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SAR EVALUATION REPORT

Applicant Name:
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Gyeonggi-do, 16677, Korea

Date of Testing:
10/23/19 - 12/18/19
Test Site/Location:
PCTEST Lab, Columbia, MD, USA
Document Serial No.:
1M1910220165-01-R1.A3L

FCC ID: **A3LSMG981U**

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

DUT Type: Portable Handset
Application Type: Certification
FCC Rule Part(s): CFR §2.1093
Model: SM-G981U
Additional Model(s): SM-G981U1, SM-G981W, SM-G981XU

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	0.27	0.41	0.43	N/A
PCE	CDMA/EVDO BC0 (§22H)	824.70 - 848.31 MHz	0.31	0.33	0.51	N/A
PCE	GSM/GPRS/EDGE 850	824.20 - 848.80 MHz	0.22	0.25	0.43	N/A
PCE	UMTS 850	826.40 - 846.60 MHz	0.29	0.36	0.47	N/A
PCE	UMTS 1750	1712.4 - 1752.6 MHz	0.21	0.94	0.95	2.69
PCE	PCS CDMA/EVDO	1851.25 - 1908.75 MHz	0.28	1.03	1.13	3.09
PCE	GSM/GPRS/EDGE 1900	1850.20 - 1909.80 MHz	< 0.1	0.31	0.98	3.11
PCE	UMTS 1900	1852.4 - 1907.6 MHz	0.29	0.98	1.23	2.49
PCE	LTE Band 71	665.5 - 695.5 MHz	0.17	0.28	0.38	N/A
PCE	LTE Band 12	699.7 - 715.3 MHz	0.23	0.37	0.50	N/A
PCE	LTE Band 13	779.5 - 784.5 MHz	0.30	0.32	0.52	N/A
PCE	LTE Band 14	790.5 - 795.5 MHz	0.31	0.42	0.59	N/A
PCE	LTE Band 26 (Cell)	814.7 - 848.3 MHz	0.25	0.30	0.48	N/A
PCE	LTE Band 5 (Cell)	824.7 - 848.3 MHz	0.26	0.29	0.52	N/A
PCE	LTE Band 66 (AWS)	1710.7 - 1779.3 MHz	0.22	0.87	0.83	2.32
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	0.29	0.89	1.25	3.09
PCE	LTE Band 2 (PCS)	1850.7 - 1909.3 MHz	0.31	0.86	1.23	3.13
PCE	LTE Band 30	2307.5 - 2312.5 MHz	0.12	0.84	1.24	2.63
PCE	LTE Band 7	2502.5 - 2567.5 MHz	0.13	0.67	0.88	2.23
CBE	LTE Band 48	3552.5 - 3697.5 MHz	0.81	0.40	0.87	N/A
PCE	LTE Band 41	2498.5 - 2687.5 MHz	0.16	0.55	1.18	2.67
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	0.19	0.29	0.42	N/A
PCE	NR Band n5	826.5 - 846.5 MHz	0.25	0.28	0.48	N/A
PCE	NR Band n66	1712.5 - 1777.5 MHz	0.24	0.73	0.94	2.34
PCE	NR Band n2	1852.5 - 1907.5 MHz	0.21	0.77	0.90	2.47
PCE	NR Band n41	2506.02 - 2679.99 MHz	1.07	0.12	0.44	N/A
DTS	2.4 GHz WLAN	2412 - 2462 MHz	0.76	0.14	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	< 0.1	0.17	N/A	1.15
NII	U-NII-2C	5500 - 5720 MHz	< 0.1	0.23	N/A	1.21
NII	U-NII-3	5745 - 5825 MHz	0.10	0.24	0.44	N/A
DSS/DTS	Bluetooth	2402 - 2480 MHz	0.40	< 0.1	< 0.1	N/A
Simultaneous SAR per KDB 690783 D01v01r03:			1.59	1.58	1.59	3.99

Note: This revised test report (S/N: 1M1910220165-01-R1.A3L) supersedes and replaces the previously issued test report on the same subject device for the same type of testing as indicated. Please discard or destroy the previously issued test report(s) and dispose of it accordingly.

This wireless portable device has been shown to be capable of compliance for localized specific absorption rate (SAR) for uncontrolled environment/general population exposure limits specified in ANSI/IEEE C95.1-1992 and has been tested in accordance with the measurement procedures specified in Section 1.9 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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TABLE OF CONTENTS

1 DEVICE UNDER TEST 3

2 LTE INFORMATION 16

3 INTRODUCTION 18

4 DOSIMETRIC ASSESSMENT 19

5 DEFINITION OF REFERENCE POINTS 20

6 TEST CONFIGURATION POSITIONS 21

7 RF EXPOSURE LIMITS 25

8 FCC MEASUREMENT PROCEDURES 26

9 RF CONDUCTED POWERS 34

10 SYSTEM VERIFICATION 196

11 SAR DATA SUMMARY 204

12 FCC MULTI-TX AND ANTENNA SAR CONSIDERATIONS 246

13 SAR MEASUREMENT VARIABILITY 279

14 ADDITIONAL TESTING PER FCC GUIDANCE 281

15 EQUIPMENT LIST 294

16 MEASUREMENT UNCERTAINTIES 295

17 CONCLUSION 296

18 REFERENCES 297

APPENDIX A: SAR TEST PLOTS

APPENDIX B: SAR DIPOLE VERIFICATION PLOTS

APPENDIX C: SAR TISSUE SPECIFICATIONS

APPENDIX D: SAR SYSTEM VALIDATION

APPENDIX E: DUT ANTENNA DIAGRAM & SAR TEST SETUP PHOTOGRAPHS

APPENDIX F: DOWNLINK LTE CA RF CONDUCTED POWERS

APPENDIX G: POWER REDUCTION VERIFICATION

APPENDIX H: 802.11ax RU SAR EXCLUSION

APPENDIX I: PROBE AND DIPOLE CALIBRATION CERTIFICATES

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
GSM/GPRS/EDGE 850	Voice/Data	824.20 - 848.80 MHz
UMTS 850	Voice/Data	826.40 - 846.60 MHz
UMTS 1750	Voice/Data	1712.4 - 1752.6 MHz
PCS CDMA/EVDO	Voice/Data	1851.25 - 1908.75 MHz
GSM/GPRS/EDGE 1900	Voice/Data	1850.20 - 1909.80 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

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*, below the predefined time-averaged power limit (i.e., P_{limit} for sub-6 radio), 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	6, 8, 11 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	30.5	30.5	29.1	31.1	29.9	29.1	25.5
GSM/GPRS/EDGE 1900 MHz	A	26.6	26.6	20.1	31.9	19.3	20.1	22.5
UMTS B5	A	29.9	29.9	26.7	30.9	28.8	26.7	24.5
UMTS B4	A	24.7	24.7	19.0	31.3	18.5	19.0	23.5
UMTS B2	A	24.6	24.6	19.0	29.9	18.5	19.0	23.5
CDMA/EVDO BC10	A	29.7	29.7	27.0	31.6	29.4	27.0	24.8
CDMA/EVDO BC0	A	30.7	30.7	27.8	30.9	28.7	27.8	24.8
CDMA/EVDO BC1	A	24.4	24.4	20.0	30.1	18.5	20.0	23.5
LTE FDD B71	A	31.0	31.0	28.0	33.0	29.6	28.0	24.8
LTE FDD B12	A	29.9	29.9	27.6	32.1	28.6	27.6	24.8
LTE FDD B13	A	30.4	30.4	26.5	30.9	28.5	26.5	24.8
LTE FDD B14	A	29.4	29.4	26.7	30.9	28.1	26.7	24.8
LTE FDD B26	A	30.4	30.4	26.5	31.4	28.5	26.5	24.8
LTE FDD B5	A	31.0	31.0	25.9	31.7	28.6	25.9	24.8
LTE FDD B66/4	A	24.9	24.9	19.0	31.2	18.5	19.0	23.5
LTE FDD B25	A	24.5	24.5	19.0	29.3	18.0	19.0	23.0
LTE FDD B2	A	24.7	24.7	19.0	29.1	18.0	19.0	23.0
LTE FDD B30	A	25.3	25.3	21.5	33.9	18.5	21.5	23.5
LTE FDD B7	A	25.8	25.8	19.0	32.7	18.5	19.0	23.0
LTE TDD B48	G	21.8	21.8	21.3	15.5	22.2	21.3	20.5
LTE TDD B38	A	27.3	27.3	20.0	32.2	19.0	20.0	22.0
LTE TDD B41 (PC3)	A	27.3	27.3	20.0	32.2	19.0	20.0	22.0
LTE TDD B41 (PC2)	A	27.3	27.3	20.0	32.2	19.0	20.0	23.4
NR FDD n71	A	31.2	31.2	29.0	33.1	29.6	29.0	24.8
NR FDD n5	A	30.8	30.8	27.0	31.8	29.0	27.0	24.8
NR FDD n66	A	26.0	26.0	19.0	30.7	18.5	19.0	23.5
NR FDD n2	A	25.3	25.3	19.0	30.8	18.0	19.0	23.0
NR TDD n41	F	22.1	22.1	22.1	18.7	22.6	22.1	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.

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

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	33.7	33.7	32.7	30.6	28.7	28.2	26.2	24.1	23.2
	Nominal	32.7	32.7	31.7	29.6	27.7	27.2	25.2	23.1	22.2
GSM/GPRS/EDGE 1900										
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
DSI = 0 (Body-Worn or Phablet Max); DSI = 2 (Head)	Max allowed power	30.7	30.7	29.7	27.6	25.7	27.2	25.2	23.1	22.2
	Nominal	29.7	29.7	28.7	26.6	24.7	26.2	24.2	22.1	21.2
DSI = 3 (Hotspot)	Max allowed power	N/A	29.5	26.5	24.7	23.5	27.2	25.2	23.1	22.2
	Nominal	N/A	28.5	25.5	23.7	22.5	26.2	24.2	22.1	21.2
DSI = 1 (Phablet Reduced); DSI = 4 (Earjack)	Max allowed power	30.3	30.3	27.3	25.5	24.3	27.2	25.2	23.1	22.2
	Nominal	29.3	29.3	26.3	24.5	23.3	26.2	24.2	22.1	21.2

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	25.5	24.5	24.5	24.5
	Nominal	24.5	23.5	23.5	23.5
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	24.5	23.5	23.5	23.5
	Nominal	23.5	22.5	22.5	22.5
DSI = 3 (Hotspot)	Max allowed power	19.5	18.5	18.5	18.5
	Nominal	18.5	17.5	17.5	17.5
DSI = 1 (Phablet Reduced); DSI = 4 (Earjack)	Max allowed power	20.0	19.0	19.0	19.0
	Nominal	19.0	18.0	18.0	18.0
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	24.5	23.5	23.5	23.5
	Nominal	23.5	22.5	22.5	22.5
DSI = 3 (Hotspot)	Max allowed power	19.5	18.5	18.5	18.5
	Nominal	18.5	17.5	17.5	17.5
DSI = 1 (Phablet Reduced); DSI = 4 (Earjack)	Max allowed power	20.0	19.0	19.0	19.0
	Nominal	19.0	18.0	18.0	18.0

CDMA BC10 (850 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 (850 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	19.5	19.5	19.5
	Nominal	18.5	18.5	18.5
DSI = 1 (Phablet Reduced); DSI = 4 (Earjack)	Max allowed power	21.0	21.0	21.0
	Nominal	20.0	20.0	20.0

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	20.0
	Nominal	23.5	23.5	18.5	19.0
LTE FDD Band 66	Max allowed power	24.5	24.5	19.5	20.0
	Nominal	23.5	23.5	18.5	19.0
LTE FDD Band 2	Max allowed power	24.0	24.0	19.0	20.0
	Nominal	23.0	23.0	18.0	19.0
LTE FDD Band 25	Max allowed power	24.0	24.0	19.0	20.0
	Nominal	23.0	23.0	18.0	19.0
LTE FDD Band 30	Max allowed power	24.5	24.5	19.5	22.5
	Nominal	23.5	23.5	18.5	21.5
LTE FDD Band 7	Max allowed power	24.0	24.0	19.5	20.0
	Nominal	23.0	23.0	18.5	19.0
LTE TDD Band 38	Max allowed power	25.0	25.0	22.0	23.0
	Nominal	24.0	24.0	21.0	22.0
LTE TDD Band 48	Max allowed power	23.5	18.5	23.5	23.5
	Nominal	22.5	17.5	22.5	22.5
LTE TDD Band 41 (PC3)	Max allowed power	25.0	25.0	22.0	23.0
	Nominal	24.0	24.0	21.0	22.0
LTE TDD Band 41 (PC2)	Max allowed power	28.0	28.0	23.6	24.6
	Nominal	27.0	27.0	22.6	23.6

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 FDD Band n71	Max allowed power	25.8	25.8	25.8	25.8
	Nominal	24.8	24.8	24.8	24.8
NR FDD Band n5	Max allowed power	25.8	25.8	25.8	25.8
	Nominal	24.8	24.8	24.8	24.8
NR FDD Band n66	Max allowed power	24.5	24.5	19.5	20.0
	Nominal	23.5	23.5	18.5	19.0
NR FDD Band n2	Max allowed power	24.0	24.0	19.0	20.0
	Nominal	23.0	23.0	18.0	19.0
NR TDD Band n41	Max allowed power	25.0	25.0	25.0	25.0
	Nominal	24.0	24.0	24.0	24.0

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		Modulated Average - Single Tx Chain (dBm)		
	Channel	1	2-10	11
IEEE 802.11b (2.4 GHz)	Maximum	21.0		
	Nominal	20.0		
IEEE 802.11g (2.4 GHz)	Maximum	18.5		
	Nominal	17.5		
IEEE 802.11n (2.4 GHz)	Maximum	18.5		
	Nominal	17.5		
IEEE 802.11ax SU (2.4 GHz)	Maximum	15.5	16.0	13.0
	Nominal	14.5	15.0	12.0

Mode / Band		Modulated Average - Single Tx Chain (dBm)												
		20 MHz Bandwidth				40 MHz Bandwidth					80 MHz Bandwidth			
	Channel	36	40 - 60	64	100 - 165	38	46 - 54	62	102	110 - 159	42	58	106	122 - 155
IEEE 802.11a (5 GHz)	Maximum	16.5												
	Nominal	15.5												
IEEE 802.11n (5 GHz)	Maximum	16.5				14.5	16.0	14.5	15.5	16.0				
	Nominal	15.5				13.5	15.0	13.5	14.5	15.0				
IEEE 802.11ac (5 GHz)	Maximum	16.5				14.5	16.0	14.5	15.5	16.0	13.5	13.5	14.0	16.0
	Nominal	15.5				13.5	15.0	13.5	14.5	15.0	12.5	12.5	13.0	15.0
IEEE 802.11ax SU (5 GHz)	Maximum	14.5	16.5	15.0	16.5	12.0	16.0	10.5	14.0	16.0	13.0	11.0	12.5	15.0
	Nominal	13.5	15.5	14.0	15.5	11.0	15.0	9.5	13.0	15.0	12.0	10.0	11.5	14.0

Mode / Band		Modulated Average - MIMO (dBm)		
		20 MHz Bandwidth		
	Channel	1	2-10	11
IEEE 802.11g (2.4 GHz)	Maximum	21.5		
	Nominal	20.5		
IEEE 802.11n (2.4 GHz)	Maximum	21.5		
	Nominal	20.5		
IEEE 802.11ax SU (2.4 GHz)	Maximum	15.5	16.0	13.0
	Nominal	14.5	15.0	12.0

Mode / Band		Modulated Average - MIMO (dBm)																
		20 MHz Bandwidth					40 MHz Bandwidth						80 MHz Bandwidth					
	Channel	36	40 - 60	64	100-144	149 - 165	38	46 - 54	62	102	110-142	151 - 159	42	58	106	122 - 138	155	
IEEE 802.11a (5 GHz)	Maximum	19.5	19.5	19.5	18.5	17.5												
	Nominal	18.5	18.5	18.5	17.5	16.5												
IEEE 802.11n (5 GHz)	Maximum	19.5	19.5	19.5	18.5	17.5	17.5	19.0	17.5	18.0	18.0	17.0						
	Nominal	18.5	18.5	18.5	17.5	16.5	16.5	18.0	16.5	17.0	17.0	16.0						
IEEE 802.11ac (5 GHz)	Maximum	19.5	19.5	19.5	18.5	17.5	17.5	19.0	17.5	18.0	18.0	17.0	16.5	16.5	17.0	18.0	17.0	
	Nominal	18.5	18.5	18.5	17.5	16.5	16.5	18.0	16.5	17.0	17.0	16.0	15.5	15.5	16.0	17.0	16.0	
IEEE 802.11ax SU (5 GHz)	Maximum	14.5	17.0	15.0	17.0	17.0	12.0	16.0	10.5	14.0	16.0	16.0	13.0	11.0	12.5	15.0	15.0	
	Nominal	13.5	16.0	14.0	16.0	16.0	11.0	15.0	9.5	13.0	15.0	15.0	12.0	10.0	11.5	14.0	14.0	

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	9.0
	Nominal	8.0
Bluetooth LE (1 Mbps, 125/500 Kbps)	Maximum	7.5
	Nominal	6.5

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		Modulated Average - Single Tx Chain (dBm)		
	Channel	1	2-10	11
IEEE 802.11b (2.4 GHz)	Maximum	**17.0**		
	Nominal	**16.0**		
IEEE 802.11g (2.4 GHz)	Maximum	**17.0**		
	Nominal	**16.0**		
IEEE 802.11n (2.4 GHz)	Maximum	**17.0**		
	Nominal	**16.0**		
IEEE 802.11ax SU (2.4 GHz)	Maximum	**15.5**	**16.0**	**13.0**
	Nominal	**14.5**	**15.0**	**12.0**

Mode / Band		Modulated Average - MIMO (dBm)		
		20 MHz Bandwidth		
	Channel	1	2-10	11
IEEE 802.11g (2.4 GHz)	Maximum	**20.0**		
	Nominal	**19.0**		
IEEE 802.11n (2.4 GHz)	Maximum	**20.0**		
	Nominal	**19.0**		
IEEE 802.11ax SU (2.4 GHz)	Maximum	**15.5**	**16.0**	**13.0**
	Nominal	**14.5**	**15.0**	**12.0**

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		Modulated Average (dBm)		
	Channel	1	2-10	11
IEEE 802.11b (2.4 GHz)	Maximum	**14.0**		
	Nominal	**13.0**		
IEEE 802.11g (2.4 GHz)	Maximum	**14.0**		
	Nominal	**13.0**		
IEEE 802.11n (2.4 GHz)	Maximum	**14.0**		
	Nominal	**13.0**		
IEEE 802.11ax SU (2.4 GHz)	Maximum	**14.0**	**14.0**	**13.0**
	Nominal	**13.0**	**13.0**	**12.0**

Mode / Band		Modulated Average - MIMO (dBm)		
		20 MHz Bandwidth		
	Channel	1	2-10	11
IEEE 802.11g (2.4 GHz)	Maximum	**17.0**		
	Nominal	**16.0**		
IEEE 802.11n (2.4 GHz)	Maximum	**17.0**		
	Nominal	**16.0**		
IEEE 802.11ax SU (2.4 GHz)	Maximum	**15.5**	**16.0**	**13.0**
	Nominal	**14.5**	**15.0**	**12.0**

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		Modulated Average - Single Tx Chain (dBm)														
		20 MHz Bandwidth					40 MHz Bandwidth						80 MHz Bandwidth			
	Channel	36 - 165					38	46 - 54	62	102 - 159			42	58	106	122 - 155
IEEE 802.11a (5 GHz)	Maximum	14.0														
	Nominal	13.0														
IEEE 802.11n (5 GHz)	Maximum	14.0					14.0	14.0	14.0	14.0						
	Nominal	13.0					13.0	13.0	13.0	13.0						
IEEE 802.11ac (5 GHz)	Maximum	14.0					14.0	14.0	14.0	14.0			13.5	13.5	14.0	14.0
	Nominal	13.0					13.0	13.0	13.0	13.0			12.5	12.5	13.0	13.0
IEEE 802.11ax SU (5 GHz)	Maximum	14.0					12.0	14.0	10.5	14.0			13.0	11.0	12.5	14.0
	Nominal	13.0					11.0	13.0	9.5	13.0			12.0	10.0	11.5	13.0

Mode / Band		Modulated Average - MIMO (dBm)														
		20 MHz Bandwidth					40 MHz Bandwidth						80 MHz Bandwidth			
	Channel	36	40 - 60	64	100-144	149 - 165	38	46 - 54	62	102	110-142	151 - 159	42	58	106	122 - 155
IEEE 802.11a (5 GHz)	Maximum	17.0														
	Nominal	16.0														
IEEE 802.11n (5 GHz)	Maximum	17.0					17.0									
	Nominal	16.0					16.0									
IEEE 802.11ac (5 GHz)	Maximum	17.0					17.0						16.5	16.5	17.0	17.0
	Nominal	16.0					16.0						15.5	15.5	16.0	16.0
IEEE 802.11ax SU (5 GHz)	Maximum	14.5	17.0	15.0	17.0	17.0	12.0	16.0	10.5	14.0	16.0	16.0	13.0	11.0	12.5	15.0
	Nominal	13.5	16.0	14.0	16.0	16.0	11.0	15.0	9.5	13.0	15.0	15.0	12.0	10.0	11.5	14.0

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
GPRS 850	Yes	Yes	No	Yes	Yes	Yes
UMTS 850	Yes	Yes	No	Yes	Yes	Yes
UMTS 1750	Yes	Yes	No	Yes	Yes	Yes
PCS EVDO	Yes	Yes	No	Yes	Yes	Yes
GPRS 1900	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 2 (PCS)	Yes	Yes	No	Yes	Yes	Yes
LTE Band 30	Yes	Yes	No	Yes	Yes	Yes
LTE Band 7	Yes	Yes	No	Yes	Yes	Yes
LTE Band 48	Yes	Yes	Yes	No	No	Yes
LTE Band 41	Yes	Yes	No	Yes	Yes	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
5 GHz 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.

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.

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.

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.

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 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.

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 Device Serial Numbers

Report Type	Report Serial Number
RF Exposure Part 0 Test Report	1M1910220165-17-R1.A3L
RF Exposure Part 2 Test Report	80-W5681-3 Rev. C
RF Exposure Compliance Summary Report	1M1910220165-18.A3L

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.				

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				

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]

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:

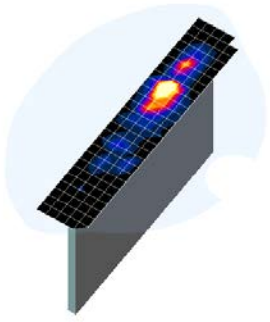


Figure 4-1
Sample SAR Area Scan

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

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].

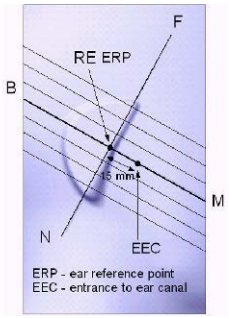


Figure 5-1
Close-Up Side view of ERP

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.

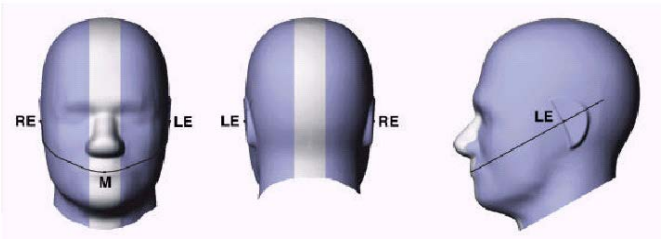


Figure 5-2
Front, back and side view of SAM Twin Phantom

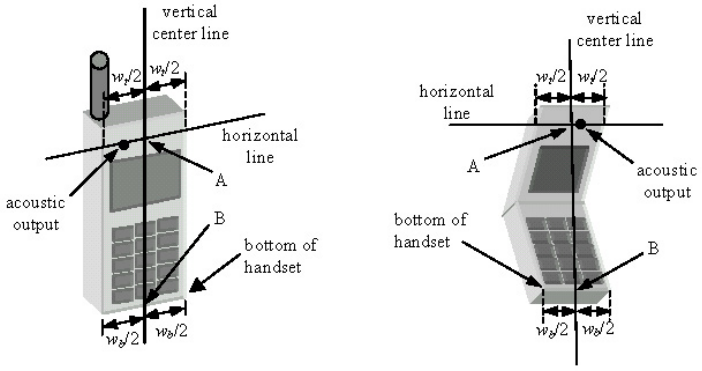


Figure 5-3
Handset Vertical Center & Horizontal Line Reference Points

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).

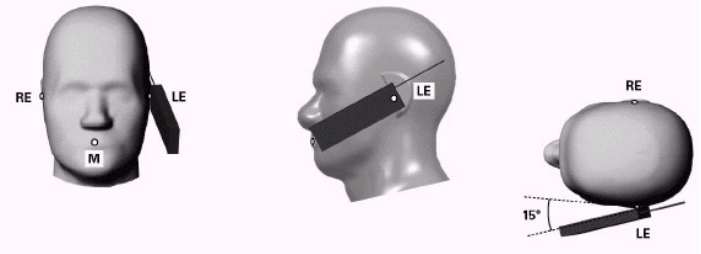


Figure 6-2 Front, Side and Top View of Ear/15º Tilt Position

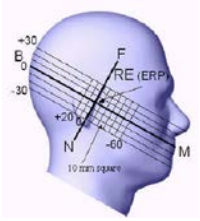


Figure 6-3
Side view w/ relevant markings

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.

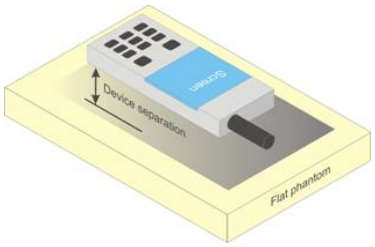


Figure 6-4
Sample Body-Worn Diagram

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

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

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

6.6 Extremity Exposure Configurations

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

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

6.7 Wireless Router Configurations

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

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

6.8 Phablet Configurations

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

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.

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.

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.

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.

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.

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

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

8.7 SAR Testing with 802.11 Transmitters

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

8.7.1 General Device Setup

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

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

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

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

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

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

8.7.4 Initial Test Position Procedure

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

positions until the reported SAR result is ≤ 0.8 W/kg or all test positions are measured. When 10g SAR measurement is considered, a factor of 2.5 is applied to the thresholds above.

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.

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.

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	24.67	24.67	24.66	24.66	24.66	24.66	24.63
Cellular	1013	22H	824.7	25.61	25.60	25.62	25.58	25.57	25.50	25.51
	384	22H	836.52	25.35	25.36	25.38	25.32	25.32	25.29	25.28
	777	22H	848.31	25.23	25.23	25.30	25.22	25.22	25.18	25.17
PCS	25	24E	1851.25	23.86	23.83	23.77	23.83	23.85	23.82	23.75
	600	24E	1880	23.63	23.62	23.58	23.62	23.64	23.68	23.60
	1175	24E	1908.75	23.49	23.52	23.56	23.52	23.51	23.48	23.52

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	18.64	18.66	18.67	18.74
	600	24E	1880	18.58	18.60	18.61	18.70
	1175	24E	1908.75	18.62	18.64	18.63	18.69

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	20.10	20.20	20.39	20.23	20.23	20.30	20.22
	600	24E	1880	20.12	20.15	20.23	20.18	20.20	20.28	20.16
	1175	24E	1908.75	20.14	20.18	20.21	20.19	20.21	20.17	20.19

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

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	32.91	32.93	**31.89**	29.61	27.67	27.12	25.52	23.20	22.06
	190	32.85	32.78	**31.86**	29.68	27.65	27.03	25.56	23.52	22.42
	251	32.65	32.66	**31.48**	29.44	27.31	26.91	25.35	23.31	22.17
GSM 1900	512	29.45	29.55	**28.12**	26.39	24.95	25.33	23.93	22.22	21.35
	661	29.35	29.42	**27.93**	26.40	24.73	24.91	23.66	22.19	21.32
	810	28.90	29.02	**27.70**	25.93	24.35	25.07	23.44	22.72	20.71

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	23.88	23.90	**25.87**	25.35	24.66	18.09	19.50	18.94	19.05
	190	23.82	23.75	**25.84**	25.42	24.64	18.00	19.54	19.26	19.41
	251	23.62	23.63	**25.46**	25.18	24.30	17.88	19.33	19.05	19.16
GSM 1900	512	20.42	20.52	**22.10**	22.13	21.94	16.30	17.91	17.96	18.34
	661	20.32	20.39	**21.91**	22.14	21.72	15.88	17.64	17.93	18.31
	810	19.87	19.99	**21.68**	21.67	21.34	16.04	17.42	18.46	17.70

GSM 850	**Frame Avg.Targets:**	23.50	23.50	**25.51**	25.17	24.52	18.00	19.01	18.67	19.02
GSM 1900		20.50	20.50	**22.51**	22.17	21.52	17.00	18.01	17.67	18.02

Table 9-5
Measured P_{limit} for DSI = 3 (Hotspot mode)

Maximum Burst-Averaged Output Power									
		GPRS/EDGE Data (GMSK)				*EDGE Data (8-PSK)*			
Band	**Channel**	**GPRS [dBm] 1 Tx Slot**	**GPRS [dBm] 2 Tx Slot**	**GPRS [dBm] 3 Tx Slot**	**GPRS [dBm] 4 Tx Slot**	**EDGE [dBm] 1 Tx Slot**	**EDGE [dBm] 2 Tx Slot**	**EDGE [dBm] 3 Tx Slot**	**EDGE [dBm] 4 Tx Slot**
GSM 1900	512	29.11	26.22	24.46	**23.31**	25.33	23.93	22.22	21.35
	661	29.19	26.28	24.66	**23.50**	24.91	23.66	22.19	21.32
	810	28.87	25.90	24.28	**23.18**	25.07	23.44	22.72	20.71

Calculated Maximum Frame-Averaged Output Power									
		GPRS/EDGE Data (GMSK)				*EDGE Data (8-PSK)*			
Band	**Channel**	**GPRS [dBm] 1 Tx Slot**	**GPRS [dBm] 2 Tx Slot**	**GPRS [dBm] 3 Tx Slot**	**GPRS [dBm] 4 Tx Slot**	**EDGE [dBm] 1 Tx Slot**	**EDGE [dBm] 2 Tx Slot**	**EDGE [dBm] 3 Tx Slot**	**EDGE [dBm] 4 Tx Slot**
GSM 1900	512	20.08	20.20	20.20	**20.30**	16.30	17.91	17.96	18.34
	661	20.16	20.26	20.40	**20.49**	15.88	17.64	17.93	18.31
	810	19.84	19.88	20.02	**20.17**	16.04	17.42	18.46	17.70
GSM 1900	**Frame Avg.Targets:**	19.30	19.31	19.27	**19.32**	17.00	18.01	17.67	18.02

Table 9-6
Measured P_{limit} for 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	29.16	29.14	26.29	24.66	**23.15**	25.33	23.93	22.22	21.35
	661	29.16	29.12	26.40	24.41	**23.46**	24.91	23.66	22.19	21.32
	810	28.84	28.86	26.04	24.35	**23.30**	25.07	23.44	22.72	20.71

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	20.13	20.11	20.27	20.40	**20.14**	16.30	17.91	17.96	18.34
	661	20.13	20.09	20.38	20.15	**20.45**	15.88	17.64	17.93	18.31
	810	19.81	19.83	20.02	20.09	**20.29**	16.04	17.42	18.46	17.70
GSM 1900	**Frame Avg.Targets:**	20.10	20.10	20.11	20.07	**20.12**	17.00	18.01	17.67	18.02

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

9.3 UMTS Conducted Powers

Table 9-7
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	24.75	24.74	24.49	24.40	24.42	24.30	23.42	23.38	23.21	-
99		12.2 kbps AMR	24.70	24.61	24.50	24.48	24.39	24.31	23.39	23.43	23.15	-
6	HSDPA	Subtest 1	23.86	23.76	23.64	23.45	23.37	23.22	22.47	22.24	22.00	0
6		Subtest 2	23.86	23.75	23.65	23.44	23.41	23.25	22.42	22.24	22.03	0
6		Subtest 3	23.38	23.26	23.14	22.89	22.86	22.80	21.96	21.71	21.51	0.5
6		Subtest 4	23.37	23.22	23.13	22.95	22.89	22.75	21.75	21.76	21.53	0.5
6	HSUPA	Subtest 1	23.86	23.75	23.63	23.24	23.20	23.08	22.46	22.23	22.02	0
6		Subtest 2	21.87	21.75	21.63	21.29	21.18	21.05	20.42	20.20	20.00	2
6		Subtest 3	22.87	22.75	22.67	22.24	22.16	22.06	21.40	21.20	21.01	1
6		Subtest 4	21.85	21.73	21.55	21.48	21.50	21.38	20.42	20.22	20.03	2
6		Subtest 5	23.84	23.68	23.61	23.25	23.18	23.05	22.45	22.20	22.05	0
8	DC-HSDPA	Subtest 1	23.79	23.69	23.58	23.46	23.37	23.23	22.46	22.22	22.02	0
8		Subtest 2	23.78	23.67	23.50	23.44	23.38	23.27	22.47	22.21	22.01	0
8		Subtest 3	23.31	23.17	23.10	22.95	22.88	22.75	21.95	21.72	21.50	0.5
8		Subtest 4	23.30	23.15	23.08	22.76	22.87	22.76	21.96	21.75	21.50	0.5

Table 9-8
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	19.50	19.48	19.38	19.40	19.28	19.35	-
99		12.2 kbps AMR	19.48	19.49	19.34	19.39	19.32	19.21	-
6	HSDPA	Subtest 1	18.50	18.49	18.41	18.48	18.29	18.05	0
6		Subtest 2	18.39	18.41	18.32	18.42	18.26	18.09	0
6		Subtest 3	18.00	17.86	17.81	17.91	17.75	17.55	0.5
6		Subtest 4	17.99	17.94	17.81	17.74	17.72	17.57	0.5
6	HSUPA	Subtest 1	18.47	18.42	18.30	18.41	18.21	18.07	0
6		Subtest 2	16.49	16.43	16.29	16.40	16.22	16.06	2
6		Subtest 3	17.49	17.42	17.28	17.44	17.20	17.07	1
6		Subtest 4	16.48	16.41	16.32	16.43	16.22	16.06	2
6		Subtest 5	18.46	18.43	18.33	18.44	18.24	18.06	0
8	DC-HSDPA	Subtest 1	18.42	18.33	18.31	18.36	18.31	18.15	0
8		Subtest 2	18.40	18.37	18.29	18.35	18.36	18.30	0
8		Subtest 3	18.00	17.88	17.70	17.93	17.87	17.85	0.5
8		Subtest 4	17.92	17.88	17.70	17.95	17.85	17.85	0.5

Table 9-9
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	20.00	19.99	19.89	19.93	19.82	19.70	-
99		12.2 kbps AMR	19.99	19.95	19.94	19.92	19.79	19.71	-
6	HSDPA	Subtest 1	19.00	18.92	18.85	18.76	18.86	18.75	0
6		Subtest 2	18.99	18.92	18.84	18.80	18.84	18.70	0
6		Subtest 3	18.50	18.42	18.34	18.35	18.35	18.24	0.5
6		Subtest 4	18.49	18.44	18.32	18.32	18.35	18.27	0.5
6	HSUPA	Subtest 1	18.75	18.60	18.58	18.75	18.78	18.76	0
6		Subtest 2	16.98	16.95	16.94	16.77	16.81	16.72	2
6		Subtest 3	18.00	17.98	17.89	17.37	17.40	17.31	1
6		Subtest 4	17.00	16.98	16.94	16.75	16.81	16.70	2
6		Subtest 5	18.81	18.62	18.59	18.79	18.81	18.71	0
8	DC-HSDPA	Subtest 1	18.97	18.94	18.94	18.81	18.84	18.72	0
8		Subtest 2	19.00	18.99	18.87	18.80	18.83	18.71	0
8		Subtest 3	18.50	18.48	18.49	18.30	18.12	18.23	0.5
8		Subtest 4	18.49	18.47	18.46	18.34	18.36	18.23	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

9.4 LTE Conducted Powers

9.4.1 LTE Band 71

Table 9-10
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	**24.23**	0	0
	1	50	23.98		0
	1	99	23.83		0
	50	0	**23.24**	0-1	1
	50	25	23.15		1
	50	50	22.98		1
	100	0	23.08		1
16QAM	1	0	23.67	0-1	1
	1	50	23.44		1
	1	99	23.39		1
	50	0	22.26	0-2	2
	50	25	22.14		2
	50	50	22.00		2
	100	0	22.06		2
64QAM	1	0	22.56	0-2	2
	1	50	22.27		2
	1	99	22.14		2
	50	0	21.27	0-3	3
	50	25	21.17		3
	50	50	21.05		3
	100	0	21.08		3
256QAM	1	0	19.15	0-5	5
	1	50	19.26		5
	1	99	18.94		5
	50	0	19.18		5
	50	25	19.12		5
	50	50	19.08		5
	100	0	19.05		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 9-11
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	24.36	0	0
	1	36	24.12		0
	1	74	24.06		0
	36	0	23.42	0-1	1
	36	18	23.27		1
	36	37	23.20		1
	75	0	23.25		1
16QAM	1	0	23.77	0-1	1
	1	36	23.41		1
	1	74	23.46		1
	36	0	22.40	0-2	2
	36	18	22.22		2
	36	37	22.26		2
	75	0	22.23		2
64QAM	1	0	22.82	0-2	2
	1	36	22.43		2
	1	74	22.37		2
	36	0	21.44	0-3	3
	36	18	21.38		3
	36	37	21.25		3
	75	0	21.27		3
256QAM	1	0	19.35	0-5	5
	1	36	19.29		5
	1	74	19.23		5
	36	0	19.36		5
	36	18	19.31		5
	36	37	19.33		5
	75	0	19.33		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.

Table 9-12
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	24.28	24.19	23.92	0	0
	1	25	24.35	23.98	23.99		0
	1	49	24.15	23.71	23.98		0
	25	0	23.44	23.17	23.01	0-1	1
	25	12	23.42	23.12	23.04		1
	25	25	23.27	23.07	22.94		1
	50	0	23.34	23.02	22.84		1
16QAM	1	0	23.87	23.58	23.58	0-1	1
	1	25	23.58	23.49	23.22		1
	1	49	23.62	23.37	23.25		1
	25	0	22.35	22.15	21.95	0-2	2
	25	12	22.45	22.11	22.00		2
	25	25	22.44	22.04	22.06		2
	50	0	22.33	22.05	21.90		2
64QAM	1	0	22.64	22.48	22.34	0-2	2
	1	25	22.32	21.94	22.12		2
	1	49	22.43	22.29	21.93		2
	25	0	21.45	21.22	21.05	0-3	3
	25	12	21.52	21.25	21.19		3
	25	25	21.43	21.09	21.16		3
	50	0	21.44	21.19	21.05		3
256QAM	1	0	19.36	19.15	18.96	0-5	5
	1	25	19.45	19.23	19.12		5
	1	49	19.35	18.98	19.08		5
	25	0	19.20	19.04	18.92		5
	25	12	19.29	19.23	18.97		5
	25	25	19.16	19.06	18.80		5
	50	0	19.28	19.02	18.96		5

Table 9-13
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	24.34	23.98	23.82	0	0
	1	12	24.31	24.07	23.90		0
	1	24	24.14	24.02	23.88		0
	12	0	23.41	23.15	22.94	0-1	1
	12	6	23.41	23.12	23.04		1
	12	13	23.42	23.10	23.04		1
	25	0	23.45	23.11	22.95		1
16QAM	1	0	23.70	23.45	23.59	0-1	1
	1	12	23.69	23.44	23.30		1
	1	24	23.68	23.39	23.22		1
	12	0	22.47	22.18	21.88	0-2	2
	12	6	22.60	22.25	22.14		2
	12	13	22.62	22.13	22.13		2
	25	0	22.46	22.04	22.05		2
64QAM	1	0	22.60	22.43	22.25	0-2	2
	1	12	22.48	22.20	22.17		2
	1	24	22.47	22.34	22.09		2
	12	0	21.48	21.15	21.00	0-3	3
	12	6	21.63	21.22	21.13		3
	12	13	21.44	21.15	21.14		3
	25	0	21.41	21.11	20.93		3
256QAM	1	0	19.49	19.27	18.91	0-5	5
	1	12	19.44	19.16	19.19		5
	1	24	19.47	19.10	19.05		5
	12	0	19.51	19.04	19.13		5
	12	6	19.44	19.14	19.12		5
	12	13	19.35	19.05	19.07		5
	25	0	19.37	19.10	18.99		5

9.4.2 LTE Band 12

Table 9-14
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	23.96	0	0
	1	25	23.92		0
	1	49	**24.03**		0
	25	0	22.94	0-1	1
	25	12	**23.10**		1
	25	25	22.99		1
	50	0	22.98		1
16QAM	1	0	23.34	0-1	1
	1	25	23.32		1
	1	49	23.45		1
	25	0	21.94	0-2	2
	25	12	22.06		2
	25	25	21.95		2
	50	0	22.02		2
64QAM	1	0	22.13	0-2	2
	1	25	22.25		2
	1	49	22.19		2
	25	0	20.94	0-3	3
	25	12	21.19		3
	25	25	21.01		3
	50	0	21.06		3
256QAM	1	0	18.91	0-5	5
	1	25	19.14		5
	1	49	19.22		5
	25	0	19.12		5
	25	12	19.12		5
	25	25	19.06		5
	50	0	19.11		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 9-15
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	23.91	24.10	24.08	0	0
	1	12	24.17	24.06	24.15		0
	1	24	23.94	23.99	24.12		0
	12	0	22.98	23.11	23.15	0-1	1
	12	6	23.02	23.20	23.26		1
	12	13	22.90	23.16	23.19		1
	25	0	23.00	23.15	23.21		1
16QAM	1	0	23.33	23.35	23.59	0-1	1
	1	12	23.26	23.40	23.58		1
	1	24	23.27	23.37	23.59		1
	12	0	22.05	21.90	22.20	0-2	2
	12	6	22.11	22.10	22.20		2
	12	13	22.07	22.07	22.35		2
	25	0	22.01	22.14	22.24		2
64QAM	1	0	22.01	22.29	22.23	0-2	2
	1	12	22.20	22.28	22.23		2
	1	24	22.10	22.27	22.11		2
	12	0	21.00	21.21	21.16	0-3	3
	12	6	21.04	21.19	21.34		3
	12	13	21.02	21.12	21.15		3
	25	0	21.01	21.23	21.29		3
256QAM	1	0	19.04	19.18	19.31	0-5	5
	1	12	19.04	19.35	19.42		5
	1	24	19.15	19.38	19.34		5
	12	0	18.98	19.17	19.18		5
	12	6	19.10	19.20	19.13		5
	12	13	19.10	19.05	19.18		5
	25	0	18.97	19.20	19.26		5

Table 9-16
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	23.93	23.98	24.18	0	0
	1	7	23.92	24.07	24.14		0
	1	14	23.95	24.05	24.20		0
	8	0	22.93	23.07	23.11	0-1	1
	8	4	22.98	23.13	23.23		1
	8	7	22.97	23.11	23.24		1
	15	0	23.02	23.11	23.26		1
16QAM	1	0	23.22	23.58	23.62	0-1	1
	1	7	23.55	23.38	23.67		1
	1	14	23.36	23.44	23.37		1
	8	0	22.03	22.10	22.23	0-2	2
	8	4	22.07	22.26	22.37		2
	8	7	22.10	22.20	22.23		2
	15	0	22.03	22.17	22.33		2
64QAM	1	0	22.13	22.25	22.47	0-2	2
	1	7	21.92	22.40	22.35		2
	1	14	22.20	22.25	22.26		2
	8	0	20.96	21.23	21.23	0-3	3
	8	4	21.09	21.18	21.15		3
	8	7	21.06	21.20	21.26		3
	15	0	21.02	21.28	21.30		3
256QAM	1	0	19.04	19.21	19.45	0-5	5
	1	7	19.14	19.27	19.59		5
	1	14	19.05	19.23	19.24		5
	8	0	19.00	19.12	19.35		5
	8	4	19.02	19.24	19.24		5
	8	7	19.05	19.20	19.31		5
	15	0	19.23	19.21	19.26		5

Table 9-17
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	23.86	24.02	24.04	0	0
	1	2	23.85	24.05	24.24		0
	1	5	23.90	24.00	24.15		0
	3	0	23.79	23.99	24.08		0
	3	2	23.92	24.10	24.21		0
	3	3	23.79	24.07	24.10		0
	6	0	22.92	23.08	23.12	0-1	1
16QAM	1	0	23.18	23.31	23.55	0-1	1
	1	2	23.08	23.24	23.48		1
	1	5	23.15	23.27	23.40		1
	3	0	22.96	23.17	23.35		1
	3	2	23.11	23.28	23.49		1
	3	3	23.01	23.26	23.28		1
	6	0	22.04	22.09	22.16	0-2	2
64QAM	1	0	22.00	22.25	22.25	0-2	2
	1	2	22.22	22.30	22.06		2
	1	5	22.18	22.30	22.17		2
	3	0	21.98	22.14	22.05		2
	3	2	22.13	22.31	22.19		2
	3	3	22.00	22.13	22.18		2
	6	0	21.09	21.15	21.15	0-3	3
256QAM	1	0	18.99	19.15	19.22	0-5	5
	1	2	19.10	19.14	19.47		5
	1	5	19.22	19.28	19.21		5
	3	0	19.05	19.20	19.31		5
	3	2	19.08	19.15	19.42		5
	3	3	19.13	19.27	19.46		5
	6	0	19.18	19.12	19.20		5

9.4.3 LTE Band 13

Table 9-18
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	**24.08**	0	0
	1	25	24.03		0
	1	49	23.86		0
	25	0	**23.04**	0-1	1
	25	12	22.99		1
	25	25	22.97		1
	50	0	23.00		1
16QAM	1	0	23.48	0-1	1
	1	25	23.47		1
	1	49	23.34		1
	25	0	22.05	0-2	2
	25	12	22.04		2
	25	25	22.01		2
	50	0	21.94		2
64QAM	1	0	22.34	0-2	2
	1	25	22.29		2
	1	49	22.14		2
	25	0	21.09	0-3	3
	25	12	21.05		3
	25	25	21.07		3
	50	0	21.01		3
256QAM	1	0	18.92	0-5	5
	1	25	19.18		5
	1	49	18.94		5
	25	0	19.06		5
	25	12	19.02		5
	25	25	18.93		5
	50	0	18.98		5

Table 9-19
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	24.24	0	0
	1	12	24.26		0
	1	24	24.23		0
	12	0	23.27	0-1	1
	12	6	23.31		1
	12	13	23.27		1
	25	0	23.27		1
16QAM	1	0	23.57	0-1	1
	1	12	23.51		1
	1	24	23.42		1
	12	0	22.30	0-2	2
	12	6	22.34		2
	12	13	22.33		2
	25	0	22.32		2
64QAM	1	0	22.43	0-2	2
	1	12	22.48		2
	1	24	22.36		2
	12	0	21.27	0-3	3
	12	6	21.28		3
	12	13	21.29		3
	25	0	21.19		3
256QAM	1	0	18.95	0-5	5
	1	12	19.11		5
	1	24	19.10		5
	12	0	19.26		5
	12	6	19.28		5
	12	13	19.31		5
	25	0	19.27		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.

9.4.4 LTE Band 14

Table 9-20
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	**24.06**	0	0
	1	25	23.85		0
	1	49	23.81		0
	25	0	**22.99**	0-1	1
	25	12	22.96		1
	25	25	22.81		1
	50	0	22.88		1
16QAM	1	0	23.54	0-1	1
	1	25	23.24		1
	1	49	23.20		1
	25	0	22.03	0-2	2
	25	12	21.98		2
	25	25	21.88		2
	50	0	21.87		2
64QAM	1	0	22.35	0-2	2
	1	25	22.21		2
	1	49	22.17		2
	25	0	20.98	0-3	3
	25	12	20.99		3
	25	25	20.89		3
	50	0	20.96		3
256QAM	1	0	18.90	0-5	5
	1	25	18.89		5
	1	49	18.82		5
	25	0	18.99		5
	25	12	19.02		5
	25	25	18.78		5
	50	0	18.93		5

Table 9-21
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	24.18	0	0
	1	12	24.15		0
	1	24	24.07		0
	12	0	23.20	0-1	1
	12	6	23.21		1
	12	13	23.06		1
	25	0	23.19		1
16QAM	1	0	23.43	0-1	1
	1	12	23.52		1
	1	24	23.34		1
	12	0	22.24	0-2	2
	12	6	22.22		2
	12	13	22.10		2
	25	0	22.19		2
64QAM	1	0	22.42	0-2	2
	1	12	22.38		2
	1	24	22.39		2
	12	0	21.22	0-3	3
	12	6	21.22		3
	12	13	21.09		3
	25	0	21.19		3
256QAM	1	0	19.28	0-5	5
	1	12	19.35		5
	1	24	19.17		5
	12	0	19.29		5
	12	6	19.29		5
	12	13	19.20		5
	25	0	19.19		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.

9.4.5 LTE Band 26 (Cell)

Table 9-22
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	**24.34**	0	0
	1	36	24.19		0
	1	74	24.21		0
	36	0	23.22	0-1	1
	36	18	**23.34**		1
	36	37	23.27		1
	75	0	23.26		1
16QAM	1	0	23.61	0-1	1
	1	36	23.69		1
	1	74	23.56		1
	36	0	22.33	0-2	2
	36	18	22.39		2
	36	37	22.35		2
	75	0	22.30		2
64QAM	1	0	22.43	0-2	2
	1	36	22.58		2
	1	74	22.53		2
	36	0	21.32	0-3	3
	36	18	21.48		3
	36	37	21.38		3
	75	0	21.36		3
256QAM	1	0	19.28	0-5	5
	1	36	19.42		5
	1	74	19.31		5
	36	0	19.24		5
	36	18	19.46		5
	36	37	19.34		5
	75	0	19.28		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 9-23
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	24.42	24.23	24.25	0	0
	1	25	24.20	24.12	24.19		0
	1	49	24.45	24.10	24.25		0
	25	0	23.20	23.12	23.15	0-1	1
	25	12	23.41	23.25	23.34		1
	25	25	23.22	23.17	23.24		1
	50	0	23.25	23.16	23.13		1
16QAM	1	0	23.65	23.57	23.63	0-1	1
	1	25	23.52	23.59	23.44		1
	1	49	23.42	23.55	23.54		1
	25	0	22.17	22.07	22.14	0-2	2
	25	12	22.36	22.33	22.30		2
	25	25	22.27	22.20	22.25		2
	50	0	22.21	22.14	22.28		2
64QAM	1	0	22.49	22.31	22.48	0-2	2
	1	25	22.41	22.40	22.45		2
	1	49	22.42	22.42	22.33		2
	25	0	21.25	21.12	21.17	0-3	3
	25	12	21.43	21.36	21.30		3
	25	25	21.25	21.22	21.29		3
	50	0	21.36	21.20	21.22		3
256QAM	1	0	19.07	19.15	19.22	0-5	5
	1	25	19.40	19.23	19.42		5
	1	49	19.25	19.19	19.27		5
	25	0	19.22	19.10	19.15		5
	25	12	19.33	19.21	19.23		5
	25	25	19.26	19.12	19.20		5
	50	0	19.30	19.18	19.14		5

Table 9-24
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	24.12	24.16	24.21	0	0
	1	12	24.23	24.20	24.22		0
	1	24	24.16	24.22	24.24		0
	12	0	23.28	23.20	23.29	0-1	1
	12	6	23.32	23.31	23.34		1
	12	13	23.31	23.25	23.30		1
	25	0	23.28	23.21	23.31		1
16QAM	1	0	23.45	23.48	23.57	0-1	1
	1	12	23.39	23.36	23.63		1
	1	24	23.27	23.42	23.27		1
	12	0	22.34	22.22	22.41	0-2	2
	12	6	22.40	22.35	22.28		2
	12	13	22.41	22.34	22.31		2
	25	0	22.33	22.23	22.28		2
64QAM	1	0	22.38	22.30	22.63	0-2	2
	1	12	22.63	22.46	22.51		2
	1	24	22.47	22.44	22.36		2
	12	0	21.35	21.19	21.31	0-3	3
	12	6	21.43	21.30	21.41		3
	12	13	21.36	21.27	21.38		3
	25	0	21.37	21.27	21.28		3
256QAM	1	0	19.31	19.13	19.32	0-5	5
	1	12	19.71	19.34	19.25		5
	1	24	19.36	19.30	19.32		5
	12	0	19.31	19.28	19.23		5
	12	6	19.28	19.27	19.34		5
	12	13	19.43	19.20	19.30		5
	25	0	19.30	19.18	19.25		5

Table 9-25
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	24.26	24.12	24.23	0	0
	1	7	24.23	24.29	24.20		0
	1	14	24.27	24.25	24.18		0
	8	0	23.38	23.18	23.35	0-1	1
	8	4	23.38	23.30	23.32		1
	8	7	23.34	23.32	23.39		1
	15	0	23.39	23.27	23.32		1
16QAM	1	0	23.37	23.64	23.44	0-1	1
	1	7	23.32	23.54	23.13		1
	1	14	23.59	23.49	23.48		1
	8	0	22.45	22.33	22.44	0-2	2
	8	4	22.49	22.32	22.45		2
	8	7	22.48	22.42	22.33		2
	15	0	22.42	22.30	22.37		2
64QAM	1	0	22.51	22.39	22.47	0-2	2
	1	7	22.68	22.47	22.53		2
	1	14	22.45	22.43	22.26		2
	8	0	21.39	21.27	21.36	0-3	3
	8	4	21.42	21.39	21.25		3
	8	7	21.39	21.42	21.29		3
	15	0	21.43	21.37	21.21		3
256QAM	1	0	19.40	19.30	19.33	0-5	5
	1	7	19.54	19.20	19.38		5
	1	14	19.41	19.36	19.42		5
	8	0	19.41	19.14	19.34		5
	8	4	19.40	19.38	19.36		5
	8	7	19.41	19.29	19.36		5
	15	0	19.38	19.32	19.26		5

Table 9-26
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	24.13	24.14	24.10	0	0
	1	2	24.27	24.16	24.09		0
	1	5	24.19	24.10	24.16		0
	3	0	24.17	24.04	24.15		0
	3	2	24.23	24.12	24.26		0
	3	3	24.26	24.13	24.18		0
	6	0	23.32	23.23	23.17	0-1	1
16QAM	1	0	23.53	23.42	23.46	0-1	1
	1	2	23.65	23.53	23.36		1
	1	5	23.48	23.47	23.53		1
	3	0	23.42	23.23	23.16		1
	3	2	23.39	23.37	23.45		1
	3	3	23.46	23.29	23.29		1
	6	0	22.34	22.24	22.27	0-2	2
64QAM	1	0	22.44	22.28	22.23	0-2	2
	1	2	22.36	22.45	22.23		2
	1	5	22.45	22.37	22.04		2
	3	0	22.36	22.23	22.13		2
	3	2	22.45	22.25	22.09		2
	3	3	22.29	22.29	22.02		2
	6	0	21.36	21.24	21.80	0-3	3
256QAM	1	0	19.34	19.25	19.42	0-5	5
	1	2	19.42	19.53	19.36		5
	1	5	19.36	19.29	19.40		5
	3	0	19.44	19.21	19.44		5
	3	2	19.45	19.35	19.42		5
	3	3	19.39	19.29	19.39		5
	6	0	19.30	19.23	19.21		5

9.4.6 LTE Band 5 (Cell)

Table 9-27
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	**24.12**	0	0
	1	25	24.00		0
	1	49	24.09		0
	25	0	**23.12**	0-1	1
	25	12	23.09		1
	25	25	23.10		1
	50	0	23.07		1
16QAM	1	0	23.58	0-1	1
	1	25	23.68		1
	1	49	23.47		1
	25	0	22.11	0-2	2
	25	12	22.09		2
	25	25	22.05		2
	50	0	22.14		2
64QAM	1	0	22.26	0-2	2
	1	25	22.20		2
	1	49	22.27		2
	25	0	21.08	0-3	3
	25	12	21.15		3
	25	25	21.13		3
	50	0	21.12		3
256QAM	1	0	19.12	0-5	5
	1	25	19.26		5
	1	49	19.14		5
	25	0	19.17		5
	25	12	19.14		5
	25	25	19.12		5
	50	0	19.16		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 9-28
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	24.14	24.15	24.20	0	0
	1	12	24.12	24.29	24.05		0
	1	24	24.25	24.20	24.29		0
	12	0	23.18	23.20	23.29	0-1	1
	12	6	23.36	23.21	23.37		1
	12	13	23.29	23.26	23.36		1
	25	0	23.32	23.28	23.33		1
16QAM	1	0	23.62	23.50	23.48	0-1	1
	1	12	23.41	23.75	23.70		1
	1	24	23.21	23.61	23.45		1
	12	0	22.24	22.27	22.30	0-2	2
	12	6	22.40	22.34	22.42		2
	12	13	22.29	22.31	22.38		2
	25	0	22.30	22.33	22.35		2
64QAM	1	0	22.18	22.39	22.43	0-2	2
	1	12	22.45	22.45	22.56		2
	1	24	22.20	22.34	22.33		2
	12	0	21.23	21.27	21.36	0-3	3
	12	6	21.35	21.32	21.46		3
	12	13	21.28	21.40	21.37		3
	25	0	21.36	21.29	21.44		3
256QAM	1	0	19.23	19.23	19.37	0-5	5
	1	12	19.27	19.21	19.25		5
	1	24	19.23	19.22	19.18		5
	12	0	19.25	19.28	19.30		5
	12	6	19.32	19.34	19.42		5
	12	13	19.31	19.25	19.26		5
	25	0	19.35	19.30	19.36		5

Table 9-29
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	24.11	24.16	24.23	0	0
	1	7	24.19	24.14	24.22		0
	1	14	24.17	24.27	24.12		0
	8	0	23.34	23.22	23.29	0-1	1
	8	4	23.31	23.28	23.42		1
	8	7	23.29	23.24	23.35		1
	15	0	23.31	23.34	23.30		1
16QAM	1	0	23.62	23.48	23.56	0-1	1
	1	7	23.29	23.76	23.73		1
	1	14	23.35	23.42	23.34		1
	8	0	22.36	22.32	22.34	0-2	2
	8	4	22.48	22.39	22.50		2
	8	7	22.37	22.30	22.43		2
	15	0	22.31	22.37	22.38		2
64QAM	1	0	22.38	22.47	22.57	0-2	2
	1	7	22.45	22.53	22.61		2
	1	14	22.31	22.09	22.44		2
	8	0	21.25	21.22	21.30	0-3	3
	8	4	21.33	21.35	21.45		3
	8	7	21.28	21.25	21.39		3
	15	0	21.41	21.25	21.37		3
256QAM	1	0	19.30	19.21	19.26	0-5	5
	1	7	19.35	19.32	19.17		5
	1	14	19.39	19.26	19.22		5
	8	0	19.23	19.39	19.34		5
	8	4	19.39	19.38	19.38		5
	8	7	19.25	19.31	19.31		5
	15	0	19.39	19.39	19.45		5

Table 9-30
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	24.08	24.12	24.13	0	0
	1	2	24.22	24.18	24.20		0
	1	5	24.13	24.15	24.10		0
	3	0	24.20	24.04	24.23		0
	3	2	24.20	24.16	24.29		0
	3	3	24.19	24.25	24.22		0
	6	0	23.25	23.27	23.20	0-1	1
16QAM	1	0	23.75	23.47	23.43	0-1	1
	1	2	23.36	23.65	23.57		1
	1	5	23.31	23.49	23.34		1
	3	0	23.29	23.35	23.41		1
	3	2	23.38	23.24	23.43		1
	3	3	23.38	23.39	23.36		1
	6	0	22.32	22.29	22.31	0-2	2
64QAM	1	0	22.30	22.24	22.40	0-2	2
	1	2	22.50	22.36	22.33		2
	1	5	22.29	22.42	22.29		2
	3	0	22.37	22.19	22.37		2
	3	2	22.36	22.34	22.34		2
	3	3	22.29	22.43	22.20		2
	6	0	21.24	21.33	21.35	0-3	3
256QAM	1	0	19.32	19.28	19.28	0-5	5
	1	2	19.10	19.10	19.22		5
	1	5	19.33	19.31	19.33		5
	3	0	19.40	19.29	19.34		5
	3	2	19.27	19.33	19.36		5
	3	3	19.41	19.24	19.33		5
	6	0	19.23	19.24	19.35		5

9.4.7 LTE Band 66 (AWS)

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) - 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	23.29	23.36	**23.70**	0	0
	1	50	23.40	23.49	23.65		0
	1	99	23.26	23.30	23.51		0
	50	0	22.53	22.49	22.66	0-1	1
	50	25	22.60	22.67	**22.77**		1
	50	50	22.48	22.58	22.65		1
	100	0	22.57	22.56	22.69		1
16QAM	1	0	22.51	22.47	22.65	0-1	1
	1	50	22.69	22.66	22.61		1
	1	99	22.49	22.64	22.63		1
	50	0	21.60	21.52	21.66	0-2	2
	50	25	21.51	21.70	21.75		2
	50	50	21.45	21.58	21.63		2
	100	0	21.49	21.55	21.73		2
64QAM	1	0	21.59	21.48	21.86	0-2	2
	1	50	21.78	21.67	21.78		2
	1	99	21.60	21.50	21.80		2
	50	0	20.53	20.53	20.64	0-3	3
	50	25	20.63	20.69	20.78		3
	50	50	20.52	20.61	20.69		3
	100	0	20.54	20.62	20.73		3
256QAM	1	0	18.58	18.48	18.54	0-5	5
	1	50	18.65	18.61	18.83		5
	1	99	18.44	18.55	18.46		5
	50	0	18.49	18.51	18.47		5
	50	25	18.60	18.71	18.65		5
	50	50	18.47	18.57	18.60		5
	100	0	18.52	18.59	18.59		5

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) - 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	23.32	23.41	23.67	0	0
	1	36	23.49	23.61	23.66		0
	1	74	23.21	23.39	23.52		0
	36	0	22.40	22.69	22.73	0-1	1
	36	18	22.48	22.79	22.70		1
	36	37	22.41	22.69	22.67		1
	75	0	22.42	22.69	22.62		1
16QAM	1	0	22.35	22.57	22.52	0-1	1
	1	36	22.52	22.69	22.48		1
	1	74	22.29	22.68	22.56		1
	36	0	21.46	21.70	21.76	0-2	2
	36	18	21.52	21.79	21.76		2
	36	37	21.48	21.71	21.72		2
	75	0	21.42	21.73	21.71		2
64QAM	1	0	21.64	21.46	21.69	0-2	2
	1	36	21.78	21.76	21.64		2
	1	74	21.63	21.55	21.55		2
	36	0	20.43	20.70	20.75	0-3	3
	36	18	20.52	20.75	20.82		3
	36	37	20.41	20.71	20.79		3
	75	0	20.48	20.69	20.71		3
256QAM	1	0	18.56	18.69	18.62	0-5	5
	1	36	18.58	18.83	18.91		5
	1	74	18.64	18.68	18.39		5
	36	0	18.65	18.63	18.58		5
	36	18	18.77	18.73	18.53		5
	36	37	18.58	18.65	18.48		5
	75	0	18.64	18.71	18.45		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) - 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	23.11	23.08	23.21	0	0
	1	25	23.19	23.33	23.27		0
	1	49	22.99	23.20	23.13		0
	25	0	22.30	22.37	22.11	0-1	1
	25	12	22.38	22.51	22.21		1
	25	25	22.23	22.37	22.10		1
	50	0	22.28	22.42	22.17		1
16QAM	1	0	22.19	22.22	22.09	0-1	1
	1	25	22.03	22.51	22.36		1
	1	49	22.19	22.29	22.10		1
	25	0	21.34	21.36	21.18	0-2	2
	25	12	21.35	21.49	21.25		2
	25	25	21.26	21.42	21.17		2
	50	0	21.31	21.43	21.21		2
64QAM	1	0	21.57	21.55	21.51	0-2	2
	1	25	21.68	21.62	21.73		2
	1	49	21.54	21.57	21.48		2
	25	0	20.42	20.47	20.17	0-3	3
	25	12	20.40	20.63	20.28		3
	25	25	20.34	20.54	20.16		3
	50	0	20.36	20.50	20.24		3
256QAM	1	0	18.30	18.55	18.25	0-5	5
	1	25	18.52	18.51	18.35		5
	1	49	18.45	18.49	18.22		5
	25	0	18.55	18.45	18.27		5
	25	12	18.58	18.53	18.39		5
	25	25	18.48	18.35	18.24		5
	50	0	18.50	18.42	18.31		5

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) - 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	23.30	23.31	23.28	0	0
	1	12	23.39	23.39	23.33		0
	1	24	23.31	23.28	23.21		0
	12	0	22.43	22.41	22.46	0-1	1
	12	6	22.46	22.46	22.43		1
	12	13	22.36	22.35	22.41		1
	25	0	22.44	22.40	22.44		1
16QAM	1	0	22.60	22.35	22.54	0-1	1
	1	12	22.63	22.48	22.61		1
	1	24	22.58	22.36	22.50		1
	12	0	21.50	21.43	21.47	0-2	2
	12	6	21.48	21.49	21.47		2
	12	13	21.39	21.37	21.48		2
	25	0	21.41	21.42	21.47		2
64QAM	1	0	21.43	21.45	21.55	0-2	2
	1	12	21.56	21.53	21.60		2
	1	24	21.44	21.41	21.47		2
	12	0	20.49	20.46	20.45	0-3	3
	12	6	20.27	20.34	20.25		3
	12	13	20.18	20.22	20.24		3
	25	0	20.30	20.22	20.22		3
256QAM	1	0	18.55	18.59	18.53	0-5	5
	1	12	18.76	18.65	18.51		5
	1	24	18.66	18.57	18.30		5
	12	0	18.74	18.55	18.37		5
	12	6	18.68	18.62	18.27		5
	12	13	18.54	18.49	18.26		5
	25	0	18.56	18.53	18.31		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) - 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	23.29	23.37	23.27	0	0
	1	7	23.27	23.45	23.24		0
	1	14	23.50	23.35	23.24		0
	8	0	22.42	22.48	22.39	0-1	1
	8	4	22.41	22.58	22.48		1
	8	7	22.36	22.50	22.37		1
	15	0	22.41	22.54	22.43		1
16QAM	1	0	22.40	22.67	22.62	0-1	1
	1	7	22.39	22.65	22.58		1
	1	14	22.36	22.63	22.45		1
	8	0	21.32	21.41	21.49	0-2	2
	8	4	21.32	21.47	21.47		2
	8	7	21.24	21.40	21.49		2
	15	0	21.50	21.60	21.54		2
64QAM	1	0	21.58	21.56	21.58	0-2	2
	1	7	21.61	21.51	21.67		2
	1	14	21.56	21.48	21.56		2
	8	0	20.54	20.53	20.52	0-3	3
	8	4	20.55	20.61	20.59		3
	8	7	20.47	20.52	20.52		3
	15	0	20.53	20.63	20.47		3
256QAM	1	0	18.76	18.57	18.36	0-5	5
	1	7	18.43	18.56	18.46		5
	1	14	18.56	18.53	18.41		5
	8	0	18.66	18.47	18.28		5
	8	4	18.66	18.58	18.35		5
	8	7	18.56	18.60	18.30		5
	15	0	18.71	18.58	18.37		5

Table 9-36
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	23.25	23.30	23.29	0	0
	1	2	23.32	23.21	23.38		0
	1	5	23.20	23.13	23.25		0
	3	0	23.29	23.20	23.39		0
	3	2	23.29	23.25	23.36		0
	3	3	23.27	23.19	23.44		0
	6	0	22.32	22.26	22.41	0-1	1
16QAM	1	0	22.20	22.27	22.45	0-1	1
	1	2	22.19	22.20	22.35		1
	1	5	22.07	22.22	22.40		1
	3	0	22.47	22.40	22.45		1
	3	2	22.50	22.44	22.42		1
	3	3	22.42	22.35	22.28		1
	6	0	21.31	21.19	21.41	0-2	2
64QAM	1	0	21.17	21.19	21.26	0-2	2
	1	2	21.20	21.15	21.25		2
	1	5	21.19	21.23	21.31		2
	3	0	21.48	21.40	21.37		2
	3	2	21.51	21.41	21.28		2
	3	3	21.47	21.36	21.30		2
	6	0	20.37	20.27	20.35	0-3	3
256QAM	1	0	18.62	18.53	18.32	0-5	5
	1	2	18.71	18.71	18.42		5
	1	5	18.47	18.35	18.32		5
	3	0	18.53	18.56	18.32		5
	3	2	18.50	18.50	18.40		5
	3	3	18.61	18.52	18.32		5
	6	0	18.45	18.45	18.21		5

Table 9-37
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	18.22	18.63	**18.91**	0	0
	1	50	18.50	18.90	18.90		0
	1	99	18.19	18.70	18.77		0
	50	0	18.80	18.86	18.89	0-1	0
	50	25	18.87	18.96	**19.00**		0
	50	50	18.74	18.84	18.90		0
	100	0	18.81	18.85	18.90		0
16QAM	1	0	18.61	18.77	18.98	0-1	0
	1	50	18.80	18.90	18.86		0
	1	99	18.59	18.71	18.69		0
	50	0	18.79	18.86	18.88	0-2	0
	50	25	18.96	19.04	18.94		0
	50	50	18.80	18.93	18.87		0
	100	0	18.87	18.96	18.91		0
64QAM	1	0	18.90	19.00	18.99	0-2	0
	1	50	19.00	19.13	18.82		0
	1	99	18.94	19.15	18.90		0
	50	0	18.80	18.89	18.94	0-3	0
	50	25	18.95	19.09	18.90		0
	50	50	18.77	18.97	18.94		0
	100	0	18.75	18.97	18.94		0
256QAM	1	0	19.05	18.97	18.99	0-5	0
	1	50	19.01	19.11	18.89		0
	1	99	19.01	19.03	18.90		0
	50	0	18.80	18.93	18.94		0
	50	25	18.92	19.10	18.88		0
	50	50	18.78	18.98	18.92		0
	100	0	18.75	18.98	18.92		0

Table 9-38
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	18.45	18.57	18.77	0	0
	1	36	18.60	18.78	18.78		0
	1	74	18.36	18.53	18.69		0
	36	0	18.71	18.76	18.86	0-1	0
	36	18	18.82	18.84	18.82		0
	36	37	18.74	18.82	18.76		0
	75	0	18.77	18.83	19.21		0
16QAM	1	0	18.84	18.88	19.15	0-1	0
	1	36	18.92	19.10	19.29		0
	1	74	18.71	18.82	18.89		0
	36	0	18.80	18.73	18.87	0-2	0
	36	18	18.83	18.94	18.93		0
	36	37	18.79	18.83	18.80		0
	75	0	18.77	18.75	18.86		0
64QAM	1	0	18.82	18.84	19.11	0-2	0
	1	36	18.96	18.87	18.92		0
	1	74	18.77	18.90	18.93		0
	36	0	18.76	18.72	18.89	0-3	0
	36	18	18.79	18.82	19.00		0
	36	37	18.77	18.85	18.87		0
	75	0	18.79	18.87	18.80		0
256QAM	1	0	18.76	18.77	18.77	0-5	0
	1	36	18.94	19.04	18.89		0
	1	74	18.89	18.96	18.85		0
	36	0	18.75	18.93	18.89		0
	36	18	18.82	19.04	18.87		0
	36	37	18.70	18.98	18.83		0
	75	0	18.67	18.85	18.77		0

Table 9-39
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	18.31	18.38	18.41	0	0
	1	25	18.49	18.56	18.62		0
	1	49	18.30	18.45	18.44		0
	25	0	18.69	18.60	18.68	0-1	0
	25	12	18.73	18.73	18.85		0
	25	25	18.62	18.62	18.68		0
	50	0	18.65	18.72	18.73		0
16QAM	1	0	18.74	18.52	18.99	0-1	0
	1	25	18.94	18.93	19.08		0
	1	49	18.62	18.78	18.95		0
	25	0	18.61	18.62	18.87	0-2	0
	25	12	18.79	18.81	18.83		0
	25	25	18.60	18.64	18.67		0
	50	0	18.69	18.77	18.79		0
64QAM	1	0	18.84	18.69	18.75	0-2	0
	1	25	18.89	18.85	18.78		0
	1	49	18.75	18.86	18.62		0
	25	0	18.76	18.75	18.72	0-3	0
	25	12	18.61	18.98	18.88		0
	25	25	18.91	18.92	18.66		0
	50	0	18.79	18.89	18.84		0
256QAM	1	0	18.86	18.52	18.73	0-5	0
	1	25	18.80	18.68	18.79		0
	1	49	18.83	18.94	18.79		0
	25	0	18.74	18.74	18.81		0
	25	12	18.88	18.82	18.71		0
	25	25	18.87	18.83	18.73		0
	50	0	18.85	18.79	18.72		0

Table 9-40
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	18.38	18.58	18.60	0	0
	1	12	18.53	18.63	18.67		0
	1	24	18.35	18.54	18.60		0
	12	0	18.69	18.68	18.75	0-1	0
	12	6	18.68	18.75	18.80		0
	12	13	18.55	18.69	18.77		0
	25	0	18.66	18.70	18.72		0
16QAM	1	0	18.71	18.77	18.80	0-1	0
	1	12	18.93	18.87	18.77		0
	1	24	18.66	18.80	18.84		0
	12	0	18.75	18.70	18.77	0-2	0
	12	6	18.76	18.80	18.71		0
	12	13	18.63	18.74	18.71		0
	25	0	18.67	18.72	18.64		0
64QAM	1	0	18.66	18.79	18.80	0-2	0
	1	12	18.80	18.87	18.85		0
	1	24	18.67	18.78	18.85		0
	12	0	18.66	18.71	18.72	0-3	0
	12	6	18.71	18.79	18.72		0
	12	13	18.78	18.72	18.70		0
	25	0	18.65	18.75	18.63		0
256QAM	1	0	18.90	18.72	18.75	0-5	0
	1	12	18.79	18.80	18.80		0
	1	24	18.70	18.80	18.79		0
	12	0	18.80	18.73	18.67		0
	12	6	18.72	18.75	18.69		0
	12	13	18.59	18.73	18.66		0
	25	0	18.61	18.74	18.62		0

Table 9-41
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	18.30	18.48	18.77	0	0
	1	7	18.52	18.75	18.76		0
	1	14	18.28	18.57	18.65		0
	8	0	18.65	18.70	18.85	0-1	0
	8	4	18.68	18.73	18.89		0
	8	7	18.60	18.65	18.81		0
	15	0	18.62	18.67	18.85		0
16QAM	1	0	18.63	18.85	18.83	0-1	0
	1	7	18.63	18.76	18.78		0
	1	14	18.59	18.85	18.80		0
	8	0	18.72	18.69	18.74	0-2	0
	8	4	18.76	18.77	18.77		0
	8	7	18.67	18.70	18.81		0
	15	0	18.70	18.75	18.81		0
64QAM	1	0	18.89	18.82	18.74	0-2	0
	1	7	18.94	18.87	18.73		0
	1	14	18.76	18.75	18.69		0
	8	0	18.69	18.73	18.78	0-3	0
	8	4	18.77	18.76	18.85		0
	8	7	18.76	18.69	18.75		0
	15	0	18.69	18.80	18.77		0
256QAM	1	0	18.86	18.85	18.63	0-5	0
	1	7	18.81	18.75	18.73		0
	1	14	18.82	18.77	18.64		0
	8	0	18.65	18.70	18.58		0
	8	4	18.82	18.77	18.63		0
	8	7	18.73	18.70	18.56		0
	15	0	18.76	18.79	18.64		0

Table 9-42
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	18.47	18.45	18.62	0	0
	1	2	18.66	18.61	18.72		0
	1	5	18.37	18.53	18.62		0
	3	0	18.67	18.60	18.63		0
	3	2	18.69	18.60	18.73		0
	3	3	18.67	18.57	18.59		0
	6	0	18.76	18.67	18.67	0-1	0
16QAM	1	0	18.79	18.70	18.68	0-1	0
	1	2	18.86	18.81	18.77		0
	1	5	18.79	18.73	18.72		0
	3	0	18.75	18.64	18.58		0
	3	2	18.77	18.81	18.66		0
	3	3	18.65	18.76	18.63		0
	6	0	18.60	18.82	18.67	0-2	0
64QAM	1	0	18.82	18.82	18.92	0-2	0
	1	2	18.91	18.96	18.79		0
	1	5	18.87	18.84	18.96		0
	3	0	18.77	18.93	18.78		0
	3	2	18.75	18.89	18.84		0
	3	3	18.80	18.81	18.79		0
	6	0	18.70	18.80	18.72	0-3	0
256QAM	1	0	18.83	18.84	18.92	0-5	0
	1	2	18.91	18.96	19.14		0
	1	5	18.87	18.88	18.90		0
	3	0	18.78	18.89	18.79		0
	3	2	18.83	18.84	18.88		0
	3	3	18.76	18.82	18.81		0
	6	0	18.73	18.91	18.72		0

Table 9-43
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	18.90	18.84	**19.25**	0	0
	1	50	19.13	19.13	19.17		0
	1	99	18.93	19.03	19.13		0
	50	0	19.15	19.20	19.21	0-1	0
	50	25	19.17	19.17	**19.25**		0
	50	50	19.18	19.08	19.17		0
	100	0	19.14	19.14	19.16		0
16QAM	1	0	19.15	19.00	19.06	0-1	0
	1	50	19.05	19.06	19.09		0
	1	99	19.18	18.87	18.91		0
	50	0	18.84	18.95	18.83	0-2	0
	50	25	18.74	18.80	18.92		0
	50	50	18.91	18.87	18.87		0
	100	0	18.76	18.76	18.96		0
64QAM	1	0	18.74	18.76	18.88	0-2	0
	1	50	18.72	18.89	18.84		0
	1	99	18.66	18.84	18.72		0
	50	0	18.92	18.84	18.79	0-3	0
	50	25	18.85	18.98	18.92		0
	50	50	18.91	18.89	18.80		0
	100	0	18.98	18.85	18.89		0
256QAM	1	0	18.86	18.67	18.68	0-5	0.5
	1	50	18.86	18.89	18.68		0.5
	1	99	18.80	18.63	18.55		0.5
	50	0	18.55	18.61	18.65		0.5
	50	25	18.69	18.80	18.68		0.5
	50	50	18.56	18.67	18.72		0.5
	100	0	18.64	18.63	18.74		0.5

Table 9-44
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	19.14	19.04	19.29	0	0
	1	36	19.27	19.25	19.20		0
	1	74	18.97	19.01	19.13		0
	36	0	19.21	19.25	19.40	0-1	0
	36	18	19.28	19.40	19.39		0
	36	37	19.21	19.30	19.22		0
	75	0	19.22	19.30	19.30		0
16QAM	1	0	19.18	18.98	19.00	0-1	0
	1	36	19.33	19.12	19.04		0
	1	74	19.12	18.90	19.22		0
	36	0	19.13	19.08	18.88	0-2	0
	36	18	18.97	18.91	19.01		0
	36	37	19.12	18.95	18.87		0
	75	0	19.00	18.93	19.05		0
64QAM	1	0	18.97	18.97	19.11	0-2	0
	1	36	18.89	19.10	19.02		0
	1	74	18.85	18.99	18.91		0
	36	0	18.89	18.73	18.85	0-3	0
	36	18	18.75	18.78	18.79		0
	36	37	18.77	18.84	18.85		0
	75	0	18.84	18.70	18.96		0
256QAM	1	0	18.73	18.79	18.62	0-5	0.5
	1	36	18.88	19.00	18.73		0.5
	1	74	18.61	18.75	18.54		0.5
	36	0	18.76	18.83	18.72		0.5
	36	18	18.82	18.90	18.75		0.5
	36	37	18.73	18.89	18.73		0.5
	75	0	18.78	18.83	18.70		0.5

Table 9-45
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	18.89	18.71	18.92	0	0
	1	25	19.01	19.04	19.02		0
	1	49	18.84	18.85	18.83		0
	25	0	19.16	19.03	19.19	0-1	0
	25	12	19.21	19.19	19.31		0
	25	25	19.08	19.07	19.21		0
	50	0	19.13	19.11	19.26		0
16QAM	1	0	19.14	18.91	18.99	0-1	0
	1	25	18.95	19.06	19.21		0
	1	49	18.88	18.89	19.08		0
	25	0	18.92	18.92	19.09	0-2	0
	25	12	19.01	19.06	19.22		0
	25	25	18.87	18.96	19.14		0
	50	0	18.90	19.01	19.16		0
64QAM	1	0	18.83	18.62	19.00	0-2	0
	1	25	18.69	18.93	18.74		0
	1	49	18.87	18.75	18.83		0
	25	0	19.00	19.08	19.06	0-3	0
	25	12	19.06	19.00	19.08		0
	25	25	18.92	19.10	19.16		0
	50	0	18.99	19.01	19.13		0
256QAM	1	0	18.79	18.77	18.49	0-5	0.5
	1	25	19.05	18.84	18.56		0.5
	1	49	18.86	18.67	18.39		0.5
	25	0	18.65	18.53	18.53		0.5
	25	12	18.76	18.65	18.63		0.5
	25	25	18.65	18.57	18.55		0.5
	50	0	18.63	18.59	18.60		0.5

Table 9-46
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	18.95	18.97	18.93	0	0
	1	12	19.06	19.01	18.96		0
	1	24	18.82	18.92	18.88		0
	12	0	18.97	19.06	19.14	0-1	0
	12	6	19.05	19.09	19.12		0
	12	13	18.97	19.06	19.11		0
	25	0	18.96	19.06	19.09		0
16QAM	1	0	19.13	18.99	19.16	0-1	0
	1	12	19.18	19.09	19.20		0
	1	24	19.11	18.97	19.10		0
	12	0	19.04	19.06	19.11	0-2	0
	12	6	19.04	19.14	19.15		0
	12	13	18.92	19.04	19.12		0
	25	0	18.96	19.05	19.14		0
64QAM	1	0	18.97	19.12	19.08	0-2	0
	1	12	19.08	18.91	19.18		0
	1	24	18.92	18.77	19.07		0
	12	0	19.04	18.83	19.08	0-3	0
	12	6	19.06	18.81	19.03		0
	12	13	18.93	19.05	18.89		0
	25	0	19.02	19.02	18.80		0
256QAM	1	0	18.78	18.54	18.75	0-5	0.5
	1	12	18.87	18.69	18.78		0.5
	1	24	18.77	18.56	18.67		0.5
	12	0	18.73	18.55	18.55		0.5
	12	6	18.75	18.63	18.57		0.5
	12	13	18.74	18.51	18.54		0.5
	25	0	18.71	18.70	18.41		0.5

