluation and Analysis

Table 12-23
Peak SAR Locations for Phablet Back Side

Mode/Band	x (mm)	y (mm)
5 GHz WLAN Ant 1	-1.00	72.00
5 GHz WLAN Ant 2	-2.00	54.00
5 GHz WLAN MIMO	-3.00	60.00
PCS EVDO	-32.50	-79.50
UMTS 1750	-28.00	-87.00
UMTS 1900	-21.50	-82.50
LTE Band 66 (AWS)	-28.00	-84.00
LTE Band 25 (PCS)	-17.00	-79.50
LTE Band 7	-4.60	-77.40
NR Band n66 (AWS)	-28.00	-87.00
NR Band n2 (PCS)	-28.00	-82.50

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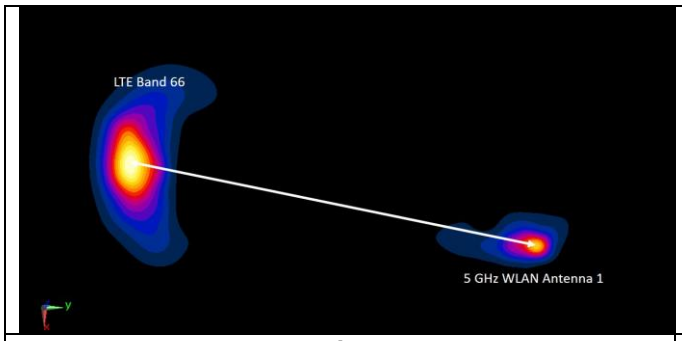
Table 12-24
Phablet Back Side SAR to Peak Location Separation Ratio Calculations

Antenna Pair		Standalone SAR (W/kg)		Standalone SAR Sum (W/kg)	Peak SAR Separation Distance (mm)	SPLS Ratio	Plot Number
Ant "a"	Ant "b"	a	b	a+b	D_{a-b}	$(a+b)^{1.5}/D_{a-b}$	
LTE Band 66 (AWS)	5 GHz WLAN Ant 1	2.950	1.190	4.14	158.32	0.05	1
PCS EVDO	5 GHz WLAN Ant 2	2.225	1.980	4.205	136.94	0.06	2
UMTS 1750	5 GHz WLAN Ant 2	2.537	1.980	4.517	143.38	0.07	3
UMTS 1900	5 GHz WLAN Ant 2	2.407	1.980	4.387	137.89	0.07	4
LTE Band 66 (AWS)	5 GHz WLAN Ant 2	2.950	1.980	4.93	140.43	0.08	5
LTE Band 25 (PCS)	5 GHz WLAN Ant 2	2.066	1.980	4.046	134.34	0.06	6
NR Band n2 (PCS)	5 GHz WLAN Ant 2	2.309	1.980	4.289	138.95	0.06	7
PCS EVDO	5 GHz WLAN MIMO	2.225	2.308	4.533	142.59	0.07	8
UMTS 1750	5 GHz WLAN MIMO	2.537	2.308	4.845	149.11	0.07	9
UMTS 1900	5 GHz WLAN MIMO	2.407	2.308	4.715	143.70	0.07	10
LTE Band 66 (AWS)	5 GHz WLAN MIMO	2.950	2.308	5.258	146.15	0.08	11
LTE Band 25 (PCS)	5 GHz WLAN MIMO	2.066	2.308	4.374	140.20	0.07	12
LTE Band 7	5 GHz WLAN MIMO	1.999	2.308	4.307	137.41	0.07	13
NR Band n66 (AWS)	5 GHz WLAN MIMO	1.810	2.308	4.118	149.11	0.06	14
NR Band n2 (PCS)	5 GHz WLAN MIMO	2.309	2.308	4.617	144.68	0.07	15

Table 12-25
Phablet Back Side SAR to Peak Location Separation Ratio Plots



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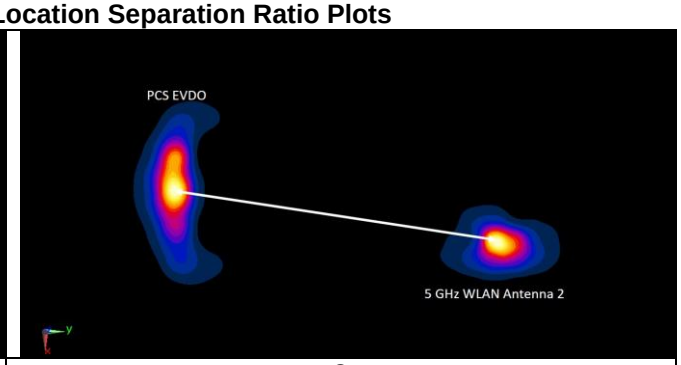

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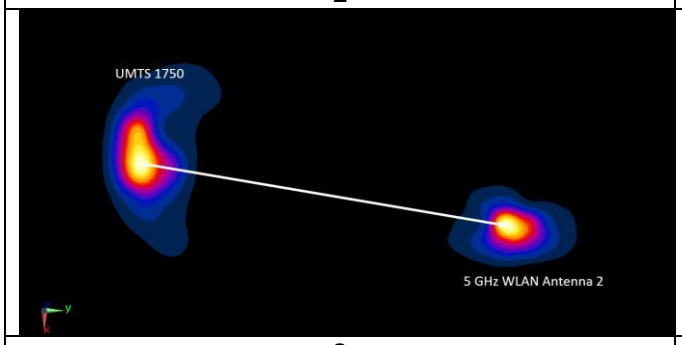

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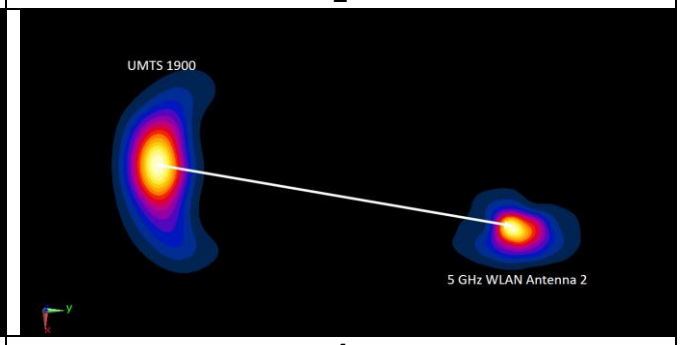

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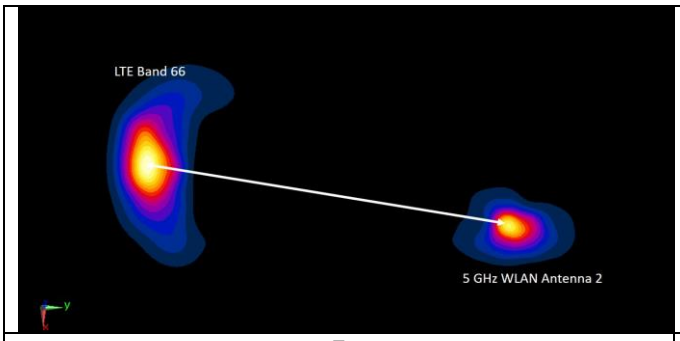

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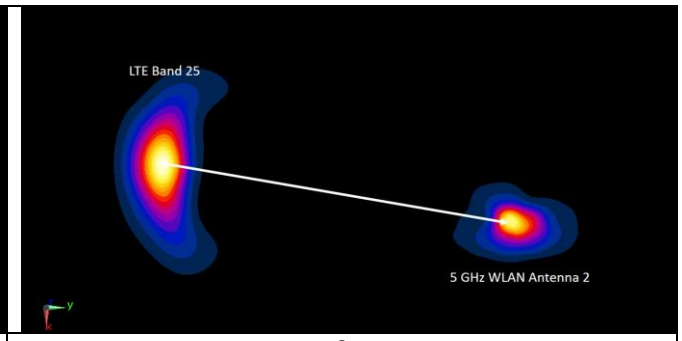

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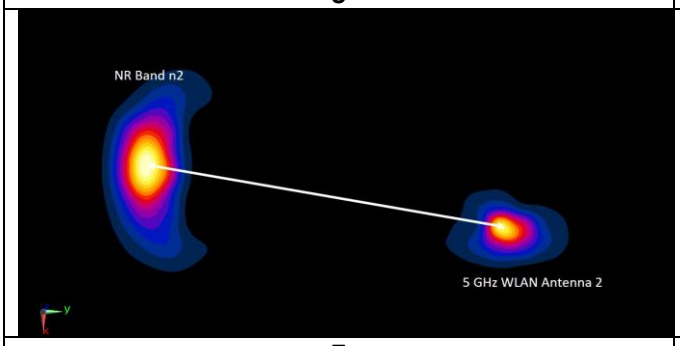