Table 9-47
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	18.89	18.87	19.02	0	0
	1	7	18.87	18.94	18.98		0
	1	14	18.84	18.84	18.92		0
	8	0	18.96	18.99	19.07	0-1	0
	8	4	18.95	19.06	19.17		0
	8	7	18.89	19.00	19.08		0
	15	0	18.95	19.05	19.13		0
16QAM	1	0	18.66	19.11	19.27	0-1	0
	1	7	18.95	19.03	19.26		0
	1	14	18.75	19.08	19.09		0
	8	0	18.90	18.88	19.12	0-2	0
	8	4	18.90	18.92	19.19		0
	8	7	18.77	18.84	19.15		0
	15	0	18.95	19.08	19.14		0
64QAM	1	0	18.69	18.99	18.70	0-2	0
	1	7	18.78	18.94	18.84		0
	1	14	18.67	18.94	18.79		0
	8	0	18.80	19.00	18.85	0-3	0
	8	4	19.08	19.07	19.02		0
	8	7	19.01	18.99	19.11		0
	15	0	19.09	19.08	18.97		0
256QAM	1	0	18.85	18.87	18.61	0-5	0.5
	1	7	18.66	18.91	18.50		0.5
	1	14	18.63	18.83	18.70		0.5
	8	0	18.84	18.69	18.50		0.5
	8	4	18.86	18.74	18.54		0.5
	8	7	18.85	18.71	18.50		0.5
	15	0	18.79	18.68	18.61		0.5

Table 9-48
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	18.85	18.87	18.98	0	0
	1	2	18.95	18.91	19.07		0
	1	5	18.87	18.79	18.92		0
	3	0	18.80	18.90	18.93		0
	3	2	18.80	18.93	19.01		0
	3	3	18.76	18.85	19.02		0
	6	0	18.87	18.95	18.99	0-1	0
16QAM	1	0	19.03	18.73	18.87	0-1	0
	1	2	19.06	18.74	18.85		0
	1	5	19.05	18.81	18.73		0
	3	0	18.88	19.03	19.09		0
	3	2	18.94	19.08	19.12		0
	3	3	18.93	18.98	19.14		0
	6	0	18.85	18.90	18.89	0-2	0
64QAM	1	0	18.86	18.72	18.90	0-2	0
	1	2	18.91	18.85	19.00		0
	1	5	18.82	18.73	18.92		0
	3	0	18.99	19.07	19.11		0
	3	2	18.95	19.09	19.05		0
	3	3	18.86	19.01	19.11		0
	6	0	18.94	18.94	18.96	0-3	0
256QAM	1	0	18.67	18.88	18.46	0-5	0.5
	1	2	18.72	18.62	18.50		0.5
	1	5	18.66	18.60	18.55		0.5
	3	0	18.63	18.53	18.41		0.5
	3	2	18.76	18.45	18.31		0.5
	3	3	18.63	18.40	18.55		0.5
	6	0	18.64	18.58	18.60		0.5

9.4.8 LTE Band 25 (PCS)

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) - 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	23.26	23.22	23.00	0	0
	1	50	23.18	23.09	22.94		0
	1	99	**23.27**	23.10	22.95		0
	50	0	22.38	22.31	22.12	0-1	1
	50	25	**22.40**	22.26	22.16		1
	50	50	22.34	22.15	22.12		1
	100	0	22.19	22.13	22.10		1
16QAM	1	0	22.59	22.64	22.29	0-1	1
	1	50	22.63	22.48	22.24		1
	1	99	22.65	22.47	22.21		1
	50	0	21.40	21.33	21.19	0-2	2
	50	25	21.42	21.38	21.12		2
	50	50	21.28	21.36	21.12		2
	100	0	21.28	21.11	21.09		2
64QAM	1	0	21.50	21.69	21.15	0-2	2
	1	50	21.50	21.48	21.17		2
	1	99	21.48	21.24	21.27		2
	50	0	20.47	20.31	20.16	0-3	3
	50	25	20.46	20.32	20.19		3
	50	50	20.35	20.14	20.21		3
	100	0	20.33	20.17	20.05		3
256QAM	1	0	18.33	18.03	17.97	0-5	5
	1	50	18.43	18.34	17.92		5
	1	99	18.46	17.97	18.01		5
	50	0	18.36	18.18	18.02		5
	50	25	18.36	18.29	18.17		5
	50	50	18.19	18.10	18.11		5
	100	0	18.35	18.10	17.93		5

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) - 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	23.10	23.19	23.13	0	0
	1	36	23.25	23.22	23.19		0
	1	74	23.19	23.35	23.25		0
	36	0	22.15	22.23	22.24	0-1	1
	36	18	22.23	22.36	22.34		1
	36	37	22.25	22.27	22.30		1
	75	0	22.17	22.20	22.28		1
16QAM	1	0	22.42	22.71	22.43	0-1	1
	1	36	22.62	22.57	22.34		1
	1	74	22.64	22.54	22.42		1
	36	0	21.20	21.23	21.27	0-2	2
	36	18	21.30	21.34	21.36		2
	36	37	21.31	21.29	21.41		2
	75	0	21.15	21.25	21.32		2
64QAM	1	0	21.45	21.67	21.30	0-2	2
	1	36	21.63	21.54	21.26		2
	1	74	21.59	21.46	21.31		2
	36	0	20.27	20.34	20.34	0-3	3
	36	18	20.23	20.46	20.45		3
	36	37	20.27	20.37	20.49		3
	75	0	20.24	20.22	20.27		3
256QAM	1	0	18.12	18.11	18.25	0-5	5
	1	36	18.12	17.90	18.08		5
	1	74	18.29	18.37	18.19		5
	36	0	18.25	18.15	18.12		5
	36	18	18.38	18.24	18.31		5
	36	37	18.27	18.14	18.19		5
	75	0	18.23	18.08	18.15		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)- 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	23.08	23.29	23.11	0	0
	1	25	23.25	23.07	23.15		0
	1	49	23.19	23.18	23.25		0
	25	0	22.07	22.20	22.19	0-1	1
	25	12	22.16	22.31	22.30		1
	25	25	22.12	22.26	22.28		1
	50	0	22.08	22.24	22.25		1
16QAM	1	0	22.34	22.60	22.26	0-1	1
	1	25	22.54	22.42	22.20		1
	1	49	22.29	22.26	22.37		1
	25	0	21.28	21.25	21.37	0-2	2
	25	12	21.29	21.36	21.35		2
	25	25	21.32	21.29	21.36		2
	50	0	21.22	21.27	21.28		2
64QAM	1	0	21.25	21.29	21.33	0-2	2
	1	25	21.25	21.31	21.27		2
	1	49	21.37	21.28	21.29		2
	25	0	20.27	20.31	20.20	0-3	3
	25	12	20.35	20.36	20.33		3
	25	25	20.24	20.37	20.34		3
	50	0	20.14	20.31	20.24		3
256QAM	1	0	18.44	18.07	18.12	0-5	5
	1	25	18.44	18.25	18.02		5
	1	49	18.33	17.90	17.85		5
	25	0	18.13	17.86	17.88		5
	25	12	18.17	17.84	18.08		5
	25	25	18.15	17.98	17.98		5
	50	0	18.16	17.93	18.04		5

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) - 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	23.11	23.13	23.06	0	0
	1	12	23.03	23.24	23.09		0
	1	24	23.10	23.27	23.14		0
	12	0	22.13	22.27	22.22	0-1	1
	12	6	22.17	22.28	22.27		1
	12	13	22.18	22.30	22.31		1
	25	0	22.08	22.21	22.26		1
16QAM	1	0	22.47	22.44	22.33	0-1	1
	1	12	22.45	22.37	22.46		1
	1	24	22.48	22.46	22.22		1
	12	0	21.21	21.23	21.23	0-2	2
	12	6	21.20	21.34	21.35		2
	12	13	21.22	21.36	21.35		2
	25	0	21.13	21.24	21.29		2
64QAM	1	0	21.30	21.27	21.38	0-2	2
	1	12	21.44	21.38	21.42		2
	1	24	21.45	21.36	21.44		2
	12	0	20.24	20.29	20.23	0-3	3
	12	6	20.25	20.29	20.31		3
	12	13	20.21	20.31	20.29		3
	25	0	20.15	20.33	20.19		3
256QAM	1	0	18.18	18.59	18.26	0-5	5
	1	12	18.19	18.25	18.33		5
	1	24	18.12	18.11	18.11		5
	12	0	18.15	17.85	17.98		5
	12	6	18.17	18.10	18.09		5
	12	13	18.11	18.00	18.07		5
	25	0	18.09	18.04	18.05		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) - 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	23.27	23.16	23.12	0	0
	1	7	23.02	23.18	23.11		0
	1	14	23.16	23.14	23.20		0
	8	0	22.15	22.19	22.27	0-1	1
	8	4	22.20	22.20	22.30		1
	8	7	22.19	22.23	22.29		1
	15	0	22.16	22.17	22.28		1
16QAM	1	0	22.38	22.37	22.50	0-1	1
	1	7	22.45	22.39	22.51		1
	1	14	22.55	22.38	22.49		1
	8	0	21.19	21.20	21.34	0-2	2
	8	4	21.02	21.22	21.37		2
	8	7	21.02	21.22	21.38		2
	15	0	21.12	21.27	21.26		2
64QAM	1	0	21.09	21.35	21.15	0-2	2
	1	7	21.06	21.33	21.29		2
	1	14	21.14	21.29	21.19		2
	8	0	20.15	20.28	20.22	0-3	3
	8	4	20.24	20.33	20.43		3
	8	7	20.18	20.31	20.41		3
	15	0	20.17	20.33	20.32		3
256QAM	1	0	18.29	18.02	18.28	0-5	5
	1	7	18.29	18.18	18.08		5
	1	14	18.29	18.05	17.89		5
	8	0	18.09	17.98	18.41		5
	8	4	18.15	18.05	18.17		5
	8	7	18.07	18.15	18.05		5
	15	0	18.18	18.02	18.08		5

Table 9-54
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	23.25	23.12	23.12	0	0
	1	2	23.11	23.14	23.22		0
	1	5	23.19	23.15	23.34		0
	3	0	23.03	23.09	23.21		0
	3	2	23.09	23.22	23.26		0
	3	3	23.04	23.18	23.22		0
	6	0	22.07	22.16	22.30	0-1	1
16QAM	1	0	22.33	22.35	22.33	0-1	1
	1	2	22.45	22.41	22.44		1
	1	5	22.49	22.39	22.40		1
	3	0	22.12	22.29	22.33		1
	3	2	22.17	22.38	22.38		1
	3	3	22.09	22.34	22.30		1
	6	0	21.10	21.12	21.22	0-2	2
64QAM	1	0	21.33	21.32	21.30	0-2	2
	1	2	21.34	21.28	21.29		2
	1	5	21.37	21.22	21.33		2
	3	0	21.08	21.33	21.31		2
	3	2	21.11	21.38	21.35		2
	3	3	21.06	21.32	21.31		2
	6	0	20.08	20.21	20.27	0-3	3
256QAM	1	0	18.04	18.09	17.97	0-5	5
	1	2	18.28	18.36	17.85		5
	1	5	17.95	17.95	18.05		5
	3	0	18.14	18.00	18.01		5
	3	2	17.98	17.94	18.03		5
	3	3	18.05	18.05	18.18		5
	6	0	17.96	17.98	18.01		5

Table 9-55
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	18.20	**18.21**	17.80	0	0
	1	50	18.18	18.00	17.75		0
	1	99	18.11	17.90	17.94		0
	50	0	18.25	**18.29**	17.82	0-1	0
	50	25	18.27	18.14	17.78		0
	50	50	18.17	18.03	17.97		0
	100	0	18.07	18.12	18.01		0
16QAM	1	0	18.59	18.55	18.04	0-1	0
	1	50	18.57	18.35	18.11		0
	1	99	18.42	18.25	18.05		0
	50	0	18.35	18.24	17.91	0-2	0
	50	25	18.30	18.15	17.88		0
	50	50	18.17	18.00	17.83		0
	100	0	18.24	17.95	17.85		0
64QAM	1	0	18.52	18.47	18.11	0-2	0
	1	50	18.44	18.36	18.09		0
	1	99	18.42	18.32	17.93		0
	50	0	18.40	18.25	17.91	0-3	0
	50	25	18.43	18.15	17.89		0
	50	50	18.34	18.06	17.88		0
	100	0	18.14	17.95	17.80		0
256QAM	1	0	18.22	18.02	17.60	0-5	0
	1	50	18.49	18.22	17.84		0
	1	99	18.11	17.75	17.70		0
	50	0	18.26	18.12	17.75		0
	50	25	18.20	18.22	17.83		0
	50	50	18.17	17.98	17.85		0
	100	0	18.14	17.96	17.84		0

Table 9-56
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	18.27	18.16	18.02	0	0
	1	36	18.33	18.27	18.09		0
	1	74	18.20	18.16	18.10		0
	36	0	18.37	18.24	17.96	0-1	0
	36	18	18.38	18.27	18.11		0
	36	37	18.30	18.20	18.12		0
	75	0	18.31	18.24	18.04		0
16QAM	1	0	18.42	18.61	18.09	0-1	0
	1	36	18.30	18.45	18.16		0
	1	74	18.45	18.47	18.25		0
	36	0	18.38	18.21	18.00	0-2	0
	36	18	18.51	18.31	18.19		0
	36	37	18.47	18.14	18.17		0
	75	0	18.46	18.13	18.06		0
64QAM	1	0	18.59	18.50	18.28	0-2	0
	1	36	18.35	18.55	18.23		0
	1	74	18.56	18.56	18.20		0
	36	0	18.48	18.41	18.01	0-3	0
	36	18	18.50	18.48	18.16		0
	36	37	18.47	18.40	18.19		0
	75	0	18.38	18.20	18.14		0
256QAM	1	0	18.22	18.16	17.80	0-5	0
	1	36	18.18	18.27	18.15		0
	1	74	18.05	18.12	18.09		0
	36	0	18.24	18.10	17.93		0
	36	18	18.25	18.22	18.07		0
	36	37	18.29	18.10	18.14		0
	75	0	18.25	18.06	18.05		0

Table 9-57
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	18.21	18.22	18.05	0	0
	1	25	18.22	18.18	17.96		0
	1	49	18.17	18.11	17.92		0
	25	0	18.19	18.19	17.96	0-1	0
	25	12	18.31	18.16	18.01		0
	25	25	18.22	18.10	17.99		0
	50	0	18.19	18.10	17.93		0
16QAM	1	0	18.51	18.55	18.21	0-1	0
	1	25	18.64	18.46	18.07		0
	1	49	18.62	18.44	18.31		0
	25	0	18.22	18.30	17.94	0-2	0
	25	12	18.34	18.33	17.98		0
	25	25	18.25	18.14	18.00		0
	50	0	18.24	18.17	17.96		0
64QAM	1	0	18.61	18.67	18.04	0-2	0
	1	25	18.53	18.62	18.10		0
	1	49	18.44	18.59	18.16		0
	25	0	18.34	18.51	18.04	0-3	0
	25	12	18.45	18.25	17.99		0
	25	25	18.36	18.24	17.92		0
	50	0	18.25	18.19	17.94		0
256QAM	1	0	18.11	17.98	17.70	0-5	0
	1	25	18.05	18.12	17.81		0
	1	49	17.91	18.00	17.74		0
	25	0	18.19	17.94	17.85		0
	25	12	18.20	18.01	17.94		0
	25	25	18.12	17.96	17.92		0
	50	0	18.11	17.96	17.81		0

Table 9-58
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	18.14	18.17	17.94	0	0
	1	12	18.18	18.16	17.98		0
	1	24	18.18	18.11	17.93		0
	12	0	18.27	18.18	17.97	0-1	0
	12	6	18.30	18.19	17.99		0
	12	13	18.29	18.16	17.93		0
	25	0	18.25	18.17	17.88		0
16QAM	1	0	18.51	18.44	17.90	0-1	0
	1	12	18.55	18.48	18.03		0
	1	24	18.56	18.53	17.93		0
	12	0	18.25	18.19	18.02	0-2	0
	12	6	18.32	18.20	17.96		0
	12	13	18.32	18.20	18.10		0
	25	0	18.32	18.18	17.94		0
64QAM	1	0	18.47	18.52	17.98	0-2	0
	1	12	18.54	18.48	18.12		0
	1	24	18.59	18.28	18.21		0
	12	0	18.33	18.20	18.07	0-3	0
	12	6	18.37	18.36	17.98		0
	12	13	18.39	18.19	17.92		0
	25	0	18.28	18.24	17.97		0
256QAM	1	0	18.08	17.90	18.00	0-5	0
	1	12	18.19	17.94	18.24		0
	1	24	18.20	17.92	18.07		0
	12	0	18.16	17.70	17.81		0
	12	6	18.19	17.97	17.92		0
	12	13	18.18	17.96	17.97		0
	25	0	18.05	17.92	17.83		0

Table 9-59
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	18.19	18.02	17.92	0	0
	1	7	18.21	18.22	17.99		0
	1	14	18.09	18.09	17.97		0
	8	0	18.35	18.14	17.91	0-1	0
	8	4	18.36	18.10	17.92		0
	8	7	18.29	18.14	17.87		0
	15	0	18.33	18.21	17.85		0
16QAM	1	0	18.49	18.46	17.97	0-1	0
	1	7	18.42	18.45	17.95		0
	1	14	18.36	18.50	17.89		0
	8	0	18.28	18.11	17.86	0-2	0
	8	4	18.26	18.20	17.88		0
	8	7	18.18	18.27	17.94		0
	15	0	18.44	18.12	17.93		0
64QAM	1	0	18.41	18.42	18.25	0-2	0
	1	7	18.31	18.40	18.28		0
	1	14	18.45	18.46	18.20		0
	8	0	18.39	18.23	17.89	0-3	0
	8	4	18.40	18.28	17.93		0
	8	7	18.33	18.22	17.91		0
	15	0	18.39	18.24	17.89		0
256QAM	1	0	18.00	18.08	17.75	0-5	0
	1	7	18.25	18.07	17.84		0
	1	14	17.94	18.09	17.86		0
	8	0	18.08	17.94	17.70		0
	8	4	18.15	18.02	17.78		0
	8	7	18.11	17.97	17.85		0
	15	0	18.17	17.88	17.82		0

Table 9-60
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	18.09	18.17	18.01	0	0
	1	2	18.16	18.11	17.96		0
	1	5	18.07	18.16	18.01		0
	3	0	18.18	18.13	18.05		0
	3	2	18.22	18.17	18.08		0
	3	3	18.17	18.22	17.95		0
	6	0	18.29	18.19	17.97	0-1	0
16QAM	1	0	18.41	18.62	18.07	0-1	0
	1	2	18.45	18.49	18.24		0
	1	5	18.36	18.28	18.22		0
	3	0	18.34	18.26	17.94		0
	3	2	18.38	18.21	17.95		0
	3	3	18.26	18.10	17.96		0
	6	0	18.28	18.17	17.91	0-2	0
64QAM	1	0	18.41	18.36	18.10	0-2	0
	1	2	18.43	18.52	18.19		0
	1	5	18.40	18.61	18.09		0
	3	0	18.23	18.16	18.04		0
	3	2	18.29	18.18	17.91		0
	3	3	18.19	18.13	17.96		0
	6	0	18.27	18.21	17.94	0-3	0
256QAM	1	0	18.03	17.93	17.74	0-5	0
	1	2	18.02	18.00	17.85		0
	1	5	18.06	17.97	17.82		0
	3	0	17.92	18.02	17.78		0
	3	2	18.02	18.04	17.79		0
	3	3	17.97	17.98	17.77		0
	6	0	18.06	17.99	17.77		0

Table 9-61
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	19.15	19.12	18.86	0	0
	1	50	19.20	19.04	18.97		0
	1	99	**19.21**	19.01	19.00		0
	50	0	19.24	19.22	18.88	0-1	0
	50	25	**19.25**	19.16	18.84		0
	50	50	19.21	19.03	19.01		0
	100	0	19.15	19.18	18.85		0
16QAM	1	0	19.53	19.40	19.14	0-1	0
	1	50	19.52	19.41	19.09		0
	1	99	19.60	19.28	19.15		0
	50	0	19.30	19.25	18.87	0-2	0
	50	25	19.36	19.19	18.91		0
	50	50	19.19	19.06	18.92		0
	100	0	19.20	19.02	18.90		0
64QAM	1	0	19.46	19.49	18.86	0-2	0
	1	50	19.30	19.36	19.03		0
	1	99	19.38	19.35	19.09		0
	50	0	19.34	19.30	19.08	0-3	0
	50	25	19.35	19.25	18.92		0
	50	50	19.21	19.28	18.96		0
	100	0	19.40	19.26	18.90		0
256QAM	1	0	18.07	18.00	17.74	0-5	1
	1	50	18.25	18.27	17.95		1
	1	99	18.14	17.94	17.86		1
	50	0	18.18	18.05	17.80		1
	50	25	18.36	18.15	17.79		1
	50	50	18.23	17.93	17.95		1
	100	0	18.15	18.00	17.90		1

Table 9-62
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	19.18	19.12	18.91	0	0
	1	36	19.47	19.18	18.90		0
	1	74	19.31	19.08	18.88		0
	36	0	19.34	19.21	18.89	0-1	0
	36	18	19.40	19.32	19.02		0
	36	37	19.46	19.21	19.06		0
	75	0	19.37	19.17	18.91		0
16QAM	1	0	19.42	19.34	19.10	0-1	0
	1	36	19.55	19.37	19.25		0
	1	74	19.49	19.29	19.24		0
	36	0	19.44	19.23	18.90	0-2	0
	36	18	19.51	19.36	19.10		0
	36	37	19.52	19.26	19.07		0
	75	0	19.42	19.22	19.01		0
64QAM	1	0	19.61	19.33	19.40	0-2	0
	1	36	19.54	19.34	19.25		0
	1	74	19.64	19.49	19.46		0
	36	0	19.41	19.33	19.01	0-3	0
	36	18	19.51	19.43	19.15		0
	36	37	19.48	19.35	19.18		0
	75	0	19.46	19.24	18.92		0
256QAM	1	0	18.01	18.03	17.78	0-5	1
	1	36	18.23	18.19	17.98		1
	1	74	18.05	18.11	18.00		1
	36	0	18.22	18.13	17.70		1
	36	18	18.31	18.16	17.75		1
	36	37	18.35	18.11	17.75		1
	75	0	18.17	18.04	17.86		1

Table 9-63
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	19.25	19.09	18.89	0	0
	1	25	19.27	19.06	18.87		0
	1	49	19.19	19.17	18.96		0
	25	0	19.22	19.24	18.99	0-1	0
	25	12	19.27	19.27	18.87		0
	25	25	19.21	19.11	19.03		0
	50	0	19.21	19.31	18.86		0
16QAM	1	0	19.35	19.42	18.93	0-1	0
	1	25	19.40	19.54	18.90		0
	1	49	19.27	19.34	19.08		0
	25	0	19.22	19.13	18.98	0-2	0
	25	12	19.29	19.12	18.88		0
	25	25	19.24	19.11	18.83		0
	50	0	19.34	19.10	18.96		0
64QAM	1	0	19.55	19.58	19.22	0-2	0
	1	25	19.59	19.42	19.21		0
	1	49	19.57	19.48	19.35		0
	25	0	19.30	19.08	19.17	0-3	0
	25	12	19.42	19.19	18.88		0
	25	25	19.34	19.12	18.79		0
	50	0	19.25	19.06	18.74		0
256QAM	1	0	17.80	17.83	17.91	0-5	1
	1	25	18.12	18.03	18.27		1
	1	49	17.95	17.86	18.11		1
	25	0	18.05	17.89	17.77		1
	25	12	18.19	18.01	17.90		1
	25	25	18.07	17.90	17.88		1
	50	0	18.09	17.90	17.78		1

Table 9-64
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	19.22	19.11	18.99	0	0
	1	12	19.18	19.08	18.95		0
	1	24	19.17	19.09	18.97		0
	12	0	19.28	19.07	18.85	0-1	0
	12	6	19.24	19.06	18.90		0
	12	13	19.28	19.04	18.94		0
	25	0	19.25	19.03	18.97		0
16QAM	1	0	19.42	19.21	18.88	0-1	0
	1	12	19.55	19.24	18.95		0
	1	24	19.44	19.26	19.16		0
	12	0	19.27	19.16	19.24	0-2	0
	12	6	19.33	19.13	18.96		0
	12	13	19.28	19.14	18.90		0
	25	0	19.25	19.21	18.92		0
64QAM	1	0	19.48	19.23	19.21	0-2	0
	1	12	19.54	19.32	19.28		0
	1	24	19.55	19.32	19.22		0
	12	0	19.31	19.15	19.01	0-3	0
	12	6	19.31	19.20	19.09		0
	12	13	19.32	19.29	19.07		0
	25	0	19.23	19.13	19.12		0
256QAM	1	0	18.13	17.86	17.74	0-5	1
	1	12	18.25	17.93	17.99		1
	1	24	18.09	17.92	17.83		1
	12	0	18.06	17.98	17.75		1
	12	6	18.14	17.98	17.87		1
	12	13	18.16	17.99	17.83		1
	25	0	18.08	17.86	17.79		1

Table 9-65
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	19.19	19.17	18.96	0	0
	1	7	19.15	19.21	18.91		0
	1	14	19.24	19.16	18.93		0
	8	0	19.32	19.25	18.96	0-1	0
	8	4	19.32	19.18	18.92		0
	8	7	19.33	19.24	19.07		0
	15	0	19.38	19.12	18.98		0
16QAM	1	0	19.45	19.36	19.05	0-1	0
	1	7	19.46	19.46	19.13		0
	1	14	19.50	19.20	19.10		0
	8	0	19.20	19.16	18.94	0-2	0
	8	4	19.27	19.06	18.96		0
	8	7	19.25	19.09	18.96		0
	15	0	19.37	19.10	18.95		0
64QAM	1	0	19.32	19.27	19.39	0-2	0
	1	7	19.29	19.32	19.35		0
	1	14	19.35	19.48	19.41		0
	8	0	19.33	19.21	18.99	0-3	0
	8	4	19.41	19.22	19.02		0
	8	7	19.34	19.22	19.00		0
	15	0	19.41	19.18	18.91		0
256QAM	1	0	17.83	18.07	17.81	0-5	1
	1	7	17.98	18.06	17.75		1
	1	14	17.90	18.12	17.82		1
	8	0	18.06	18.01	17.69		1
	8	4	18.11	18.00	17.74		1
	8	7	18.14	18.02	17.75		1
	15	0	18.18	17.86	17.55		1

Table 9-66
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	19.27	19.09	19.01	0	0
	1	2	19.21	19.11	19.11		0
	1	5	19.22	19.15	18.98		0
	3	0	19.26	19.34	18.95		0
	3	2	19.28	19.33	18.91		0
	3	3	19.27	19.24	19.26		0
	6	0	19.28	19.13	19.12	0-1	0
16QAM	1	0	19.45	19.17	19.01	0-1	0
	1	2	19.41	19.15	19.18		0
	1	5	19.59	19.08	19.14		0
	3	0	19.22	19.26	19.27		0
	3	2	19.28	19.17	19.18		0
	3	3	19.25	19.28	19.16		0
	6	0	19.25	19.21	18.95	0-2	0
64QAM	1	0	19.47	19.33	18.98	0-2	0
	1	2	19.41	19.42	19.22		0
	1	5	19.56	19.34	19.24		0
	3	0	19.24	19.45	19.26		0
	3	2	19.31	19.02	19.23		0
	3	3	19.27	19.35	19.25		0
	6	0	19.24	19.25	19.13	0-3	0
256QAM	1	0	17.75	17.79	17.78	0-5	1
	1	2	17.96	17.83	17.81		1
	1	5	17.88	17.83	17.87		1
	3	0	17.91	17.88	17.77		1
	3	2	17.96	17.94	17.84		1
	3	3	18.00	17.96	17.79		1
	6	0	18.03	17.87	17.75		1

9.4.9 LTE Band 2 (PCS)

Table 9-67
LTE Band 2 (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 2 (PCS) 20 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 18700 (1860.0 MHz)	Mid Channel 18900 (1880.0 MHz)	High Channel 19100 (1900.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	23.18	23.18	23.14	0	0
	1	50	23.19	23.10	23.05		0
	1	99	**23.21**	23.05	23.01		0
	50	0	22.23	22.22	22.15	0-1	1
	50	25	22.30	22.27	22.25		1
	50	50	**22.37**	22.15	22.16		1
	100	0	22.13	22.13	22.20		1
16QAM	1	0	22.39	22.46	22.47	0-1	1
	1	50	22.51	22.40	22.45		1
	1	99	22.35	22.39	22.28		1
	50	0	21.24	21.23	21.17	0-2	2
	50	25	21.39	21.20	21.35		2
	50	50	21.38	21.15	21.13		2
	100	0	21.34	21.12	21.17		2
64QAM	1	0	21.23	21.36	21.44	0-2	2
	1	50	21.25	21.21	21.37		2
	1	99	21.27	21.18	21.21		2
	50	0	20.30	20.26	20.20	0-3	3
	50	25	20.39	20.31	20.30		3
	50	50	20.32	20.19	20.15		3
	100	0	20.34	20.09	20.14		3
256QAM	1	0	18.22	18.10	18.20	0-5	5
	1	50	18.40	18.31	18.18		5
	1	99	18.15	18.07	18.11		5
	50	0	18.26	18.22	18.18		5
	50	25	18.39	18.30	18.26		5
	50	50	18.35	18.14	18.17		5
	100	0	18.28	18.15	18.16		5

Table 9-68
LTE Band 2 (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 2 (PCS) 15 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 18675 (1857.5 MHz)	Mid Channel 18900 (1880.0 MHz)	High Channel 19125 (1902.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	23.00	23.07	22.93	0	0
	1	36	23.05	23.03	22.89		0
	1	74	23.18	23.01	22.93		0
	36	0	22.14	22.12	21.97	0-1	1
	36	18	22.30	22.24	22.09		1
	36	37	22.27	22.11	22.10		1
	75	0	22.22	22.07	22.00		1
16QAM	1	0	22.22	22.38	22.38	0-1	1
	1	36	22.52	22.49	22.50		1
	1	74	22.43	22.32	22.32		1
	36	0	21.32	21.24	21.07	0-2	2
	36	18	21.25	21.19	21.05		2
	36	37	21.33	21.22	21.11		2
	75	0	21.26	21.09	21.10		2
64QAM	1	0	21.28	21.44	21.40	0-2	2
	1	36	21.50	21.42	21.22		2
	1	74	21.41	21.23	21.30		2
	36	0	20.24	20.20	20.06	0-3	3
	36	18	20.33	20.25	20.12		3
	36	37	20.40	20.17	20.08		3
	75	0	20.29	20.12	20.07		3
256QAM	1	0	18.26	18.15	18.08	0-5	5
	1	36	18.41	18.36	18.08		5
	1	74	18.41	18.10	18.06		5
	36	0	18.23	18.21	18.03		5
	36	18	18.34	18.31	18.13		5
	36	37	18.34	18.11	18.07		5
	75	0	18.33	18.08	18.00		5

Table 9-69
LTE Band 2 (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 2 (PCS) 10 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 18650 (1855.0 MHz)	Mid Channel 18900 (1880.0 MHz)	High Channel 19150 (1905.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	22.85	22.91	22.99	0	0
	1	25	23.00	23.04	22.87		0
	1	49	22.99	22.91	22.84		0
	25	0	22.14	22.18	21.85	0-1	1
	25	12	22.24	22.26	22.02		1
	25	25	22.14	22.15	21.93		1
	50	0	22.13	22.17	21.89		1
16QAM	1	0	22.20	22.26	22.45	0-1	1
	1	25	22.51	22.43	22.38		1
	1	49	22.28	22.22	22.33		1
	25	0	21.04	21.15	20.83	0-2	2
	25	12	21.24	21.28	20.99		2
	25	25	21.15	21.16	20.99		2
	50	0	21.09	21.13	20.91		2
64QAM	1	0	21.04	21.19	21.33	0-2	2
	1	25	21.18	21.24	21.19		2
	1	49	21.10	21.15	21.21		2
	25	0	20.26	20.14	19.91	0-3	3
	25	12	20.28	20.30	20.04		3
	25	25	20.13	20.07	19.99		3
	50	0	20.14	20.20	19.91		3
256QAM	1	0	18.13	18.07	17.93	0-5	5
	1	25	18.25	18.19	18.23		5
	1	49	18.10	18.06	17.95		5
	25	0	18.11	18.23	18.04		5
	25	12	18.25	18.30	18.05		5
	25	25	18.16	18.10	18.04		5
	50	0	18.27	18.14	17.99		5

Table 9-70
LTE Band 2 (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 2 (PCS) 5 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 18625 (1852.5 MHz)	Mid Channel 18900 (1880.0 MHz)	High Channel 19175 (1907.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	22.89	22.87	22.86	0	0
	1	12	22.97	23.07	22.93		0
	1	24	22.80	22.86	22.92		0
	12	0	21.98	22.03	22.00	0-1	1
	12	6	22.08	21.99	22.08		1
	12	13	22.00	21.88	21.98		1
	25	0	22.04	21.97	21.93		1
16QAM	1	0	22.23	22.21	22.26	0-1	1
	1	12	22.42	22.19	22.18		1
	1	24	22.22	22.07	22.15		1
	12	0	21.10	21.04	21.06	0-2	2
	12	6	21.12	20.99	21.08		2
	12	13	21.07	20.94	21.05		2
	25	0	21.00	20.97	20.97		2
64QAM	1	0	21.11	21.09	21.24	0-2	2
	1	12	21.34	21.18	21.46		2
	1	24	21.20	21.03	21.15		2
	12	0	20.07	20.03	20.02	0-3	3
	12	6	20.10	20.12	20.17		3
	12	13	20.01	19.97	20.01		3
	25	0	20.06	19.92	19.99		3
256QAM	1	0	18.06	18.04	18.12	0-5	5
	1	12	18.21	18.12	18.12		5
	1	24	18.09	17.98	18.04		5
	12	0	18.06	17.99	18.03		5
	12	6	18.09	18.02	18.04		5
	12	13	18.00	17.94	17.99		5
	25	0	18.11	17.93	18.13		5

Table 9-71
LTE Band 2 (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 2 (PCS) 3 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 18615 (1851.5 MHz)	Mid Channel 18900 (1880.0 MHz)	High Channel 19185 (1908.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	22.98	22.92	22.94	0	0
	1	7	22.92	22.85	22.94		0
	1	14	22.90	22.81	22.88		0
	8	0	22.03	22.05	22.08	0-1	1
	8	4	22.03	21.98	22.00		1
	8	7	21.95	21.91	21.96		1
	15	0	21.99	21.95	21.99		1
16QAM	1	0	22.13	22.31	22.13	0-1	1
	1	7	22.17	22.13	22.25		1
	1	14	22.26	22.25	22.37		1
	8	0	21.15	21.17	21.02	0-2	2
	8	4	21.12	21.11	21.03		2
	8	7	21.04	20.97	21.05		2
	15	0	21.06	20.99	21.07		2
64QAM	1	0	21.07	21.25	21.20	0-2	2
	1	7	21.02	21.13	21.44		2
	1	14	21.16	21.12	21.15		2
	8	0	20.10	20.08	20.02	0-3	3
	8	4	20.08	20.00	20.06		3
	8	7	20.04	20.00	20.05		3
	15	0	20.06	20.07	20.01		3
256QAM	1	0	18.21	18.12	18.13	0-5	5
	1	7	18.11	18.10	17.96		5
	1	14	18.09	18.05	18.08		5
	8	0	18.06	18.08	18.10		5
	8	4	18.04	18.01	18.10		5
	8	7	18.07	18.01	18.17		5
	15	0	18.06	18.04	17.99		5

Table 9-72
LTE Band 2 (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 2 (PCS) 1.4 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 18607 (1850.7 MHz)	Mid Channel 18900 (1880.0 MHz)	High Channel 19193 (1909.3 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	22.83	22.87	22.85	0	0
	1	2	22.92	22.85	22.93		0
	1	5	22.84	22.73	22.88		0
	3	0	22.89	22.75	22.92		0
	3	2	22.92	22.80	22.99		0
	3	3	22.86	22.75	22.90		0
	6	0	21.95	21.87	22.01	0-1	1
16QAM	1	0	22.27	22.12	22.28	0-1	1
	1	2	22.22	22.19	22.48		1
	1	5	22.21	22.25	22.19		1
	3	0	22.11	21.96	22.15		1
	3	2	22.16	22.03	22.14		1
	3	3	22.04	21.94	22.07		1
	6	0	21.02	20.95	21.01	0-2	2
64QAM	1	0	21.18	20.83	21.04	0-2	2
	1	2	21.18	21.00	21.20		2
	1	5	21.12	20.97	21.12		2
	3	0	21.15	20.99	21.09		2
	3	2	21.03	21.19	20.99		2
	3	3	21.02	20.98	21.04		2
	6	0	19.91	19.89	19.97	0-3	3
256QAM	1	0	18.02	18.02	17.96	0-5	5
	1	2	18.06	18.10	18.10		5
	1	5	18.04	17.95	18.07		5
	3	0	18.08	18.05	18.24		5
	3	2	18.00	18.05	17.96		5
	3	3	18.17	18.19	18.07		5
	6	0	17.99	17.91	17.91		5

Table 9-73
LTE Band 2 (PCS) Measured P_{limit} for DSI = 3 (Hotspot mode) - 20 MHz Bandwidth

LTE Band 2 (PCS) 20 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 18700 (1860.0 MHz)	Mid Channel 18900 (1880.0 MHz)	High Channel 19100 (1900.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	18.08	18.05	17.77	0	0
	1	50	18.06	17.88	17.68		0
	1	99	**18.18**	17.82	17.66		0
	50	0	18.23	18.16	17.79	0-1	0
	50	25	18.27	18.17	17.82		0
	50	50	**18.32**	18.00	17.83		0
	100	0	18.15	17.99	17.82		0
16QAM	1	0	18.52	18.42	18.23	0-1	0
	1	50	18.44	18.44	18.03		0
	1	99	18.47	18.31	18.08		0
	50	0	18.12	18.09	17.85	0-2	0
	50	25	18.21	18.20	17.86		0
	50	50	18.20	18.05	17.80		0
	100	0	18.15	18.08	17.83		0
64QAM	1	0	18.49	18.40	18.10	0-2	0
	1	50	18.41	18.30	18.02		0
	1	99	18.35	18.39	17.98		0
	50	0	18.19	18.14	17.83	0-3	0
	50	25	18.30	18.25	17.88		0
	50	50	18.25	18.09	17.84		0
	100	0	18.19	18.06	17.82		0
256QAM	1	0	18.20	18.01	17.80	0-5	0
	1	50	18.32	18.30	17.94		0
	1	99	18.17	17.90	17.68		0
	50	0	18.07	18.18	17.84		0
	50	25	18.23	18.21	17.86		0
	50	50	18.21	18.11	17.87		0
	100	0	18.25	18.04	17.86		0

Table 9-74
LTE Band 2 (PCS) Measured P_{limit} for DSI = 3 (Hotspot mode) - 15 MHz Bandwidth

LTE Band 2 (PCS) 15 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 18675 (1857.5 MHz)	Mid Channel 18900 (1880.0 MHz)	High Channel 19125 (1902.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	18.23	17.94	17.67	0	0
	1	36	18.32	18.11	17.61		0
	1	74	18.27	18.01	17.60		0
	36	0	18.38	18.04	17.53	0-1	0
	36	18	18.42	18.15	17.65		0
	36	37	18.38	18.01	17.67		0
	75	0	18.35	18.00	17.69		0
16QAM	1	0	18.40	18.32	18.07	0-1	0
	1	36	18.51	18.43	18.06		0
	1	74	18.38	18.40	18.22		0
	36	0	18.40	18.07	17.83	0-2	0
	36	18	18.51	18.20	17.94		0
	36	37	18.48	18.10	17.94		0
	75	0	18.38	18.05	17.87		0
64QAM	1	0	18.54	18.27	18.02	0-2	0
	1	36	18.59	18.37	18.06		0
	1	74	18.57	18.42	18.04		0
	36	0	18.40	18.17	17.70	0-3	0
	36	18	18.44	18.28	17.71		0
	36	37	18.42	18.19	17.69		0
	75	0	18.47	18.09	17.91		0
256QAM	1	0	18.15	18.11	17.91	0-5	0
	1	36	18.40	18.31	17.95		0
	1	74	18.26	18.09	18.16		0
	36	0	18.30	18.16	18.00		0
	36	18	18.39	18.26	18.11		0
	36	37	18.37	18.12	18.11		0
	75	0	18.34	18.09	18.05		0

Table 9-75
LTE Band 2 (PCS) Measured P_{limit} for DSI = 3 (Hotspot mode) - 10 MHz Bandwidth

LTE Band 2 (PCS) 10 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 18650 (1855.0 MHz)	Mid Channel 18900 (1880.0 MHz)	High Channel 19150 (1905.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	18.23	18.17	17.73	0	0
	1	25	18.29	18.00	17.80		0
	1	49	18.27	18.07	17.77		0
	25	0	18.30	18.13	17.76	0-1	0
	25	12	18.38	18.13	17.74		0
	25	25	18.25	18.01	17.85		0
	50	0	18.27	18.14	17.79		0
16QAM	1	0	18.43	18.32	18.00	0-1	0
	1	25	18.48	18.31	17.92		0
	1	49	18.49	18.47	18.11		0
	25	0	18.32	18.12	17.93	0-2	0
	25	12	18.38	18.21	17.74		0
	25	25	18.32	18.10	17.73		0
	50	0	18.33	18.09	17.71		0
64QAM	1	0	18.56	18.51	18.21	0-2	0
	1	25	18.47	18.44	18.13		0
	1	49	18.49	18.41	18.23		0
	25	0	18.43	18.17	17.76	0-3	0
	25	12	18.51	18.23	17.71		0
	25	25	18.44	18.16	17.75		0
	50	0	18.33	18.14	17.68		0
256QAM	1	0	18.13	17.82	17.80	0-5	0
	1	25	18.44	18.10	18.05		0
	1	49	18.13	17.79	17.86		0
	25	0	18.32	17.98	17.83		0
	25	12	18.44	18.11	17.97		0
	25	25	18.31	17.95	17.89		0
	50	0	18.29	17.97	17.84		0

Table 9-76
LTE Band 2 (PCS) Measured P_{limit} for DSI = 3 (Hotspot mode) - 5 MHz Bandwidth

LTE Band 2 (PCS) 5 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 18625 (1852.5 MHz)	Mid Channel 18900 (1880.0 MHz)	High Channel 19175 (1907.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	18.21	18.13	17.77	0	0
	1	12	18.29	18.11	17.85		0
	1	24	18.18	18.16	17.69		0
	12	0	18.38	18.11	17.79	0-1	0
	12	6	18.42	18.12	17.73		0
	12	13	18.36	18.14	17.71		0
	25	0	18.35	18.11	17.74		0
16QAM	1	0	18.37	18.29	18.12	0-1	0
	1	12	18.39	18.28	18.03		0
	1	24	18.54	18.17	18.29		0
	12	0	18.45	18.23	17.87	0-2	0
	12	6	18.48	18.24	17.83		0
	12	13	18.34	18.12	17.70		0
	25	0	18.39	18.11	17.72		0
64QAM	1	0	18.54	18.49	17.96	0-2	0
	1	12	18.59	18.50	17.92		0
	1	24	18.47	18.11	17.93		0
	12	0	18.49	18.19	17.81	0-3	0
	12	6	18.51	18.22	17.76		0
	12	13	18.39	18.13	17.73		0
	25	0	18.39	18.18	17.73		0
256QAM	1	0	18.13	17.96	17.91	0-5	0
	1	12	18.23	18.00	18.05		0
	1	24	18.14	18.04	17.89		0
	12	0	18.25	17.91	17.88		0
	12	6	18.27	18.05	17.95		0
	12	13	18.18	17.95	17.89		0
	25	0	18.12	17.98	17.81		0

Table 9-77
LTE Band 2 (PCS) Measured P_{limit} for DSI = 3 (Hotspot mode) - 3 MHz Bandwidth

LTE Band 2 (PCS) 3 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 18615 (1851.5 MHz)	Mid Channel 18900 (1880.0 MHz)	High Channel 19185 (1908.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	18.24	18.13	17.81	0	0
	1	7	18.26	18.17	17.73		0
	1	14	18.14	18.09	17.75		0
	8	0	18.40	18.14	17.77	0-1	0
	8	4	18.41	18.10	17.78		0
	8	7	18.34	18.14	17.69		0
	15	0	18.38	18.18	17.78		0
16QAM	1	0	18.54	18.31	18.17	0-1	0
	1	7	18.47	18.30	18.15		0
	1	14	18.51	18.37	18.09		0
	8	0	18.33	18.02	17.66	0-2	0
	8	4	18.31	18.12	17.81		0
	8	7	18.34	18.31	17.76		0
	15	0	18.49	18.12	17.77		0
64QAM	1	0	18.46	18.47	18.02	0-2	0
	1	7	18.36	18.45	18.18		0
	1	14	18.29	18.48	18.10		0
	8	0	18.44	18.23	17.69	0-3	0
	8	4	18.45	18.28	17.73		0
	8	7	18.38	18.22	17.71		0
	15	0	18.44	18.24	17.69		0
256QAM	1	0	18.10	18.12	17.91	0-5	0
	1	7	18.23	18.12	17.83		0
	1	14	18.24	17.99	18.12		0
	8	0	18.27	17.90	18.11		0
	8	4	18.28	17.93	17.86		0
	8	7	18.21	17.93	17.89		0
	15	0	18.17	18.01	17.93		0

Table 9-78
LTE Band 2 (PCS) Measured P_{limit} for DSI = 3 (Hotspot mode) -1.4 MHz Bandwidth

LTE Band 2 (PCS) 1.4 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 18607 (1850.7 MHz)	Mid Channel 18900 (1880.0 MHz)	High Channel 19193 (1909.3 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	18.14	18.30	17.81	0	0
	1	2	18.21	18.17	17.75		0
	1	5	18.33	18.11	17.77		0
	3	0	18.23	18.24	17.72		0
	3	2	18.27	18.22	17.73		0
	3	3	18.22	18.21	17.75		0
	6	0	18.34	18.21	17.71	0-1	0
16QAM	1	0	18.46	18.40	18.25	0-1	0
	1	2	18.46	18.43	18.32		0
	1	5	18.51	18.45	18.31		0
	3	0	18.55	18.26	17.85		0
	3	2	18.43	18.36	17.77		0
	3	3	18.31	18.24	17.76		0
	6	0	18.33	18.20	17.79	0-2	0
64QAM	1	0	18.47	18.52	18.05	0-2	0
	1	2	18.38	18.44	17.99		0
	1	5	18.46	18.47	17.89		0
	3	0	18.28	18.21	17.76		0
	3	2	18.34	18.23	17.78		0
	3	3	18.24	18.18	17.74		0
	6	0	18.32	18.13	17.72	0-3	0
256QAM	1	0	17.92	17.88	17.86	0-5	0
	1	2	17.99	17.98	17.85		0
	1	5	17.92	17.88	17.84		0
	3	0	18.03	17.99	17.83		0
	3	2	18.09	18.04	17.85		0
	3	3	18.03	17.97	17.78		0
	6	0	18.15	18.00	17.85		0

Table 9-79
LTE Band 2 (PCS) Measured P_{limit} for DSI = 1 (Phablet with grip sensor active) and/or DSI = 4 (Earjack active) - 20 MHz Bandwidth

LTE Band 2 (PCS) 20 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 18700 (1860.0 MHz)	Mid Channel 18900 (1880.0 MHz)	High Channel 19100 (1900.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	19.05	18.96	18.70	0	0
	1	50	**19.06**	18.95	18.91		0
	1	99	19.02	18.82	18.66		0
	50	0	19.08	18.99	18.75	0-1	0
	50	25	**19.15**	19.06	18.86		0
	50	50	19.14	18.90	18.80		0
	100	0	19.05	18.94	18.79		0
16QAM	1	0	19.52	19.35	19.18	0-1	0
	1	50	19.31	19.20	19.05		0
	1	99	19.38	19.00	19.10		0
	50	0	19.09	19.01	18.80	0-2	0
	50	25	19.26	19.14	18.87		0
	50	50	19.18	18.99	18.79		0
	100	0	19.11	18.88	18.80		0
64QAM	1	0	19.35	19.26	19.03	0-2	0
	1	50	19.25	19.20	18.97		0
	1	99	19.27	19.09	18.98		0
	50	0	19.11	19.04	18.81	0-3	0
	50	25	19.23	19.05	18.90		0
	50	50	19.17	19.06	18.86		0
	100	0	19.14	18.97	18.82		0
256QAM	1	0	17.88	18.00	18.06	0-5	1
	1	50	18.30	18.19	17.96		1
	1	99	18.15	17.93	17.90		1
	50	0	18.11	18.04	18.00		1
	50	25	18.20	18.11	18.01		1
	50	50	18.16	17.95	18.06		1
	100	0	18.15	17.95	18.05		1

Table 9-80
LTE Band 2 (PCS) Measured P_{limit} for DSI = 1 (Phablet with grip sensor active) and/or DSI = 4 (Earjack active) - 15 MHz Bandwidth

LTE Band 2 (PCS) 15 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 18675 (1857.5 MHz)	Mid Channel 18900 (1880.0 MHz)	High Channel 19125 (1902.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	19.00	19.01	18.80	0	0
	1	36	19.19	18.99	18.88		0
	1	74	19.08	18.93	18.85		0
	36	0	19.08	19.08	18.97	0-1	0
	36	18	19.21	19.18	19.10		0
	36	37	19.20	19.10	19.10		0
	75	0	19.14	19.04	18.98		0
16QAM	1	0	19.53	19.00	19.19	0-1	0
	1	36	19.26	19.06	19.29		0
	1	74	19.24	19.00	19.27		0
	36	0	19.17	19.10	19.04	0-2	0
	36	18	19.30	19.23	19.06		0
	36	37	19.25	19.11	19.06		0
	75	0	19.19	19.07	19.07		0
64QAM	1	0	19.42	18.92	19.30	0-2	0
	1	36	19.39	19.14	19.27		0
	1	74	19.14	19.08	19.31		0
	36	0	19.12	19.23	19.08	0-3	0
	36	18	19.22	19.29	19.19		0
	36	37	19.23	19.19	19.22		0
	75	0	19.26	19.09	19.00		0
256QAM	1	0	17.94	18.17	17.90	0-5	1
	1	36	18.21	18.21	18.13		1
	1	74	18.15	18.19	18.11		1
	36	0	18.05	18.20	18.10		1
	36	18	18.15	18.18	18.16		1
	36	37	18.17	18.20	18.18		1
	75	0	18.16	18.16	18.09		1

Table 9-81
LTE Band 2 (PCS) Measured P_{limit} for DSI = 1 (Phablet with grip sensor active) and/or DSI = 4 (Earjack active) - 10 MHz Bandwidth

LTE Band 2 (PCS) 10 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 18650 (1855.0 MHz)	Mid Channel 18900 (1880.0 MHz)	High Channel 19150 (1905.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	19.11	18.89	18.87	0	0
	1	25	18.98	18.87	18.95		0
	1	49	18.94	18.95	18.78		0
	25	0	18.98	18.90	18.94	0-1	0
	25	12	19.10	19.01	18.91		0
	25	25	18.99	18.90	18.97		0
	50	0	18.97	18.95	18.84		0
16QAM	1	0	19.22	19.15	19.03	0-1	0
	1	25	19.15	19.17	18.97		0
	1	49	19.45	19.04	19.02		0
	25	0	19.05	18.99	18.82	0-2	0
	25	12	19.17	19.09	18.92		0
	25	25	19.18	18.99	18.82		0
	50	0	19.02	18.98	18.83		0
64QAM	1	0	19.14	19.15	19.16	0-2	0
	1	25	19.26	19.37	19.13		0
	1	49	19.48	19.29	19.08		0
	25	0	19.07	18.95	18.91	0-3	0
	25	12	19.18	19.05	19.04		0
	25	25	19.07	18.96	19.00		0
	50	0	19.04	18.94	18.84		0
256QAM	1	0	18.00	17.85	17.70	0-5	1
	1	25	18.17	18.06	17.96		1
	1	49	17.96	17.90	17.76		1
	25	0	18.01	18.02	17.85		1
	25	12	18.13	18.09	18.03		1
	25	25	18.07	18.02	17.87		1
	50	0	18.03	18.01	17.88		1

Table 9-82
LTE Band 2 (PCS) Measured P_{limit} for DSI = 1 (Phablet with grip sensor active) and/or DSI = 4 (Earjack active) - 5 MHz Bandwidth

LTE Band 2 (PCS) 5 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 18625 (1852.5 MHz)	Mid Channel 18900 (1880.0 MHz)	High Channel 19175 (1907.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	19.00	18.90	18.88	0	0
	1	12	19.01	18.97	18.96		0
	1	24	18.90	18.85	18.85		0
	12	0	19.11	19.01	18.89	0-1	0
	12	6	19.16	19.07	18.87		0
	12	13	19.03	18.92	18.85		0
	25	0	19.08	19.01	18.87		0
16QAM	1	0	19.34	19.13	18.85	0-1	0
	1	12	19.39	19.19	18.98		0
	1	24	19.35	19.09	18.87		0
	12	0	19.13	19.10	18.92	0-2	0
	12	6	19.20	19.10	18.96		0
	12	13	19.06	18.99	18.91		0
	25	0	19.12	18.97	18.88		0
64QAM	1	0	19.33	19.06	19.11	0-2	0
	1	12	19.36	19.14	19.04		0
	1	24	19.25	18.99	19.00		0
	12	0	19.16	19.06	18.85	0-3	0
	12	6	19.19	19.11	18.92		0
	12	13	19.10	19.02	18.80		0
	25	0	19.05	19.09	18.90		0
256QAM	1	0	18.12	17.97	17.99	0-5	1
	1	12	18.02	18.07	18.11		1
	1	24	18.06	17.91	18.08		1
	12	0	18.08	18.04	17.95		1
	12	6	18.07	18.09	17.97		1
	12	13	18.02	18.02	17.93		1
	25	0	18.05	18.04	17.87		1

Table 9-83
LTE Band 2 (PCS) Measured P_{limit} for DSI = 1 (Phablet with grip sensor active) and/or DSI = 4 (Earjack active) - 3 MHz Bandwidth

LTE Band 2 (PCS) 3 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 18615 (1851.5 MHz)	Mid Channel 18900 (1880.0 MHz)	High Channel 19185 (1908.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	18.91	18.86	18.71	0	0
	1	7	18.84	18.90	18.74		0
	1	14	18.83	18.97	18.65		0
	8	0	19.08	18.99	18.89	0-1	0
	8	4	19.09	18.95	18.90		0
	8	7	19.01	18.94	18.83		0
	15	0	19.05	18.99	18.86		0
16QAM	1	0	19.40	19.22	19.03	0-1	0
	1	7	19.36	19.12	19.04		0
	1	14	19.34	19.24	18.98		0
	8	0	18.99	18.97	18.97	0-2	0
	8	4	19.00	19.18	18.99		0
	8	7	18.93	18.92	18.94		0
	15	0	19.11	18.97	18.99		0
64QAM	1	0	19.30	19.04	19.25	0-2	0
	1	7	19.22	19.01	19.20		0
	1	14	19.38	19.00	19.11		0
	8	0	19.10	19.09	18.99	0-3	0
	8	4	19.13	19.07	19.00		0
	8	7	19.02	19.00	18.98		0
	15	0	19.13	19.09	18.93		0
256QAM	1	0	18.09	18.00	17.81	0-5	1
	1	7	18.07	18.10	17.78		1
	1	14	18.01	18.09	17.78		1
	8	0	17.88	18.12	18.00		1
	8	4	17.93	18.17	18.02		1
	8	7	17.86	18.12	18.01		1
	15	0	18.05	18.07	18.07		1

Table 9-84
LTE Band 2 (PCS) Measured P_{limit} for DSI = 1 (Phablet with grip sensor active) and/or DSI = 4 (Earjack active) -1.4 MHz Bandwidth

LTE Band 2 (PCS) 1.4 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 18607 (1850.7 MHz)	Mid Channel 18900 (1880.0 MHz)	High Channel 19193 (1909.3 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	19.01	18.95	19.00	0	0
	1	2	18.98	18.98	18.97		0
	1	5	19.01	19.04	18.98		0
	3	0	18.90	18.82	18.96		0
	3	2	18.97	18.84	18.94		0
	3	3	18.94	19.04	18.95		0
	6	0	19.03	18.93	19.01	0-1	0
16QAM	1	0	19.32	19.16	18.94	0-1	0
	1	2	19.40	19.14	18.98		0
	1	5	19.33	18.98	18.92		0
	3	0	19.03	18.98	18.86		0
	3	2	19.09	19.07	18.90		0
	3	3	19.03	18.94	18.85		0
	6	0	19.05	18.85	18.85	0-2	0
64QAM	1	0	19.34	18.92	19.08	0-2	0
	1	2	19.34	19.27	19.12		0
	1	5	19.30	19.25	19.05		0
	3	0	18.92	18.99	18.88		0
	3	2	19.00	19.05	18.90		0
	3	3	18.93	18.98	18.97		0
	6	0	19.00	18.86	18.93	0-3	0
256QAM	1	0	17.97	17.92	17.96	0-5	1
	1	2	17.99	18.03	18.01		1
	1	5	17.96	17.89	17.92		1
	3	0	18.03	18.04	18.04		1
	3	2	18.04	18.07	17.79		1
	3	3	18.02	18.01	17.75		1
	6	0	17.94	18.00	18.04		1

9.4.10 LTE Band 30

Table 9-85
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	**23.59**	0	0
	1	25	23.58		0
	1	49	23.50		0
	25	0	22.70	0-1	1
	25	12	**22.72**		1
	25	25	22.61		1
	50	0	22.64		1
16QAM	1	0	23.02	0-1	1
	1	25	22.99		1
	1	49	22.90		1
	25	0	21.70	0-2	2
	25	12	21.74		2
	25	25	21.65		2
	50	0	21.64		2
64QAM	1	0	21.88	0-2	2
	1	25	21.99		2
	1	49	21.79		2
	25	0	20.68	0-3	3
	25	12	20.77		3
	25	25	20.70		3
	50	0	20.70		3
256QAM	1	0	18.60	0-5	5
	1	25	18.99		5
	1	49	18.42		5
	25	0	18.69		5
	25	12	18.74		5
	25	25	18.68		5
	50	0	18.60		5

Table 9-86
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	23.58	0	0
	1	12	23.57		0
	1	24	23.52		0
	12	0	22.72	0-1	1
	12	6	22.77		1
	12	13	22.76		1
	25	0	22.69		1
16QAM	1	0	22.96	0-1	1
	1	12	22.99		1
	1	24	22.85		1
	12	0	21.77	0-2	2
	12	6	21.79		2
	12	13	21.76		2
	25	0	21.74		2
64QAM	1	0	21.78	0-2	2
	1	12	21.82		2
	1	24	21.83		2
	12	0	20.75	0-3	3
	12	6	20.74		3
	12	13	20.84		3
	25	0	20.75		3
256QAM	1	0	18.80	0-5	5
	1	12	18.93		5
	1	24	18.82		5
	12	0	18.77		5
	12	6	18.77		5
	12	13	18.79		5
	25	0	18.72		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.

Table 9-87
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	18.36	0	0
	1	25	**18.47**		0
	1	49	18.33		0
	25	0	18.44	0-1	0
	25	12	**18.46**		0
	25	25	18.45		0
	50	0	18.40		0
16QAM	1	0	18.76	0-1	0
	1	25	18.67		0
	1	49	18.68		0
	25	0	18.49	0-2	0
	25	12	18.48		0
	25	25	18.42		0
	50	0	18.44		0
64QAM	1	0	18.67	0-2	0
	1	25	18.69		0
	1	49	18.65		0
	25	0	18.47	0-3	0
	25	12	18.53		0
	25	25	18.49		0
	50	0	18.43		0
256QAM	1	0	18.26	0-5	0
	1	25	18.51		0
	1	49	18.06		0
	25	0	18.43		0
	25	12	18.43		0
	25	25	18.46		0
	50	0	18.39		0

Table 9-88
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	18.30	0	0
	1	12	18.41		0
	1	24	18.21		0
	12	0	18.45	0-1	0
	12	6	18.46		0
	12	13	18.50		0
	25	0	18.45		0
16QAM	1	0	18.57	0-1	0
	1	12	18.80		0
	1	24	18.54		0
	12	0	18.44	0-2	0
	12	6	18.55		0
	12	13	18.54		0
	25	0	18.44		0
64QAM	1	0	18.50	0-2	0
	1	12	18.57		0
	1	24	18.74		0
	12	0	18.45	0-3	0
	12	6	18.48		0
	12	13	18.61		0
	25	0	18.34		0
256QAM	1	0	18.47	0-5	0
	1	12	18.61		0
	1	24	18.34		0
	12	0	18.35		0
	12	6	18.44		0
	12	13	18.41		0
	25	0	18.43		0

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

Table 9-89
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	21.34	0	0
	1	25	**21.38**		0
	1	49	21.32		0
	25	0	21.47	0-1	0
	25	12	**21.50**		0
	25	25	21.47		0
	50	0	21.37		0
16QAM	1	0	21.63	0-1	0
	1	25	21.76		0
	1	49	21.67		0
	25	0	21.61	0-2	0
	25	12	21.61		0
	25	25	21.61		0
	50	0	21.42		0
64QAM	1	0	21.35	0-2	0
	1	25	21.53		0
	1	49	21.48		0
	25	0	20.55	0-3	1
	25	12	20.68		1
	25	25	20.61		1
	50	0	20.52		1
256QAM	1	0	18.59	0-5	3
	1	25	18.80		3
	1	49	18.59		3
	25	0	18.70		3
	25	12	18.68		3
	25	25	18.62		3
	50	0	18.68		3

Table 9-90
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	21.27	0	0
	1	12	21.23		0
	1	24	21.25		0
	12	0	21.40	0-1	0
	12	6	21.56		0
	12	13	21.41		0
	25	0	21.38		0
16QAM	1	0	21.64	0-1	0
	1	12	21.75		0
	1	24	21.58		0
	12	0	21.48	0-2	0
	12	6	21.53		0
	12	13	21.50		0
	25	0	21.47		0
64QAM	1	0	21.54	0-2	0
	1	12	21.64		0
	1	24	21.51		0
	12	0	20.48	0-3	1
	12	6	20.50		1
	12	13	20.59		1
	25	0	20.30		1
256QAM	1	0	18.44	0-5	3
	1	12	18.62		3
	1	24	18.45		3
	12	0	18.45		3
	12	6	18.46		3
	12	13	18.48		3
	25	0	18.40		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.

9.4.1 LTE Band 7

Table 9-91
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	23.39	23.53	23.43	0	0
	1	50	23.56	23.42	23.41		0
	1	99	**23.58**	23.35	23.50		0
	50	0	22.61	22.63	22.50	0-1	1
	50	25	**22.74**	22.55	22.62		1
	50	50	22.73	22.46	22.67		1
	100	0	22.63	22.59	22.43		1
16QAM	1	0	22.55	22.65	22.55	0-1	1
	1	50	22.57	22.40	22.50		1
	1	99	22.58	22.34	22.48		1
	50	0	21.29	21.30	21.41	0-2	2
	50	25	21.44	21.30	21.38		2
	50	50	21.42	21.21	21.32		2
	100	0	21.34	21.28	21.35		2
64QAM	1	0	21.36	21.43	21.45	0-2	2
	1	50	21.54	21.36	21.42		2
	1	99	21.62	21.29	21.52		2
	50	0	20.34	20.34	20.21	0-3	3
	50	25	20.39	20.27	20.37		3
	50	50	20.42	20.25	20.33		3
	100	0	20.30	20.18	20.19		3
256QAM	1	0	18.15	18.45	18.32	0-5	5
	1	50	18.26	18.67	18.79		5
	1	99	18.20	18.52	18.42		5
	50	0	18.41	18.54	18.48		5
	50	25	18.55	18.56	18.64		5
	50	50	18.56	18.45	18.54		5
	100	0	18.52	18.51	18.49		5

Table 9-92
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	23.50	23.23	23.25	0	0
	1	36	23.55	23.25	23.29		0
	1	74	23.72	23.20	23.34		0
	36	0	22.48	22.40	22.42	0-1	1
	36	18	22.57	22.38	22.43		1
	36	37	22.54	22.38	22.55		1
	75	0	22.48	22.32	22.35		1
16QAM	1	0	22.49	22.31	22.68	0-1	1
	1	36	22.62	22.22	22.65		1
	1	74	22.74	22.22	22.68		1
	36	0	21.53	21.44	21.42	0-2	2
	36	18	21.59	21.40	21.47		2
	36	37	21.60	21.41	21.56		2
	75	0	21.46	21.39	21.41		2
64QAM	1	0	21.41	21.63	21.50	0-2	2
	1	36	21.52	21.55	21.66		2
	1	74	21.61	21.67	21.62		2
	36	0	20.44	20.53	20.53	0-3	3
	36	18	20.56	20.41	20.63		3
	36	37	20.62	20.47	20.66		3
	75	0	20.59	20.36	20.37		3
256QAM	1	0	17.93	18.60	18.53	0-5	5
	1	36	18.18	18.65	18.88		5
	1	74	18.14	18.40	18.68		5
	36	0	18.27	18.62	18.55		5
	36	18	18.51	18.49	18.52		5
	36	37	18.55	18.40	18.63		5
	75	0	18.44	18.41	18.56		5

Table 9-93
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	23.29	23.24	23.28	0	0
	1	25	23.17	23.21	23.30		0
	1	49	23.23	23.18	23.30		0
	25	0	22.31	22.39	22.31	0-1	1
	25	12	22.41	22.30	22.41		1
	25	25	22.40	22.34	22.40		1
	50	0	22.36	22.31	22.27		1
16QAM	1	0	22.40	22.47	22.62	0-1	1
	1	25	22.46	22.56	22.62		1
	1	49	22.55	22.65	22.56		1
	25	0	21.34	21.40	21.39	0-2	2
	25	12	21.42	21.49	21.63		2
	25	25	21.44	21.50	21.55		2
	50	0	21.48	21.54	21.52		2
64QAM	1	0	21.48	21.39	21.60	0-2	2
	1	25	21.38	21.54	21.73		2
	1	49	21.40	21.51	21.69		2
	25	0	20.46	20.46	20.39	0-3	3
	25	12	20.56	20.43	20.52		3
	25	25	20.56	20.46	20.45		3
	50	0	20.37	20.31	20.31		3
256QAM	1	0	18.11	18.29	18.30	0-5	5
	1	25	18.49	18.53	18.83		5
	1	49	18.29	18.30	18.43		5
	25	0	18.27	18.46	18.36		5
	25	12	18.45	18.47	18.49		5
	25	25	18.34	18.52	18.32		5
	50	0	18.38	18.44	18.39		5

Table 9-94
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	23.16	23.32	23.15	0	0
	1	12	23.24	23.31	23.24		0
	1	24	23.34	23.37	23.24		0
	12	0	22.28	22.32	22.29	0-1	1
	12	6	22.49	22.35	22.42		1
	12	13	22.40	22.37	22.35		1
	25	0	22.33	22.27	22.40		1
16QAM	1	0	22.35	22.53	22.46	0-1	1
	1	12	22.40	22.56	22.54		1
	1	24	22.46	22.60	22.48		1
	12	0	21.41	21.51	21.49	0-2	2
	12	6	21.42	21.40	21.47		2
	12	13	21.37	21.41	21.51		2
	25	0	21.44	21.53	21.65		2
64QAM	1	0	21.51	21.46	21.42	0-2	2
	1	12	21.60	21.60	21.53		2
	1	24	21.68	21.51	21.50		2
	12	0	20.32	20.39	20.30	0-3	3
	12	6	20.44	20.40	20.43		3
	12	13	20.46	20.38	20.34		3
	25	0	20.38	20.40	20.36		3
256QAM	1	0	18.21	18.48	18.56	0-5	5
	1	12	18.45	18.43	18.62		5
	1	24	18.43	18.54	18.54		5
	12	0	18.40	18.28	18.42		5
	12	6	18.55	18.40	18.51		5
	12	13	18.52	18.34	18.50		5
	25	0	18.43	18.31	18.45		5

Table 9-95
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	18.90	18.91	18.92	0	0
	1	50	18.94	**19.10**	18.90		0
	1	99	18.91	18.70	18.87		0
	50	0	19.00	18.97	19.11	0-1	0
	50	25	19.03	18.90	19.04		0
	50	50	19.01	**19.13**	19.09		0
	100	0	19.05	19.06	19.07		0
16QAM	1	0	19.27	19.42	19.10	0-1	0
	1	50	19.23	19.30	19.32		0
	1	99	19.32	19.17	19.23		0
	50	0	19.04	19.02	19.10	0-2	0
	50	25	19.21	19.11	19.03		0
	50	50	19.24	18.99	19.14		0
	100	0	19.11	19.16	19.00		0
64QAM	1	0	19.23	19.28	19.13	0-2	0
	1	50	19.45	19.17	19.32		0
	1	99	19.43	19.31	19.34		0
	50	0	19.19	19.10	19.00	0-3	0
	50	25	19.26	19.02	19.27		0
	50	50	19.24	19.16	19.19		0
	100	0	19.10	18.93	18.97		0
256QAM	1	0	18.57	18.30	18.24	0-5	0.5
	1	50	18.64	18.57	18.62		0.5
	1	99	18.21	18.02	18.42		0.5
	50	0	18.46	18.68	18.46		0.5
	50	25	18.66	18.69	18.66		0.5
	50	50	18.51	18.48	18.54		0.5
	100	0	18.55	18.48	18.45		0.5

Table 9-96
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	18.91	18.76	18.80	0	0
	1	36	18.95	18.88	18.88		0
	1	74	19.00	18.79	18.81		0
	36	0	18.99	18.96	19.05	0-1	0
	36	18	19.05	18.95	19.06		0
	36	37	19.12	18.96	19.03		0
	75	0	19.10	18.90	19.11		0
16QAM	1	0	19.04	19.22	19.11	0-1	0
	1	36	19.26	19.20	19.07		0
	1	74	19.33	19.12	19.02		0
	36	0	18.96	19.06	19.00	0-2	0
	36	18	19.10	19.01	19.08		0
	36	37	19.03	19.01	19.13		0
	75	0	19.05	18.90	19.05		0
64QAM	1	0	19.13	19.32	19.14	0-2	0
	1	36	19.20	19.13	19.29		0
	1	74	19.25	19.05	19.16		0
	36	0	19.03	19.09	19.16	0-3	0
	36	18	19.15	19.05	19.18		0
	36	37	19.15	19.07	19.15		0
	75	0	19.10	18.95	19.10		0
256QAM	1	0	18.42	18.53	18.21	0-5	0.5
	1	36	18.61	18.49	18.61		0.5
	1	74	18.35	18.14	18.42		0.5
	36	0	18.39	18.50	18.47		0.5
	36	18	18.51	18.48	18.55		0.5
	36	37	18.52	18.48	18.60		0.5
	75	0	18.49	18.45	18.46		0.5

Table 9-97
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	18.78	18.68	18.85	0	0
	1	25	18.87	18.86	18.75		0
	1	49	18.85	18.51	18.77		0
	25	0	18.89	18.80	18.91	0-1	0
	25	12	19.11	18.77	18.93		0
	25	25	19.05	18.76	19.04		0
	50	0	19.05	18.75	18.86		0
16QAM	1	0	19.08	19.30	19.28	0-1	0
	1	25	19.22	19.21	19.32		0
	1	49	19.34	19.26	19.35		0
	25	0	18.77	18.82	18.93	0-2	0
	25	12	18.85	18.90	18.97		0
	25	25	18.97	18.81	18.90		0
	50	0	18.92	18.81	18.74		0
64QAM	1	0	19.05	19.02	19.07	0-2	0
	1	25	19.19	19.14	19.06		0
	1	49	19.14	19.12	19.04		0
	25	0	18.91	18.82	18.86	0-3	0
	25	12	18.89	18.87	19.04		0
	25	25	18.93	18.86	18.95		0
	50	0	18.90	18.73	18.81		0
256QAM	1	0	18.31	18.28	18.17	0-5	0.5
	1	25	18.50	18.40	18.51		0.5
	1	49	18.28	18.14	18.30		0.5
	25	0	18.28	18.20	18.23		0.5
	25	12	18.42	18.32	18.47		0.5
	25	25	18.25	18.23	18.36		0.5
	50	0	18.33	18.23	18.22		0.5

Table 9-98
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	18.79	18.76	18.75	0	0
	1	12	18.87	18.65	18.81		0
	1	24	18.87	18.64	18.87		0
	12	0	18.88	18.81	18.87	0-1	0
	12	6	18.96	18.87	18.97		0
	12	13	19.00	18.86	18.93		0
	25	0	18.95	18.86	18.85		0
16QAM	1	0	19.18	19.13	19.17	0-1	0
	1	12	19.19	19.15	19.13		0
	1	24	19.23	19.15	19.17		0
	12	0	19.04	18.93	18.91	0-2	0
	12	6	19.07	18.95	19.08		0
	12	13	19.07	18.94	19.05		0
	25	0	19.01	18.86	18.93		0
64QAM	1	0	19.14	19.06	19.13	0-2	0
	1	12	19.19	19.02	19.09		0
	1	24	19.21	19.06	19.12		0
	12	0	18.95	18.91	18.94	0-3	0
	12	6	19.09	18.95	19.03		0
	12	13	19.04	18.94	18.99		0
	25	0	19.04	18.91	18.95		0
256QAM	1	0	18.51	18.37	18.30	0-5	0.5
	1	12	18.64	18.52	18.54		0.5
	1	24	18.59	18.54	18.43		0.5
	12	0	18.43	18.54	18.38		0.5
	12	6	18.54	18.42	18.52		0.5
	12	13	18.55	18.38	18.46		0.5
	25	0	18.46	18.35	18.40		0.5

Table 9-99
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	19.38	19.50	19.44	0	0
	1	50	**19.55**	19.44	19.40		0
	1	99	19.45	19.30	19.42		0
	50	0	19.53	19.53	19.45	0-1	0
	50	25	19.59	19.46	19.55		0
	50	50	**19.65**	19.49	19.57		0
	100	0	19.50	19.41	19.49		0
16QAM	1	0	19.82	19.87	19.80	0-1	0
	1	50	19.87	19.82	19.75		0
	1	99	19.88	19.68	19.81		0
	50	0	19.54	19.62	19.49	0-2	0
	50	25	19.66	19.43	19.61		0
	50	50	19.62	19.48	19.60		0
	100	0	19.58	19.40	19.42		0
64QAM	1	0	19.69	19.77	19.75	0-2	0
	1	50	19.81	19.81	19.69		0
	1	99	19.87	19.62	19.80		0
	50	0	19.58	19.60	19.53	0-3	0
	50	25	19.69	19.54	19.63		0
	50	50	19.58	19.55	19.68		0
	100	0	19.60	19.46	19.48		0
256QAM	1	0	18.25	18.52	18.49	0-5	1
	1	50	18.78	18.65	18.63		1
	1	99	18.49	18.24	18.33		1
	50	0	18.51	18.52	18.42		1
	50	25	18.60	18.51	18.62		1
	50	50	18.59	18.47	18.61		1
	100	0	18.65	18.46	18.46		1

Table 9-100
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	19.43	19.42	19.43	0	0
	1	36	19.26	19.49	19.44		0
	1	74	19.41	19.34	19.53		0
	36	0	19.56	19.59	19.55	0-1	0
	36	18	19.68	19.52	19.54		0
	36	37	19.65	19.55	19.60		0
	75	0	19.59	19.48	19.51		0
16QAM	1	0	19.68	19.93	19.75	0-1	0
	1	36	19.92	19.84	19.92		0
	1	74	19.95	19.77	19.94		0
	36	0	19.60	19.58	19.58	0-2	0
	36	18	19.71	19.54	19.53		0
	36	37	19.66	19.57	19.70		0
	75	0	19.62	19.53	19.49		0
64QAM	1	0	19.74	19.93	19.86	0-2	0
	1	36	19.81	19.62	19.79		0
	1	74	19.89	19.65	19.88		0
	36	0	19.62	19.57	19.63	0-3	0
	36	18	19.76	19.58	19.71		0
	36	37	19.66	19.59	19.60		0
	75	0	19.65	19.50	19.56		0
256QAM	1	0	18.30	18.65	18.46	0-5	1
	1	36	18.64	18.66	18.54		1
	1	74	18.87	18.48	18.50		1
	36	0	18.54	18.50	18.60		1
	36	18	18.78	18.63	18.66		1
	36	37	18.70	18.54	18.58		1
	75	0	18.72	18.47	18.62		1

Table 9-101
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	19.22	19.36	19.21	0	0
	1	25	19.20	19.31	19.33		0
	1	49	19.25	19.25	19.24		0
	25	0	19.35	19.36	19.29	0-1	0
	25	12	19.47	19.39	19.44		0
	25	25	19.45	19.26	19.44		0
	50	0	19.41	19.28	19.27		0
16QAM	1	0	19.72	19.91	19.78	0-1	0
	1	25	19.85	19.86	19.84		0
	1	49	19.89	19.87	19.77		0
	25	0	19.35	19.44	19.35	0-2	0
	25	12	19.46	19.39	19.53		0
	25	25	19.49	19.37	19.48		0
	50	0	19.58	19.30	19.44		0
64QAM	1	0	19.51	19.62	19.33	0-2	0
	1	25	19.54	19.50	19.63		0
	1	49	19.60	19.40	19.61		0
	25	0	19.31	19.37	19.61	0-3	0
	25	12	19.48	19.41	19.40		0
	25	25	19.47	19.45	19.42		0
	50	0	19.45	19.34	19.37		0
256QAM	1	0	18.27	18.42	18.23	0-5	1
	1	25	18.50	18.56	18.54		1
	1	49	18.35	18.20	18.40		1
	25	0	18.27	18.36	18.33		1
	25	12	18.44	18.37	18.52		1
	25	25	18.32	18.39	18.55		1
	50	0	18.41	18.29	18.31		1

Table 9-102
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	19.13	19.30	19.26	0	0
	1	12	19.34	19.31	19.25		0
	1	24	19.22	19.26	19.13		0
	12	0	19.37	19.33	19.31	0-1	0
	12	6	19.41	19.40	19.47		0
	12	13	19.34	19.37	19.39		0
	25	0	19.30	19.33	19.35		0
16QAM	1	0	19.63	19.71	19.54	0-1	0
	1	12	19.60	19.67	19.67		0
	1	24	19.69	19.73	19.69		0
	12	0	19.32	19.44	19.36	0-2	0
	12	6	19.45	19.50	19.48		0
	12	13	19.46	19.43	19.44		0
	25	0	19.34	19.38	19.34		0
64QAM	1	0	19.42	19.35	19.55	0-2	0
	1	12	19.53	19.54	19.51		0
	1	24	19.56	19.61	19.50		0
	12	0	19.32	19.43	19.45	0-3	0
	12	6	19.43	19.45	19.32		0
	12	13	19.42	19.46	19.46		0
	25	0	19.41	19.34	19.34		0
256QAM	1	0	18.35	18.49	18.46	0-5	1
	1	12	18.56	18.50	18.55		1
	1	24	18.40	18.40	18.39		1
	12	0	18.37	18.35	18.34		1
	12	6	18.42	18.33	18.41		1
	12	13	18.45	18.41	18.46		1
	25	0	18.44	18.32	18.31		1

9.4.2 LTE Band 48

Table 9-103
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	22.35	22.46	22.28	22.40	0	0
	1	50	22.59	**22.62**	22.61	22.61		0
	1	99	22.35	22.35	22.41	22.23		0
	50	0	21.62	**21.68**	21.54	21.64	0-1	1
	50	25	21.64	21.55	21.59	21.65		1
	50	50	21.54	21.49	21.51	21.60		1
	100	0	21.55	21.39	21.61	21.62		1
16QAM	1	0	21.46	21.48	21.34	21.59	0-1	1
	1	50	21.87	21.65	21.68	21.75		1
	1	99	21.52	21.53	21.37	21.54		1
	50	0	20.60	20.64	20.60	20.60	0-2	2
	50	25	20.64	20.59	20.73	20.69		2
	50	50	20.47	20.44	20.65	20.60		2
	100	0	20.55	20.49	20.64	20.66		2
64QAM	1	0	20.57	20.43	20.52	20.56	0-2	2
	1	50	20.68	20.59	20.67	20.59		2
	1	99	20.52	20.27	20.69	20.43		2
	50	0	19.69	19.64	19.72	19.57	0-3	3
	50	25	19.61	19.58	19.83	19.65		3
	50	50	19.57	19.41	19.67	19.54		3
	100	0	19.48	19.47	19.68	19.61		3
256QAM	1	0	17.59	17.18	17.46	17.55	0-5	5
	1	50	17.54	17.25	17.63	17.61		5
	1	99	17.43	17.17	17.68	17.74		5
	50	0	17.69	17.53	17.58	17.66		5
	50	25	17.66	17.45	17.76	17.74		5
	50	50	17.54	17.24	17.58	17.65		5
	100	0	17.48	17.34	17.56	17.63		5

Table 9-104
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	Low-Mid Channel	Mid-High Channel	High Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
			55315 (3557.5 MHz)	55765 (3602.5 MHz)	56215 (3647.5 MHz)	56665 (3692.5 MHz)		
			Conducted Power [dBm]					
QPSK	1	0	22.55	22.57	22.45	22.60	0	0
	1	36	22.82	22.80	22.54	22.63		0
	1	74	22.58	22.50	22.60	22.56		0
	36	0	21.86	21.84	21.77	21.53	0-1	1
	36	18	21.98	21.82	21.89	21.50		1
	36	37	21.84	21.72	21.70	21.70		1
	75	0	21.70	21.57	21.53	21.89		1
16QAM	1	0	21.63	21.62	21.62	21.70	0-1	1
	1	36	21.85	21.62	21.40	21.63		1
	1	74	21.82	21.70	21.60	21.75		1
	36	0	20.50	20.73	20.69	20.42	0-2	2
	36	18	20.48	20.69	20.75	20.58		2
	36	37	20.81	20.62	20.64	20.68		2
	75	0	20.70	20.69	20.65	20.55		2
64QAM	1	0	20.64	20.50	20.72	20.62	0-2	2
	1	36	20.65	20.59	20.88	20.50		2
	1	74	20.59	20.43	20.90	20.59		2
	36	0	19.45	19.81	19.57	19.23	0-3	3
	36	18	19.53	19.75	19.54	19.25		3
	36	37	19.52	19.77	19.72	19.42		3
	75	0	19.53	19.66	19.62	19.41		3
256QAM	1	0	17.55	17.25	17.68	17.53	0-5	5
	1	36	17.31	17.17	17.66	17.65		5
	1	74	17.48	17.27	17.75	17.81		5
	36	0	17.49	17.31	17.43	17.44		5
	36	18	17.52	17.42	17.66	17.64		5
	36	37	17.41	17.39	17.73	17.68		5
	75	0	17.42	17.34	17.61	17.61		5

Table 9-105
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	Low-Mid Channel	Mid-High Channel	High Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
			55290 (3555.0 MHz)	55757 (3601.7 MHz)	56223 (3648.3 MHz)	56690 (3695.0 MHz)		
			Conducted Power [dBm]					
QPSK	1	0	22.33	22.39	22.47	22.75	0	0
	1	25	22.71	22.62	22.70	22.99		0
	1	49	22.52	22.54	22.81	22.96		0
	25	0	21.62	21.46	21.66	22.00	0-1	1
	25	12	21.72	21.50	21.62	21.97		1
	25	25	21.66	21.53	21.77	21.94		1
	50	0	21.65	21.54	21.65	21.92		1
16QAM	1	0	21.30	21.55	21.74	21.93	0-1	1
	1	25	21.71	21.70	21.89	21.87		1
	1	49	21.51	21.66	21.89	21.98		1
	25	0	20.56	20.60	20.64	20.96	0-2	2
	25	12	20.63	20.64	20.76	20.87		2
	25	25	20.62	20.51	20.85	20.91		2
	50	0	20.62	20.52	20.66	20.96		2
64QAM	1	0	20.63	20.46	20.45	20.81	0-2	2
	1	25	20.87	20.73	20.47	20.96		2
	1	49	20.77	20.61	20.84	20.87		2
	25	0	19.63	19.53	19.63	19.94	0-3	3
	25	12	19.72	19.64	19.55	19.87		3
	25	25	19.66	19.51	19.67	19.79		3
	50	0	19.65	19.55	19.62	19.83		3
256QAM	1	0	17.41	17.05	17.52	17.73	0-5	5
	1	25	17.40	17.25	17.65	17.80		5
	1	49	17.33	17.47	17.56	17.71		5
	25	0	17.60	17.46	17.56	17.68		5
	25	12	17.69	17.53	17.63	17.58		5
	25	25	17.60	17.44	17.65	17.70		5
	50	0	17.67	17.48	17.49	17.54		5

Table 9-106
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	Low-Mid Channel	Mid-High Channel	High Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
			55265 (3552.5 MHz)	55748 (3600.8 MHz)	56232 (3649.2 MHz)	56715 (3697.5 MHz)		
			Conducted Power [dBm]					
QPSK	1	0	22.51	22.44	22.53	22.95	0	0
	1	12	22.67	22.49	22.83	22.98		0
	1	24	22.50	22.47	22.72	22.87		0
	12	0	21.72	21.55	21.74	21.96	0-1	1
	12	6	21.82	21.65	21.87	21.95		1
	12	13	21.82	21.56	21.85	21.79		1
	25	0	21.77	21.60	21.85	21.98		1
16QAM	1	0	21.63	21.57	21.49	21.93	0-1	1
	1	12	21.70	21.69	21.55	21.98		1
	1	24	21.77	21.66	21.70	21.94		1
	12	0	20.77	20.57	20.86	20.68	0-2	2
	12	6	20.88	20.67	20.85	20.94		2
	12	13	20.78	20.59	20.83	20.85		2
	25	0	20.77	20.63	20.84	20.96		2
64QAM	1	0	20.72	20.39	20.65	20.85	0-2	2
	1	12	20.81	20.41	20.79	20.94		2
	1	24	20.87	20.44	20.75	20.96		2
	12	0	19.82	19.49	19.50	19.63	0-3	3
	12	6	19.85	19.55	19.63	19.71		3
	12	13	19.86	19.52	19.67	19.74		3
	25	0	19.78	19.63	19.77	19.81		3
256QAM	1	0	17.66	17.13	17.75	17.75	0-5	5
	1	12	17.72	17.19	17.60	17.84		5
	1	24	17.69	17.29	17.71	17.65		5
	12	0	17.60	17.52	17.62	17.68		5
	12	6	17.73	17.63	17.80	17.64		5
	12	13	17.72	17.56	17.77	17.73		5
	25	0	17.74	17.59	17.72	17.68		5

Table 9-107
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	Low-Mid Channel	Mid-High Channel	High Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
			55340 (3560.0 MHz)	55773 (3603.3 MHz)	56207 (3646.7 MHz)	56640 (3690.0 MHz)		
			Conducted Power [dBm]					
QPSK	1	0	17.34	17.36	17.13	17.30	0	0
	1	50	17.51	17.57	17.16	**17.70**		0
	1	99	17.28	17.28	17.13	17.54		0
	50	0	17.45	17.54	17.14	17.62	0-1	0
	50	25	17.45	17.64	17.15	**17.69**		0
	50	50	17.44	17.61	17.13	17.55		0
	100	0	17.55	17.54	17.12	17.53		0
16QAM	1	0	17.40	17.46	17.14	17.39	0-1	0
	1	50	17.40	17.63	17.16	17.32		0
	1	99	17.42	17.42	17.14	17.34		0
	50	0	17.38	17.55	17.20	17.40	0-2	0
	50	25	17.40	17.63	17.22	17.62		0
	50	50	17.38	17.49	17.23	17.67		0
	100	0	17.37	17.54	17.22	17.51		0
64QAM	1	0	17.39	17.35	17.12	17.38	0-2	0
	1	50	17.37	17.35	17.10	17.54		0
	1	99	17.41	17.33	17.15	17.38		0
	50	0	17.40	17.60	17.09	17.47	0-3	0
	50	25	17.40	17.50	17.19	17.61		0
	50	50	17.38	17.53	17.24	17.55		0
	100	0	17.36	17.32	17.23	17.52		0
256QAM	1	0	17.17	17.43	17.46	17.40	0-5	0
	1	50	17.51	17.31	17.62	17.60		0
	1	99	17.28	17.35	17.53	17.49		0
	50	0	17.43	17.53	17.62	17.61		0
	50	25	17.46	17.46	17.77	17.62		0
	50	50	17.47	17.61	17.62	17.71		0
	100	0	17.41	17.48	17.61	17.52		0

Table 9-108
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	17.40	17.41	16.98	17.38	0	0
	1	36	17.69	17.42	17.05	17.50		0
	1	74	17.56	17.39	16.96	17.48		0
	36	0	17.59	17.50	17.05	17.49	0-1	0
	36	18	17.67	17.45	17.13	17.61		0
	36	37	17.52	17.38	17.22	17.59		0
	75	0	17.47	17.40	17.03	17.53		0
16QAM	1	0	17.55	17.56	17.05	17.50	0-1	0
	1	36	17.72	17.54	17.12	17.69		0
	1	74	17.69	17.47	17.03	17.62		0
	36	0	17.58	17.52	17.04	17.48	0-2	0
	36	18	17.62	17.44	17.08	17.58		0
	36	37	17.48	17.32	17.06	17.55		0
	75	0	17.59	17.40	17.15	17.35		0
64QAM	1	0	17.17	17.13	16.89	17.52	0-2	0
	1	36	17.36	17.18	16.98	17.45		0
	1	74	17.17	16.90	16.81	17.49		0
	36	0	17.74	17.58	17.05	17.56	0-3	0
	36	18	17.66	17.50	17.18	17.63		0
	36	37	17.56	17.40	17.08	17.56		0
	75	0	17.60	17.47	17.12	17.60		0
256QAM	1	0	17.27	17.33	17.40	17.51	0-5	0
	1	36	17.60	17.35	17.46	17.59		0
	1	74	17.28	17.10	17.35	17.62		0
	36	0	17.67	17.48	17.63	17.84		0
	36	18	17.75	17.45	17.66	17.89		0
	36	37	17.58	17.40	17.63	17.70		0
	75	0	17.48	17.42	17.60	17.75		0

Table 9-109
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	Low-Mid Channel	Mid-High Channel	High Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
			55290 (3555.0 MHz)	55757 (3601.7 MHz)	56223 (3648.3 MHz)	56690 (3695.0 MHz)		
			Conducted Power [dBm]					
QPSK	1	0	17.47	17.46	17.23	17.44	0	0
	1	25	17.64	17.69	17.27	17.65		0
	1	49	17.72	17.58	17.35	17.41		0
	25	0	17.66	17.72	17.06	17.72	0-1	0
	25	12	17.75	17.75	17.07	17.71		0
	25	25	17.67	17.71	17.15	17.69		0
	50	0	17.65	17.72	17.17	17.64		0
16QAM	1	0	17.50	17.60	17.20	17.51	0-1	0
	1	25	17.66	17.62	17.05	17.48		0
	1	49	17.59	17.75	17.18	17.62		0
	25	0	17.48	17.49	17.19	17.56	0-2	0
	25	12	17.56	17.45	17.27	17.55		0
	25	25	17.49	17.59	17.14	17.47		0
	50	0	17.50	17.50	17.21	17.62		0
64QAM	1	0	17.25	17.24	17.15	17.65	0-2	0
	1	25	17.57	17.36	17.14	17.58		0
	1	49	17.33	17.51	17.05	17.47		0
	25	0	17.48	17.51	17.17	17.55	0-3	0
	25	12	17.56	17.44	17.24	17.51		0
	25	25	17.49	17.38	17.23	17.39		0
	50	0	17.54	17.48	17.19	17.68		0
256QAM	1	0	17.28	17.58	17.58	17.52	0-5	0
	1	25	17.59	17.63	17.68	17.64		0
	1	49	17.37	17.66	17.64	17.55		0
	25	0	17.53	17.53	17.63	17.81		0
	25	12	17.60	17.61	17.67	17.65		0
	25	25	17.50	17.47	17.54	17.69		0
	50	0	17.49	17.67	17.64	17.62		0

Table 9-110
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	Low-Mid Channel	Mid-High Channel	High Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
			55265 (3552.5 MHz)	55748 (3600.8 MHz)	56232 (3649.2 MHz)	56715 (3697.5 MHz)		
			Conducted Power [dBm]					
QPSK	1	0	17.59	17.51	17.23	17.54	0	0
	1	12	17.54	17.57	17.27	17.51		0
	1	24	17.62	17.45	17.35	17.52		0
	12	0	17.56	17.52	17.27	17.56	0-1	0
	12	6	17.65	17.46	17.14	17.58		0
	12	13	17.56	17.49	17.34	17.39		0
	25	0	17.66	17.43	17.31	17.50		0
16QAM	1	0	17.60	17.55	17.20	17.52	0-1	0
	1	12	17.63	17.46	17.25	17.38		0
	1	24	17.69	17.55	17.37	17.34		0
	12	0	17.54	17.61	17.26	17.26	0-2	0
	12	6	17.70	17.62	17.34	17.35		0
	12	13	17.58	17.55	17.22	17.36		0
	25	0	17.66	17.35	17.14	17.26		0
64QAM	1	0	17.50	17.50	17.28	17.35	0-2	0
	1	12	17.55	17.56	17.16	17.38		0
	1	24	17.52	17.51	17.28	17.54		0
	12	0	17.63	17.48	17.39	17.48	0-3	0
	12	6	17.61	17.44	17.30	17.34		0
	12	13	17.70	17.45	17.43	17.35		0
	25	0	17.63	17.52	17.26	17.54		0
256QAM	1	0	17.47	17.44	17.58	17.52	0-5	0
	1	12	17.64	17.58	17.49	17.47		0
	1	24	17.58	17.57	17.71	17.36		0
	12	0	17.55	17.72	17.56	17.58		0
	12	6	17.62	17.56	17.49	17.55		0
	12	13	17.49	17.65	17.59	17.41		0
	25	0	17.56	17.57	17.56	17.48		0

9.4.3 LTE Band 41

Table 9-111
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	24.25	24.29	**24.32**	23.89	23.88	0	0
	1	50	24.19	24.30	24.30	23.99	24.01		0
	1	99	24.15	24.31	24.21	23.78	23.80		0
	50	0	23.39	23.31	23.37	23.06	22.95	0-1	1
	50	25	23.36	23.37	**23.50**	23.13	23.05		1
	50	50	23.30	23.33	23.34	22.98	23.07		1
	100	0	23.28	23.23	23.38	23.02	22.97		1
16QAM	1	0	23.40	23.45	23.24	22.97	22.96	0-1	1
	1	50	23.38	23.40	23.50	23.14	23.02		1
	1	99	23.33	23.44	23.13	22.91	22.89		1
	50	0	22.43	22.32	22.41	22.11	21.98	0-2	2
	50	25	22.42	22.41	22.53	22.19	22.09		2
	50	50	22.34	22.37	22.40	21.96	22.11		2
	100	0	22.32	22.35	22.42	22.04	22.10		2
64QAM	1	0	22.06	21.94	21.84	22.00	21.86	0-2	2
	1	50	22.00	22.00	22.17	22.06	21.95		2
	1	99	21.92	21.97	21.94	21.85	22.08		2
	50	0	21.44	21.35	21.50	21.12	21.03	0-3	3
	50	25	21.47	21.44	21.62	21.22	21.14		3
	50	50	21.39	21.37	21.45	21.31	21.17		3
	100	0	21.39	21.34	21.50	21.27	21.04		3
256QAM	1	0	19.00	18.80	18.99	19.02	18.93	0-5	5
	1	50	19.23	19.23	19.29	19.21	19.19		5
	1	99	18.89	18.84	18.90	19.08	19.12		5
	50	0	19.34	19.31	19.43	19.48	19.32		5
	50	25	19.43	19.46	19.54	19.42	19.27		5
	50	50	19.36	19.30	19.38	19.38	19.31		5
	100	0	19.33	19.32	19.36	19.35	19.28		5

Table 9-112
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	24.40	23.96	24.22	24.00	24.07	0	0
	1	36	24.39	24.18	24.42	24.14	24.24		0
	1	74	24.21	24.05	24.12	23.89	23.91		0
	36	0	23.43	23.18	23.26	23.24	23.24	0-1	1
	36	18	23.42	23.33	23.36	23.27	23.29		1
	36	37	23.38	23.25	23.41	23.24	23.30		1
	75	0	23.33	23.18	23.35	23.21	23.20		1
16QAM	1	0	23.53	23.28	23.41	23.14	23.24	0-1	1
	1	36	23.41	23.49	23.52	23.37	23.29		1
	1	74	23.39	23.38	23.37	22.91	23.24		1
	36	0	22.44	22.17	22.29	22.23	22.22	0-2	2
	36	18	22.45	22.34	22.39	22.25	22.38		2
	36	37	22.40	22.18	22.40	22.18	22.38		2
	75	0	22.41	22.25	22.39	22.18	22.30		2
64QAM	1	0	22.28	22.00	22.04	22.10	21.91	0-2	2
	1	36	22.33	22.29	22.33	22.33	22.29		2
	1	74	22.22	22.01	22.10	21.92	22.22		2
	36	0	21.49	21.12	21.31	21.38	21.21	0-3	3
	36	18	21.46	21.24	21.39	21.42	21.33		3
	36	37	21.35	21.16	21.39	21.41	21.36		3
	75	0	21.35	21.27	21.40	21.42	21.26		3
256QAM	1	0	18.97	18.98	19.24	19.35	19.25	0-5	5
	1	36	19.09	19.35	19.18	19.46	19.45		5
	1	74	18.89	19.08	19.00	19.20	19.33		5
	36	0	19.15	19.44	19.55	19.61	19.50		5
	36	18	19.35	19.53	19.56	19.58	19.54		5
	36	37	19.22	19.35	19.49	19.54	19.55		5
	75	0	19.21	19.46	19.54	19.56	19.49		5

Table 9-113
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	24.25	23.97	24.13	23.86	23.95	0	0
	1	25	24.23	24.22	24.26	24.11	24.16		0
	1	49	24.07	23.89	24.00	23.87	23.75		0
	25	0	23.25	23.09	23.23	23.11	23.06	0-1	1
	25	12	23.11	23.24	23.30	23.19	23.12		1
	25	25	23.14	23.11	23.18	23.16	23.11		1
	50	0	23.16	23.14	23.25	23.19	23.04		1
16QAM	1	0	23.34	23.20	23.21	23.16	23.05	0-1	1
	1	25	23.28	23.40	23.34	23.40	22.96		1
	1	49	23.11	23.22	23.05	23.16	22.97		1
	25	0	22.26	22.10	22.21	22.03	22.13	0-2	2
	25	12	22.27	22.24	22.36	22.16	22.16		2
	25	25	22.25	22.12	22.23	22.10	22.13		2
	50	0	22.22	22.18	22.29	22.16	22.03		2
64QAM	1	0	22.20	21.93	22.08	21.90	22.02	0-2	2
	1	25	22.18	22.17	22.30	22.15	22.16		2
	1	49	22.10	21.96	21.97	21.87	22.03		2
	25	0	21.29	21.19	21.27	21.21	21.13	0-3	3
	25	12	21.29	21.33	21.38	21.26	21.25		3
	25	25	21.21	21.22	21.24	21.23	21.11		3
	50	0	21.24	21.20	21.29	21.31	21.12		3
256QAM	1	0	18.83	18.83	19.05	18.99	18.88	0-5	5
	1	25	18.96	19.07	19.16	19.33	19.19		5
	1	49	18.91	18.97	18.94	19.05	19.08		5
	25	0	19.12	19.31	19.27	19.48	19.28		5
	25	12	19.11	19.37	19.36	19.36	19.40		5
	25	25	19.03	19.31	19.20	19.32	19.32		5
	50	0	19.20	19.37	19.32	19.36	19.38		5

Table 9-114
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	24.26	24.15	24.24	24.01	24.10	0	0
	1	12	24.15	24.21	24.24	24.12	24.12		0
	1	24	24.14	24.10	24.23	24.08	24.11		0
	12	0	23.24	23.15	23.28	23.21	23.10	0-1	1
	12	6	23.21	23.26	23.29	23.21	23.12		1
	12	13	23.18	23.21	23.27	23.23	23.17		1
	25	0	23.23	23.19	23.28	23.23	23.09		1
16QAM	1	0	23.34	23.19	23.30	22.93	23.17	0-1	1
	1	12	23.31	23.38	23.34	23.17	23.28		1
	1	24	23.22	23.20	23.32	23.08	23.19		1
	12	0	22.33	22.20	22.37	22.30	22.27	0-2	2
	12	6	22.35	22.29	22.44	22.27	22.26		2
	12	13	22.32	22.23	22.42	22.34	22.26		2
	25	0	22.17	22.20	22.27	22.25	22.07		2
64QAM	1	0	22.35	22.15	22.12	22.25	22.18	0-2	2
	1	12	22.23	22.13	22.41	22.27	22.22		2
	1	24	22.27	22.16	22.14	22.11	22.15		2
	12	0	21.29	21.26	21.29	21.17	21.19	0-3	3
	12	6	21.25	21.34	21.40	21.23	21.17		3
	12	13	21.22	21.31	21.30	21.25	21.21		3
	25	0	21.15	21.20	21.22	21.22	21.04		3
256QAM	1	0	18.97	19.04	19.00	19.15	19.19	0-5	5
	1	12	19.05	19.13	19.07	19.09	19.17		5
	1	24	18.87	19.02	19.13	19.20	19.14		5
	12	0	19.19	19.43	19.40	19.35	19.34		5
	12	6	19.23	19.48	19.47	19.49	19.42		5
	12	13	19.15	19.43	19.40	19.49	19.39		5
	25	0	19.13	19.33	19.39	19.39	19.27		5

Table 9-115
LTE Band 41 PC3 Measured P_{limit} for DSI = 3 (Hotspot mode) - 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	21.37	21.37	21.45	20.95	21.07	0	0
	1	50	21.29	21.36	**21.73**	21.13	21.24		0
	1	99	21.20	21.41	21.34	20.73	21.15		0
	50	0	21.51	21.45	21.68	21.33	21.25	0-1	0
	50	25	21.50	21.53	**21.82**	21.35	21.35		0
	50	50	21.41	21.50	21.67	21.13	21.40		0
	100	0	21.41	21.41	21.72	21.24	21.32		0
16QAM	1	0	21.60	21.70	21.43	21.25	20.97	0-1	0
	1	50	21.49	21.58	21.82	21.34	21.48		0
	1	99	21.47	21.65	21.50	21.20	21.41		0
	50	0	21.56	21.53	21.71	21.30	21.30	0-2	0
	50	25	21.55	21.62	21.87	21.35	21.46		0
	50	50	21.51	21.59	21.70	21.15	21.48		0
	100	0	21.48	21.51	21.77	21.27	21.36		0
64QAM	1	0	21.41	21.16	21.09	21.08	20.88	0-2	0
	1	50	21.34	21.20	21.45	21.28	21.15		0
	1	99	21.25	21.23	21.08	20.96	20.93		0
	50	0	21.60	21.60	21.76	21.33	21.32	0-3	0
	50	25	21.59	21.64	21.90	21.40	21.43		0
	50	50	21.54	21.59	21.76	21.20	21.49		0
	100	0	21.46	21.50	21.76	21.29	21.32		0
256QAM	1	0	19.44	19.19	19.24	18.94	19.07	0-5	2
	1	50	19.38	19.42	19.62	19.16	19.30		2
	1	99	19.53	19.31	19.26	18.68	19.15		2
	50	0	19.52	19.52	19.73	19.34	19.37		2
	50	25	19.63	19.65	19.89	19.41	19.50		2
	50	50	19.57	19.54	19.74	19.21	19.57		2
	100	0	19.53	19.55	19.75	19.30	19.39		2

Table 9-116
LTE Band 41 PC3 Measured P_{limit} for DSI = 3 (Hotspot mode) - 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	21.54	21.32	21.39	21.10	21.15	0	0
	1	36	21.56	21.41	21.60	21.23	21.43		0
	1	74	21.44	21.32	21.29	20.94	21.31		0
	36	0	21.62	21.53	21.54	21.21	21.37	0-1	0
	36	18	21.65	21.63	21.63	21.26	21.48		0
	36	37	21.62	21.55	21.65	21.23	21.54		0
	75	0	21.55	21.53	21.64	21.22	21.38		0
16QAM	1	0	21.48	21.52	21.32	21.38	21.11	0-1	0
	1	36	21.51	21.74	21.57	21.45	21.42		0
	1	74	21.39	21.54	21.47	21.07	21.25		0
	36	0	21.71	21.55	21.62	21.14	21.45	0-2	0
	36	18	21.74	21.70	21.69	21.19	21.59		0
	36	37	21.65	21.56	21.71	21.14	21.60		0
	75	0	21.58	21.55	21.62	21.17	21.44		0
64QAM	1	0	21.31	21.13	21.19	21.16	20.89	0-2	0
	1	36	21.33	21.43	21.44	21.35	21.31		0
	1	74	21.27	21.13	21.19	20.93	21.13		0
	36	0	21.70	21.52	21.63	21.09	21.41	0-3	0
	36	18	21.72	21.64	21.74	21.16	21.54		0
	36	37	21.67	21.51	21.73	21.14	21.56		0
	75	0	21.61	21.54	21.69	21.30	21.39		0
256QAM	1	0	19.45	19.27	19.35	18.71	19.20	0-5	2
	1	36	19.57	19.29	19.48	18.84	19.25		2
	1	74	19.63	19.46	19.57	18.59	19.39		2
	36	0	19.55	19.37	19.66	19.22	19.42		2
	36	18	19.65	19.52	19.66	19.25	19.49		2
	36	37	19.43	19.47	19.58	19.24	19.51		2
	75	0	19.41	19.45	19.69	19.26	19.40		2

Table 9-117
LTE Band 41 PC3 Measured P_{limit} for DSI = 3 (Hotspot mode) - 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	21.45	21.25	21.29	21.05	21.10	0	0
	1	25	21.44	21.37	21.48	21.30	21.25		0
	1	49	21.34	21.36	21.29	21.04	21.42		0
	25	0	21.43	21.31	21.38	21.25	21.16	0-1	0
	25	12	21.45	21.44	21.48	21.34	21.22		0
	25	25	21.41	21.34	21.42	21.30	21.16		0
	50	0	21.35	21.36	21.41	21.26	21.15		0
16QAM	1	0	21.49	21.35	21.37	21.36	21.05	0-1	0
	1	25	21.41	21.61	21.52	21.58	21.23		0
	1	49	21.47	21.37	21.52	21.44	21.21		0
	25	0	21.49	21.36	21.43	21.20	21.18	0-2	0
	25	12	21.51	21.51	21.55	21.31	21.26		0
	25	25	21.46	21.38	21.47	21.24	21.22		0
	50	0	21.40	21.45	21.48	21.33	21.17		0
64QAM	1	0	21.47	21.22	21.19	21.23	21.09	0-2	0
	1	25	21.46	21.19	21.47	21.24	21.26		0
	1	49	21.39	21.27	21.23	21.17	21.29		0
	25	0	21.47	21.40	21.43	21.35	21.23	0-3	0
	25	12	21.50	21.55	21.63	21.33	21.30		0
	25	25	21.44	21.41	21.50	21.27	21.22		0
	50	0	21.47	21.45	21.44	21.34	21.13		0
256QAM	1	0	19.23	19.30	19.13	18.85	18.90	0-5	2
	1	25	19.41	19.58	19.41	19.07	19.16		2
	1	49	19.19	19.31	19.01	18.87	18.92		2
	25	0	19.53	19.29	19.40	19.39	19.20		2
	25	12	19.60	19.46	19.58	19.47	19.27		2
	25	25	19.57	19.47	19.46	19.42	19.24		2
	50	0	19.48	19.41	19.51	19.48	19.18		2

Table 9-118
LTE Band 41 PC3 Measured P_{limit} for DSI = 3 (Hotspot mode) - 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	21.43	21.36	21.45	21.09	20.99	0	0
	1	12	21.42	21.41	21.50	21.34	21.24		0
	1	24	21.45	21.40	21.51	21.25	21.28		0
	12	0	21.41	21.40	21.48	21.34	21.25	0-1	0
	12	6	21.42	21.47	21.56	21.37	21.26		0
	12	13	21.41	21.43	21.46	21.40	21.28		0
	25	0	21.42	21.46	21.51	21.24	21.22		0
16QAM	1	0	21.47	21.55	21.49	21.10	21.24	0-1	0
	1	12	21.51	21.39	21.61	21.18	21.36		0
	1	24	21.49	21.56	21.54	21.60	21.25		0
	12	0	21.48	21.43	21.65	21.42	21.34	0-2	0
	12	6	21.54	21.58	21.65	21.46	21.34		0
	12	13	21.52	21.50	21.62	21.49	21.38		0
	25	0	21.40	21.43	21.47	21.41	21.20		0
64QAM	1	0	21.48	21.35	21.23	21.19	21.02	0-2	0
	1	12	21.51	21.33	21.71	21.17	21.25		0
	1	24	21.56	21.38	21.36	21.23	20.89		0
	12	0	21.49	21.49	21.49	21.35	21.25	0-3	0
	12	6	21.45	21.56	21.60	21.46	21.29		0
	12	13	21.43	21.54	21.54	21.41	21.32		0
	25	0	21.34	21.46	21.46	21.40	21.16		0
256QAM	1	0	19.64	19.34	19.09	18.95	19.15	0-5	2
	1	12	19.66	19.49	19.39	18.96	19.31		2
	1	24	19.73	19.56	19.15	19.03	19.28		2
	12	0	19.36	19.36	19.45	19.33	19.18		2
	12	6	19.37	19.41	19.55	19.36	19.21		2
	12	13	19.35	19.38	19.51	19.40	19.17		2
	25	0	19.38	19.44	19.54	19.42	19.22		2

Table 9-119
LTE Band 41 PC3 Measured P_{limit} for 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	22.33	22.33	22.25	21.71	21.86	0	0
	1	50	22.24	22.19	**22.50**	21.75	22.02		0
	1	99	22.19	22.35	21.97	21.74	21.95		0
	50	0	22.48	22.30	22.35	21.90	22.00	0-1	0
	50	25	22.49	22.34	**22.50**	21.93	22.11		0
	50	50	22.45	22.19	22.33	21.70	22.15		0
	100	0	22.45	22.15	22.46	21.80	22.04		0
16QAM	1	0	22.60	22.28	22.22	21.88	21.80	0-1	0
	1	50	22.63	22.21	22.38	21.86	22.17		0
	1	99	22.57	22.20	22.10	21.90	22.14		0
	50	0	21.99	21.82	21.88	21.89	21.92	0-2	0
	50	25	22.07	21.85	21.98	21.82	22.03		0
	50	50	21.94	21.70	21.85	21.81	22.05		0
	100	0	21.86	21.95	21.87	21.81	21.91		0
64QAM	1	0	22.00	21.88	21.80	21.85	22.08	0-2	0
	1	50	21.98	21.87	21.88	21.88	22.06		0
	1	99	21.90	21.81	21.83	21.75	21.95		0
	50	0	21.06	20.90	20.92	20.86	20.86	0-3	1
	50	25	21.05	20.81	21.03	20.77	21.05		1
	50	50	21.00	20.77	20.81	20.88	21.06		1
	100	0	20.96	20.73	20.86	20.75	20.97		1
256QAM	1	0	19.52	19.41	19.41	19.33	19.34	0-5	3
	1	50	19.68	19.51	19.52	19.53	19.55		3
	1	99	19.36	19.53	19.58	19.37	19.60		3
	50	0	19.54	19.68	19.40	19.42	19.60		3
	50	25	19.60	19.57	19.58	19.55	19.61		3
	50	50	19.61	19.56	19.61	19.46	19.66		3
	100	0	19.56	19.55	19.63	19.48	19.47		3

Table 9-120
LTE Band 41 PC3 Measured P_{limit} for 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	22.54	22.38	22.42	21.78	22.04	0	0
	1	36	22.35	22.23	22.50	21.86	22.16		0
	1	74	22.22	22.35	22.13	21.78	22.15		0
	36	0	22.50	22.44	22.44	21.91	22.14	0-1	0
	36	18	22.54	22.40	22.51	21.92	22.25		0
	36	37	22.50	22.46	22.49	21.82	22.27		0
	75	0	22.58	22.23	22.39	21.89	22.19		0
16QAM	1	0	22.51	22.34	22.36	21.88	21.95	0-1	0
	1	36	22.54	22.33	22.37	21.79	22.15		0
	1	74	22.42	22.25	22.35	21.80	22.24		0
	36	0	22.08	21.97	21.90	21.86	21.93	0-2	0
	36	18	22.27	21.99	21.96	21.91	21.96		0
	36	37	21.97	21.96	21.87	21.89	21.99		0
	75	0	21.90	22.01	21.93	21.95	22.02		0
64QAM	1	0	22.10	21.71	21.97	21.91	22.11	0-2	0
	1	36	22.14	21.84	22.01	21.70	21.92		0
	1	74	21.98	21.75	21.93	21.85	21.86		0
	36	0	21.10	20.92	20.98	20.87	20.78	0-3	1
	36	18	21.19	21.00	21.18	20.70	20.97		1
	36	37	21.00	20.91	20.90	20.94	20.89		1
	75	0	21.14	20.92	21.00	20.68	20.79		1
256QAM	1	0	19.32	19.42	19.35	19.30	19.46	0-5	3
	1	36	19.54	19.38	19.34	19.49	19.57		3
	1	74	19.44	19.54	19.39	19.35	19.61		3
	36	0	19.63	19.41	19.59	19.43	19.60		3
	36	18	19.69	19.44	19.44	19.57	19.58		3
	36	37	19.67	19.53	19.50	19.56	19.64		3
	75	0	19.63	19.45	19.70	19.58	19.64		3

Table 9-121
LTE Band 41 PC3 Measured P_{limit} for 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	Low-Mid Channel	Mid Channel	Mid-High Channel	High Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
			39750 (2506.0 MHz)	40185 (2549.5 MHz)	40620 (2593.0 MHz)	41055 (2636.5 MHz)	41490 (2680.0 MHz)		
			Conducted Power [dBm]						
QPSK	1	0	22.43	22.21	22.45	21.83	22.02	0	0
	1	25	22.40	22.30	22.52	21.81	22.14		0
	1	49	22.31	22.12	22.09	21.71	22.15		0
	25	0	22.44	22.37	22.42	21.96	22.10	0-1	0
	25	12	22.38	22.31	22.54	22.22	22.21		0
	25	25	22.36	22.29	22.44	22.19	22.20		0
	50	0	22.35	22.34	22.50	22.00	22.19		0
16QAM	1	0	22.58	22.36	22.43	22.05	21.84	0-1	0
	1	25	22.48	22.30	22.31	21.99	22.22		0
	1	49	22.49	22.40	22.02	22.21	21.99		0
	25	0	22.17	21.98	21.89	21.96	21.92	0-2	0
	25	12	22.15	22.28	21.93	22.00	22.21		0
	25	25	22.01	21.92	21.87	21.86	21.89		0
	50	0	21.93	22.04	21.93	21.74	21.87		0
64QAM	1	0	21.98	21.80	21.76	21.73	21.91	0-2	0
	1	25	21.90	21.97	21.73	21.86	21.90		0
	1	49	21.92	21.84	21.88	21.86	21.85		0
	25	0	21.14	21.00	21.08	21.00	21.22	0-3	1
	25	12	21.37	21.28	20.81	20.79	20.93		1
	25	25	21.12	20.97	20.91	20.72	20.86		1
	50	0	21.04	20.94	21.02	20.81	21.09		1
256QAM	1	0	19.42	19.33	19.55	19.47	19.36	0-5	3
	1	25	19.48	19.50	19.56	19.49	19.49		3
	1	49	19.42	19.47	19.51	19.39	19.53		3
	25	0	19.44	19.37	19.47	19.40	19.37		3
	25	12	19.45	19.39	19.44	19.45	19.35		3
	25	25	19.39	19.47	19.54	19.40	19.36		3
	50	0	19.42	19.41	19.53	19.43	19.38		3

Table 9-122
LTE Band 41 PC3 Measured P_{limit} for 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	Low-Mid Channel	Mid Channel	Mid-High Channel	High Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
			39750 (2506.0 MHz)	40185 (2549.5 MHz)	40620 (2593.0 MHz)	41055 (2636.5 MHz)	41490 (2680.0 MHz)		
			Conducted Power [dBm]						
QPSK	1	0	22.49	22.42	22.50	21.86	22.12	0	0
	1	12	22.40	22.42	22.51	21.97	22.19		0
	1	24	22.41	22.24	22.11	21.81	22.03		0
	12	0	22.44	22.43	22.46	22.19	22.12	0-1	0
	12	6	22.44	22.51	22.59	22.19	22.24		0
	12	13	22.40	22.28	22.41	22.17	22.28		0
	25	0	22.42	22.27	22.53	22.00	22.30		0
16QAM	1	0	22.54	22.16	22.45	21.90	22.00	0-1	0
	1	12	22.57	22.23	22.46	21.93	22.25		0
	1	24	22.50	22.16	22.26	21.94	22.27		0
	12	0	22.04	21.96	22.09	21.86	21.92	0-2	0
	12	6	22.04	21.85	21.78	21.87	21.88		0
	12	13	22.09	21.84	21.91	21.82	21.87		0
	25	0	21.80	21.77	21.83	21.82	21.76		0
64QAM	1	0	22.04	22.11	21.83	21.98	21.84	0-2	0
	1	12	22.22	22.28	21.78	22.01	21.98		0
	1	24	22.14	22.23	22.02	21.92	22.29		0
	12	0	21.00	21.50	21.05	21.04	21.05	0-3	1
	12	6	20.98	21.16	21.12	21.03	21.05		1
	12	13	20.96	21.14	21.06	21.04	21.04		1
	25	0	20.90	21.06	21.01	21.02	20.93		1
256QAM	1	0	19.40	19.37	19.24	19.30	19.27	0-5	3
	1	12	19.35	19.51	19.38	19.34	19.25		3
	1	24	19.34	19.41	19.30	19.30	19.29		3
	12	0	19.54	19.68	19.47	19.48	19.45		3
	12	6	19.53	19.53	19.58	19.51	19.46		3
	12	13	19.50	19.56	19.52	19.33	19.43		3
	25	0	19.45	19.69	19.49	19.46	19.38		3

Table 9-123
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	26.81	26.74	26.88	26.85	26.84	0	0
	1	50	26.77	26.77	26.83	26.81	26.69		0
	1	99	26.71	26.74	26.64	26.79	26.81		0
	50	0	26.40	26.25	26.33	26.20	26.29	0-1	1
	50	25	26.39	26.32	26.44	26.27	26.28		1
	50	50	26.32	26.32	26.33	26.14	26.27		1
	100	0	26.31	26.24	26.38	26.26	26.20		1
16QAM	1	0	26.64	26.53	26.37	26.34	26.23	0-1	1
	1	50	26.57	26.50	26.63	26.31	26.38		1
	1	99	26.44	26.53	26.29	26.22	26.32		1
	50	0	25.41	25.32	25.19	25.27	25.21	0-2	2
	50	25	25.38	25.38	25.09	25.36	25.30		2
	50	50	25.36	25.28	25.16	25.18	25.35		2
	100	0	25.31	25.34	25.10	25.25	25.25		2
64QAM	1	0	24.81	24.88	25.05	24.97	25.08	0-2	2
	1	50	24.74	24.95	25.19	24.84	25.11		2
	1	99	24.73	25.17	25.00	24.71	25.06		2
	50	0	23.70	23.95	24.18	23.77	24.19	0-3	3
	50	25	23.74	24.09	24.05	23.70	24.18		3
	50	50	23.76	24.10	23.92	23.84	24.13		3
	100	0	23.67	23.91	23.81	23.60	24.06		3
256QAM	1	0	22.11	22.00	22.17	22.27	22.12	0-5	5
	1	50	22.28	22.35	22.38	22.41	22.13		5
	1	99	22.06	21.94	22.03	22.22	22.11		5
	50	0	22.21	22.31	22.19	22.23	22.22		5
	50	25	22.14	22.44	22.17	22.37	22.23		5
	50	50	22.09	22.22	22.18	22.26	22.25		5
	100	0	22.07	22.29	22.28	22.21	22.20		5

Table 9-124
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	26.63	26.89	26.93	26.92	26.81	0	0
	1	36	26.75	26.87	26.84	26.89	26.74		0
	1	74	26.64	26.72	26.70	26.72	26.88		0
	36	0	26.36	26.21	26.15	26.23	26.44	0-1	1
	36	18	26.25	26.33	26.19	26.18	26.49		1
	36	37	26.24	26.23	26.06	26.37	26.28		1
	75	0	26.37	26.23	26.08	26.15	26.21		1
16QAM	1	0	26.55	26.37	26.38	26.35	26.36	0-1	1
	1	36	26.37	26.59	26.53	26.37	26.26		1
	1	74	26.28	26.33	26.34	26.37	26.28		1
	36	0	25.34	25.36	24.97	25.23	25.33	0-2	2
	36	18	25.32	25.46	24.93	25.25	25.27		2
	36	37	25.22	25.24	24.87	25.19	25.31		2
	75	0	25.21	25.27	25.11	25.12	25.22		2
64QAM	1	0	24.67	25.02	24.96	24.82	25.24	0-2	2
	1	36	24.93	25.21	24.87	24.77	25.23		2
	1	74	24.68	25.11	24.91	24.79	25.22		2
	36	0	23.74	24.24	23.93	23.71	24.21	0-3	3
	36	18	23.88	24.23	23.84	23.81	24.22		3
	36	37	23.75	24.28	23.69	23.85	24.34		3
	75	0	23.85	24.17	23.68	23.69	24.11		3
256QAM	1	0	22.03	22.06	22.21	22.44	22.26	0-5	5
	1	36	22.09	22.18	22.41	22.42	22.27		5
	1	74	22.00	22.19	22.21	22.37	22.30		5
	36	0	22.18	22.34	22.34	22.49	22.29		5
	36	18	22.35	22.42	22.44	22.47	22.26		5
	36	37	22.23	22.40	22.44	22.41	22.29		5
	75	0	22.28	22.37	22.45	22.39	22.24		5

Table 9-125
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	26.69	26.85	26.74	26.92	26.87	0	0
	1	25	26.65	26.92	26.71	26.78	26.74		0
	1	49	26.66	26.75	26.61	26.82	26.83		0
	25	0	26.23	26.21	26.11	26.23	26.44	0-1	1
	25	12	26.32	26.33	26.22	26.18	26.49		1
	25	25	26.31	26.40	26.26	26.37	26.57		1
	50	0	26.19	26.23	26.08	26.15	26.43		1
16QAM	1	0	26.45	26.33	26.38	26.32	26.40	0-1	1
	1	25	26.37	26.59	26.43	26.37	26.37		1
	1	49	26.22	26.33	26.35	26.29	26.40		1
	25	0	25.25	25.36	25.09	25.22	25.39	0-2	2
	25	12	25.17	25.37	24.93	25.29	25.40		2
	25	25	25.20	25.38	25.01	25.16	25.24		2
	50	0	25.16	25.21	25.12	25.26	25.44		2
64QAM	1	0	24.78	25.02	24.96	24.80	25.29	0-2	2
	1	25	24.85	25.14	25.11	24.77	25.33		2
	1	49	24.82	25.24	25.01	24.79	25.19		2
	25	0	23.65	24.07	23.89	23.81	24.17	0-3	3
	25	12	23.72	24.19	23.85	23.85	24.21		3
	25	25	23.77	24.22	23.75	23.92	24.26		3
	50	0	23.68	24.17	23.61	23.69	24.25		3
256QAM	1	0	21.98	21.86	22.05	22.31	22.18	0-5	5
	1	25	22.05	22.26	22.25	22.48	22.23		5
	1	49	21.81	21.89	21.95	22.19	22.18		5
	25	0	21.92	22.22	22.20	22.44	22.39		5
	25	12	22.17	22.24	22.32	22.49	22.45		5
	25	25	22.09	22.14	22.28	22.44	22.36		5
	50	0	22.07	22.18	22.24	22.52	22.36		5

Table 9-126
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	26.68	26.86	26.65	26.89	26.90	0	0
	1	12	26.66	26.90	26.60	26.88	26.80		0
	1	24	26.68	26.74	26.67	26.91	26.84		0
	12	0	26.28	26.13	26.39	26.21	26.35	0-1	1
	12	6	26.21	26.21	26.08	26.26	26.30		1
	12	13	26.22	26.11	26.07	26.11	26.23		1
	25	0	26.19	26.12	26.06	26.13	26.14		1
16QAM	1	0	26.47	26.28	26.22	26.42	26.34	0-1	1
	1	12	26.32	26.43	26.44	26.31	26.56		1
	1	24	26.21	26.21	26.14	26.25	26.56		1
	12	0	25.27	25.10	24.96	25.23	25.19	0-2	2
	12	6	25.28	25.23	24.92	25.11	25.21		2
	12	13	25.34	25.15	24.82	25.17	25.18		2
	25	0	25.19	25.18	24.94	25.14	25.15		2
64QAM	1	0	24.87	25.17	24.94	24.86	25.10	0-2	2
	1	12	24.76	25.30	24.88	24.89	25.25		2
	1	24	24.78	25.14	25.11	24.90	25.12		2
	12	0	23.63	23.93	23.96	23.74	24.22	0-3	3
	12	6	23.70	24.05	23.86	23.78	24.28		3
	12	13	23.68	23.93	23.78	23.77	24.20		3
	25	0	23.64	24.06	23.71	23.65	24.15		3
256QAM	1	0	21.99	21.96	21.95	22.43	22.33	0-5	5
	1	12	21.90	22.11	22.21	22.51	22.37		5
	1	24	21.90	21.89	22.00	22.47	22.34		5
	12	0	22.01	22.10	22.16	22.55	22.51		5
	12	6	22.09	22.19	22.25	22.58	22.47		5
	12	13	22.11	22.09	22.22	22.57	22.47		5
	25	0	22.05	22.15	22.23	22.51	22.36		5

Table 9-127
LTE Band 41 PC2 Measured P_{limit} for DSI = 3 (Hotspot mode) - 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	22.93	22.93	22.82	22.71	22.55	0	0
	1	50	22.83	22.94	23.06	22.98	22.85		0
	1	99	22.77	22.99	22.72	22.55	22.64		0
	50	0	23.03	22.95	23.09	23.18	22.81	0-1	0
	50	25	23.02	23.00	23.21	23.14	22.92		0
	50	50	22.99	22.98	23.09	22.98	22.95		0
	100	0	23.00	22.91	23.05	23.05	22.84		0
16QAM	1	0	23.26	23.13	23.05	23.20	23.10	0-1	0
	1	50	23.24	23.16	23.40	23.41	23.32		0
	1	99	23.15	23.18	23.17	22.97	22.81		0
	50	0	23.11	22.94	23.14	23.04	23.04	0-2	0
	50	25	23.02	22.93	23.26	23.16	23.14		0
	50	50	23.00	22.98	23.10	22.98	22.95		0
	100	0	23.03	22.94	23.20	23.07	23.06		0
64QAM	1	0	23.01	22.91	22.76	22.77	22.76	0-2	0
	1	50	22.93	22.89	23.14	23.06	23.03		0
	1	99	22.93	22.95	22.77	22.76	22.81		0
	50	0	23.15	23.10	23.16	23.14	23.10	0-3	0
	50	25	22.94	23.11	23.29	23.22	23.21		0
	50	50	22.84	23.05	23.16	23.02	23.03		0
	100	0	22.91	22.98	23.17	23.10	23.09		0
256QAM	1	0	22.12	22.33	22.39	22.42	22.44	0-5	0.6
	1	50	22.38	22.52	22.60	22.70	22.74		0.6
	1	99	22.09	22.27	22.22	22.32	22.31		0.6
	50	0	22.45	22.66	22.60	22.73	22.74		0.6
	50	25	22.45	22.65	22.77	22.83	22.82		0.6
	50	50	22.43	22.60	22.58	22.68	22.67		0.6
	100	0	22.39	22.58	22.58	22.69	22.61		0.6

Table 9-128
LTE Band 41 PC2 Measured P_{limit} for DSI = 3 (Hotspot mode) - 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	22.87	22.81	22.95	22.89	22.66	0	0
	1	36	23.00	23.08	23.04	23.07	22.83		0
	1	74	22.70	22.84	22.64	22.69	22.83		0
	36	0	23.07	23.05	23.09	23.08	22.86	0-1	0
	36	18	23.05	23.16	23.22	23.05	22.87		0
	36	37	23.05	23.09	23.12	23.06	22.96		0
	75	0	23.07	23.09	23.17	23.09	22.87		0
16QAM	1	0	23.29	23.18	23.30	23.29	22.99	0-1	0
	1	36	23.33	23.35	23.41	23.33	23.22		0
	1	74	22.99	23.17	23.21	22.97	23.15		0
	36	0	23.00	23.03	23.12	22.90	22.73	0-2	0
	36	18	23.01	23.14	23.09	23.02	22.87		0
	36	37	22.99	23.01	23.06	22.97	22.79		0
	75	0	23.07	23.14	23.20	23.09	22.91		0
64QAM	1	0	22.96	22.79	22.98	22.96	22.77	0-2	0
	1	36	23.07	23.04	23.13	23.11	22.95		0
	1	74	22.76	22.86	22.88	22.80	22.75		0
	36	0	23.09	23.11	23.18	23.07	22.91	0-3	0
	36	18	23.08	23.18	23.17	23.10	23.00		0
	36	37	22.97	23.11	23.22	23.05	23.02		0
	75	0	23.11	23.15	23.21	23.13	22.97		0
256QAM	1	0	22.18	22.25	22.47	22.52	22.39	0-5	0.6
	1	36	22.31	22.55	22.59	22.45	22.60		0.6
	1	74	22.02	22.37	22.32	22.50	22.48		0.6
	36	0	22.31	22.53	22.58	22.71	22.53		0.6
	36	18	22.34	22.59	22.59	22.68	22.60		0.6
	36	37	22.27	22.51	22.58	22.75	22.62		0.6
	75	0	22.33	22.53	22.66	22.72	22.56		0.6

Table 9-129
LTE Band 41 PC2 Measured P_{limit} for DSI = 3 (Hotspot mode) - 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	22.94	22.86	22.70	22.61	22.48	0	0
	1	25	22.92	22.93	22.76	22.84	22.68		0
	1	49	22.70	22.80	22.79	22.56	22.35		0
	25	0	23.10	22.87	22.76	22.93	22.70	0-1	0
	25	12	23.10	23.02	23.07	23.03	22.75		0
	25	25	23.05	22.92	22.91	22.91	22.74		0
	50	0	23.04	23.02	23.00	23.09	22.65		0
16QAM	1	0	23.40	23.04	23.05	23.04	22.86	0-1	0
	1	25	23.33	23.31	23.29	23.36	23.00		0
	1	49	23.26	23.02	22.91	22.99	23.04		0
	25	0	23.04	22.82	22.84	22.94	22.76	0-2	0
	25	12	23.08	23.11	22.98	23.01	22.85		0
	25	25	23.04	22.83	22.89	22.93	22.82		0
	50	0	23.06	22.98	23.01	22.96	22.74		0
64QAM	1	0	23.05	22.86	22.73	22.65	22.61	0-2	0
	1	25	22.95	22.88	22.87	22.89	22.78		0
	1	49	22.96	22.89	22.69	22.84	22.59		0
	25	0	23.10	22.89	22.92	22.96	22.71	0-3	0
	25	12	23.13	23.04	23.03	22.91	22.98		0
	25	25	23.07	22.91	22.89	23.00	22.74		0
	50	0	23.11	23.11	22.99	23.19	22.76		0
256QAM	1	0	22.24	22.45	22.26	22.58	22.35	0-5	0.6
	1	25	22.39	22.30	22.41	22.49	22.61		0.6
	1	49	22.19	22.34	22.19	22.53	22.33		0.6
	25	0	22.55	22.49	22.38	22.51	22.53		0.6
	25	12	22.57	22.39	22.45	22.57	22.68		0.6
	25	25	22.45	22.40	22.36	22.64	22.61		0.6
	50	0	22.49	22.48	22.33	22.60	22.60		0.6

Table 9-130
LTE Band 41 PC2 Measured P_{limit} for DSI = 3 (Hotspot mode) - 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	22.90	22.76	22.76	22.84	22.72	0	0
	1	12	22.89	22.81	22.89	22.86	22.70		0
	1	24	22.84	22.80	22.70	22.71	22.71		0
	12	0	23.03	22.85	22.86	22.88	22.82	0-1	0
	12	6	23.00	22.95	22.92	22.88	22.84		0
	12	13	22.99	22.89	22.87	22.88	22.85		0
	25	0	22.97	22.93	22.90	22.85	22.79		0
16QAM	1	0	23.17	23.16	23.29	23.19	23.07	0-1	0
	1	12	23.22	23.16	23.16	23.25	23.03		0
	1	24	23.25	23.00	23.05	23.18	23.04		0
	12	0	22.99	22.95	22.80	22.89	22.80	0-2	0
	12	6	23.00	22.90	22.86	22.86	22.82		0
	12	13	22.99	22.99	22.83	22.95	22.81		0
	25	0	23.04	22.89	22.91	23.08	22.90		0
64QAM	1	0	22.95	22.87	22.73	22.86	22.79	0-2	0
	1	12	22.91	22.84	23.00	22.91	22.84		0
	1	24	22.92	22.83	22.75	22.92	22.81		0
	12	0	23.00	22.84	22.95	22.90	22.87	0-3	0
	12	6	22.95	22.91	22.83	22.98	22.83		0
	12	13	22.97	22.88	22.87	23.01	22.88		0
	25	0	22.89	22.93	22.90	23.00	22.86		0
256QAM	1	0	22.38	22.22	22.20	22.55	22.47	0-5	0.6
	1	12	22.29	22.38	22.45	22.58	22.60		0.6
	1	24	22.34	22.28	22.22	22.56	22.47		0.6
	12	0	22.52	22.37	22.42	22.70	22.53		0.6
	12	6	22.53	22.46	22.53	22.69	22.56		0.6
	12	13	22.48	22.42	22.44	22.71	22.62		0.6
	25	0	22.40	22.37	22.46	22.61	22.49		0.6

Table 9-131
LTE Band 41 PC2 Measured P_{limit} for 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	24.00	23.71	23.71	23.24	23.21	0	0
	1	50	23.92	23.80	23.79	23.26	23.55		0
	1	99	23.72	23.73	23.60	22.92	23.35		0
	50	0	24.17	23.85	23.82	23.41	23.52	0-1	0
	50	25	24.09	23.89	23.84	23.43	23.73		0
	50	50	24.04	23.82	23.89	23.24	23.69		0
	100	0	24.05	23.79	23.88	23.38	23.60		0
16QAM	1	0	24.36	24.25	23.93	23.31	23.51	0-1	0
	1	50	24.24	24.13	24.10	23.60	23.97		0
	1	99	24.31	24.03	23.72	23.58	23.83		0
	50	0	24.13	23.86	23.76	23.23	23.59	0-2	0
	50	25	24.13	23.89	23.90	23.50	23.65		0
	50	50	24.02	23.92	23.85	23.56	23.74		0
	100	0	24.05	23.93	23.82	23.41	23.62		0
64QAM	1	0	24.20	23.78	23.81	23.34	23.45	0-2	0
	1	50	24.10	23.94	24.06	23.47	23.70		0
	1	99	24.07	23.89	23.79	23.34	23.56		0
	50	0	24.08	23.85	23.71	23.51	23.63	0-3	0
	50	25	24.10	23.87	23.81	23.52	23.75		0
	50	50	24.02	23.84	23.67	23.41	23.83		0
	100	0	23.99	23.75	23.66	23.40	23.71		0
256QAM	1	0	22.48	22.30	22.35	22.20	22.53	0-5	1.6
	1	50	22.65	22.53	22.54	22.26	22.49		1.6
	1	99	22.40	22.25	22.38	22.28	22.51		1.6
	50	0	22.59	22.51	22.55	22.30	22.52		1.6
	50	25	22.50	22.64	22.63	22.19	22.57		1.6
	50	50	22.61	22.50	22.50	22.15	22.48		1.6
	100	0	22.72	22.54	22.59	22.28	22.42		1.6

Table 9-132
LTE Band 41 PC2 Measured P_{limit} for 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	23.94	23.85	23.78	23.31	23.40	0	0
	1	36	23.87	24.08	23.84	23.43	23.54		0
	1	74	23.84	23.90	23.56	23.13	23.44		0
	36	0	24.02	24.03	24.00	23.45	23.56	0-1	0
	36	18	24.00	24.11	24.02	23.42	23.60		0
	36	37	23.91	24.10	23.99	23.46	23.61		0
	75	0	23.92	24.09	23.95	23.48	23.57		0
16QAM	1	0	24.19	24.20	24.13	23.41	23.72	0-1	0
	1	36	24.11	24.20	24.06	23.52	23.79		0
	1	74	24.09	24.18	24.06	23.47	23.82		0
	36	0	23.88	24.03	24.01	23.45	23.53	0-2	0
	36	18	23.82	24.05	24.06	23.42	23.59		0
	36	37	23.77	24.07	24.04	23.43	23.63		0
	75	0	23.86	24.13	24.03	23.51	23.62		0
64QAM	1	0	23.99	23.82	23.89	23.38	23.42	0-2	0
	1	36	24.07	24.09	23.97	23.49	23.65		0
	1	74	23.97	23.93	23.82	23.21	23.55		0
	36	0	23.98	24.01	23.81	23.42	23.59	0-3	0
	36	18	23.95	24.10	23.82	23.49	23.67		0
	36	37	23.95	24.00	23.80	23.59	23.73		0
	75	0	23.92	24.04	23.87	23.51	23.59		0
256QAM	1	0	22.47	22.28	22.34	22.00	22.41	0-5	1.6
	1	36	22.60	22.55	22.60	22.26	22.55		1.6
	1	74	22.34	22.36	22.35	21.98	22.43		1.6
	36	0	22.58	22.46	22.65	22.06	22.52		1.6
	36	18	22.59	22.61	22.59	21.92	22.60		1.6
	36	37	22.59	22.55	22.63	22.00	22.62		1.6
	75	0	22.62	22.53	22.68	22.30	22.55		1.6

Table 9-133
LTE Band 41 PC2 Measured P_{limit} for 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	23.91	23.70	23.72	23.53	23.47	0	0
	1	25	23.78	23.93	23.83	23.54	23.61		0
	1	49	23.82	23.62	23.49	23.21	23.30		0
	25	0	24.04	23.87	23.88	23.44	23.63	0-1	0
	25	12	24.01	24.06	24.04	23.52	23.71		0
	25	25	24.02	23.92	23.89	23.47	23.64		0
	50	0	23.92	23.92	23.91	23.50	23.67		0
16QAM	1	0	24.32	24.05	24.07	23.52	23.70	0-1	0
	1	25	24.31	24.26	24.13	23.71	23.88		0
	1	49	24.31	23.95	23.94	23.60	23.75		0
	25	0	24.38	23.84	23.88	23.44	23.66	0-2	0
	25	12	24.35	24.03	24.05	23.56	23.74		0
	25	25	24.29	23.93	23.95	23.49	23.67		0
	50	0	24.06	23.97	23.97	23.56	23.71		0
64QAM	1	0	24.06	23.83	23.71	23.23	23.55	0-2	0
	1	25	23.81	23.88	23.88	23.51	23.70		0
	1	49	23.78	23.68	23.65	23.27	23.45		0
	25	0	23.80	23.89	23.83	23.51	23.72	0-3	0
	25	12	23.81	24.05	23.91	23.63	23.78		0
	25	25	23.74	23.93	23.80	23.62	23.69		0
	50	0	23.75	24.00	23.82	23.55	23.76		0
256QAM	1	0	22.50	22.10	22.13	21.90	22.43	0-5	1.6
	1	25	22.61	22.35	22.36	22.10	22.45		1.6
	1	49	22.41	22.10	22.24	21.90	22.39		1.6
	25	0	22.70	22.37	22.38	22.11	22.41		1.6
	25	12	22.73	22.52	22.40	21.98	22.42		1.6
	25	25	22.65	22.36	22.53	21.90	22.36		1.6
	50	0	22.64	22.40	22.45	22.21	22.40		1.6

Table 9-134
LTE Band 41 PC2 Measured P_{limit} for 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	24.02	23.89	23.88	23.31	23.44	0	0
	1	12	23.93	24.02	23.86	23.28	23.45		0
	1	24	24.00	23.94	23.86	23.22	23.43		0
	12	0	24.05	23.95	24.00	23.32	23.73	0-1	0
	12	6	24.06	24.06	24.01	23.33	23.76		0
	12	13	24.08	24.00	24.03	23.36	23.75		0
	25	0	24.04	24.02	23.98	23.40	23.69		0
16QAM	1	0	24.36	24.02	24.17	23.57	23.74	0-1	0
	1	12	24.35	23.92	24.30	23.69	24.06		0
	1	24	24.20	23.90	24.11	23.63	23.96		0
	12	0	24.05	23.90	23.94	23.31	23.70	0-2	0
	12	6	24.08	24.05	24.02	23.33	23.72		0
	12	13	24.04	24.04	23.98	23.37	23.77		0
	25	0	24.10	24.01	24.06	23.45	23.77		0
64QAM	1	0	24.11	23.93	23.89	23.27	23.67	0-2	0
	1	12	24.00	24.00	23.95	23.36	23.94		0
	1	24	24.10	23.94	23.89	23.32	23.80		0
	12	0	23.83	23.95	23.98	23.58	23.74	0-3	0
	12	6	23.79	24.05	24.05	23.63	23.79		0
	12	13	23.85	24.00	23.91	23.64	23.78		0
	25	0	23.82	24.07	23.74	23.57	23.41		0
256QAM	1	0	22.37	22.35	22.47	22.38	22.38	0-5	1.6
	1	12	22.40	22.38	22.39	22.30	22.36		1.6
	1	24	22.34	22.29	22.39	22.23	22.43		1.6
	12	0	22.50	22.49	22.49	22.26	22.38		1.6
	12	6	22.54	22.56	22.58	22.31	22.52		1.6
	12	13	22.48	22.55	22.53	22.22	22.50		1.6
	25	0	22.43	22.47	22.51	22.34	22.54		1.6

9.4.4 LTE Uplink Carrier Aggregation Conducted Powers

Table 9-135
LTE Uplink Carrier Aggregation Measured P_{max} for
- **LTE Band 5/66/48/41 DSI = 0 (Body-worn, or Phablet with grip sensor not triggered)**
- **LTE Band 5/66/41 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_5B	LTE B5	10	20525	836.5	2525	881.5	QPSK	1	0	LTE B5	5	20453	829.3	2453	874.3	QPSK	1	24	24.33	24.12

	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	1	0	LTE B66	20	132374	1750.2	66838	2150.2	QPSK	1	99	24.10	23.70
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	23.60	23.21

	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	55773	3603.3	QPSK	1	0	LTE B48	20	55575	3583.5	QPSK	1	99	23.32	22.46

	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	24.73	24.32

	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	27.66	26.88

Table 9-136
LTE 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	1	0	LTE B66	20	132374	1750.2	66838	2150.2	QPSK	1	99	19.39	18.91
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	18.82	18.41

	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	21.72	21.33

	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	23.60	23.18

Table 9-137
LTE 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	132322	1745.0	66786	2145.0	QPSK	50	0	LTE B66	20	132124	1725.2	66588	2125.2	QPSK	50	50	19.90	19.20
CA_66B	LTE B66	10	132322	1745.0	66786	2145.0	QPSK	25	0	LTE B66	10	132223	1735.1	66687	2135.1	QPSK	25	25	19.30	19.03

	PCC							SCC								Power	
Combination	PCC Band	PCC Bandwidth [MHz]	PCC (UL/DL) Channel	PCC (UL/DL) Frequency [MHz]	Modulation	PCC UL# RB	PCC UL RB Offset	SCC Band	SCC Bandwidth [MHz]	SCC (UL/DL) Channel	SCC (UL/DL) Frequency [MHz]	Modulation	SCC UL# RB	SCC UL RB Offset	LTE Tx.Power with UL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_41C	LTE B41	20	39750	2506.0	QPSK	1	99	LTE B41	20	39948	2525.8	QPSK	1	0	22.79	22.19

	PCC							SCC							Power	
Combination	PCC Band	PCC Bandwidth [MHz]	PCC (UL/DL) Channel	PCC (UL/DL) Frequency [MHz]	Modulation	PCC UL# RB	PCC UL RB Offset	SCC Band	SCC Bandwidth [MHz]	SCC (UL/DL) Channel	SCC (UL/DL) Frequency [MHz]	Modulation	SCC UL# RB	SCC UL RB Offset	LTE Tx.Power with UL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_41C	LTE B41 PC2	20	39750	2506.0	QPSK	1	99	LTE B41 PC2	20	39948	2525.8	QPSK	1	0	24.30	23.72

Table 9-138
LTE 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	18.21	17.62

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

9.5 NR Conducted Powers

9.5.1 NR Band n71

Table 9-139
NR Band n71 Measured P_{max} for all DSI - 20 MHz Bandwidth

NR Band n71 20 MHz Bandwidth					
			Channel		
Modulation	RB Size	RB Offset	136100 (680.5 MHz) Conducted Power [dBm]	MPR Allowed per 3GPP [dB]	MPR [dB]
DFT-s-OFDM QPSK	1	1	23.69	0	0
	1	53	**24.27**		0
	1	104	23.84		0
	50	0	22.70	0-1	1
	50	28	**24.32**	0	0
	50	56	23.33	0-1	1
	100	0	23.07		1
DFT-s-OFDM 16QAM	1	1	22.75	0-1	1
CP-OFDM QPSK	1	1	22.15	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 9-140
NR Band n71 Measured P_{max} for all DSI - 15 MHz Bandwidth

NR Band n71 15 MHz Bandwidth						
			Channel			
Modulation	RB Size	RB Offset	134100 (670.5 MHz)	138100 (690.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]			
DFT-s-OFDM QPSK	1	1	23.30	24.10	0	0
	1	40	23.56	23.72		0
	1	77	23.32	23.63		0
	36	0	23.11	23.06	0-1	1
	36	22	23.61	23.93	0	0
	36	43	22.46	23.02	0-1	1
	75	0	22.59	23.01		1
DFT-s-OFDM 16QAM	1	1	22.56	23.43	0-1	1
CP-OFDM QPSK	1	1	21.82	22.67	0-1.5	1.5

Table 9-141
NR Band n71 Measured P_{max} for all DSI - 10 MHz Bandwidth

NR Band n71 10 MHz Bandwidth							
			Channel				
Modulation	RB Size	RB Offset	133600 (668 MHz)	136100 (680.5 MHz)	138600 (693 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
DFT-s-OFDM QPSK	1	1	23.32	23.50	23.63	0	0
	1	26	23.73	24.03	23.92		0
	1	50	23.55	23.61	23.54		0
	25	0	22.78	23.31	22.78	0-1	1
	25	14	23.60	24.50	23.94	0	0
	25	27	22.53	23.49	23.12	0-1	1
	50	0	22.56	23.41	22.97		1
DFT-s-OFDM 16QAM	1	1	22.33	23.19	22.81	0-1	1
CP-OFDM QPSK	1	1	21.80	22.03	22.32	0-1.5	1.5

Table 9-142
NR Band n71 Measured P_{max} for all DSI - 5 MHz Bandwidth

NR Band n71 5 MHz Bandwidth							
			Channel				
Modulation	RB Size	RB Offset	133100 (665.5 MHz)	136100 (680.5 MHz)	139100 (695.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
DFT-s-OFDM QPSK	1	1	23.72	24.02	23.69	0	0
	1	13	24.12	24.24	23.99		0
	1	23	24.09	24.27	23.55		0
	12	0	22.83	23.62	23.37	0-1	1
	12	7	24.06	24.61	24.19	0	0
	12	13	23.25	23.65	22.79	0-1	1
	25	0	23.08	23.67	23.00		1
DFT-s-OFDM 16QAM	1	1	22.69	23.51	22.88	0-1	1
CP-OFDM QPSK	1	1	22.25	22.99	22.26	0-1.5	1.5

9.5.2 NR Band n5 (Cell)

Table 9-143
NR Band n5 (Cell) Measured P_{max} for all DSI - 20 MHz Bandwidth

NR Band n5 20 MHz Bandwidth					
			Channel		
Modulation	RB Size	RB Offset	167300 (836.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]		
DFT-s-OFDM QPSK	1	1	**24.53**	0	0
	1	53	24.44		0
	1	104	23.96		0
	50	0	23.58	0-1	1
	50	28	**24.35**	0	0
	50	56	23.19	0-1	1
	100	0	23.36		1
DFT-s-OFDM 16QAM	1	1	23.88	0-1	1
CP-OFDM QPSK	1	1	23.01	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 9-144
NR Band n5 (Cell) Measured P_{max} for all DSI - 15 MHz Bandwidth

NR Band n5 15 MHz Bandwidth					
			Channel		
Modulation	RB Size	RB Offset	167300 (836.5 MHz) Conducted Power [dBm]	MPR Allowed per 3GPP [dB]	MPR [dB]
DFT-s-OFDM QPSK	1	1	24.61	0	0
	1	40	24.51		0
	1	77	24.16		0
	36	0	23.53	0-1	1
	36	22	24.53	0	0
	36	43	23.78	0-1	1
	75	0	23.57		1
DFT-s-OFDM 16QAM	1	1	24.02	0-1	1
CP-OFDM QPSK	1	1	23.11	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.

Table 9-145
NR Band n5 (Cell) Measured P_{max} for all DSI - 10 MHz Bandwidth

NR Band n5 10 MHz Bandwidth						
			Channel			
Modulation	RB Size	RB Offset	165800 (829 MHz)	168800 (844 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]			
DFT-s-OFDM QPSK	1	1	24.20	24.41	0	0
	1	26	24.46	24.42		0
	1	50	23.82	23.82		0
	25	0	23.80	23.71	0-1	1
	25	14	24.78	24.53	0	0
	25	27	23.60	23.63	0-1	1
	50	0	23.67	23.49		1
DFT-s-OFDM 16QAM	1	1	23.01	23.53	0-1	1
CP-OFDM QPSK	1	1	23.16	23.05	0-1.5	1.5

Table 9-146
NR Band n5 (Cell) Measured P_{max} for all DSI - 5 MHz Bandwidth

NR Band n5 5 MHz Bandwidth							
			Channel				
Modulation	RB Size	RB Offset	165300 (826.5 MHz)	167300 (836.5 MHz)	169300 (846.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
DFT-s-OFDM QPSK	1	1	24.52	24.40	24.38	0	0
	1	13	24.52	24.52	24.34		0
	1	23	24.26	24.36	23.87		0
	12	0	23.73	24.22	23.35	0-1	1
	12	7	24.74	24.26	24.32	0	0
	12	13	23.80	24.25	23.52	0-1	1
	25	0	23.71	24.19	23.43		1
DFT-s-OFDM 16QAM	1	1	23.74	23.56	23.41	0-1	1
CP-OFDM QPSK	1	1	23.50	22.80	22.82	0-1.5	1.5

9.5.3 NR Band n66 (AWS)

Table 9-147
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				
Modulation	RB Size	RB Offset	344000 (1720 MHz)	349000 (1745 MHz)	354000 (1770 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
DFT-s-OFDM QPSK	1	1	24.03	23.47	23.15	0	0
	1	53	24.11	**24.35**	23.85		0
	1	104	23.26	24.18	23.89		0
	50	0	23.25	23.20	21.92	0-1	1
	50	28	23.70	**24.34**	23.40	0	0
	50	56	22.36	23.36	22.90	0-1	1
	100	0	22.92	22.99	22.40		1
DFT-s-OFDM 16QAM	1	1	22.83	22.41	22.52	0-1	1
CP-OFDM QPSK	1	1	22.39	22.40	21.80	0-1.5	1.5

Table 9-148
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					
Modulation	RB Size	RB Offset	343500 (1717.5 MHz)	347160 (1735.8 MHz)	350820 (1754.1 MHz)	354500 (1772.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]					
DFT-s-OFDM QPSK	1	1	23.73	23.34	24.16	23.04	0	0
	1	40	23.94	23.70	24.18	24.02		0
	1	77	23.34	24.25	23.27	23.69		0
	36	0	23.19	22.28	23.24	22.17	0-1	1
	36	22	23.90	23.40	23.70	23.83	0	0
	36	43	22.60	23.28	22.25	23.04	0-1	1
	75	0	22.82	22.61	22.80	22.56		1
DFT-s-OFDM 16QAM	1	1	22.93	22.30	22.76	22.10	0-1	1
CP-OFDM QPSK	1	1	22.23	21.83	22.66	21.56	0-1.5	1.5

Table 9-149
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					
Modulation	RB Size	RB Offset	343000 (1715 MHz)	347000 (1735 MHz)	351000 (1755 MHz)	355000 (1775 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]					
DFT-s-OFDM QPSK	1	1	23.44	22.94	24.23	23.62	0	0
	1	26	24.01	23.36	24.10	23.92		0
	1	50	23.65	23.81	23.30	23.73		0
	25	0	23.15	21.93	23.13	22.62	0-1	1
	25	14	24.13	23.26	23.68	23.66	0	0
	25	27	22.98	22.80	22.23	22.01	0-1	1
	50	0	22.87	22.80	22.64	22.60		1
DFT-s-OFDM 16QAM	1	1	22.18	21.92	23.18	22.28	0-1	1
CP-OFDM QPSK	1	1	21.99	21.65	22.48	21.80	0-1.5	1.5

Table 9-150
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					
Modulation	RB Size	RB Offset	342500 (1712.5 MHz)	346820 (1734.1 MHz)	351160 (1755.8 MHz)	355500 (1777.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]					
DFT-s-OFDM QPSK	1	1	24.09	23.39	24.12	24.08	0	0
	1	13	24.31	23.60	23.90	24.10		0
	1	23	24.45	23.75	23.55	23.87		0
	12	0	23.37	22.27	22.71	23.22	0-1	1
	12	7	24.44	23.31	23.44	24.00	0	0
	12	13	23.41	22.48	22.26	22.78	0-1	1
	25	0	23.44	22.32	22.19	22.60		1
DFT-s-OFDM 16QAM	1	1	23.13	22.19	23.11	22.91	0-1	1
CP-OFDM QPSK	1	1	22.85	21.69	22.24	22.47	0-1.5	1.5

Table 9-151
NR Band n66 (AWS) Measured P_{limit} for DSI = 3 (Hotspot mode) - 20 MHz Bandwidth

NR Band n66 20 MHz Bandwidth							
			Channel				
Modulation	RB Size	RB Offset	344000 (1720 MHz)	349000 (1745 MHz)	354000 (1770 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
DFT-s-OFDM QPSK	1	1	19.47	19.29	**19.48**	0	0
	1	53	19.40	19.18	19.42		0
	1	104	19.44	19.42	19.38		0
	50	0	19.39	19.33	19.46	0-1	0
	50	28	19.33	19.31	**19.48**	0	0
	50	56	19.37	19.37	19.43	0-1	0
	100	0	19.38	19.34	19.47		0
DFT-s-OFDM 16QAM	1	1	19.49	19.29	19.43	0-1	0
CP-OFDM QPSK	1	1	19.29	19.42	19.45	0-1.5	0

Table 9-152
NR Band n66 (AWS) Measured P_{limit} for DSI = 3 (Hotspot mode) - 15 MHz Bandwidth

NR Band n66 15 MHz Bandwidth								
			Channel					
Modulation	RB Size	RB Offset	343500 (1717.5 MHz)	347160 (1735.8 MHz)	350820 (1754.1 MHz)	354500 (1772.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]					
DFT-s-OFDM QPSK	1	1	19.19	19.08	19.00	18.98	0	0
	1	40	19.15	18.98	19.10	18.84		0
	1	77	19.22	19.17	19.09	18.85		0
	36	0	19.23	19.13	19.09	19.02	0-1	0
	36	22	19.12	19.15	19.09	18.92	0	0
	36	43	19.23	19.20	19.05	18.94	0-1	0
	75	0	19.20	19.16	19.10	18.97		0
DFT-s-OFDM 16QAM	1	1	19.16	18.61	18.84	18.51	0-1	0
CP-OFDM QPSK	1	1	19.47	18.90	19.06	19.06	0-1.5	0

Table 9-153
NR Band n66 (AWS) Measured P_{limit} for DSI = 3 (Hotspot mode) - 10 MHz Bandwidth

NR Band n66 10 MHz Bandwidth								
			Channel					
Modulation	RB Size	RB Offset	343000 (1715 MHz)	347000 (1735 MHz)	351000 (1755 MHz)	355000 (1775 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]					
DFT-s-OFDM QPSK	1	1	18.79	18.73	18.96	18.66	0	0
	1	26	18.73	18.85	18.88	18.57		0
	1	50	18.77	18.83	18.87	18.54		0
	25	0	18.84	18.77	18.97	18.53	0-1	0
	25	14	18.88	18.76	18.85	18.66	0	0
	25	27	18.80	18.78	18.89	18.55	0-1	0
	50	0	18.87	18.72	18.89	18.65		0
DFT-s-OFDM 16QAM	1	1	19.19	19.06	18.43	18.37	0-1	0
CP-OFDM QPSK	1	1	18.89	18.53	18.92	18.73	0-1.5	0

Table 9-154
NR Band n66 (AWS) Measured P_{limit} for DSI = 3 (Hotspot mode) - 5 MHz Bandwidth

NR Band n66 5 MHz Bandwidth								
			Channel					
Modulation	RB Size	RB Offset	342500 (1712.5 MHz)	346820 (1734.1 MHz)	351160 (1755.8 MHz)	355500 (1777.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]					
DFT-s-OFDM QPSK	1	1	18.81	18.69	18.73	18.82	0	0
	1	13	18.78	18.75	18.71	18.86		0
	1	23	18.80	18.78	18.73	18.70		0
	12	0	18.93	18.71	18.80	18.65	0-1	0
	12	7	18.83	18.76	18.78	18.73	0	0
	12	13	18.87	18.72	18.80	18.66	0-1	0
	25	0	18.86	18.78	18.86	18.70		0
DFT-s-OFDM 16QAM	1	1	19.07	18.47	18.81	18.49	0-1	0
CP-OFDM QPSK	1	1	18.89	18.66	18.85	18.69	0-1.5	0

Table 9-155
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				
Modulation	RB Size	RB Offset	344000 (1720 MHz)	349000 (1745 MHz)	354000 (1770 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
DFT-s-OFDM QPSK	1	1	19.89	19.93	19.91	0	0
	1	53	19.70	**19.98**	19.65		0
	1	104	19.87	19.97	19.68		0
	50	0	19.84	19.90	19.95	0-1	0
	50	28	19.77	19.88	19.88	0	0
	50	56	19.78	**19.96**	19.91	0-1	0
	100	0	19.84	19.95	19.90		0
DFT-s-OFDM 16QAM	1	1	19.92	19.98	19.97	0-1	0
CP-OFDM QPSK	1	1	19.83	19.92	19.93	0-1.5	0

Table 9-156
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					
Modulation	RB Size	RB Offset	343500 (1717.5 MHz)	347160 (1735.8 MHz)	350820 (1754.1 MHz)	354500 (1772.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]					
DFT-s-OFDM QPSK	1	1	19.81	19.77	19.85	19.73	0	0
	1	40	19.80	19.72	19.86	19.54		0
	1	77	19.87	19.94	19.99	19.82		0
	36	0	19.83	19.83	19.85	19.68	0-1	0
	36	22	19.75	19.82	19.90	19.66	0	0
	36	43	19.77	19.88	19.93	19.56	0-1	0
	75	0	19.78	19.86	19.99	19.68		0
DFT-s-OFDM 16QAM	1	1	19.57	19.96	19.93	20.00	0-1	0
CP-OFDM QPSK	1	1	19.97	19.82	19.92	19.73	0-1.5	0

Table 9-157
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					
Modulation	RB Size	RB Offset	343000 (1715 MHz)	347000 (1735 MHz)	351000 (1755 MHz)	355000 (1775 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]					
DFT-s-OFDM QPSK	1	1	19.48	19.66	19.65	19.85	0	0
	1	26	19.65	19.70	19.64	19.82		0
	1	50	19.56	19.75	19.69	19.74		0
	25	0	19.63	19.56	19.61	19.82	0-1	0
	25	14	19.57	19.60	19.62	19.81	0	0
	25	27	19.55	19.60	19.65	19.73	0-1	0
	50	0	19.60	19.53	19.60	19.78		0
DFT-s-OFDM 16QAM	1	1	19.96	19.75	20.00	19.68	0-1	0
CP-OFDM QPSK	1	1	19.47	19.43	19.72	19.85	0-1.5	0

Table 9-158
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					
Modulation	RB Size	RB Offset	342500 (1712.5 MHz)	346820 (1734.1 MHz)	351160 (1755.8 MHz)	355500 (1777.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]					
DFT-s-OFDM QPSK	1	1	19.56	19.56	19.78	19.75	0	0
	1	13	19.54	19.59	19.75	19.82		0
	1	23	19.59	19.45	19.86	19.75		0
	12	0	19.62	19.53	19.82	19.62	0-1	0
	12	7	19.67	19.56	19.82	19.66	0	0
	12	13	19.45	19.52	19.77	19.63	0-1	0
	25	0	19.63	19.54	19.89	19.73		0
DFT-s-OFDM 16QAM	1	1	19.81	19.44	19.68	19.46	0-1	0
CP-OFDM QPSK	1	1	19.63	19.78	19.69	19.68	0-1.5	0

9.5.4 NR Band n2 (PCS)

Table 9-159
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				
Modulation	RB Size	RB Offset	372000 (1860 MHz)	376000 (1880 MHz)	380000 (1900 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
DFT-s-OFDM QPSK	1	1	23.02	23.86	23.73	0	0
	1	53	23.38	23.90	23.56		0
	1	104	23.76	**23.95**	23.20		0
	50	0	22.21	22.92	22.92	0-1	1
	50	28	22.86	**23.95**	23.68	0	0
	50	56	22.16	22.96	22.90	0-1	1
	100	0	21.98	23.00	22.99		1
DFT-s-OFDM 16QAM	1	1	22.32	22.46	22.96	0-1	1
CP-OFDM QPSK	1	1	21.71	22.47	22.50	0-1.5	1.5

Table 9-160
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				
Modulation	RB Size	RB Offset	371500 (1857.5 MHz)	376000 (1880 MHz)	380500 (1902.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
DFT-s-OFDM QPSK	1	1	23.42	23.96	23.61	0	0
	1	40	23.45	23.91	23.43		0
	1	77	23.80	23.90	23.38		0
	36	0	22.03	22.98	23.00	0-1	1
	36	22	22.92	23.83	23.52	0	0
	36	43	22.04	23.00	22.68	0-1	1
	75	0	22.01	22.98	22.78		1
DFT-s-OFDM 16QAM	1	1	22.63	22.95	22.98	0-1	1
CP-OFDM QPSK	1	1	22.00	22.37	22.50	0-1.5	1.5

Table 9-161
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				
Modulation	RB Size	RB Offset	371000 (1855 MHz)	376000 (1880 MHz)	381000 (1905 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
DFT-s-OFDM QPSK	1	1	23.32	23.72	23.59	0	0
	1	26	23.47	23.64	23.52		0
	1	50	23.36	23.77	23.23		0
	25	0	21.85	23.00	23.00	0-1	1
	25	14	22.82	23.66	23.42	0	0
	25	27	21.91	22.91	22.41	0-1	1
	50	0	21.88	22.90	22.59		1
DFT-s-OFDM 16QAM	1	1	22.82	23.00	22.99	0-1	1
CP-OFDM QPSK	1	1	22.00	22.49	22.50	0-1.5	1.5

Table 9-162
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				
Modulation	RB Size	RB Offset	370500 (1852.5 MHz)	376000 (1880 MHz)	381500 (1907.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
DFT-s-OFDM QPSK	1	1	23.62	23.14	23.23	0	0
	1	13	23.86	23.14	23.32		0
	1	23	23.79	23.17	23.35		0
	12	0	22.66	22.17	22.34	0-1	1
	12	7	23.74	23.16	23.35	0	0
	12	13	22.70	22.07	22.47	0-1	1
	25	0	22.59	22.11	22.38		1
DFT-s-OFDM 16QAM	1	1	22.56	22.15	22.46	0-1	1
CP-OFDM QPSK	1	1	22.03	21.72	21.90	0-1.5	1.5

Table 9-163
NR Band n2 (PCS) Measured P_{limit} for DSI = 3 (Hotspot mode) - 20 MHz Bandwidth

NR Band n2 20 MHz Bandwidth							
			Channel				
Modulation	RB Size	RB Offset	372000 (1860 MHz)	376000 (1880 MHz)	380000 (1900 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
DFT-s-OFDM QPSK	1	1	18.99	**19.00**	18.83	0	0
	1	53	18.91	18.91	18.60		0
	1	104	18.92	18.84	18.72		0
	50	0	18.97	**19.00**	18.73	0-1	0
	50	28	18.96	18.92	18.71	0	0
	50	56	18.97	18.86	18.68	0-1	0
	100	0	18.89	18.94	18.74		0
DFT-s-OFDM 16QAM	1	1	19.00	19.00	18.78	0-1	0
CP-OFDM QPSK	1	1	18.87	18.99	18.70	0-1.5	0

Table 9-164
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	18.86	18.73	18.79	0	0
	1	40	18.70	18.58	18.67		0
	1	77	18.91	18.61	18.68		0
	36	0	18.73	18.49	18.69	0-1	0
	36	22	18.81	18.54	18.56	0	0
	36	43	18.84	18.51	18.69	0-1	0
	75	0	18.83	18.54	18.68		0
DFT-s-OFDM 16QAM	1	1	18.95	18.79	18.82	0-1	0
CP-OFDM QPSK	1	1	18.79	18.80	18.62	0-1.5	0

Table 9-165
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	18.89	18.56	18.59	0	0
	1	26	18.82	18.61	18.62		0
	1	50	18.87	18.53	18.65		0
	25	0	18.54	18.46	18.51	0-1	0
	25	14	18.53	18.37	18.54	0	0
	25	27	18.67	18.31	18.52	0-1	0
	50	0	18.63	18.32	18.46		0
DFT-s-OFDM 16QAM	1	1	18.62	18.52	18.73	0-1	0
CP-OFDM QPSK	1	1	18.46	18.41	18.53	0-1.5	0

Table 9-166
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	18.61	18.37	18.57	0	0
	1	13	18.69	18.43	18.60		0
	1	23	18.56	18.37	18.54		0
	12	0	18.52	18.22	18.46	0-1	0
	12	7	18.53	18.24	18.42	0	0
	12	13	18.49	18.21	18.47	0-1	0
	25	0	18.53	18.26	18.46		0
DFT-s-OFDM 16QAM	1	1	18.72	18.56	18.75	0-1	0
CP-OFDM QPSK	1	1	18.34	18.32	18.49	0-1.5	0

Table 9-167
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	**19.86**	19.66	19.37	0	0
	1	53	19.73	19.37	19.22		0
	1	104	19.80	19.50	19.27		0
	50	0	**19.84**	19.70	19.31	0-1	0
	50	28	19.73	19.65	19.26	0	0
	50	56	19.75	19.60	19.32	0-1	0
	100	0	19.83	19.62	19.31		0
DFT-s-OFDM 16QAM	1	1	19.96	19.74	19.41	0-1	0
CP-OFDM QPSK	1	1	19.97	19.81	19.35	0-1.5	0

Table 9-168
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	19.91	19.54	19.72	0	0
	1	40	19.72	19.35	19.58		0
	1	77	19.93	19.51	19.78		0
	36	0	19.74	19.43	19.61	0-1	0
	36	22	19.75	19.36	19.53	0	0
	36	43	19.81	19.37	19.61	0-1	0
	75	0	19.75	19.38	19.60		0
DFT-s-OFDM 16QAM	1	1	19.96	19.56	19.84	0-1	0
CP-OFDM QPSK	1	1	19.97	19.45	19.67	0-1.5	0

Table 9-169
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	19.65	19.42	19.47	0	0
	1	26	19.73	19.43	19.46		0
	1	50	19.68	19.36	19.44		0
	25	0	19.64	19.18	19.37	0-1	0
	25	14	19.63	19.16	19.37	0	0
	25	27	19.65	19.17	19.29	0-1	0
	50	0	19.62	19.26	19.35		0
DFT-s-OFDM 16QAM	1	1	19.81	19.52	19.52	0-1	0
CP-OFDM QPSK	1	1	19.62	19.15	19.53	0-1.5	0

Table 9-170
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	19.53	19.41	19.56	0	0
	1	13	19.62	19.46	19.52		0
	1	23	19.57	19.46	19.54		0
	12	0	19.49	19.18	19.36	0-1	0
	12	7	19.48	19.17	19.33	0	0
	12	13	19.52	19.13	19.31	0-1	0
	25	0	19.53	19.22	19.14		0
DFT-s-OFDM 16QAM	1	1	19.67	19.47	19.59	0-1	0
CP-OFDM QPSK	1	1	19.53	19.31	19.34	0-1.5	0

9.5.5 NR Band n41

Table 9-171
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	23.53	0	0
	1	137	**24.28**		0
	1	271	23.81		0
	135	0	22.51	0-1	1
	135	69	**24.16**	0	0
	135	138	22.88	0-1	1
	270	0	22.60		1
DFT-s-OFDM 16QAM	1	1	22.97	0-1	1
CP-OFDM QPSK	1	1	23.00	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.