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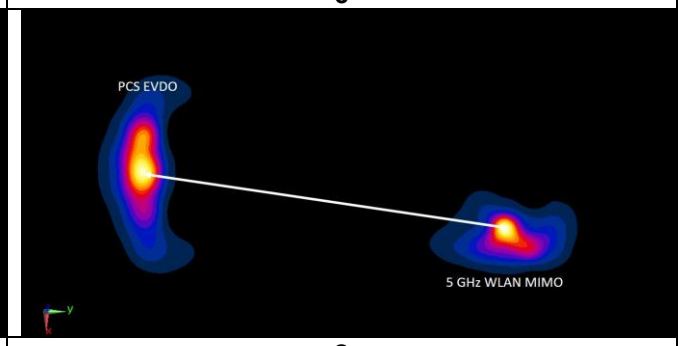

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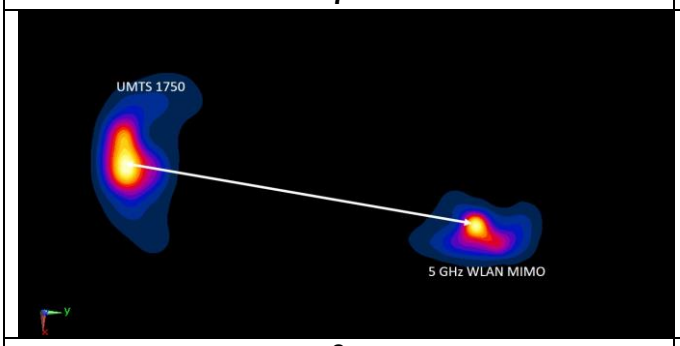

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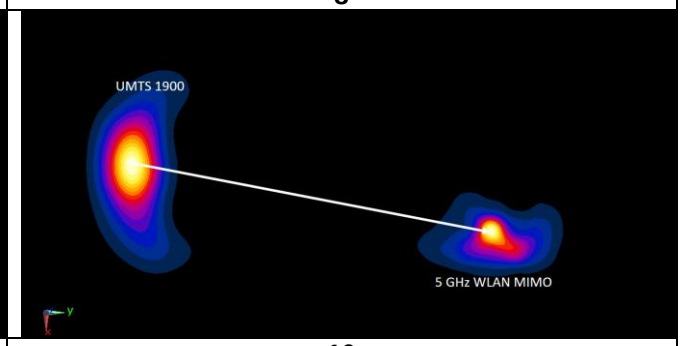

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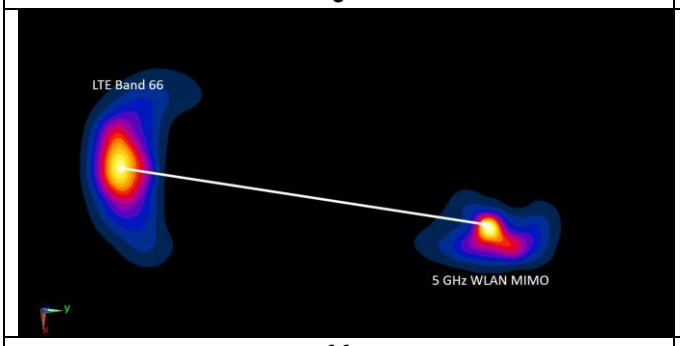

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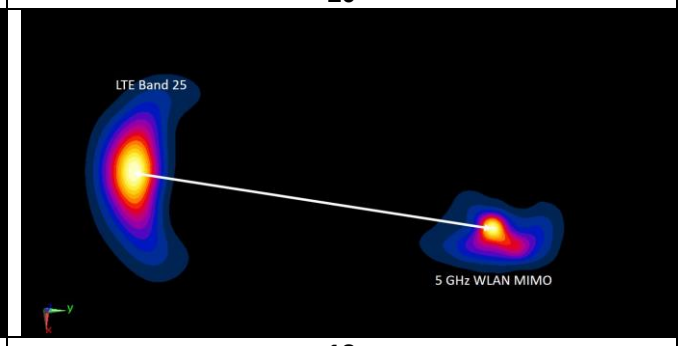

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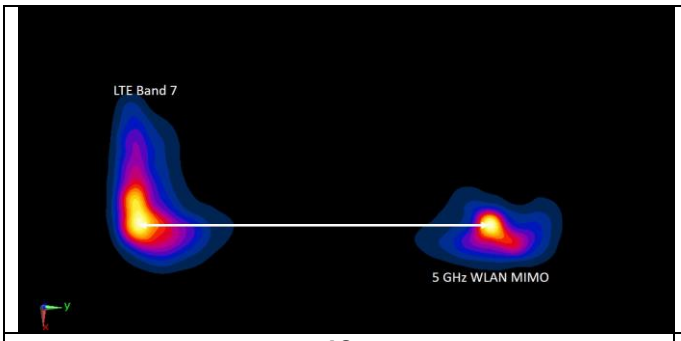

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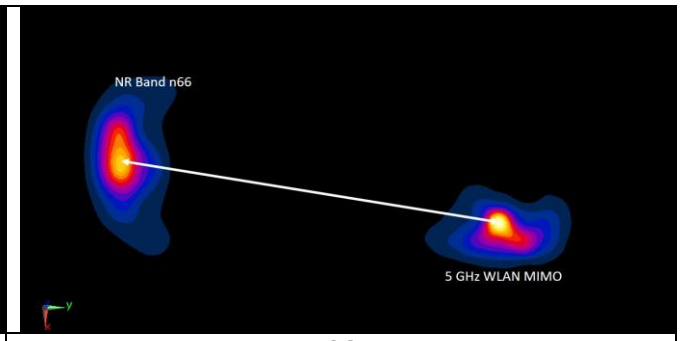

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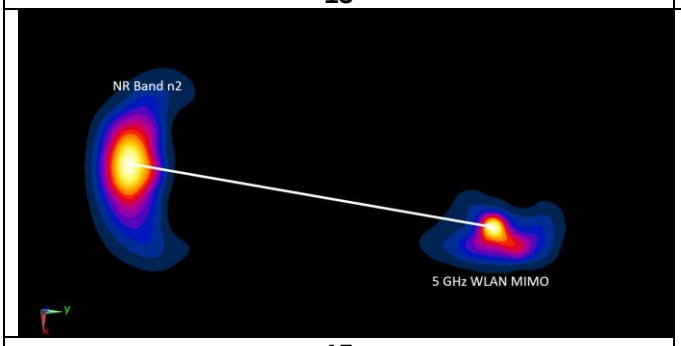

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12.8 Simultaneous Transmission Conclusion

The above numerical summed SAR results and SPLSR analysis are sufficient to determine that simultaneous transmission cases will not exceed the SAR limit and therefore no measured volumetric simultaneous SAR summation is required per FCC KDB Publication 447498 D01v06 and IEEE 1528- 2013 Section 6.3.4.1.2.

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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
Head SAR Measurement Variability Results

HEAD VARIABILITY RESULTS														
Band	FREQUENCY		Mode	Service	Side	Test Position	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)	
3700	3690.00	56640	LTE Band 48, ULCA, 20 MHz Bandwidth	QPSK, 50 RB, 0 RB Offset	Right	Tilt	0.942	0.936	1.01	N/A	N/A	N/A	N/A
	3670.20	56442		QPSK, 50 RB, 50 RB Offset									
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 13-2
Body SAR Measurement Variability Results

BODY VARIABILITY RESULTS														
Band	FREQUENCY		Mode	Service	Side	Spacing	Measured SAR (1g)	1st Repeated SAR (1g)	Ratio	2nd Repeated SAR (1g)	Ratio	3rd Repeated SAR (1g)	Ratio
	MHz	Ch.					(W/kg)	(W/kg)		(W/kg)		(W/kg)	
1900	1907.60	9538	UMTS 1900	RMC	bottom	10 mm	0.850	0.784	1.08	N/A	N/A	N/A	N/A
1750	1770.00	132572	LTE Band 66, ULCA CA_66C, 20 MHz Bandwidth	QPSK, 50 RB, 0 RB Offset	bottom	10 mm	0.959	0.951	1.01	N/A	N/A	N/A	N/A
	1750.20	132374		QPSK, 50 RB, 50 RB Offset									
2300	2310.00	27710	LTE Band 30, 10 MHz Bandwidth	QPSK, 25 RB, 12 RB Offset	bottom	10 mm	0.869	0.842	1.03	N/A	N/A	N/A	N/A
3500	3560.00	55340	LTE Band 48, ULCA, 20 MHz Bandwidth	QPSK, 1 RB, 99 RB Offset	top	10 mm	0.901	0.898	1.00	N/A	N/A	N/A	N/A
	3579.80	55538		QPSK, 1 RB, 0 RB Offset									
2600	2680.00	41490	LTE Band 41, ULCA, 20 MHz Bandwidth	QPSK, 50 RB, 0 RB Offset	bottom	10 mm	0.915	0.912	1.00	N/A	N/A	N/A	N/A
	2660.20	41292		QPSK, 50 RB, 50 RB Offset									
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population					Body 1.6 W/kg (mW/g) averaged over 1 gram								