Table 9-172
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	23.25	23.70	0	0
	1	123	24.04	23.80		0
	1	243	23.60	23.85		0
	120	0	22.91	22.76	0-1	1
	120	63	24.01	23.92	0	0
	120	125	22.77	22.93	0-1	1
	243	0	23.03	23.02		1
DFT-s-OFDM 16QAM	1	1	22.68	22.82	0-1	1
CP-OFDM QPSK	1	1	21.87	22.85	0-1.5	1.5

Table 9-173
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	23.54	23.89	0	0
	1	109	23.70	23.62		0
	1	215	23.87	24.12		0
	108	0	22.80	23.25	0-1	1
	108	55	23.51	24.22	0	0
	108	109	22.85	23.24	0-1	1
	216	0	22.65	23.22		1
DFT-s-OFDM 16QAM	1	1	22.49	22.90	0-1	1
CP-OFDM QPSK	1	1	21.73	21.81	0-1.5	1.5

Table 9-174
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	23.52	23.61	23.49	0	0
	1	81	23.68	23.55	23.57		0
	1	160	23.70	23.28	23.11		0
	81	0	22.63	22.75	22.74	0-1	1
	81	41	23.70	23.54	23.60	0	0
	81	81	22.50	22.52	22.77	0-1	1
	162	0	22.61	22.70	22.82		1
DFT-s-OFDM 16QAM	1	1	22.66	23.00	22.42	0-1	1
CP-OFDM QPSK	1	1	22.10	22.21	21.98	0-1.5	1.5

Table 9-175
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	23.37	23.82	24.08	0	0
	1	67	23.14	23.72	23.40		0
	1	131	23.12	23.54	23.90		0
	64	0	22.18	22.82	23.06	0-1	1
	64	35	23.07	23.67	24.00	0	0
	64	69	22.11	22.68	23.12	0-1	1
	128	0	22.02	22.77	23.09		1
DFT-s-OFDM 16QAM	1	1	22.23	22.53	23.00	0-1	1
CP-OFDM QPSK	1	1	21.67	22.45	22.90	0-1.5	1.5

Table 9-176
NR Band n41 Measured P_{max} for all DSI - 40 MHz Bandwidth

NR Band n41 40 MHz Bandwidth								
			Channel					
Modulation	RB Size	RB Offset	503202 (2516.01 MHz)	513468 (2567.34 MHz)	523734 (2618.67 MHz)	534000 (2670 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]					
DFT-s-OFDM QPSK	1	1	24.16	24.06	24.18	24.09	0	0
	1	53	23.55	24.47	24.42	24.82		0
	1	104	23.58	24.61	24.03	24.20		0
	50	0	22.77	23.59	23.48	23.92	0-1	1
	50	28	23.52	24.19	24.12	24.77	0	0
	50	56	22.85	23.63	23.36	24.00	0-1	1
	100	0	22.61	23.37	23.52	23.93		1
DFT-s-OFDM 16QAM	1	1	23.17	23.12	23.32	23.90	0-1	1
CP-OFDM QPSK	1	1	22.51	22.32	22.89	23.50	0-1.5	1.5

Table 9-177
NR Band n41 Measured P_{max} for all DSI - 20 MHz Bandwidth

NR Band n41 20 MHz Bandwidth									
			Channel						
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)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]						
DFT-s-OFDM QPSK	1	1	24.02	24.61	23.51	23.95	24.02	0	0
	1	26	23.94	24.18	23.54	23.85	23.93		0
	1	49	23.72	24.60	23.57	23.82	23.29		0
	25	0	22.53	22.62	22.64	23.07	23.16	0-1	1
	25	13	23.58	23.70	23.69	23.79	23.95	0	0
	25	26	23.08	22.96	23.34	22.92	22.58	0-1	1
	50	0	22.79	22.84	22.57	23.05	23.05		1
DFT-s-OFDM 16QAM	1	1	22.57	23.00	23.00	23.19	23.22	0-1	1
CP-OFDM QPSK	1	1	22.00	22.90	22.25	22.82	22.78	0-1.5	1.5

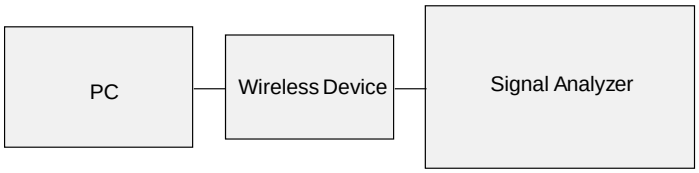


Figure 9-5
Power Measurement Setup

9.6 WLAN Conducted Powers

Table 9-178
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	20.86	18.13	18.04	15.31
2437	6	20.81	18.42	18.33	15.87
2462	11	20.59	18.48	18.19	12.75

Table 9-179
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	20.48	18.45	18.47	15.38
2437	6	20.59	18.36	18.28	15.31
2462	11	20.97	18.06	17.79	12.72

Table 9-180
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	16.45	16.22
2437	6	16.53	15.80
2462	11	16.66	16.01

Table 9-181
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	16.23	16.19	16.31	13.54
5200	40	16.15	16.27	16.35	16.48
5220	44	16.23	16.26	16.32	15.59
5240	48	16.25	16.42	16.32	15.57
5260	52	16.46	16.43	16.41	15.67
5280	56	16.40	16.47	16.44	15.79
5300	60	16.47	16.37	16.48	15.66
5320	64	16.17	16.12	16.13	14.78
5500	100	15.80	15.78	15.72	16.05
5600	120	15.94	15.98	15.91	16.07
5620	124	15.67	15.79	15.69	15.83
5720	144	15.64	15.61	15.70	15.77
5745	149	15.77	15.59	15.57	15.62
5785	157	16.07	16.23	16.20	16.26
5825	165	15.97	16.09	16.11	15.95

Table 9-182
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	16.29	16.09	16.13	13.80
5200	40	16.29	16.19	16.20	16.48
5220	44	16.12	16.12	16.21	16.46
5240	48	16.11	16.10	16.16	16.43
5260	52	15.83	15.90	15.89	16.16
5280	56	15.97	16.00	15.96	16.10
5300	60	15.95	15.91	15.98	16.22
5320	64	15.95	15.86	15.88	14.48
5500	100	15.88	15.78	15.79	16.20
5600	120	15.96	15.98	15.98	16.31
5620	124	16.05	16.07	16.15	16.32
5720	144	16.21	16.13	16.10	16.45
5745	149	16.29	16.39	16.34	15.70
5785	157	16.42	16.30	16.40	15.69
5825	165	16.22	16.26	16.23	16.47

Table 9-183
5 GHz WLAN Maximum Average RF Power – MIMO

5GHz (20MHz) 802.11n Conducted Power [dBm]				
Freq [MHz]	Channel	ANT1	ANT2	MIMO
5180	36	16.19	16.09	19.15
5200	40	16.27	16.19	19.24
5220	44	16.26	16.12	19.20
5240	48	16.42	16.10	19.27
5260	52	16.43	15.90	19.18
5280	56	16.47	16.00	19.25
5300	60	16.37	15.91	19.16
5320	64	16.12	15.86	19.00
5500	100	14.97	15.20	18.10
5600	120	15.01	14.98	18.00
5620	124	15.12	14.89	18.02
5720	144	15.07	14.58	17.84
5745	149	14.42	13.73	17.10
5785	157	14.38	13.92	17.17
5825	165	14.22	13.78	17.02

Table 9-184
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	16.88	16.95	16.45	14.61
2437	6	16.17	16.80	16.53	15.84
2462	11	16.69	16.89	16.66	12.76

Table 9-185
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	16.38	16.18	16.22	14.56
2437	6	16.51	16.05	15.80	15.17
2462	11	16.37	16.23	16.01	12.56

Table 9-186
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	13.77	13.71	11.22
5230	46	13.10	13.73	13.32
5270	54	13.28	13.21	13.52
5310	62	13.95	13.93	10.46

5GHz (80MHz) Conducted Power [dBm]			
Freq [MHz]	Channel	IEEE Transmission Mode	
		802.11ac	802.11ax
		Average	Average
5530	106	13.33	12.15
5610	122	13.22	13.44
5690	138	13.48	13.89
5775	155	13.82	13.97

Table 9-187
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	13.37	13.36	11.77
5230	46	13.65	13.57	13.86
5270	54	13.35	13.46	13.69
5310	62	13.12	13.21	9.77

5GHz (80MHz) Conducted Power [dBm]			
Freq [MHz]	Channel	IEEE Transmission Mode	
		802.11ac	802.11ax
		Average	Average
5530	106	13.88	11.72
5610	122	13.84	13.39
5690	138	13.78	13.57
5775	155	13.80	13.68

Table 9-188
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	13.96	13.15
2437	6	13.09	13.78
2462	11	13.35	13.98

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.

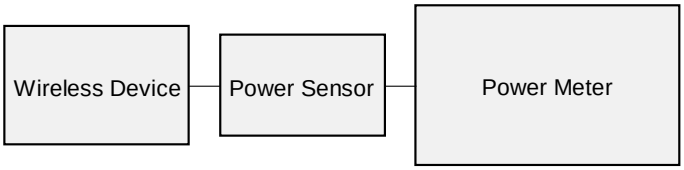


Figure 9-6
Power Measurement Setup

9.7 Bluetooth Conducted Powers

Table 9-189
Bluetooth Average RF Power

Frequency [MHz]	Data Rate [Mbps]	Channel No.	Avg Conducted Power	
			[dBm]	[mW]
2402	1.0	0	**12.77**	18.919
2441	1.0	39	12.08	16.154
2480	1.0	78	11.54	14.241
2402	2.0	0	10.49	11.205
2441	2.0	39	11.70	14.801
2480	2.0	78	7.89	6.156
2402	3.0	0	10.44	11.070
2441	3.0	39	11.68	14.711
2480	3.0	78	7.84	6.086

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

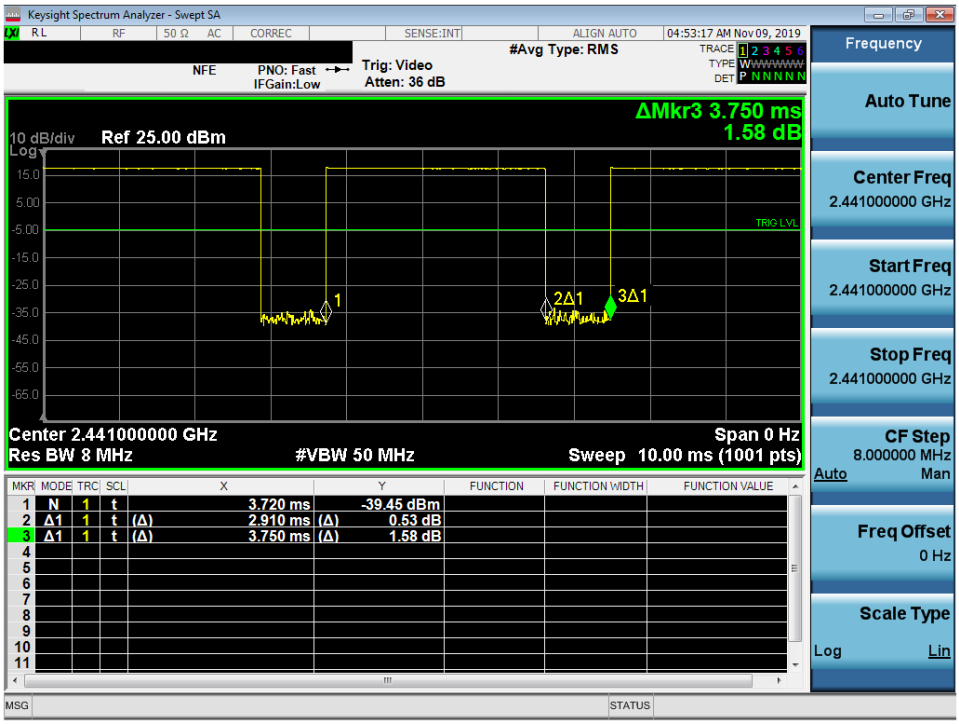


Figure 9-7
Bluetooth Transmission Plot

Equation 9-1
Bluetooth Duty Cycle Calculation

$$Duty\ Cycle = \frac{Pulse\ Width}{Period} * 100\% = \frac{2.91ms}{3.75ms} * 100\% = 77.6\%$$

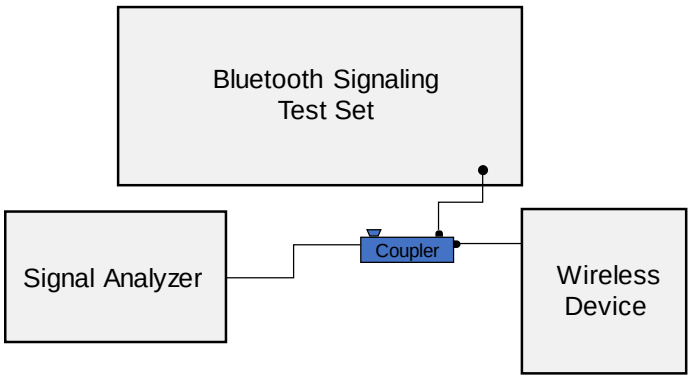


Figure 9-8
Power Measurement Setup

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
10/28/2019	750 Head	22.3	680	0.872	40.895	0.888	42.305	-1.80%	-3.33%
			695	0.876	40.854	0.889	42.227	-1.46%	-3.25%
			700	0.878	40.840	0.889	42.201	-1.24%	-3.23%
			710	0.881	40.813	0.890	42.149	-1.01%	-3.17%
			750	0.895	40.706	0.894	41.942	0.11%	-2.95%
			785	0.907	40.615	0.896	41.760	1.23%	-2.74%
			800	0.913	40.570	0.897	41.682	1.78%	-2.67%
11/07/2019	750 Head	20.4	680	0.861	41.735	0.888	42.305	-3.04%	-1.35%
			695	0.866	41.698	0.889	42.227	-2.59%	-1.25%
			750	0.885	41.547	0.894	41.942	-1.01%	-0.94%
			770	0.893	41.484	0.895	41.838	-0.22%	-0.85%
			785	0.898	41.442	0.896	41.760	0.22%	-0.76%
10/23/2019	835 Head	20.1	820	0.881	40.084	0.899	41.578	-2.00%	-3.59%
			835	0.886	40.029	0.900	41.500	-1.56%	-3.54%
			850	0.892	40.017	0.916	41.500	-2.62%	-3.57%
10/31/2019	835 Head	20.9	820	0.925	40.530	0.899	41.578	2.89%	-2.52%
			835	0.930	40.489	0.900	41.500	3.33%	-2.44%
			850	0.934	40.455	0.916	41.500	1.97%	-2.52%
11/11/2019	835 Head	20.0	820	0.894	40.475	0.899	41.578	-0.56%	-2.65%
			835	0.899	40.431	0.900	41.500	-0.11%	-2.58%
			850	0.905	40.385	0.916	41.500	-1.20%	-2.69%
11/14/2019	835 Head	20.3	820	0.912	41.413	0.899	41.578	1.45%	-0.40%
			835	0.918	41.382	0.900	41.500	2.00%	-0.28%
			850	0.924	41.348	0.916	41.500	0.87%	-0.37%
10/28/2019	1750 Head	21.0	1710	1.336	39.200	1.348	40.142	-0.89%	-2.35%
			1720	1.343	39.181	1.354	40.126	-0.81%	-2.36%
			1745	1.359	39.127	1.368	40.087	-0.66%	-2.39%
			1750	1.362	39.117	1.371	40.079	-0.66%	-2.40%
			1770	1.374	39.078	1.383	40.047	-0.65%	-2.42%
			1790	1.385	39.053	1.394	40.016	-0.65%	-2.41%
11/13/2019	1750 Head	20.6	1710	1.328	40.609	1.348	40.142	-1.48%	1.16%
			1720	1.333	40.584	1.354	40.126	-1.55%	1.14%
			1745	1.348	40.526	1.368	40.087	-1.46%	1.10%
			1750	1.351	40.518	1.371	40.079	-1.46%	1.10%
			1770	1.364	40.498	1.383	40.047	-1.37%	1.13%
			1790	1.376	40.489	1.394	40.016	-1.29%	1.18%
11/25/2019	1750 Head	21.3	1710	1.336	38.943	1.348	40.142	-0.89%	-2.99%
			1720	1.341	38.926	1.354	40.126	-0.96%	-2.99%
			1745	1.355	38.893	1.368	40.087	-0.95%	-2.98%
			1750	1.359	38.889	1.371	40.079	-0.88%	-2.97%
			1770	1.371	38.872	1.383	40.047	-0.87%	-2.93%
			1790	1.382	38.849	1.394	40.016	-0.86%	-2.92%
10/28/2019	1900 Head	22.5	1850	1.397	40.392	1.400	40.000	-0.21%	0.98%
			1860	1.407	40.349	1.400	40.000	0.50%	0.87%
			1880	1.429	40.265	1.400	40.000	2.07%	0.66%
			1900	1.452	40.184	1.400	40.000	3.71%	0.46%
			1905	1.457	40.163	1.400	40.000	4.07%	0.41%
			1910	1.463	40.142	1.400	40.000	4.50%	0.36%
10/30/2019	1900 Head	21.9	1850	1.395	40.412	1.400	40.000	-0.36%	1.03%
			1860	1.406	40.369	1.400	40.000	0.43%	0.92%
			1880	1.428	40.281	1.400	40.000	2.00%	0.70%
			1900	1.449	40.194	1.400	40.000	3.50%	0.49%
			1905	1.454	40.172	1.400	40.000	3.86%	0.43%
			1910	1.459	40.150	1.400	40.000	4.21%	0.37%
11/13/2019	1900 Head	20.6	1850	1.410	40.374	1.400	40.000	0.71%	0.94%
			1860	1.416	40.353	1.400	40.000	1.14%	0.88%
			1880	1.428	40.323	1.400	40.000	2.00%	0.81%
			1900	1.441	40.308	1.400	40.000	2.93%	0.77%
			1905	1.444	40.305	1.400	40.000	3.14%	0.76%
			1910	1.447	40.303	1.400	40.000	3.36%	0.76%
11/25/2019	1900 Head	21.3	1850	1.418	38.719	1.400	40.000	1.29%	-3.20%
			1860	1.424	38.704	1.400	40.000	1.71%	-3.24%
			1880	1.435	38.678	1.400	40.000	2.50%	-3.31%
			1900	1.445	38.648	1.400	40.000	3.21%	-3.38%
			1905	1.447	38.641	1.400	40.000	3.36%	-3.40%
			1910	1.450	38.631	1.400	40.000	3.57%	-3.42%

Table 10-2
Measured Tissue Properties – Head Cont'd

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
10/29/2019	2450 Head	20.4	2300	1.742	38.732	1.670	39.500	4.31%	-1.94%
			2310	1.750	38.717	1.679	39.480	4.23%	-1.93%
			2320	1.758	38.702	1.687	39.460	4.21%	-1.92%
11/04/2019	2450 Head	20.7	2400	1.776	37.556	1.756	39.289	1.14%	-4.41%
			2450	1.816	37.492	1.800	39.200	0.89%	-4.36%
			2500	1.851	37.398	1.855	39.136	-0.22%	-4.44%
11/08/2019	2450 Head	20.4	2560	1.939	37.532	1.920	39.060	0.99%	-3.91%
			2600	1.969	37.468	1.964	39.009	0.25%	-3.95%
			2650	2.011	37.358	2.018	38.945	-0.35%	-4.07%
11/11/2019	2450 Head	19.2	2400	1.824	39.072	1.756	39.289	3.87%	-0.55%
			2450	1.866	38.982	1.800	39.200	3.67%	-0.56%
			2500	1.905	38.887	1.855	39.136	2.70%	-0.64%
12/09/2019	2450 Head	19.8	2450	1.849	38.818	1.800	39.200	2.72%	-0.97%
			2500	1.888	38.743	1.855	39.136	1.78%	-1.00%
			2510	1.896	38.724	1.866	39.123	1.61%	-1.02%
12/16/2019	2450 Head	19.2	2560	1.940	38.488	1.920	39.060	1.04%	-1.46%
			2600	1.972	38.422	1.964	39.009	0.41%	-1.50%
			2650	2.015	38.319	2.018	38.945	-0.15%	-1.61%
12/16/2019	3500 Head	20.3	3500	2.946	36.892	2.913	37.929	1.13%	-2.73%
			3550	2.983	36.817	2.964	37.871	0.64%	-2.78%
			3560	2.991	36.799	2.974	37.860	0.57%	-2.80%
			3600	3.026	36.756	3.015	37.814	0.36%	-2.80%
			3650	3.068	36.686	3.066	37.757	0.07%	-2.84%
			3690	3.099	36.636	3.107	37.711	-0.26%	-2.85%
			3700	3.107	36.624	3.117	37.700	-0.32%	-2.85%
11/10/2019	5200-5800 Head	20.1	5180	4.651	36.038	4.635	36.009	0.35%	0.08%
			5190	4.661	36.024	4.645	35.998	0.34%	0.07%
			5200	4.670	36.014	4.655	35.986	0.32%	0.08%
			5210	4.680	36.002	4.666	35.975	0.30%	0.08%
			5220	4.690	35.976	4.676	35.963	0.30%	0.04%
			5240	4.713	35.920	4.696	35.940	0.36%	-0.06%
			5250	4.726	35.896	4.706	35.929	0.42%	-0.09%
			5260	4.740	35.873	4.717	35.917	0.49%	-0.12%
			5270	4.753	35.852	4.727	35.906	0.55%	-0.15%
			5280	4.764	35.845	4.737	35.894	0.57%	-0.14%
			5290	4.774	35.836	4.748	35.883	0.55%	-0.13%
			5300	4.787	35.817	4.758	35.871	0.61%	-0.15%
			5310	4.800	35.796	4.768	35.860	0.67%	-0.18%
			5320	4.809	35.774	4.778	35.849	0.65%	-0.21%
			5500	5.013	35.432	4.963	35.643	1.01%	-0.59%
			5510	5.028	35.417	4.973	35.632	1.11%	-0.60%
			5520	5.040	35.394	4.983	35.620	1.14%	-0.63%
			5530	5.051	35.378	4.994	35.609	1.14%	-0.65%
			5540	5.061	35.366	5.004	35.597	1.14%	-0.65%
			5550	5.069	35.337	5.014	35.586	1.10%	-0.70%
			5560	5.075	35.306	5.024	35.574	1.02%	-0.75%
			5580	5.099	35.270	5.045	35.551	1.07%	-0.79%
			5600	5.133	35.238	5.065	35.529	1.34%	-0.82%
			5610	5.145	35.215	5.076	35.518	1.36%	-0.85%
			5620	5.158	35.200	5.086	35.506	1.42%	-0.86%
			5640	5.183	35.169	5.106	35.483	1.51%	-0.88%
			5660	5.200	35.122	5.127	35.460	1.42%	-0.95%
			5670	5.211	35.102	5.137	35.449	1.44%	-0.98%
			5680	5.220	35.075	5.147	35.437	1.42%	-1.02%
			5690	5.233	35.045	5.158	35.426	1.45%	-1.08%
			5700	5.245	35.024	5.168	35.414	1.49%	-1.10%
			5710	5.260	35.014	5.178	35.403	1.58%	-1.10%
			5720	5.274	35.011	5.188	35.391	1.66%	-1.07%
			5745	5.304	34.972	5.214	35.363	1.73%	-1.11%
			5750	5.309	34.961	5.219	35.357	1.72%	-1.12%
			5755	5.314	34.951	5.224	35.351	1.72%	-1.13%
			5765	5.324	34.933	5.234	35.340	1.72%	-1.15%
			5775	5.332	34.920	5.245	35.329	1.66%	-1.16%
			5785	5.344	34.903	5.255	35.317	1.69%	-1.17%
			5795	5.359	34.880	5.265	35.305	1.79%	-1.20%
			5800	5.366	34.868	5.270	35.300	1.82%	-1.22%
			5805	5.372	34.860	5.275	35.294	1.84%	-1.23%
			5825	5.394	34.831	5.296	35.271	1.85%	-1.25%

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
10/28/2019	750 Body	23.1	680	0.912	57.547	0.958	55.804	-4.80%	3.12%
			695	0.924	57.422	0.959	55.745	-3.65%	3.01%
			700	0.929	57.379	0.959	55.726	-3.13%	2.97%
			710	0.937	57.295	0.960	55.687	-2.40%	2.89%
			750	0.974	56.945	0.964	55.531	1.04%	2.55%
			770	0.993	56.757	0.965	55.453	2.90%	2.35%
			785	1.007	56.622	0.966	55.395	4.24%	2.22%
10/29/2019	750 Body	21.4	750	0.967	56.339	0.964	55.531	0.31%	1.46%
			785	0.999	56.036	0.966	55.395	3.42%	1.16%
			800	1.014	55.905	0.967	55.336	4.86%	1.03%
11/06/2019	750 Body	23.6	680	0.914	57.723	0.958	55.804	-4.59%	3.44%
			695	0.927	57.594	0.959	55.745	-3.34%	3.32%
			750	0.977	57.111	0.964	55.531	1.35%	2.85%
11/04/2019	835 Body	19.9	820	0.943	55.733	0.969	55.258	-2.68%	0.86%
			835	0.957	55.565	0.970	55.200	-1.34%	0.66%
			850	0.973	55.412	0.988	55.154	-1.52%	0.47%
11/06/2019	835 Body	20.1	820	0.942	54.683	0.969	55.258	-2.79%	-1.04%
			835	0.958	54.531	0.970	55.200	-1.24%	-1.21%
			850	0.974	54.381	0.988	55.154	-1.42%	-1.40%
11/13/2019	835 Body	20.3	820	0.940	54.840	0.969	55.258	-2.99%	-0.76%
			835	0.956	54.694	0.970	55.200	-1.44%	-0.92%
			850	0.972	54.542	0.988	55.154	-1.62%	-1.11%
11/18/2019	835 Body	20	820	0.951	56.241	0.969	55.258	-1.86%	1.78%
			835	0.967	56.103	0.970	55.200	-0.31%	1.64%
			850	0.982	55.964	0.988	55.154	-0.61%	1.47%
10/28/2019	1750 Body	20.3	1710	1.484	51.157	1.463	53.537	1.44%	-4.45%
			1720	1.496	51.119	1.469	53.511	1.84%	-4.47%
			1745	1.525	51.025	1.485	53.445	2.69%	-4.53%
			1750	1.530	51.004	1.488	53.432	2.82%	-4.54%
			1770	1.552	50.918	1.501	53.379	3.40%	-4.61%
			1790	1.575	50.828	1.514	53.326	4.03%	-4.68%
11/11/2019	1750 Body	22.5	1710	1.460	51.554	1.463	53.537	-0.21%	-3.70%
			1720	1.471	51.516	1.469	53.511	0.14%	-3.73%
			1745	1.499	51.430	1.485	53.445	0.94%	-3.77%
			1750	1.505	51.413	1.488	53.432	1.14%	-3.78%
			1770	1.526	51.329	1.501	53.379	1.67%	-3.84%
			1790	1.547	51.245	1.514	53.326	2.18%	-3.90%
11/25/2019	1750 Body	20.3	1710	1.486	53.262	1.463	53.537	1.57%	-0.51%
			1720	1.498	53.215	1.469	53.511	1.97%	-0.55%
			1745	1.528	53.106	1.485	53.445	2.90%	-0.63%
			1750	1.534	53.086	1.488	53.432	3.09%	-0.65%
			1770	1.556	53.005	1.501	53.379	3.66%	-0.70%
			1790	1.578	52.916	1.514	53.326	4.23%	-0.77%
11/28/2019	1750 Body	21.3	1710	1.474	52.523	1.463	53.537	0.75%	-1.89%
			1720	1.486	52.483	1.469	53.511	1.16%	-1.92%
			1745	1.515	52.381	1.485	53.445	2.02%	-1.99%
			1750	1.521	52.360	1.488	53.432	2.22%	-2.01%
			1770	1.543	52.285	1.501	53.379	2.80%	-2.05%
			1790	1.564	52.213	1.514	53.326	3.30%	-2.09%
12/1/2019	1750 Body	20.3	1710	1.494	52.692	1.463	53.537	2.12%	-1.58%
			1750	1.541	52.542	1.488	53.432	3.56%	-1.67%
			1790	1.585	52.370	1.514	53.326	4.69%	-1.79%
12/03/2019	1750 Body	20.2	1710	1.483	52.891	1.463	53.537	1.37%	-1.21%
			1720	1.496	52.853	1.469	53.511	1.84%	-1.23%
			1745	1.526	52.755	1.485	53.445	2.76%	-1.29%
			1750	1.532	52.733	1.488	53.432	2.96%	-1.31%
			1770	1.555	52.646	1.501	53.379	3.60%	-1.37%
			1790	1.577	52.553	1.514	53.326	4.16%	-1.45%
12/16/2019	1750 Body	20.3	1710	1.488	52.275	1.463	53.537	1.71%	-2.36%
			1720	1.499	52.238	1.469	53.511	2.04%	-2.38%
			1745	1.527	52.151	1.485	53.445	2.83%	-2.42%
			1750	1.533	52.134	1.488	53.432	3.02%	-2.43%
			1770	1.556	52.063	1.501	53.379	3.66%	-2.47%
			1790	1.579	51.985	1.514	53.326	4.29%	-2.51%

Table 10-4
Measured Tissue Properties – Body Cont'd

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
10/30/2019	1900 Body	21.5	1850	1.514	52.201	1.520	53.300	-0.39%	-2.06%
			1860	1.525	52.158	1.520	53.300	0.33%	-2.14%
			1880	1.549	52.081	1.520	53.300	1.91%	-2.29%
			1900	1.571	52.013	1.520	53.300	3.36%	-2.41%
			1905	1.577	51.994	1.520	53.300	3.75%	-2.45%
			1910	1.583	51.977	1.520	53.300	4.14%	-2.48%
11/11/2019	1900 Body	23.7	1850	1.511	51.927	1.520	53.300	-0.59%	-2.58%
			1860	1.522	51.895	1.520	53.300	0.13%	-2.64%
			1880	1.543	51.835	1.520	53.300	1.51%	-2.75%
			1900	1.565	51.780	1.520	53.300	2.96%	-2.85%
			1905	1.570	51.764	1.520	53.300	3.29%	-2.88%
			1910	1.576	51.746	1.520	53.300	3.68%	-2.92%
11/26/2019	1900 Body	23.4	1850	1.511	51.546	1.520	53.300	-0.59%	-3.29%
			1860	1.522	51.519	1.520	53.300	0.13%	-3.34%
			1880	1.544	51.465	1.520	53.300	1.58%	-3.44%
			1900	1.567	51.401	1.520	53.300	3.09%	-3.56%
			1905	1.573	51.383	1.520	53.300	3.49%	-3.60%
			1910	1.578	51.366	1.520	53.300	3.82%	-3.63%
12/02/2019	1900 Body	23.2	1850	1.522	51.044	1.520	53.300	0.13%	-4.23%
			1860	1.533	51.012	1.520	53.300	0.86%	-4.29%
			1880	1.555	50.942	1.520	53.300	2.30%	-4.42%
			1900	1.575	50.866	1.520	53.300	3.62%	-4.57%
			1905	1.581	50.848	1.520	53.300	4.01%	-4.60%
			1910	1.586	50.828	1.520	53.300	4.34%	-4.64%
12/05/2019	1900 Body	23.3	1850	1.514	52.071	1.520	53.300	-0.39%	-2.31%
			1860	1.525	52.038	1.520	53.300	0.33%	-2.37%
			1880	1.548	51.969	1.520	53.300	1.84%	-2.50%
			1900	1.571	51.896	1.520	53.300	3.36%	-2.63%
			1905	1.577	51.877	1.520	53.300	3.75%	-2.67%
			1910	1.582	51.858	1.520	53.300	4.08%	-2.71%
12/09/2019	1900 Body	23.3	1850	1.527	51.939	1.520	53.300	0.46%	-2.55%
			1860	1.538	51.903	1.520	53.300	1.18%	-2.62%
			1880	1.560	51.836	1.520	53.300	2.63%	-2.75%
			1900	1.582	51.779	1.520	53.300	4.08%	-2.85%
			1905	1.587	51.770	1.520	53.300	4.41%	-2.87%
			1910	1.593	51.763	1.520	53.300	4.80%	-2.88%
12/14/2019	1900 Body	24.5	1850	1.501	52.298	1.520	53.300	-1.25%	-1.88%
			1860	1.512	52.269	1.520	53.300	-0.53%	-1.93%
			1880	1.535	52.207	1.520	53.300	0.99%	-2.05%
			1900	1.558	52.138	1.520	53.300	2.50%	-2.18%
			1905	1.563	52.118	1.520	53.300	2.83%	-2.22%
			1910	1.569	52.100	1.520	53.300	3.22%	-2.25%
12/16/2019	1900 Body	23.2	1850	1.524	51.618	1.520	53.300	0.26%	-3.16%
			1860	1.534	51.597	1.520	53.300	0.92%	-3.20%
			1880	1.558	51.539	1.520	53.300	2.50%	-3.30%
			1900	1.581	51.468	1.520	53.300	4.01%	-3.44%
			1905	1.587	51.447	1.520	53.300	4.41%	-3.48%
			1910	1.593	51.428	1.520	53.300	4.80%	-3.51%
10/30/2019	2450 Body	22.5	2400	1.937	51.815	1.902	52.767	1.84%	-1.80%
			2450	1.999	51.589	1.950	52.700	2.51%	-2.11%
			2500	2.068	51.443	2.021	52.636	2.33%	-2.27%
10/31/2019	2450 Body	22.9	2300	1.864	53.268	1.809	52.900	3.04%	0.70%
			2310	1.876	53.244	1.816	52.887	3.30%	0.68%
			2320	1.888	53.221	1.826	52.873	3.40%	0.66%
11/07/2019	2450 Body	23.7	2560	2.155	51.345	2.106	52.560	2.33%	-2.31%
			2600	2.201	51.240	2.163	52.509	1.76%	-2.42%
			2650	2.261	51.073	2.234	52.445	1.21%	-2.62%
11/11/2019	2450 Body	23.2	2450	2.046	51.458	1.950	52.700	4.92%	-2.36%
			2500	2.104	51.297	2.021	52.636	4.11%	-2.54%
			2510	2.115	51.264	2.035	52.623	3.93%	-2.58%
11/14/2019	2450 Body	23	2400	1.980	52.161	1.902	52.767	4.10%	-1.15%
			2450	2.040	52.022	1.950	52.700	4.62%	-1.29%
			2500	2.097	51.862	2.021	52.636	3.76%	-1.47%
12/03/2019	2450 Body	23	2450	2.040	52.155	1.950	52.700	4.62%	-1.03%
			2500	2.097	52.001	2.021	52.636	3.76%	-1.21%
			2510	2.110	51.970	2.035	52.623	3.69%	-1.24%
			2535	2.139	51.896	2.071	52.592	3.28%	-1.32%
			2550	2.157	51.861	2.092	52.573	3.11%	-1.35%
			2560	2.169	51.837	2.106	52.560	2.99%	-1.38%
			2600	2.218	51.718	2.163	52.509	2.54%	-1.51%
			2650	2.278	51.562	2.234	52.445	1.97%	-1.68%
			2680	2.317	51.478	2.277	52.407	1.76%	-1.77%
12/06/2019	2450 Body	21.5	2300	1.798	51.601	1.809	52.900	-0.61%	-2.46%
			2310	1.809	51.577	1.816	52.887	-0.39%	-2.48%
			2320	1.820	51.551	1.826	52.873	-0.33%	-2.50%
			2400	1.906	51.375	1.902	52.767	0.21%	-2.64%
			2450	1.964	51.249	1.950	52.700	0.72%	-2.75%
			2500	2.021	51.115	2.021	52.636	0.00%	-2.89%
			2510	2.033	51.088	2.035	52.623	-0.10%	-2.92%
12/09/2019	2450 Body	23.1	2300	1.859	52.293	1.809	52.900	2.76%	-1.15%
			2310	1.871	52.265	1.816	52.887	3.03%	-1.18%
			2320	1.883	52.235	1.826	52.873	3.12%	-1.21%
12/12/2019	2450 Body	23	2560	2.173	52.378	2.106	52.560	3.18%	-0.35%
			2600	2.222	52.255	2.163	52.509	2.73%	-0.48%
			2650	2.285	52.090	2.234	52.445	2.28%	-0.68%
12/16/2019	2450 Body	22.9	2450	2.030	52.738	1.950	52.700	4.10%	0.07%
			2500	2.089	52.606	2.021	52.636	3.36%	-0.06%
			2510	2.100	52.577	2.035	52.623	3.19%	-0.09%
			2535	2.131	52.497	2.071	52.592	2.90%	-0.18%
			2550	2.151	52.457	2.092	52.573	2.82%	-0.22%
			2560	2.163	52.432	2.106	52.560	2.71%	-0.24%
			2600	2.212	52.320	2.163	52.509	2.27%	-0.36%
			2650	2.275	52.147	2.234	52.445	1.84%	-0.57%
			2680	2.312	52.057	2.277	52.407	1.54%	-0.67%

Table 10-5
Measured Tissue Properties – Body Cont'd

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
12/02/2019	3500 Body	20.1	3500	3.458	50.084	3.314	51.321	4.35%	-2.41%
			3550	3.513	49.953	3.372	51.254	4.18%	-2.54%
			3560	3.522	49.920	3.384	51.240	4.08%	-2.58%
			3600	3.562	49.850	3.431	51.186	3.82%	-2.61%
			3650	3.623	49.809	3.489	51.118	3.84%	-2.56%
			3690	3.668	49.709	3.536	51.063	3.73%	-2.65%
			3700	3.677	49.678	3.548	51.050	3.64%	-2.69%
12/18/2019	3500 Body	21.1	3600	3.462	49.311	3.431	51.186	0.90%	-3.66%
			3650	3.515	49.244	3.489	51.118	0.75%	-3.67%
			3690	3.557	49.186	3.536	51.063	0.59%	-3.68%
			3700	3.566	49.166	3.548	51.050	0.51%	-3.69%
12/09/2019	5200-5800 Body	21.8	5180	5.418	47.636	5.276	49.041	2.69%	-2.86%
			5190	5.428	47.618	5.288	49.028	2.65%	-2.88%
			5200	5.439	47.593	5.299	49.014	2.64%	-2.90%
			5210	5.452	47.579	5.311	49.001	2.65%	-2.90%
			5220	5.464	47.556	5.323	48.987	2.65%	-2.92%
			5240	5.492	47.522	5.346	48.960	2.73%	-2.94%
			5250	5.505	47.502	5.358	48.947	2.74%	-2.95%
			5260	5.520	47.482	5.369	48.933	2.81%	-2.97%
			5270	5.533	47.467	5.381	48.919	2.82%	-2.97%
			5280	5.551	47.449	5.393	48.906	2.93%	-2.98%
			5290	5.564	47.438	5.404	48.892	2.96%	-2.97%
			5300	5.574	47.424	5.416	48.879	2.92%	-2.98%
			5310	5.585	47.405	5.428	48.865	2.89%	-2.99%
			5320	5.596	47.384	5.439	48.851	2.89%	-3.00%
			5500	5.837	47.097	5.650	48.607	3.31%	-3.11%
			5510	5.850	47.086	5.661	48.594	3.34%	-3.10%
			5520	5.862	47.074	5.673	48.580	3.33%	-3.10%
			5530	5.874	47.060	5.685	48.566	3.32%	-3.10%
			5540	5.887	47.041	5.696	48.553	3.35%	-3.11%
			5550	5.896	47.017	5.708	48.539	3.29%	-3.14%
			5560	5.909	46.984	5.720	48.526	3.30%	-3.18%
			5580	5.943	46.944	5.743	48.499	3.48%	-3.21%
			5600	5.981	46.917	5.766	48.471	3.73%	-3.21%
			5610	5.996	46.899	5.778	48.458	3.77%	-3.22%
			5620	6.009	46.888	5.790	48.444	3.78%	-3.21%
			5640	6.034	46.877	5.813	48.417	3.80%	-3.18%
			5660	6.052	46.839	5.837	48.390	3.68%	-3.21%
			5670	6.064	46.807	5.848	48.376	3.69%	-3.24%
			5680	6.080	46.771	5.860	48.363	3.75%	-3.29%
			5690	6.097	46.738	5.872	48.349	3.83%	-3.33%
			5700	6.113	46.710	5.883	48.336	3.91%	-3.36%
			5710	6.130	46.708	5.895	48.322	3.99%	-3.34%
			5720	6.148	46.714	5.907	48.309	4.08%	-3.30%
			5745	6.184	46.704	5.936	48.275	4.18%	-3.25%
			5750	6.190	46.693	5.942	48.268	4.17%	-3.26%
			5755	6.194	46.683	5.947	48.261	4.15%	-3.27%
			5765	6.204	46.669	5.959	48.248	4.11%	-3.27%
			5775	6.215	46.642	5.971	48.234	4.09%	-3.30%
			5785	6.229	46.617	5.982	48.220	4.13%	-3.32%
			5795	6.245	46.597	5.994	48.207	4.19%	-3.34%
			5800	6.252	46.585	6.000	48.200	4.20%	-3.35%
			5805	6.259	46.574	6.006	48.193	4.21%	-3.36%
			5825	6.295	46.540	6.029	48.166	4.41%	-3.38%
12/16/2019	5200-5800 Body	22	5180	5.422	47.168	5.276	49.041	2.77%	-3.82%
			5190	5.431	47.159	5.288	49.028	2.70%	-3.81%
			5200	5.445	47.149	5.299	49.014	2.76%	-3.81%
			5210	5.460	47.128	5.311	49.001	2.81%	-3.82%
			5220	5.473	47.099	5.323	48.987	2.82%	-3.85%
			5240	5.502	47.067	5.346	48.960	2.92%	-3.87%
			5250	5.515	47.044	5.358	48.947	2.93%	-3.89%
			5260	5.527	47.025	5.369	48.933	2.94%	-3.90%
			5270	5.540	47.001	5.381	48.919	2.95%	-3.92%
			5280	5.556	46.988	5.393	48.906	3.02%	-3.92%
			5290	5.572	46.978	5.404	48.892	3.11%	-3.91%
			5300	5.585	46.962	5.416	48.879	3.12%	-3.92%
			5310	5.597	46.947	5.428	48.865	3.11%	-3.93%
			5320	5.605	46.916	5.439	48.851	3.05%	-3.96%
			5500	5.846	46.600	5.650	48.607	3.47%	-4.13%
			5510	5.864	46.593	5.661	48.594	3.59%	-4.12%
			5520	5.876	46.577	5.673	48.580	3.58%	-4.12%
			5530	5.888	46.566	5.685	48.566	3.57%	-4.12%
			5540	5.898	46.545	5.696	48.553	3.55%	-4.14%
			5550	5.908	46.530	5.708	48.539	3.50%	-4.14%
			5560	5.920	46.515	5.720	48.526	3.50%	-4.14%
			5580	5.948	46.481	5.743	48.499	3.57%	-4.16%
			5600	5.980	46.434	5.766	48.471	3.71%	-4.20%
			5610	5.995	46.418	5.778	48.458	3.76%	-4.21%
			5620	6.011	46.413	5.790	48.444	3.82%	-4.19%
			5640	6.041	46.397	5.813	48.417	3.92%	-4.17%
			5660	6.066	46.350	5.837	48.390	3.92%	-4.22%
			5670	6.080	46.322	5.848	48.376	3.97%	-4.25%
			5680	6.092	46.303	5.860	48.363	3.96%	-4.26%
			5690	6.103	46.282	5.872	48.349	3.93%	-4.28%
			5700	6.118	46.261	5.883	48.336	3.99%	-4.29%
			5710	6.131	46.247	5.895	48.322	4.00%	-4.29%
			5720	6.146	46.232	5.907	48.309	4.05%	-4.30%
			5745	6.183	46.216	5.936	48.275	4.16%	-4.27%
			5750	6.190	46.203	5.942	48.268	4.17%	-4.28%
			5755	6.197	46.190	5.947	48.261	4.20%	-4.29%
			5765	6.207	46.170	5.959	48.248	4.16%	-4.31%
			5775	6.222	46.154	5.971	48.234	4.20%	-4.31%
			5785	6.236	46.139	5.982	48.220	4.25%	-4.32%
			5795	6.251	46.116	5.994	48.207	4.29%	-4.34%
			5800	6.259	46.103	6.000	48.200	4.32%	-4.35%
			5805	6.266	46.097	6.006	48.193	4.33%	-4.35%
			5825	6.295	46.069	6.029	48.166	4.41%	-4.35%

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.

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

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	10/28/2019	23.4	22.3	0.200	1054	7551	1.690	8.290	8.450	1.93%
P	750	HEAD	11/07/2019	24.5	20.4	0.200	1054	7551	1.630	8.290	8.150	-1.69%
P	835	HEAD	10/23/2019	21.5	20.1	0.200	4d047	7551	1.890	9.420	9.450	0.32%
P	835	HEAD	10/31/2019	21.3	20.9	0.200	4d047	7551	2.000	9.420	10.000	6.16%
P	835	HEAD	11/11/2019	20.5	20.5	0.200	4d047	7551	1.960	9.420	9.800	4.03%
E	835	HEAD	11/14/2019	22.1	21.3	0.200	4d132	7417	1.880	9.590	9.400	-1.98%
G	1750	HEAD	10/28/2019	21.9	21.0	0.100	1150	7409	3.680	36.500	36.800	0.82%
P	1750	HEAD	11/13/2019	22.0	20.6	0.100	1150	7551	3.650	36.500	36.500	0.00%
P	1750	HEAD	11/25/2019	22.2	21.3	0.100	1150	7551	3.680	36.500	36.800	0.82%
D	1900	HEAD	10/28/2019	21.7	21.3	0.100	5d080	3914	4.220	39.800	42.200	6.03%
D	1900	HEAD	10/30/2019	21.6	21.4	0.100	5d149	3914	4.220	39.300	42.200	7.38%
P	1900	HEAD	11/13/2019	22.0	20.6	0.100	5d148	7551	4.170	39.100	41.700	6.65%
P	1900	HEAD	11/25/2019	22.2	21.3	0.100	5d080	7551	4.060	39.800	40.600	2.01%
E	2300	HEAD	10/29/2019	23.8	21.5	0.100	1064	7417	5.110	47.600	51.100	7.35%
E	2450	HEAD	11/04/2019	22.3	20.7	0.100	797	7417	5.120	52.700	51.200	-2.85%
E	2450	HEAD	11/11/2019	21.3	19.2	0.100	981	7417	5.290	52.300	52.900	1.15%
E	2450	HEAD	12/09/2019	20.8	19.8	0.100	981	7417	5.400	52.300	54.000	3.25%
E	2600	HEAD	11/08/2019	22.3	21.5	0.100	1004	7417	5.920	55.900	59.200	5.90%
E	2600	HEAD	12/16/2019	20.1	19.2	0.100	1064	7417	6.010	58.100	60.100	3.44%
H	3500	HEAD	12/16/2019	20.4	20.3	0.100	1059	3589	6.910	64.600	69.100	6.97%
H	3700	HEAD	12/16/2019	20.4	20.3	0.100	1018	3589	7.010	65.800	70.100	6.53%
H	5250	HEAD	11/10/2019	21.0	20.1	0.050	1237	7406	3.860	81.300	77.200	-5.04%
H	5600	HEAD	11/10/2019	21.0	20.1	0.050	1237	7406	4.020	85.700	80.400	-6.18%
H	5750	HEAD	11/10/2019	21.0	20.1	0.050	1237	7406	3.830	80.600	76.600	-4.96%

Table 10-7
System Verification Results – 1g Cont'd

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	10/28/2019	21.3	21.3	0.200	1003	7410	1.730	8.580	8.650	0.82%
L	750	BODY	10/29/2019	23.0	21.1	0.200	1161	7410	1.760	8.430	8.800	4.39%
L	750	BODY	11/06/2019	22.2	23.5	0.200	1161	7410	1.770	8.430	8.850	4.98%
I	835	BODY	11/04/2019	23.1	19.9	0.200	4d132	7357	2.020	9.670	10.100	4.45%
I	835	BODY	11/06/2019	23.7	20.1	0.200	4d133	7357	2.080	9.750	10.400	6.67%
I	835	BODY	11/13/2019	22.0	20.3	0.200	4d132	7357	1.950	9.670	9.750	0.83%
I	835	BODY	11/18/2019	20.6	20.0	0.200	4d133	7357	2.060	9.750	10.300	5.64%
J	1750	BODY	10/28/2019	19.5	19.1	0.100	1148	7488	3.940	37.700	39.400	4.51%
G	1750	BODY	11/11/2019	21.8	21.0	0.100	1148	7409	3.790	37.700	37.900	0.53%
I	1750	BODY	11/25/2019	20.6	20.3	0.100	1148	7357	4.050	37.700	40.500	7.43%
I	1750	BODY	12/03/2019	21.2	20.2	0.100	1148	7357	4.030	37.700	40.300	6.90%
I	1750	BODY	12/16/2019	20.6	20.3	0.100	1148	7357	3.960	37.700	39.600	5.04%
H	1900	BODY	10/30/2019	21.5	22.4	0.100	5d080	7406	4.210	39.200	42.100	7.40%
J	1900	BODY	11/11/2019	21.5	22.3	0.100	5d080	7488	4.150	39.200	41.500	5.87%
J	1900	BODY	11/26/2019	20.9	22.8	0.100	5d148	7488	4.000	39.100	40.000	2.30%
J	1900	BODY	12/02/2019	20.7	21.7	0.100	5d149	7488	4.150	39.400	41.500	5.33%
J	1900	BODY	12/09/2019	20.2	22.0	0.100	5d149	7488	4.190	39.400	41.900	6.35%
J	1900	BODY	12/16/2019	21.7	23.1	0.100	5d149	7488	4.250	39.400	42.500	7.87%
K	2300	BODY	10/31/2019	22.7	22.5	0.100	1064	7547	4.890	46.500	48.900	5.16%
K	2300	BODY	12/09/2019	23.5	22.0	0.100	1073	7547	5.040	47.700	50.400	5.66%
L	2450	BODY	10/30/2019	22.6	22.0	0.100	981	7410	5.320	50.900	53.200	4.52%
K	2450	BODY	11/11/2019	22.9	22.3	0.100	797	7547	5.120	51.100	51.200	0.20%
K	2450	BODY	11/14/2019	22.3	22.0	0.100	797	7547	5.160	51.100	51.600	0.98%
K	2450	BODY	12/03/2019	23.5	22.4	0.100	797	7547	5.040	51.100	50.400	-1.37%
K	2450	BODY	12/16/2019	22.9	22.2	0.100	797	7547	5.040	51.100	50.400	-1.37%
K	2600	BODY	11/07/2019	22.9	21.9	0.100	1004	7547	5.340	54.800	53.400	-2.55%
K	2600	BODY	12/03/2019	23.5	22.4	0.100	1004	7547	5.340	54.800	53.400	-2.55%
K	2600	BODY	12/12/2019	23.5	22.4	0.100	1004	7547	5.470	54.800	54.700	-0.18%
K	2600	BODY	12/16/2019	22.9	22.2	0.100	1004	7547	5.210	54.800	52.100	-4.93%
D	3500	BODY	12/02/2019	21.3	20.1	0.100	1059	3914	6.480	65.100	64.800	-0.46%
D	3700	BODY	12/02/2019	21.3	20.1	0.100	1018	3914	6.630	64.300	66.300	3.11%
D	3700	BODY	12/18/2019	22.1	21.1	0.100	1018	3914	6.440	64.300	64.400	0.16%
G	5250	BODY	12/09/2019	22.6	21.8	0.050	1191	7409	3.780	77.000	75.600	-1.82%
G	5600	BODY	12/09/2019	22.6	21.8	0.050	1191	7409	4.030	78.600	80.600	2.54%
G	5750	BODY	12/09/2019	22.6	21.8	0.050	1191	7409	3.860	76.900	77.200	0.39%

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	11/28/2019	20.4	19.8	0.100	1008	7357	2.080	19.900	20.800	4.52%
I	1750	BODY	12/01/2019	21.6	20.3	0.100	1148	7357	2.000	19.800	20.000	1.01%
I	1750	BODY	12/16/2019	20.6	20.3	0.100	1148	7357	2.070	19.800	20.700	4.55%
J	1900	BODY	11/26/2019	20.9	22.8	0.100	5d148	7488	2.040	20.500	20.400	-0.49%
J	1900	BODY	12/02/2019	20.7	21.7	0.100	5d149	7488	2.090	20.700	20.900	0.97%
J	1900	BODY	12/05/2019	22.7	23.0	0.100	5d149	7488	2.170	20.700	21.700	4.83%
J	1900	BODY	12/14/2019	22.5	24.5	0.100	5d149	7488	2.040	20.700	20.400	-1.45%
J	1900	BODY	12/16/2019	21.7	23.1	0.100	5d149	7488	2.180	20.700	21.800	5.31%
K	2300	BODY	12/06/2019	23.9	22.2	0.100	1073	7547	2.330	23.200	23.300	0.43%
K	2450	BODY	12/06/2019	23.9	22.2	0.100	797	7547	2.240	24.200	22.400	-7.44%
K	2450	BODY	12/16/2019	22.9	22.2	0.100	797	7547	2.310	24.200	23.100	-4.55%
K	2600	BODY	12/16/2019	22.9	22.2	0.100	1004	7547	2.300	24.700	23.000	-6.88%
G	5250	BODY	12/16/2019	22.6	22.0	0.050	1191	7409	1.060	21.400	21.200	-0.93%
G	5600	BODY	12/16/2019	22.6	22.0	0.050	1191	7409	1.120	21.900	22.400	2.28%
G	5750	BODY	12/16/2019	22.6	22.0	0.050	1191	7409	1.070	21.300	21.400	0.47%

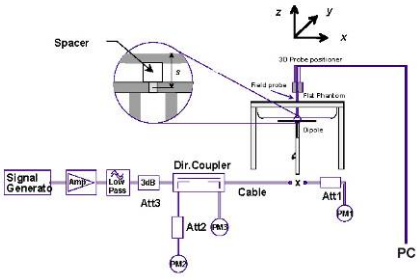


Figure 10-1
System Verification Setup Diagram

Figure 10-2
System Verification Setup Photo

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	24.67	0.06	Right	Cheek	1	1078M	1:1	0.201	1.297	0.261	
820.10	564	CDMA BC10 (§90S)	RC3 / SO55	25.8	24.67	0.06	Right	Tilt	1	1078M	1:1	0.107	1.297	0.139	
820.10	564	CDMA BC10 (§90S)	RC3 / SO55	25.8	24.67	-0.02	Left	Cheek	1	1078M	1:1	0.202	1.297	0.262	
820.10	564	CDMA BC10 (§90S)	RC3 / SO55	25.8	24.67	0.11	Left	Tilt	1	1078M	1:1	0.143	1.297	0.185	
820.10	564	CDMA BC10 (§90S)	EVDO Rev. A	25.8	24.63	-0.07	Right	Cheek	1	1078M	1:1	0.197	1.309	0.258	
820.10	564	CDMA BC10 (§90S)	EVDO Rev. A	25.8	24.63	-0.02	Right	Tilt	1	1078M	1:1	0.107	1.309	0.140	
820.10	564	CDMA BC10 (§90S)	EVDO Rev. A	25.8	24.63	-0.09	Left	Cheek	1	1078M	1:1	0.203	1.309	0.266	A1
820.10	564	CDMA BC10 (§90S)	EVDO Rev. A	25.8	24.63	-0.13	Left	Tilt	1	1078M	1:1	0.125	1.309	0.164	
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	25.36	0.02	Right	Cheek	1	1078M	1:1	0.267	1.107	0.296	
836.52	384	CDMA BC0 (§22H)	RC3 / SO55	25.8	25.36	0.16	Right	Tilt	1	1078M	1:1	0.133	1.107	0.147	
836.52	384	CDMA BC0 (§22H)	RC3 / SO55	25.8	25.36	0.05	Left	Cheek	1	1078M	1:1	0.210	1.107	0.232	
836.52	384	CDMA BC0 (§22H)	RC3 / SO55	25.8	25.36	0.16	Left	Tilt	1	1078M	1:1	0.147	1.107	0.163	
836.52	384	CDMA BC0 (§22H)	EVDO Rev. A	25.8	25.28	0.02	Right	Cheek	1	1078M	1:1	0.272	1.127	0.307	A2
836.52	384	CDMA BC0 (§22H)	EVDO Rev. A	25.8	25.28	-0.08	Right	Tilt	1	1078M	1:1	0.130	1.127	0.147	
836.52	384	CDMA BC0 (§22H)	EVDO Rev. A	25.8	25.28	-0.10	Left	Cheek	1	1078M	1:1	0.191	1.127	0.215	
836.52	384	CDMA BC0 (§22H)	EVDO Rev. A	25.8	25.28	-0.07	Left	Tilt	1	1078M	1:1	0.116	1.127	0.131	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population							Head 1.6 W/kg (mW/g) averaged over 1 gram								

Table 11-3
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	33.7	32.85	0.05	Right	Cheek	1078M	1:8.3	0.178	1.216	0.216	A3
836.60	190	GSM 850	GSM	33.7	32.85	-0.05	Right	Tilt	1078M	1:8.3	0.088	1.216	0.107	
836.60	190	GSM 850	GSM	33.7	32.85	0.14	Left	Cheek	1078M	1:8.3	0.135	1.216	0.164	
836.60	190	GSM 850	GSM	33.7	32.85	0.07	Left	Tilt	1078M	1:8.3	0.086	1.216	0.105	
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
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	25.5	24.74	-0.02	Right	Cheek	52	1078M	1:1	0.242	1.191	0.288	A4
836.60	4183	UMTS 850	RMC	25.5	24.74	0.12	Right	Tilt	52	1078M	1:1	0.131	1.191	0.156	
836.60	4183	UMTS 850	RMC	25.5	24.74	0.09	Left	Cheek	52	1078M	1:1	0.220	1.191	0.262	
836.60	4183	UMTS 850	RMC	25.5	24.74	0.05	Left	Tilt	52	1078M	1:1	0.139	1.191	0.166	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population							Head 1.6 W/kg (mW/g) averaged over 1 gram								

Table 11-5
UMTS 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	24.5	24.42	0.16	Right	Cheek	53	1078M	1:1	0.147	1.019	0.150	
1732.40	1412	UMTS 1750	RMC	24.5	24.42	0.01	Right	Tilt	53	1078M	1:1	0.093	1.019	0.095	
1732.40	1412	UMTS 1750	RMC	24.5	24.42	-0.19	Left	Cheek	53	1078M	1:1	0.206	1.019	0.210	A5
1732.40	1412	UMTS 1750	RMC	24.5	24.42	0.17	Left	Tilt	53	1078M	1:1	0.038	1.019	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								

Table 11-6
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	23.62	0.04	Right	Cheek	55	1075M	1:1	0.124	1.225	0.152	
1880.00	600	PCS CDMA	RC3 / SO55	24.5	23.62	0.13	Right	Tilt	55	1075M	1:1	0.093	1.225	0.114	
1880.00	600	PCS CDMA	RC3 / SO55	24.5	23.62	0.18	Left	Cheek	55	1075M	1:1	0.208	1.225	0.255	
1880.00	600	PCS CDMA	RC3 / SO55	24.5	23.62	0.19	Left	Tilt	55	1075M	1:1	0.052	1.225	0.064	
1880.00	600	PCS CDMA	EVDO Rev. A	24.5	23.60	0.17	Right	Cheek	55	1075M	1:1	0.125	1.230	0.154	
1880.00	600	PCS CDMA	EVDO Rev. A	24.5	23.60	0.01	Right	Tilt	55	1075M	1:1	0.097	1.230	0.119	
1880.00	600	PCS CDMA	EVDO Rev. A	24.5	23.60	0.09	Left	Cheek	55	1075M	1:1	0.225	1.230	0.277	A6
1880.00	600	PCS CDMA	EVDO Rev. A	24.5	23.60	0.04	Left	Tilt	55	1075M	1:1	0.077	1.230	0.095	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population							Head 1.6 W/kg (mW/g) averaged over 1 gram								

Table 11-7
GSM 1900 Head SAR

MEASUREMENT RESULTS														
FREQUENCY		Mode	Service	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Side	Test Position	Device Serial Number	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.										(W/kg)		(W/kg)	
1850.20	512	GSM 1900	GSM	30.7	29.45	-0.19	Right	Cheek	1075M	1:8.3	0.033	1.334	0.044	
1850.20	512	GSM 1900	GSM	30.7	29.45	0.19	Right	Tilt	1075M	1:8.3	0.036	1.334	0.048	
1850.20	512	GSM 1900	GSM	30.7	29.45	0.14	Left	Cheek	1075M	1:8.3	0.068	1.334	0.091	A7
1850.20	512	GSM 1900	GSM	30.7	29.45	0.20	Left	Tilt	1075M	1:8.3	0.015	1.334	0.020	
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	24.5	23.38	0.12	Right	Cheek	55	1078M	1:1	0.130	1.294	0.168	
1880.00	9400	UMTS 1900	RMC	24.5	23.38	0.13	Right	Tilt	55	1078M	1:1	0.125	1.294	0.162	
1880.00	9400	UMTS 1900	RMC	24.5	23.38	0.09	Left	Cheek	55	1078M	1:1	0.224	1.294	0.290	A8
1880.00	9400	UMTS 1900	RMC	24.5	23.38	0.14	Left	Tilt	55	1078M	1:1	0.053	1.294	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 11-9
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	14	25.8	24.23	0.07	0	Right	Cheek	QPSK	1	0	0449M	1:1	0.104	1.435	0.149	
680.50	133297	Mid	LTE Band 71	20	14	24.8	23.24	0.04	1	Right	Cheek	QPSK	50	0	0449M	1:1	0.095	1.432	0.136	
680.50	133297	Mid	LTE Band 71	20	14	25.8	24.23	0.04	0	Right	Tilt	QPSK	1	0	0449M	1:1	0.051	1.435	0.073	
680.50	133297	Mid	LTE Band 71	20	14	24.8	23.24	0.13	1	Right	Tilt	QPSK	50	0	0449M	1:1	0.043	1.432	0.062	
680.50	133297	Mid	LTE Band 71	20	14	25.8	24.23	-0.08	0	Left	Cheek	QPSK	1	0	0449M	1:1	0.120	1.435	0.172	A9
680.50	133297	Mid	LTE Band 71	20	14	24.8	23.24	0.02	1	Left	Cheek	QPSK	50	0	0449M	1:1	0.105	1.432	0.150	
680.50	133297	Mid	LTE Band 71	20	14	25.8	24.23	0.08	0	Left	Tilt	QPSK	1	0	0449M	1:1	0.056	1.435	0.080	
680.50	133297	Mid	LTE Band 71	20	14	24.8	23.24	0.10	1	Left	Tilt	QPSK	50	0	0449M	1:1	0.048	1.432	0.069	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																	Head 1.6 W/kg (mW/g) averaged over 1 gram			

Table 11-10
LTE Band 12 Head SAR

MEASUREMENT RESULTS																				
FREQUENCY			Mode	Bandwidth [MHz]	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	52	25.8	24.03	0.20	0	Right	Cheek	QPSK	1	49	0449M	1:1	0.153	1.503	0.230	
707.50	23095	Mid	LTE Band 12	10	52	24.8	23.10	0.06	1	Right	Cheek	QPSK	25	12	0449M	1:1	0.114	1.479	0.169	
707.50	23095	Mid	LTE Band 12	10	52	25.8	24.03	0.15	0	Right	Tilt	QPSK	1	49	0449M	1:1	0.088	1.503	0.132	
707.50	23095	Mid	LTE Band 12	10	52	24.8	23.10	0.10	1	Right	Tilt	QPSK	25	12	0449M	1:1	0.063	1.479	0.093	
707.50	23095	Mid	LTE Band 12	10	52	25.8	24.03	-0.04	0	Left	Cheek	QPSK	1	49	0449M	1:1	0.156	1.503	0.234	A10
707.50	23095	Mid	LTE Band 12	10	52	24.8	23.10	0.05	1	Left	Cheek	QPSK	25	12	0449M	1:1	0.121	1.479	0.179	
707.50	23095	Mid	LTE Band 12	10	52	25.8	24.03	-0.05	0	Left	Tilt	QPSK	1	49	0449M	1:1	0.102	1.503	0.153	
707.50	23095	Mid	LTE Band 12	10	52	24.8	23.10	0.11	1	Left	Tilt	QPSK	25	12	0449M	1:1	0.083	1.479	0.123	
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	58	25.8	24.08	0.07	0	Right	Cheek	QPSK	1	0	0449M	1:1	0.203	1.486	0.302	A11
782.00	23230	Mid	LTE Band 13	10	58	24.8	23.04	0.05	1	Right	Cheek	QPSK	25	0	0449M	1:1	0.162	1.500	0.243	
782.00	23230	Mid	LTE Band 13	10	58	25.8	24.08	0.04	0	Right	Tilt	QPSK	1	0	0449M	1:1	0.081	1.486	0.120	
782.00	23230	Mid	LTE Band 13	10	58	24.8	23.04	0.18	1	Right	Tilt	QPSK	25	0	0449M	1:1	0.063	1.500	0.095	
782.00	23230	Mid	LTE Band 13	10	58	25.8	24.08	-0.02	0	Left	Cheek	QPSK	1	0	0449M	1:1	0.154	1.486	0.229	
782.00	23230	Mid	LTE Band 13	10	58	24.8	23.04	0.06	1	Left	Cheek	QPSK	25	0	0449M	1:1	0.126	1.500	0.189	
782.00	23230	Mid	LTE Band 13	10	58	25.8	24.08	0.14	0	Left	Tilt	QPSK	1	0	0449M	1:1	0.079	1.486	0.117	
782.00	23230	Mid	LTE Band 13	10	58	24.8	23.04	-0.05	1	Left	Tilt	QPSK	25	0	0449M	1:1	0.069	1.500	0.104	
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 11-12
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	1	25.8	24.06	0.00	0	Right	Cheek	QPSK	1	0	0449M	1:1	0.206	1.493	0.308	A12
793.00	23330	Mid	LTE Band 14	10	1	24.8	22.99	0.03	1	Right	Cheek	QPSK	25	0	0449M	1:1	0.157	1.517	0.238	
793.00	23330	Mid	LTE Band 14	10	1	25.8	24.06	0.02	0	Right	Tilt	QPSK	1	0	0449M	1:1	0.100	1.493	0.149	
793.00	23330	Mid	LTE Band 14	10	1	24.8	22.99	0.07	1	Right	Tilt	QPSK	25	0	0449M	1:1	0.078	1.517	0.118	
793.00	23330	Mid	LTE Band 14	10	1	25.8	24.06	-0.02	0	Left	Cheek	QPSK	1	0	0449M	1:1	0.142	1.493	0.212	
793.00	23330	Mid	LTE Band 14	10	1	24.8	22.99	0.08	1	Left	Cheek	QPSK	25	0	0449M	1:1	0.114	1.517	0.173	
793.00	23330	Mid	LTE Band 14	10	1	25.8	24.06	-0.04	0	Left	Tilt	QPSK	1	0	0449M	1:1	0.082	1.493	0.122	
793.00	23330	Mid	LTE Band 14	10	1	24.8	22.99	-0.17	1	Left	Tilt	QPSK	25	0	0449M	1:1	0.062	1.517	0.094	
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	1	25.8	24.34	-0.02	0	Right	Cheek	QPSK	1	0	0449M	1:1	0.175	1.400	0.245	A13
831.50	26865	Mid	LTE Band 26 (Cell)	15	1	24.8	23.34	0.01	1	Right	Cheek	QPSK	36	18	0449M	1:1	0.156	1.400	0.218	
831.50	26865	Mid	LTE Band 26 (Cell)	15	1	25.8	24.34	0.07	0	Right	Tilt	QPSK	1	0	0449M	1:1	0.089	1.400	0.125	
831.50	26865	Mid	LTE Band 26 (Cell)	15	1	24.8	23.34	0.05	1	Right	Tilt	QPSK	36	18	0449M	1:1	0.077	1.400	0.108	
831.50	26865	Mid	LTE Band 26 (Cell)	15	1	25.8	24.34	-0.18	0	Left	Cheek	QPSK	1	0	0449M	1:1	0.160	1.400	0.224	
831.50	26865	Mid	LTE Band 26 (Cell)	15	1	24.8	23.34	0.05	1	Left	Cheek	QPSK	36	18	0449M	1:1	0.129	1.400	0.181	
831.50	26865	Mid	LTE Band 26 (Cell)	15	1	25.8	24.34	0.06	0	Left	Tilt	QPSK	1	0	0449M	1:1	0.096	1.400	0.134	
831.50	26865	Mid	LTE Band 26 (Cell)	15	1	24.8	23.34	0.08	1	Left	Tilt	QPSK	36	18	0449M	1:1	0.077	1.400	0.108	
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	52	25.8	24.12	-0.01	0	Right	Cheek	QPSK	1	0	1010M	1:1	0.173	1.472	0.255	
1 CC Uplink	N/A	836.50	20525	Mid	LTE Band 5 (Cell)	10	52	24.8	23.12	-0.04	1	Right	Cheek	QPSK	25	0	1010M	1:1	0.123	1.472	0.181	
2 CC Uplink	PCC	836.50	20525	Mid	LTE Band 5 (Cell)	10	52	25.8	24.33	0.05	0	Right	Cheek	QPSK	1	0	1010M	1:1	0.185	1.403	0.260	A14
	SCC	829.30	20453	Mid	LTE Band 5 (Cell)	5									1	24						
1 CC Uplink	N/A	836.50	20525	Mid	LTE Band 5 (Cell)	10	52	25.8	24.12	-0.02	0	Right	Tilt	QPSK	1	0	1010M	1:1	0.111	1.472	0.163	
1 CC Uplink	N/A	836.50	20525	Mid	LTE Band 5 (Cell)	10	52	24.8	23.12	0.13	1	Right	Tilt	QPSK	25	0	1010M	1:1	0.084	1.472	0.124	
1 CC Uplink	N/A	836.50	20525	Mid	LTE Band 5 (Cell)	10	52	25.8	24.12	-0.01	0	Left	Cheek	QPSK	1	0	1010M	1:1	0.161	1.472	0.237	
1 CC Uplink	N/A	836.50	20525	Mid	LTE Band 5 (Cell)	10	52	24.8	23.12	0.00	1	Left	Cheek	QPSK	25	0	1010M	1:1	0.136	1.472	0.200	
1 CC Uplink	N/A	836.50	20525	Mid	LTE Band 5 (Cell)	10	52	25.8	24.12	-0.04	0	Left	Tilt	QPSK	1	0	1010M	1:1	0.105	1.472	0.155	
1 CC Uplink	N/A	836.50	20525	Mid	LTE Band 5 (Cell)	10	52	24.8	23.12	0.04	1	Left	Tilt	QPSK	25	0	1010M	1:1	0.088	1.472	0.130	
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 11-15
LTE Band 66 (AWS) 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) (W/kg)	Scaling Factor	Reported SAR (1g) (W/kg)	Plot #
		MHz	Ch.																			
1 CC Uplink	N/A	1770.00	132572	High	LTE Band 66 (AWS)	20	26	24.5	23.70	-0.13	0	Right	Cheek	QPSK	1	0	1010M	1:1	0.091	1.202	0.109	
1 CC Uplink	N/A	1770.00	132572	High	LTE Band 66 (AWS)	20	26	23.5	22.77	0.10	1	Right	Cheek	QPSK	50	25	1010M	1:1	0.075	1.183	0.089	
1 CC Uplink	N/A	1770.00	132572	High	LTE Band 66 (AWS)	20	26	24.5	23.70	0.12	0	Right	Tilt	QPSK	1	0	1010M	1:1	0.050	1.202	0.060	
1 CC Uplink	N/A	1770.00	132572	High	LTE Band 66 (AWS)	20	26	23.5	22.77	0.17	1	Right	Tilt	QPSK	50	25	1010M	1:1	0.043	1.183	0.051	
1 CC Uplink	N/A	1770.00	132572	High	LTE Band 66 (AWS)	20	26	24.5	23.70	0.14	0	Left	Cheek	QPSK	1	0	1010M	1:1	0.178	1.202	0.214	
1 CC Uplink	N/A	1775.00	132622	High	LTE Band 66 (AWS)	10	26	24.5	23.21	0.12	0	Left	Cheek	QPSK	1	0	1010M	1:1	0.155	1.346	0.209	
1 CC Uplink	N/A	1770.00	132572	High	LTE Band 66 (AWS)	20	26	23.5	22.77	0.08	1	Left	Cheek	QPSK	50	25	1010M	1:1	0.144	1.183	0.170	
CA_66C 2 CC Uplink	PCC	1770.00	132572	High	LTE Band 66 (AWS)	20	26	24.5	24.10	0.08	0	Left	Cheek	QPSK	1	0	1010M	1:1	0.198	1.096	0.217	A15
	SCC	1750.20	132374	High	LTE Band 66 (AWS)	20									1	99						
CA_66B 2 CC Uplink	PCC	1775.00	132622	High	LTE Band 66 (AWS)	10	26	24.5	23.60	0.00	0	Left	Cheek	QPSK	1	0	1010M	1:1	0.177	1.230	0.218	
	SCC	1765.10	132523	High	LTE Band 66 (AWS)	10									1	49						
1 CC Uplink	N/A	1770.00	132572	High	LTE Band 66 (AWS)	20	26	24.5	23.70	-0.20	0	Left	Tilt	QPSK	1	0	1010M	1:1	0.036	1.202	0.043	
1 CC Uplink	N/A	1770.00	132572	High	LTE Band 66 (AWS)	20	26	23.5	22.77	-0.13	1	Left	Tilt	QPSK	50	25	1010M	1:1	0.027	1.183	0.032	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population															Head 1.6 W/kg (mW/g) averaged over 1 gram							

Table 11-16
LTE Band 25 (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) (W/kg)	Scaling Factor	Reported SAR (1g) (W/kg)	Plot #
MHz	Ch.																			
1860.00	26140	Low	LTE Band 25 (PCS)	20	55	24.0	23.27	0.14	0	Right	Cheek	QPSK	1	99	1077M	1:1	0.125	1.183	0.148	
1860.00	26140	Low	LTE Band 25 (PCS)	20	55	23.0	22.40	0.06	1	Right	Cheek	QPSK	50	25	1077M	1:1	0.108	1.148	0.124	
1860.00	26140	Low	LTE Band 25 (PCS)	20	55	24.0	23.27	0.02	0	Right	Tilt	QPSK	1	99	1077M	1:1	0.079	1.183	0.093	
1860.00	26140	Low	LTE Band 25 (PCS)	20	55	23.0	22.40	0.08	1	Right	Tilt	QPSK	50	25	1077M	1:1	0.078	1.148	0.090	
1860.00	26140	Low	LTE Band 25 (PCS)	20	55	24.0	23.27	-0.10	0	Left	Cheek	QPSK	1	99	1077M	1:1	0.248	1.183	0.293	A16
1860.00	26140	Low	LTE Band 25 (PCS)	20	55	23.0	22.40	0.10	1	Left	Cheek	QPSK	50	25	1077M	1:1	0.176	1.148	0.202	
1860.00	26140	Low	LTE Band 25 (PCS)	20	55	24.0	23.27	-0.06	0	Left	Tilt	QPSK	1	99	1077M	1:1	0.088	1.183	0.104	
1860.00	26140	Low	LTE Band 25 (PCS)	20	55	23.0	22.40	-0.18	1	Left	Tilt	QPSK	50	25	1077M	1:1	0.085	1.148	0.098	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population													Head 1.6 W/kg (mW/g) averaged over 1 gram							

Table 11-17
LTE Band 2 (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) (W/kg)	Scaling Factor	Reported SAR (1g) (W/kg)	Plot #
MHz	Ch.																			
1860.00	18700	Low	LTE Band 2 (PCS)	20	55	24.0	23.21	0.18	0	Right	Cheek	QPSK	1	99	1077M	1:1	0.137	1.199	0.164	
1860.00	18700	Low	LTE Band 2 (PCS)	20	55	23.0	22.37	-0.01	1	Right	Cheek	QPSK	50	50	1077M	1:1	0.106	1.156	0.123	
1860.00	18700	Low	LTE Band 2 (PCS)	20	55	24.0	23.21	0.07	0	Right	Tilt	QPSK	1	99	1077M	1:1	0.107	1.199	0.128	
1860.00	18700	Low	LTE Band 2 (PCS)	20	55	23.0	22.37	0.03	1	Right	Tilt	QPSK	50	50	1077M	1:1	0.094	1.156	0.109	
1860.00	18700	Low	LTE Band 2 (PCS)	20	55	24.0	23.21	0.04	0	Left	Cheek	QPSK	1	99	1077M	1:1	0.258	1.199	0.309	A17
1860.00	18700	Low	LTE Band 2 (PCS)	20	55	23.0	22.37	0.04	1	Left	Cheek	QPSK	50	50	1077M	1:1	0.183	1.156	0.212	
1860.00	18700	Low	LTE Band 2 (PCS)	20	55	24.0	23.21	-0.05	0	Left	Tilt	QPSK	1	99	1077M	1:1	0.100	1.199	0.120	
1860.00	18700	Low	LTE Band 2 (PCS)	20	55	23.0	22.37	0.13	1	Left	Tilt	QPSK	50	50	1077M	1:1	0.069	1.156	0.080	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population													Head 1.6 W/kg (mW/g) averaged over 1 gram							

Table 11-18
LTE Band 30 Head SAR

MEASUREMENT RESULTS																			
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Side	Test Position	Modulation	RB Size	RB Offset	Device Serial Number	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.															(W/kg)		(W/kg)	
2310.00	27710	Mid	LTE Band 30	10	24.5	23.59	0.12	0	Right	Cheek	QPSK	1	0	0449M	1:1	0.094	1.233	0.116	A18
2310.00	27710	Mid	LTE Band 30	10	23.5	22.72	0.12	1	Right	Cheek	QPSK	25	12	0449M	1:1	0.071	1.197	0.085	
2310.00	27710	Mid	LTE Band 30	10	24.5	23.59	0.15	0	Right	Tilt	QPSK	1	0	0449M	1:1	0.077	1.233	0.095	
2310.00	27710	Mid	LTE Band 30	10	23.5	22.72	0.13	1	Right	Tilt	QPSK	25	12	0449M	1:1	0.059	1.197	0.071	
2310.00	27710	Mid	LTE Band 30	10	24.5	23.59	0.19	0	Left	Cheek	QPSK	1	0	0449M	1:1	0.093	1.233	0.115	
2310.00	27710	Mid	LTE Band 30	10	23.5	22.72	0.19	1	Left	Cheek	QPSK	25	12	0449M	1:1	0.065	1.197	0.078	
2310.00	27710	Mid	LTE Band 30	10	24.5	23.59	0.10	0	Left	Tilt	QPSK	1	0	0449M	1:1	0.078	1.233	0.096	
2310.00	27710	Mid	LTE Band 30	10	23.5	22.72	0.12	1	Left	Tilt	QPSK	25	12	0449M	1:1	0.059	1.197	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 11-19
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	23.58	0.19	0	Right	Cheek	QPSK	1	99	1014M	1:1	0.090	1.102	0.099	
2510.00	20850	Low	LTE Band 7	20	23.0	22.74	0.11	1	Right	Cheek	QPSK	50	25	1014M	1:1	0.070	1.062	0.074	
2510.00	20850	Low	LTE Band 7	20	24.0	23.58	0.13	0	Right	Tilt	QPSK	1	99	1014M	1:1	0.055	1.102	0.061	
2510.00	20850	Low	LTE Band 7	20	23.0	22.74	0.14	1	Right	Tilt	QPSK	50	25	1014M	1:1	0.037	1.062	0.039	
2510.00	20850	Low	LTE Band 7	20	24.0	23.58	-0.08	0	Left	Cheek	QPSK	1	99	1014M	1:1	0.122	1.102	0.134	A19
2510.00	20850	Low	LTE Band 7	20	23.0	22.74	0.12	1	Left	Cheek	QPSK	50	25	1014M	1:1	0.099	1.062	0.105	
2510.00	20850	Low	LTE Band 7	20	24.0	23.58	0.21	0	Left	Tilt	QPSK	1	99	1014M	1:1	0.018	1.102	0.020	
2510.00	20850	Low	LTE Band 7	20	23.0	22.74	0.18	1	Left	Tilt	QPSK	50	25	1014M	1:1	0.012	1.062	0.013	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																Head 1.6 W/kg (mW/g) averaged over 1 gram			

Table 11-20
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	3690.00	56640	High	LTE Band 48	20	18.5	17.70	-0.03	0	Right	Cheek	QPSK	1	50	4935M	1:1.58	0.497	1.202	0.597	
1 CC Uplink	N/A	3560.00	55340	Low	LTE Band 48	20	18.5	17.45	0.06	0	Right	Cheek	QPSK	50	25	4935M	1:1.58	0.286	1.274	0.364	
1 CC Uplink	N/A	3603.30	55773	Low-Mid	LTE Band 48	20	18.5	17.64	0.04	0	Right	Cheek	QPSK	50	25	4935M	1:1.58	0.330	1.219	0.402	
1 CC Uplink	N/A	3646.70	56207	Mid-High	LTE Band 48	20	18.5	17.15	-0.05	0	Right	Cheek	QPSK	50	25	4935M	1:1.58	0.498	1.365	0.680	
1 CC Uplink	N/A	3690.00	56640	High	LTE Band 48	20	18.5	17.69	0.03	0	Right	Cheek	QPSK	50	25	4935M	1:1.58	0.553	1.205	0.666	
1 CC Uplink	N/A	3560.00	55340	Low	LTE Band 48	20	18.5	17.55	-0.05	0	Right	Cheek	QPSK	100	0	4935M	1:1.58	0.274	1.245	0.341	
1 CC Uplink	N/A	3560.00	55340	Low	LTE Band 48	20	18.5	17.51	0.00	0	Right	Tilt	QPSK	1	50	4935M	1:1.58	0.419	1.256	0.526	
1 CC Uplink	N/A	3603.30	55773	Low-Mid	LTE Band 48	20	18.5	17.57	0.04	0	Right	Tilt	QPSK	1	50	4935M	1:1.58	0.352	1.239	0.436	
1 CC Uplink	N/A	3646.70	56207	Mid-High	LTE Band 48	20	18.5	17.16	-0.02	0	Right	Tilt	QPSK	1	50	4935M	1:1.58	0.538	1.361	0.732	
1 CC Uplink	N/A	3690.00	56640	High	LTE Band 48	20	18.5	17.70	-0.07	0	Right	Tilt	QPSK	1	50	4935M	1:1.58	0.603	1.202	0.725	
1 CC Uplink	N/A	3560.00	55340	Low	LTE Band 48	20	18.5	17.45	-0.03	0	Right	Tilt	QPSK	50	25	4935M	1:1.58	0.415	1.274	0.529	
1 CC Uplink	N/A	3603.30	55773	Low-Mid	LTE Band 48	20	18.5	17.64	0.02	0	Right	Tilt	QPSK	50	25	4935M	1:1.58	0.383	1.219	0.467	
1 CC Uplink	N/A	3646.70	56207	Mid-High	LTE Band 48	20	18.5	17.15	-0.05	0	Right	Tilt	QPSK	50	25	4935M	1:1.58	0.559	1.365	0.763	
1 CC Uplink	N/A	3690.00	56640	High	LTE Band 48	20	18.5	17.62	0.03	0	Right	Tilt	QPSK	50	0	4935M	1:1.58	0.599	1.225	0.734	
1 CC Uplink	N/A	3690.00	56640	High	LTE Band 48	20	18.5	17.69	0.06	0	Right	Tilt	QPSK	50	25	4935M	1:1.58	0.673	1.205	**0.811**	
1 CC Uplink	N/A	3560.00	55340	Low	LTE Band 48	20	18.5	17.55	0.02	0	Right	Tilt	QPSK	100	0	4935M	1:1.58	0.399	1.245	0.497	
2 CC Uplink	PCC	3690.00	56640	High	LTE Band 48	20	18.5	18.21	0.06	0	Right	Tilt	QPSK	50	0	4935M	1:1.58	0.674	1.069	0.721	A20
	SCC	3670.20	56442	High	LTE Band 48	20								50	50						
1 CC Uplink	N/A	3690.00	56640	High	LTE Band 48	20	18.5	17.70	0.18	0	Left	Cheek	QPSK	1	50	4935M	1:1.58	0.154	1.202	0.185	
1 CC Uplink	N/A	3690.00	56640	High	LTE Band 48	20	18.5	17.69	0.05	0	Left	Cheek	QPSK	50	25	4935M	1:1.58	0.155	1.205	0.187	
1 CC Uplink	N/A	3690.00	56640	High	LTE Band 48	20	18.5	17.70	-0.17	0	Left	Tilt	QPSK	1	50	4935M	1:1.58	0.213	1.202	0.256	
1 CC Uplink	N/A	3690.00	56640	High	LTE Band 48	20	18.5	17.69	0.09	0	Left	Tilt	QPSK	50	25	4935M	1:1.58	0.206	1.205	0.248	

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
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	24.32	0.17	0	Right	Cheek	QPSK	1	0	1018M	1:1.58	0.075	1.169	0.088	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	24.0	23.50	0.14	1	Right	Cheek	QPSK	50	25	1018M	1:1.58	0.054	1.122	0.061	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	25.0	24.32	0.17	0	Right	Tilt	QPSK	1	0	1018M	1:1.58	0.031	1.169	0.036	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	24.0	23.50	0.18	1	Right	Tilt	QPSK	50	25	1018M	1:1.58	0.024	1.122	0.027	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	25.0	24.32	0.00	0	Left	Cheek	QPSK	1	0	1018M	1:1.58	0.096	1.169	0.112	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	24.0	23.50	0.18	1	Left	Cheek	QPSK	50	25	1018M	1:1.58	0.086	1.122	0.096	
1 CC Uplink - Power Class 2	N/A	2593.00	40620	Mid	LTE Band 41	20	28.0	26.88	0.00	0	Left	Cheek	QPSK	1	0	1018M	1:2.31	0.121	1.294	0.157	
2 CC Uplink - Power Class 3	PCC	2593.00	40620	Mid	LTE Band 41	20	25.0	24.73	0.18	0	Left	Cheek	QPSK	1	0	1018M	1:1.58	0.110	1.064	0.117	
	SCC	2573.20	40422	Mid	LTE Band 41	20								1	99						
2 CC Uplink - Power Class 2	PCC	2593.00	40620	Mid	LTE Band 41	20	28.0	27.66	0.17	0	Left	Cheek	QPSK	1	0	1018M	1:2.31	0.145	1.081	0.157	A21
	SCC	2573.20	40422	Mid	LTE Band 41	20								1	99						
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	25.0	24.32	0.07	0	Left	Tilt	QPSK	1	0	1018M	1:1.58	0.020	1.169	0.023	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	24.0	23.50	0.19	1	Left	Tilt	QPSK	50	25	1018M	1:1.58	0.014	1.122	0.016	

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

Table 11-22
NR Band 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	14	25.8	24.27	0.12	0	Right	Cheek	DFT-S-OFDM QPSK	1	53	1021M	1:1	0.124	1.422	0.176	
680.50	136100	Mid	NR Band n71	20	14	25.8	24.32	0.03	0	Right	Cheek	DFT-S-OFDM QPSK	50	28	1021M	1:1	0.129	1.406	0.181	
680.50	136100	Mid	NR Band n71	20	14	25.8	24.27	-0.11	0	Right	Tilt	DFT-S-OFDM QPSK	1	53	1021M	1:1	0.052	1.422	0.074	
680.50	136100	Mid	NR Band n71	20	14	25.8	24.32	0.01	0	Right	Tilt	DFT-S-OFDM QPSK	50	28	1021M	1:1	0.052	1.406	0.073	
680.50	136100	Mid	NR Band n71	20	14	25.8	24.27	0.19	0	Left	Cheek	DFT-S-OFDM QPSK	1	53	1021M	1:1	0.129	1.422	0.183	
680.50	136100	Mid	NR Band n71	20	14	25.8	24.32	-0.03	0	Left	Cheek	DFT-S-OFDM QPSK	50	28	1021M	1:1	0.132	1.406	0.186	A22
680.50	136100	Mid	NR Band n71	20	14	24.3	22.15	0.11	1.5	Left	Cheek	CP-OFDM QPSK	1	1	1021M	1:1	0.089	1.641	0.146	
680.50	136100	Mid	NR Band n71	20	14	25.8	24.27	0.17	0	Left	Tilt	DFT-S-OFDM QPSK	1	53	1021M	1:1	0.054	1.422	0.077	
680.50	136100	Mid	NR Band n71	20	14	25.8	24.32	0.14	0	Left	Tilt	DFT-S-OFDM QPSK	50	28	1021M	1:1	0.056	1.406	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 11-23
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	52	25.8	24.53	0.12	0	Right	Cheek	DFT-S-OFDM QPSK	1	1	1021M	1:1	0.173	1.340	0.232	
836.50	167300	Mid	NR Band n5 (Cell)	20	52	25.8	24.35	0.04	0	Right	Cheek	DFT-S-OFDM QPSK	50	28	1021M	1:1	0.179	1.396	0.250	A23
836.50	167300	Mid	NR Band n5 (Cell)	20	52	24.3	23.01	0.13	1.5	Right	Cheek	CP-OFDM QPSK	1	1	1021M	1:1	0.115	1.346	0.155	
836.50	167300	Mid	NR Band n5 (Cell)	20	52	25.8	24.53	0.03	0	Right	Tilt	DFT-S-OFDM QPSK	1	1	1021M	1:1	0.083	1.340	0.111	
836.50	167300	Mid	NR Band n5 (Cell)	20	52	25.8	24.35	0.00	0	Right	Tilt	DFT-S-OFDM QPSK	50	28	1021M	1:1	0.085	1.396	0.119	
836.50	167300	Mid	NR Band n5 (Cell)	20	52	25.8	24.53	-0.02	0	Left	Cheek	DFT-S-OFDM QPSK	1	1	1021M	1:1	0.141	1.340	0.189	
836.50	167300	Mid	NR Band n5 (Cell)	20	52	25.8	24.35	0.05	0	Left	Cheek	DFT-S-OFDM QPSK	50	28	1021M	1:1	0.144	1.396	0.201	
836.50	167300	Mid	NR Band n5 (Cell)	20	52	25.8	24.53	-0.05	0	Left	Tilt	DFT-S-OFDM QPSK	1	1	1021M	1:1	0.084	1.340	0.113	
836.50	167300	Mid	NR Band n5 (Cell)	20	52	25.8	24.35	0.10	0	Left	Tilt	DFT-S-OFDM QPSK	50	28	1021M	1:1	0.081	1.396	0.113	

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 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	26	24.5	24.35	0.03	0	Right	Cheek	DFT-S-OFDM QPSK	1	53	1005M	1:1	0.098	1.035	0.101	
1745.00	349000	Mid	NR Band n66 (AWS)	20	26	24.5	24.34	0.11	0	Right	Cheek	DFT-S-OFDM QPSK	50	28	1005M	1:1	0.099	1.038	0.103	
1745.00	349000	Mid	NR Band n66 (AWS)	20	26	24.5	24.35	-0.07	0	Right	Tilt	DFT-S-OFDM QPSK	1	53	1005M	1:1	0.076	1.035	0.079	
1745.00	349000	Mid	NR Band n66 (AWS)	20	26	24.5	24.34	-0.08	0	Right	Tilt	DFT-S-OFDM QPSK	50	28	1005M	1:1	0.075	1.038	0.078	
1745.00	349000	Mid	NR Band n66 (AWS)	20	26	24.5	24.35	-0.06	0	Left	Cheek	DFT-S-OFDM QPSK	1	53	1005M	1:1	0.234	1.035	0.242	A24
1745.00	349000	Mid	NR Band n66 (AWS)	20	26	24.5	24.34	0.11	0	Left	Cheek	DFT-S-OFDM QPSK	50	28	1005M	1:1	0.208	1.038	0.216	
1745.00	349000	Mid	NR Band n66 (AWS)	20	26	23.0	22.40	0.12	1.5	Left	Cheek	CP-OFDM QPSK	1	1	1005M	1:1	0.119	1.148	0.137	
1745.00	349000	Mid	NR Band n66 (AWS)	20	26	24.5	24.35	0.12	0	Left	Tilt	DFT-S-OFDM QPSK	1	53	1005M	1:1	0.029	1.035	0.030	
1745.00	349000	Mid	NR Band n66 (AWS)	20	26	24.5	24.34	0.19	0	Left	Tilt	DFT-S-OFDM QPSK	50	28	1005M	1:1	0.033	1.038	0.034	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population										Head 1.6 W/kg (mW/g) averaged over 1 gram											

Table 11-25
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	55	24.0	23.95	0.18	0	Right	Cheek	DFT-S-OFDM QPSK	1	104	1005M	1:1	0.116	1.012	0.117	
1880.00	376000	Mid	NR Band n2 (PCS)	20	55	24.0	23.95	0.12	0	Right	Cheek	DFT-S-OFDM QPSK	50	28	1005M	1:1	0.109	1.012	0.110	
1880.00	376000	Mid	NR Band n2 (PCS)	20	55	24.0	23.95	0.08	0	Right	Tilt	DFT-S-OFDM QPSK	1	104	1005M	1:1	0.076	1.012	0.077	
1880.00	376000	Mid	NR Band n2 (PCS)	20	55	24.0	23.95	0.18	0	Right	Tilt	DFT-S-OFDM QPSK	50	28	1005M	1:1	0.077	1.012	0.078	
1880.00	376000	Mid	NR Band n2 (PCS)	20	55	24.0	23.95	-0.09	0	Left	Cheek	DFT-S-OFDM QPSK	1	104	1005M	1:1	0.204	1.012	0.206	
1880.00	376000	Mid	NR Band n2 (PCS)	20	55	24.0	23.95	0.04	0	Left	Cheek	DFT-S-OFDM QPSK	50	28	1005M	1:1	0.208	1.012	0.210	A25
1880.00	376000	Mid	NR Band n2 (PCS)	20	55	22.5	22.47	0.05	1.5	Left	Cheek	CP-OFDM QPSK	1	1	1005M	1:1	0.147	1.007	0.148	
1880.00	376000	Mid	NR Band n2 (PCS)	20	55	24.0	23.95	-0.06	0	Left	Tilt	DFT-S-OFDM QPSK	1	104	1005M	1:1	0.040	1.012	0.040	
1880.00	376000	Mid	NR Band n2 (PCS)	20	55	24.0	23.95	0.19	0	Left	Tilt	DFT-S-OFDM QPSK	50	28	1005M	1:1	0.054	1.012	0.055	
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
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	24.28	-0.13	0	Right	Cheek	DFT-S-OFDM QPSK	1	137	1017M	1:4	0.772	1.180	0.911	
2592.99	518598	Mid	NR Band n41	100	25.0	24.16	0.08	0	Right	Cheek	DFT-S-OFDM QPSK	135	69	1017M	1:4	0.756	1.213	0.917	
2592.99	518598	Mid	NR Band n41	100	24.0	22.60	-0.01	1	Right	Cheek	DFT-S-OFDM QPSK	270	0	1017M	1:4	0.587	1.380	0.810	
2592.99	518598	Mid	NR Band n41	100	25.0	24.28	0.13	0	Right	Tilt	DFT-S-OFDM QPSK	1	137	1017M	1:4	0.896	1.180	1.057	A26
2592.99	518598	Mid	NR Band n41	100	25.0	24.16	0.08	0	Right	Tilt	DFT-S-OFDM QPSK	135	69	1017M	1:4	0.878	1.213	**1.065**	
2592.99	518598	Mid	NR Band n41	100	23.5	23.00	0.20	1.5	Right	Tilt	CP-OFDM QPSK	1	1	1017M	1:4	0.454	1.122	0.509	
2592.99	518598	Mid	NR Band n41	100	24.0	22.60	-0.01	1	Right	Tilt	DFT-S-OFDM QPSK	270	0	1017M	1:4	0.639	1.380	0.882	
2592.99	518598	Mid	NR Band n41	100	25.0	24.28	-0.12	0	Left	Cheek	DFT-S-OFDM QPSK	1	137	1017M	1:4	0.546	1.180	0.644	
2592.99	518598	Mid	NR Band n41	100	25.0	24.16	-0.17	0	Left	Cheek	DFT-S-OFDM QPSK	135	69	1017M	1:4	0.531	1.213	0.644	
2592.99	518598	Mid	NR Band n41	100	24.0	22.60	-0.03	1	Left	Cheek	DFT-S-OFDM QPSK	270	0	1017M	1:4	0.412	1.380	0.569	
2592.99	518598	Mid	NR Band n41	100	25.0	24.28	0.00	0	Left	Tilt	DFT-S-OFDM QPSK	1	137	1017M	1:4	0.674	1.180	0.795	
2592.99	518598	Mid	NR Band n41	100	25.0	24.16	-0.10	0	Left	Tilt	DFT-S-OFDM QPSK	135	69	1017M	1:4	0.657	1.213	0.797	
2592.99	518598	Mid	NR Band n41	100	24.0	22.60	0.02	1	Left	Tilt	DFT-S-OFDM QPSK	270	0	1017M	1:4	0.573	1.380	0.791	
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 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)	
2412	1	802.11b	DSSS	22	17.0	16.88	-0.12	Right	Cheek	1	1652M	1	100.0	0.696	0.371	1.028	1.000	0.381	
2412	1	802.11b	DSSS	22	17.0	16.88	-0.02	Right	Tilt	1	1652M	1	100.0	0.798	0.458	1.028	1.000	0.471	
2412	1	802.11b	DSSS	22	17.0	16.88	-0.12	Left	Cheek	1	1652M	1	100.0	0.727	-	1.028	1.000	-	
2412	1	802.11b	DSSS	22	17.0	16.88	0.10	Left	Tilt	1	1652M	1	100.0	0.959	0.618	1.028	1.000	0.635	
2437	6	802.11b	DSSS	22	17.0	16.17	0.14	Left	Tilt	1	1652M	1	100.0	0.738	0.627	1.211	1.000	**0.759**	
2462	11	802.11b	DSSS	22	17.0	16.69	0.15	Left	Tilt	1	1652M	1	100.0	0.830	0.709	1.074	1.000	**0.761**	A27
2437	6	802.11b	DSSS	22	17.0	16.51	0.18	Right	Cheek	2	1652M	1	100.0	0.046	0.029	1.119	1.000	0.032	
2437	6	802.11b	DSSS	22	17.0	16.51	0.15	Right	Tilt	2	1652M	1	100.0	0.019	-	1.119	1.000	-	
2437	6	802.11b	DSSS	22	17.0	16.51	0.12	Left	Cheek	2	1652M	1	100.0	0.011	-	1.119	1.000	-	
2437	6	802.11b	DSSS	22	17.0	16.51	0.17	Left	Tilt	2	1652M	1	100.0	0.017	-	1.119	1.000	-	
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 11-28
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	13.35	14.0	13.98	0.06	Right	Cheek	MIMO	1652M	13	99.3	0.374	0.228	1.161	1.007	0.267	
2462	11	802.11n	OFDM	20	14.0	13.35	14.0	13.98	0.19	Right	Tilt	MIMO	1652M	13	99.3	0.524	0.300	1.161	1.007	0.351	
2462	11	802.11n	OFDM	20	14.0	13.35	14.0	13.98	0.18	Left	Cheek	MIMO	1652M	13	99.3	0.570	0.340	1.161	1.007	0.398	
2462	11	802.11n	OFDM	20	14.0	13.35	14.0	13.98	0.10	Left	Tilt	MIMO	1652M	13	99.3	0.767	0.426	1.161	1.007	0.498	
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)	
5310	62	802.11n	OFDM	40	14.0	13.95	0.05	Right	Cheek	1	1652M	13.5	98.5	0.185	0.076	1.012	1.015	0.078	
5310	62	802.11n	OFDM	40	14.0	13.95	0.16	Right	Tilt	1	1652M	13.5	98.5	0.174	-	1.012	1.015	-	
5310	62	802.11n	OFDM	40	14.0	13.95	0.12	Left	Cheek	1	1652M	13.5	98.5	0.057	-	1.012	1.015	-	
5310	62	802.11n	OFDM	40	14.0	13.95	0.16	Left	Tilt	1	1652M	13.5	98.5	0.074	-	1.012	1.015	-	
5270	54	802.11n	OFDM	40	14.0	13.35	0.13	Right	Cheek	2	1652M	13.5	98.2	0.083	0.028	1.161	1.018	0.033	
5270	54	802.11n	OFDM	40	14.0	13.35	0.14	Right	Tilt	2	1652M	13.5	98.2	0.059	-	1.161	1.018	-	
5270	54	802.11n	OFDM	40	14.0	13.35	0.10	Left	Cheek	2	1652M	13.5	98.2	0.016	-	1.161	1.018	-	
5270	54	802.11n	OFDM	40	14.0	13.35	0.03	Left	Tilt	2	1652M	13.5	98.2	0.029	-	1.161	1.018	-	
5690	138	802.11ac	OFDM	80	14.0	13.48	0.18	Right	Cheek	1	1652M	29.3	96.0	0.161	0.065	1.127	1.042	0.076	
5690	138	802.11ac	OFDM	80	14.0	13.48	0.13	Right	Tilt	1	1652M	29.3	96.0	0.112	-	1.127	1.042	-	
5690	138	802.11ac	OFDM	80	14.0	13.48	0.15	Left	Cheek	1	1652M	29.3	96.0	0.044	-	1.127	1.042	-	
5690	138	802.11ac	OFDM	80	14.0	13.48	0.14	Left	Tilt	1	1652M	29.3	96.0	0.072	-	1.127	1.042	-	
5530	106	802.11ac	OFDM	80	14.0	13.88	-0.12	Right	Cheek	2	1652M	29.3	95.5	0.144	0.065	1.028	1.047	0.070	
5530	106	802.11ac	OFDM	80	14.0	13.88	0.05	Right	Tilt	2	1652M	29.3	95.5	0.116	-	1.028	1.047	-	
5530	106	802.11ac	OFDM	80	14.0	13.88	0.21	Left	Cheek	2	1652M	29.3	95.5	0.054	-	1.028	1.047	-	
5530	106	802.11ac	OFDM	80	14.0	13.88	0.17	Left	Tilt	2	1652M	29.3	95.5	0.072	-	1.028	1.047	-	
5775	155	802.11ac	OFDM	80	14.0	13.82	0.15	Right	Cheek	1	1652M	29.3	96.0	0.111	-	1.042	1.042	-	
5775	155	802.11ac	OFDM	80	14.0	13.82	0.11	Right	Tilt	1	1652M	29.3	96.0	0.114	0.044	1.042	1.042	0.048	
5775	155	802.11ac	OFDM	80	14.0	13.82	0.21	Left	Cheek	1	1652M	29.3	96.0	0.055	-	1.042	1.042	-	
5775	155	802.11ac	OFDM	80	14.0	13.82	0.07	Left	Tilt	1	1652M	29.3	96.0	0.062	-	1.042	1.042	-	
5775	155	802.11ac	OFDM	80	14.0	13.80	0.12	Right	Cheek	2	1652M	29.3	95.5	0.221	0.090	1.047	1.047	**0.099**	A28
5775	155	802.11ac	OFDM	80	14.0	13.80	0.10	Right	Tilt	2	1652M	29.3	95.5	0.163	-	1.047	1.047	-	
5775	155	802.11ac	OFDM	80	14.0	13.80	0.18	Left	Cheek	2	1652M	29.3	95.5	0.149	-	1.047	1.047	-	
5775	155	802.11ac	OFDM	80	14.0	13.80	0.03	Left	Tilt	2	1652M	29.3	95.5	0.159	-	1.047	1.047	-	

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 11-30
DSS Head SAR

MEASUREMENT RESULTS																
FREQUENCY		Mode	Service	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Side	Test Position	Device Serial Number	Data Rate (Mbps)	Duty Cycle (%)	SAR (1g)	Scaling Factor (Cond Power)	Scaling Factor (Duty Cycle)	Reported SAR (1g)	Plot #
MHz	Ch.											(W/kg)			(W/kg)	
2402.00	0	Bluetooth	FHSS	13.5	12.77	-0.17	Right	Cheek	1652M	1	77.6	0.124	1.183	1.289	0.189	
2402.00	0	Bluetooth	FHSS	13.5	12.77	-0.10	Right	Tilt	1652M	1	77.6	0.165	1.183	1.289	0.252	
2402.00	0	Bluetooth	FHSS	13.5	12.77	0.14	Left	Cheek	1652M	1	77.6	0.186	1.183	1.289	0.284	
2402.00	0	Bluetooth	FHSS	13.5	12.77	0.06	Left	Tilt	1652M	1	77.6	0.261	1.183	1.289	**0.398**	A29

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

11.2 Standalone Body-Worn SAR Data

Table 11-31
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	24.66	0.01	15 mm	1	1075M	1:1	back	0.315	1.300	0.410	A30
836.52	384	CDMA BC0 (§22H)	TDSO / SO32	25.8	25.32	0.03	15 mm	1	1075M	1:1	back	0.291	1.117	0.325	A32
836.60	190	GSM 850	GSM	33.7	32.85	0.00	15 mm	N/A	1075M	1:8.3	back	0.207	1.216	0.252	A34
836.60	4183	UMTS 850	RMC	25.5	24.74	-0.03	15 mm	52	1075M	1:1	back	0.303	1.191	0.361	A36
1712.40	1312	UMTS 1750	RMC	24.5	24.40	0.06	15 mm	4	1078M	1:1	back	0.691	1.023	0.707	
1732.40	1412	UMTS 1750	RMC	24.5	24.42	0.06	15 mm	4	1078M	1:1	back	0.790	1.019	0.805	
1752.60	1513	UMTS 1750	RMC	24.5	24.30	-0.01	15 mm	4	1078M	1:1	back	0.899	1.047	0.941	A38
1851.25	25	PCS CDMA	TDSO / SO32	24.5	23.85	-0.11	15 mm	55	1078M	1:1	back	0.802	1.161	0.931	
1880.00	600	PCS CDMA	TDSO / SO32	24.5	23.64	-0.03	15 mm	55	1078M	1:1	back	0.781	1.219	0.952	
1908.75	1175	PCS CDMA	TDSO / SO32	24.5	23.51	0.03	15 mm	55	1078M	1:1	back	0.821	1.256	**1.031**	A40
1850.20	512	GSM 1900	GSM	30.7	29.45	-0.01	15 mm	N/A	1078M	1:8.3	back	0.231	1.334	0.308	A42
1852.40	9262	UMTS 1900	RMC	24.5	23.42	0.01	15 mm	26	1078M	1:1	back	0.766	1.282	0.982	A44
1880.00	9400	UMTS 1900	RMC	24.5	23.38	-0.03	15 mm	26	1078M	1:1	back	0.678	1.294	0.877	
1907.60	9538	UMTS 1900	RMC	24.5	23.21	0.01	15 mm	26	1078M	1:1	back	0.673	1.346	0.906	
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 11-32
LTE Band 71/12/13/14/26 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	14	25.8	24.23	-0.03	0	0433M	QPSK	1	0	15 mm	back	1:1	0.197	1.435	0.283	A46
680.50	133297	Mid	LTE Band 71	20	14	24.8	23.24	-0.06	1	0433M	QPSK	50	0	15 mm	back	1:1	0.169	1.432	0.242	
707.50	23095	Mid	LTE Band 12	10	52	25.8	24.03	-0.02	0	0433M	QPSK	1	49	15 mm	back	1:1	0.245	1.503	0.368	A48
707.50	23095	Mid	LTE Band 12	10	52	24.8	23.10	0.04	1	0433M	QPSK	25	12	15 mm	back	1:1	0.209	1.479	0.309	
782.00	23230	Mid	LTE Band 13	10	52	25.8	24.08	-0.12	0	0433M	QPSK	1	0	15 mm	back	1:1	0.212	1.486	0.315	A50
782.00	23230	Mid	LTE Band 13	10	52	24.8	23.04	0.05	1	0433M	QPSK	25	0	15 mm	back	1:1	0.179	1.500	0.269	
793.00	23330	Mid	LTE Band 14	10	58	25.8	24.06	-0.03	0	0433M	QPSK	1	0	15 mm	back	1:1	0.280	1.493	0.418	A52
793.00	23330	Mid	LTE Band 14	10	58	24.8	22.99	-0.01	1	0433M	QPSK	25	0	15 mm	back	1:1	0.226	1.517	0.343	
831.50	26865	Mid	LTE Band 26 (Cell)	15	0	25.8	24.34	0.05	0	0433M	QPSK	1	0	15 mm	back	1:1	0.214	1.400	0.300	A54
831.50	26865	Mid	LTE Band 26 (Cell)	15	0	24.8	23.34	0.04	1	0433M	QPSK	36	18	15 mm	back	1:1	0.188	1.400	0.263	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																Body 1.6 W/kg (mW/g) averaged over 1 gram				

Table 11-33
LTE Band 5/66 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	836.50	20525	Mid	LTE Band 5 (Cell)	10	0	25.8	24.12	-0.01	0	1010M	QPSK	1	0	15 mm	back	1:1	0.195	1.472	0.287	
1 CC Uplink	N/A	836.50	20525	Mid	LTE Band 5 (Cell)	10	0	24.8	23.12	0.18	1	1010M	QPSK	25	0	15 mm	back	1:1	0.162	1.472	0.238	
2 CC Uplink	PCC	836.50	20525	Mid	LTE Band 5 (Cell)	10	0	25.8	24.33	0.05	0	1010M	QPSK	1	0	15 mm	back	1:1	0.207	1.403	0.290	A56
	SCC	829.30	20453	Mid	LTE Band 5 (Cell)	5									24	15 mm						
1 CC Uplink	N/A	1720.00	132072	Low	LTE Band 66 (AWS)	20	26	24.5	23.40	-0.06	0	1010M	QPSK	1	50	15 mm	back	1:1	0.497	1.288	0.640	
1 CC Uplink	N/A	1745.00	132322	Mid	LTE Band 66 (AWS)	20	26	24.5	23.49	0.01	0	1010M	QPSK	1	50	15 mm	back	1:1	0.605	1.262	0.764	
1 CC Uplink	N/A	1770.00	132572	High	LTE Band 66 (AWS)	20	26	24.5	23.70	-0.01	0	1010M	QPSK	1	0	15 mm	back	1:1	0.698	1.202	0.839	
1 CC Uplink	N/A	1775.00	132622	High	LTE Band 66 (AWS)	10	26	24.5	23.21	0.00	0	1010M	QPSK	1	0	15 mm	back	1:1	0.612	1.346	0.824	
1 CC Uplink	N/A	1770.00	132572	High	LTE Band 66 (AWS)	20	26	23.5	22.77	-0.02	1	1010M	QPSK	50	25	15 mm	back	1:1	0.528	1.183	0.625	
1 CC Uplink	N/A	1770.00	132572	High	LTE Band 66 (AWS)	20	26	23.5	22.69	0.01	1	1010M	QPSK	100	0	15 mm	back	1:1	0.555	1.205	0.669	
CA_66C 2 CC Uplink	PCC	1770.00	132572	High	LTE Band 66 (AWS)	20	26	24.5	24.10	-0.01	0	1010M	QPSK	1	0	15 mm	back	1:1	0.796	1.096	0.872	A58
	SCC	1750.20	132374	High	LTE Band 66 (AWS)	20									99	15 mm						
CA_66B 2 CC Uplink	PCC	1775.00	132622	High	LTE Band 66 (AWS)	10	26	24.5	23.60	0.00	0	1010M	QPSK	1	0	15 mm	back	1:1	0.696	1.230	0.856	
	SCC	1765.10	132523	High	LTE Band 66 (AWS)	10									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 11-34
LTE Band 2/25/30 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)	
1860.00	26140	Low	LTE Band 25 (PCS)	20	26	24.0	23.27	-0.05	0	1077M	QPSK	1	99	15 mm	back	1:1	0.753	1.183	0.891	A60
1882.50	26365	Mid	LTE Band 25 (PCS)	20	26	24.0	23.22	0.18	0	1077M	QPSK	1	0	15 mm	back	1:1	0.718	1.197	0.859	
1905.00	26590	High	LTE Band 25 (PCS)	20	26	24.0	23.00	0.07	0	1077M	QPSK	1	0	15 mm	back	1:1	0.684	1.259	0.861	
1860.00	26140	Low	LTE Band 25 (PCS)	20	26	23.0	22.40	0.09	1	1077M	QPSK	50	25	15 mm	back	1:1	0.599	1.148	0.688	
1860.00	26140	Low	LTE Band 25 (PCS)	20	26	23.0	22.19	0.02	1	1077M	QPSK	100	0	15 mm	back	1:1	0.591	1.205	0.712	
1860.00	18700	Low	LTE Band 2 (PCS)	20	55	24.0	23.21	-0.08	0	1077M	QPSK	1	99	15 mm	back	1:1	0.716	1.199	0.858	A62
1880.00	18900	Mid	LTE Band 2 (PCS)	20	55	24.0	23.18	0.15	0	1077M	QPSK	1	0	15 mm	back	1:1	0.712	1.208	0.860	
1900.00	19100	High	LTE Band 2 (PCS)	20	55	24.0	23.14	0.07	0	1077M	QPSK	1	0	15 mm	back	1:1	0.679	1.219	0.828	
1860.00	18700	Low	LTE Band 2 (PCS)	20	55	23.0	22.37	0.03	1	1077M	QPSK	50	50	15 mm	back	1:1	0.576	1.156	0.666	
1900.00	19100	High	LTE Band 2 (PCS)	20	55	23.0	22.20	0.19	1	1077M	QPSK	100	0	15 mm	back	1:1	0.516	1.202	0.620	
2310.00	27710	Mid	LTE Band 30	10	N/A	24.5	23.59	0.05	0	1014M	QPSK	1	0	15 mm	back	1:1	0.682	1.233	0.841	A64
2310.00	27710	Mid	LTE Band 30	10	N/A	23.5	22.72	0.06	1	1014M	QPSK	25	12	15 mm	back	1:1	0.551	1.197	0.660	
2310.00	27710	Mid	LTE Band 30	10	N/A	23.5	22.64	0.01	1	1014M	QPSK	50	0	15 mm	back	1:1	0.470	1.219	0.573	
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 11-35
LTE Band 7 Body-Worn 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	24.0	23.58	0.01	0	1014M	QPSK	1	99	15 mm	back	1:1	0.604	1.102	0.666	A66
2535.00	21100	Mid	LTE Band 7	20	24.0	23.53	-0.01	0	1014M	QPSK	1	0	15 mm	back	1:1	0.557	1.114	0.620	
2560.00	21350	High	LTE Band 7	20	24.0	23.50	0.03	0	1014M	QPSK	1	99	15 mm	back	1:1	0.556	1.122	0.624	
2510.00	20850	Low	LTE Band 7	20	23.0	22.74	-0.02	1	1014M	QPSK	50	25	15 mm	back	1:1	0.493	1.062	0.524	
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	3603.30	55773	Low-Mid	LTE Band 48	20	23.5	22.46	0.00	0	0384S	QPSK	1	0	15 mm	back	1:1.58	0.314	1.271	0.399	
1 CC Uplink	N/A	3603.30	55773	Low-Mid	LTE Band 48	20	23.5	22.62	0.05	0	0384S	QPSK	1	50	15 mm	back	1:1.58	0.319	1.225	0.391	
1 CC Uplink	N/A	3603.30	55773	Low-Mid	LTE Band 48	20	22.5	21.68	-0.01	1	0384S	QPSK	50	0	15 mm	back	1:1.58	0.264	1.208	0.319	
2 CC Uplink	PCC	3603.30	55773	Low-Mid	LTE Band 48	20	23.5	23.32	0.03	0	0384S	QPSK	1	0	15 mm	back	1:1.58	0.365	1.042	0.380	A68
	SCC	3583.50	55575	Low-Mid	LTE Band 48	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	24.32	0.01	0	1018M	QPSK	1	0	15 mm	back	1:1.58	0.321	1.169	0.375	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	24.0	23.50	0.10	1	1018M	QPSK	50	25	15 mm	back	1:1.58	0.266	1.122	0.298	
1 CC Uplink - Power Class 2	N/A	2593.00	40620	Mid	LTE Band 41	20	28.0	26.88	-0.05	0	1018M	QPSK	1	0	15 mm	back	1:2.31	0.423	1.294	0.547	
2 CC Uplink - Power Class 3	PCC	2593.00	40620	Mid	LTE Band 41	20	25.0	24.73	-0.06	0	1018M	QPSK	1	0	15 mm	back	1:1.58	0.366	1.064	0.389	
	SCC	2573.20	40422	Mid	LTE Band 41	20							1	99							
2 CC Uplink - Power Class 2	PCC	2593.00	40620	Mid	LTE Band 41	20	28.0	27.66	0.00	0	1018M	QPSK	1	0	15 mm	back	1:2.31	0.482	1.081	0.521	A70
	SCC	2573.20	40422	Mid	LTE Band 41	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 11-38
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	14	25.8	24.27	0.09	0	1021M	DFT-S-OFDM QPSK	1	53	15 mm	back	1:1	0.201	1.422	0.286	
680.50	136100	Mid	NR Band n71	20	14	25.8	24.32	-0.07	0	1021M	DFT-S-OFDM QPSK	50	28	15 mm	back	1:1	0.204	1.406	0.287	A72
680.50	136100	Mid	NR Band n71	20	14	24.3	22.15	0.07	1.5	1021M	CP-OFDM QPSK	1	1	15 mm	back	1:1	0.139	1.641	0.228	
836.50	167300	Mid	NR Band n5 (Cell)	20	0	25.8	24.53	-0.07	0	1021M	DFT-S-OFDM QPSK	1	1	15 mm	back	1:1	0.200	1.340	0.268	
836.50	167300	Mid	NR Band n5 (Cell)	20	0	25.8	24.35	0.03	0	1021M	DFT-S-OFDM QPSK	50	28	15 mm	back	1:1	0.200	1.396	0.279	A74
836.50	167300	Mid	NR Band n5 (Cell)	20	0	24.3	23.01	0.08	1.5	1021M	CP-OFDM QPSK	1	1	15 mm	back	1:1	0.142	1.346	0.191	
1745.00	349000	Mid	NR Band n66 (AWS)	20	26	24.5	24.35	-0.12	0	1005M	DFT-S-OFDM QPSK	1	53	15 mm	back	1:1	0.654	1.035	0.677	
1720.00	344000	Low	NR Band n66 (AWS)	20	26	24.5	23.70	-0.02	0	1005M	DFT-S-OFDM QPSK	50	28	15 mm	back	1:1	0.554	1.202	0.666	
1745.00	349000	Mid	NR Band n66 (AWS)	20	26	24.5	24.34	-0.19	0	1005M	DFT-S-OFDM QPSK	50	28	15 mm	back	1:1	0.685	1.038	0.711	A76
1770.00	354000	High	NR Band n66 (AWS)	20	26	24.5	23.40	0.00	0	1005M	DFT-S-OFDM QPSK	50	28	15 mm	back	1:1	0.569	1.288	0.733	
1770.00	354000	High	NR Band n66 (AWS)	20	26	23.0	21.80	0.08	1.5	1005M	CP-OFDM QPSK	1	1	15 mm	back	1:1	0.396	1.318	0.522	
1880.00	376000	Mid	NR Band n2 (PCS)	20	55	24.0	23.95	0.00	0	1005M	DFT-S-OFDM QPSK	1	104	15 mm	back	1:1	0.648	1.012	0.656	
1860.00	372000	Low	NR Band n2 (PCS)	20	55	24.0	22.86	0.02	0	1005M	DFT-S-OFDM QPSK	50	28	15 mm	back	1:1	0.594	1.300	0.772	
1860.00	372000	Low	NR Band n2 (PCS)	20	55	22.5	21.71	-0.05	1.5	1005M	CP-OFDM QPSK	1	1	15 mm	back	1:1	0.493	1.199	0.591	
1880.00	376000	Mid	NR Band n2 (PCS)	20	55	24.0	23.95	0.03	0	1005M	DFT-S-OFDM QPSK	50	28	15 mm	back	1:1	0.730	1.012	0.739	A78
1900.00	380000	High	NR Band n2 (PCS)	20	55	24.0	23.68	-0.03	0	1005M	DFT-S-OFDM QPSK	50	28	15 mm	back	1:1	0.684	1.076	0.736	
2592.99	518598	Mid	NR Band n41	100	N/A	25.0	24.28	0.07	0	1017M	DFT-S-OFDM QPSK	1	137	15 mm	back	1:4	0.082	1.180	0.097	
2592.99	518598	Mid	NR Band n41	100	N/A	25.0	24.16	0.15	0	1017M	DFT-S-OFDM QPSK	135	69	15 mm	back	1:4	0.099	1.213	0.120	A80
2592.99	518598	Mid	NR Band n41	100	N/A	23.5	23.00	0.20	1.5	1017M	CP-OFDM QPSK	1	1	15 mm	back	1:4	0.058	1.122	0.065	
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)	
2412	1	802.11b	DSSS	22	21.0	20.86	0.07	15 mm	1	1652M	1	back	100.0	0.203	0.139	1.033	1.000	**0.144**	A82
2462	11	802.11b	DSSS	22	21.0	20.97	0.20	15 mm	2	1652M	1	back	100.0	0.131	0.086	1.007	1.000	0.087	
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
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	16.5	16.47	0.06	15 mm	1	0385S	6	back	99.7	0.361	0.165	1.007	1.003	0.167	
5280	56	802.11a	OFDM	20	16.5	15.97	0.18	15 mm	2	0385S	6	back	99.3	0.183	0.081	1.130	1.007	0.092	
5600	120	802.11a	OFDM	20	16.5	15.94	0.17	15 mm	1	0385S	6	back	99.7	0.309	0.156	1.138	1.003	0.178	
5720	144	802.11a	OFDM	20	16.5	16.21	0.18	15 mm	2	0385S	6	back	99.3	0.490	0.210	1.069	1.007	0.226	
5785	157	802.11a	OFDM	20	16.5	16.07	0.18	15 mm	1	0385S	6	back	99.7	0.447	0.215	1.104	1.003	**0.238**	
5785	157	802.11a	OFDM	20	16.5	16.42	0.12	15 mm	2	0385S	6	back	99.3	0.511	0.225	1.019	1.007	0.231	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT **Spatial Peak** **Uncontrolled Exposure/General Population**												**Body** **1.6 W/kg (mW/g)** averaged over 1 gram						

Table 11-41
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)	
5280	56	802.11n	OFDM	20	16.5	16.47	16.5	16.00	0.17	15 mm	MIMO	0385S	13	back	99.3	0.433	0.198	1.122	1.007	0.224	
5500	100	802.11n	OFDM	20	15.5	14.97	15.5	15.20	0.11	15 mm	MIMO	0385S	13	back	99.3	0.504	0.213	1.130	1.007	0.242	
5785	157	802.11n	OFDM	20	14.5	14.38	14.5	13.92	0.07	15 mm	MIMO	0385S	13	back	99.3	0.600	0.280	1.143	1.007	0.322	A84
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: For channel 56 to achieve the 19.5 dBm maximum allowed MIMO power shown in the documentation, each antenna transmits at a maximum allowed power of 16.5 dBm. For channel 100 to achieve the 18.5 dBm maximum allowed MIMO power shown in the documentation, each antenna transmits at a maximum allowed power of 15.5 dBm. For channel 157 to achieve the 17.5 dBm maximum allowed MIMO power shown in the documentation, each antenna transmits at a maximum allowed power of 14.5 dBm.

Table 11-42
DSS Body-Worn SAR

MEASUREMENT RESULTS															
FREQUENCY		Mode	Service	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Spacing	Device Serial Number	Data Rate (Mbps)	Side	Duty Cycle (%)	SAR (1g)	Scaling Factor (Cond Power)	Scaling Factor (Duty Cycle)	Reported SAR (1g)	Plot #
MHz	Ch.											(W/kg)			(W/kg)	
2402	0	Bluetooth	FHSS	13.5	12.77	-0.08	15 mm	1050M	1	back	77.6	0.017	1.183	1.289	**0.026**	A86
ANSI / IEEE C95.1 1992 - SAFETY LIMIT **Spatial Peak** **Uncontrolled Exposure/General Population**												**Body** **1.6 W/kg (mW/g)** averaged over 1 gram				

11.3 Standalone Hotspot SAR Data

Table 11-43
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	24.66	0.03	10 mm	1	1075M	N/A	1:1	back	0.334	1.300	0.434	A31
820.10	564	CDMA BC10 (§90S)	EVDO Rev. 0	25.8	24.66	0.01	10 mm	1	1075M	N/A	1:1	front	0.263	1.300	0.342	
820.10	564	CDMA BC10 (§90S)	EVDO Rev. 0	25.8	24.66	0.07	10 mm	1	1075M	N/A	1:1	bottom	0.176	1.300	0.229	
820.10	564	CDMA BC10 (§90S)	EVDO Rev. 0	25.8	24.66	0.03	10 mm	1	1075M	N/A	1:1	right	0.295	1.300	0.384	
820.10	564	CDMA BC10 (§90S)	EVDO Rev. 0	25.8	24.66	-0.06	10 mm	1	1075M	N/A	1:1	left	0.166	1.300	0.216	
836.52	384	CDMA BC0 (§22H)	EVDO Rev. 0	25.8	25.29	0.01	10 mm	1	1075M	N/A	1:1	back	0.452	1.125	0.509	A33
836.52	384	CDMA BC0 (§22H)	EVDO Rev. 0	25.8	25.29	0.01	10 mm	1	1075M	N/A	1:1	front	0.293	1.125	0.330	
836.52	384	CDMA BC0 (§22H)	EVDO Rev. 0	25.8	25.29	0.03	10 mm	1	1075M	N/A	1:1	bottom	0.239	1.125	0.269	
836.52	384	CDMA BC0 (§22H)	EVDO Rev. 0	25.8	25.29	0.01	10 mm	1	1075M	N/A	1:1	right	0.350	1.125	0.394	
836.52	384	CDMA BC0 (§22H)	EVDO Rev. 0	25.8	25.29	0.05	10 mm	1	1075M	N/A	1:1	left	0.175	1.125	0.197	
836.60	190	GSM 850	GPRS	32.7	31.86	-0.04	10 mm	N/A	1075M	2	1:4.15	back	0.332	1.213	0.403	
836.60	190	GSM 850	GPRS	32.7	31.86	-0.12	10 mm	N/A	1075M	2	1:4.15	front	0.240	1.213	0.291	
836.60	190	GSM 850	GPRS	32.7	31.86	-0.07	10 mm	N/A	1075M	2	1:4.15	bottom	0.206	1.213	0.250	
836.60	190	GSM 850	GPRS	32.7	31.86	0.01	10 mm	N/A	1075M	2	1:4.15	right	0.358	1.213	0.434	A35
836.60	190	GSM 850	GPRS	32.7	31.86	-0.11	10 mm	N/A	1075M	2	1:4.15	left	0.176	1.213	0.213	
836.60	4183	UMTS 850	RMC	25.5	24.74	-0.01	10 mm	52	1075M	N/A	1:1	back	0.394	1.191	0.469	A37
836.60	4183	UMTS 850	RMC	25.5	24.74	0.13	10 mm	52	1075M	N/A	1:1	front	0.322	1.191	0.384	
836.60	4183	UMTS 850	RMC	25.5	24.74	-0.02	10 mm	52	1075M	N/A	1:1	bottom	0.235	1.191	0.280	
836.60	4183	UMTS 850	RMC	25.5	24.74	0.04	10 mm	52	1075M	N/A	1:1	right	0.392	1.191	0.467	
836.60	4183	UMTS 850	RMC	25.5	24.74	0.03	10 mm	52	1075M	N/A	1:1	left	0.202	1.191	0.241	
1732.40	1412	UMTS 1750	RMC	19.5	19.48	0.03	10 mm	4	1078M	N/A	1:1	back	0.497	1.005	0.499	
1732.40	1412	UMTS 1750	RMC	19.5	19.48	0.09	10 mm	4	1078M	N/A	1:1	front	0.476	1.005	0.478	
1712.40	1312	UMTS 1750	RMC	19.5	19.50	0.02	10 mm	4	1078M	N/A	1:1	bottom	0.945	1.000	0.945	A39
1732.40	1412	UMTS 1750	RMC	19.5	19.48	0.00	10 mm	4	1078M	N/A	1:1	bottom	0.824	1.005	0.828	
1752.60	1513	UMTS 1750	RMC	19.5	19.38	0.00	10 mm	4	1078M	N/A	1:1	bottom	0.898	1.028	0.923	
1732.40	1412	UMTS 1750	RMC	19.5	19.48	0.12	10 mm	4	1078M	N/A	1:1	right	0.068	1.005	0.068	
1732.40	1412	UMTS 1750	RMC	19.5	19.48	0.12	10 mm	4	1078M	N/A	1:1	left	0.082	1.005	0.082	
1712.40	1312	UMTS 1750	RMC	19.5	19.50	0.08	10 mm	4	1078M	N/A	1:1	bottom	0.934	1.000	0.934	
1880.00	600	PCS CDMA	EVDO Rev. 0	19.5	18.61	-0.01	10 mm	55	1075M	N/A	1:1	back	0.478	1.227	0.587	
1880.00	600	PCS CDMA	EVDO Rev. 0	19.5	18.61	-0.01	10 mm	55	1075M	N/A	1:1	front	0.407	1.227	0.499	
1851.25	25	PCS CDMA	EVDO Rev. 0	19.5	18.67	-0.01	10 mm	55	1075M	N/A	1:1	bottom	0.837	1.211	1.014	
1880.00	600	PCS CDMA	EVDO Rev. 0	19.5	18.61	-0.08	10 mm	55	1075M	N/A	1:1	bottom	0.841	1.227	1.032	
1908.75	1175	PCS CDMA	EVDO Rev. 0	19.5	18.63	0.01	10 mm	55	1075M	N/A	1:1	bottom	0.923	1.222	1.128	A41
1880.00	600	PCS CDMA	EVDO Rev. 0	19.5	18.61	0.00	10 mm	55	1075M	N/A	1:1	right	0.069	1.227	0.085	
1880.00	600	PCS CDMA	EVDO Rev. 0	19.5	18.61	-0.01	10 mm	55	1075M	N/A	1:1	left	0.056	1.227	0.069	
1880.00	661	GSM 1900	GPRS	23.5	23.50	-0.20	10 mm	N/A	1078M	4	1:2.076	back	0.417	1.000	0.417	
1880.00	661	GSM 1900	GPRS	23.5	23.50	-0.07	10 mm	N/A	1078M	4	1:2.076	front	0.441	1.000	0.441	
1850.20	512	GSM 1900	GPRS	23.5	23.31	-0.06	10 mm	N/A	1078M	4	1:2.076	bottom	0.797	1.045	0.833	
1880.00	661	GSM 1900	GPRS	23.5	23.50	-0.02	10 mm	N/A	1078M	4	1:2.076	bottom	0.885	1.000	0.885	
1909.80	810	GSM 1900	GPRS	23.5	23.18	-0.08	10 mm	N/A	1078M	4	1:2.076	bottom	0.907	1.076	0.976	A43
1880.00	661	GSM 1900	GPRS	23.5	23.50	0.06	10 mm	N/A	1078M	4	1:2.076	right	0.067	1.000	0.067	
1880.00	661	GSM 1900	GPRS	23.5	23.50	-0.09	10 mm	N/A	1078M	4	1:2.076	left	0.054	1.000	0.054	
1880.00	9400	UMTS 1900	RMC	19.5	19.28	-0.02	10 mm	26	1075M	N/A	1:1	back	0.533	1.052	0.561	
1880.00	9400	UMTS 1900	RMC	19.5	19.28	-0.04	10 mm	26	1075M	N/A	1:1	front	0.492	1.052	0.518	
1852.40	9262	UMTS 1900	RMC	19.5	19.40	0.01	10 mm	26	1075M	N/A	1:1	bottom	0.842	1.023	0.861	
1880.00	9400	UMTS 1900	RMC	19.5	19.28	-0.02	10 mm	26	1075M	N/A	1:1	bottom	0.935	1.052	0.984	
1907.60	9538	UMTS 1900	RMC	19.5	19.35	0.19	10 mm	26	1075M	N/A	1:1	bottom	1.190	1.035	1.232	A45
1880.00	9400	UMTS 1900	RMC	19.5	19.28	-0.13	10 mm	26	1075M	N/A	1:1	right	0.074	1.052	0.078	
1880.00	9400	UMTS 1900	RMC	19.5	19.28	0.02	10 mm	26	1075M	N/A	1:1	left	0.061	1.052	0.064	
1907.60	9538	UMTS 1900	RMC	19.5	19.35	-0.05	10 mm	26	1075M	N/A	1:1	bottom	1.080	1.035	1.118	
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 11-44
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	14	25.8	24.23	-0.16	0	0433M	QPSK	1	0	10 mm	back	1:1	0.262	1.435	0.376	A47
680.50	133297	Mid	LTE Band 71	20	14	24.8	23.24	-0.11	1	0433M	QPSK	50	0	10 mm	back	1:1	0.230	1.432	0.329	
680.50	133297	Mid	LTE Band 71	20	14	25.8	24.23	0.04	0	0433M	QPSK	1	0	10 mm	front	1:1	0.217	1.435	0.311	
680.50	133297	Mid	LTE Band 71	20	14	24.8	23.24	-0.01	1	0433M	QPSK	50	0	10 mm	front	1:1	0.169	1.432	0.242	
680.50	133297	Mid	LTE Band 71	20	14	25.8	24.23	0.01	0	0433M	QPSK	1	0	10 mm	bottom	1:1	0.105	1.435	0.151	
680.50	133297	Mid	LTE Band 71	20	14	24.8	23.24	0.00	1	0433M	QPSK	50	0	10 mm	bottom	1:1	0.099	1.432	0.142	
680.50	133297	Mid	LTE Band 71	20	14	25.8	24.23	-0.08	0	0433M	QPSK	1	0	10 mm	right	1:1	0.117	1.435	0.168	
680.50	133297	Mid	LTE Band 71	20	14	24.8	23.24	-0.02	1	0433M	QPSK	50	0	10 mm	right	1:1	0.103	1.432	0.147	
680.50	133297	Mid	LTE Band 71	20	14	25.8	24.23	0.09	0	0433M	QPSK	1	0	10 mm	left	1:1	0.116	1.435	0.166	
680.50	133297	Mid	LTE Band 71	20	14	24.8	23.24	0.00	1	0433M	QPSK	50	0	10 mm	left	1:1	0.100	1.432	0.143	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population														Body 1.6 W/kg (mW/g) averaged over 1 gram						

Table 11-45
LTE Band 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	52	25.8	24.03	-0.06	0	0433M	QPSK	1	49	10 mm	back	1:1	0.333	1.503	0.500	A49
707.50	23095	Mid	LTE Band 12	10	52	24.8	23.10	-0.05	1	0433M	QPSK	25	12	10 mm	back	1:1	0.280	1.479	0.414	
707.50	23095	Mid	LTE Band 12	10	52	25.8	24.03	-0.03	0	0433M	QPSK	1	49	10 mm	front	1:1	0.272	1.503	0.409	
707.50	23095	Mid	LTE Band 12	10	52	24.8	23.10	-0.02	1	0433M	QPSK	25	12	10 mm	front	1:1	0.225	1.479	0.333	
707.50	23095	Mid	LTE Band 12	10	52	25.8	24.03	-0.12	0	0433M	QPSK	1	49	10 mm	bottom	1:1	0.161	1.503	0.242	
707.50	23095	Mid	LTE Band 12	10	52	24.8	23.10	-0.04	1	0433M	QPSK	25	12	10 mm	bottom	1:1	0.125	1.479	0.185	
707.50	23095	Mid	LTE Band 12	10	52	25.8	24.03	-0.10	0	0433M	QPSK	1	49	10 mm	right	1:1	0.253	1.503	0.380	
707.50	23095	Mid	LTE Band 12	10	52	24.8	23.10	-0.12	1	0433M	QPSK	25	12	10 mm	right	1:1	0.208	1.479	0.308	
707.50	23095	Mid	LTE Band 12	10	52	25.8	24.03	0.05	0	0433M	QPSK	1	49	10 mm	left	1:1	0.186	1.503	0.280	
707.50	23095	Mid	LTE Band 12	10	52	24.8	23.10	0.03	1	0433M	QPSK	25	12	10 mm	left	1:1	0.154	1.479	0.228	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population														Body 1.6 W/kg (mW/g) averaged over 1 gram						

Table 11-46
LTE Band 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	52	25.8	24.08	-0.13	0	0433M	QPSK	1	0	10 mm	back	1:1	0.349	1.486	0.519	A51
782.00	23230	Mid	LTE Band 13	10	52	24.8	23.04	-0.11	1	0433M	QPSK	25	0	10 mm	back	1:1	0.284	1.500	0.426	
782.00	23230	Mid	LTE Band 13	10	52	25.8	24.08	0.06	0	0433M	QPSK	1	0	10 mm	front	1:1	0.278	1.486	0.413	
782.00	23230	Mid	LTE Band 13	10	52	24.8	23.04	0.05	1	0433M	QPSK	25	0	10 mm	front	1:1	0.225	1.500	0.338	
782.00	23230	Mid	LTE Band 13	10	52	25.8	24.08	0.02	0	0433M	QPSK	1	0	10 mm	bottom	1:1	0.161	1.486	0.239	
782.00	23230	Mid	LTE Band 13	10	52	24.8	23.04	0.04	1	0433M	QPSK	25	0	10 mm	bottom	1:1	0.128	1.500	0.192	
782.00	23230	Mid	LTE Band 13	10	52	25.8	24.08	-0.03	0	0433M	QPSK	1	0	10 mm	right	1:1	0.214	1.486	0.318	
782.00	23230	Mid	LTE Band 13	10	52	24.8	23.04	-0.01	1	0433M	QPSK	25	0	10 mm	right	1:1	0.178	1.500	0.267	
782.00	23230	Mid	LTE Band 13	10	52	25.8	24.08	0.02	0	0433M	QPSK	1	0	10 mm	left	1:1	0.189	1.486	0.281	
782.00	23230	Mid	LTE Band 13	10	52	24.8	23.04	0.04	1	0433M	QPSK	25	0	10 mm	left	1:1	0.146	1.500	0.219	
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 11-47
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	58	25.8	24.06	-0.12	0	0433M	QPSK	1	0	10 mm	back	1:1	0.392	1.493	0.585	A53
793.00	23330	Mid	LTE Band 14	10	58	24.8	22.99	-0.11	1	0433M	QPSK	25	0	10 mm	back	1:1	0.310	1.517	0.470	
793.00	23330	Mid	LTE Band 14	10	58	25.8	24.06	0.01	0	0433M	QPSK	1	0	10 mm	front	1:1	0.319	1.493	0.476	
793.00	23330	Mid	LTE Band 14	10	58	24.8	22.99	0.01	1	0433M	QPSK	25	0	10 mm	front	1:1	0.252	1.517	0.382	
793.00	23330	Mid	LTE Band 14	10	58	25.8	24.06	0.02	0	0433M	QPSK	1	0	10 mm	bottom	1:1	0.175	1.493	0.261	
793.00	23330	Mid	LTE Band 14	10	58	24.8	22.99	-0.01	1	0433M	QPSK	25	0	10 mm	bottom	1:1	0.134	1.517	0.203	
793.00	23330	Mid	LTE Band 14	10	58	25.8	24.06	-0.02	0	0433M	QPSK	1	0	10 mm	right	1:1	0.280	1.493	0.418	
793.00	23330	Mid	LTE Band 14	10	58	24.8	22.99	0.03	1	0433M	QPSK	25	0	10 mm	right	1:1	0.247	1.517	0.375	
793.00	23330	Mid	LTE Band 14	10	58	25.8	24.06	0.05	0	0433M	QPSK	1	0	10 mm	left	1:1	0.223	1.493	0.333	
793.00	23330	Mid	LTE Band 14	10	58	24.8	22.99	0.05	1	0433M	QPSK	25	0	10 mm	left	1:1	0.188	1.517	0.285	
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 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	0	25.8	24.34	0.03	0	0433M	QPSK	1	0	10 mm	back	1:1	0.342	1.400	0.479	A55
831.50	26865	Mid	LTE Band 26 (Cell)	15	0	24.8	23.34	-0.01	1	0433M	QPSK	36	18	10 mm	back	1:1	0.307	1.400	0.430	
831.50	26865	Mid	LTE Band 26 (Cell)	15	0	25.8	24.34	0.02	0	0433M	QPSK	1	0	10 mm	front	1:1	0.221	1.400	0.309	
831.50	26865	Mid	LTE Band 26 (Cell)	15	0	24.8	23.34	0.01	1	0433M	QPSK	36	18	10 mm	front	1:1	0.197	1.400	0.276	
831.50	26865	Mid	LTE Band 26 (Cell)	15	0	25.8	24.34	0.05	0	0433M	QPSK	1	0	10 mm	bottom	1:1	0.194	1.400	0.272	
831.50	26865	Mid	LTE Band 26 (Cell)	15	0	24.8	23.34	0.07	1	0433M	QPSK	36	18	10 mm	bottom	1:1	0.167	1.400	0.234	
831.50	26865	Mid	LTE Band 26 (Cell)	15	0	25.8	24.34	0.00	0	0433M	QPSK	1	0	10 mm	right	1:1	0.279	1.400	0.391	
831.50	26865	Mid	LTE Band 26 (Cell)	15	0	24.8	23.34	0.02	1	0433M	QPSK	36	18	10 mm	right	1:1	0.230	1.400	0.322	
831.50	26865	Mid	LTE Band 26 (Cell)	15	0	25.8	24.34	0.02	0	0433M	QPSK	1	0	10 mm	left	1:1	0.171	1.400	0.239	
831.50	26865	Mid	LTE Band 26 (Cell)	15	0	24.8	23.34	0.05	1	0433M	QPSK	36	18	10 mm	left	1:1	0.134	1.400	0.188	

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

Table 11-49
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	0	25.8	24.12	0.12	0	1010M	QPSK	1	0	10 mm	back	1:1	0.353	1.472	0.520	
1 CC Uplink	N/A	836.50	20525	Mid	LTE Band 5 (Cell)	10	0	24.8	23.12	0.13	1	1010M	QPSK	25	0	10 mm	back	1:1	0.286	1.472	0.421	
2 CC Uplink	PCC	836.50	20525	Mid	LTE Band 5 (Cell)	10	0	25.8	24.33	0.03	0	1010M	QPSK	1	0	10 mm	back	1:1	0.373	1.403	0.523	A57
	SCC	829.30	20453	Mid	LTE Band 5 (Cell)	5								1	24							
1 CC Uplink	N/A	836.50	20525	Mid	LTE Band 5 (Cell)	10	0	25.8	24.12	0.03	0	1010M	QPSK	1	0	10 mm	front	1:1	0.220	1.472	0.324	
1 CC Uplink	N/A	836.50	20525	Mid	LTE Band 5 (Cell)	10	0	24.8	23.12	0.07	1	1010M	QPSK	25	0	10 mm	front	1:1	0.181	1.472	0.266	
1 CC Uplink	N/A	836.50	20525	Mid	LTE Band 5 (Cell)	10	52	25.8	24.12	0.02	0	1010M	QPSK	1	0	10 mm	bottom	1:1	0.233	1.472	0.343	
1 CC Uplink	N/A	836.50	20525	Mid	LTE Band 5 (Cell)	10	52	24.8	23.12	0.03	1	1010M	QPSK	25	0	10 mm	bottom	1:1	0.190	1.472	0.280	
1 CC Uplink	N/A	836.50	20525	Mid	LTE Band 5 (Cell)	10	52	25.8	24.12	0.03	0	1010M	QPSK	1	0	10 mm	right	1:1	0.308	1.472	0.453	
1 CC Uplink	N/A	836.50	20525	Mid	LTE Band 5 (Cell)	10	52	24.8	23.12	0.05	1	1010M	QPSK	25	0	10 mm	right	1:1	0.254	1.472	0.374	
1 CC Uplink	N/A	836.50	20525	Mid	LTE Band 5 (Cell)	10	1	25.8	24.12	0.04	0	1010M	QPSK	1	0	10 mm	left	1:1	0.166	1.472	0.244	
1 CC Uplink	N/A	836.50	20525	Mid	LTE Band 5 (Cell)	10	1	24.8	23.12	0.05	1	1010M	QPSK	25	0	10 mm	left	1:1	0.138	1.472	0.203	

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 66 (AWS) 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) (W/kg)	Scaling Factor	Reported SAR (1g) (W/kg)	Plot #
		MHz	Ch.																			
1 CC Uplink	N/A	1770.00	132572	High	LTE Band 66 (AWS)	20	26	19.5	18.91	0.04	0	1010M	QPSK	1	0	10 mm	back	1:1	0.372	1.146	0.426	
1 CC Uplink	N/A	1770.00	132572	High	LTE Band 66 (AWS)	20	26	19.5	19.00	-0.01	0	1010M	QPSK	50	25	10 mm	back	1:1	0.368	1.122	0.413	
1 CC Uplink	N/A	1770.00	132572	High	LTE Band 66 (AWS)	20	26	19.5	18.91	0.05	0	1010M	QPSK	1	0	10 mm	front	1:1	0.355	1.146	0.407	
1 CC Uplink	N/A	1770.00	132572	High	LTE Band 66 (AWS)	20	26	19.5	19.00	0.02	0	1010M	QPSK	50	25	10 mm	front	1:1	0.349	1.122	0.392	
1 CC Uplink	N/A	1720.00	132072	Low	LTE Band 66 (AWS)	20	26	19.5	18.50	0.06	0	1010M	QPSK	1	50	10 mm	bottom	1:1	0.514	1.259	0.647	
1 CC Uplink	N/A	1745.00	132322	Mid	LTE Band 66 (AWS)	20	26	19.5	18.90	0.00	0	1010M	QPSK	1	50	10 mm	bottom	1:1	0.651	1.148	0.747	
1 CC Uplink	N/A	1770.00	132572	High	LTE Band 66 (AWS)	20	26	19.5	18.91	0.02	0	1010M	QPSK	1	0	10 mm	bottom	1:1	0.715	1.146	0.819	
1 CC Uplink	N/A	1775.00	132622	High	LTE Band 66 (AWS)	10	26	19.5	18.41	-0.04	0	1010M	QPSK	1	0	10 mm	bottom	1:1	0.624	1.285	0.802	
1 CC Uplink	N/A	1720.00	132072	Low	LTE Band 66 (AWS)	20	26	19.5	18.87	0.07	0	1010M	QPSK	50	25	10 mm	bottom	1:1	0.547	1.156	0.632	
1 CC Uplink	N/A	1745.00	132322	Mid	LTE Band 66 (AWS)	20	26	19.5	18.96	-0.03	0	1010M	QPSK	50	25	10 mm	bottom	1:1	0.673	1.132	0.762	
1 CC Uplink	N/A	1770.00	132572	High	LTE Band 66 (AWS)	20	26	19.5	19.00	0.01	0	1010M	QPSK	50	25	10 mm	bottom	1:1	0.726	1.122	0.815	
1 CC Uplink	N/A	1770.00	132572	High	LTE Band 66 (AWS)	20	26	19.5	18.90	0.00	0	1010M	QPSK	100	0	10 mm	bottom	1:1	0.712	1.148	0.817	
CA_66C 2 CC Uplink	PCC	1770.00	132572	High	LTE Band 66 (AWS)	20	26	19.5	19.39	0.00	0	1010M	QPSK	1	0	10 mm	bottom	1:1	0.811	1.026	0.832	A59
	SCC	1750.20	132374	High	LTE Band 66 (AWS)	20								1	99							
CA_66B 2 CC Uplink	PCC	1775.00	132622	High	LTE Band 66 (AWS)	10	26	19.5	18.82	0.03	0	1010M	QPSK	1	0	10 mm	bottom	1:1	0.697	1.169	0.815	
	SCC	1765.10	132523	High	LTE Band 66 (AWS)	10								1	49							
1 CC Uplink	N/A	1770.00	132572	High	LTE Band 66 (AWS)	20	26	19.5	18.91	0.14	0	1010M	QPSK	1	0	10 mm	right	1:1	0.056	1.146	0.064	
1 CC Uplink	N/A	1770.00	132572	High	LTE Band 66 (AWS)	20	26	19.5	19.00	0.01	0	1010M	QPSK	50	25	10 mm	right	1:1	0.058	1.122	0.065	
1 CC Uplink	N/A	1770.00	132572	High	LTE Band 66 (AWS)	20	26	19.5	18.91	0.18	0	1010M	QPSK	1	0	10 mm	left	1:1	0.063	1.146	0.072	
1 CC Uplink	N/A	1770.00	132572	High	LTE Band 66 (AWS)	20	26	19.5	19.00	0.13	0	1010M	QPSK	50	25	10 mm	left	1:1	0.069	1.122	0.077	

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

Table 11-51
LTE Band 25 (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) (W/kg)	Scaling Factor	Reported SAR (1g) (W/kg)	Plot #
MHz	Ch.																			
1882.50	26365	Mid	LTE Band 25 (PCS)	20	26	19.0	18.21	0.01	0	1077M	QPSK	1	0	10 mm	back	1:1	0.484	1.199	0.580	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	26	19.0	18.29	0.00	0	1077M	QPSK	50	0	10 mm	back	1:1	0.529	1.178	0.623	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	26	19.0	18.21	0.01	0	1077M	QPSK	1	0	10 mm	front	1:1	0.438	1.199	0.525	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	26	19.0	18.29	-0.03	0	1077M	QPSK	50	0	10 mm	front	1:1	0.473	1.178	0.557	
1860.00	26140	Low	LTE Band 25 (PCS)	20	26	19.0	18.20	-0.08	0	1077M	QPSK	1	0	10 mm	bottom	1:1	0.795	1.202	0.956	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	26	19.0	18.21	0.00	0	1077M	QPSK	1	0	10 mm	bottom	1:1	0.876	1.199	1.050	
1905.00	26590	High	LTE Band 25 (PCS)	20	26	19.0	17.94	-0.15	0	1077M	QPSK	1	99	10 mm	bottom	1:1	0.978	1.276	**1.248**	
1860.00	26140	Low	LTE Band 25 (PCS)	20	26	19.0	18.27	-0.05	0	1077M	QPSK	50	25	10 mm	bottom	1:1	0.862	1.183	1.020	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	26	19.0	18.29	-0.03	0	1077M	QPSK	50	0	10 mm	bottom	1:1	0.962	1.178	1.133	
1905.00	26590	High	LTE Band 25 (PCS)	20	26	19.0	17.97	-0.07	0	1077M	QPSK	50	50	10 mm	bottom	1:1	0.987	1.268	**1.252**	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	26	19.0	18.12	-0.10	0	1077M	QPSK	100	0	10 mm	bottom	1:1	0.991	1.225	1.214	A61
1882.50	26365	Mid	LTE Band 25 (PCS)	20	26	19.0	18.21	-0.02	0	1077M	QPSK	1	0	10 mm	right	1:1	0.085	1.199	0.102	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	26	19.0	18.29	-0.13	0	1077M	QPSK	50	0	10 mm	right	1:1	0.095	1.178	0.112	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	26	19.0	18.21	-0.04	0	1077M	QPSK	1	0	10 mm	left	1:1	0.058	1.199	0.070	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	26	19.0	18.29	-0.09	0	1077M	QPSK	50	0	10 mm	left	1:1	0.062	1.178	0.073	

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 2 (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	18700	Low	LTE Band 2 (PCS)	20	55	19.0	18.18	0.01	0	1077M	QPSK	1	99	10 mm	back	1:1	0.467	1.208	0.564	
1860.00	18700	Low	LTE Band 2 (PCS)	20	55	19.0	18.32	0.00	0	1077M	QPSK	50	50	10 mm	back	1:1	0.469	1.169	0.548	
1860.00	18700	Low	LTE Band 2 (PCS)	20	55	19.0	18.18	0.09	0	1077M	QPSK	1	99	10 mm	front	1:1	0.404	1.208	0.488	
1860.00	18700	Low	LTE Band 2 (PCS)	20	55	19.0	18.32	-0.02	0	1077M	QPSK	50	50	10 mm	front	1:1	0.420	1.169	0.491	
1860.00	18700	Low	LTE Band 2 (PCS)	20	55	19.0	18.18	-0.01	0	1077M	QPSK	1	99	10 mm	bottom	1:1	0.858	1.208	1.036	
1880.00	18900	Mid	LTE Band 2 (PCS)	20	55	19.0	18.05	-0.04	0	1077M	QPSK	1	0	10 mm	bottom	1:1	0.877	1.245	1.092	
1900.00	19100	High	LTE Band 2 (PCS)	20	55	19.0	17.77	-0.12	0	1077M	QPSK	1	0	10 mm	bottom	1:1	0.926	1.327	1.229	
1860.00	18700	Low	LTE Band 2 (PCS)	20	55	19.0	18.32	-0.09	0	1077M	QPSK	50	50	10 mm	bottom	1:1	0.839	1.169	0.981	
1880.00	18900	Mid	LTE Band 2 (PCS)	20	55	19.0	18.17	-0.05	0	1077M	QPSK	50	25	10 mm	bottom	1:1	0.982	1.211	1.189	A63
1900.00	19100	High	LTE Band 2 (PCS)	20	55	19.0	17.83	-0.06	0	1077M	QPSK	50	50	10 mm	bottom	1:1	0.937	1.309	1.227	
1860.00	18700	Low	LTE Band 2 (PCS)	20	55	19.0	18.15	-0.03	0	1077M	QPSK	100	0	10 mm	bottom	1:1	0.828	1.216	1.007	
1860.00	18700	Low	LTE Band 2 (PCS)	20	55	19.0	18.18	-0.15	0	1077M	QPSK	1	99	10 mm	right	1:1	0.079	1.208	0.095	
1860.00	18700	Low	LTE Band 2 (PCS)	20	55	19.0	18.32	0.15	0	1077M	QPSK	50	50	10 mm	right	1:1	0.075	1.169	0.088	
1860.00	18700	Low	LTE Band 2 (PCS)	20	55	19.0	18.18	0.10	0	1077M	QPSK	1	99	10 mm	left	1:1	0.049	1.208	0.059	
1860.00	18700	Low	LTE Band 2 (PCS)	20	55	19.0	18.32	0.03	0	1077M	QPSK	50	50	10 mm	left	1:1	0.053	1.169	0.062	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																	Body 1.6 W/kg (mW/g) averaged over 1 gram			

Table 11-53
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	19.5	18.47	-0.03	0	0932M	QPSK	1	25	10 mm	back	1:1	0.329	1.268	0.417	
2310.00	27710	Mid	LTE Band 30	10	19.5	18.46	0.00	0	0932M	QPSK	25	12	10 mm	back	1:1	0.334	1.271	0.425	
2310.00	27710	Mid	LTE Band 30	10	19.5	18.47	0.02	0	0932M	QPSK	1	25	10 mm	front	1:1	0.319	1.268	0.404	
2310.00	27710	Mid	LTE Band 30	10	19.5	18.46	-0.04	0	0932M	QPSK	25	12	10 mm	front	1:1	0.325	1.271	0.413	
2310.00	27710	Mid	LTE Band 30	10	19.5	18.47	-0.13	0	0932M	QPSK	1	25	10 mm	bottom	1:1	0.964	1.268	1.222	
2310.00	27710	Mid	LTE Band 30	10	19.5	18.46	-0.09	0	0932M	QPSK	25	12	10 mm	bottom	1:1	0.977	1.271	1.242	A65
2310.00	27710	Mid	LTE Band 30	10	19.5	18.40	-0.08	0	0932M	QPSK	50	0	10 mm	bottom	1:1	0.941	1.288	1.212	
2310.00	27710	Mid	LTE Band 30	10	19.5	18.47	0.17	0	0932M	QPSK	1	25	10 mm	right	1:1	0.036	1.268	0.046	
2310.00	27710	Mid	LTE Band 30	10	19.5	18.46	0.16	0	0932M	QPSK	25	12	10 mm	right	1:1	0.037	1.271	0.047	
2310.00	27710	Mid	LTE Band 30	10	19.5	18.47	0.08	0	0932M	QPSK	1	25	10 mm	left	1:1	0.048	1.268	0.061	
2310.00	27710	Mid	LTE Band 30	10	19.5	18.46	-0.16	0	0932M	QPSK	25	12	10 mm	left	1:1	0.049	1.271	0.062	
2310.00	27710	Mid	LTE Band 30	10	19.5	18.46	-0.10	0	0932M	QPSK	25	12	10 mm	bottom	1:1	0.958	1.271	1.218	
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 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)	
2535.00	21100	Mid	LTE Band 7	20	19.5	19.10	-0.19	0	1014M	QPSK	1	50	10 mm	back	1:1	0.377	1.096	0.413	
2535.00	21100	Mid	LTE Band 7	20	19.5	19.13	0.06	0	1014M	QPSK	50	50	10 mm	back	1:1	0.389	1.089	0.424	
2535.00	21100	Mid	LTE Band 7	20	19.5	19.10	-0.04	0	1014M	QPSK	1	50	10 mm	front	1:1	0.251	1.096	0.275	
2535.00	21100	Mid	LTE Band 7	20	19.5	19.13	-0.06	0	1014M	QPSK	50	50	10 mm	front	1:1	0.256	1.089	0.279	
2535.00	21100	Mid	LTE Band 7	20	19.5	19.10	-0.02	0	1014M	QPSK	1	50	10 mm	bottom	1:1	0.675	1.096	0.740	
2510.00	20850	Low	LTE Band 7	20	19.5	19.03	-0.08	0	1014M	QPSK	50	25	10 mm	bottom	1:1	0.791	1.114	0.881	A67
2535.00	21100	Mid	LTE Band 7	20	19.5	19.13	-0.01	0	1014M	QPSK	50	50	10 mm	bottom	1:1	0.687	1.089	0.748	
2560.00	21350	High	LTE Band 7	20	19.5	19.11	-0.05	0	1014M	QPSK	50	0	10 mm	bottom	1:1	0.702	1.094	0.768	
2560.00	21350	High	LTE Band 7	20	19.5	19.07	-0.06	0	1014M	QPSK	100	0	10 mm	bottom	1:1	0.705	1.104	0.778	
2535.00	21100	Mid	LTE Band 7	20	19.5	19.10	0.15	0	1014M	QPSK	1	50	10 mm	right	1:1	0.034	1.096	0.037	
2535.00	21100	Mid	LTE Band 7	20	19.5	19.13	0.12	0	1014M	QPSK	50	50	10 mm	right	1:1	0.037	1.089	0.040	
2535.00	21100	Mid	LTE Band 7	20	19.5	19.10	0.02	0	1014M	QPSK	1	50	10 mm	left	1:1	0.063	1.096	0.069	
2535.00	21100	Mid	LTE Band 7	20	19.5	19.13	-0.02	0	1014M	QPSK	50	50	10 mm	left	1:1	0.067	1.089	0.073	
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 11-55
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	3560.00	55340	Low	LTE Band 48	20	23.5	22.59	-0.02	0	0384S	QPSK	1	50	10 mm	back	1:1.58	0.558	1.233	0.688	
1 CC Uplink	N/A	3603.30	55773	Low-Mid	LTE Band 48	20	23.5	22.62	0.10	0	0384S	QPSK	1	50	10 mm	back	1:1.58	0.574	1.225	0.703	
1 CC Uplink	N/A	3646.70	56207	Mid-High	LTE Band 48	20	23.5	22.61	-0.07	0	0384S	QPSK	1	50	10 mm	back	1:1.58	0.566	1.227	0.694	
1 CC Uplink	N/A	3690.00	56640	High	LTE Band 48	20	23.5	22.61	0.01	0	0384S	QPSK	1	50	10 mm	back	1:1.58	0.545	1.227	0.669	
1 CC Uplink	N/A	3603.30	55773	Low-Mid	LTE Band 48	20	22.5	21.68	0.02	1	0384S	QPSK	50	0	10 mm	back	1:1.58	0.463	1.208	0.559	
1 CC Uplink	N/A	3690.00	56640	High	LTE Band 48	20	22.5	21.62	-0.01	1	0384S	QPSK	100	0	10 mm	back	1:1.58	0.438	1.225	0.537	
1 CC Uplink	N/A	3603.30	55773	Low-Mid	LTE Band 48	20	23.5	22.62	-0.03	0	0384S	QPSK	1	50	10 mm	front	1:1.58	0.283	1.225	0.347	
1 CC Uplink	N/A	3603.30	55773	Low-Mid	LTE Band 48	20	22.5	21.68	-0.06	1	0384S	QPSK	50	0	10 mm	front	1:1.58	0.230	1.208	0.278	
1 CC Uplink	N/A	3560.00	55340	Low	LTE Band 48	20	23.5	22.59	-0.07	0	0384S	QPSK	1	50	10 mm	top	1:1.58	0.693	1.233	0.854	
1 CC Uplink	N/A	3603.30	55773	Low-Mid	LTE Band 48	20	23.5	22.46	-0.05	0	0384S	QPSK	1	0	10 mm	top	1:1.58	0.685	1.271	**0.871**	
1 CC Uplink	N/A	3603.30	55773	Low-Mid	LTE Band 48	20	23.5	22.62	0.11	0	0384S	QPSK	1	50	10 mm	top	1:1.58	0.698	1.225	0.855	
1 CC Uplink	N/A	3646.70	56207	Mid-High	LTE Band 48	20	23.5	22.61	0.04	0	0384S	QPSK	1	50	10 mm	top	1:1.58	0.566	1.227	0.694	
1 CC Uplink	N/A	3690.00	56640	High	LTE Band 48	20	23.5	22.61	0.03	0	0384S	QPSK	1	50	10 mm	top	1:1.58	0.535	1.227	0.656	
1 CC Uplink	N/A	3603.30	55773	Low-Mid	LTE Band 48	20	22.5	21.68	0.03	1	0384S	QPSK	50	0	10 mm	top	1:1.58	0.426	1.208	0.515	
1 CC Uplink	N/A	3690.00	56640	High	LTE Band 48	20	22.5	21.62	0.03	1	0384S	QPSK	100	0	10 mm	top	1:1.58	0.320	1.225	0.392	
2 CC Uplink	PCC	3603.30	55773	Low-Mid	LTE Band 48	20	23.5	23.32	0.13	0	0384S	QPSK	1	0	10 mm	top	1:1.58	0.811	1.042	0.845	A69
	SCC	3583.50	55575	Low-Mid	LTE Band 48	20							1	99							
1 CC Uplink	N/A	3603.30	55773	Low-Mid	LTE Band 48	20	23.5	22.62	-0.08	0	0384S	QPSK	1	50	10 mm	left	1:1.58	0.249	1.225	0.305	
1 CC Uplink	N/A	3603.30	55773	Low-Mid	LTE Band 48	20	22.5	21.68	0.04	1	0384S	QPSK	50	0	10 mm	left	1:1.58	0.203	1.208	0.245	
2 CC Uplink	PCC	3603.3	55773	Low-Mid	LTE Band 48	20	23.5	23.32	-0.03	0	0384S	QPSK	1	0	10 mm	top	1:1.58	0.810	1.042	0.844	
	SCC	3583.50	55575	Low-Mid	LTE Band 48	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												

Note: Blue entry represents variability measurement.