Table 13-3
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)	
1900	1880.00	9400	UMTS 1900	RMC	bottom	0 mm	3.040	3.040	1.00	N/A	N/A	N/A	N/A
1750	1770.00	132572	LTE Band 66, ULCA CA_66C, 20 MHz Bandwidth	QPSK, 100 RB, 0 RB Offset	bottom	0 mm	3.120	3.020	1.03	N/A	N/A	N/A	N/A
	1750.20	132374		QPSK, 100 RB, 0 RB Offset									
2600	2636.50	41055	LTE Band 41, ULCA, 20 MHz Bandwidth	QPSK, 50 RB, 0 RB Offset	bottom	0 mm	2.190	2.060	1.06	N/A	N/A	N/A	N/A
	2616.70	40857		QPSK, 50 RB, 50 RB Offset									
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
CDMA Supplemental Head SAR Data

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)	0.165	Measured 1g SAR (W/kg)	0.197	Measured 1g SAR (W/kg)	0.169
Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)	
Auto-tune (State 112)	0.239	Auto-tune (State 66)	0.222	Auto-tune (State 112)	0.202
Default (State 0)	0.229	Default (State 0)	0.207	Default (State 0)	0.203
State 33	0.089	State 52	0.198	State 8	0.167
State 80	0.189	State 66	0.219	State 24	0.057
State 86	0.065	State 75	0.017	State 43	0.189
State 108	0.214	State 99	0.050	State 72	0.158
State 112	0.233	State 111	0.174	State 88	0.141
State 119	0.181	State 116	0.198	State 112	0.202

Table 14-2
UMTS 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)	0.217	Measured 1g SAR (W/kg)	0.087	Measured 1g SAR (W/kg)	0.127
Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)	
Auto-tune (State 66)	0.225	Auto-tune (State 112)	0.134	Auto-tune (State 112)	0.165
Default (State 0)	0.210	Default (State 0)	0.132	Default (State 0)	0.164
State 2	0.165	State 4	0.129	State 41	0.153
State 9	0.033	State 18	0.105	State 69	0.148
State 66	0.223	State 40	0.126	State 95	0.143
State 83	0.176	State 63	0.028	State 109	0.143
State 103	0.005	State 82	0.128	State 112	0.163
State 119	0.174	State 112	0.131	State 115	0.147

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Table 14-3
LTE Supplemental Head SAR Data

Supplemental Head SAR Data							
LTE B71		LTE B12		LTE B13		LTE B14	
QPSK, 20 MHz, 1 RB, 50 RB Offset		QPSK, 10 MHz, 1 RB, 49 RB Offset		QPSK, 10 MHz, 1 RB, 0 RB Offset		QPSK, 10 MHz, 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)	0.146	Measured 1g SAR (W/kg)	0.155	Measured 1g SAR (W/kg)	0.170	Measured 1g SAR (W/kg)	0.195
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)	0.167	Auto-tune (State 5)	0.204	Auto-tune (State 0)	0.208	Auto-tune (State 112)	0.245
Default (State 0)	0.165	Default (State 0)	0.168	Default (State 0)	0.213	Default (State 0)	0.250
State 0	0.165	State 5	0.205	State 0	0.213	State 12	0.039
State 11	0.057	State 35	0.103	State 32	0.093	State 15	0.234
State 14	0.138	State 37	0.050	State 43	0.097	State 21	0.139
State 28	0.151	State 54	0.186	State 48	0.025	State 44	0.140
State 57	0.110	State 84	0.108	State 77	0.005	State 66	0.130
State 70	0.043	State 101	0.050	State 93	0.112	State 106	0.249
State 97	0.036	State 118	0.048	State 113	0.198	State 112	0.253

Supplemental Head SAR Data							
LTE B5		LTE B26		LTE B66/4		LTE B25/2	
QPSK, 10 MHz, 1 RB, 49 RB Offset		QPSK, 15 MHz Bandwidth, 1 RB, 0 RB Offset		QPSK, 20 MHz, 1 RB, 50 RB Offset		QPSK, 20 MHz, 1 RB, 50 RB Offset	
Test Position	Right Cheek	Test Position	Right Cheek	Test Position	Left Cheek	Test Position	Left Cheek
Frequency (MHz)	836.5	Frequency (MHz)	831.5	Frequency (MHz)	1720.0	Frequency (MHz)	1860.0
Channel	20525	Channel	26865	Channel	132072	Channel	26140
Measured 1g SAR (W/kg)	0.174	Measured 1g SAR (W/kg)	0.150	Measured 1g SAR (W/kg)	0.077	Measured 1g SAR (W/kg)	0.111
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)	0.197	Auto-tune (State 112)	0.207	Auto-tune (State 0)	0.093	Auto-tune (State 112)	0.158
Default (State 0)	0.194	Default (State 0)	0.203	Default (State 0)	0.092	Default (State 0)	0.164
State 0	0.194	State 19	0.112	State 0	0.092	State 4	0.157
State 5	0.135	State 30	0.156	State 7	0.079	State 11	0.086
State 10	0.028	State 38	0.013	State 16	0.065	State 50	0.092
State 23	0.025	State 62	0.031	State 34	0.062	State 71	0.133
State 39	0.158	State 82	0.145	State 37	0.041	State 100	0.084
State 59	0.065	State 94	0.144	State 49	0.068	State 107	0.153
State 66	0.188	State 112	0.202	State 109	0.093	State 112	0.162

Table 14-4
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, 50 RB, 28 RB Offset		DFT-s-OFDM QPSK, 20 MHz, 50 RB, 28 RB Offset		DFT-s-OFDM QPSK, 20 MHz, 1 RB, 53 RB Offset		DFT-s-OFDM QPSK, 20 MHz, 1 RB, 1 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)	0.097	Measured 1g SAR (W/kg)	0.138	Measured 1g SAR (W/kg)	0.138	Measured 1g SAR (W/kg)	0.127
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)	0.126	Auto-tune (State 0)	0.178	Auto-tune (State 0)	0.193	Auto-tune (State 112)	0.176
Default (State 0)	0.126	Default (State 0)	0.178	Default (State 0)	0.193	Default (State 0)	0.182
State 0	0.126	State 0	0.178	State 0	0.193	State 1	0.181
State 8	0.086	State 21	0.046	State 7	0.168	State 9	0.128
State 14	0.103	State 62	0.018	State 27	0.167	State 25	0.031
State 56	0.087	State 66	0.156	State 45	0.179	State 47	0.164
State 70	0.030	State 81	0.149	State 54	0.117	State 65	0.163
State 87	0.025	State 92	0.156	State 66	0.181	State 79	0.174
State 104	0.126	State 108	0.165	State 78	0.190	State 103	0.043
State 114	0.121	State 116	0.166	State 87	0.153	State 112	0.176

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Table 14-5
CDMA Supplemental Body SAR Data

Supplemental Body SAR Data					
CDMA BC10		CDMA BC0		CDMA BC1	
EVDO Rev.0		EVDO Rev.0		EVDO Rev.0	
Test Position	Back Side	Test Position	Back Side	Test Position	Bottom Edge
Spacing	10 mm	Spacing	10 mm	Spacing	10 mm
Frequency (MHz)	820.10	Frequency (MHz)	848.31	Frequency (MHz)	1908.75
Channel	564	Channel	777	Channel	1175
Measured 1g SAR (W/kg)	0.538	Measured 1g SAR (W/kg)	0.565	Measured 1g SAR (W/kg)	0.719
Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)	
Auto-tune (State 112)	0.859	Auto-tune (State 66)	0.885	Auto-tune (State 112)	1.196
Default (State 0)	0.875	Default (State 0)	0.793	Default (State 0)	1.199
State 23	0.189	State 33	0.298	State 11	0.844
State 29	0.738	State 66	0.884	State 36	0.675
State 42	0.612	State 67	0.884	State 68	1.087
State 58	0.482	State 72	0.326	State 100	0.700
State 102	0.088	State 79	0.872	State 105	0.969
State 112	0.873	State 110	0.617	State 112	1.198

Table 14-6
UMTS Band 5 Supplemental Body SAR Data

Supplemental Body SAR Data	
UMTS B5	
RMC	
Test Position	Back Side
Spacing	10 mm
Frequency (MHz)	836.6
Channel	4183
Measured 1g SAR (W/kg)	0.570
Average Value of Time Sweep (W/kg)	
Auto-tune (State 112)	0.903
Default (State 0)	0.910
State 1	0.800
State 6	0.509
State 17	0.650
State 44	0.718
State 112	0.911
State 117	0.719

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Table 14-7
LTE Supplemental Body SAR Data