Table 11-56
LTE Band 41 Hotspot SAR

MEASUREMENT RESULTS																							
1 CC Uplink | 2 CC Uplink, Power Class	Component Carrier	FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Device Serial Number	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
		MHz	Ch.															(W/kg)		(W/kg)	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	22.0	21.73	-0.02	0	0932M	QPSK	1	50	10 mm	back	1:1.58	0.408	1.064	0.434	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	22.0	21.82	0.00	0	0932M	QPSK	50	25	10 mm	back	1:1.58	0.414	1.042	0.431	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	22.0	21.73	0.02	0	0932M	QPSK	1	50	10 mm	front	1:1.58	0.340	1.064	0.362	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	22.0	21.82	0.03	0	0932M	QPSK	50	25	10 mm	front	1:1.58	0.358	1.042	0.373	
1 CC Uplink - Power Class 3	N/A	2506.00	39750	Low	LTE Band 41	20	22.0	21.37	-0.12	0	0932M	QPSK	1	0	10 mm	bottom	1:1.58	0.917	1.156	1.060	
1 CC Uplink - Power Class 3	N/A	2549.50	40185	Low-Mid	LTE Band 41	20	22.0	21.41	0.02	0	0932M	QPSK	1	99	10 mm	bottom	1:1.58	0.822	1.146	0.942	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	22.0	21.73	-0.06	0	0932M	QPSK	1	50	10 mm	bottom	1:1.58	0.844	1.064	0.898	
1 CC Uplink - Power Class 3	N/A	2636.50	41055	Mid-High	LTE Band 41	20	22.0	21.13	-0.11	0	0932M	QPSK	1	50	10 mm	bottom	1:1.58	0.793	1.222	0.969	
1 CC Uplink - Power Class 3	N/A	2680.00	41490	High	LTE Band 41	20	22.0	21.24	-0.10	0	0932M	QPSK	1	50	10 mm	bottom	1:1.58	0.815	1.191	0.971	
1 CC Uplink - Power Class 3	N/A	2506.00	39750	Low	LTE Band 41	20	22.0	21.51	-0.09	0	0932M	QPSK	50	0	10 mm	bottom	1:1.58	0.960	1.119	1.074	
1 CC Uplink - Power Class 3	N/A	2549.50	40185	Low-Mid	LTE Band 41	20	22.0	21.53	-0.09	0	0932M	QPSK	50	25	10 mm	bottom	1:1.58	0.852	1.114	0.949	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	22.0	21.82	-0.03	0	0932M	QPSK	50	25	10 mm	bottom	1:1.58	0.864	1.042	0.900	
1 CC Uplink - Power Class 3	N/A	2636.50	41055	Mid-High	LTE Band 41	20	22.0	21.33	-0.14	0	0932M	QPSK	50	0	10 mm	bottom	1:1.58	1.010	1.167	1.179	
1 CC Uplink - Power Class 3	N/A	2636.50	41055	Mid-High	LTE Band 41	20	22.0	21.35	-0.18	0	0932M	QPSK	50	25	10 mm	bottom	1:1.58	0.947	1.161	1.099	
1 CC Uplink - Power Class 3	N/A	2680.00	41490	High	LTE Band 41	20	22.0	21.40	-0.17	0	0932M	QPSK	50	50	10 mm	bottom	1:1.58	0.851	1.148	0.977	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	22.0	21.72	-0.15	0	0932M	QPSK	100	0	10 mm	bottom	1:1.58	0.792	1.067	0.845	
1 CC Uplink - Power Class 2	N/A	2636.50	41055	Mid-High	LTE Band 41	20	23.6	23.18	-0.14	0	0932M	QPSK	50	0	10 mm	bottom	1:2.31	0.972	1.102	1.071	
2 CC Uplink - Power Class 3	PCC	2636.50	41055	Mid-High	LTE Band 41	20	22.0	21.72	-0.10	0	0932M	QPSK	50	0	10 mm	bottom	1:1.58	1.070	1.067	1.142	
	SCC	2616.70	40857	Mid-High	LTE Band 41	20							50	50							
2 CC Uplink - Power Class 2	PCC	2636.50	41055	Mid-High	LTE Band 41	20	23.6	23.60	-0.11	0	0932M	QPSK	50	0	10 mm	bottom	1:2.31	1.080	1.000	1.080	A71
	SCC	2616.70	40857	Mid-High	LTE Band 41	20							50	50							
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	22.0	21.73	0.16	0	0932M	QPSK	1	50	10 mm	right	1:1.58	0.032	1.064	0.034	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	22.0	21.82	0.11	0	0932M	QPSK	50	25	10 mm	right	1:1.58	0.036	1.042	0.038	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	22.0	21.73	0.09	0	0932M	QPSK	1	50	10 mm	left	1:1.58	0.084	1.064	0.089	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	22.0	21.82	0.07	0	0932M	QPSK	50	25	10 mm	left	1:1.58	0.084	1.042	0.088	
1 CC Uplink - Power Class 3	N/A	2506.00	39750	Low	LTE Band 41	20	22.0	21.51	-0.05	0	0932M	QPSK	50	0	10 mm	bottom	1:1.58	0.893	1.119	0.999	
2 CC Uplink - Power Class 2	PCC	2636.50	41055	Mid-High	LTE Band 41	20	23.6	23.60	-0.16	0	0932M	QPSK	50	0	10 mm	bottom	1:2.31	0.950	1.000	0.950	
	SCC	2616.70	40857	Mid-High	LTE Band 41	20							50	50							

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

Note: Blue entry represents variability measurement.

Table 11-57
NR Band n71 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	136100	Mid	NR Band n71	20	14	25.8	24.27	-0.03	0	1021M	DFT-S-OFDM QPSK	1	53	10 mm	back	1:1	0.294	1.422	0.418	
680.50	136100	Mid	NR Band n71	20	14	25.8	24.32	-0.05	0	1021M	DFT-S-OFDM QPSK	50	28	10 mm	back	1:1	0.298	1.406	0.419	A73
680.50	136100	Mid	NR Band n71	20	14	24.3	22.15	-0.08	1.5	1021M	CP-OFDM QPSK	1	1	10 mm	back	1:1	0.204	1.641	0.335	
680.50	136100	Mid	NR Band n71	20	14	25.8	24.27	0.05	0	1021M	DFT-S-OFDM QPSK	1	53	10 mm	front	1:1	0.229	1.422	0.326	
680.50	136100	Mid	NR Band n71	20	14	25.8	24.32	0.01	0	1021M	DFT-S-OFDM QPSK	50	28	10 mm	front	1:1	0.232	1.406	0.326	
680.50	136100	Mid	NR Band n71	20	14	25.8	24.27	0.06	0	1021M	DFT-S-OFDM QPSK	1	53	10 mm	bottom	1:1	0.122	1.422	0.173	
680.50	136100	Mid	NR Band n71	20	14	25.8	24.32	0.01	0	1021M	DFT-S-OFDM QPSK	50	28	10 mm	bottom	1:1	0.126	1.406	0.177	
680.50	136100	Mid	NR Band n71	20	14	25.8	24.27	0.15	0	1021M	DFT-S-OFDM QPSK	1	53	10 mm	right	1:1	0.117	1.422	0.166	
680.50	136100	Mid	NR Band n71	20	14	25.8	24.32	0.02	0	1021M	DFT-S-OFDM QPSK	50	28	10 mm	right	1:1	0.121	1.406	0.170	
680.50	136100	Mid	NR Band n71	20	14	25.8	24.27	-0.03	0	1021M	DFT-S-OFDM QPSK	1	53	10 mm	left	1:1	0.128	1.422	0.182	
680.50	136100	Mid	NR Band n71	20	14	25.8	24.32	0.01	0	1021M	DFT-S-OFDM QPSK	50	28	10 mm	left	1:1	0.131	1.406	0.184	

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

Table 11-58
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	0	25.8	24.53	0.01	0	1021M	DFT-S-OFDM QPSK	1	1	10 mm	back	1:1	0.335	1.340	0.449	
836.50	167300	Mid	NR Band n5 (Cell)	20	0	25.8	24.35	-0.01	0	1021M	DFT-S-OFDM QPSK	50	28	10 mm	back	1:1	0.345	1.396	0.482	A75
836.50	167300	Mid	NR Band n5 (Cell)	20	0	24.3	23.01	0.06	1.5	1021M	CP-OFDM QPSK	1	1	10 mm	back	1:1	0.242	1.346	0.326	
836.50	167300	Mid	NR Band n5 (Cell)	20	0	25.8	24.53	0.01	0	1021M	DFT-S-OFDM QPSK	1	1	10 mm	front	1:1	0.226	1.340	0.303	
836.50	167300	Mid	NR Band n5 (Cell)	20	0	25.8	24.35	-0.02	0	1021M	DFT-S-OFDM QPSK	50	28	10 mm	front	1:1	0.225	1.396	0.314	
836.50	167300	Mid	NR Band n5 (Cell)	20	52	25.8	24.53	0.05	0	1021M	DFT-S-OFDM QPSK	1	1	10 mm	bottom	1:1	0.185	1.340	0.248	
836.50	167300	Mid	NR Band n5 (Cell)	20	52	25.8	24.35	0.09	0	1021M	DFT-S-OFDM QPSK	50	28	10 mm	bottom	1:1	0.189	1.396	0.264	
836.50	167300	Mid	NR Band n5 (Cell)	20	52	25.8	24.53	0.01	0	1021M	DFT-S-OFDM QPSK	1	1	10 mm	right	1:1	0.264	1.340	0.354	
836.50	167300	Mid	NR Band n5 (Cell)	20	52	25.8	24.35	0.02	0	1021M	DFT-S-OFDM QPSK	50	28	10 mm	right	1:1	0.260	1.396	0.363	
836.50	167300	Mid	NR Band n5 (Cell)	20	1	25.8	24.53	0.04	0	1021M	DFT-S-OFDM QPSK	1	1	10 mm	left	1:1	0.161	1.340	0.216	
836.50	167300	Mid	NR Band n5 (Cell)	20	1	25.8	24.35	0.05	0	1021M	DFT-S-OFDM QPSK	50	28	10 mm	left	1:1	0.139	1.396	0.194	
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 11-59
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)	
1770.00	354000	High	NR Band n66 (AWS)	20	26	19.5	19.48	0.09	0	1005M	DFT-S-OFDM QPSK	1	1	10 mm	back	1:1	0.543	1.005	0.546	
1770.00	354000	High	NR Band n66 (AWS)	20	26	19.5	19.48	0.11	0	1005M	DFT-S-OFDM QPSK	50	28	10 mm	back	1:1	0.520	1.005	0.523	
1770.00	354000	High	NR Band n66 (AWS)	20	26	19.5	19.48	0.08	0	1005M	DFT-S-OFDM QPSK	1	1	10 mm	front	1:1	0.483	1.005	0.485	
1770.00	354000	High	NR Band n66 (AWS)	20	26	19.5	19.48	0.06	0	1005M	DFT-S-OFDM QPSK	50	28	10 mm	front	1:1	0.460	1.005	0.462	
1720.00	344000	Low	NR Band n66 (AWS)	20	26	19.5	19.47	-0.13	0	1005M	DFT-S-OFDM QPSK	1	1	10 mm	bottom	1:1	0.700	1.007	0.705	
1745.00	349000	Mid	NR Band n66 (AWS)	20	26	19.5	19.42	-0.02	0	1005M	DFT-S-OFDM QPSK	1	104	10 mm	bottom	1:1	0.836	1.019	0.852	
1770.00	354000	High	NR Band n66 (AWS)	20	26	19.5	19.48	-0.06	0	1005M	DFT-S-OFDM QPSK	1	1	10 mm	bottom	1:1	0.919	1.005	0.924	
1720.00	344000	Low	NR Band n66 (AWS)	20	26	19.5	19.39	-0.01	0	1005M	DFT-S-OFDM QPSK	50	0	10 mm	bottom	1:1	0.708	1.026	0.726	
1745.00	349000	Mid	NR Band n66 (AWS)	20	26	19.5	19.37	-0.04	0	1005M	DFT-S-OFDM QPSK	50	56	10 mm	bottom	1:1	0.815	1.030	0.839	
1770.00	354000	High	NR Band n66 (AWS)	20	26	19.5	19.48	0.00	0	1005M	DFT-S-OFDM QPSK	50	28	10 mm	bottom	1:1	0.908	1.005	0.913	
1770.00	354000	High	NR Band n66 (AWS)	20	26	19.5	19.45	-0.04	0	1005M	CP-OFDM QPSK	1	1	10 mm	bottom	1:1	0.924	1.012	0.935	A77
1770.00	354000	High	NR Band n66 (AWS)	20	26	19.5	19.47	-0.01	0	1005M	DFT-S-OFDM QPSK	100	0	10 mm	bottom	1:1	0.905	1.007	0.911	
1770.00	354000	High	NR Band n66 (AWS)	20	26	19.5	19.48	0.16	0	1005M	DFT-S-OFDM QPSK	1	1	10 mm	right	1:1	0.078	1.005	0.078	
1770.00	354000	High	NR Band n66 (AWS)	20	26	19.5	19.48	0.05	0	1005M	DFT-S-OFDM QPSK	50	28	10 mm	right	1:1	0.074	1.005	0.074	
1770.00	354000	High	NR Band n66 (AWS)	20	26	19.5	19.48	0.06	0	1005M	DFT-S-OFDM QPSK	1	1	10 mm	left	1:1	0.088	1.005	0.088	
1770.00	354000	High	NR Band n66 (AWS)	20	26	19.5	19.48	0.14	0	1005M	DFT-S-OFDM QPSK	50	28	10 mm	left	1:1	0.080	1.005	0.080	
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 11-60
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)	
1880.00	376000	Mid	NR Band n2 (PCS)	20	55	19.0	19.00	0.00	0	1020M	DFT-S-OFDM QPSK	1	1	10 mm	back	1:1	0.305	1.000	0.305	
1880.00	376000	Mid	NR Band n2 (PCS)	20	55	19.0	19.00	-0.05	0	1020M	DFT-S-OFDM QPSK	50	0	10 mm	back	1:1	0.315	1.000	0.315	
1880.00	376000	Mid	NR Band n2 (PCS)	20	55	19.0	19.00	-0.04	0	1020M	DFT-S-OFDM QPSK	1	1	10 mm	front	1:1	0.315	1.000	0.315	
1880.00	376000	Mid	NR Band n2 (PCS)	20	55	19.0	19.00	0.03	0	1020M	DFT-S-OFDM QPSK	50	0	10 mm	front	1:1	0.325	1.000	0.325	
1860.00	372000	Low	NR Band n2 (PCS)	20	55	19.0	18.99	-0.12	0	1020M	DFT-S-OFDM QPSK	1	1	10 mm	bottom	1:1	0.803	1.002	0.805	
1880.00	376000	Mid	NR Band n2 (PCS)	20	55	19.0	19.00	-0.06	0	1020M	DFT-S-OFDM QPSK	1	1	10 mm	bottom	1:1	0.621	1.000	0.621	
1900.00	380000	High	NR Band n2 (PCS)	20	55	19.0	18.83	-0.10	0	1020M	DFT-S-OFDM QPSK	1	1	10 mm	bottom	1:1	0.839	1.040	0.873	
1860.00	372000	Low	NR Band n2 (PCS)	20	55	19.0	18.97	-0.16	0	1020M	DFT-S-OFDM QPSK	50	0	10 mm	bottom	1:1	0.816	1.007	0.822	
1880.00	376000	Mid	NR Band n2 (PCS)	20	55	19.0	19.00	-0.04	0	1020M	DFT-S-OFDM QPSK	50	0	10 mm	bottom	1:1	0.625	1.000	0.625	
1900.00	380000	High	NR Band n2 (PCS)	20	55	19.0	18.73	-0.01	0	1020M	DFT-S-OFDM QPSK	50	0	10 mm	bottom	1:1	0.845	1.064	0.899	A79
1900.00	380000	High	NR Band n2 (PCS)	20	55	19.0	18.70	-0.10	0	1020M	CP-OFDM QPSK	1	1	10 mm	bottom	1:1	0.821	1.072	0.880	
1880.00	376000	Mid	NR Band n2 (PCS)	20	55	19.0	18.94	-0.01	0	1020M	DFT-S-OFDM QPSK	100	0	10 mm	bottom	1:1	0.825	1.014	0.837	
1880.00	376000	Mid	NR Band n2 (PCS)	20	55	19.0	19.00	0.14	0	1020M	DFT-S-OFDM QPSK	1	1	10 mm	right	1:1	0.046	1.000	0.046	
1880.00	376000	Mid	NR Band n2 (PCS)	20	55	19.0	19.00	0.17	0	1020M	DFT-S-OFDM QPSK	50	0	10 mm	right	1:1	0.072	1.000	0.072	
1880.00	376000	Mid	NR Band n2 (PCS)	20	55	19.0	19.00	-0.14	0	1020M	DFT-S-OFDM QPSK	1	1	10 mm	left	1:1	0.052	1.000	0.052	
1880.00	376000	Mid	NR Band n2 (PCS)	20	55	19.0	19.00	-0.10	0	1020M	DFT-S-OFDM QPSK	50	0	10 mm	left	1:1	0.056	1.000	0.056	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																	Body 1.6 W/kg (mW/g) averaged over 1 gram			

Table 11-61
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	24.28	-0.05	0	1017M	DFT-S-OFDM QPSK	1	137	10 mm	back	1:4	0.149	1.180	0.176	
2592.99	518598	Mid	NR Band n41	100	25.0	24.16	0.03	0	1017M	DFT-S-OFDM QPSK	135	69	10 mm	back	1:4	0.170	1.213	0.206	
2592.99	518598	Mid	NR Band n41	100	25.0	24.28	0.05	0	1017M	DFT-S-OFDM QPSK	1	137	10 mm	front	1:4	0.130	1.180	0.153	
2592.99	518598	Mid	NR Band n41	100	25.0	24.16	0.19	0	1017M	DFT-S-OFDM QPSK	135	69	10 mm	front	1:4	0.101	1.213	0.123	
2592.99	518598	Mid	NR Band n41	100	25.0	24.28	-0.09	0	1017M	DFT-S-OFDM QPSK	1	137	10 mm	top	1:4	0.369	1.180	0.435	A81
2592.99	518598	Mid	NR Band n41	100	25.0	24.16	0.17	0	1017M	DFT-S-OFDM QPSK	135	69	10 mm	top	1:4	0.269	1.213	0.326	
2592.99	518598	Mid	NR Band n41	100	23.5	23.00	0.13	1.5	1017M	CP-OFDM QPSK	1	1	10 mm	top	1:4	0.215	1.122	0.241	
2592.99	518598	Mid	NR Band n41	100	25.0	24.28	-0.10	0	1017M	DFT-S-OFDM QPSK	1	137	10 mm	left	1:4	0.059	1.180	0.070	
2592.99	518598	Mid	NR Band n41	100	25.0	24.16	-0.03	0	1017M	DFT-S-OFDM QPSK	135	69	10 mm	left	1:4	0.098	1.213	0.119	
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 11-62
WLAN Hotspot SAR

MEASUREMENT RESULTS																			
FREQUENCY		Mode	Service	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Spacing	Antenna Config.	Device Serial Number	Data Rate (Mbps)	Side	Duty Cycle (%)	Peak SAR of Area Scan	SAR (1g)	Scaling Factor (Power)	Scaling Factor (Duty Cycle)	Reported SAR (1g)	Plot #
MHz	Ch.													W/kg	(W/kg)			(W/kg)	
2412	1	802.11b	DSSS	22	21.0	20.86	-0.18	10 mm	1	1652M	1	back	100.0	0.448	0.278	1.033	1.000	0.287	
2412	1	802.11b	DSSS	22	21.0	20.86	-0.01	10 mm	1	1652M	1	front	100.0	0.322	-	1.033	1.000	-	
2412	1	802.11b	DSSS	22	21.0	20.86	0.00	10 mm	1	1652M	1	top	100.0	0.787	0.526	1.033	1.000	**0.543**	A83
2412	1	802.11b	DSSS	22	21.0	20.86	0.10	10 mm	1	1652M	1	left	100.0	0.083	-	1.033	1.000	-	
2462	11	802.11b	DSSS	22	21.0	20.97	0.15	10 mm	2	1652M	1	back	100.0	0.349	0.260	1.007	1.000	0.262	
2462	11	802.11b	DSSS	22	21.0	20.97	0.12	10 mm	2	1652M	1	front	100.0	0.015	-	1.007	1.000	-	
2462	11	802.11b	DSSS	22	21.0	20.97	0.17	10 mm	2	1652M	1	top	100.0	0.043	0.031	1.007	1.000	0.031	
2462	11	802.11b	DSSS	22	21.0	20.97	-0.14	10 mm	2	1652M	1	left	100.0	0.110	-	1.007	1.000	-	
5785	157	802.11a	OFDM	20	16.5	16.07	0.17	10 mm	1	0385S	6	back	99.7	1.023	0.400	1.104	1.003	**0.443**	
5785	157	802.11a	OFDM	20	16.5	16.07	0.00	10 mm	1	0385S	6	front	99.7	0.013	-	1.104	1.003	-	
5785	157	802.11a	OFDM	20	16.5	16.07	0.18	10 mm	1	0385S	6	top	99.7	0.096	-	1.104	1.003	-	
5785	157	802.11a	OFDM	20	16.5	16.07	0.12	10 mm	1	0385S	6	left	99.7	0.277	0.113	1.104	1.003	0.125	
5785	157	802.11a	OFDM	20	16.5	16.42	-0.02	10 mm	2	0385S	6	back	99.3	0.752	0.315	1.019	1.007	0.323	
5785	157	802.11a	OFDM	20	16.5	16.42	-0.12	10 mm	2	0385S	6	front	99.3	0.033	-	1.019	1.007	-	
5785	157	802.11a	OFDM	20	16.5	16.42	0.13	10 mm	2	0385S	6	top	99.3	0.208	-	1.019	1.007	-	
5785	157	802.11a	OFDM	20	16.5	16.42	-0.19	10 mm	2	0385S	6	left	99.3	0.190	-	1.019	1.007	-	

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

Table 11-63
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	14.5	14.42	14.5	13.73	0.02	10 mm	MIMO	0385S	13	back	99.3	1.212	0.465	1.194	1.007	0.559	
5785	157	802.11n	OFDM	20	14.5	14.38	14.5	13.92	0.02	10 mm	MIMO	0385S	13	back	99.3	1.155	0.526	1.143	1.007	0.605	A85
5825	165	802.11n	OFDM	20	14.5	14.22	14.5	13.78	0.21	10 mm	MIMO	0385S	13	back	99.3	1.015	0.393	1.180	1.007	0.467	
5785	157	802.11n	OFDM	20	14.5	14.38	14.5	13.92	0.07	10 mm	MIMO	0385S	13	front	99.3	0.016	-	1.143	1.007	-	
5785	157	802.11n	OFDM	20	14.5	14.38	14.5	13.92	0.12	10 mm	MIMO	0385S	13	top	99.3	0.164	0.077	1.143	1.007	0.089	
5785	157	802.11n	OFDM	20	14.5	14.38	14.5	13.92	0.15	10 mm	MIMO	0385S	13	left	99.3	0.255	0.110	1.143	1.007	0.127	

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

Note: To achieve the 17.5 dBm maximum allowed MIMO power shown in the documentation, each antenna transmits at a maximum allowed power of 14.5 dBm

Table 11-64
DTS 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)	
2462	11	802.11n	OFDM	20	17.0	16.66	17.0	16.01	0.19	10 mm	MIMO	1652M	13	back	99.3	0.252	0.162	1.256	1.007	0.205	
2462	11	802.11n	OFDM	20	17.0	16.66	17.0	16.01	0.12	10 mm	MIMO	1652M	13	front	99.3	0.145	-	1.256	1.007	-	
2462	11	802.11n	OFDM	20	17.0	16.66	17.0	16.01	0.13	10 mm	MIMO	1652M	13	top	99.3	0.440	0.281	1.256	1.007	0.355	
2462	11	802.11n	OFDM	20	17.0	16.66	17.0	16.01	0.02	10 mm	MIMO	1652M	13	left	99.3	0.088	-	1.256	1.007	-	
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.

Table 11-65
DSS Hotspot SAR

MEASUREMENT RESULTS															
FREQUENCY		Mode	Service	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Spacing	Device Serial Number	Data Rate (Mbps)	Side	Duty Cycle (%)	SAR (1g)	Scaling Factor (Cond Power)	Scaling Factor (Duty Cycle)	Reported SAR (1g)	Plot #
MHz	Ch.											(W/kg)			(W/kg)	
2402	0	Bluetooth	FHSS	13.5	12.77	-0.04	10 mm	1050M	1	back	77.6	0.032	1.183	1.289	0.049	
2402	0	Bluetooth	FHSS	13.5	12.77	-0.10	10 mm	1050M	1	front	77.6	0.029	1.183	1.289	0.044	
2402	0	Bluetooth	FHSS	13.5	12.77	-0.07	10 mm	1050M	1	top	77.6	0.058	1.183	1.289	**0.088**	A87
2402	0	Bluetooth	FHSS	13.5	12.77	-0.12	10 mm	1050M	1	left	77.6	0.007	1.183	1.289	0.011	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population												Body 1.6 W/kg (mW/g) averaged over 1 gram				

11.4 Standalone Phablet SAR Data

Table 11-66
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)	
1732.40	1412	UMTS 1750	RMC	24.5	24.42	-0.06	8 mm	4	1078M	N/A	1:1	back	1.190	1.019	1.213	
1732.40	1412	UMTS 1750	RMC	24.5	24.42	-0.08	6 mm	4	1078M	N/A	1:1	front	1.560	1.019	1.590	
1732.40	1412	UMTS 1750	RMC	24.5	24.42	-0.03	11 mm	4	1078M	N/A	1:1	bottom	1.290	1.019	1.315	
1732.40	1412	UMTS 1750	RMC	24.5	24.42	-0.11	0 mm	4	1078M	N/A	1:1	right	0.451	1.019	0.460	
1732.40	1412	UMTS 1750	RMC	24.5	24.42	-0.15	0 mm	4	1078M	N/A	1:1	left	0.459	1.019	0.468	
1732.40	1412	UMTS 1750	RMC	20.0	19.99	0.11	0 mm	4	1078M	N/A	1:1	back	1.610	1.002	1.613	
1732.40	1412	UMTS 1750	RMC	20.0	19.99	0.03	0 mm	4	1078M	N/A	1:1	front	1.750	1.002	1.754	
1712.40	1312	UMTS 1750	RMC	20.0	20.00	0.10	0 mm	4	1078M	N/A	1:1	bottom	2.690	1.000	2.690	A88
1732.40	1412	UMTS 1750	RMC	20.0	19.99	0.14	0 mm	4	1078M	N/A	1:1	bottom	2.040	1.002	2.044	
1752.60	1513	UMTS 1750	RMC	20.0	19.89	0.11	0 mm	4	1078M	N/A	1:1	bottom	1.990	1.026	2.042	
1712.40	1312	UMTS 1750	RMC	20.0	20.00	0.05	0 mm	4	1078M	N/A	1:1	bottom	2.680	1.000	2.680	
1880.00	600	PCS CDMA	EVDO Rev. 0	24.5	23.68	-0.02	8 mm	55	1078M	N/A	1:1	back	1.070	1.208	1.293	
1880.00	600	PCS CDMA	EVDO Rev. 0	24.5	23.68	-0.04	6 mm	55	1078M	N/A	1:1	front	1.340	1.208	1.619	
1880.00	600	PCS CDMA	EVDO Rev. 0	24.5	23.68	-0.03	11 mm	55	1078M	N/A	1:1	bottom	1.270	1.208	1.534	
1880.00	600	PCS CDMA	EVDO Rev. 0	24.5	23.68	0.03	0 mm	55	1078M	N/A	1:1	right	0.467	1.208	0.564	
1880.00	600	PCS CDMA	EVDO Rev. 0	24.5	23.68	-0.04	0 mm	55	1078M	N/A	1:1	left	0.424	1.208	0.512	
1880.00	600	PCS CDMA	EVDO Rev. 0	21.0	20.28	0.03	0 mm	55	1075M	N/A	1:1	back	1.610	1.180	1.900	
1851.25	25	PCS CDMA	EVDO Rev. 0	21.0	20.30	-0.11	0 mm	55	1075M	N/A	1:1	front	2.010	1.175	2.362	
1880.00	600	PCS CDMA	EVDO Rev. 0	21.0	20.28	-0.11	0 mm	55	1075M	N/A	1:1	front	1.900	1.180	2.242	
1908.75	1175	PCS CDMA	EVDO Rev. 0	21.0	20.17	-0.13	0 mm	55	1075M	N/A	1:1	front	1.940	1.211	2.349	
1851.25	25	PCS CDMA	EVDO Rev. 0	21.0	20.30	-0.12	0 mm	55	1075M	N/A	1:1	bottom	2.630	1.175	3.090	A89
1880.00	600	PCS CDMA	EVDO Rev. 0	21.0	20.28	-0.14	0 mm	55	1075M	N/A	1:1	bottom	2.530	1.180	2.985	
1908.75	1175	PCS CDMA	EVDO Rev. 0	21.0	20.17	-0.21	0 mm	55	1075M	N/A	1:1	bottom	2.510	1.211	3.040	
1851.25	25	PCS CDMA	EVDO Rev. 0	21.0	20.30	-0.11	0 mm	55	1075M	N/A	1:1	bottom	2.630	1.175	3.090	
1880.00	661	GSM 1900	GPRS	29.7	27.93	0.01	8 mm	N/A	1078M	2	1:4.15	back	0.455	1.503	0.684	
1880.00	661	GSM 1900	GPRS	29.7	27.93	-0.03	6 mm	N/A	1078M	2	1:4.15	front	0.563	1.503	0.846	
1880.00	661	GSM 1900	GPRS	29.7	27.93	0.01	11 mm	N/A	1078M	2	1:4.15	bottom	0.557	1.503	0.837	
1880.00	661	GSM 1900	GPRS	29.7	27.93	0.02	0 mm	N/A	1078M	2	1:4.15	right	0.182	1.503	0.274	
1880.00	661	GSM 1900	GPRS	29.7	27.93	-0.10	0 mm	N/A	1078M	2	1:4.15	left	0.165	1.503	0.248	
1880.00	661	GSM 1900	GPRS	24.3	23.46	-0.03	0 mm	N/A	1078M	4	1:2.076	back	1.490	1.213	1.807	
1880.00	661	GSM 1900	GPRS	24.3	23.46	-0.16	0 mm	N/A	1078M	4	1:2.076	front	1.450	1.213	1.759	
1850.20	512	GSM 1900	GPRS	24.3	23.15	-0.03	0 mm	N/A	1078M	4	1:2.076	bottom	2.160	1.303	2.814	
1880.00	661	GSM 1900	GPRS	24.3	23.46	-0.14	0 mm	N/A	1078M	4	1:2.076	bottom	2.170	1.213	2.632	
1909.80	810	GSM 1900	GPRS	24.3	23.30	0.03	0 mm	N/A	1078M	4	1:2.076	bottom	2.470	1.259	3.110	A90
1880.00	9400	UMTS 1900	RMC	24.5	23.38	0.08	8 mm	26	1078M	N/A	1:1	back	0.939	1.294	1.215	
1880.00	9400	UMTS 1900	RMC	24.5	23.38	-0.02	6 mm	26	1078M	N/A	1:1	front	1.230	1.294	1.592	
1880.00	9400	UMTS 1900	RMC	24.5	23.38	-0.07	11 mm	26	1078M	N/A	1:1	bottom	1.160	1.294	1.501	
1880.00	9400	UMTS 1900	RMC	24.5	23.38	-0.09	0 mm	26	1078M	N/A	1:1	right	0.462	1.294	0.598	
1880.00	9400	UMTS 1900	RMC	24.5	23.38	-0.18	0 mm	26	1078M	N/A	1:1	left	0.373	1.294	0.483	
1880.00	9400	UMTS 1900	RMC	20.0	19.82	0.00	0 mm	26	1075M	N/A	1:1	back	1.700	1.042	1.771	
1880.00	9400	UMTS 1900	RMC	20.0	19.82	-0.20	0 mm	26	1075M	N/A	1:1	front	1.690	1.042	1.761	
1852.40	9262	UMTS 1900	RMC	20.0	19.93	0.17	0 mm	26	1075M	N/A	1:1	bottom	2.100	1.016	2.134	
1880.00	9400	UMTS 1900	RMC	20.0	19.82	0.02	0 mm	26	1075M	N/A	1:1	bottom	2.230	1.042	2.324	
1907.60	9538	UMTS 1900	RMC	20.0	19.70	0.19	0 mm	26	1075M	N/A	1:1	bottom	2.320	1.072	2.487	A91
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.

Table 11-67
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	1770.00	132572	High	LTE Band 66 (AWS)	20	26	24.5	23.70	0.04	0	1071M	QPSK	1	0	8 mm	back	1:1	1.310	1.202	1.575	
1 CC Uplink	N/A	1770.00	132572	High	LTE Band 66 (AWS)	20	26	23.5	22.77	0.06	1	1071M	QPSK	50	25	8 mm	back	1:1	1.100	1.183	1.301	
1 CC Uplink	N/A	1770.00	132572	High	LTE Band 66 (AWS)	20	26	24.5	23.70	0.01	0	1071M	QPSK	1	0	6 mm	front	1:1	1.660	1.202	1.995	
1 CC Uplink	N/A	1770.00	132572	High	LTE Band 66 (AWS)	20	26	23.5	22.77	0.07	1	1071M	QPSK	50	25	6 mm	front	1:1	1.410	1.183	1.668	
1 CC Uplink	N/A	1770.00	132572	High	LTE Band 66 (AWS)	20	26	24.5	23.70	-0.07	0	1071M	QPSK	1	0	11 mm	bottom	1:1	1.420	1.202	1.707	
1 CC Uplink	N/A	1770.00	132572	High	LTE Band 66 (AWS)	20	26	23.5	22.77	-0.02	1	1071M	QPSK	50	25	11 mm	bottom	1:1	1.210	1.183	1.431	
1 CC Uplink	N/A	1770.00	132572	High	LTE Band 66 (AWS)	20	26	24.5	23.70	-0.15	0	1071M	QPSK	1	0	0 mm	right	1:1	0.549	1.202	0.660	
1 CC Uplink	N/A	1770.00	132572	High	LTE Band 66 (AWS)	20	26	23.5	22.77	-0.11	1	1071M	QPSK	50	25	0 mm	right	1:1	0.458	1.183	0.542	
1 CC Uplink	N/A	1770.00	132572	High	LTE Band 66 (AWS)	20	26	24.5	23.70	-0.03	0	1071M	QPSK	1	0	0 mm	left	1:1	0.547	1.202	0.657	
1 CC Uplink	N/A	1770.00	132572	High	LTE Band 66 (AWS)	20	26	23.5	22.77	-0.06	1	1071M	QPSK	50	25	0 mm	left	1:1	0.436	1.183	0.516	
1 CC Uplink	N/A	1770.00	132572	High	LTE Band 66 (AWS)	20	26	20.0	19.25	-0.02	0	1010M	QPSK	1	0	0 mm	back	1:1	1.460	1.189	1.736	
1 CC Uplink	N/A	1770.00	132572	High	LTE Band 66 (AWS)	20	26	20.0	19.25	-0.02	0	1010M	QPSK	50	25	0 mm	back	1:1	1.460	1.189	1.736	
1 CC Uplink	N/A	1770.00	132572	High	LTE Band 66 (AWS)	20	26	20.0	19.25	0.08	0	1010M	QPSK	1	0	0 mm	front	1:1	1.500	1.189	1.784	
1 CC Uplink	N/A	1770.00	132572	High	LTE Band 66 (AWS)	20	26	20.0	19.25	0.03	0	1010M	QPSK	50	25	0 mm	front	1:1	1.520	1.189	1.807	
1 CC Uplink	N/A	1720.00	132072	Low	LTE Band 66 (AWS)	20	26	20.0	19.13	-0.06	0	1010M	QPSK	1	50	0 mm	bottom	1:1	1.620	1.222	1.980	
1 CC Uplink	N/A	1745.00	132322	Mid	LTE Band 66 (AWS)	20	26	20.0	19.13	-0.14	0	1010M	QPSK	1	50	0 mm	bottom	1:1	1.830	1.222	2.236	
1 CC Uplink	N/A	1770.00	132572	High	LTE Band 66 (AWS)	20	26	20.0	19.25	-0.07	0	1010M	QPSK	1	0	0 mm	bottom	1:1	1.720	1.189	2.045	
1 CC Uplink	N/A	1720.00	132072	Low	LTE Band 66 (AWS)	20	26	20.0	19.18	-0.04	0	1010M	QPSK	50	50	0 mm	bottom	1:1	1.680	1.208	2.029	
1 CC Uplink	N/A	1745.00	132322	Mid	LTE Band 66 (AWS)	20	26	20.0	19.20	-0.13	0	1010M	QPSK	50	0	0 mm	bottom	1:1	1.910	1.202	2.296	
1 CC Uplink	N/A	1745.00	132322	Mid	LTE Band 66 (AWS)	10	26	20.0	19.03	-0.10	0	1010M	QPSK	25	0	0 mm	bottom	1:1	1.830	1.250	2.288	
1 CC Uplink	N/A	1770.00	132572	High	LTE Band 66 (AWS)	20	26	20.0	19.25	-0.10	0	1010M	QPSK	50	25	0 mm	bottom	1:1	1.740	1.189	2.069	
1 CC Uplink	N/A	1770.00	132572	High	LTE Band 66 (AWS)	20	26	20.0	19.16	-0.18	0	1010M	QPSK	100	0	0 mm	bottom	1:1	1.700	1.213	2.062	
CA_66C 2 CC Uplink	PCC	1745.00	132322	Mid	LTE Band 66 (AWS)	20	26	20.0	19.90	-0.05	0	1010M	QPSK	50	0	0 mm	bottom	1:1	2.250	1.023	2.302	A92
	SCC	1725.20	132124	Mid	LTE Band 66 (AWS)	20								50	50							
CA_66B 2 CC Uplink	PCC	1745.00	132322	Mid	LTE Band 66 (AWS)	10	26	20.0	19.30	-0.03	0	1010M	QPSK	25	0	0 mm	bottom	1:1	1.970	1.175	2.315	
	SCC	1735.10	132223	Mid	LTE Band 66 (AWS)	10								25	25							

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

Table 11-68
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	26	24.0	23.27	0.18	0	1071M	QPSK	1	99	8 mm	back	1:1	1.100	1.183	1.301	
1860.00	26140	Low	LTE Band 25 (PCS)	20	26	23.0	22.40	0.09	1	1071M	QPSK	50	25	8 mm	back	1:1	0.889	1.148	1.021	
1860.00	26140	Low	LTE Band 25 (PCS)	20	26	24.0	23.27	-0.06	0	1071M	QPSK	1	99	6 mm	front	1:1	1.300	1.183	1.538	
1860.00	26140	Low	LTE Band 25 (PCS)	20	26	23.0	22.40	-0.07	1	1071M	QPSK	50	25	6 mm	front	1:1	1.180	1.148	1.355	
1860.00	26140	Low	LTE Band 25 (PCS)	20	26	24.0	23.27	-0.12	0	1071M	QPSK	1	99	11 mm	bottom	1:1	1.270	1.183	1.502	
1860.00	26140	Low	LTE Band 25 (PCS)	20	26	23.0	22.40	-0.09	1	1071M	QPSK	50	25	11 mm	bottom	1:1	1.050	1.148	1.205	
1860.00	26140	Low	LTE Band 25 (PCS)	20	26	24.0	23.27	-0.06	0	1071M	QPSK	1	99	0 mm	right	1:1	0.444	1.183	0.525	
1860.00	26140	Low	LTE Band 25 (PCS)	20	26	23.0	22.40	-0.06	1	1071M	QPSK	50	25	0 mm	right	1:1	0.349	1.148	0.401	
1860.00	26140	Low	LTE Band 25 (PCS)	20	26	24.0	23.27	-0.14	0	1071M	QPSK	1	99	0 mm	left	1:1	0.414	1.183	0.490	
1860.00	26140	Low	LTE Band 25 (PCS)	20	26	23.0	22.40	-0.13	1	1071M	QPSK	50	25	0 mm	left	1:1	0.328	1.148	0.377	
1860.00	26140	Low	LTE Band 25 (PCS)	20	26	20.0	19.21	-0.14	0	1077M	QPSK	1	99	0 mm	back	1:1	1.740	1.199	2.086	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	26	20.0	19.12	-0.08	0	1077M	QPSK	1	0	0 mm	back	1:1	1.820	1.225	2.230	
1905.00	26590	High	LTE Band 25 (PCS)	20	26	20.0	19.00	0.10	0	1077M	QPSK	1	99	0 mm	back	1:1	1.680	1.259	2.115	
1860.00	26140	Low	LTE Band 25 (PCS)	20	26	20.0	19.25	-0.03	0	1077M	QPSK	50	25	0 mm	back	1:1	1.780	1.189	2.116	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	26	20.0	19.22	-0.01	0	1077M	QPSK	50	0	0 mm	back	1:1	1.920	1.197	2.298	
1905.00	26590	High	LTE Band 25 (PCS)	20	26	20.0	19.01	0.02	0	1077M	QPSK	50	50	0 mm	back	1:1	1.770	1.256	2.223	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	26	20.0	19.18	0.03	0	1077M	QPSK	100	0	0 mm	back	1:1	1.870	1.208	2.259	
1860.00	26140	Low	LTE Band 25 (PCS)	20	26	20.0	19.21	-0.19	0	1077M	QPSK	1	99	0 mm	front	1:1	1.830	1.199	2.194	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	26	20.0	19.12	-0.14	0	1077M	QPSK	1	0	0 mm	front	1:1	1.910	1.225	2.340	
1905.00	26590	High	LTE Band 25 (PCS)	20	26	20.0	19.00	-0.16	0	1077M	QPSK	1	99	0 mm	front	1:1	1.730	1.259	2.178	
1860.00	26140	Low	LTE Band 25 (PCS)	20	26	20.0	19.25	-0.21	0	1077M	QPSK	50	25	0 mm	front	1:1	1.860	1.189	2.212	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	26	20.0	19.22	-0.18	0	1077M	QPSK	50	0	0 mm	front	1:1	2.010	1.197	2.406	
1905.00	26590	High	LTE Band 25 (PCS)	20	26	20.0	19.01	-0.21	0	1077M	QPSK	50	50	0 mm	front	1:1	1.870	1.256	2.349	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	26	20.0	19.18	-0.21	0	1077M	QPSK	100	0	0 mm	front	1:1	1.950	1.208	2.356	
1860.00	26140	Low	LTE Band 25 (PCS)	20	26	20.0	19.21	-0.12	0	1077M	QPSK	1	99	0 mm	bottom	1:1	2.310	1.199	2.770	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	26	20.0	19.12	-0.15	0	1077M	QPSK	1	0	0 mm	bottom	1:1	2.370	1.225	2.903	
1905.00	26590	High	LTE Band 25 (PCS)	20	26	20.0	19.00	-0.16	0	1077M	QPSK	1	99	0 mm	bottom	1:1	2.200	1.259	2.770	
1860.00	26140	Low	LTE Band 25 (PCS)	20	26	20.0	19.25	-0.18	0	1077M	QPSK	50	25	0 mm	bottom	1:1	2.350	1.189	2.794	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	26	20.0	19.22	-0.17	0	1077M	QPSK	50	0	0 mm	bottom	1:1	2.580	1.197	3.088	A93
1905.00	26590	High	LTE Band 25 (PCS)	20	26	20.0	19.01	-0.12	0	1077M	QPSK	50	50	0 mm	bottom	1:1	2.230	1.256	2.801	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	26	20.0	19.18	-0.21	0	1077M	QPSK	100	0	0 mm	bottom	1:1	2.450	1.208	2.960	

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

Table 11-69
LTE Band 2 (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	18700	Low	LTE Band 2 (PCS)	20	55	24.0	23.21	0.04	0	0449M	QPSK	1	99	8 mm	back	1:1	1.040	1.199	1.247	
1860.00	18700	Low	LTE Band 2 (PCS)	20	55	23.0	22.37	0.03	1	0449M	QPSK	50	50	8 mm	back	1:1	0.840	1.156	0.971	
1860.00	18700	Low	LTE Band 2 (PCS)	20	55	24.0	23.21	-0.01	0	0449M	QPSK	1	99	6 mm	front	1:1	1.180	1.199	1.415	
1860.00	18700	Low	LTE Band 2 (PCS)	20	55	23.0	22.37	0.11	1	0449M	QPSK	50	50	6 mm	front	1:1	1.080	1.156	1.248	
1860.00	18700	Low	LTE Band 2 (PCS)	20	55	24.0	23.21	-0.08	0	0449M	QPSK	1	99	11 mm	bottom	1:1	1.170	1.199	1.403	
1860.00	18700	Low	LTE Band 2 (PCS)	20	55	23.0	22.37	-0.09	1	0449M	QPSK	50	50	11 mm	bottom	1:1	0.958	1.156	1.107	
1860.00	18700	Low	LTE Band 2 (PCS)	20	55	24.0	23.21	-0.14	0	0449M	QPSK	1	99	0 mm	right	1:1	0.565	1.199	0.677	
1860.00	18700	Low	LTE Band 2 (PCS)	20	55	23.0	22.37	-0.10	1	0449M	QPSK	50	50	0 mm	right	1:1	0.442	1.156	0.511	
1860.00	18700	Low	LTE Band 2 (PCS)	20	55	24.0	23.21	-0.02	0	0449M	QPSK	1	99	0 mm	left	1:1	0.332	1.199	0.398	
1860.00	18700	Low	LTE Band 2 (PCS)	20	55	23.0	22.37	-0.05	1	0449M	QPSK	50	50	0 mm	left	1:1	0.260	1.156	0.301	
1860.00	18700	Low	LTE Band 2 (PCS)	20	55	20.0	19.06	0.11	0	1077M	QPSK	1	50	0 mm	back	1:1	1.630	1.242	2.024	
1880.00	18900	Mid	LTE Band 2 (PCS)	20	55	20.0	18.96	0.15	0	1077M	QPSK	1	0	0 mm	back	1:1	1.740	1.271	2.212	
1900.00	19100	High	LTE Band 2 (PCS)	20	55	20.0	18.91	0.04	0	1077M	QPSK	1	50	0 mm	back	1:1	1.640	1.285	2.107	
1860.00	18700	Low	LTE Band 2 (PCS)	20	55	20.0	19.15	0.07	0	1077M	QPSK	50	25	0 mm	back	1:1	1.730	1.216	2.104	
1880.00	18900	Mid	LTE Band 2 (PCS)	20	55	20.0	19.06	0.09	0	1077M	QPSK	50	25	0 mm	back	1:1	1.860	1.242	2.310	
1900.00	19100	High	LTE Band 2 (PCS)	20	55	20.0	18.86	0.13	0	1077M	QPSK	50	25	0 mm	back	1:1	1.740	1.300	2.262	
1860.00	18700	Low	LTE Band 2 (PCS)	20	55	20.0	19.05	0.06	0	1077M	QPSK	100	0	0 mm	back	1:1	1.710	1.245	2.129	
1860.00	18700	Low	LTE Band 2 (PCS)	20	55	20.0	19.06	-0.15	0	1077M	QPSK	1	50	0 mm	front	1:1	1.720	1.242	2.136	
1880.00	18900	Mid	LTE Band 2 (PCS)	20	55	20.0	18.96	-0.01	0	1077M	QPSK	1	0	0 mm	front	1:1	1.840	1.271	2.339	
1900.00	19100	High	LTE Band 2 (PCS)	20	55	20.0	18.91	-0.19	0	1077M	QPSK	1	50	0 mm	front	1:1	1.750	1.285	2.249	
1860.00	18700	Low	LTE Band 2 (PCS)	20	55	20.0	19.15	-0.19	0	1077M	QPSK	50	25	0 mm	front	1:1	1.820	1.216	2.213	
1880.00	18900	Mid	LTE Band 2 (PCS)	20	55	20.0	19.06	-0.18	0	1077M	QPSK	50	25	0 mm	front	1:1	1.960	1.242	2.434	
1900.00	19100	High	LTE Band 2 (PCS)	20	55	20.0	18.86	-0.14	0	1077M	QPSK	50	25	0 mm	front	1:1	1.790	1.300	2.327	
1860.00	18700	Low	LTE Band 2 (PCS)	20	55	20.0	19.05	-0.12	0	1077M	QPSK	100	0	0 mm	front	1:1	1.790	1.245	2.229	
1860.00	18700	Low	LTE Band 2 (PCS)	20	55	20.0	19.06	-0.09	0	1077M	QPSK	1	50	0 mm	bottom	1:1	2.190	1.242	2.720	
1880.00	18900	Mid	LTE Band 2 (PCS)	20	55	20.0	18.96	-0.07	0	1077M	QPSK	1	0	0 mm	bottom	1:1	2.320	1.271	2.949	
1900.00	19100	High	LTE Band 2 (PCS)	20	55	20.0	18.91	-0.10	0	1077M	QPSK	1	50	0 mm	bottom	1:1	2.070	1.285	2.660	
1860.00	18700	Low	LTE Band 2 (PCS)	20	55	20.0	19.15	-0.17	0	1077M	QPSK	50	25	0 mm	bottom	1:1	2.320	1.216	2.821	
1880.00	18900	Mid	LTE Band 2 (PCS)	20	55	20.0	19.06	-0.12	0	1077M	QPSK	50	25	0 mm	bottom	1:1	2.520	1.242	**3.130**	A94
1900.00	19100	High	LTE Band 2 (PCS)	20	55	20.0	18.86	-0.14	0	1077M	QPSK	50	25	0 mm	bottom	1:1	2.210	1.300	2.873	
1860.00	18700	Low	LTE Band 2 (PCS)	20	55	20.0	19.05	-0.20	0	1077M	QPSK	100	0	0 mm	bottom	1:1	2.290	1.245	2.851	

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

Table 11-70
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	24.5	23.59	-0.05	0	0932M	QPSK	1	0	8 mm	back	1:1	0.856	1.233	1.055	
2310.00	27710	Mid	LTE Band 30	10	23.5	22.72	-0.04	1	0932M	QPSK	25	12	8 mm	back	1:1	0.689	1.197	0.825	
2310.00	27710	Mid	LTE Band 30	10	24.5	23.59	-0.01	0	0932M	QPSK	1	0	6 mm	front	1:1	1.130	1.233	1.393	
2310.00	27710	Mid	LTE Band 30	10	23.5	22.72	-0.01	1	0932M	QPSK	25	12	6 mm	front	1:1	0.918	1.197	1.099	
2310.00	27710	Mid	LTE Band 30	10	24.5	23.59	-0.05	0	0932M	QPSK	1	0	11 mm	bottom	1:1	1.310	1.233	1.615	
2310.00	27710	Mid	LTE Band 30	10	23.5	22.72	-0.02	1	0932M	QPSK	25	12	11 mm	bottom	1:1	1.060	1.197	1.269	
2310.00	27710	Mid	LTE Band 30	10	24.5	23.59	-0.04	0	0932M	QPSK	1	0	0 mm	right	1:1	0.294	1.233	0.363	
2310.00	27710	Mid	LTE Band 30	10	23.5	22.72	-0.13	1	0932M	QPSK	25	12	0 mm	right	1:1	0.233	1.197	0.279	
2310.00	27710	Mid	LTE Band 30	10	24.5	23.59	-0.17	0	0932M	QPSK	1	0	0 mm	left	1:1	0.515	1.233	0.635	
2310.00	27710	Mid	LTE Band 30	10	23.5	22.72	-0.16	1	0932M	QPSK	25	12	0 mm	left	1:1	0.414	1.197	0.496	
2310.00	27710	Mid	LTE Band 30	10	22.5	21.38	0.10	0	1014M	QPSK	1	25	0 mm	back	1:1	2.010	1.294	2.601	
2310.00	27710	Mid	LTE Band 30	10	22.5	21.50	-0.15	0	1014M	QPSK	25	12	0 mm	back	1:1	2.070	1.259	2.606	A95
2310.00	27710	Mid	LTE Band 30	10	22.5	21.37	0.10	0	1014M	QPSK	50	0	0 mm	back	1:1	2.030	1.297	2.633	
2310.00	27710	Mid	LTE Band 30	10	22.5	21.38	-0.11	0	1014M	QPSK	1	25	0 mm	front	1:1	1.890	1.294	2.446	
2310.00	27710	Mid	LTE Band 30	10	22.5	21.50	-0.07	0	1014M	QPSK	25	12	0 mm	front	1:1	1.920	1.259	2.417	
2310.00	27710	Mid	LTE Band 30	10	22.5	21.37	-0.07	0	1014M	QPSK	50	0	0 mm	front	1:1	1.890	1.297	2.451	
2310.00	27710	Mid	LTE Band 30	10	22.5	21.38	-0.21	0	1014M	QPSK	1	25	0 mm	bottom	1:1	1.240	1.294	1.605	
2310.00	27710	Mid	LTE Band 30	10	22.5	21.50	-0.13	0	1014M	QPSK	25	12	0 mm	bottom	1:1	1.260	1.259	1.586	
2310.00	27710	Mid	LTE Band 30	10	22.5	21.50	0.14	0	1014M	QPSK	25	12	0 mm	back	1:1	2.050	1.259	2.581	
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.

Table 11-71
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	23.58	-0.12	0	0433M	QPSK	1	99	8 mm	back	1:1	0.726	1.102	0.800	
2510.00	20850	Low	LTE Band 7	20	23.0	22.74	-0.03	1	0433M	QPSK	50	25	8 mm	back	1:1	0.572	1.062	0.607	
2510.00	20850	Low	LTE Band 7	20	24.0	23.58	0.04	0	0433M	QPSK	1	99	6 mm	front	1:1	0.839	1.102	0.925	
2510.00	20850	Low	LTE Band 7	20	23.0	22.74	0.04	1	0433M	QPSK	50	25	6 mm	front	1:1	0.683	1.062	0.725	
2510.00	20850	Low	LTE Band 7	20	24.0	23.58	-0.02	0	0433M	QPSK	1	99	11 mm	bottom	1:1	0.927	1.102	1.022	
2510.00	20850	Low	LTE Band 7	20	23.0	22.74	0.03	1	0433M	QPSK	50	25	11 mm	bottom	1:1	0.763	1.062	0.810	
2510.00	20850	Low	LTE Band 7	20	24.0	23.58	0.10	0	0433M	QPSK	1	99	0 mm	right	1:1	0.184	1.102	0.203	
2510.00	20850	Low	LTE Band 7	20	23.0	22.74	0.07	1	0433M	QPSK	50	25	0 mm	right	1:1	0.164	1.062	0.174	
2510.00	20850	Low	LTE Band 7	20	24.0	23.58	-0.15	0	0433M	QPSK	1	99	0 mm	left	1:1	0.749	1.102	0.825	
2510.00	20850	Low	LTE Band 7	20	23.0	22.74	-0.13	1	0433M	QPSK	50	25	0 mm	left	1:1	0.628	1.062	0.667	
2510.00	20850	Low	LTE Band 7	20	20.0	19.55	0.19	0	1014M	QPSK	1	50	0 mm	back	1:1	1.860	1.109	2.063	
2535.00	21100	Mid	LTE Band 7	20	20.0	19.50	0.17	0	1014M	QPSK	1	0	0 mm	back	1:1	1.750	1.122	1.964	
2560.00	21350	High	LTE Band 7	20	20.0	19.44	0.12	0	1014M	QPSK	1	0	0 mm	back	1:1	1.660	1.138	1.889	
2510.00	20850	Low	LTE Band 7	20	20.0	19.65	-0.16	0	1014M	QPSK	50	50	0 mm	back	1:1	2.060	1.084	2.233	A96
2535.00	21100	Mid	LTE Band 7	20	20.0	19.53	0.13	0	1014M	QPSK	50	0	0 mm	back	1:1	1.850	1.114	2.061	
2560.00	21350	High	LTE Band 7	20	20.0	19.57	-0.15	0	1014M	QPSK	50	50	0 mm	back	1:1	1.720	1.104	1.899	
2510.00	20850	Low	LTE Band 7	20	20.0	19.50	0.11	0	1014M	QPSK	100	0	0 mm	back	1:1	1.960	1.122	2.199	
2510.00	20850	Low	LTE Band 7	20	20.0	19.55	0.01	0	1014M	QPSK	1	50	0 mm	front	1:1	1.430	1.109	1.586	
2510.00	20850	Low	LTE Band 7	20	20.0	19.65	0.02	0	1014M	QPSK	50	50	0 mm	front	1:1	1.470	1.084	1.593	
2510.00	20850	Low	LTE Band 7	20	20.0	19.55	-0.15	0	1014M	QPSK	1	50	0 mm	bottom	1:1	1.340	1.109	1.486	
2510.00	20850	Low	LTE Band 7	20	20.0	19.65	-0.14	0	1014M	QPSK	50	50	0 mm	bottom	1:1	1.410	1.084	1.528	
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 11-72
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	24.32	0.00	0	1018M	QPSK	1	0	8 mm	back	1:1.58	0.388	1.169	0.454	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	24.0	23.50	-0.03	1	1018M	QPSK	50	25	8 mm	back	1:1.58	0.307	1.122	0.344	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	25.0	24.32	-0.07	0	1018M	QPSK	1	0	6 mm	front	1:1.58	0.453	1.169	0.530	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	24.0	23.50	-0.03	1	1018M	QPSK	50	25	6 mm	front	1:1.58	0.360	1.122	0.404	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	25.0	24.32	-0.03	0	1018M	QPSK	1	0	11 mm	bottom	1:1.58	0.441	1.169	0.516	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	24.0	23.50	-0.07	1	1018M	QPSK	50	25	11 mm	bottom	1:1.58	0.350	1.122	0.393	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	25.0	24.32	0.09	0	1018M	QPSK	1	0	0 mm	right	1:1.58	0.124	1.169	0.145	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	24.0	23.50	-0.02	1	1018M	QPSK	50	25	0 mm	right	1:1.58	0.082	1.122	0.092	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	25.0	24.32	-0.18	0	1018M	QPSK	1	0	0 mm	left	1:1.58	0.395	1.169	0.462	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	24.0	23.50	-0.10	1	1018M	QPSK	50	25	0 mm	left	1:1.58	0.368	1.122	0.413	
1 CC Uplink - Power Class 3	N/A	2506.00	39750	Low	LTE Band 41	20	23.0	22.33	-0.07	0	0932M	QPSK	1	0	0 mm	back	1:1.58	2.250	1.167	2.626	
1 CC Uplink - Power Class 3	N/A	2506.00	39750	Low	LTE Band 41	20	23.0	22.19	0.13	0	0932M	QPSK	1	99	0 mm	back	1:1.58	2.130	1.205	2.567	
1 CC Uplink - Power Class 3	N/A	2549.50	40185	Low-Mid	LTE Band 41	20	23.0	22.35	-0.10	0	0932M	QPSK	1	99	0 mm	back	1:1.58	2.020	1.161	2.345	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	23.0	22.50	-0.13	0	0932M	QPSK	1	50	0 mm	back	1:1.58	1.960	1.122	2.199	
1 CC Uplink - Power Class 3	N/A	2636.50	41055	Mid-High	LTE Band 41	20	23.0	21.75	-0.20	0	0932M	QPSK	1	50	0 mm	back	1:1.58	1.900	1.334	2.535	
1 CC Uplink - Power Class 3	N/A	2680.00	41490	High	LTE Band 41	20	23.0	22.02	-0.13	0	0932M	QPSK	1	50	0 mm	back	1:1.58	1.810	1.253	2.268	
1 CC Uplink - Power Class 3	N/A	2506.00	39750	Low	LTE Band 41	20	23.0	22.49	-0.10	0	0932M	QPSK	50	25	0 mm	back	1:1.58	2.220	1.125	2.498	
1 CC Uplink - Power Class 3	N/A	2549.50	40185	Low-Mid	LTE Band 41	20	23.0	22.34	-0.12	0	0932M	QPSK	50	25	0 mm	back	1:1.58	2.020	1.164	2.351	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	23.0	22.50	-0.17	0	0932M	QPSK	50	25	0 mm	back	1:1.58	2.050	1.122	2.300	
1 CC Uplink - Power Class 3	N/A	2636.50	41055	Mid-High	LTE Band 41	20	23.0	21.93	-0.19	0	0932M	QPSK	50	25	0 mm	back	1:1.58	1.970	1.279	2.520	
1 CC Uplink - Power Class 3	N/A	2680.00	41490	High	LTE Band 41	20	23.0	22.15	-0.15	0	0932M	QPSK	50	50	0 mm	back	1:1.58	1.880	1.216	2.286	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	23.0	22.46	-0.12	0	0932M	QPSK	100	0	0 mm	back	1:1.58	2.020	1.132	2.287	
1 CC Uplink - Power Class 2	N/A	2506.00	39750	Low	LTE Band 41	20	24.6	24.00	-0.13	0	0932M	QPSK	1	0	0 mm	back	1:2.31	2.060	1.148	2.365	
1 CC Uplink - Power Class 2	N/A	2506.00	39750	Low	LTE Band 41	20	24.6	23.72	-0.15	0	0932M	QPSK	1	99	0 mm	back	1:2.31	1.880	1.225	2.303	
2 CC Uplink - Power Class 3	PCC	2506.00	39750	Low	LTE Band 41	20	23.0	22.79	0.17	0	0932M	QPSK	1	99	0 mm	back	1:1.58	2.540	1.050	2.667	A97
	SCC	2525.80	39948	Low	LTE Band 41	20							1	0							
2 CC Uplink - Power Class 2	PCC	2506.00	39750	Low	LTE Band 41	20	24.6	24.30	-0.19	0	0932M	QPSK	1	99	0 mm	back	1:2.31	2.220	1.072	2.380	
	SCC	2525.80	39948	Low	LTE Band 41	20							1	0							
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	23.0	22.50	0.15	0	0932M	QPSK	1	50	0 mm	front	1:1.58	1.320	1.122	1.481	
1 CC Uplink - Power Class 3	N/A	2506.00	39750	Low	LTE Band 41	20	23.0	22.49	0.17	0	0932M	QPSK	50	25	0 mm	front	1:1.58	1.520	1.125	1.710	
1 CC Uplink - Power Class 3	N/A	2549.50	40185	Low-Mid	LTE Band 41	20	23.0	22.34	0.14	0	0932M	QPSK	50	25	0 mm	front	1:1.58	1.360	1.164	1.583	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	23.0	22.50	0.12	0	0932M	QPSK	50	25	0 mm	front	1:1.58	1.380	1.122	1.548	
1 CC Uplink - Power Class 3	N/A	2636.50	41055	Mid-High	LTE Band 41	20	23.0	21.93	0.02	0	0932M	QPSK	50	25	0 mm	front	1:1.58	1.320	1.279	1.688	
1 CC Uplink - Power Class 3	N/A	2680.00	41490	High	LTE Band 41	20	23.0	22.15	-0.04	0	0932M	QPSK	50	50	0 mm	front	1:1.58	1.100	1.216	1.338	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	23.0	22.46	0.11	0	0932M	QPSK	100	0	0 mm	front	1:1.58	1.360	1.132	1.540	
1 CC Uplink - Power Class 3	N/A	2506.00	39750	Low	LTE Band 41	20	23.0	22.33	0.16	0	0932M	QPSK	1	0	0 mm	bottom	1:1.58	1.430	1.167	1.669	
1 CC Uplink - Power Class 3	N/A	2549.50	40185	Low-Mid	LTE Band 41	20	23.0	22.35	-0.16	0	0932M	QPSK	1	99	0 mm	bottom	1:1.58	1.320	1.161	1.533	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	23.0	22.50	-0.18	0	0932M	QPSK	1	50	0 mm	bottom	1:1.58	1.740	1.122	1.952	
1 CC Uplink - Power Class 3	N/A	2636.50	41055	Mid-High	LTE Band 41	20	23.0	21.75	-0.13	0	0932M	QPSK	1	50	0 mm	bottom	1:1.58	1.520	1.334	2.028	
1 CC Uplink - Power Class 3	N/A	2680.00	41490	High	LTE Band 41	20	23.0	22.02	-0.14	0	0932M	QPSK	1	50	0 mm	bottom	1:1.58	1.410	1.253	1.767	
1 CC Uplink - Power Class 3	N/A	2506.00	39750	Low	LTE Band 41	20	23.0	22.49	-0.16	0	0932M	QPSK	50	25	0 mm	bottom	1:1.58	1.500	1.125	1.688	
1 CC Uplink - Power Class 3	N/A	2549.50	40185	Low-Mid	LTE Band 41	20	23.0	22.34	-0.18	0	0932M	QPSK	50	25	0 mm	bottom	1:1.58	1.360	1.164	1.583	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	23.0	22.50	-0.16	0	0932M	QPSK	50	25	0 mm	bottom	1:1.58	1.820	1.122	2.042	
1 CC Uplink - Power Class 3	N/A	2636.50	41055	Mid-High	LTE Band 41	20	23.0	21.93	-0.16	0	0932M	QPSK	50	25	0 mm	bottom	1:1.58	1.590	1.279	2.034	
1 CC Uplink - Power Class 3	N/A	2680.00	41490	High	LTE Band 41	20	23.0	22.15	-0.19	0	0932M	QPSK	50	50	0 mm	bottom	1:1.58	1.410	1.216	1.715	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	23.0	22.46	-0.18	0	0932M	QPSK	100	0	0 mm	bottom	1:1.58	1.780	1.132	2.015	
2 CC Uplink - Power Class 3	PCC	2506.00	39750	Low	LTE Band 41	20	23.0	22.79	-0.09	0	0932M	QPSK	1	99	0 mm	back	1:1.58	2.270	1.050	2.384	
	SCC	2525.80	39948	Low	LTE Band 41	20							1	0							
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	23.0	22.50	-0.04	0	0932M	QPSK	50	25	0 mm	back	1:1.58	2.020	1.122	2.266	
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.

Table 11-73
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	26	24.5	24.35	-0.01	0	1005M	DFT-S-OFDM QPSK	1	53	8 mm	back	1:1	0.907	1.035	0.939	
1745.00	349000	Mid	NR Band n66 (AWS)	20	26	24.5	24.34	0.03	0	1005M	DFT-S-OFDM QPSK	50	28	8 mm	back	1:1	0.887	1.038	0.921	
1745.00	349000	Mid	NR Band n66 (AWS)	20	26	24.5	24.35	0.06	0	1005M	DFT-S-OFDM QPSK	1	53	6 mm	front	1:1	1.090	1.035	1.128	
1745.00	349000	Mid	NR Band n66 (AWS)	20	26	24.5	24.34	0.08	0	1005M	DFT-S-OFDM QPSK	50	28	6 mm	front	1:1	1.070	1.038	1.111	
1745.00	349000	Mid	NR Band n66 (AWS)	20	26	24.5	24.35	0.01	0	1005M	DFT-S-OFDM QPSK	1	53	11 mm	bottom	1:1	0.984	1.035	1.018	
1745.00	349000	Mid	NR Band n66 (AWS)	20	26	24.5	24.34	0.03	0	1005M	DFT-S-OFDM QPSK	50	28	11 mm	bottom	1:1	0.949	1.038	0.985	
1745.00	349000	Mid	NR Band n66 (AWS)	20	26	24.5	24.35	0.06	0	1005M	DFT-S-OFDM QPSK	1	53	0 mm	right	1:1	0.385	1.035	0.398	
1745.00	349000	Mid	NR Band n66 (AWS)	20	26	24.5	24.34	0.04	0	1005M	DFT-S-OFDM QPSK	50	28	0 mm	right	1:1	0.381	1.038	0.395	
1745.00	349000	Mid	NR Band n66 (AWS)	20	26	24.5	24.35	-0.06	0	1005M	DFT-S-OFDM QPSK	1	53	0 mm	left	1:1	0.477	1.035	0.494	
1745.00	349000	Mid	NR Band n66 (AWS)	20	26	24.5	24.34	-0.11	0	1005M	DFT-S-OFDM QPSK	50	28	0 mm	left	1:1	0.456	1.038	0.473	
1745.00	349000	Mid	NR Band n66 (AWS)	20	26	20.0	19.98	-0.01	0	1005M	DFT-S-OFDM QPSK	1	53	0 mm	back	1:1	1.770	1.005	1.779	
1745.00	349000	Mid	NR Band n66 (AWS)	20	26	20.0	19.96	-0.01	0	1005M	DFT-S-OFDM QPSK	50	56	0 mm	back	1:1	1.790	1.009	1.806	
1745.00	349000	Mid	NR Band n66 (AWS)	20	26	20.0	19.98	0.10	0	1005M	DFT-S-OFDM QPSK	1	53	0 mm	front	1:1	1.780	1.005	1.789	
1745.00	349000	Mid	NR Band n66 (AWS)	20	26	20.0	19.96	0.06	0	1005M	DFT-S-OFDM QPSK	50	56	0 mm	front	1:1	1.810	1.009	1.826	
1720.00	344000	Low	NR Band n66 (AWS)	20	26	20.0	19.89	0.10	0	1005M	DFT-S-OFDM QPSK	1	1	0 mm	bottom	1:1	2.130	1.026	2.185	
1745.00	349000	Mid	NR Band n66 (AWS)	20	26	20.0	19.98	-0.05	0	1005M	DFT-S-OFDM QPSK	1	53	0 mm	bottom	1:1	2.000	1.005	2.010	
1770.00	354000	High	NR Band n66 (AWS)	20	26	20.0	19.91	-0.13	0	1005M	DFT-S-OFDM QPSK	1	1	0 mm	bottom	1:1	2.180	1.021	2.226	
1720.00	344000	Low	NR Band n66 (AWS)	20	26	20.0	19.84	-0.11	0	1005M	DFT-S-OFDM QPSK	50	0	0 mm	bottom	1:1	2.250	1.038	2.336	A98
1720.00	344000	Low	NR Band n66 (AWS)	20	26	20.0	19.83	0.02	0	1005M	CP-OFDM QPSK	1	1	0 mm	bottom	1:1	2.110	1.040	2.194	
1745.00	349000	Mid	NR Band n66 (AWS)	20	26	20.0	19.96	-0.06	0	1005M	DFT-S-OFDM QPSK	50	56	0 mm	bottom	1:1	2.130	1.009	2.149	
1770.00	354000	High	NR Band n66 (AWS)	20	26	20.0	19.95	-0.03	0	1005M	DFT-S-OFDM QPSK	50	0	0 mm	bottom	1:1	2.160	1.012	2.186	
1745.00	349000	Mid	NR Band n66 (AWS)	20	26	20.0	19.95	-0.04	0	1005M	DFT-S-OFDM QPSK	100	0	0 mm	bottom	1:1	2.110	1.012	2.135	
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
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	55	24.0	23.95	-0.07	0	1005M	DFT-S-OFDM QPSK	1	104	8 mm	back	1:1	0.844	1.012	0.854	
1880.00	376000	Mid	NR Band n2 (PCS)	20	55	24.0	23.95	-0.01	0	1005M	DFT-S-OFDM QPSK	50	28	8 mm	back	1:1	1.050	1.012	1.063	
1880.00	376000	Mid	NR Band n2 (PCS)	20	55	24.0	23.95	-0.07	0	1005M	DFT-S-OFDM QPSK	1	104	6 mm	front	1:1	1.120	1.012	1.133	
1880.00	376000	Mid	NR Band n2 (PCS)	20	55	24.0	23.95	-0.02	0	1005M	DFT-S-OFDM QPSK	50	28	6 mm	front	1:1	1.260	1.012	1.275	
1880.00	376000	Mid	NR Band n2 (PCS)	20	55	24.0	23.95	-0.03	0	1005M	DFT-S-OFDM QPSK	1	104	11 mm	bottom	1:1	1.170	1.012	1.184	
1880.00	376000	Mid	NR Band n2 (PCS)	20	55	24.0	23.95	-0.04	0	1005M	DFT-S-OFDM QPSK	50	28	11 mm	bottom	1:1	1.190	1.012	1.204	
1880.00	376000	Mid	NR Band n2 (PCS)	20	55	24.0	23.95	-0.11	0	1005M	DFT-S-OFDM QPSK	1	104	0 mm	right	1:1	0.426	1.012	0.431	
1880.00	376000	Mid	NR Band n2 (PCS)	20	55	24.0	23.95	-0.09	0	1005M	DFT-S-OFDM QPSK	50	28	0 mm	right	1:1	0.438	1.012	0.443	
1880.00	376000	Mid	NR Band n2 (PCS)	20	55	24.0	23.95	-0.16	0	1005M	DFT-S-OFDM QPSK	1	104	0 mm	left	1:1	0.378	1.012	0.383	
1880.00	376000	Mid	NR Band n2 (PCS)	20	55	24.0	23.95	-0.16	0	1005M	DFT-S-OFDM QPSK	50	28	0 mm	left	1:1	0.410	1.012	0.415	
1860.00	372000	Low	NR Band n2 (PCS)	20	55	20.0	19.86	-0.06	0	1020M	DFT-S-OFDM QPSK	1	1	0 mm	back	1:1	1.730	1.033	1.787	
1860.00	372000	Low	NR Band n2 (PCS)	20	55	20.0	19.84	0.02	0	1020M	DFT-S-OFDM QPSK	50	0	0 mm	back	1:1	1.780	1.038	1.848	
1860.00	372000	Low	NR Band n2 (PCS)	20	55	20.0	19.86	-0.21	0	1020M	DFT-S-OFDM QPSK	1	1	0 mm	front	1:1	1.660	1.033	1.715	
1860.00	372000	Low	NR Band n2 (PCS)	20	55	20.0	19.84	0.12	0	1020M	DFT-S-OFDM QPSK	50	0	0 mm	front	1:1	1.700	1.038	1.765	
1860.00	372000	Low	NR Band n2 (PCS)	20	55	20.0	19.86	-0.16	0	1020M	DFT-S-OFDM QPSK	1	1	0 mm	bottom	1:1	2.230	1.033	2.304	A99
1880.00	376000	Mid	NR Band n2 (PCS)	20	55	20.0	19.66	-0.01	0	1020M	DFT-S-OFDM QPSK	1	1	0 mm	bottom	1:1	2.210	1.081	2.389	
1900.00	380000	High	NR Band n2 (PCS)	20	55	20.0	19.37	0.02	0	1020M	DFT-S-OFDM QPSK	1	1	0 mm	bottom	1:1	2.130	1.156	2.462	
1860.00	372000	Low	NR Band n2 (PCS)	20	55	20.0	19.84	-0.03	0	1020M	DFT-S-OFDM QPSK	50	0	0 mm	bottom	1:1	2.220	1.038	2.304	
1880.00	376000	Mid	NR Band n2 (PCS)	20	55	20.0	19.70	-0.04	0	1020M	DFT-S-OFDM QPSK	50	0	0 mm	bottom	1:1	2.190	1.072	2.348	
1900.00	380000	High	NR Band n2 (PCS)	20	55	20.0	19.32	0.11	0	1020M	DFT-S-OFDM QPSK	50	56	0 mm	bottom	1:1	2.110	1.169	2.467	
1900.00	380000	High	NR Band n2 (PCS)	20	55	20.0	19.35	0.05	0	1020M	CP-OFDM QPSK	1	1	0 mm	bottom	1:1	2.120	1.161	2.461	
1860.00	372000	Low	NR Band n2 (PCS)	20	55	20.0	19.83	0.04	0	1020M	DFT-S-OFDM QPSK	100	0	0 mm	bottom	1:1	2.230	1.040	2.319	
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 11-75
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	16.5	16.47	0.04	0 mm	1	0385S	6	back	99.7	25.525	1.130	1.007	1.003	1.141	
5300	60	802.11a	OFDM	20	16.5	16.47	0.17	0 mm	1	0385S	6	front	99.7	0.262	-	1.007	1.003	-	
5300	60	802.11a	OFDM	20	16.5	16.47	0.01	0 mm	1	0385S	6	top	99.7	0.708	-	1.007	1.003	-	
5300	60	802.11a	OFDM	20	16.5	16.47	-0.16	0 mm	1	0385S	6	left	99.7	2.908	0.199	1.007	1.003	0.201	
5280	56	802.11a	OFDM	20	16.5	15.97	0.12	0 mm	2	0385S	6	back	99.3	10.012	1.010	1.130	1.007	1.149	
5280	56	802.11a	OFDM	20	16.5	15.97	0.11	0 mm	2	0385S	6	front	99.3	0.444	-	1.130	1.007	-	
5280	56	802.11a	OFDM	20	16.5	15.97	0.19	0 mm	2	0385S	6	top	99.3	0.762	-	1.130	1.007	-	
5280	56	802.11a	OFDM	20	16.5	15.97	-0.20	0 mm	2	0385S	6	left	99.3	2.399	0.208	1.130	1.007	0.237	
5600	120	802.11a	OFDM	20	16.5	15.94	0.14	0 mm	1	0385S	6	back	99.7	25.510	1.060	1.138	1.003	**1.210**	
5600	120	802.11a	OFDM	20	16.5	15.94	-0.12	0 mm	1	0385S	6	front	99.7	0.191	-	1.138	1.003	-	
5600	120	802.11a	OFDM	20	16.5	15.94	0.12	0 mm	1	0385S	6	top	99.7	0.710	-	1.138	1.003	-	
5600	120	802.11a	OFDM	20	16.5	15.94	-0.10	0 mm	1	0385S	6	left	99.7	2.082	0.147	1.138	1.003	0.168	
5720	144	802.11a	OFDM	20	16.5	16.21	0.17	0 mm	2	0385S	6	back	99.3	13.619	1.100	1.069	1.007	1.184	
5720	144	802.11a	OFDM	20	16.5	16.21	0.19	0 mm	2	0385S	6	front	99.3	0.367	-	1.069	1.007	-	
5720	144	802.11a	OFDM	20	16.5	16.21	-0.16	0 mm	2	0385S	6	top	99.3	0.802	-	1.069	1.007	-	
5720	144	802.11a	OFDM	20	16.5	16.21	0.09	0 mm	2	0385S	6	left	99.3	3.117	0.284	1.069	1.007	0.306	

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

Table 11-76
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)	
5260	52	802.11n	OFDM	20	16.5	16.43	16.5	15.90	0.04	0 mm	MIMO	0385S	13	back	99.3	24.753	1.750	1.148	1.007	2.023	
5280	56	802.11n	OFDM	20	16.5	16.47	16.5	16.00	0.14	0 mm	MIMO	0385S	13	back	99.3	25.709	1.750	1.122	1.007	1.977	
5320	64	802.11n	OFDM	20	16.5	16.12	16.5	15.86	0.14	0 mm	MIMO	0385S	13	back	99.3	26.870	1.870	1.159	1.007	2.183	A100
5280	56	802.11n	OFDM	20	16.5	16.47	16.5	16.00	0.02	0 mm	MIMO	0385S	13	front	99.3	0.563	0.078	1.122	1.007	0.088	
5280	56	802.11n	OFDM	20	16.5	16.47	16.5	16.00	0.18	0 mm	MIMO	0385S	13	top	99.3	1.017	-	1.122	1.007	-	
5280	56	802.11n	OFDM	20	16.5	16.47	16.5	16.00	0.02	0 mm	MIMO	0385S	13	left	99.3	4.780	0.435	1.122	1.007	0.491	
5500	100	802.11n	OFDM	20	15.5	14.97	15.5	15.20	0.11	0 mm	MIMO	0385S	13	back	99.3	41.841	1.590	1.130	1.007	1.809	
5500	100	802.11n	OFDM	20	15.5	14.97	15.5	15.20	0.20	0 mm	MIMO	0385S	13	front	99.3	0.558	0.085	1.130	1.007	0.097	
5500	100	802.11n	OFDM	20	15.5	14.97	15.5	15.20	0.11	0 mm	MIMO	0385S	13	top	99.3	1.118	-	1.130	1.007	-	
5500	100	802.11n	OFDM	20	15.5	14.97	15.5	15.20	-0.05	0 mm	MIMO	0385S	13	left	99.3	4.853	0.427	1.130	1.007	0.486	

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

Note: For channel 52, 56, and 64 to achieve the 19.5 dBm maximum allowed MIMO power shown in the documentation, each antenna transmits at a maximum allowed power of 16.5 dBm. For channel 100 to achieve the 18.5 dBm maximum allowed MIMO power shown in the documentation, each antenna transmits at a maximum allowed power of 15.5 dBm.