Supplemental Body SAR Data							
LTE B71		LTE B12		LTE B13		LTE B14	
QPSK, 20 MHz Bandwidth, 1 RB, 50 RB Offset		QPSK, 10 MHz Bandwidth, 1 RB, 49 RB Offset		QPSK, 10 MHz Bandwidth, 1 RB, 0 RB Offset		QPSK, 10 MHz Bandwidth, 1 RB, 0 RB Offset	
Test Position	Back Side	Test Position	Back Side	Test Position	Back Side	Test Position	Back Side
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)	0.291	Measured 1g SAR (W/kg)	0.341	Measured 1g SAR (W/kg)	0.427	Measured 1g SAR (W/kg)	0.447
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)	0.524	Auto-tune (State 5)	0.571	Auto-tune (State 0)	0.638	Auto-tune (State 13)	0.791
Default (State 0)	0.524	Default (State 0)	0.454	Default (State 0)	0.630	Default (State 0)	0.792
State 0	0.524	State 5	0.565	State 0	0.630	State 2	0.825
State 22	0.172	State 13	0.485	State 6	0.022	State 13	0.805
State 25	0.072	State 30	0.568	State 50	0.022	State 27	0.815
State 61	0.159	State 47	0.272	State 55	0.373	State 51	0.068
State 90	0.037	State 65	0.139	State 88	0.038	State 69	0.422
State 98	0.098	State 109	0.139	State 106	0.616	State 101	0.169

Supplemental Body SAR Data					
LTE B5		LTE B26		LTE B66/4	
QPSK, 10 MHz Bandwidth, 1 RB, 49 RB Offset		QPSK, 15 MHz Bandwidth, 1 RB, 0 RB Offset		QPSK, 20 MHz Bandwidth, 50 RB, 25 RB Offset	
Test Position	Back Side	Test Position	Back Side	Test Position	Bottom Edge
Spacing	10 mm	Spacing	10 mm	Spacing	10 mm
Frequency (MHz)	836.5	Frequency (MHz)	831.5	Frequency (MHz)	1770.0
Channel	20525	Channel	26865	Channel	132572
Measured 1g SAR (W/kg)	0.593	Measured 1g SAR (W/kg)	0.567	Measured 1g SAR (W/kg)	0.848
Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)	
Auto-tune (State 112)	0.930	Auto-tune (State 26)	0.943	Auto-tune (State 112)	1.175
Default (State 0)	0.897	Default (State 0)	0.919	Default (State 0)	1.171
State 28	0.734	State 18	0.653	State 2	1.150
State 34	0.307	State 26	0.907	State 4	1.144
State 58	0.449	State 36	0.183	State 43	1.045
State 63	0.103	State 44	0.61	State 60	0.573
State 66	0.793	State 53	0.745	State 65	1.16
State 68	0.759	State 75	0.118	State 89	0.896
State 73	0.225	State 95	0.627	State 102	0.457
State 76	0.062	State 111	0.628	State 105	1.068
State 112	0.897	State 117	0.615	State 112	1.169

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Table 14-8
NR Supplemental Body SAR Data

Supplemental Body SAR Data					
NR Band n71		NR Band n5		NR Band n66	
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	
Test Position	Back Side	Test Position	Back Side	Test Position	Back Side
Spacing	10 mm	Spacing	10 mm	Spacing	15 mm
Frequency (MHz)	680.5	Frequency (MHz)	836.5	Frequency (MHz)	1770.0
Channel	136100	Channel	167300	Channel	354000
Measured 1g SAR (W/kg)	0.219	Measured 1g SAR (W/kg)	0.520	Measured 1g SAR (W/kg)	0.755
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)	0.356	Auto-tune (State 112)	0.840	Auto-tune (State 112)	1.107
Default (State 0)	0.356	Default (State 0)	0.836	Default (State 0)	1.091
State 0	0.356	State 12	0.063	State 8	0.909
State 3	0.330	State 15	0.665	State 53	0.772
State 20	0.187	State 24	0.094	State 65	0.993
State 27	0.327	State 29	0.651	State 69	0.962
State 43	0.109	State 38	0.056	State 80	1.01
State 46	0.089	State 66	0.697	State 86	0.869
State 58	0.201	State 112	0.84	State 94	0.956
State 64	0.048	State 116	0.795	State 112	1.107

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Table 14-9
UMTS Band 4/UMTS Band 2/LTE Band 25/2/NR Band n2 Supplemental Body SAR Data

Supplemental Body SAR Data							
UMTS B4		UMTS B2		LTE B25/2		NR Band n2	
RMC		RMC		QPSK, 20 MHz Bandwidth, 1 RB, 50 RB Offset		DFT-s-OFDM QPSK, 20 MHz Bandwidth, 50 RB, 0 RB Offset	
Test Position	Bottom Edge	Test Position	Bottom Edge	Test Position	Bottom Edge	Test Position	Bottom Edge
Spacing	10 mm	Spacing	10 mm	Spacing	10 mm	Spacing	10 mm
Frequency (MHz)	1732.4	Frequency (MHz)	1907.6	Frequency (MHz)	1905.0	Frequency (MHz)	1900.0
Channel	1412	Channel	9538	Channel	26590	Channel	380000
Measured 1g SAR (W/kg)	0.903	Measured 1g SAR (W/kg)	0.850	Measured 1g SAR (W/kg)	0.760	Measured 1g SAR (W/kg)	0.816
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 112)	1.463	Auto-tune (State 0)	1.297	Auto-tune (State 112)	1.228	Auto-tune (State 112)	1.268
Default (State 0)	1.447	Default (State 0)	1.317	Default (State 0)	1.222	Default (State 0)	1.269
State 0	1.447	State 0	1.317	State 0	1.222	State 0	1.269
State 1	1.292	State 1	1.292	State 1	1.204	State 1	1.259
State 2	1.287	State 2	1.287	State 2	1.201	State 2	1.251
State 3	1.278	State 3	1.278	State 3	1.189	State 3	1.246
State 4	1.255	State 4	1.255	State 4	1.175	State 4	1.233
State 5	1.254	State 5	1.254	State 5	1.176	State 5	1.23
State 6	1.211	State 6	1.211	State 6	1.133	State 6	1.187
State 7	1.454	State 7	1.179	State 7	1.102	State 7	1.152
State 8	1.417	State 8	1.118	State 8	1.035	State 8	1.088
State 9	1.328	State 9	1.012	State 9	0.941	State 9	0.982
State 10	1.225	State 10	0.918	State 10	0.85	State 10	0.891
State 11	1.06	State 11	0.786	State 11	0.721	State 11	0.76
State 12	0.797	State 12	0.589	State 12	0.538	State 12	0.577
State 13	1.344	State 13	1.05	State 13	1.002	State 13	1.007
State 14	1.274	State 14	1.015	State 14	0.962	State 14	0.97
State 15	1.257	State 15	1	State 15	0.943	State 15	0.95
State 16	1.242	State 16	0.985	State 16	0.924	State 16	0.935
State 17	1.207	State 17	0.961	State 17	0.899	State 17	0.91
State 18	1.193	State 18	0.959	State 18	0.904	State 18	0.912
State 19	1.104	State 19	0.883	State 19	0.821	State 19	0.844
State 20	1.031	State 20	0.833	State 20	0.771	State 20	0.779
State 21	0.934	State 21	0.747	State 21	0.694	State 21	0.703
State 22	0.792	State 22	0.628	State 22	0.579	State 22	0.592
State 23	0.688	State 23	0.538	State 23	0.494	State 23	0.503
State 24	0.557	State 24	0.425	State 24	0.385	State 24	0.396
State 25	0.396	State 25	0.294	State 25	0.263	State 25	0.272
State 26	1.33	State 26	1.187	State 26	1.103	State 26	1.151
State 27	1.348	State 27	1.144	State 27	1.077	State 27	1.119
State 28	1.35	State 28	1.128	State 28	1.064	State 28	1.108
State 29	1.349	State 29	1.129	State 29	1.052	State 29	1.097
State 30	1.348	State 30	1.103	State 30	1.037	State 30	1.079
State 31	1.345	State 31	1.097	State 31	1.031	State 31	1.074
State 32	1.331	State 32	1.042	State 32	0.976	State 32	1.012
State 33	1.311	State 33	0.996	State 33	0.936	State 33	0.967
State 34	1.263	State 34	0.923	State 34	0.862	State 34	0.894
State 35	1.159	State 35	0.816	State 35	0.752	State 35	0.783
State 36	1.055	State 36	0.723	State 36	0.665	State 36	0.703
State 37	0.892	State 37	0.603	State 37	0.548	State 37	0.582
State 38	0.653	State 38	0.441	State 38	0.398	State 38	0.434
State 39	1.256	State 39	1.142	State 39	1.115	State 39	1.149
State 40	1.289	State 40	1.142	State 40	1.12	State 40	1.161
State 41	1.302	State 41	1.147	State 41	1.122	State 41	1.163
State 42	1.311	State 42	1.153	State 42	1.121	State 42	1.152
State 43	1.328	State 43	1.163	State 43	1.127	State 43	1.152
State 44	1.324	State 44	1.157	State 44	1.123	State 44	1.149
State 45	1.362	State 45	1.157	State 45	1.114	State 45	1.135
State 46	1.38	State 46	1.153	State 46	1.107	State 46	1.126
State 47	1.395	State 47	1.12	State 47	1.072	State 47	1.099
State 48	1.376	State 48	1.045	State 48	0.999	State 48	1.016
State 49	1.323	State 49	0.965	State 49	0.919	State 49	0.927
State 50	1.204	State 50	0.827	State 50	0.797	State 50	0.795
State 51	0.961	State 51	0.622	State 51	0.588	State 51	0.599
State 52	1.169	State 52	0.903	State 52	0.868	State 52	0.862
State 53	1.092	State 53	0.864	State 53	0.81	State 53	0.798
State 54	1.075	State 54	0.845	State 54	0.791	State 54	0.786
State 55	1.058	State 55	0.827	State 55	0.777	State 55	0.769
State 56	1.023	State 56	0.795	State 56	0.746	State 56	0.734
State 57	1.011	State 57	0.791	State 57	0.746	State 57	0.731
State 58	0.923	State 58	0.71	State 58	0.663	State 58	0.651
State 59	0.858	State 59	0.657	State 59	0.611	State 59	0.6
State 60	0.766	State 60	0.579	State 60	0.534	State 60	0.527
State 61	0.641	State 61	0.474	State 61	0.432	State 61	0.427
State 62	0.55	State 62	0.392	State 62	0.359	State 62	0.361
State 63	0.439	State 63	0.311	State 63	0.275	State 63	0.279
State 64	0.308	State 64	0.211	State 64	0.184	State 64	0.187
State 65	1.425	State 65	1.151	State 65	1.098	State 65	1.134
State 66	1.374	State 66	1.181	State 66	1.093	State 66	1.135
State 67	1.364	State 67	1.177	State 67	1.086	State 67	1.124
State 68	1.353	State 68	1.171	State 68	1.08	State 68	1.115
State 69	1.33	State 69	1.154	State 69	1.065	State 69	1.103
State 70	1.312	State 70	1.149	State 70	1.058	State 70	1.095
State 71	1.242	State 71	1.096	State 71	1.01	State 71	1.028
State 72	1.184	State 72	1.049	State 72	0.957	State 72	0.972
State 73	1.096	State 73	0.948	State 73	0.874	State 73	0.878
State 74	0.958	State 74	0.801	State 74	0.738	State 74	0.729
State 75	0.849	State 75	0.676	State 75	0.626	State 75	0.62
State 76	0.706	State 76	0.527	State 76	0.491	State 76	0.477
State 77	0.523	State 77	0.352	State 77	0.329	State 77	0.318
State 78	1.301	State 78	1.194	State 78	1.14	State 78	1.182
State 79	1.328	State 79	1.223	State 79	1.139	State 79	1.18
State 80	1.339	State 80	1.222	State 80	1.148	State 80	1.176
State 81	1.345	State 81	1.218	State 81	1.147	State 81	1.178
State 82	1.359	State 82	1.215	State 82	1.14	State 82	1.179
State 83	1.355	State 83	1.208	State 83	1.137	State 83	1.181
State 84	1.384	State 84	1.202	State 84	1.124	State 84	1.164
State 85	1.395	State 85	1.181	State 85	1.102	State 85	1.149
State 86	1.4	State 86	1.134	State 86	1.064	State 86	1.091
State 87	1.36	State 87	1.051	State 87	0.972	State 87	1.017
State 88	1.303	State 88	0.968	State 88	0.891	State 88	0.934
State 89	1.169	State 89	0.836	State 89	0.775	State 89	0.802
State 90	0.924	State 90	0.637	State 90	0.584	State 90	0.618
State 91	1.402	State 91	1.129	State 91	1.063	State 91	1.105
State 92	1.343	State 92	1.135	State 92	1.05	State 92	1.087
State 93	1.333	State 93	1.128	State 93	1.043	State 93	1.077
State 94	1.319	State 94	1.122	State 94	1.03	State 94	1.073
State 95	1.293	State 95	1.1	State 95	1.013	State 95	1.053
State 96	1.274	State 96	1.099	State 96	1.01	State 96	1.049
State 97	1.2	State 97	1.032	State 97	0.944	State 97	0.986
State 98	1.14	State 98	0.98	State 98	0.889	State 98	0.939
State 99	1.052	State 99	0.888	State 99	0.812	State 99	0.847
State 100	0.916	State 100	0.756	State 100	0.685	State 100	0.715
State 101	0.81	State 101	0.651	State 101	0.588	State 101	0.61
State 102	0.675	State 102	0.514	State 102	0.467	State 102	0.485
State 103	0.501	State 103	0.358	State 103	0.323	State 103	0.332
State 104	1.422	State 104	1.259	State 104	1.198	State 104	1.277
State 105	1.328	State 105	1.024	State 105	0.982	State 105	1.002
State 106	1.312	State 106	1.174	State 106	1.1	State 106	1.169
State 107	1.276	State 107	1.137	State 107	1.091	State 107	1.167
State 108	1.189	State 108	0.899	State 108	0.856	State 108	0.876
State 109	1.447	State 109	1.138	State 109	1.081	State 109	1.145
State 110	1.329	State 110	1.194	State 110	1.137	State 110	1.211
State 111	1.427	State 111	1.115	State 111	1.05	State 111	1.109
State 112	1.444	State 112	1.276	State 112	1.185	State 112	1.28
State 113	1.353	State 113	1.028	State 113	0.977	State 113	1.005
State 114	1.339	State 114	1.171	State 114	1.086	State 114	1.177
State 115	1.276	State 115	1.144	State 115	1.08	State 115	1.17
State 116	1.187	State 116	0.904	State 116	0.853	State 116	0.879
State 117	1.442	State 117	1.145	State 117	1.076	State 117	1.144
State 118	1.328	State 118	1.19	State 118	1.132	State 118	1.221
State 119	1.42	State 119	1.112	State 119	1.05	State 119	1.114

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14.2 LTE Band 41 Power Class 2 and Power Class 3 Linearity

This device supports Power Class 2 and Power Class 3 operations for LTE Band 41. The highest available duty cycle for Power Class 2 operations is 43.3 % using UL-DL configuration 1. Per May 2017 TCB Workshop Notes based on the device behavior, all SAR tests were performed using Power Class 3. SAR with Power Class 2 at the highest power and available duty factor was additionally performed for the Power Class 3 configuration with the highest SAR for each exposure condition. The linearity between the Power Class 2 and Power Class 3 SAR results and the respective frame averaged powers was calculated to determine that the results were linear. When ULCA is active, the linearity between the Power Class 2 with ULCA active and Power Class 3 with ULCA active SAR results and the respective frame averaged powers was calculated to determine that the results were linear. Per May 2017 TCB Workshop, no additional SAR measurements were required since the linearity between power classes was < 10% and all reported SAR values were < 1.4 W/kg for 1g and < 3.5 W/kg for 10g.

LTE Band 41 SAR testing with power class 2 at the highest power and available duty factor was additionally performed for the power class 3 configuration with the highest SAR for each exposure condition.

Table 14-10
LTE Band 41 Head Linearity Data

	LTE Band 41 PC3	LTE Band 41 PC2
Maximum Allowed Output Power (dBm)	25.00	28.00
Measured Output Power (dBm)	24.10	26.81
Measured SAR (W/kg)	0.063	0.082
Measured Power (mW)	257.04	479.73
Duty Cycle	63.3%	43.3%
Frame Averaged Output Power (mW)	162.71	207.72
% deviation from expected linearity		3.27%

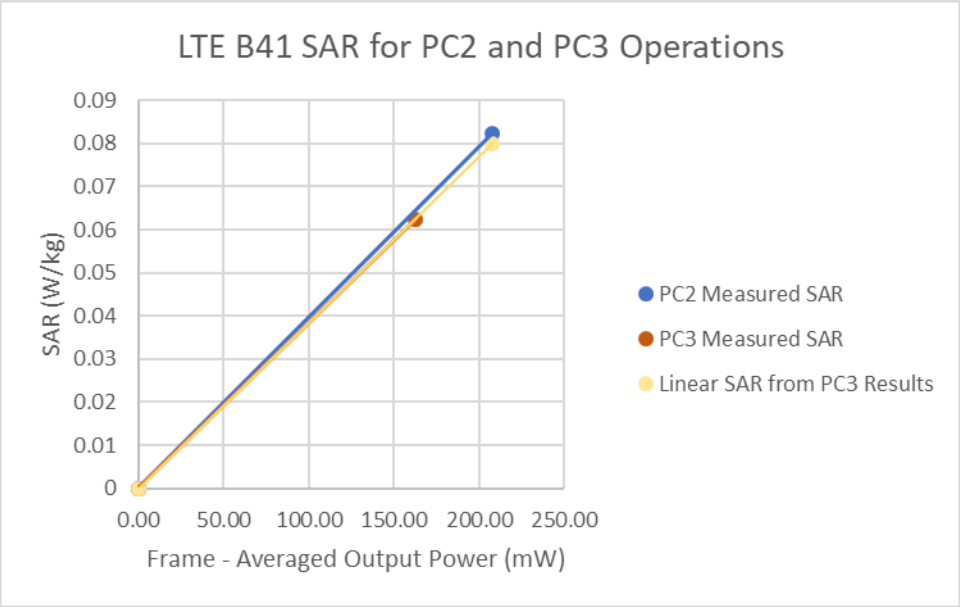

Figure 14-1
LTE Band 41 Head Linearity

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Table 14-11
LTE Band 41 ULCA Head Linearity Data