11.5 SAR Test Notes

General Notes:

1. The test data reported are the worst-case SAR values according to test procedures specified in IEEE 1528-2013, and FCC KDB Publication 447498 D01v06.
2. Batteries are fully charged at the beginning of the SAR measurements.
3. Liquid tissue depth was at least 15.0 cm for all frequencies.
4. The manufacturer has confirmed that the device(s) tested have the same physical, mechanical and thermal characteristics and are within operational tolerances expected for production units.
5. SAR results were scaled to the maximum allowed power to demonstrate compliance per FCC KDB Publication 447498 D01v06.
6. Device was tested using a fixed spacing for body-worn accessory testing. A separation distance of 15 mm was considered because the manufacturer has determined that there will be body-worn accessories available in the marketplace for users to support this separation distance.
7. Per FCC KDB Publication 648474 D04v01r03, body-worn SAR was evaluated without a headset connected to the device. Since the standalone reported body-worn SAR was ≤ 1.2 W/kg, no additional body-worn SAR evaluations using a headset cable were required.
8. Per FCC KDB 865664 D01v01r04, variability SAR tests were performed when the measured SAR results for a frequency band were greater than or equal to 0.8 W/kg. Repeated SAR measurements are highlighted in the tables above for clarity. Please see Section 13 for variability analysis.
9. During SAR Testing for the Wireless Router conditions per FCC KDB Publication 941225 D06v02r01, the actual Portable Hotspot operation (with actual simultaneous transmission of a transmitter with WIFI) was not activated (See Section 6.7 for more details).
10. Per FCC KDB Publication 648474 D04v01r03, this device is considered a "phablet" since the diagonal dimension is > 160 mm and < 200 mm. Therefore, phablet SAR tests are required when wireless router mode does not apply or if wireless router 1g SAR > 1.2 W/kg.
11. This device supports dynamic antenna tuning for some bands. Per FCC Guidance, SAR was measured according to the normally required SAR measurement configurations with tuner active. The auto-tune state determined by the device was verified before and after each SAR measurement and is listed in tables above. Please see Section 14 for supplemental data.
12. This device utilizes power reduction for some wireless modes and technologies, as outlined in Section 1.4. 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.

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 LTE Band 41 ULCA active with Power Class 2. Highest SAR test configuration for each exposure condition in Power Class 3 with ULCA active was repeated with Power Class 2 with ULCA active.

NR Notes:

1. NR implementation is limited to EN-DC operations only. Per FCC guidance, SAR tests for NR Bands and LTE Anchors Bands were performed separately due to limitations in SAR probe calibration factors.
2. Due to test setup limitations, SAR testing for NR was performed using test mode software to establish the connection.
3. Simultaneous transmission analysis for EN-DC operations is addressed in the Part 2 Test Report (Serial Number can be found in the bibliography).
4. This device additionally supports some EN-DC conditions where additional LTE carriers are added on the downlink only.
5. 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.
6. 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.
7. For final implementation, NR slot configuration is synchronized using maximum duty cycle of 25%. SAR testing was performed using FTM mode with a 25% duty cycle applied to match final duty cycle.

WLAN Notes:

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

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.

12.3 Head SAR Simultaneous Transmission Analysis

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

Exposure Condition	Mode	2G/3G/4G/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
Head SAR	CDMA/EVDO BC10 (§90S)	0.266	0.761	0.032	1.027	0.298	1.059
	CDMA/EVDO BC0 (§22H)	0.307	0.761	0.032	1.068	0.339	1.100
	GSM 850	0.216	0.761	0.032	0.977	0.248	1.009
	UMTS 850	0.288	0.761	0.032	1.049	0.320	1.081
	UMTS 1750	0.210	0.761	0.032	0.971	0.242	1.003
	PCS CDMA/EVDO	0.277	0.761	0.032	1.038	0.309	1.070
	GSM 1900	0.091	0.761	0.032	0.852	0.123	0.884
	UMTS 1900	0.290	0.761	0.032	1.051	0.322	1.083
	LTE Band 71	0.172	0.761	0.032	0.933	0.204	0.965
	LTE Band 12	0.234	0.761	0.032	0.995	0.266	1.027
	LTE Band 13	0.302	0.761	0.032	1.063	0.334	1.095
	LTE Band 14	0.308	0.761	0.032	1.069	0.340	1.101
	LTE Band 26 (Cell)	0.245	0.761	0.032	1.006	0.277	1.038
	LTE Band 5 (Cell)	0.260	0.761	0.032	1.021	0.292	1.053
	LTE Band 66 (AWS)	0.218	0.761	0.032	0.979	0.250	1.011
	LTE Band 25 (PCS)	0.293	0.761	0.032	1.054	0.325	1.086
	LTE Band 2 (PCS)	0.309	0.761	0.032	1.070	0.341	1.102
	LTE Band 30	0.116	0.761	0.032	0.877	0.148	0.909
	LTE Band 7	0.134	0.761	0.032	0.895	0.166	0.927
	LTE Band 48	0.811	0.761	0.032	**1.572**	0.843	See Table Below
	LTE Band 41	0.157	0.761	0.032	0.918	0.189	0.950
	NR Band n71	0.186	0.761	0.032	0.947	0.218	0.979
	NR Band n5 (Cell)	0.250	0.761	0.032	1.011	0.282	1.043
	NR Band n66 (AWS)	0.242	0.761	0.032	1.003	0.274	1.035
	NR Band n2 (PCS)	0.210	0.761	0.032	0.971	0.242	1.003
	NR Band n41	1.065	0.761	0.032	See Table Below	1.097	See Table Below

Simult Tx	Configuration	LTE Band 48 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+3
Head SAR	Right Cheek	0.680	0.381	0.032	1.093
	Right Tilt	0.811	0.471	0.032*	**1.314**
	Left Cheek	0.187	0.761*	0.032*	0.980
	Left Tilt	0.256	0.761	0.032*	1.049

Simult Tx	Configuration	NR Band n41 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+2+3
Head SAR	Right Cheek	0.917	0.381	0.032	1.298	1.330
	Right Tilt	1.065	0.471	0.032*	1.536	1.568
	Left Cheek	0.644	0.761*	0.032*	1.405	1.437
	Left Tilt	0.797	0.761	0.032*	1.558	**1.590**

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

Exposure Condition	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	1+2+3
Head SAR	CDMA/EVDO BC10 (§90S)	0.266	0.078	0.099	0.344	0.365	0.443
	CDMA/EVDO BC0 (§22H)	0.307	0.078	0.099	0.385	0.406	0.484
	GSM 850	0.216	0.078	0.099	0.294	0.315	0.393
	UMTS 850	0.288	0.078	0.099	0.366	0.387	0.465
	UMTS 1750	0.210	0.078	0.099	0.288	0.309	0.387
	PCS CDMA/EVDO	0.277	0.078	0.099	0.355	0.376	0.454
	GSM 1900	0.091	0.078	0.099	0.169	0.190	0.268
	UMTS 1900	0.290	0.078	0.099	0.368	0.389	0.467
	LTE Band 71	0.172	0.078	0.099	0.250	0.271	0.349
	LTE Band 12	0.234	0.078	0.099	0.312	0.333	0.411
	LTE Band 13	0.302	0.078	0.099	0.380	0.401	0.479
	LTE Band 14	0.308	0.078	0.099	0.386	0.407	0.485
	LTE Band 26 (Cell)	0.245	0.078	0.099	0.323	0.344	0.422
	LTE Band 5 (Cell)	0.260	0.078	0.099	0.338	0.359	0.437
	LTE Band 66 (AWS)	0.218	0.078	0.099	0.296	0.317	0.395
	LTE Band 25 (PCS)	0.293	0.078	0.099	0.371	0.392	0.470
	LTE Band 2 (PCS)	0.309	0.078	0.099	0.387	0.408	0.486
	LTE Band 30	0.116	0.078	0.099	0.194	0.215	0.293
	LTE Band 7	0.134	0.078	0.099	0.212	0.233	0.311
	LTE Band 48	0.811	0.078	0.099	0.889	0.910	0.988
	LTE Band 41	0.157	0.078	0.099	0.235	0.256	0.334
	NR Band n71	0.186	0.078	0.099	0.264	0.285	0.363
	NR Band n5 (Cell)	0.250	0.078	0.099	0.328	0.349	0.427
	NR Band n66 (AWS)	0.242	0.078	0.099	0.320	0.341	0.419
	NR Band n2 (PCS)	0.210	0.078	0.099	0.288	0.309	0.387
	NR Band n41	1.065	0.078	0.099	1.143	1.164	**1.242**

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

Exposure Condition	Mode	2G/3G/4G/5G SAR (W/kg)	2.4 GHz WLAN MIMO at 13 dBm SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4
Head SAR	CDMA/EVDO BC10 (§90S)	0.266	0.498	0.078	0.099	0.941
	CDMA/EVDO BC0 (§22H)	0.307	0.498	0.078	0.099	0.982
	GSM 850	0.216	0.498	0.078	0.099	0.891
	UMTS 850	0.288	0.498	0.078	0.099	0.963
	UMTS 1750	0.210	0.498	0.078	0.099	0.885
	PCS CDMA/EVDO	0.277	0.498	0.078	0.099	0.952
	GSM 1900	0.091	0.498	0.078	0.099	0.766
	UMTS 1900	0.290	0.498	0.078	0.099	0.965
	LTE Band 71	0.172	0.498	0.078	0.099	0.847
	LTE Band 12	0.234	0.498	0.078	0.099	0.909
	LTE Band 13	0.302	0.498	0.078	0.099	0.977
	LTE Band 14	0.308	0.498	0.078	0.099	0.983
	LTE Band 26 (Cell)	0.245	0.498	0.078	0.099	0.920
	LTE Band 5 (Cell)	0.260	0.498	0.078	0.099	0.935
	LTE Band 66 (AWS)	0.218	0.498	0.078	0.099	0.893
	LTE Band 25 (PCS)	0.293	0.498	0.078	0.099	0.968
	LTE Band 2 (PCS)	0.309	0.498	0.078	0.099	0.984
	LTE Band 30	0.116	0.498	0.078	0.099	0.791
	LTE Band 7	0.134	0.498	0.078	0.099	0.809
	LTE Band 48	0.811	0.498	0.078	0.099	**1.486**
	LTE Band 41	0.157	0.498	0.078	0.099	0.832
	NR Band n71	0.186	0.498	0.078	0.099	0.861
	NR Band n5 (Cell)	0.250	0.498	0.078	0.099	0.925
	NR Band n66 (AWS)	0.242	0.498	0.078	0.099	0.917
	NR Band n2 (PCS)	0.210	0.498	0.078	0.099	0.885
	NR Band n41	1.065	0.498	0.078	0.099	See Table Below

Simult Tx	Configuration	NR Band n41 SAR (W/kg)	2.4 GHz WLAN MIMO at 13 dBm SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4
Head SAR	Right Cheek	0.917	0.267	0.078	0.099	1.361
	Right Tilt	1.065	0.351	0.048	0.099*	**1.563**
	Left Cheek	0.644	0.398	0.078*	0.099*	1.219
	Left Tilt	0.797	0.498	0.078*	0.099*	1.472

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

Exposure Condition	Mode	2G/3G/4G/5G SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2
Head SAR	CDMA/EVDO BC10 (§90S)	0.266	0.398	0.664
	CDMA/EVDO BC0 (§22H)	0.307	0.398	0.705
	GSM 850	0.216	0.398	0.614
	UMTS 850	0.288	0.398	0.686
	UMTS 1750	0.210	0.398	0.608
	PCS CDMA/EVDO	0.277	0.398	0.675
	GSM 1900	0.091	0.398	0.489
	UMTS 1900	0.290	0.398	0.688
	LTE Band 71	0.172	0.398	0.570
	LTE Band 12	0.234	0.398	0.632
	LTE Band 13	0.302	0.398	0.700
	LTE Band 14	0.308	0.398	0.706
	LTE Band 26 (Cell)	0.245	0.398	0.643
	LTE Band 5 (Cell)	0.260	0.398	0.658
	LTE Band 66 (AWS)	0.218	0.398	0.616
	LTE Band 25 (PCS)	0.293	0.398	0.691
	LTE Band 2 (PCS)	0.309	0.398	0.707
	LTE Band 30	0.116	0.398	0.514
	LTE Band 7	0.134	0.398	0.532
	LTE Band 48	0.811	0.398	1.209
	LTE Band 41	0.157	0.398	0.555
	NR Band n71	0.186	0.398	0.584
	NR Band n5 (Cell)	0.250	0.398	0.648
	NR Band n66 (AWS)	0.242	0.398	0.640
	NR Band n2 (PCS)	0.210	0.398	0.608
	NR Band n41	1.065	0.398	**1.463**

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

Exposure Condition	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 SAR	CDMA/EVDO BC10 (§90S)	0.266	0.398	0.078	0.742
	CDMA/EVDO BC0 (§22H)	0.307	0.398	0.078	0.783
	GSM 850	0.216	0.398	0.078	0.692
	UMTS 850	0.288	0.398	0.078	0.764
	UMTS 1750	0.210	0.398	0.078	0.686
	PCS CDMA/EVDO	0.277	0.398	0.078	0.753
	GSM 1900	0.091	0.398	0.078	0.567
	UMTS 1900	0.290	0.398	0.078	0.766
	LTE Band 71	0.172	0.398	0.078	0.648
	LTE Band 12	0.234	0.398	0.078	0.710
	LTE Band 13	0.302	0.398	0.078	0.778
	LTE Band 14	0.308	0.398	0.078	0.784
	LTE Band 26 (Cell)	0.245	0.398	0.078	0.721
	LTE Band 5 (Cell)	0.260	0.398	0.078	0.736
	LTE Band 66 (AWS)	0.218	0.398	0.078	0.694
	LTE Band 25 (PCS)	0.293	0.398	0.078	0.769
	LTE Band 2 (PCS)	0.309	0.398	0.078	0.785
	LTE Band 30	0.116	0.398	0.078	0.592
	LTE Band 7	0.134	0.398	0.078	0.610
	LTE Band 48	0.811	0.398	0.078	1.287
	LTE Band 41	0.157	0.398	0.078	0.633
	NR Band n71	0.186	0.398	0.078	0.662
	NR Band n5 (Cell)	0.250	0.398	0.078	0.726
	NR Band n66 (AWS)	0.242	0.398	0.078	0.718
	NR Band n2 (PCS)	0.210	0.398	0.078	0.686
	NR Band n41	1.065	0.398	0.078	**1.541**

Exposure Condition	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 SAR	CDMA/EVDO BC10 (§90S)	0.266	0.398	0.099	0.763
	CDMA/EVDO BC0 (§22H)	0.307	0.398	0.099	0.804
	GSM 850	0.216	0.398	0.099	0.713
	UMTS 850	0.288	0.398	0.099	0.785
	UMTS 1750	0.210	0.398	0.099	0.707
	PCS CDMA/EVDO	0.277	0.398	0.099	0.774
	GSM 1900	0.091	0.398	0.099	0.588
	UMTS 1900	0.290	0.398	0.099	0.787
	LTE Band 71	0.172	0.398	0.099	0.669
	LTE Band 12	0.234	0.398	0.099	0.731
	LTE Band 13	0.302	0.398	0.099	0.799
	LTE Band 14	0.308	0.398	0.099	0.805
	LTE Band 26 (Cell)	0.245	0.398	0.099	0.742
	LTE Band 5 (Cell)	0.260	0.398	0.099	0.757
	LTE Band 66 (AWS)	0.218	0.398	0.099	0.715
	LTE Band 25 (PCS)	0.293	0.398	0.099	0.790
	LTE Band 2 (PCS)	0.309	0.398	0.099	0.806
	LTE Band 30	0.116	0.398	0.099	0.613
	LTE Band 7	0.134	0.398	0.099	0.631
	LTE Band 48	0.811	0.398	0.099	1.308
	LTE Band 41	0.157	0.398	0.099	0.654
	NR Band n71	0.186	0.398	0.099	0.683
	NR Band n5 (Cell)	0.250	0.398	0.099	0.747
	NR Band n66 (AWS)	0.242	0.398	0.099	0.739
	NR Band n2 (PCS)	0.210	0.398	0.099	0.707
	NR Band n41	1.065	0.398	0.099	**1.562**

Exposure Condition	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)
		1	2	3	4	1+2+3+4
Head SAR	CDMA/EVDO BC10 (§90S)	0.266	0.398	0.078	0.099	0.841
	CDMA/EVDO BC0 (§22H)	0.307	0.398	0.078	0.099	0.882
	GSM 850	0.216	0.398	0.078	0.099	0.791
	UMTS 850	0.288	0.398	0.078	0.099	0.863
	UMTS 1750	0.210	0.398	0.078	0.099	0.785
	PCS CDMA/EVDO	0.277	0.398	0.078	0.099	0.852
	GSM 1900	0.091	0.398	0.078	0.099	0.666
	UMTS 1900	0.290	0.398	0.078	0.099	0.865
	LTE Band 71	0.172	0.398	0.078	0.099	0.747
	LTE Band 12	0.234	0.398	0.078	0.099	0.809
	LTE Band 13	0.302	0.398	0.078	0.099	0.877
	LTE Band 14	0.308	0.398	0.078	0.099	0.883
	LTE Band 26 (Cell)	0.245	0.398	0.078	0.099	0.820
	LTE Band 5 (Cell)	0.260	0.398	0.078	0.099	0.835
	LTE Band 66 (AWS)	0.218	0.398	0.078	0.099	0.793
	LTE Band 25 (PCS)	0.293	0.398	0.078	0.099	0.868
	LTE Band 2 (PCS)	0.309	0.398	0.078	0.099	0.884
	LTE Band 30	0.116	0.398	0.078	0.099	0.691
	LTE Band 7	0.134	0.398	0.078	0.099	0.709
	LTE Band 48	0.811	0.398	0.078	0.099	**1.386**
	LTE Band 41	0.157	0.398	0.078	0.099	0.732
	NR Band n71	0.186	0.398	0.078	0.099	0.761
	NR Band n5 (Cell)	0.250	0.398	0.078	0.099	0.825
	NR Band n66 (AWS)	0.242	0.398	0.078	0.099	0.817
	NR Band n2 (PCS)	0.210	0.398	0.078	0.099	0.785
	NR Band n41	1.065	0.398	0.078	0.099	See Table Below

Simult Tx	Configuration	NR Band n41 SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4
Head SAR	Right Cheek	0.917	0.189	0.078	0.099	1.283
	Right Tilt	1.065	0.252	0.048	0.099*	**1.464**
	Left Cheek	0.644	0.284	0.078*	0.099*	1.105
	Left Tilt	0.797	0.398	0.078*	0.099*	1.372

12.4 Body-Worn Simultaneous Transmission Analysis

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

Exposure Condition	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)	0.410	0.144	0.087	0.554	0.497	0.641
	CDMA BC0 (§22H)	0.325	0.144	0.087	0.469	0.412	0.556
	GSM 850	0.252	0.144	0.087	0.396	0.339	0.483
	UMTS 850	0.361	0.144	0.087	0.505	0.448	0.592
	UMTS 1750	0.941	0.144	0.087	1.085	1.028	1.172
	PCS CDMA	1.031	0.144	0.087	1.175	1.118	**1.262**
	GSM 1900	0.308	0.144	0.087	0.452	0.395	0.539
	UMTS 1900	0.982	0.144	0.087	1.126	1.069	1.213
	LTE Band 71	0.283	0.144	0.087	0.427	0.370	0.514
	LTE Band 12	0.368	0.144	0.087	0.512	0.455	0.599
	LTE Band 13	0.315	0.144	0.087	0.459	0.402	0.546
	LTE Band 14	0.418	0.144	0.087	0.562	0.505	0.649
	LTE Band 26 (Cell)	0.300	0.144	0.087	0.444	0.387	0.531
	LTE Band 5 (Cell)	0.290	0.144	0.087	0.434	0.377	0.521
	LTE Band 66 (AWS)	0.872	0.144	0.087	1.016	0.959	1.103
	LTE Band 25 (PCS)	0.891	0.144	0.087	1.035	0.978	1.122
	LTE Band 2 (PCS)	0.860	0.144	0.087	1.004	0.947	1.091
	LTE Band 30	0.841	0.144	0.087	0.985	0.928	1.072
	LTE Band 7	0.666	0.144	0.087	0.810	0.753	0.897
	LTE Band 48	0.399	0.144	0.087	0.543	0.486	0.630
	LTE Band 41	0.547	0.144	0.087	0.691	0.634	0.778
	NR Band n71	0.287	0.144	0.087	0.431	0.374	0.518
	NR Band n5 (Cell)	0.279	0.144	0.087	0.423	0.366	0.510
	NR Band n66 (AWS)	0.733	0.144	0.087	0.877	0.820	0.964
	NR Band n2 (PCS)	0.772	0.144	0.087	0.916	0.859	1.003
	NR Band n41	0.120	0.144	0.087	0.264	0.207	0.351

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

Exposure Condition	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	1+2+3
Body-Worn	CDMA BC10 (§90S)	0.410	0.238	0.231	0.648	0.641	0.879
	CDMA BC0 (§22H)	0.325	0.238	0.231	0.563	0.556	0.794
	GSM 850	0.252	0.238	0.231	0.490	0.483	0.721
	UMTS 850	0.361	0.238	0.231	0.599	0.592	0.830
	UMTS 1750	0.941	0.238	0.231	1.179	1.172	1.410
	PCS CDMA	1.031	0.238	0.231	1.269	1.262	**1.500**
	GSM 1900	0.308	0.238	0.231	0.546	0.539	0.777
	UMTS 1900	0.982	0.238	0.231	1.220	1.213	1.451
	LTE Band 71	0.283	0.238	0.231	0.521	0.514	0.752
	LTE Band 12	0.368	0.238	0.231	0.606	0.599	0.837
	LTE Band 13	0.315	0.238	0.231	0.553	0.546	0.784
	LTE Band 14	0.418	0.238	0.231	0.656	0.649	0.887
	LTE Band 26 (Cell)	0.300	0.238	0.231	0.538	0.531	0.769
	LTE Band 5 (Cell)	0.290	0.238	0.231	0.528	0.521	0.759
	LTE Band 66 (AWS)	0.872	0.238	0.231	1.110	1.103	1.341
	LTE Band 25 (PCS)	0.891	0.238	0.231	1.129	1.122	1.360
	LTE Band 2 (PCS)	0.860	0.238	0.231	1.098	1.091	1.329
	LTE Band 30	0.841	0.238	0.231	1.079	1.072	1.310
	LTE Band 7	0.666	0.238	0.231	0.904	0.897	1.135
	LTE Band 48	0.399	0.238	0.231	0.637	0.630	0.868
	LTE Band 41	0.547	0.238	0.231	0.785	0.778	1.016
	NR Band n71	0.287	0.238	0.231	0.525	0.518	0.756
	NR Band n5 (Cell)	0.279	0.238	0.231	0.517	0.510	0.748
	NR Band n66 (AWS)	0.733	0.238	0.231	0.971	0.964	1.202
	NR Band n2 (PCS)	0.772	0.238	0.231	1.010	1.003	1.241
	NR Band n41	0.120	0.238	0.231	0.358	0.351	0.589

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

Exposure Condition	Mode	2G/3G/4G/5G SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4
Body-Worn	CDMA BC10 (§90S)	0.410	0.144	0.087	0.322	0.963
	CDMA BC0 (§22H)	0.325	0.144	0.087	0.322	0.878
	GSM 850	0.252	0.144	0.087	0.322	0.805
	UMTS 850	0.361	0.144	0.087	0.322	0.914
	UMTS 1750	0.941	0.144	0.087	0.322	1.494
	PCS CDMA	1.031	0.144	0.087	0.322	**1.584**
	GSM 1900	0.308	0.144	0.087	0.322	0.861
	UMTS 1900	0.982	0.144	0.087	0.322	1.535
	LTE Band 71	0.283	0.144	0.087	0.322	0.836
	LTE Band 12	0.368	0.144	0.087	0.322	0.921
	LTE Band 13	0.315	0.144	0.087	0.322	0.868
	LTE Band 14	0.418	0.144	0.087	0.322	0.971
	LTE Band 26 (Cell)	0.300	0.144	0.087	0.322	0.853
	LTE Band 5 (Cell)	0.290	0.144	0.087	0.322	0.843
	LTE Band 66 (AWS)	0.872	0.144	0.087	0.322	1.425
	LTE Band 25 (PCS)	0.891	0.144	0.087	0.322	1.444
	LTE Band 2 (PCS)	0.860	0.144	0.087	0.322	1.413
	LTE Band 30	0.841	0.144	0.087	0.322	1.394
	LTE Band 7	0.666	0.144	0.087	0.322	1.219
	LTE Band 48	0.399	0.144	0.087	0.322	0.952
	LTE Band 41	0.547	0.144	0.087	0.322	1.100
	NR Band n71	0.287	0.144	0.087	0.322	0.840
	NR Band n5 (Cell)	0.279	0.144	0.087	0.322	0.832
	NR Band n66 (AWS)	0.733	0.144	0.087	0.322	1.286
	NR Band n2 (PCS)	0.772	0.144	0.087	0.322	1.325
	NR Band n41	0.120	0.144	0.087	0.322	0.673

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

Exposure Condition	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)	0.410	0.026	0.436
	CDMA BC0 (§22H)	0.325	0.026	0.351
	GSM 850	0.252	0.026	0.278
	UMTS 850	0.361	0.026	0.387
	UMTS 1750	0.941	0.026	0.967
	PCS CDMA	1.031	0.026	**1.057**
	GSM 1900	0.308	0.026	0.334
	UMTS 1900	0.982	0.026	1.008
	LTE Band 71	0.283	0.026	0.309
	LTE Band 12	0.368	0.026	0.394
	LTE Band 13	0.315	0.026	0.341
	LTE Band 14	0.418	0.026	0.444
	LTE Band 26 (Cell)	0.300	0.026	0.326
	LTE Band 5 (Cell)	0.290	0.026	0.316
	LTE Band 66 (AWS)	0.872	0.026	0.898
	LTE Band 25 (PCS)	0.891	0.026	0.917
	LTE Band 2 (PCS)	0.860	0.026	0.886
	LTE Band 30	0.841	0.026	0.867
	LTE Band 7	0.666	0.026	0.692
	LTE Band 48	0.399	0.026	0.425
	LTE Band 41	0.547	0.026	0.573
	NR Band n71	0.287	0.026	0.313
	NR Band n5 (Cell)	0.279	0.026	0.305
	NR Band n66 (AWS)	0.733	0.026	0.759
	NR Band n2 (PCS)	0.772	0.026	0.798
	NR Band n41	0.120	0.026	0.146

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

Exposure Condition	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
Body-Worn	CDMA BC10 (§90S)	0.410	0.026	0.238	0.674
	CDMA BC0 (§22H)	0.325	0.026	0.238	0.589
	GSM 850	0.252	0.026	0.238	0.516
	UMTS 850	0.361	0.026	0.238	0.625
	UMTS 1750	0.941	0.026	0.238	1.205
	PCS CDMA	1.031	0.026	0.238	**1.295**
	GSM 1900	0.308	0.026	0.238	0.572
	UMTS 1900	0.982	0.026	0.238	1.246
	LTE Band 71	0.283	0.026	0.238	0.547
	LTE Band 12	0.368	0.026	0.238	0.632
	LTE Band 13	0.315	0.026	0.238	0.579
	LTE Band 14	0.418	0.026	0.238	0.682
	LTE Band 26 (Cell)	0.300	0.026	0.238	0.564
	LTE Band 5 (Cell)	0.290	0.026	0.238	0.554
	LTE Band 66 (AWS)	0.872	0.026	0.238	1.136
	LTE Band 25 (PCS)	0.891	0.026	0.238	1.155
	LTE Band 2 (PCS)	0.860	0.026	0.238	1.124
	LTE Band 30	0.841	0.026	0.238	1.105
	LTE Band 7	0.666	0.026	0.238	0.930
	LTE Band 48	0.399	0.026	0.238	0.663
	LTE Band 41	0.547	0.026	0.238	0.811
	NR Band n71	0.287	0.026	0.238	0.551
	NR Band n5 (Cell)	0.279	0.026	0.238	0.543
	NR Band n66 (AWS)	0.733	0.026	0.238	0.997
	NR Band n2 (PCS)	0.772	0.026	0.238	1.036
	NR Band n41	0.120	0.026	0.238	0.384

Exposure Condition	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
Body-Worn	CDMA BC10 (§90S)	0.410	0.026	0.231	0.667
	CDMA BC0 (§22H)	0.325	0.026	0.231	0.582
	GSM 850	0.252	0.026	0.231	0.509
	UMTS 850	0.361	0.026	0.231	0.618
	UMTS 1750	0.941	0.026	0.231	1.198
	PCS CDMA	1.031	0.026	0.231	**1.288**
	GSM 1900	0.308	0.026	0.231	0.565
	UMTS 1900	0.982	0.026	0.231	1.239
	LTE Band 71	0.283	0.026	0.231	0.540
	LTE Band 12	0.368	0.026	0.231	0.625
	LTE Band 13	0.315	0.026	0.231	0.572
	LTE Band 14	0.418	0.026	0.231	0.675
	LTE Band 26 (Cell)	0.300	0.026	0.231	0.557
	LTE Band 5 (Cell)	0.290	0.026	0.231	0.547
	LTE Band 66 (AWS)	0.872	0.026	0.231	1.129
	LTE Band 25 (PCS)	0.891	0.026	0.231	1.148
	LTE Band 2 (PCS)	0.860	0.026	0.231	1.117
	LTE Band 30	0.841	0.026	0.231	1.098
	LTE Band 7	0.666	0.026	0.231	0.923
	LTE Band 48	0.399	0.026	0.231	0.656
	LTE Band 41	0.547	0.026	0.231	0.804
	NR Band n71	0.287	0.026	0.231	0.544
	NR Band n5 (Cell)	0.279	0.026	0.231	0.536
	NR Band n66 (AWS)	0.733	0.026	0.231	0.990
	NR Band n2 (PCS)	0.772	0.026	0.231	1.029
	NR Band n41	0.120	0.026	0.231	0.377

Exposure Condition	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
Body-Worn	CDMA BC10 (§90S)	0.410	0.026	0.322	0.758
	CDMA BC0 (§22H)	0.325	0.026	0.322	0.673
	GSM 850	0.252	0.026	0.322	0.600
	UMTS 850	0.361	0.026	0.322	0.709
	UMTS 1750	0.941	0.026	0.322	1.289
	PCS CDMA	1.031	0.026	0.322	**1.379**
	GSM 1900	0.308	0.026	0.322	0.656
	UMTS 1900	0.982	0.026	0.322	1.330
	LTE Band 71	0.283	0.026	0.322	0.631
	LTE Band 12	0.368	0.026	0.322	0.716
	LTE Band 13	0.315	0.026	0.322	0.663
	LTE Band 14	0.418	0.026	0.322	0.766
	LTE Band 26 (Cell)	0.300	0.026	0.322	0.648
	LTE Band 5 (Cell)	0.290	0.026	0.322	0.638
	LTE Band 66 (AWS)	0.872	0.026	0.322	1.220
	LTE Band 25 (PCS)	0.891	0.026	0.322	1.239
	LTE Band 2 (PCS)	0.860	0.026	0.322	1.208
	LTE Band 30	0.841	0.026	0.322	1.189
	LTE Band 7	0.666	0.026	0.322	1.014
	LTE Band 48	0.399	0.026	0.322	0.747
	LTE Band 41	0.547	0.026	0.322	0.895
	NR Band n71	0.287	0.026	0.322	0.635
	NR Band n5 (Cell)	0.279	0.026	0.322	0.627
	NR Band n66 (AWS)	0.733	0.026	0.322	1.081
	NR Band n2 (PCS)	0.772	0.026	0.322	1.120
	NR Band n41	0.120	0.026	0.322	0.468

12.5 Hotspot SAR Simultaneous Transmission Analysis

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

Exposure Condition	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 SAR	EVDO BC10 (§90S)	0.434	0.543	0.262	0.977	0.696	1.239
	EVDO BC0 (§22H)	0.509	0.543	0.262	1.052	0.771	1.314
	GPRS 850	0.434	0.543	0.262	0.977	0.696	1.239
	UMTS 850	0.469	0.543	0.262	1.012	0.731	1.274
	UMTS 1750	0.945	0.543	0.262	1.488	1.207	See Table Below
	PCS EVDO	1.128	0.543	0.262	See Table Below	1.390	See Table Below
	GPRS 1900	0.976	0.543	0.262	**1.519**	1.238	See Table Below
	UMTS 1900	1.232	0.543	0.262	See Table Below	1.494	See Table Below
	LTE Band 71	0.376	0.543	0.262	0.919	0.638	1.181
	LTE Band 12	0.500	0.543	0.262	1.043	0.762	1.305
	LTE Band 13	0.519	0.543	0.262	1.062	0.781	1.324
	LTE Band 14	0.585	0.543	0.262	1.128	0.847	1.390
	LTE Band 26 (Cell)	0.479	0.543	0.262	1.022	0.741	1.284
	LTE Band 5 (Cell)	0.523	0.543	0.262	1.066	0.785	1.328
	LTE Band 66 (AWS)	0.832	0.543	0.262	1.375	1.094	See Table Below
	LTE Band 25 (PCS)	1.252	0.543	0.262	See Table Below	1.514	See Table Below
	LTE Band 2 (PCS)	1.229	0.543	0.262	See Table Below	1.491	See Table Below
	LTE Band 30	1.242	0.543	0.262	See Table Below	1.504	See Table Below
	LTE Band 7	0.881	0.543	0.262	1.424	1.143	See Table Below
	LTE Band 48	0.871	0.543	0.262	1.414	1.133	See Table Below
	LTE Band 41	1.179	0.543	0.262	See Table Below	1.441	See Table Below
	NR Band n71	0.419	0.543	0.262	0.962	0.681	1.224
	NR Band n5 (Cell)	0.482	0.543	0.262	1.025	0.744	1.287
	NR Band n66 (AWS)	0.935	0.543	0.262	1.478	1.197	See Table Below
	NR Band n2 (PCS)	0.899	0.543	0.262	1.442	1.161	See Table Below
	NR Band n41	0.435	0.543	0.262	0.978	0.697	1.240

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+3
Hotspot SAR	Back	0.499	0.287	0.262	1.048
	Front	0.478	0.543*	0.262*	**1.283**
	Top	-	0.543	0.031	0.574
	Bottom	0.945	-	-	0.945
	Right	0.068	-	-	0.068
	Left	0.082	0.543*	0.262*	0.887

Simult Tx	Configuration	PCS EVDO SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)	
		1	2	3	1+2	1+2+3
Hotspot SAR	Back	0.587	0.287	0.262	0.874	1.136
	Front	0.499	0.543*	0.262*	1.042	**1.304**
	Top	-	0.543	0.031	0.543	0.574
	Bottom	1.128	-	-	1.128	1.128
	Right	0.085	-	-	0.085	0.085
	Left	0.069	0.543*	0.262*	0.612	0.874

Simult Tx	Configuration	GPRS 1900 SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Hotspot SAR	Back	0.417	0.287	0.262	0.966
	Front	0.441	0.543*	0.262*	**1.246**
	Top	-	0.543	0.031	0.574
	Bottom	0.976	-	-	0.976
	Right	0.067	-	-	0.067
	Left	0.054	0.543*	0.262*	0.859

Simult Tx	Configuration	UMTS 1900 SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)	
		1	2	3	1+2	1+2+3
Hotspot SAR	Back	0.561	0.287	0.262	0.848	1.110
	Front	0.518	0.543*	0.262*	1.061	**1.323**
	Top	-	0.543	0.031	0.543	0.574
	Bottom	1.232	-	-	1.232	1.232
	Right	0.078	-	-	0.078	0.078
	Left	0.064	0.543*	0.262*	0.607	0.869

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+3
Hotspot SAR	Back	0.426	0.287	0.262	0.975
	Front	0.407	0.543*	0.262*	**1.212**
	Top	-	0.543	0.031	0.574
	Bottom	0.832	-	-	0.832
	Right	0.065	-	-	0.065
	Left	0.077	0.543*	0.262*	0.882

Simult Tx	Configuration	LTE Band 25 (PCS) SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)	
		1	2	3	1+2	1+2+3
Hotspot SAR	Back	0.623	0.287	0.262	0.910	1.172
	Front	0.557	0.543*	0.262*	1.100	**1.362**
	Top	-	0.543	0.031	0.543	0.574
	Bottom	1.252	-	-	1.252	1.252
	Right	0.112	-	-	0.112	0.112
	Left	0.073	0.543*	0.262*	0.616	0.878

Simult Tx	Configuration	LTE Band 2 (PCS) SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)	
		1	2	3	1+2	1+2+3
Hotspot SAR	Back	0.564	0.287	0.262	0.851	1.113
	Front	0.491	0.543*	0.262*	1.034	**1.296**
	Top	-	0.543	0.031	0.543	0.574
	Bottom	1.229	-	-	1.229	1.229
	Right	0.095	-	-	0.095	0.095
	Left	0.062	0.543*	0.262*	0.605	0.867

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+2+3
Hotspot SAR	Back	0.425	0.287	0.262	0.712	0.974
	Front	0.413	0.543*	0.262*	0.956	1.218
	Top	-	0.543	0.031	0.543	0.574
	Bottom	1.242	-	-	**1.242**	**1.242**
	Right	0.047	-	-	0.047	0.047
	Left	0.062	0.543*	0.262*	0.605	0.867

Simult Tx	Configuration	LTE Band 7 SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Hotspot SAR	Back	0.424	0.287	0.262	0.973
	Front	0.279	0.543*	0.262*	**1.084**
	Top	-	0.543	0.031	0.574
	Bottom	0.881	-	-	0.881
	Right	0.040	-	-	0.040
	Left	0.073	0.543*	0.262*	0.878

Simult Tx	Configuration	LTE Band 48 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+3
Hotspot SAR	Back	0.703	0.287	0.262	1.252
	Front	0.347	0.543*	0.262*	1.152
	Top	0.871	0.543	0.031	**1.445**
	Left	0.305	0.543*	0.262*	1.110

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+2+3
Hotspot SAR	Back	0.434	0.287	0.262	0.721	0.983
	Front	0.373	0.543*	0.262*	0.916	1.178
	Top	-	0.543	0.031	0.543	0.574
	Bottom	1.179	-	-	**1.179**	**1.179**
	Right	0.038	-	-	0.038	0.038
	Left	0.089	0.543*	0.262*	0.632	0.894

Simult Tx	Configuration	NR Band n66 (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+3
Hotspot SAR	Back	0.546	0.287	0.262	1.095
	Front	0.485	0.543*	0.262*	**1.290**
	Top	-	0.543	0.031	0.574
	Bottom	0.935	-	-	0.935
	Right	0.078	-	-	0.078
	Left	0.088	0.543*	0.262*	0.893

Simult Tx	Configuration	NR Band n2 (PCS) SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Hotspot SAR	Back	0.315	0.287	0.262	0.864
	Front	0.325	0.543*	0.262*	**1.130**
	Top	-	0.543	0.031	0.574
	Bottom	0.899	-	-	0.899
	Right	0.072	-	-	0.072
	Left	0.056	0.543*	0.262*	0.861

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

Exposure Condition	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 SAR	EVDO BC10 (§90S)	0.434	0.443	0.323	0.877	0.757
	EVDO BC0 (§22H)	0.509	0.443	0.323	0.952	0.832
	GPRS 850	0.434	0.443	0.323	0.877	0.757
	UMTS 850	0.469	0.443	0.323	0.912	0.792
	UMTS 1750	0.945	0.443	0.323	1.388	1.268
	PCS EVDO	1.128	0.443	0.323	1.571	1.451
	GPRS 1900	0.976	0.443	0.323	1.419	1.299
	UMTS 1900	1.232	0.443	0.323	See Table Below	1.555
	LTE Band 71	0.376	0.443	0.323	0.819	0.699
	LTE Band 12	0.500	0.443	0.323	0.943	0.823
	LTE Band 13	0.519	0.443	0.323	0.962	0.842
	LTE Band 14	0.585	0.443	0.323	1.028	0.908
	LTE Band 26 (Cell)	0.479	0.443	0.323	0.922	0.802
	LTE Band 5 (Cell)	0.523	0.443	0.323	0.966	0.846
	LTE Band 66 (AWS)	0.832	0.443	0.323	1.275	1.155
	LTE Band 25 (PCS)	1.252	0.443	0.323	See Table Below	**1.575**
	LTE Band 2 (PCS)	1.229	0.443	0.323	See Table Below	1.552
	LTE Band 30	1.242	0.443	0.323	See Table Below	1.565
	LTE Band 7	0.881	0.443	0.323	1.324	1.204
	LTE Band 48	0.871	0.443	0.323	1.314	1.194
	LTE Band 41	1.179	0.443	0.323	See Table Below	1.502
	NR Band n71	0.419	0.443	0.323	0.862	0.742
	NR Band n5 (Cell)	0.482	0.443	0.323	0.925	0.805
	NR Band n66 (AWS)	0.935	0.443	0.323	1.378	1.258
	NR Band n2 (PCS)	0.899	0.443	0.323	1.342	1.222
	NR Band n41	0.435	0.443	0.323	0.878	0.758

Simult Tx	Configuration	UMTS 1900 SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2
Hotspot SAR	Back	0.561	0.443	1.004
	Front	0.518	0.443*	0.961
	Top	-	0.443*	0.443
	Bottom	1.232	-	**1.232**
	Right	0.078	-	0.078
	Left	0.064	0.125	0.189

Simult Tx	Configuration	LTE Band 25 (PCS) SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2
Hotspot SAR	Back	0.623	0.443	1.066
	Front	0.557	0.443*	1.000
	Top	-	0.443*	0.443
	Bottom	1.252	-	**1.252**
	Right	0.112	-	0.112
	Left	0.073	0.125	0.198

Simult Tx	Configuration	LTE Band 2 (PCS) SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2
Hotspot SAR	Back	0.564	0.443	1.007
	Front	0.491	0.443*	0.934
	Top	-	0.443*	0.443
	Bottom	1.229	-	**1.229**
	Right	0.095	-	0.095
	Left	0.062	0.125	0.187

Simult Tx	Configuration	LTE Band 30 SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2
Hotspot SAR	Back	0.425	0.443	0.868
	Front	0.413	0.443*	0.856
	Top	-	0.443*	0.443
	Bottom	1.242	-	**1.242**
	Right	0.047	-	0.047
	Left	0.062	0.125	0.187

Simult Tx	Configuration	LTE Band 41 SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2
Hotspot SAR	Back	0.434	0.443	0.877
	Front	0.373	0.443*	0.816
	Top	-	0.443*	0.443
	Bottom	1.179	-	**1.179**
	Right	0.038	-	0.038
	Left	0.089	0.125	0.214

Exposure Condition	Mode	2G/3G/4G/5G SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2
Hotspot SAR	EVDO BC10 (§90S)	0.434	0.605	1.039
	EVDO BC0 (§22H)	0.509	0.605	1.114
	GPRS 850	0.434	0.605	1.039
	UMTS 850	0.469	0.605	1.074
	UMTS 1750	0.945	0.605	1.550
	PCS EVDO	1.128	0.605	See Table Below
	GPRS 1900	0.976	0.605	**1.581**
	UMTS 1900	1.232	0.605	See Table Below
	LTE Band 71	0.376	0.605	0.981
	LTE Band 12	0.500	0.605	1.105
	LTE Band 13	0.519	0.605	1.124
	LTE Band 14	0.585	0.605	1.190
	LTE Band 26 (Cell)	0.479	0.605	1.084
	LTE Band 5 (Cell)	0.523	0.605	1.128
	LTE Band 66 (AWS)	0.832	0.605	1.437
	LTE Band 25 (PCS)	1.252	0.605	See Table Below
	LTE Band 2 (PCS)	1.229	0.605	See Table Below
	LTE Band 30	1.242	0.605	See Table Below
	LTE Band 7	0.881	0.605	1.486
	LTE Band 48	0.871	0.605	1.476
	LTE Band 41	1.179	0.605	See Table Below
	NR Band n71	0.419	0.605	1.024
	NR Band n5 (Cell)	0.482	0.605	1.087
	NR Band n66 (AWS)	0.935	0.605	1.540
	NR Band n2 (PCS)	0.899	0.605	1.504
	NR Band n41	0.435	0.605	1.040

Simult Tx	Configuration	PCS EVDO 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	0.587	0.605	**1.192**	Hotspot SAR	Back	0.561	0.605	1.166
	Front	0.499	0.605*	1.104		Front	0.518	0.605*	1.123
	Top	-	0.089	0.089		Top	-	0.089	0.089
	Bottom	1.128	-	1.128		Bottom	1.232	-	**1.232**
	Right	0.085	-	0.085		Right	0.078	-	0.078
	Left	0.069	0.127	0.196		Left	0.064	0.127	0.191

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 2 (PCS) 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	0.623	0.605	1.228	Hotspot SAR	Back	0.564	0.605	1.169
	Front	0.557	0.605*	1.162		Front	0.491	0.605*	1.096
	Top	-	0.089	0.089		Top	-	0.089	0.089
	Bottom	1.252	-	**1.252**		Bottom	1.229	-	**1.229**
	Right	0.112	-	0.112		Right	0.095	-	0.095
	Left	0.073	0.127	0.200		Left	0.062	0.127	0.189

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 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	0.425	0.605	1.030	Hotspot SAR	Back	0.434	0.605	1.039
	Front	0.413	0.605*	1.018		Front	0.373	0.605*	0.978
	Top	-	0.089	0.089		Top	-	0.089	0.089
	Bottom	1.242	-	**1.242**		Bottom	1.179	-	**1.179**
	Right	0.047	-	0.047		Right	0.038	-	0.038
	Left	0.062	0.127	0.189		Left	0.089	0.127	0.216

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

Exposure Condition	Mode	2G/3G/4G/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
Hotspot SAR	EVDO BC10 (§90S)	0.434	0.355	0.605	1.394
	EVDO BC0 (§22H)	0.509	0.355	0.605	1.469
	GPRS 850	0.434	0.355	0.605	1.394
	UMTS 850	0.469	0.355	0.605	1.429
	UMTS 1750	0.945	0.355	0.605	See Table Below
	PCS EVDO	1.128	0.355	0.605	See Table Below
	GPRS 1900	0.976	0.355	0.605	See Table Below
	UMTS 1900	1.232	0.355	0.605	See Table Below
	LTE Band 71	0.376	0.355	0.605	1.336
	LTE Band 12	0.500	0.355	0.605	1.460
	LTE Band 13	0.519	0.355	0.605	1.479
	LTE Band 14	0.585	0.355	0.605	**1.545**
	LTE Band 26 (Cell)	0.479	0.355	0.605	1.439
	LTE Band 5 (Cell)	0.523	0.355	0.605	1.483
	LTE Band 66 (AWS)	0.832	0.355	0.605	See Table Below
	LTE Band 25 (PCS)	1.252	0.355	0.605	See Table Below
	LTE Band 2 (PCS)	1.229	0.355	0.605	See Table Below
	LTE Band 30	1.242	0.355	0.605	See Table Below
	LTE Band 7	0.881	0.355	0.605	See Table Below
	LTE Band 48	0.871	0.355	0.605	See Table Below
	LTE Band 41	1.179	0.355	0.605	See Table Below
	NR Band n71	0.419	0.355	0.605	1.379
	NR Band n5 (Cell)	0.482	0.355	0.605	1.442
	NR Band n66 (AWS)	0.935	0.355	0.605	See Table Below
	NR Band n2 (PCS)	0.899	0.355	0.605	See Table Below
	NR Band n41	0.435	0.355	0.605	1.395

Simult Tx	Configuration	UMTS 1750 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
Hotspot SAR	Back	0.499	0.205	0.605	1.309
	Front	0.478	0.355*	0.605*	**1.438**
	Top	-	0.355	0.089	0.444
	Bottom	0.945	-	-	0.945
	Right	0.068	-	-	0.068
	Left	0.082	0.355*	0.127	0.564

Simult Tx	Configuration	PCS EVDO 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
Hotspot SAR	Back	0.587	0.205	0.605	1.397
	Front	0.499	0.355*	0.605*	**1.459**
	Top	-	0.355	0.089	0.444
	Bottom	1.128	-	-	1.128
	Right	0.085	-	-	0.085
	Left	0.069	0.355*	0.127	0.551

Simult Tx	Configuration	GPRS 1900 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)	Simult Tx	Configuration	UMTS 1900 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			1	2	3	1+2+3
Hotspot SAR	Back	0.417	0.205	0.605	1.227	Hotspot SAR	Back	0.561	0.205	0.605	1.371
	Front	0.441	0.355*	0.605*	**1.401**		Front	0.518	0.355*	0.605*	**1.478**
	Top	-	0.355	0.089	0.444		Top	-	0.355	0.089	0.444
	Bottom	0.976	-	-	0.976		Bottom	1.232	-	-	1.232
	Right	0.067	-	-	0.067		Right	0.078	-	-	0.078
	Left	0.054	0.355*	0.127	0.536		Left	0.064	0.355*	0.127	0.546

Simult Tx	Configuration	LTE Band 66 (AWS) 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)	Simult Tx	Configuration	LTE Band 25 (PCS) SAR (W/kg)	2.4 GHz WLAN MIMO at 16 dBm SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3			1	2	3	1+2+3
Hotspot SAR	Back	0.426	0.205	0.605	1.236	Hotspot SAR	Back	0.623	0.205	0.605	1.433
	Front	0.407	0.355*	0.605*	**1.367**		Front	0.557	0.355*	0.605*	**1.517**
	Top	-	0.355	0.089	0.444		Top	-	0.355	0.089	0.444
	Bottom	0.832	-	-	0.832		Bottom	1.252	-	-	1.252
	Right	0.065	-	-	0.065		Right	0.112	-	-	0.112
	Left	0.077	0.355*	0.127	0.559		Left	0.073	0.355*	0.127	0.555

Simult Tx	Configuration	LTE Band 2 (PCS) 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)	Simult Tx	Configuration	LTE Band 30 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			1	2	3	1+2+3
Hotspot SAR	Back	0.564	0.205	0.605	1.374	Hotspot SAR	Back	0.425	0.205	0.605	1.235
	Front	0.491	0.355*	0.605*	**1.451**		Front	0.413	0.355*	0.605*	**1.373**
	Top	-	0.355	0.089	0.444		Top	-	0.355	0.089	0.444
	Bottom	1.229	-	-	1.229		Bottom	1.242	-	-	1.242
	Right	0.095	-	-	0.095		Right	0.047	-	-	0.047
	Left	0.062	0.355*	0.127	0.544		Left	0.062	0.355*	0.127	0.544

Simult Tx	Configuration	LTE Band 7 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
Hotspot SAR	Back	0.424	0.205	0.605	1.234
	Front	0.279	0.355*	0.605*	**1.239**
	Top	-	0.355	0.089	0.444
	Bottom	0.881	-	-	0.881
	Right	0.040	-	-	0.040
	Left	0.073	0.355*	0.127	0.555

Simult Tx	Configuration	LTE Band 48 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
Hotspot SAR	Back	0.703	0.205	0.605	**1.513**
	Front	0.347	0.355*	0.605*	1.307
	Top	0.871	0.355	0.089	1.315
	Left	0.305	0.355*	0.127	0.787

Simult Tx	Configuration	LTE Band 41 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)	Simult Tx	Configuration	NR Band n66 (AWS) 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			1	2	3	1+2+3
Hotspot SAR	Back	0.434	0.205	0.605	1.244	Hotspot SAR	Back	0.546	0.205	0.605	1.356
	Front	0.373	0.355*	0.605*	**1.333**		Front	0.485	0.355*	0.605*	**1.445**
	Top	-	0.355	0.089	0.444		Top	-	0.355	0.089	0.444
	Bottom	1.179	-	-	1.179		Bottom	0.935	-	-	0.935
	Right	0.038	-	-	0.038		Right	0.078	-	-	0.078
	Left	0.089	0.355*	0.127	0.571		Left	0.088	0.355*	0.127	0.570

Simult Tx	Configuration	NR Band n2 (PCS) 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
Hotspot SAR	Back	0.315	0.205	0.605	1.125
	Front	0.325	0.355*	0.605*	**1.285**
	Top	-	0.355	0.089	0.444
	Bottom	0.899	-	-	0.899
	Right	0.072	-	-	0.072
	Left	0.056	0.355*	0.127	0.538

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

Exposure Condition	Mode	2G/3G/4G/5G SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2
Hotspot SAR	EVDO BC10 (§90S)	0.434	0.088	0.522
	EVDO BC0 (§22H)	0.509	0.088	0.597
	GPRS 850	0.434	0.088	0.522
	UMTS 850	0.469	0.088	0.557
	UMTS 1750	0.945	0.088	1.033
	PCS EVDO	1.128	0.088	1.216
	GPRS 1900	0.976	0.088	1.064
	UMTS 1900	1.232	0.088	1.320
	LTE Band 71	0.376	0.088	0.464
	LTE Band 12	0.500	0.088	0.588
	LTE Band 13	0.519	0.088	0.607
	LTE Band 14	0.585	0.088	0.673
	LTE Band 26 (Cell)	0.479	0.088	0.567
	LTE Band 5 (Cell)	0.523	0.088	0.611
	LTE Band 66 (AWS)	0.832	0.088	0.920
	LTE Band 25 (PCS)	1.252	0.088	**1.340**
	LTE Band 2 (PCS)	1.229	0.088	1.317
	LTE Band 30	1.242	0.088	1.330
	LTE Band 7	0.881	0.088	0.969
	LTE Band 48	0.871	0.088	0.959
	LTE Band 41	1.179	0.088	1.267
	NR Band n71	0.419	0.088	0.507
	NR Band n5 (Cell)	0.482	0.088	0.570
	NR Band n66 (AWS)	0.935	0.088	1.023
	NR Band n2 (PCS)	0.899	0.088	0.987
	NR Band n41	0.435	0.088	0.523

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

Exposure Condition	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 SAR	EVDO BC10 (§90S)	0.434	0.088	0.443	0.965
	EVDO BC0 (§22H)	0.509	0.088	0.443	1.040
	GPRS 850	0.434	0.088	0.443	0.965
	UMTS 850	0.469	0.088	0.443	1.000
	UMTS 1750	0.945	0.088	0.443	1.476
	PCS EVDO	1.128	0.088	0.443	See Table Below
	GPRS 1900	0.976	0.088	0.443	**1.507**
	UMTS 1900	1.232	0.088	0.443	See Table Below
	LTE Band 71	0.376	0.088	0.443	0.907
	LTE Band 12	0.500	0.088	0.443	1.031
	LTE Band 13	0.519	0.088	0.443	1.050
	LTE Band 14	0.585	0.088	0.443	1.116
	LTE Band 26 (Cell)	0.479	0.088	0.443	1.010
	LTE Band 5 (Cell)	0.523	0.088	0.443	1.054
	LTE Band 66 (AWS)	0.832	0.088	0.443	1.363
	LTE Band 25 (PCS)	1.252	0.088	0.443	See Table Below
	LTE Band 2 (PCS)	1.229	0.088	0.443	See Table Below
	LTE Band 30	1.242	0.088	0.443	See Table Below
	LTE Band 7	0.881	0.088	0.443	1.412
	LTE Band 48	0.871	0.088	0.443	1.402
	LTE Band 41	1.179	0.088	0.443	See Table Below
	NR Band n71	0.419	0.088	0.443	0.950
	NR Band n5 (Cell)	0.482	0.088	0.443	1.013
	NR Band n66 (AWS)	0.935	0.088	0.443	1.466
	NR Band n2 (PCS)	0.899	0.088	0.443	1.430
	NR Band n41	0.435	0.088	0.443	0.966

Simult Tx	Configuration	PCS EVDO SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	Σ SAR (W/kg)	Simult Tx	Configuration	UMTS 1900 SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3			1	2	3	1+2+3
Hotspot SAR	Back	0.587	0.049	0.443	1.079	Hotspot SAR	Back	0.561	0.049	0.443	1.053
	Front	0.499	0.044	0.443*	0.986		Front	0.518	0.044	0.443*	1.005
	Top	-	0.088	0.443*	0.531		Top	-	0.088	0.443*	0.531
	Bottom	1.128	-	-	**1.128**		Bottom	1.232	-	-	**1.232**
	Right	0.085	-	-	0.085		Right	0.078	-	-	0.078
	Left	0.069	0.011	0.125	0.205		Left	0.064	0.011	0.125	0.200

Simult Tx	Configuration	LTE Band 25 (PCS) SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	Σ SAR (W/kg)	Simult Tx	Configuration	LTE Band 2 (PCS) SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3			1	2	3	1+2+3
Hotspot SAR	Back	0.623	0.049	0.443	1.115	Hotspot SAR	Back	0.564	0.049	0.443	1.056
	Front	0.557	0.044	0.443*	1.044		Front	0.491	0.044	0.443*	0.978
	Top	-	0.088	0.443*	0.531		Top	-	0.088	0.443*	0.531
	Bottom	1.252	-	-	**1.252**		Bottom	1.229	-	-	**1.229**
	Right	0.112	-	-	0.112		Right	0.095	-	-	0.095
	Left	0.073	0.011	0.125	0.209		Left	0.062	0.011	0.125	0.198

Simult Tx	Configuration	LTE Band 30 SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	Σ SAR (W/kg)	Simult Tx	Configuration	LTE Band 41 SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3			1	2	3	1+2+3
Hotspot SAR	Back	0.425	0.049	0.443	0.917	Hotspot SAR	Back	0.434	0.049	0.443	0.926
	Front	0.413	0.044	0.443*	0.900		Front	0.373	0.044	0.443*	0.860
	Top	-	0.088	0.443*	0.531		Top	-	0.088	0.443*	0.531
	Bottom	1.242	-	-	**1.242**		Bottom	1.179	-	-	**1.179**
	Right	0.047	-	-	0.047		Right	0.038	-	-	0.038
	Left	0.062	0.011	0.125	0.198		Left	0.089	0.011	0.125	0.225

Exposure Condition	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 SAR	EVDO BC10 (§90S)	0.434	0.088	0.323	0.845
	EVDO BC0 (§22H)	0.509	0.088	0.323	0.920
	GPRS 850	0.434	0.088	0.323	0.845
	UMTS 850	0.469	0.088	0.323	0.880
	UMTS 1750	0.945	0.088	0.323	1.356
	PCS EVDO	1.128	0.088	0.323	1.539
	GPRS 1900	0.976	0.088	0.323	1.387
	UMTS 1900	1.232	0.088	0.323	See Table Below
	LTE Band 71	0.376	0.088	0.323	0.787
	LTE Band 12	0.500	0.088	0.323	0.911
	LTE Band 13	0.519	0.088	0.323	0.930
	LTE Band 14	0.585	0.088	0.323	0.996
	LTE Band 26 (Cell)	0.479	0.088	0.323	0.890
	LTE Band 5 (Cell)	0.523	0.088	0.323	0.934
	LTE Band 66 (AWS)	0.832	0.088	0.323	1.243
	LTE Band 25 (PCS)	1.252	0.088	0.323	See Table Below
	LTE Band 2 (PCS)	1.229	0.088	0.323	See Table Below
	LTE Band 30	1.242	0.088	0.323	See Table Below
	LTE Band 7	0.881	0.088	0.323	1.292
	LTE Band 48	0.871	0.088	0.323	1.282
	LTE Band 41	1.179	0.088	0.323	**1.590**
	NR Band n71	0.419	0.088	0.323	0.830
	NR Band n5 (Cell)	0.482	0.088	0.323	0.893
	NR Band n66 (AWS)	0.935	0.088	0.323	1.346
	NR Band n2 (PCS)	0.899	0.088	0.323	1.310
	NR Band n41	0.435	0.088	0.323	0.846

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
Hotspot SAR	Back	0.561	0.049	0.323	0.933
	Front	0.518	0.044	0.323*	0.885
	Top	-	0.088	0.323*	0.411
	Bottom	1.232	-	-	**1.232**
	Right	0.078	-	-	0.078
	Left	0.064	0.011	0.323*	0.398

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
Hotspot SAR	Back	0.623	0.049	0.323	0.995
	Front	0.557	0.044	0.323*	0.924
	Top	-	0.088	0.323*	0.411
	Bottom	1.252	-	-	**1.252**
	Right	0.112	-	-	0.112
	Left	0.073	0.011	0.323*	0.407

Simult Tx	Configuration	LTE Band 2 (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	0.564	0.049	0.323	0.936
	Front	0.491	0.044	0.323*	0.858
	Top	-	0.088	0.323*	0.411
	Bottom	1.229	-	-	**1.229**
	Right	0.095	-	-	0.095
	Left	0.062	0.011	0.323*	0.396

Simult Tx	Configuration	LTE Band 30 SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Hotspot SAR	Back	0.425	0.049	0.323	0.797
	Front	0.413	0.044	0.323*	0.780
	Top	-	0.088	0.323*	0.411
	Bottom	1.242	-	-	**1.242**
	Right	0.047	-	-	0.047
	Left	0.062	0.011	0.323*	0.396

Exposure Condition	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 SAR	EVDO BC10 (§90S)	0.434	0.088	0.605	1.127
	EVDO BC0 (§22H)	0.509	0.088	0.605	1.202
	GPRS 850	0.434	0.088	0.605	1.127
	UMTS 850	0.469	0.088	0.605	1.162
	UMTS 1750	0.945	0.088	0.605	See Table Below
	PCS EVDO	1.128	0.088	0.605	See Table Below
	GPRS 1900	0.976	0.088	0.605	See Table Below
	UMTS 1900	1.232	0.088	0.605	See Table Below
	LTE Band 71	0.376	0.088	0.605	1.069
	LTE Band 12	0.500	0.088	0.605	1.193
	LTE Band 13	0.519	0.088	0.605	1.212
	LTE Band 14	0.585	0.088	0.605	1.278
	LTE Band 26 (Cell)	0.479	0.088	0.605	1.172
	LTE Band 5 (Cell)	0.523	0.088	0.605	1.216
	LTE Band 66 (AWS)	0.832	0.088	0.605	1.525
	LTE Band 25 (PCS)	1.252	0.088	0.605	See Table Below
	LTE Band 2 (PCS)	1.229	0.088	0.605	See Table Below
	LTE Band 30	1.242	0.088	0.605	See Table Below
	LTE Band 7	0.881	0.088	0.605	1.574
	LTE Band 48	0.871	0.088	0.605	1.564
	LTE Band 41	1.179	0.088	0.605	See Table Below
	NR Band n71	0.419	0.088	0.605	1.112
	NR Band n5 (Cell)	0.482	0.088	0.605	1.175
	NR Band n66 (AWS)	0.935	0.088	0.605	See Table Below
	NR Band n2 (PCS)	0.899	0.088	0.605	**1.592**
	NR Band n41	0.435	0.088	0.605	1.128

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	0.499	0.049	0.605	**1.153**
	Front	0.478	0.044	0.605*	1.127
	Top	-	0.088	0.089	0.177
	Bottom	0.945	-	-	0.945
	Right	0.068	-	-	0.068
	Left	0.082	0.011	0.127	0.220

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	0.587	0.049	0.605	**1.241**
	Front	0.499	0.044	0.605*	1.148
	Top	-	0.088	0.089	0.177
	Bottom	1.128	-	-	1.128
	Right	0.085	-	-	0.085
	Left	0.069	0.011	0.127	0.207

Simult Tx	Configuration	GPRS 1900 SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)	Simult Tx	Configuration	UMTS 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			1	2	3	1+2+3
Hotspot SAR	Back	0.417	0.049	0.605	1.071	Hotspot SAR	Back	0.561	0.049	0.605	1.215
	Front	0.441	0.044	0.605*	**1.090**		Front	0.518	0.044	0.605*	1.167
	Top	-	0.088	0.089	0.177		Top	-	0.088	0.089	0.177
	Bottom	0.976	-	-	0.976		Bottom	1.232	-	-	**1.232**
	Right	0.067	-	-	0.067		Right	0.078	-	-	0.078
	Left	0.054	0.011	0.127	0.192		Left	0.064	0.011	0.127	0.202

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)	Simult Tx	Configuration	LTE Band 2 (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	0.623	0.049	0.605	**1.277**	Hotspot SAR	Back	0.564	0.049	0.605	1.218
	Front	0.557	0.044	0.605*	1.206		Front	0.491	0.044	0.605*	1.140
	Top	-	0.088	0.089	0.177		Top	-	0.088	0.089	0.177
	Bottom	1.252	-	-	1.252		Bottom	1.229	-	-	**1.229**
	Right	0.112	-	-	0.112		Right	0.095	-	-	0.095
	Left	0.073	0.011	0.127	0.211		Left	0.062	0.011	0.127	0.200

Simult Tx	Configuration	LTE Band 30 SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)	Simult Tx	Configuration	LTE Band 41 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	0.425	0.049	0.605	1.079	Hotspot SAR	Back	0.434	0.049	0.605	1.088
	Front	0.413	0.044	0.605*	1.062		Front	0.373	0.044	0.605*	1.022
	Top	-	0.088	0.089	0.177		Top	-	0.088	0.089	0.177
	Bottom	1.242	-	-	**1.242**		Bottom	1.179	-	-	**1.179**
	Right	0.047	-	-	0.047		Right	0.038	-	-	0.038
	Left	0.062	0.011	0.127	0.200		Left	0.089	0.011	0.127	0.227

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)
		1	2	3	1+2+3
Hotspot SAR	Back	0.546	0.049	0.605	**1.200**
	Front	0.485	0.044	0.605*	1.134
	Top	-	0.088	0.089	0.177
	Bottom	0.935	-	-	0.935
	Right	0.078	-	-	0.078
	Left	0.088	0.011	0.127	0.226

12.6 Phablet 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)

Exposure Condition	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
Phablet SAR	UMTS 1750	2.690	1.210	1.184	**3.900**	3.874
	PCS EVDO	3.090	1.210	1.184	See Table Below	See Table Below
	GPRS 1900	3.110	1.210	1.184	See Table Below	See Table Below
	UMTS 1900	2.487	1.210	1.184	3.697	3.671
	LTE Band 66 (AWS)	2.315	1.210	1.184	3.525	3.499
	LTE Band 25 (PCS)	3.088	1.210	1.184	See Table Below	See Table Below
	LTE Band 2 (PCS)	3.130	1.210	1.184	See Table Below	See Table Below
	LTE Band 30	2.633	1.210	1.184	3.843	3.817
	LTE Band 7	2.233	1.210	1.184	3.443	3.417
	LTE Band 41	2.667	1.210	1.184	3.877	3.851
	NR Band n66 (AWS)	2.336	1.210	1.184	3.546	3.520
	NR Band n2 (PCS)	2.467	1.210	1.184	3.677	3.651

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
Phablet SAR	Back	1.900	1.210	1.184	3.110	3.084
	Front	2.362	1.210*	1.184*	**3.572**	3.546
	Top	-	1.210*	1.184*	1.210	1.184
	Bottom	3.090	-	-	3.090	3.090
	Right	0.564	-	-	0.564	0.564
	Left	0.512	0.201	0.306	0.713	0.818

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	1.807	1.210	1.184	3.017	2.991
	Front	1.759	1.210*	1.184*	2.969	2.943
	Top	-	1.210*	1.184*	1.210	1.184
	Bottom	3.110	-	-	**3.110**	**3.110**
	Right	0.274	-	-	0.274	0.274
	Left	0.248	0.201	0.306	0.449	0.554

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
Phablet SAR	Back	2.298	1.210	1.184	3.508	3.482
	Front	2.406	1.210*	1.184*	**3.616**	3.590
	Top	-	1.210*	1.184*	1.210	1.184
	Bottom	3.088	-	-	3.088	3.088
	Right	0.525	-	-	0.525	0.525
	Left	0.490	0.201	0.306	0.691	0.796

Simult Tx	Configuration	LTE Band 2 (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
Phablet SAR	Back	2.310	1.210	1.184	3.520	3.494
	Front	2.434	1.210*	1.184*	**3.644**	3.618
	Top	-	1.210*	1.184*	1.210	1.184
	Bottom	3.130	-	-	3.130	3.130
	Right	0.677	-	-	0.677	0.677
	Left	0.398	0.201	0.306	0.599	0.704

Exposure Condition	Mode	2G/3G/4G/5G SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2
Phablet SAR	UMTS 1750	2.690	2.183	See Table Below
	PCS EVDO	3.090	2.183	See Table Below
	GPRS 1900	3.110	2.183	See Table Below
	UMTS 1900	2.487	2.183	See Table Below
	LTE Band 66 (AWS)	2.315	2.183	See Table Below
	LTE Band 25 (PCS)	3.088	2.183	See Table Below
	LTE Band 2 (PCS)	3.130	2.183	See Table Below
	LTE Band 30	2.633	2.183	See Table Below
	LTE Band 7	2.233	2.183	See Table Below
	LTE Band 41	2.667	2.183	See Table Below
	NR Band n66 (AWS)	2.336	2.183	See Table Below
	NR Band n2 (PCS)	2.467	2.183	See Table Below

Simult Tx	Configuration	UMTS 1750 SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2
Phablet SAR	Back	1.613	2.183	**3.796**
	Front	1.754	0.097	1.851
	Top	-	2.183*	2.183
	Bottom	2.690	-	2.690
	Right	0.460	-	0.460
	Left	0.468	0.491	0.959

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	1.900	2.183	See Note 1	0.06
	Front	2.362	0.097	2.459	N/A
	Top	-	2.183*	2.183	N/A
	Bottom	3.090	-	**3.090**	N/A
	Right	0.564	-	0.564	N/A
	Left	0.512	0.491	1.003	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	1.807	2.183	**3.990**
	Front	1.759	0.097	1.856
	Top	-	2.183*	2.183
	Bottom	3.110	-	3.110
	Right	0.274	-	0.274
	Left	0.248	0.491	0.739

Simult Tx	Configuration	UMTS 1900 SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2
Phablet SAR	Back	1.771	2.183	**3.954**
	Front	1.761	0.097	1.858
	Top	-	2.183*	2.183
	Bottom	2.487	-	2.487
	Right	0.598	-	0.598
	Left	0.483	0.491	0.974

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
Phablet SAR	Back	1.736	2.183	**3.919**
	Front	1.995	0.097	2.092
	Top	-	2.183*	2.183
	Bottom	2.315	-	2.315
	Right	0.660	-	0.660
	Left	0.657	0.491	1.148

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	2.298	2.183	See Note 1	0.07
	Front	2.406	0.097	2.503	N/A
	Top	-	2.183*	2.183	N/A
	Bottom	3.088	-	**3.088**	N/A
	Right	0.525	-	0.525	N/A
	Left	0.490	0.491	0.981	N/A

Simult Tx	Configuration	LTE Band 2 (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	2.310	2.183	See Note 1	0.07
	Front	2.434	0.097	2.531	N/A
	Top	-	2.183*	2.183	N/A
	Bottom	3.130	-	**3.130**	N/A
	Right	0.677	-	0.677	N/A
	Left	0.398	0.491	0.889	N/A

Simult Tx	Configuration	LTE Band 30 SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)	SPLSR
		1	2	1+2	1+2
Phablet SAR	Back	2.633	2.183	See Note 1	0.08
	Front	2.451	0.097	**2.548**	N/A
	Top	-	2.183*	2.183	N/A
	Bottom	1.615	-	1.615	N/A
	Right	0.363	-	0.363	N/A
	Left	0.635	0.491	1.126	N/A

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	2.233	2.183	See Note 1	0.07
	Front	1.593	0.097	1.690	N/A
	Top	-	2.183*	**2.183**	N/A
	Bottom	1.528	-	1.528	N/A
	Right	0.203	-	0.203	N/A
	Left	0.825	0.491	1.316	N/A

Simult Tx	Configuration	LTE Band 41 SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)	SPLSR
		1	2	1+2	1+2
Phablet SAR	Back	2.667	2.183	See Note 1	0.08
	Front	1.710	0.097	1.807	N/A
	Top	-	2.183*	**2.183**	N/A
	Bottom	2.042	-	2.042	N/A
	Right	0.145	-	0.145	N/A
	Left	0.462	0.491	0.953	N/A

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
Phablet SAR	Back	1.806	2.183	**3.989**
	Front	1.826	0.097	1.923
	Top	-	2.183*	2.183
	Bottom	2.336	-	2.336
	Right	0.398	-	0.398
	Left	0.494	0.491	0.985

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	1.848	2.183	See Note 1	0.06
	Front	1.765	0.097	1.862	N/A
	Top	-	2.183*	2.183	N/A
	Bottom	2.467	-	**2.467**	N/A
	Right	0.443	-	0.443	N/A
	Left	0.415	0.491	0.906	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.

12.7 SPLSR Evaluation and Analysis

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

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

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

12.7.1 Back Side SPLSR Evaluation and Analysis

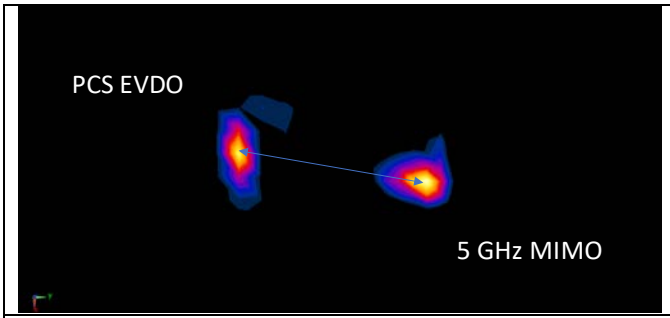
Table 12-17
Peak SAR Locations for Phablet Back Side

Mode/Band	x (mm)	y (mm)
5 GHz WLAN MIMO	-5.00	59.00
PCS EVDO	-17.00	-75.00
LTE Band 25 (PCS)	-17.00	-75.00
LTE Band 2 (PCS)	-17.00	-75.00
LTE Band 30	-11.80	-68.60
LTE Band 7	-17.00	-72.80
LTE Band 41	-16.80	-69.40
NR Band n2 (PCS)	-17.00	-75.00

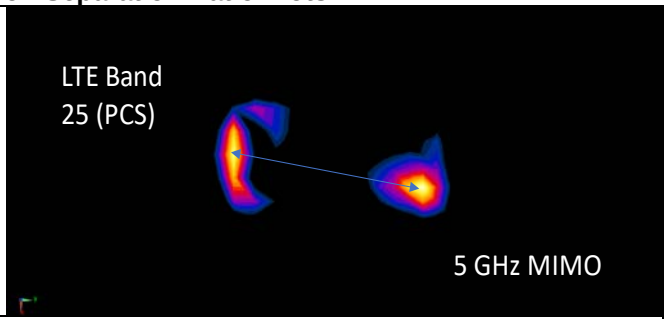
Table 12-18
Phablet Back Side SAR to Peak Location Separation Ratio Calculations

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}	$(a+b)^{1.5}/D_{a-b}$	
PCS EVDO	5 GHz WLAN MIMO	1.900	2.183	4.083	134.54	0.06	1
LTE Band 25 (PCS)	5 GHz WLAN MIMO	2.298	2.183	4.481	134.54	0.07	2
LTE Band 2 (PCS)	5 GHz WLAN MIMO	2.310	2.183	4.493	134.54	0.07	3
LTE Band 30	5 GHz WLAN MIMO	2.633	2.183	4.816	127.78	0.08	4
LTE Band 7	5 GHz WLAN MIMO	2.233	2.183	4.416	132.35	0.07	5
LTE Band 41	5 GHz WLAN MIMO	2.667	2.183	4.85	128.94	0.08	6
NR Band n2 (PCS)	5 GHz WLAN MIMO	1.848	2.183	4.031	134.54	0.06	7

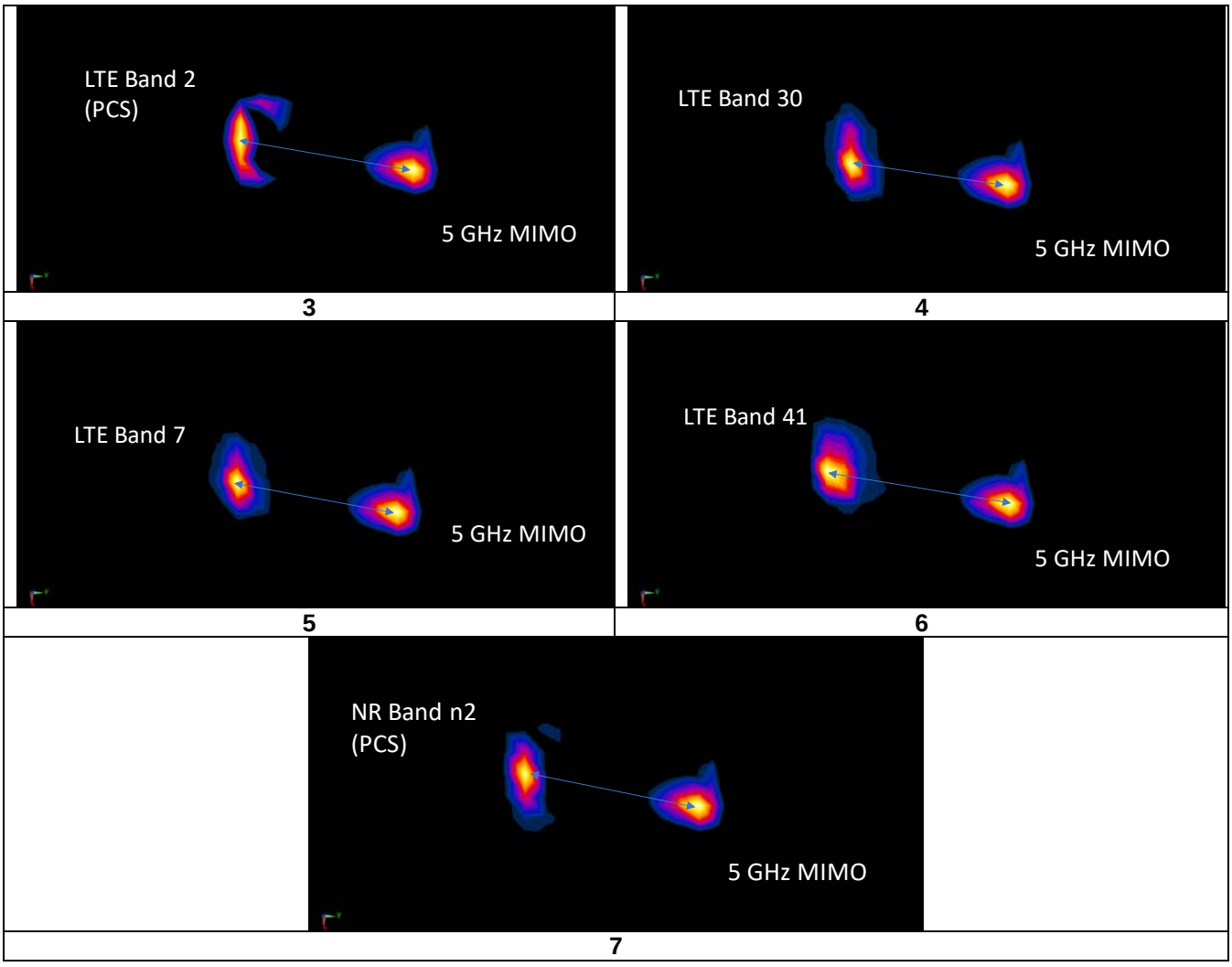
Table 12-19
Back Side SAR to Peak Location Separation Ratio Plots



1



2



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.

13 SAR MEASUREMENT VARIABILITY

13.1 Measurement Variability

Per FCC KDB Publication 865664 D01v01r04, SAR measurement variability was assessed for each frequency band, which was determined by the SAR probe calibration point and tissue-equivalent medium used for the device measurements. When both head and body tissue-equivalent media were required for SAR measurements in a frequency band, the variability measurement procedures were applied to the tissue medium with the highest measured SAR, using the highest measured SAR configuration for that tissue-equivalent medium. These additional measurements were repeated after the completion of all measurements requiring the same head or body tissue-equivalent medium in a frequency band. The test device was returned to ambient conditions (normal room temperature) with the battery fully charged before it was re-mounted on the device holder for the repeated measurement(s) to minimize any unexpected variations in the repeated results.

SAR Measurement Variability was assessed using the following procedures for each frequency band:

1) When the original highest measured SAR is ≥ 0.80 W/kg, the measurement was repeated once.
2) A second repeated measurement was performed only if the ratio of largest to smallest SAR for the original and first repeated measurements was > 1.20 or when the original or repeated measurement was ≥ 1.45 W/kg (~ 10% from the 1g SAR limit).
3) A third repeated measurement was performed only if the original, first or second repeated measurement was ≥ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.
4) Repeated measurements are not required when the original highest measured SAR is < 0.80 W/kg
5) When 10g SAR measurement is considered, a factor of 2.5 is applied to the thresholds above.

Table 13-1
Body SAR Measurement Variability Results

BODY VARIABILITY RESULTS													
Band	FREQUENCY		Mode	Service	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)	
1750	1712.40	1312	UMTS 1750	RMC	bottom	10 mm	0.945	0.934	1.01	N/A	N/A	N/A	N/A
1900	1907.60	9538	UMTS 1900	RMC	bottom	10 mm	1.190	1.080	1.10	N/A	N/A	N/A	N/A
2300	2310.00	27710	LTE Band 30, 10 MHz Bandwidth	QPSK, 25 RB, 12 RB Offset	bottom	10 mm	0.977	0.958	1.02	N/A	N/A	N/A	N/A
2450	2506.00	39750	LTE Band 41 PC3, 20 MHz Bandwidth	QPSK, 50 RB, 0 RB Offset	bottom	10 mm	0.960	0.893	1.08	N/A	N/A	N/A	N/A
2600	PCC: 2636.50	41055	LTE Band 41 PC2 with ULCA, 20 MHz Bandwidth	QPSK, 50 RB, 0 RB Offset	bottom	10 mm	1.080	0.950	1.14	N/A	N/A	N/A	N/A
	SCC: 2616.70	40857		QPSK, 50 RB, 50 RB Offset									
3700	PCC: 3603.30	55773	LTE Band 48 ULCA, 20 MHz Bandwidth	QPSK, 1 RB, 0 RB Offset	top	10 mm	0.811	0.810	1.00	N/A	N/A	N/A	N/A
	SCC: 3583.50	55575		QPSK, 1 RB, 99 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 13-2
Phablet SAR Measurement Variability Results

PHABLET VARIABILITY RESULTS													
Band	FREQUENCY		Mode	Service	Side	Spacing	Measured SAR (10g)	1st Repeated SAR (10g)	Ratio	2nd Repeated SAR (10g)	Ratio	3rd Repeated SAR (10g)	Ratio
	MHz	Ch.					(W/kg)	(W/kg)		(W/kg)		(W/kg)	
1750	1712.40	1312	UMTS 1750	RMC	bottom	0 mm	2.690	2.680	1.00	N/A	N/A	N/A	N/A
1900	1851.25	25	PCS CDMA	EVDO Rev. 0	bottom	0 mm	2.630	2.630	1.00	N/A	N/A	N/A	N/A
2300	2310.00	27710	LTE Band 30, 10 MHz Bandwidth	QPSK, 25 RB, 12 RB Offset	back	0 mm	2.070	2.050	1.01	N/A	N/A	N/A	N/A
2450	PCC: 2506.00	39750	LTE Band 41 PC3 with ULCA, 20 MHz Bandwidth	QPSK, 1 RB, 99 RB Offset	back	0 mm	2.540	2.270	1.12	N/A	N/A	N/A	N/A
	SCC: 2525.80	39948		QPSK, 1 RB, 0 RB Offset									
2600	2593.00	40620	LTE Band 41 PC3, 20 MHz Bandwidth	QPSK, 50 RB, 25 RB Offset	back	0 mm	2.050	2.020	1.01	N/A	N/A	N/A	N/A
ANSI / IEEE C95.1 1992 - SAFETY LIMIT **Spatial Peak** **Uncontrolled Exposure/General Population**							**Phablet** **4.0 W/kg (mW/g)** averaged over 10 grams						

13.2 Measurement Uncertainty

The measured SAR was <1.5 W/kg for 1g and <3.75 W/kg for 10g for all frequency bands. Therefore, per KDB Publication 865664 D01v01r04, the extended measurement uncertainty analysis per IEEE 1528-2013 was not required.