	LTE Band 41 PC3	LTE Band 41 PC2
Maximum Allowed Output Power (dBm)	25.00	28.00
Measured Output Power (dBm)	24.94	27.99
Measured SAR (W/kg)	0.076	0.104
Measured Power (mW)	311.89	629.51
Duty Cycle	63.3%	43.3%
Frame Averaged Output Power (mW)	197.43	272.58
% deviation from expected linearity		-1.40%

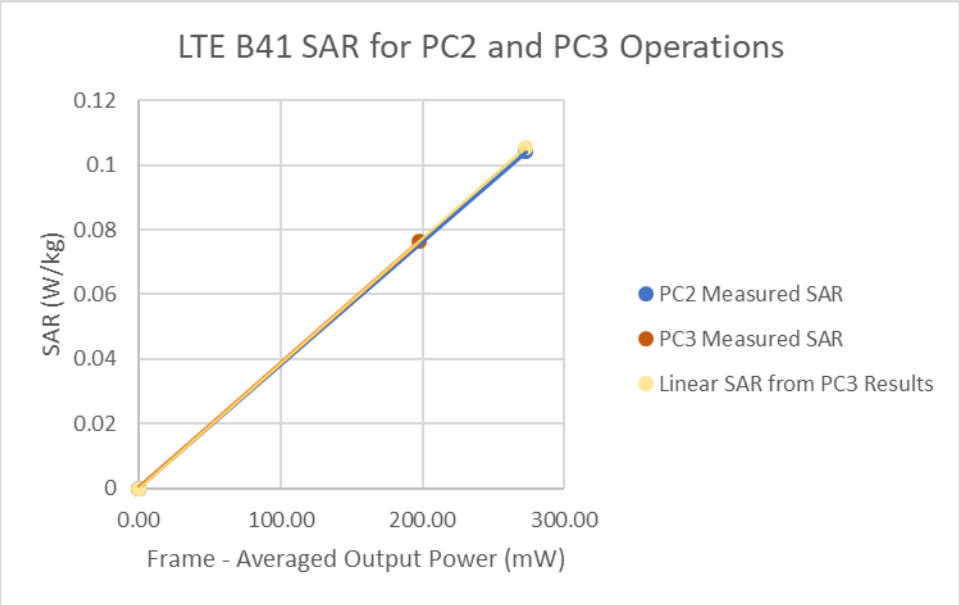

Figure 14-2
LTE Band 41 ULCA Head Linearity

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Table 14-12
LTE Band 41 Body-Worn Linearity Data

	LTE Band 41 PC3	LTE Band 41 PC2
Maximum Allowed Output Power (dBm)	25.00	28.00
Measured Output Power (dBm)	24.48	27.23
Measured SAR (W/kg)	0.285	0.334
Measured Power (mW)	280.54	528.45
Duty Cycle	63.3%	43.3%
Frame Averaged Output Power (mW)	177.58	228.82
% deviation from expected linearity		-9.05%

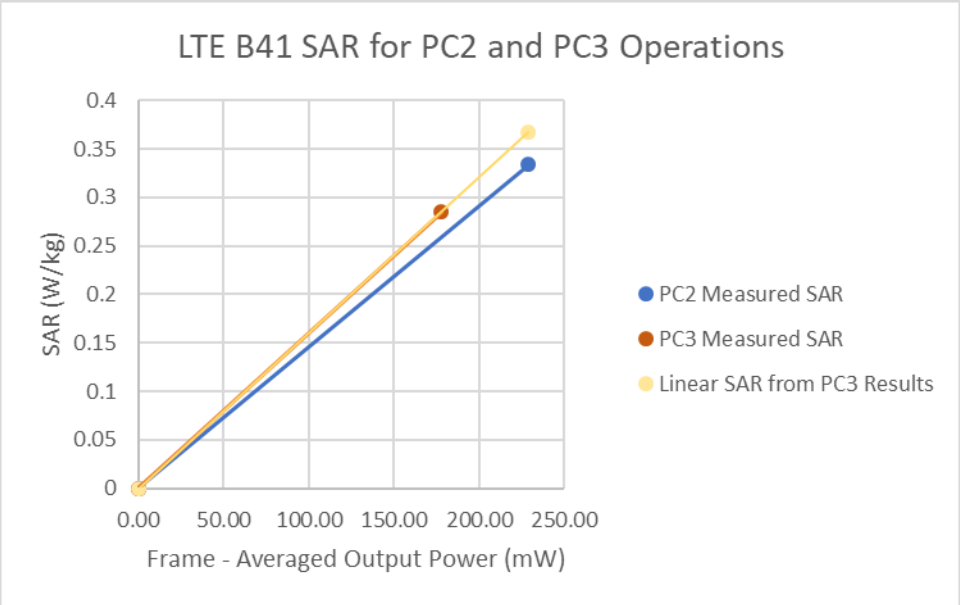

Figure 14-3
LTE Band 41 Body-Worn Linearity

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Table 14-13
LTE Band 41 ULCA Body-Worn Linearity Data

	LTE Band 41 PC3	LTE Band 41 PC2
Maximum Allowed Output Power (dBm)	25.00	28.00
Measured Output Power (dBm)	24.94	27.99
Measured SAR (W/kg)	0.313	0.420
Measured Power (mW)	311.89	629.51
Duty Cycle	63.3%	43.3%
Frame Averaged Output Power (mW)	197.43	272.58
% deviation from expected linearity		-2.81%

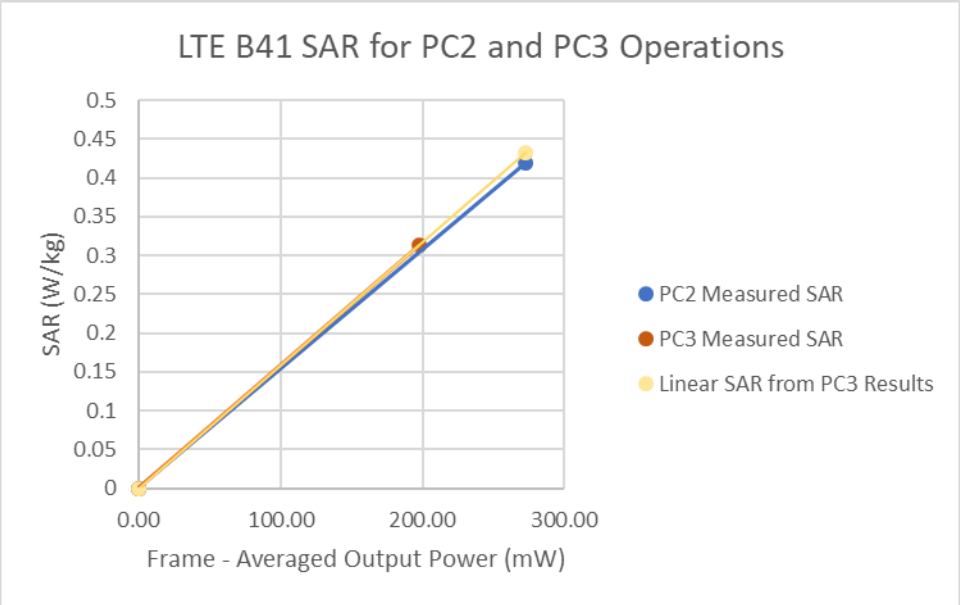

Figure 14-4
LTE Band 41 ULCA Body-Worn Linearity

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Table 14-14
LTE Band 41 Hotspot Linearity Data

	LTE Band 41 PC3	LTE Band 41 PC2
Maximum Allowed Output Power (dBm)	22.80	24.40
Measured Output Power (dBm)	21.99	23.34
Measured SAR (W/kg)	0.826	0.718
Measured Power (mW)	158.12	215.77
Duty Cycle	63.3%	43.3%
Frame Averaged Output Power (mW)	100.09	93.43
% deviation from expected linearity		-6.88%

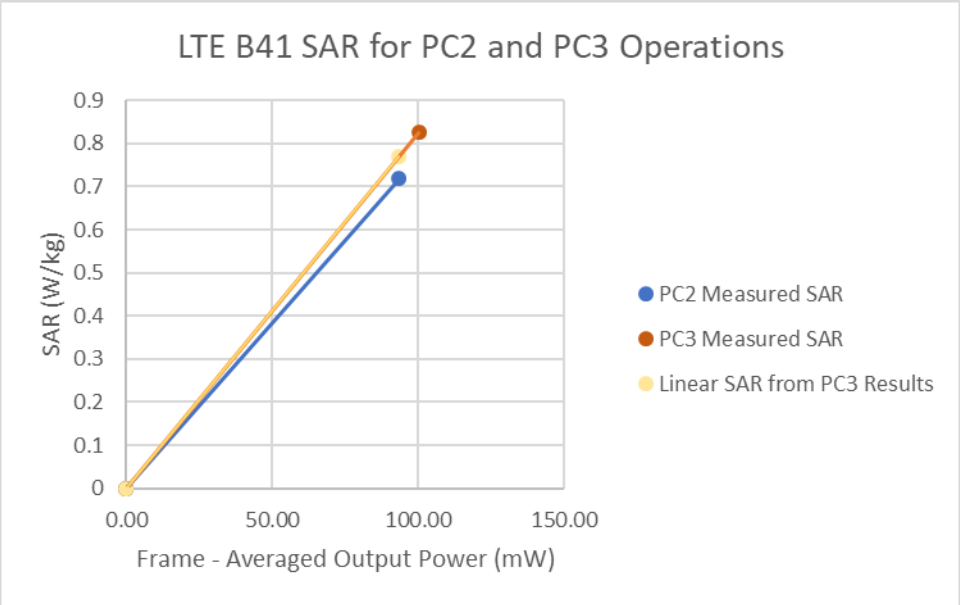

Figure 14-5
LTE Band 41 Hotspot Linearity

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Table 14-15
LTE Band 41 ULCA Hotspot Linearity Data

	LTE Band 41 PC3	LTE Band 41 PC2
Maximum Allowed Output Power (dBm)	22.80	24.40
Measured Output Power (dBm)	22.50	24.00
Measured SAR (W/kg)	0.915	0.84
Measured Power (mW)	177.83	251.19
Duty Cycle	63.3%	43.3%
Frame Averaged Output Power (mW)	112.57	108.76
% deviation from expected linearity		-4.99%

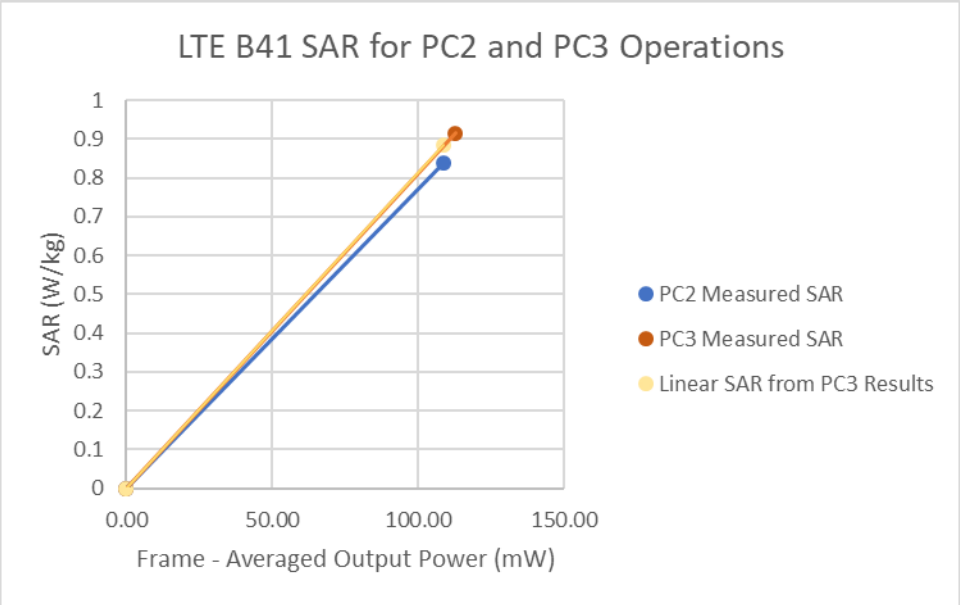

Figure 14-6
LTE Band 41 ULCA Hotspot Linearity

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Table 14-16
LTE Band 41 Phablet Linearity Data

	LTE Band 41 PC3	LTE Band 41 PC2
Maximum Allowed Output Power (dBm)	22.80	24.40
Measured Output Power (dBm)	21.94	23.20
Measured SAR (W/kg)	1.65	1.65
Measured Power (mW)	156.31	208.93
Duty Cycle	63.3%	43.3%
Frame Averaged Output Power (mW)	98.95	90.47
% deviation from expected linearity		9.37%

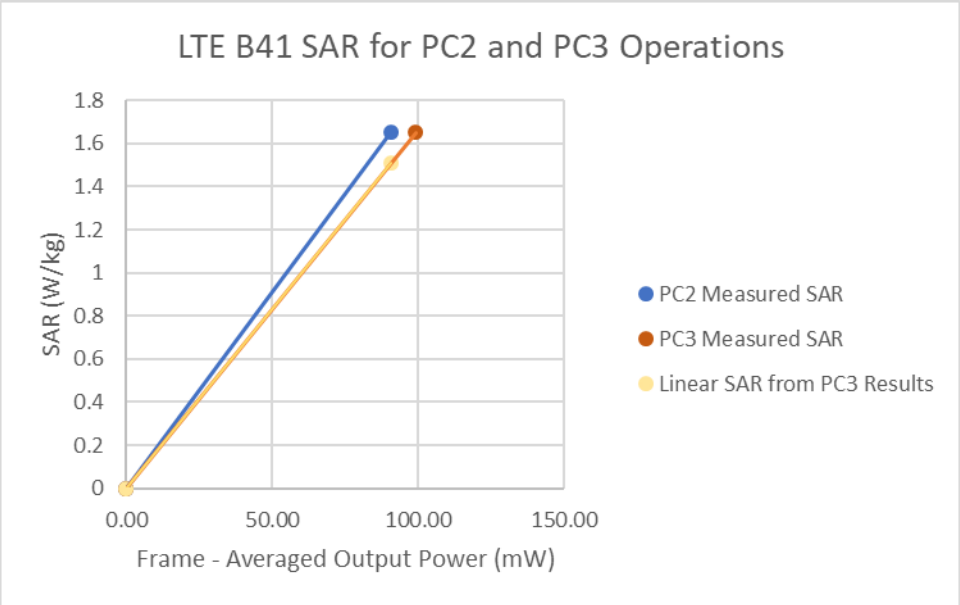

Figure 14-7
LTE Band 41 Phablet Linearity

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Table 14-17
LTE Band 41 ULCA Phablet Linearity Data

	LTE Band 41 PC3	LTE Band 41 PC2
Maximum Allowed Output Power (dBm)	22.80	24.40
Measured Output Power (dBm)	22.60	23.81
Measured SAR (W/kg)	2.19	1.90
Measured Power (mW)	181.97	240.44
Duty Cycle	63.3%	43.3%
Frame Averaged Output Power (mW)	115.19	104.11
% deviation from expected linearity		-4.01%

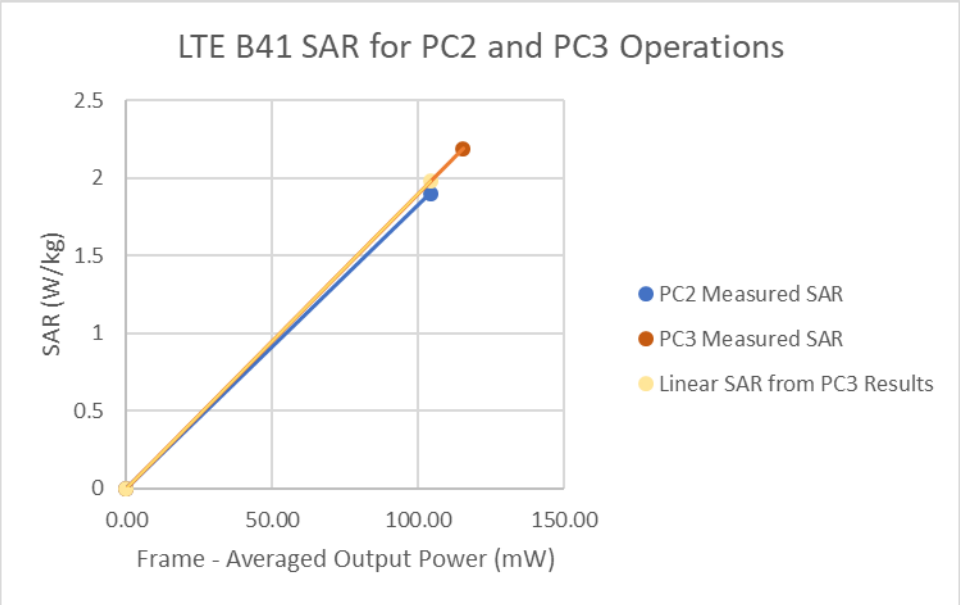

Figure 14-8
LTE Band 41 ULCA Phablet Linearity

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15 EQUIPMENT LIST

Manufacturer	Model	Description	Cal Date	Cal Interval	Cal Due	Serial Number
Agilent	8753ES	Network Analyzer	3/19/2019	Annual	3/19/2020	MY40001472
Agilent	8753ES	S-Parameter Network Analyzer	8/26/2019	Annual	8/26/2020	MY40000670
Agilent	8753ES	S-Parameter Vector Network Analyzer	9/19/2019	Annual	9/19/2020	MY40003841
Agilent	E4432B	ESG-D Series Signal Generator	7/14/2019	Annual	7/14/2020	US40053896
Agilent	E4438C	ESG Vector Signal Generator	5/22/2019	Annual	5/22/2020	MY45091346
Agilent	E5515C	Wireless Communications Test Set	2/28/2018	Biennial	2/28/2020	GB41450275
Agilent	N4010A	Wireless Connectivity Test Set	N/A	N/A	N/A	GB46170464
Agilent	N5182A	MXG Vector Signal Generator	6/27/2019	Annual	6/27/2020	US46240505
Agilent	N9020A	MXA Signal Analyzer	4/20/2019	Annual	4/20/2020	US46470561
Agilent	N9030A	PXA Signal Analyzer (44GHz)	6/12/2019	Annual	6/12/2020	MY52350166
Amplifier Research	15S1G6	Amplifier	CBT	N/A	CBT	343972
Amplifier Research	15S1G6	Amplifier	CBT	N/A	CBT	343971
Anritsu	ML2495A	Power Meter	12/17/2019	Annual	12/17/2020	941001
Anritsu	MA24106A	USB Power Sensor	8/5/2019	Annual	8/5/2020	1827527
Anritsu	MA24106A	USB Power Sensor	1/31/2019	Annual	1/31/2020	1244524
Anritsu	MA2411B	Pulse Power Sensor	3/6/2019	Annual	3/6/2020	1339018
Anritsu	MA2411B	Pulse Power Sensor	6/11/2019	Annual	6/11/2020	1207364
Anritsu	MT8820C	Radio Communication Analyzer	3/29/2019	Annual	3/29/2020	6201300731
Anritsu	MT8821C	Radio Communication Analyzer	1/25/2019	Annual	1/25/2020	6261895213
Anritsu	MT8821C	Radio Communication Analyzer	3/6/2019	Annual	3/6/2020	6201381794
Anritsu	MT8821C	Radio Communication Analyzer	5/13/2019	Annual	5/13/2020	6201524637
Anritsu	MT8821C	Radio Communication Analyzer	8/16/2019	Annual	8/16/2020	6201144418
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
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
Control Company	4352	Ultra Long Stem Thermometer	2/28/2018	Biennial	2/28/2020	170330160
Control Company	4352	Ultra Long Stem Thermometer	2/28/2018	Biennial	2/28/2020	170330158
Keysight	772D	Dual Directional Coupler	CBT	N/A	CBT	MY52180215
Keysight Technologies	85033E	Standard Mechanical Calibration Kit (DC to 9GHz, 3.5mm)	7/2/2019	Annual	7/2/2020	MY53401181
Keysight Technologies	AT/N6705B	DC Power Supply	CBT	N/A	CBT	MY53001315
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	NLP-1200+	Low Pass Filter DC to 1000 MHz	CBT	N/A	CBT	N/A
Mini-Circuits	NLP-2950+	Low Pass Filter DC to 2700 MHz	CBT	N/A	CBT	N/A
Mitutoyo	CD-6"CSX	Digital Caliper	4/18/2018	Biennial	4/18/2020	13264165
Narda	4014C-6	4 - 8 GHz SMA 6 dB Directional Coupler	CBT	N/A	CBT	N/A
Narda	4772-3	Attenuator (3dB)	CBT	N/A	CBT	9406
Pasternack	NC-100	Torque Wrench	5/23/2018	Biennial	5/23/2020	N/A
Pasternack	PE2208-6	Bidirectional Coupler	CBT	N/A	CBT	N/A
Pasternack	PE2209-10	Bidirectional Coupler	CBT	N/A	CBT	N/A
Rohde & Schwarz	CMW500	Radio Communication Tester	4/15/2019	Annual	4/15/2020	167283
Rohde & Schwarz	CMW500	Radio Communication Tester	4/15/2019	Annual	4/15/2020	167284
Rohde & Schwarz	CMW500	Radio Communication Tester	4/16/2019	Annual	4/16/2020	167286
Rohde & Schwarz	CMW500	Radio Communication Tester	4/17/2019	Annual	4/17/2020	167285
Seekonk	NC-100	Torque Wrench	4/18/2018	Biennial	4/18/2020	N/A
Seekonk	NC-100	Torque Wrench (8" lb)	5/10/2018	Biennial	5/10/2020	21053
SPEAG	D1750V2	1750 MHz SAR Dipole	5/15/2019	Annual	5/15/2020	1148
SPEAG	D1750V2	1750 MHz SAR Dipole	10/22/2018	Biennial	10/22/2020	1150
SPEAG	D1765V2	1765 MHz SAR Dipole	5/23/2018	Biennial	5/23/2020	1008
SPEAG	D1900V2	1900 MHz SAR Dipole	10/23/2018	Biennial	10/23/2020	5d149
SPEAG	D1900V2	1900 MHz SAR Dipole	2/21/2019	Annual	2/21/2020	5d148
SPEAG	D1900V2	1900 MHz SAR Dipole	10/23/2018	Biennial	10/23/2020	5d080
SPEAG	D2300V2	2300 MHz SAR Dipole	8/13/2018	Biennial	8/13/2020	1073
SPEAG	D2450V2	2450 MHz SAR Dipole	9/11/2017	Triennial	9/11/2020	797
SPEAG	D2450V2	2450 MHz SAR Dipole	8/14/2019	Annual	8/14/2020	719
SPEAG	D2450V2	2450 MHz SAR Dipole	8/16/2018	Biennial	8/16/2020	981
SPEAG	D2600V2	2600 MHz SAR Dipole	4/11/2018	Biennial	4/11/2020	1004
SPEAG	D2600V2	2600 MHz SAR Dipole	6/14/2019	Annual	6/14/2020	1064
SPEAG	D3500V2	3500 MHz SAR Dipole	1/11/2018	Triennial	1/11/2021	1059
SPEAG	D3700V2	3700 MHz SAR Dipole	1/11/2018	Triennial	1/11/2021	1018
SPEAG	D5GHzV2	5 GHz SAR Dipole	9/17/2019	Annual	9/17/2020	1191
SPEAG	D750V3	750 MHz Dipole	3/18/2019	Annual	3/18/2020	1054
SPEAG	D750V3	750 MHz SAR Dipole	10/19/2018	Biennial	10/19/2020	1161
SPEAG	D835V2	835 MHz SAR Dipole	10/19/2018	Biennial	10/19/2020	4d133
SPEAG	D835V2	835 MHz SAR Dipole	3/13/2019	Annual	3/13/2020	4d047
SPEAG	DAE4	Dasy Data Acquisition Electronics	9/17/2019	Annual	9/17/2020	1333
SPEAG	DAE4	Dasy Data Acquisition Electronics	7/11/2019	Annual	7/11/2020	1322
SPEAG	DAE4	Dasy Data Acquisition Electronics	2/14/2019	Annual	2/14/2020	1272
SPEAG	DAE4	Dasy Data Acquisition Electronics	8/14/2019	Annual	8/14/2020	1450
SPEAG	DAE4	Dasy Data Acquisition Electronics	5/8/2019	Annual	5/8/2020	728
SPEAG	DAE4	Dasy Data Acquisition Electronics	2/13/2019	Annual	2/13/2020	665
SPEAG	DAE4	Dasy Data Acquisition Electronics	4/18/2019	Annual	4/18/2020	1407
SPEAG	DAE4	Dasy Data Acquisition Electronics	1/15/2019	Annual	1/15/2020	1530
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	Data Acquisition Electronics	12/5/2019	Annual	12/5/2020	1533
SPEAG	DAK-3.5	Dielectric Assessment Kit	10/22/2019	Annual	10/22/2020	1091
SPEAG	EX3DV4	SAR Probe	9/19/2019	Annual	9/19/2020	7551
SPEAG	EX3DV4	SAR Probe	7/16/2019	Annual	7/16/2020	7410
SPEAG	EX3DV4	SAR Probe	2/19/2019	Annual	2/19/2020	3914
SPEAG	EX3DV4	SAR Probe	8/16/2019	Annual	8/16/2020	7308
SPEAG	EX3DV4	SAR Probe	5/16/2019	Annual	5/16/2020	7406
SPEAG	EX3DV4	SAR Probe	2/19/2019	Annual	2/19/2020	7417
SPEAG	EX3DV4	SAR Probe	4/24/2019	Annual	4/24/2020	7357
SPEAG	EX3DV4	SAR Probe	1/24/2019	Annual	1/24/2020	7488
SPEAG	EX3DV4	SAR Probe	12/11/2019	Annual	12/11/2020	7571
SPEAG	EX3DV4	SAR Probe	7/15/2019	Annual	7/15/2020	7547
SPEAG	EX3DV4	SAR Probe	6/19/2019	Annual	6/19/2020	7409

Note: 1) 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.

2) Each equipment item was used solely within its respective calibration period.

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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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[2] ANSI/IEEE C95.1-2005, American National Standard safety levels with respect to human exposure to radio frequency electromagnetic fields, 3kHz to 300GHz, New York: IEEE, 2006.

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[6] NCRP, National Council on Radiation Protection and Measurements, Biological Effects and Exposure Criteria for RadioFrequency Electromagnetic Fields, NCRP Report No. 86, 1986. Reprinted Feb. 1995.

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