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 60 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 60 states.

The operational description contains more information about the design and implementation of the dynamic antenna tuning.

Table 14-1
UMTS/CDMA Supplemental Head SAR Data

Supplemental Head SAR Data												
UMTS B5		UMTS B4		UMTS B2		CDMA BC10		CDMA BC0		CDMA BC1	
RMC		RMC		RMC		EVDO, Rev. A		EVDO, Rev. A		EVDO, Rev. A	
Test Position	Right Cheek	Test Position	Left Cheek	Test Position	Left Cheek	Test Position	Left Cheek	Test Position	Right Cheek	Test Position	Left Cheek
Frequency (MHz)	836.60	Frequency (MHz)	1732.40	Frequency (MHz)	1880.00	Frequency (MHz)	820.10	Frequency (MHz)	836.52	Frequency (MHz)	1880.00
Channel	4183	Channel	1412	Channel	9400	Channel	564	Channel	384	Channel	600
Measured 1g SAR (W/kg)	0.242	Measured 1g SAR (W/kg)	0.206	Measured 1g SAR (W/kg)	0.224	Measured 1g SAR (W/kg)	0.203	Measured 1g SAR (W/kg)	0.272	Measured 1g SAR (W/kg)	0.225
Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)	
Auto-tune (State 52)	0.322	Auto-tune (State 53)	0.320	Auto-tune (State 55)	0.280	Auto-tune (State 1)	0.266	Auto-tune (State 1)	0.330	Auto-tune (State 55)	0.337
Default (State 0)	0.316	Default (State 0)	0.211	Default (State 0)	0.233	Default (State 0)	0.228	Default (State 0)	0.331	Default (State 0)	0.259
State 0	0.316	State 0	0.211	State 0	0.233	State 0	0.228	State 0	0.331	State 0	0.259
State 1	0.318	State 9	0.129	State 6	0.162	State 1	0.255	State 1	0.347	State 10	0.084
State 16	0.291	State 27	0.296	State 13	0.162	State 2	0.247	State 8	0.202	State 20	0.087
State 25	0.041	State 29	0.286	State 21	0.068	State 10	0.074	State 17	0.301	State 38	0.070
State 36	0.041	State 46	0.178	State 35	0.154	State 30	0.170	State 27	0.174	State 44	0.191
State 52	0.319	State 53	0.321	State 48	0.095	State 42	0.173	State 38	0.012	State 54	0.258
State 56	0.312	State 58	0.109	State 55	0.293	State 54	0.235	State 45	0.178	State 55	0.332

Table 14-2
LTE Supplemental Head SAR Data

Supplemental Head SAR Data																	
LTE B71		LTE B12		LTE B13		LTE B14		LTE B5		LTE B26		LTE B66/4		LTE B2		LTE B25	
QPSK, 20 MHz Bandwidth, 1 RB, 0 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		QPSK, 10 MHz Bandwidth, 1 RB, 0 RB Offset		QPSK, 15 MHz Bandwidth, 1 RB, 0 RB Offset		QPSK, 20 MHz Bandwidth, 1 RB, 0 RB Offset		QPSK, 20 MHz Bandwidth, 1 RB, 99 RB Offset		QPSK, 20 MHz Bandwidth, 1 RB, 99 RB Offset	
Test Position	Left Cheek	Test Position	Left Cheek	Test Position	Right Cheek	Test Position	Right Cheek	Test Position	Right Cheek	Test Position	Right Cheek	Test Position	Left Cheek	Test Position	Left Cheek	Test Position	Left Cheek
Frequency (MHz)	680.50	Frequency (MHz)	707.50	Frequency (MHz)	782.00	Frequency (MHz)	793.00	Frequency (MHz)	836.50	Frequency (MHz)	831.50	Frequency (MHz)	1770.00	Frequency (MHz)	1860.00	Frequency (MHz)	1860.00
Channel	133297	Channel	23095	Channel	23230	Channel	23330	Channel	20525	Channel	26865	Channel	132572	Channel	18700	Channel	26140
Measured 1g SAR (W/kg)	0.120	Measured 1g SAR (W/kg)	0.156	Measured 1g SAR (W/kg)	0.203	Measured 1g SAR (W/kg)	0.206	Measured 1g SAR (W/kg)	0.173	Measured 1g SAR (W/kg)	0.175	Measured 1g SAR (W/kg)	0.178	Measured 1g SAR (W/kg)	0.258	Measured 1g SAR (W/kg)	0.248
Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)	
Auto-tune (State 14)	0.173	Auto-tune (State 52)	0.199	Auto-tune (State 58)	0.261	Auto-tune (State 1)	0.268	Auto-tune (State 52)	0.290	Auto-tune (State 1)	0.243	Auto-tune (State 26)	0.245	Auto-tune (State 55)	0.378	Auto-tune (State 55)	0.363
Default (State 0)	0.147	Default (State 0)	0.197	Default (State 0)	0.242	Default (State 0)	0.247	Default (State 0)	0.279	Default (State 0)	0.233	Default (State 0)	0.161	Default (State 0)	0.283	Default (State 0)	0.287
State 0	0.147	State 0	0.197	State 0	0.242	State 0	0.247	State 0	0.279	State 0	0.233	State 0	0.161	State 0	0.283	State 0	0.287
State 8	0.071	State 6	0.145	State 3	0.272	State 1	0.255	State 11	0.005	State 1	0.249	State 4	0.125	State 26	0.375	State 7	0.185
State 14	0.176	State 28	0.047	State 12	0.029	State 2	0.253	State 25	0.002	State 15	0.247	State 10	0.067	State 30	0.321	State 19	0.121
State 24	0.016	State 44	0.045	State 33	0.102	State 18	0.229	State 49	0.003	State 19	0.184	State 21	0.044	State 40	0.259	State 23	0.052
State 33	0.029	State 52	0.202	State 38	0.004	State 42	0.129	State 52	0.287	State 27	0.138	State 26	0.243	State 49	0.100	State 37	0.131
State 50	0.001	State 57	0.061	State 58	0.260	State 46	0.100	State 55	0.009	State 36	0.024	State 33	0.171	State 55	0.366	State 55	0.372

Table 14-3
NR Supplemental Head SAR Data

Supplemental Head SAR Data							
NR Band n71		NR Band n5		NR Band n66		NR Band n2	
DFT-s-OFDM QPSK, 20 MHz Bandwidth, 50 RB, 28 RB Offset		DFT-s-OFDM QPSK, 20 MHz Bandwidth, 50 RB, 28 RB Offset		DFT-s-OFDM QPSK, 20 MHz Bandwidth, 1 RB, 53 RB Offset		DFT-s-OFDM QPSK, 20 MHz Bandwidth, 50 RB, 28 RB Offset	
Test Position	Left Cheek	Test Position	Right Cheek	Test Position	Left Cheek	Test Position	Left Cheek
Frequency (MHz)	680.50	Frequency (MHz)	836.50	Frequency (MHz)	1745.00	Frequency (MHz)	1880.00
Channel	136100	Channel	167300	Channel	349000	Channel	376000
Measured 1g SAR (W/kg)	0.132	Measured 1g SAR (W/kg)	0.179	Measured 1g SAR (W/kg)	0.234	Measured 1g SAR (W/kg)	0.208
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 14)	0.163	Auto-tune (State 52)	0.227	Auto-tune (State 26)	0.319	Auto-tune (State 55)	0.305
Default (State 0)	0.145	Default (State 0)	0.224	Default (State 0)	0.231	Default (State 0)	0.243
State 0	0.145	State 0	0.224	State 0	0.231	State 0	0.243
State 2	0.164	State 5	0.202	State 7	0.153	State 12	0.037
State 14	0.163	State 15	0.204	State 18	0.094	State 22	0.048
State 27	0.071	State 43	0.149	State 26	0.319	State 30	0.272
State 46	0.052	State 52	0.227	State 32	0.236	State 39	0.238
State 54	0.144	State 56	0.217	State 38	0.075	State 55	0.305

Table 14-4
UMTS/CDMA Supplemental Body SAR Data

Supplemental Body SAR Data					
UMTS B5		CDMA BC10		CDMA BC0	
RMC		EVDO, Rev. 0		EVDO, Rev. 0	
Test Position	Back Side	Test Position	Back Side	Test Position	Back Side
Spacing	10 mm	Spacing	10 mm	Spacing	10 mm
Frequency (MHz)	836.60	Frequency (MHz)	820.10	Frequency (MHz)	836.52
Channel	4183	Channel	564	Channel	384
Measured 1g SAR (W/kg)	0.394	Measured 1g SAR (W/kg)	0.334	Measured 1g SAR (W/kg)	0.452
Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)	
Auto-tune (State 52)	0.691	Auto-tune (State 1)	0.601	Auto-tune (State 1)	0.710
Default (State 0)	0.676	Default (State 0)	0.569	Default (State 0)	0.714
State 0	0.676	State 0	0.569	State 0	0.714
State 2	0.670	State 1	0.605	State 1	0.718
State 34	0.187	State 28	0.371	State 2	0.712
State 46	0.291	State 42	0.413	State 5	0.668
State 52	0.675	State 49	0.071	State 16	0.647
State 59	0.353	State 56	0.609	State 47	0.217

Table 14-5
UMTS/CDMA Supplemental Body SAR Data - Cont'd

Supplemental Body SAR Data					
UMTS B4		UMTS B2		CDMA BC1	
RMC		RMC		EVDO, Rev. 0	
Test Position	Bottom Edge	Test Position	Bottom Edge	Test Position	Bottom Edge
Spacing	10 mm	Spacing	10 mm	Spacing	10 mm
Frequency (MHz)	1712.40	Frequency (MHz)	1907.60	Frequency (MHz)	1908.75
Channel	1312	Channel	9538	Channel	1175
Measured 1g SAR (W/kg)	0.945	Measured 1g SAR (W/kg)	1.190	Measured 1g SAR (W/kg)	0.923
Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)	
Auto-tune (State 4)	1.439	Auto-tune (State 26)	1.434	Auto-tune (State 55)	1.320
Default (State 0)	1.461	Default (State 0)	1.172	Default (State 0)	1.009
State 0	1.461	State 0	1.172	State 0	1.009
State 1	1.407	State 1	1.073	State 1	0.920
State 2	1.396	State 2	1.045	State 2	0.899
State 3	1.386	State 3	1.028	State 3	0.889
State 4	1.378	State 4	0.980	State 4	0.843
State 5	1.355	State 5	0.970	State 5	0.826
State 6	1.306	State 6	0.853	State 6	0.735
State 7	1.271	State 7	0.777	State 7	0.674
State 8	1.208	State 8	0.675	State 8	0.583
State 9	1.111	State 9	0.542	State 9	0.479
State 10	1.033	State 10	0.457	State 10	0.408
State 11	0.925	State 11	0.356	State 11	0.325
State 12	0.764	State 12	0.249	State 12	0.231
State 13	0.777	State 13	0.768	State 13	0.625
State 14	0.751	State 14	0.687	State 14	0.561
State 15	0.745	State 15	0.661	State 15	0.540
State 16	0.734	State 16	0.639	State 16	0.529
State 17	0.721	State 17	0.605	State 17	0.503
State 18	0.716	State 18	0.600	State 18	0.499
State 19	0.676	State 19	0.512	State 19	0.436
State 20	0.645	State 20	0.455	State 20	0.390
State 21	0.603	State 21	0.387	State 21	0.326
State 22	0.541	State 22	0.300	State 22	0.260
State 23	0.492	State 23	0.246	State 23	0.215
State 24	0.428	State 24	0.188	State 24	0.167
State 25	0.340	State 25	0.126	State 25	0.115
State 26	1.445	State 26	1.463	State 26	1.351
State 27	1.414	State 27	1.370	State 27	1.272
State 28	1.412	State 28	1.345	State 28	1.250
State 29	1.406	State 29	1.319	State 29	1.236
State 30	1.396	State 30	1.271	State 30	1.195
State 31	1.381	State 31	1.258	State 31	1.163
State 32	1.354	State 32	1.150	State 32	1.066
State 33	1.326	State 33	1.064	State 33	0.997
State 34	1.282	State 34	0.941	State 34	0.893
State 35	1.203	State 35	0.775	State 35	0.737
State 36	1.135	State 36	0.661	State 36	0.641
State 37	1.028	State 37	0.518	State 37	0.515
State 38	0.858	State 38	0.361	State 38	0.368
State 39	1.438	State 39	1.173	State 39	0.982
State 40	1.394	State 40	1.016	State 40	0.887
State 41	1.386	State 41	0.991	State 41	0.868
State 42	1.378	State 42	0.962	State 42	0.848
State 43	1.365	State 43	0.918	State 43	0.816
State 44	1.348	State 44	0.906	State 44	0.806
State 45	1.308	State 45	0.797	State 45	0.711
State 46	1.270	State 46	0.721	State 46	0.642
State 47	1.215	State 47	0.623	State 47	0.567
State 48	1.128	State 48	0.500	State 48	0.467
State 49	1.058	State 49	0.419	State 49	0.393
State 50	0.955	State 50	0.328	State 50	0.312
State 51	0.801	State 51	0.225	State 51	0.223
State 52	1.430	State 52	1.157	State 52	1.008
State 53	1.426	State 53	1.445	State 53	1.352
State 54	1.426	State 54	1.156	State 54	0.997
State 55	1.421	State 55	1.439	State 55	1.350
State 56	0.763	State 56	0.763	State 56	0.622
State 57	1.425	State 57	1.105	State 57	0.992
State 58	0.763	State 58	0.760	State 58	0.622
State 59	1.426	State 59	1.102	State 59	0.982

Table 14-6
LTE Supplemental Body SAR Data

Supplemental Body SAR Data													
LTE B71		LTE B12		LTE B13		LTE B14		LTE B5		LTE B26		LTE B66/4	
QPSK, 20 MHz Bandwidth, 1 RB, 0 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		QPSK, 10 MHz Bandwidth, 1 RB, 0 RB Offset		QPSK, 15 MHz Bandwidth, 1 RB, 0 RB Offset		QPSK, 20 MHz Bandwidth, 1 RB, 0 RB Offset	
Test Position	Back Side	Test Position	Back Side	Test Position	Back Side	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	Spacing	10 mm	Spacing	10 mm	Spacing	15 mm
Frequency (MHz)	680.50 MHz	Frequency (MHz)	707.50 MHz	Frequency (MHz)	782.00	Frequency (MHz)	793.00	Frequency (MHz)	836.50	Frequency (MHz)	831.50	Frequency (MHz)	1770.00
Channel	133297	Channel	23095	Channel	23230	Channel	23330	Channel	20525	Channel	26865	Channel	132572
Measured 1g SAR (W/kg)	0.262	Measured 1g SAR (W/kg)	0.333	Measured 1g SAR (W/kg)	0.349	Measured 1g SAR (W/kg)	0.392	Measured 1g SAR (W/kg)	0.353	Measured 1g SAR (W/kg)	0.342	Measured 1g SAR (W/kg)	0.698
Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)	
Auto-tune (State 14)	0.418	Auto-tune (State 52)	0.532	Auto-tune (State 52)	0.614	Auto-tune (State 58)	0.645	Auto-tune (State 0)	0.517	Auto-tune (State 0)	0.555	Auto-tune (State 26)	1.009
Default (State 0)	0.387	Default (State 0)	0.537	Default (State 0)	0.612	Default (State 0)	0.664	Default (State 0)	0.524	Default (State 0)	0.561	Default (State 0)	0.748
State 0	0.387	State 0	0.537	State 0	0.612	State 0	0.664	State 0	0.524	State 0	0.561	State 8	0.473
State 9	0.128	State 11	0.108	State 13	0.591	State 9	0.312	State 1	0.533	State 14	0.580	State 26	1.037
State 14	0.419	State 14	0.422	State 28	0.189	State 20	0.427	State 2	0.532	State 31	0.366	State 45	0.603
State 16	0.409	State 27	0.139	State 52	0.615	State 39	0.302	State 17	0.475	State 37	0.036	State 51	0.230
State 55	0.126	State 52	0.537	State 59	0.248	State 58	0.662	State 52	0.517	State 41	0.372	State 59	0.766

Table 14-7
LTE Supplemental Body SAR Data – Cont'd

Supplemental Body SAR Data			
LTE B2		LTE B25	
QPSK, 20 MHz Bandwidth, 1 RB, 0 RB Offset		QPSK, 20 MHz Bandwidth, 50 RB, 50 RB Offset	
Test Position	Bottom Edge	Test Position	Bottom Edge
Spacing	10 mm	Spacing	10 mm
Frequency (MHz)	1900.00	Frequency (MHz)	1905.00
Channel	19100	Channel	26590
Measured 1g SAR (W/kg)	0.926	Measured 1g SAR (W/kg)	0.987
Average Value of Time Sweep (W/kg)		Average Value of Time Sweep (W/kg)	
Auto-tune (State 55)	1.528	Auto-tune (State 26)	1.470
Default (State 0)	1.179	Default (State 0)	1.216
State 0	1.179	State 0	1.216
State 1	1.078	State 1	1.128
State 2	1.054	State 2	1.102
State 3	1.031	State 3	1.076
State 4	0.989	State 4	1.026
State 5	0.983	State 5	1.023
State 6	0.870	State 6	0.902
State 7	0.795	State 7	0.824
State 8	0.703	State 8	0.718
State 9	0.573	State 9	0.578
State 10	0.486	State 10	0.488
State 11	0.385	State 11	0.380
State 12	0.272	State 12	0.262
State 13	0.766	State 13	0.849
State 14	0.689	State 14	0.760
State 15	0.669	State 15	0.735
State 16	0.652	State 16	0.715
State 17	0.614	State 17	0.672
State 18	0.608	State 18	0.670
State 19	0.526	State 19	0.572
State 20	0.475	State 20	0.512
State 21	0.403	State 21	0.432
State 22	0.322	State 22	0.338
State 23	0.267	State 23	0.278
State 24	0.207	State 24	0.211
State 25	0.143	State 25	0.142
State 26	1.536	State 26	1.486
State 27	1.443	State 27	1.406
State 28	1.420	State 28	1.384
State 29	1.399	State 29	1.359
State 30	1.357	State 30	1.313
State 31	1.345	State 31	1.301
State 32	1.224	State 32	1.182
State 33	1.136	State 33	1.093
State 34	1.019	State 34	0.970
State 35	0.852	State 35	0.796
State 36	0.729	State 36	0.674
State 37	0.584	State 37	0.527
State 38	0.414	State 38	0.362
State 39	1.160	State 39	1.173
State 40	1.064	State 40	1.083
State 41	1.038	State 41	1.057
State 42	1.020	State 42	1.037
State 43	0.979	State 43	0.990
State 44	0.959	State 44	0.977
State 45	0.857	State 45	0.863
State 46	0.778	State 46	0.787
State 47	0.683	State 47	0.682
State 48	0.558	State 48	0.549
State 49	0.474	State 49	0.460
State 50	0.378	State 50	0.358
State 51	0.266	State 51	0.247
State 52	1.162	State 52	1.204
State 53	1.520	State 53	1.468
State 54	1.158	State 54	1.199
State 55	1.524	State 55	1.465
State 56	0.758	State 56	0.831
State 57	1.160	State 57	1.174
State 58	0.758	State 58	0.828
State 59	1.160	State 59	1.174

Table 14-8
NR Supplemental Body SAR Data

Supplemental Body SAR Data							
NR Band n71		NR Band n5		NR Band n66		NR Band n2	
DFT-s-OFDM QPSK, 20 MHz Bandwidth, 50 RB, 28 RB Offset		DFT-s-OFDM QPSK, 20 MHz Bandwidth, 50 RB, 28 RB Offset		CP-OFDM QPSK, 20 MHz Bandwidth, 1 RB, 1 RB Offset		DFT-s-OFDM QPSK, 20 MHz Bandwidth, 50 RB, 0 RB Offset	
Test Position	Back Side	Test Position	Back Side	Test Position	Bottom Edge	Test Position	Bottom Edge
Spacing	10 mm	Spacing	10 mm	Spacing	10 mm	Spacing	10 mm
Frequency (MHz)	680.50	Frequency (MHz)	836.50	Frequency (MHz)	1770.00	Frequency (MHz)	1900.00
Channel	136100	Channel	167300	Channel	354000	Channel	380000
Measured 1g SAR (W/kg)	0.298	Measured 1g SAR (W/kg)	0.345	Measured 1g SAR (W/kg)	0.924	Measured 1g SAR (W/kg)	0.845
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 14)	0.455	Auto-tune (State 0)	0.536	Auto-tune (State 26)	1.492	Auto-tune (State 55)	1.275
Default (State 0)	0.420	Default (State 0)	0.536	Default (State 0)	1.196	Default (State 0)	1.023
State 0	0.420	State 0	0.536	State 0	1.196	State 0	1.023
State 1	0.463	State 1	0.522	State 1	1.116	State 1	0.945
State 14	0.455	State 6	0.415	State 2	1.100	State 2	0.918
State 28	0.198	State 14	0.496	State 3	1.085	State 3	0.897
State 34	0.086	State 26	0.282	State 4	1.055	State 4	0.864
State 45	0.189	State 42	0.350	State 5	1.048	State 5	0.855
State 52	0.430	State 52	0.528	State 6	0.972	State 6	0.758
				State 7	0.903	State 7	0.684
				State 8	0.829	State 8	0.598
				State 9	0.723	State 9	0.482
				State 10	0.636	State 10	0.409
				State 11	0.537	State 11	0.319
				State 12	0.408	State 12	0.221
				State 13	0.639	State 13	0.678
				State 14	0.596	State 14	0.602
				State 15	0.581	State 15	0.582
				State 16	0.568	State 16	0.564
				State 17	0.549	State 17	0.536
				State 18	0.542	State 18	0.531
				State 19	0.488	State 19	0.451
				State 20	0.450	State 20	0.401
				State 21	0.399	State 21	0.342
				State 22	0.332	State 22	0.265
				State 23	0.286	State 23	0.217
				State 24	0.232	State 24	0.166
				State 25	0.169	State 25	0.111
				State 26	1.492	State 26	1.313
				State 27	1.477	State 27	1.226
				State 28	1.460	State 28	1.205
				State 29	1.458	State 29	1.192
				State 30	1.442	State 30	1.159
				State 31	1.428	State 31	1.145
				State 32	1.360	State 32	1.045
				State 33	1.320	State 33	0.957
				State 34	1.239	State 34	0.856
				State 35	1.114	State 35	0.696
				State 36	1.009	State 36	0.598
				State 37	0.861	State 37	0.469
				State 38	0.660	State 38	0.326
				State 39	1.171	State 39	0.994
				State 40	1.108	State 40	0.915
				State 41	1.091	State 41	0.889
				State 42	1.078	State 42	0.868
				State 43	1.053	State 43	0.822
				State 44	1.045	State 44	0.811
				State 45	0.977	State 45	0.720
				State 46	0.925	State 46	0.651
				State 47	0.840	State 47	0.566
				State 48	0.738	State 48	0.457
				State 49	0.660	State 49	0.381
				State 50	0.557	State 50	0.299
				State 51	0.427	State 51	0.205
				State 52	1.164	State 52	1.022
				State 53	1.503	State 53	1.307
				State 54	1.160	State 54	1.025
				State 55	1.498	State 55	1.275
				State 56	0.635	State 56	0.681
				State 57	1.169	State 57	0.985
				State 58	0.635	State 58	0.678
				State 59	1.166	State 59	0.990

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 14-9
LTE Band 41 Head Linearity Data

	LTE Band 41 PC3	LTE Band 41 PC2
Maximum Allowed Output Power (dBm)	25.0	28.0
Measured Output Power (dBm)	24.32	26.88
Measured SAR (W/kg)	0.096	0.121
Measured Power (mW)	270.40	487.53
Duty Cycle	63.3%	43.3%
Frame Averaged Output Power (mW)	171.16	211.10
% deviation from expected linearity		2.30%

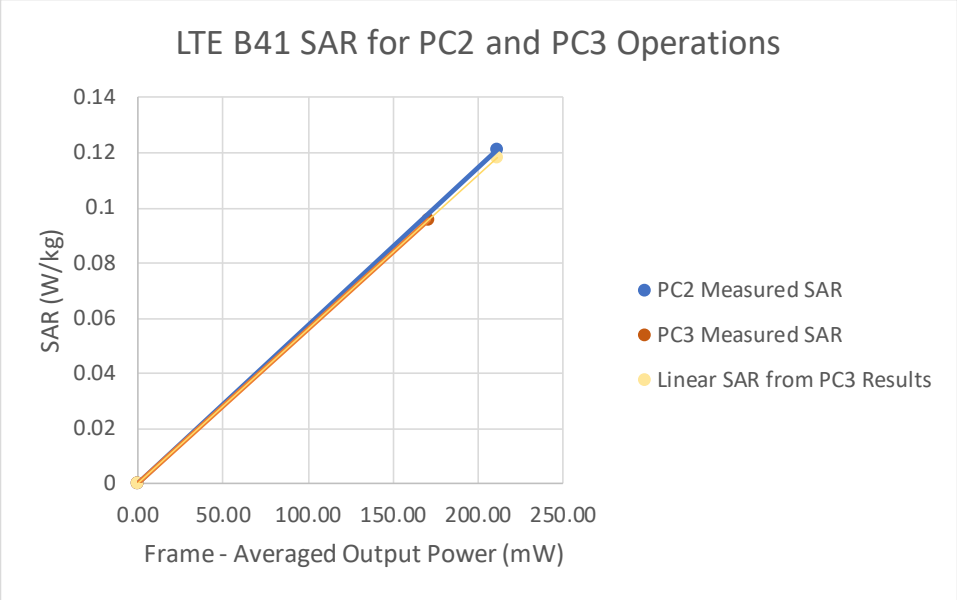


Figure 14-1
LTE Band 41 Head Linearity

Table 14-10
LTE Band 41 ULCA Head Linearity Data

	LTE Band 41 PC3 ULCA	LTE Band 41 PC2 ULCA
Maximum Allowed Output Power (dBm)	25.0	28.0
Measured Output Power (dBm)	24.73	27.66
Measured SAR (W/kg)	0.110	0.145
Measured Power (mW)	297.17	583.45
Duty Cycle	63.3%	43.3%
Frame Averaged Output Power (mW)	188.11	252.63
% deviation from expected linearity		-1.85%

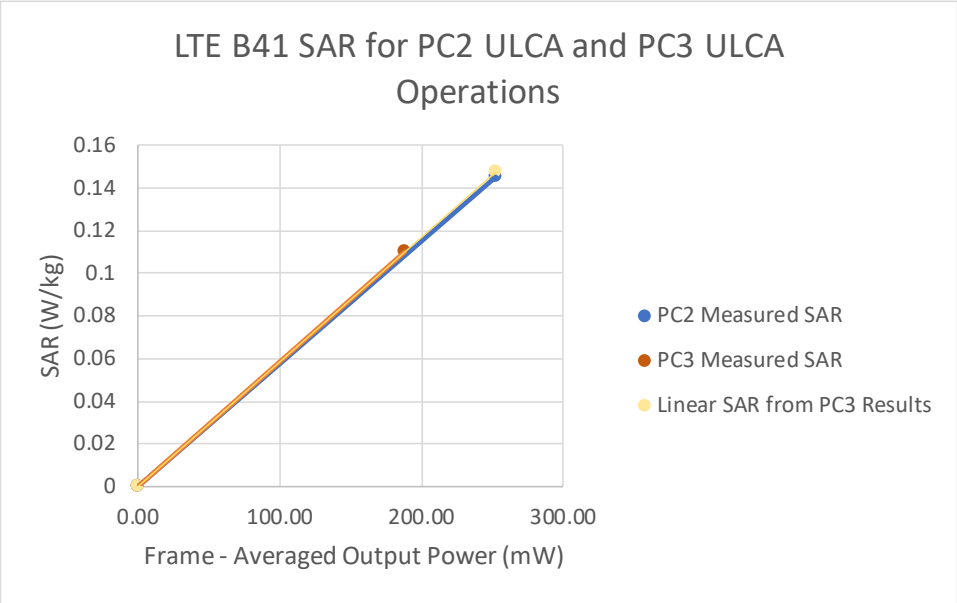


Figure 14-2
LTE Band 41 ULCA Head Linearity

Table 14-11
LTE Band 41 Body-Worn Linearity Data

	LTE Band 41 PC3	LTE Band 41 PC2
Maximum Allowed Output Power (dBm)	25.0	28.0
Measured Output Power (dBm)	24.32	26.88
Measured SAR (W/kg)	0.321	0.423
Measured Power (mW)	270.40	487.53
Duty Cycle	63.3%	43.3%
Frame Averaged Output Power (mW)	171.16	211.10
% deviation from expected linearity		6.84%

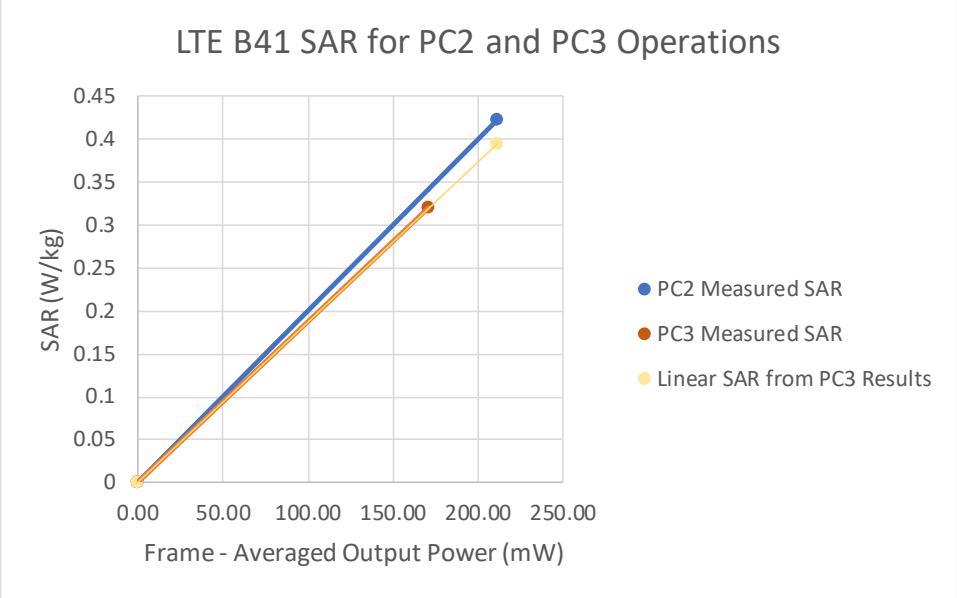


Figure 14-3
LTE Band 41 Body-Worn Linearity

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

	LTE Band 41 PC3 ULCA	LTE Band 41 PC2 ULCA
Maximum Allowed Output Power (dBm)	25.0	28.0
Measured Output Power (dBm)	24.73	27.66
Measured SAR (W/kg)	0.366	0.482
Measured Power (mW)	297.17	583.45
Duty Cycle	63.3%	43.3%
Frame Averaged Output Power (mW)	188.11	252.63
% deviation from expected linearity		-1.94%

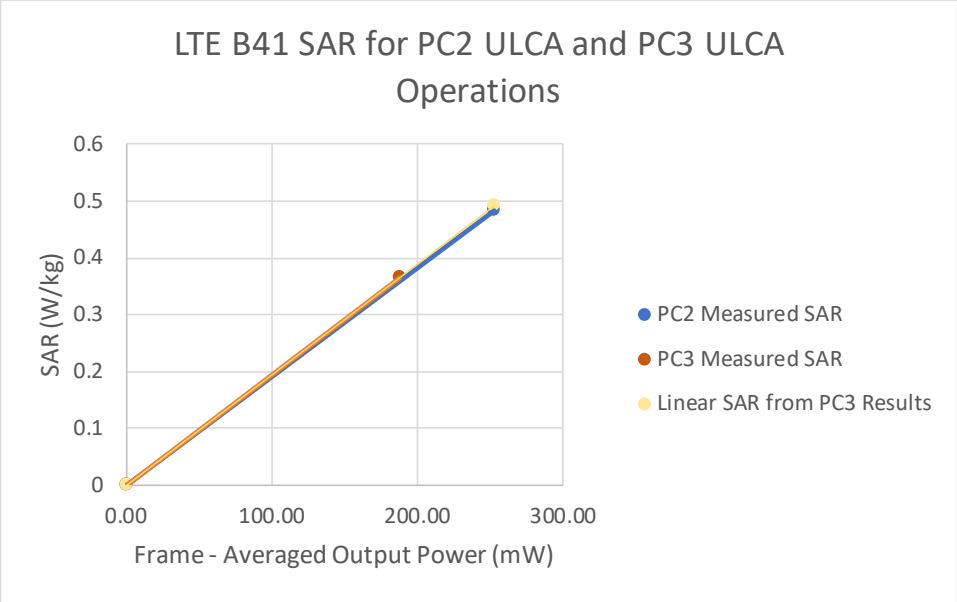


Figure 14-4
LTE Band 41 ULCA Body-Worn Linearity

Table 14-13
LTE Band 41 Hotspot Linearity Data

	LTE Band 41 PC3	LTE Band 41 PC2
Maximum Allowed Output Power (dBm)	22.0	23.6
Measured Output Power (dBm)	21.33	23.18
Measured SAR (W/kg)	1.01	0.972
Measured Power (mW)	135.83	207.97
Duty Cycle	63.3%	43.3%
Frame Averaged Output Power (mW)	85.98	90.05
% deviation from expected linearity		-8.11%

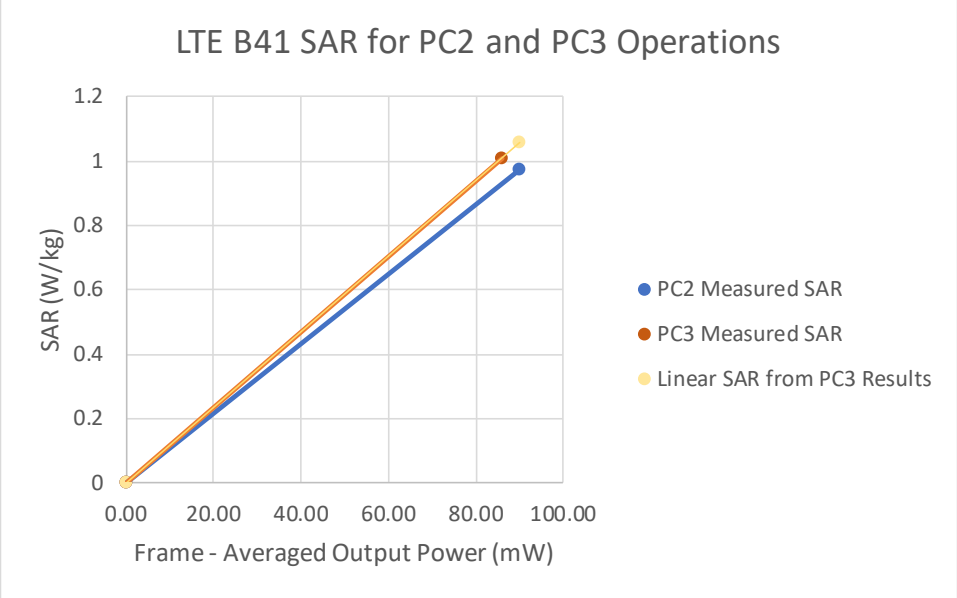


Figure 14-5
LTE Band 41 Hotspot Linearity

Table 14-14
LTE Band 41 ULCA Hotspot Linearity Data

	LTE Band 41 PC3 ULCA	LTE Band 41 PC2 ULCA
Maximum Allowed Output Power (dBm)	22.0	23.6
Measured Output Power (dBm)	21.72	23.60
Measured SAR (W/kg)	1.07	1.08
Measured Power (mW)	148.59	229.09
Duty Cycle	63.3%	43.3%
Frame Averaged Output Power (mW)	94.06	99.19
% deviation from expected linearity		-4.29%

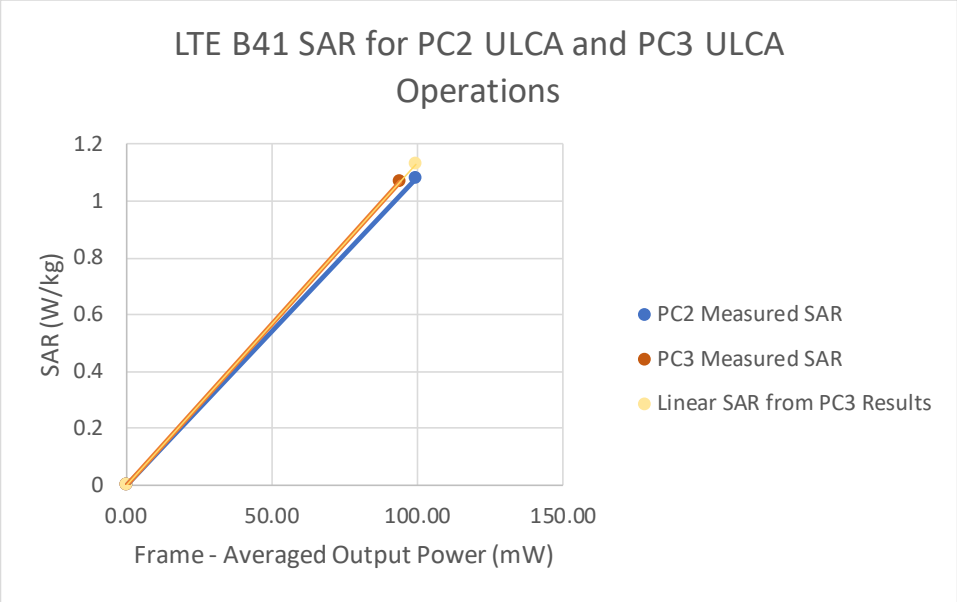


Figure 14-6
LTE Band 41 ULCA Hotspot Linearity

Table 14-15
LTE Band 41 Phablet Linearity Data

	LTE Band 41 PC3	LTE Band 41 PC2
Maximum Allowed Output Power (dBm)	23.0	24.6
Measured Output Power (dBm)	22.19	23.72
Measured SAR (W/kg)	2.13	1.88
Measured Power (mW)	165.58	235.50
Duty Cycle	63.3%	43.3%
Frame Averaged Output Power (mW)	104.81	101.97
% deviation from expected linearity		-9.28%

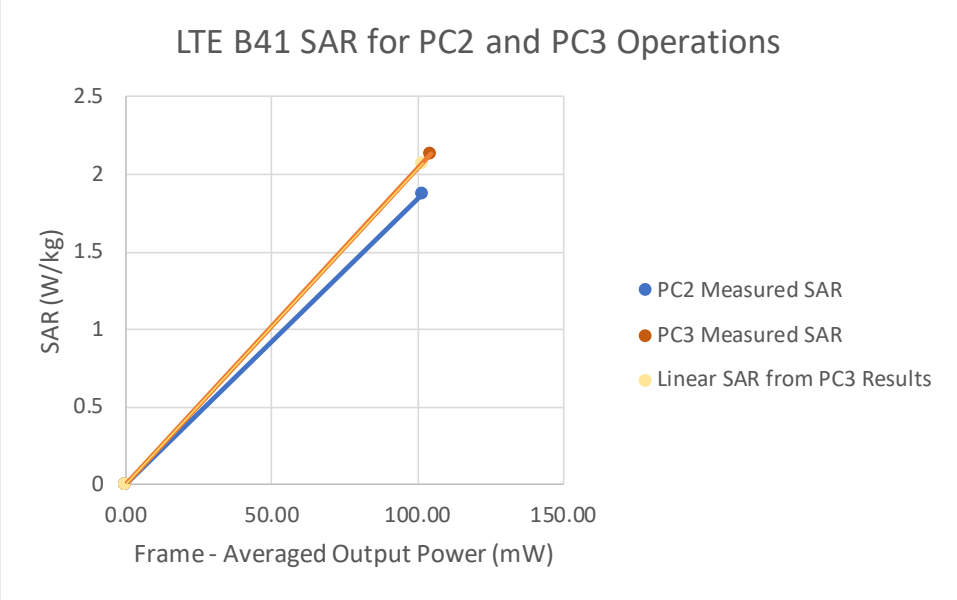


Figure 14-7
LTE Band 41 Phablet Linearity

Table 14-16
LTE Band 41 ULCA Phablet Linearity Data

	LTE Band 41 PC3 ULCA	LTE Band 41 PC2 ULCA
Maximum Allowed Output Power (dBm)	23.0	24.6
Measured Output Power (dBm)	22.79	24.30
Measured SAR (W/kg)	2.54	2.22
Measured Power (mW)	190.11	269.15
Duty Cycle	63.3%	43.3%
Frame Averaged Output Power (mW)	120.34	116.54
% deviation from expected linearity		-9.75%

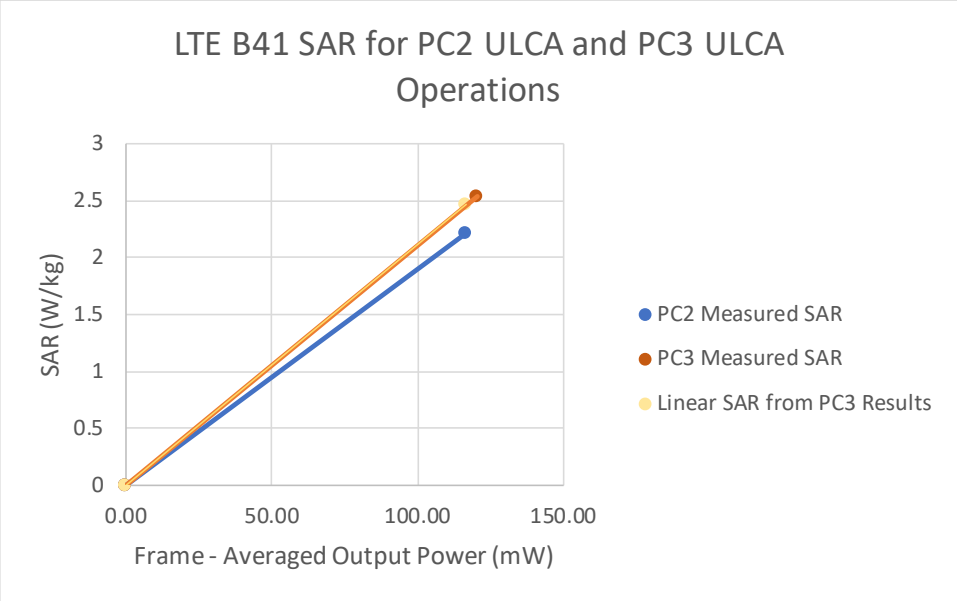


Figure 14-8
LTE Band 41 ULCA Phablet Linearity

15 EQUIPMENT LIST

Manufacturer	Model	Description	Cal Date	Cal Interval	Cal Due	Serial Number
Agilent	8594A	(9kHz-2.9GHz) Spectrum Analyzer	N/A	N/A	N/A	3051A00187
Agilent	E4432B	ESG-D Series Signal Generator	7/14/2019	Annual	7/14/2020	US40053896
Agilent	N9020A	MXA Signal Analyzer	4/20/2019	Annual	4/20/2020	US46470561
Agilent	N4010A	Wireless Connectivity Test Set	N/A	N/A	N/A	GB46170464
Agilent	N4010A	Wireless Connectivity Test Set	N/A	N/A	N/A	GB44450273
Agilent	E5515C	Wireless Communications Test Set	2/7/2018	Triennial	2/7/2021	GB43304447
Agilent	E5515C	Wireless Communications Test Set	6/26/2019	Annual	6/26/2020	MY50267125
Agilent	8753ES	S-Parameter Network Analyzer	3/11/2019	Annual	3/11/2020	US39170122
Agilent	N5182A	MXG Vector Signal Generator	7/10/2019	Annual	7/10/2020	MY47420800
Agilent	E4438C	ESG Vector Signal Generator	3/8/2019	Biennial	3/8/2021	MY42082385
Agilent	E4438C	ESG Vector Signal Generator	5/23/2019	Annual	5/23/2020	MY47270002
Agilent	E4438C	ESG Vector Signal Generator	5/22/2019	Annual	5/22/2020	MY45091346
Agilent	8753ES	S-Parameter Network Analyzer	8/26/2019	Annual	8/26/2020	MY40000670
Agilent	E5515C	Wireless Communications Test Set	9/25/2019	Annual	9/25/2020	GB43304278
Agilent	8753ES	S-Parameter Vector Network Analyzer	9/19/2019	Annual	9/19/2020	MY40003841
Amplifier Research	15S1G6	Amplifier	N/A	N/A	N/A	433972
Amplifier Research	15S1G6	Amplifier	N/A	N/A	N/A	433974
Amplifier Research	15S1G6	Amplifier	N/A	N/A	N/A	433976
Amplifier Research	15S1G6	Amplifier	N/A	N/A	N/A	433978
Anritsu	MA24106A	USB Power Sensor	5/6/2019	Annual	5/6/2020	1231538
Anritsu	MA24106A	USB Power Sensor	5/22/2019	Annual	5/22/2020	1231535
Anritsu	MA24106A	USB Power Sensor	1/31/2019	Annual	1/31/2020	1244524
Anritsu	MA2411B	Pulse Power Sensor	6/11/2019	Annual	6/11/2020	1207364
Anritsu	MT8820C	Radio Communication Analyzer	7/25/2019	Annual	7/25/2020	6201240328
Anritsu	MT8820C	Radio Communication Analyzer	3/29/2019	Annual	3/29/2020	6201300731
Anritsu	MT8821C	Radio Communication Analyzer	8/16/2019	Annual	8/16/2020	6201144418
Anritsu	ML2496A	Power Meter	11/6/2019	Annual	11/6/2020	1405003
Anritsu	MA2411B	Pulse Power Sensor	8/8/2019	Annual	8/8/2020	1339008
Anritsu	MA2411B	Pulse Power Sensor	3/6/2019	Annual	3/6/2020	1339018
Anritsu	MT8821C	Radio Communication Analyzer	10/2/2019	Annual	10/2/2020	6201664756
Anritsu	MT8821C	Radio Communication Analyzer	3/6/2019	Annual	3/6/2020	6201381794
Anritsu	MT8862A	Wireless Connectivity Test Set	8/8/2019	Annual	8/8/2020	6261782395
Anritsu	MT8821C	Radio Communication Analyzer	1/15/2019	Annual	1/15/2020	6261895213
Anritsu	MA80002A	39GHz RF Converter	4/22/2019	Annual	4/22/2020	6261951702
Anritsu	MN8110B	I/O Adaptor	CBT	N/A	CBT	6261747881
Anritsu	MT8821C	Radio Communication Analyzer	5/13/2019	Annual	5/13/2020	6201524637
Anritsu	MA180001A	28GGHz RF Converter	4/5/2019	Annual	4/5/2020	6261922958
COMTECH	AR85729-5/5759B	Solid State Amplifier	CBT	N/A	CBT	M3W1A00-1002
COMTech	AR85729-5	Solid State Amplifier	CBT	N/A	CBT	M1SSA00-009
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	11/29/2018	Biennial	11/29/2020	181766816
Control Company	4352	Ultra Long Stem Thermometer	11/29/2018	Biennial	11/29/2020	181766817
Control Company	4352	Ultra Long Stem Thermometer	11/29/2018	Biennial	11/29/2020	181766801
Control Company	4352	Ultra Long Stem Thermometer	11/29/2018	Biennial	11/29/2020	181766777
Keysight	772D	Dual Directional Coupler	CBT	N/A	CBT	MY52180215
Keysight Technologies	N6705B	DC Power Analyzer	4/27/2019	Biennial	4/27/2021	MY53004059
MCL	BW-N6W5+	6dB Attenuator	CBT	N/A	CBT	1139
MiniCircuits	SLP-2400+	Low Pass Filter	CBT	N/A	CBT	R8979500903
MiniCircuits	VLF-6000+	Low Pass Filter	CBT	N/A	CBT	N/A
Mini-Circuits	BW-N20W5+	DC to 18 GHz Precision Fixed 20 dB Attenuator	CBT	N/A	CBT	N/A
Mini-Circuits	NLP-2950+	Low Pass Filter DC to 2700 MHz	CBT	N/A	CBT	N/A
Mini-Circuits	NLP-1200+	Low Pass Filter DC to 1000 MHz	CBT	N/A	CBT	N/A
Mini-Circuits	BW-N20W5	Power Attenuator	CBT	N/A	CBT	1226
Mitutoyo	CD-6"CSX	Digital Caliper	4/18/2018	Biennial	4/18/2020	13264165
Narda	4772-3	Attenuator (3dB)	CBT	N/A	CBT	9406
Narda	BW-S3W2	Attenuator (3dB)	CBT	N/A	CBT	120
Narda	4014C-6	4 - 8 GHz SMA 6 dB Directional Coupler	CBT	N/A	CBT	N/A
Pasternack	PE2208-6	Bidirectional Coupler	CBT	N/A	CBT	N/A
Pasternack	PE2209-10	Bidirectional Coupler	CBT	N/A	CBT	N/A
Rohde & Schwarz	CMU200	Base Station Simulator	6/3/2019	Annual	6/3/2020	109892
Rohde & Schwarz	CMW500	Radio Communication Tester	8/26/2019	Annual	8/26/2020	100976
Rohde & Schwarz	CMW500	Radio Communication Tester	6/26/2019	Annual	6/26/2020	112347
Rohde & Schwarz	CMW500	Radio Communication Tester	10/15/2019	Annual	10/15/2020	109366
Rohde & Schwarz	CMW500	Radio Communication Tester	8/27/2019	Annual	8/27/2020	116743
Rohde & Schwarz	ZNLE6	Vector Network Analyzer	10/11/2019	Annual	10/11/2020	101307
Seekonk	NC-100	Torque Wrench (8" lb)	5/10/2018	Biennial	5/10/2020	21053
Seekonk	NC-100	Torque Wrench (8" lb)	5/23/2018	Biennial	5/23/2020	N/A
SPEAG	D750V3	750 MHz Dipole	3/18/2019	Annual	3/18/2020	1054
SPEAG	D835V2	835 MHz SAR Dipole	3/13/2019	Annual	3/13/2020	4d047
SPEAG	D835V2	835 MHz SAR Dipole	1/22/2019	Annual	1/22/2020	4d132
SPEAG	D1750V2	1750 MHz SAR Dipole	10/22/2018	Biennial	10/22/2020	1150
SPEAG	D1900V2	1900 MHz SAR Dipole	10/23/2018	Biennial	10/23/2020	5d080
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	D2300V2	2300 MHz SAR Dipole	11/8/2017	Biennial	11/8/2019	1064
SPEAG	D2450V2	2450 MHz SAR Dipole	9/11/2017	Triennial	9/11/2020	797
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	Biennial	1/11/2020	1059
SPEAG	D3700V2	3700 MHz SAR Dipole	1/11/2018	Biennial	1/11/2020	1018
SPEAG	D5GHzV2	5 GHz SAR Dipole	8/10/2018	Biennial	8/10/2020	1237
SPEAG	D750V3	750 MHz SAR Dipole	1/15/2018	Biennial	1/15/2020	1003
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	D1750V2	1750 MHz SAR Dipole	5/15/2019	Annual	5/15/2020	1148
SPEAG	D1765V2	1765 MHz SAR Dipole	5/23/2018	Biennial	5/23/2020	1008
SPEAG	D2300V2	2300 MHz SAR Dipole	8/13/2018	Biennial	8/13/2020	1073
SPEAG	D5GHzV2	5 GHz SAR Dipole	9/17/2019	Annual	9/17/2020	1191
SPEAG	EX3DV4	SAR Probe	9/19/2019	Annual	9/19/2020	7551
SPEAG	EX3DV4	SAR Probe	2/19/2019	Annual	2/19/2020	7417
SPEAG	EX3DV4	SAR Probe	6/19/2019	Annual	6/19/2020	7409
SPEAG	EX3DV4	SAR Probe	2/19/2019	Annual	2/19/2020	3914
SPEAG	EX3DV4	SAR Probe	1/25/2019	Annual	1/25/2020	3589
SPEAG	EX3DV4	SAR Probe	5/16/2019	Annual	5/16/2020	7406
SPEAG	EX3DV4	SAR Probe	7/16/2019	Annual	7/16/2020	7410
SPEAG	EX3DV4	SAR Probe	4/24/2019	Annual	4/24/2020	7357
SPEAG	EX3DV4	SAR Probe	1/24/2019	Annual	1/24/2020	7488
SPEAG	EX3DV4	SAR Probe	7/15/2019	Annual	7/15/2020	7547
SPEAG	DAE4	Dasy Data Acquisition Electronics	9/17/2019	Annual	9/17/2020	1333
SPEAG	DAE4	Dasy Data Acquisition Electronics	2/13/2019	Annual	2/13/2020	665
SPEAG	DAE4	Dasy Data Acquisition Electronics	6/20/2019	Annual	6/20/2020	1334
SPEAG	DAE4	Dasy Data Acquisition Electronics	2/14/2019	Annual	2/14/2020	1272
SPEAG	DAE4	Dasy Data Acquisition Electronics	5/8/2019	Annual	5/8/2020	728
SPEAG	DAE4	Dasy Data Acquisition Electronics	5/8/2019	Annual	5/8/2020	859
SPEAG	DAE4	Dasy Data Acquisition Electronics	7/11/2019	Annual	7/11/2020	1322
SPEAG	DAE4	Dasy Data Acquisition Electronics	4/18/2019	Annual	4/18/2020	1407
SPEAG	DAE4	Dasy Data Acquisition Electronics	1/15/2019	Annual	1/15/2020	1530
SPEAG	DAE4	Dasy Data Acquisition Electronics	7/11/2019	Annual	7/11/2020	1323
SPEAG	DAK-3.5	Dielectric Assessment Kit	10/22/2019	Annual	10/22/2020	1091

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.

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	

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]

18 REFERENCES

[1] Federal Communications Commission, ET Docket 93-62, Guidelines for Evaluating the Environmental Effects of Radiofrequency Radiation, Aug. 1996.

[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.

[3] ANSI/IEEE C95.1-1992, American National Standard safety levels with respect to human exposure to radio frequency electromagnetic fields, 3kHz to 300GHz, New York: IEEE, Sept. 1992.

[4] ANSI/IEEE C95.3-2002, IEEE Recommended Practice for the Measurement of Potentially Hazardous Electromagnetic Fields - RF and Microwave, New York: IEEE, December 2002.

[5] IEEE Standards Coordinating Committee 39 –Standards Coordinating Committee 34 – IEEE Std. 1528-2013, IEEE Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques.

[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.

[7] T. Schmid, O. Egger, N. Kuster, Automated E-field scanning system for dosimetric assessments, IEEE Transaction on Microwave Theory and Techniques, vol. 44, Jan. 1996, pp. 105-113.

[8] K. Pokovic, T. Schmid, N. Kuster, Robust setup for precise calibration of E-field probes in tissue simulating liquids at mobile communications frequencies, ICECOM97, Oct. 1997, pp. 1 -124.

[9] K. Pokovic, T. Schmid, and N. Kuster, E-field Probe with improved isotropy in brain simulating liquids, Proceedings of the ELMAR, Zadar, Croatia, June 23-25, 1996, pp. 172-175.

[10] Schmid & Partner Engineering AG, Application Note: Data Storage and Evaluation, June 1998, p2.

[11] V. Hombach, K. Meier, M. Burkhardt, E. Kuhn, N. Kuster, The Dependence of EM Energy Absorption upon Human Modeling at 900 MHz, IEEE Transaction on Microwave Theory and Techniques, vol. 44 no. 10, Oct. 1996, pp. 1865-1873.

[12] N. Kuster and Q. Balzano, Energy absorption mechanism by biological bodies in the near field of dipole antennas above 300MHz, IEEE Transaction on Vehicular Technology, vol. 41, no. 1, Feb. 1992, pp. 17-23.

[13] G. Hartsgrove, A. Kraszewski, A. Surowiec, Simulated Biological Materials for Electromagnetic Radiation Absorption Studies, University of Ottawa, Bioelectromagnetics, Canada: 1987, pp. 29-36.

[14] Q. Balzano, O. Garay, T. Manning Jr., Electromagnetic Energy Exposure of Simulated Users of Portable Cellular Telephones, IEEE Transactions on Vehicular Technology, vol. 44, no.3, Aug. 1995.

[15] W. Gander, Computermathematick, Birkhaeuser, Basel, 1992.

[16] W.H. Press, S.A. Teukolsky, W.T. Vetterling, and B.P. Flannery, Numerical Recipes in C, The Art of Scientific Computing, Second edition, Cambridge University Press, 1992.

[17] N. Kuster, R. Kastle, T. Schmid, Dosimetric evaluation of mobile communications equipment with known precision, IEEE Transaction on Communications, vol. E80-B, no. 5, May 1997, pp. 645-652.

[18] CENELEC CLC/SC111B, European Prestandard (prENV 50166-2), Human Exposure to Electromagnetic Fields High-frequency: 10kHz-300GHz, Jan. 1995.

[19] Prof. Dr. Niels Kuster, ETH, Eidgenössische Technische Hoschschule Zürich, Dosimetric Evaluation of the Cellular Phone.

[20] IEC 62209-1, Measurement procedure for the assessment of specific absorption rate of human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices - Part 1: Devices used next to the ear (Frequency range of 300 MHz to 6 GHz), July 2016.

[21] Innovation, Science, Economic Development Canada RSS-102 Radio Frequency Exposure Compliance of Radiocommunication Apparatus (All Frequency Bands) Issue 5, March 2015.

[22] Health Canada Safety Code 6 Limits of Human Exposure to Radio Frequency Electromagnetic Fields in the Frequency Range from 3 kHz – 300 GHz, 2015

[23] FCC SAR Test Procedures for 2G-3G Devices, Mobile Hotspot and UMPC Devices KDB Publications 941225, D01-D07

[24] SAR Measurement Guidance for IEEE 802.11 Transmitters, KDB Publication 248227 D01

[25] FCC SAR Considerations for Handsets with Multiple Transmitters and Antennas, KDB Publications 648474 D03-D04

[26] FCC SAR Evaluation Considerations for Laptop, Notebook, Netbook and Tablet Computers, FCC KDB Publication 616217 D04

[27] FCC SAR Measurement and Reporting Requirements for 100MHz – 6 GHz, KDB Publications 865664 D01-D02

[28] FCC General RF Exposure Guidance and SAR Procedures for Dongles, KDB Publication 447498, D01-D02

[29] Anexo à Resolução No. 533, de 10 de Septembro de 2009.

[30] IEC 62209-2, Human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices - Human models, instrumentation, and procedures - Part 2: Procedure to determine the specific absorption rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz), Mar. 2010.

APPENDIX A: SAR TEST DATA

PCTEST ENGINEERING LABORATORY, INC.

DUT: A3LSMG981U; Type: Portable Handset; Serial: 1078M

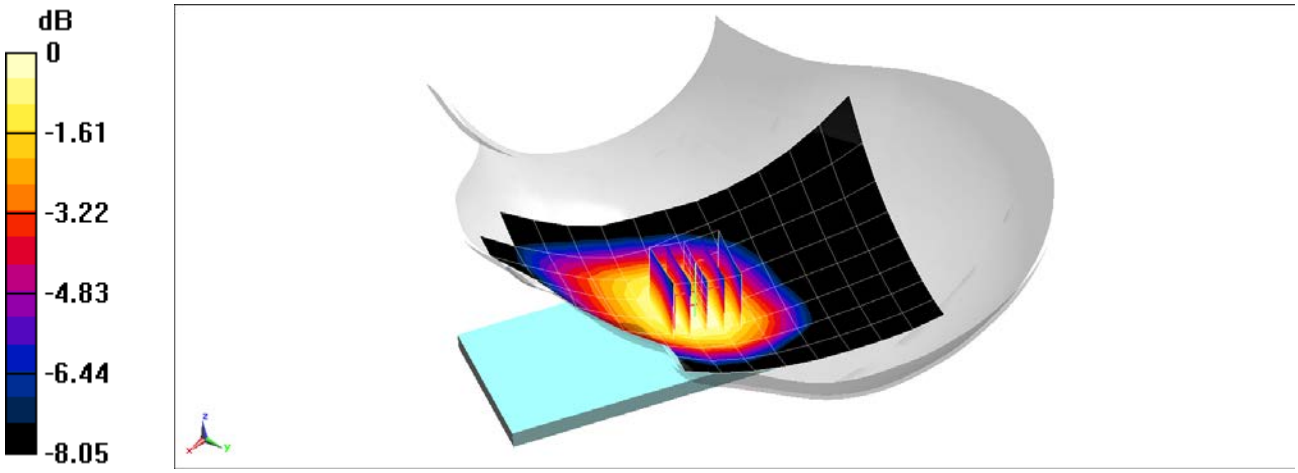
Communication System: UID 0, Cellular CDMA; Frequency: 820.1 MHz; Duty Cycle: 1:1
Medium: 835 Head; Medium parameters used (interpolated):
f = 820.1 MHz; σ = 0.925 S/m; ε_r = 40.53; ρ = 1000 kg/m^3
Phantom section: Left Section

Test Date: 10-31-2019; Ambient Temp: 21.3°C; Tissue Temp: 20.9°C

Probe: EX3DV4 - SN7551; ConvF(9.88, 9.88, 9.88) @ 820.1 MHz; Calibrated: 9/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1333; Calibrated: 9/17/2019
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1792
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: Cell. EVDO Rev. A, BC 10, Rule Part 90S, Left Head, Cheek, Mid.ch

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 15.52 V/m; Power Drift = -0.09 dB
Peak SAR (extrapolated) = 0.255 W/kg
SAR(1 g) = 0.203 W/kg



0 dB = 0.236 W/kg = -6.27 dBW/kg

DUT: A3LSMG981U; Type: Portable Handset; Serial: 1078M

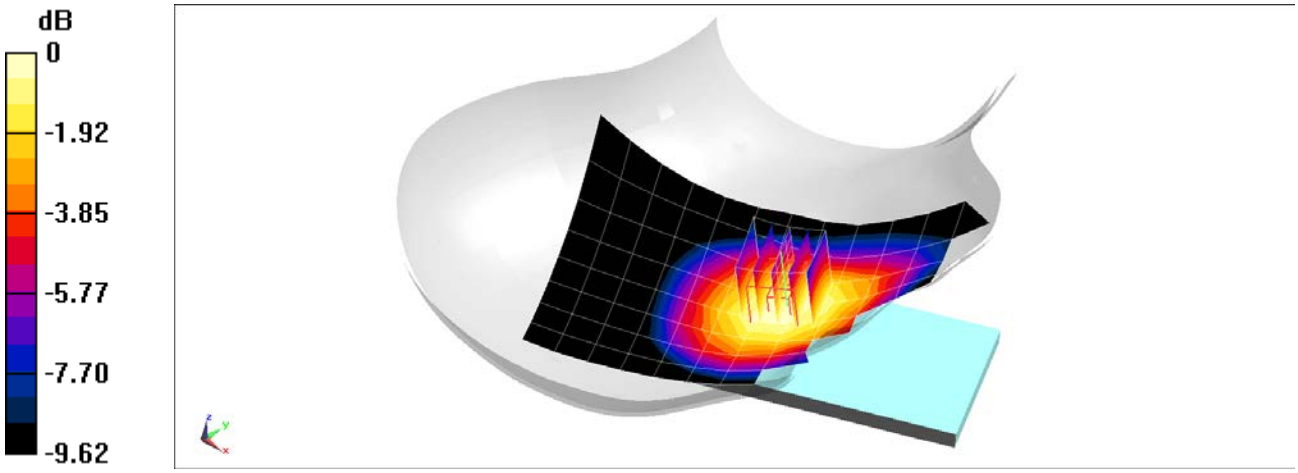
Communication System: UID 0, CDMA; Frequency: 836.52 MHz; Duty Cycle: 1:1
Medium: 835 Head; Medium parameters used (interpolated):
$f = 836.52$ MHz; $\sigma = 0.93$ S/m; $\varepsilon_r = 40.486$; $\rho = 1000$ kg/m^3
Phantom section: Right Section

Test Date: 10-31-2019; Ambient Temp: 21.3°C; Tissue Temp: 20.9°C

Probe: EX3DV4 - SN7551; ConvF(9.88, 9.88, 9.88) @ 836.52 MHz; Calibrated: 9/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1333; Calibrated: 9/17/2019
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1792
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: Cell. EVDO Rev. A, BC 0, Rule Part 22H, Right Head, Cheek, Mid.ch

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 17.51 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 0.350 W/kg
SAR(1 g) = 0.272 W/kg



0 dB = 0.322 W/kg = -4.92 dBW/kg

PCTEST ENGINEERING LABORATORY, INC.

DUT: A3LSMG981U; Type: Portable Handset; Serial: 1078M

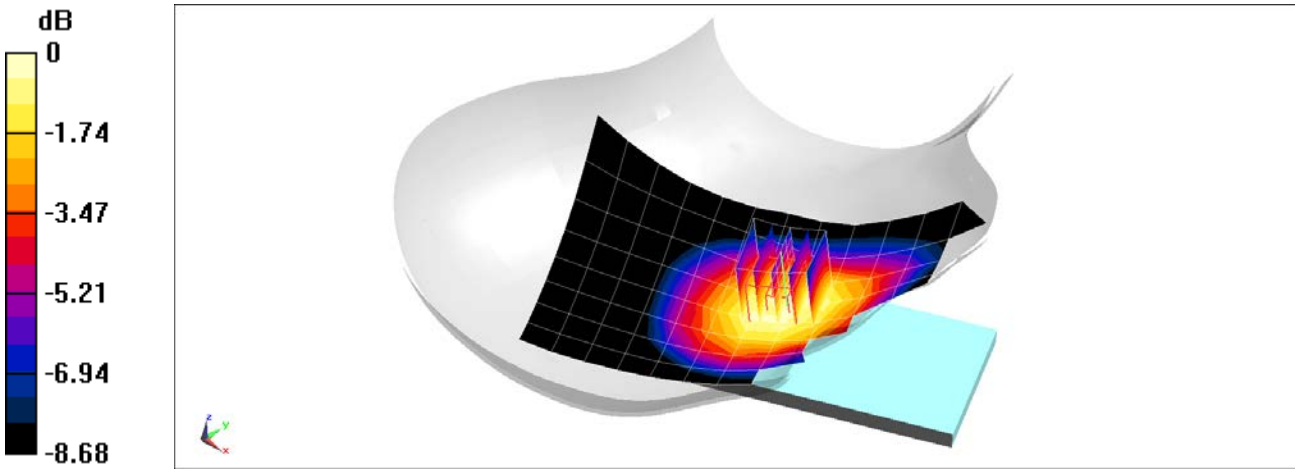
Communication System: UID 0, GSM; Frequency: 836.6 MHz; Duty Cycle: 1:8.3
Medium: 835 Head; Medium parameters used (interpolated):
f = 836.6 MHz; σ = 0.93 S/m; ε_r = 40.486; ρ = 1000 kg/m^3
Phantom section: Right Section

Test Date: 10-31-2019; Ambient Temp: 21.3°C; Tissue Temp: 20.9°C

Probe: EX3DV4 - SN7551; ConvF(9.88, 9.88, 9.88) @ 836.6 MHz; Calibrated: 9/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1333; Calibrated: 9/17/2019
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1792
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: GSM 850, Right Head, Cheek, Mid.ch

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 14.12 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 0.230 W/kg
SAR(1 g) = 0.178 W/kg



0 dB = 0.210 W/kg = -6.78 dBW/kg

DUT: A3LSMG981U; Type: Portable Handset; Serial: 1078M

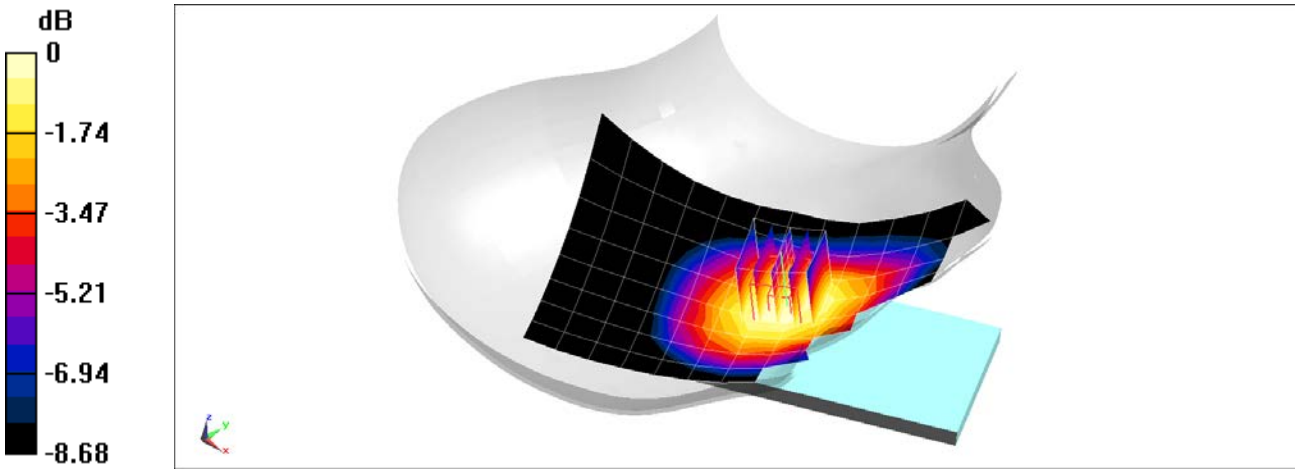
Communication System: UID 0, UMTS; Frequency: 836.6 MHz; Duty Cycle: 1:1
Medium: 835 Head; Medium parameters used (interpolated):
f = 836.6 MHz; σ = 0.93 S/m; ε_r = 40.486; ρ = 1000 kg/m^3
Phantom section: Right Section

Test Date: 10-31-2019; Ambient Temp: 21.3°C; Tissue Temp: 20.9°C

Probe: EX3DV4 - SN7551; ConvF(9.88, 9.88, 9.88) @ 836.6 MHz; Calibrated: 9/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1333; Calibrated: 9/17/2019
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1792
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: UMTS 850, Right Head, Cheek, Mid.ch

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 16.51 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 0.311 W/kg
SAR(1 g) = 0.242 W/kg



0 dB = 0.284 W/kg = -5.47 dBW/kg

DUT: A3LSMG981U; Type: Portable Handset; Serial: 1078M

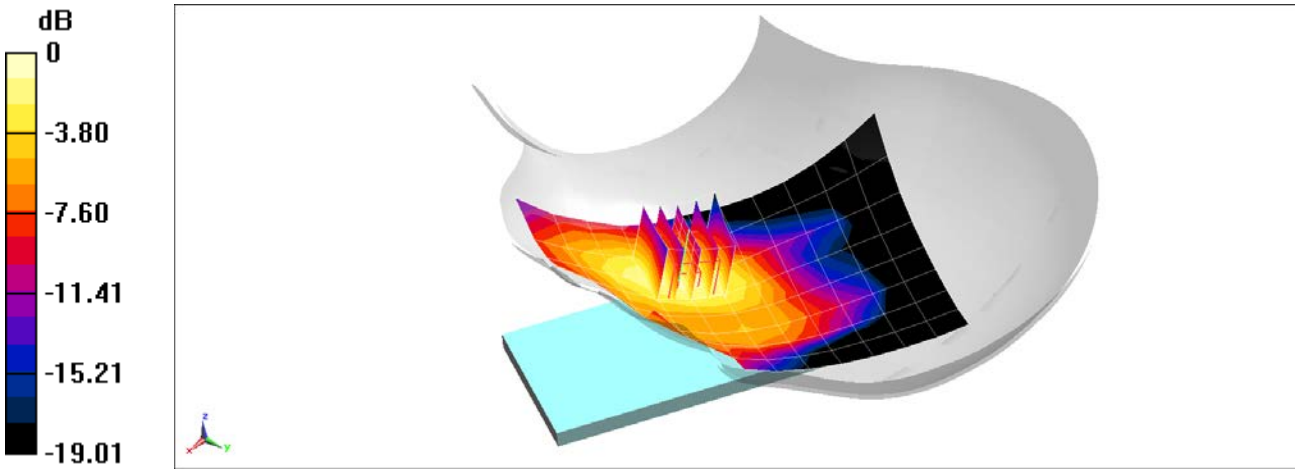
Communication System: UID 0, UMTS; Frequency: 1732.4 MHz; Duty Cycle: 1:1
Medium: 1750 Head; Medium parameters used (interpolated):
f = 1732.4 MHz; σ = 1.35 S/m; ε_r = 39.155; ρ = 1000 kg/m^3
Phantom section: Left Section

Test Date: 10-28-2019; Ambient Temp: 21.9°C; Tissue Temp: 21.0°C

Probe: EX3DV4 - SN7409; ConvF(8.32, 8.32, 8.32) @ 1732.4 MHz; Calibrated: 6/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1334; Calibrated: 6/20/2019
Phantom: Front; Type: QD 000 P40 CD; Serial: 1686
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: UMTS 1750, Left Head, Cheek, Mid.ch

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 13.06 V/m; Power Drift = -0.19 dB
Peak SAR (extrapolated) = 0.328 W/kg
SAR(1 g) = 0.206 W/kg



0 dB = 0.286 W/kg = -5.44 dBW/kg

DUT: A3LSMG981U; Type: Portable Handset; Serial: 1075M

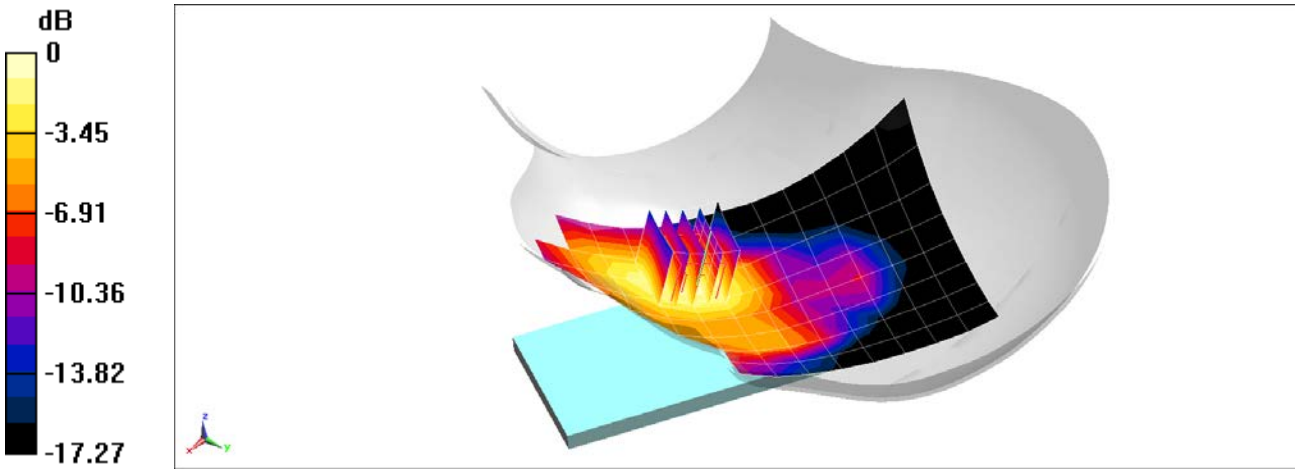
Communication System: UID 0, PCS CDMA; Frequency: 1880 MHz; Duty Cycle: 1:1
Medium: 1900 Head; Medium parameters used:
f = 1880 MHz; σ = 1.428 S/m; ε_r = 40.281; ρ = 1000 kg/m^3
Phantom section: Left Section

Test Date: 10-30-2019; Ambient Temp: 21.6°C; Tissue Temp: 21.4°C

Probe: EX3DV4 - SN3914; ConvF(7.8, 7.8, 7.8) @ 1880 MHz; Calibrated: 2/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1272; Calibrated: 2/14/2019
Phantom: Twin-SAM V5.0 Front 30; Type: QD 000 P40 CD; Serial: 1646
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: PCS EVDO Rev A, Left Head, Cheek, Mid.ch

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 12.87 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 0.354 W/kg
SAR(1 g) = 0.225 W/kg



0 dB = 0.302 W/kg = -5.20 dBW/kg

DUT: A3LSMG981U; Type: Portable Handset; Serial: 1075M

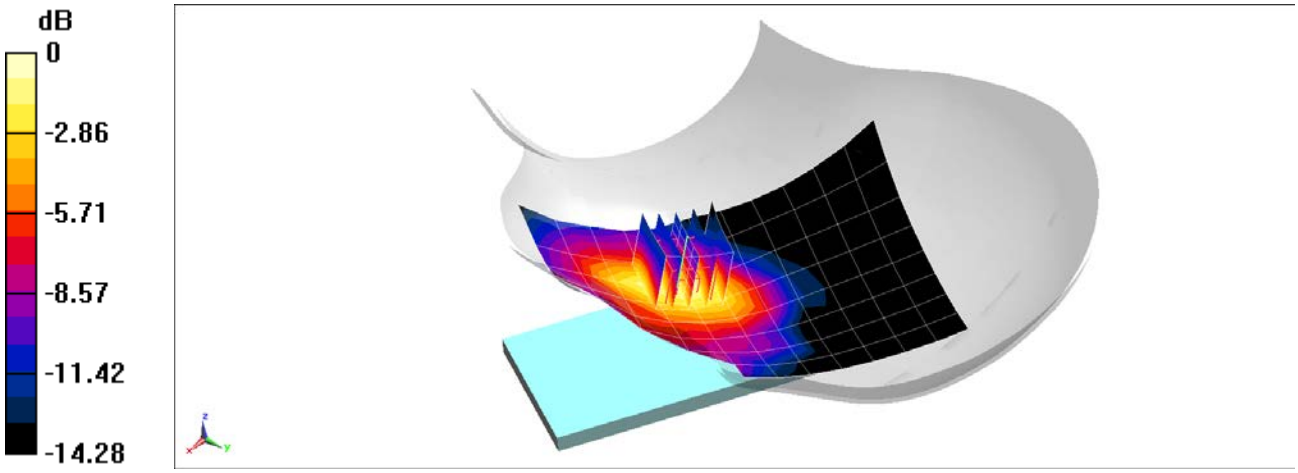
Communication System: UID 0, GSM; Frequency: 1850.2 MHz; Duty Cycle: 1:8.3
Medium: 1900 Head; Medium parameters used (interpolated):
f = 1850.2 MHz; σ = 1.397 S/m; ε_r = 40.391; ρ = 1000 kg/m^3
Phantom section: Left Section

Test Date: 10-28-2019; Ambient Temp: 21.7°C; Tissue Temp: 21.3°C

Probe: EX3DV4 - SN3914; ConvF(7.8, 7.8, 7.8) @ 1850.2 MHz; Calibrated: 2/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1272; Calibrated: 2/14/2019
Phantom: Twin-SAM V5.0 Front 30; Type: QD 000 P40 CD; Serial: 1646
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: GSM 1900, Left Head, Cheek, Low.ch

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.261 V/m; Power Drift = 0.14 dB
Peak SAR (extrapolated) = 0.111 W/kg
SAR(1 g) = 0.068 W/kg



0 dB = 0.0946 W/kg = -10.24 dBW/kg

DUT: A3LSMG981U; Type: Portable Handset; Serial: 1078M

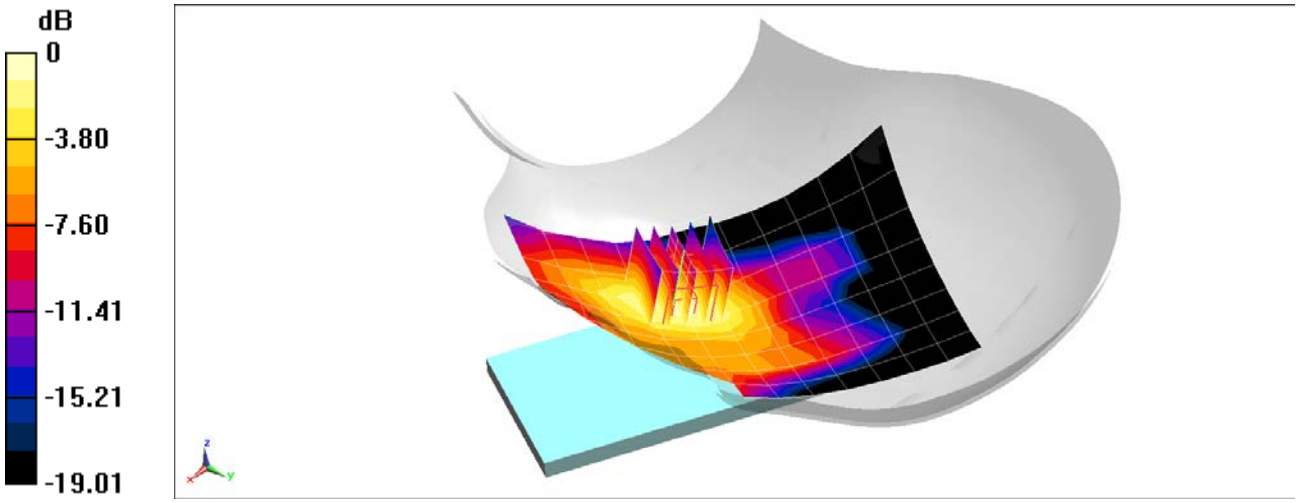
Communication System: UID 0, UMTS; Frequency: 1880 MHz; Duty Cycle: 1:1
Medium: 1900 Head; Medium parameters used:
f = 1880 MHz; σ = 1.428 S/m; ε_r = 40.323; ρ = 1000 kg/m^3
Phantom section: Left Section

Test Date: 11-13-2019; Ambient Temp: 22.0°C; Tissue Temp: 20.6°C

Probe: EX3DV4 - SN7551; ConvF(8.05, 8.05, 8.05) @ 1880 MHz; Calibrated: 9/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1333; Calibrated: 9/17/2019
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1792
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: UMTS 1900, Left Head, Cheek, Mid.ch

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 13.16 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 0.358 W/kg
SAR(1 g) = 0.224 W/kg



0 dB = 0.311 W/kg = -5.07 dBW/kg

DUT: A3LSMG981U; Type: Portable Handset; Serial: 0449M

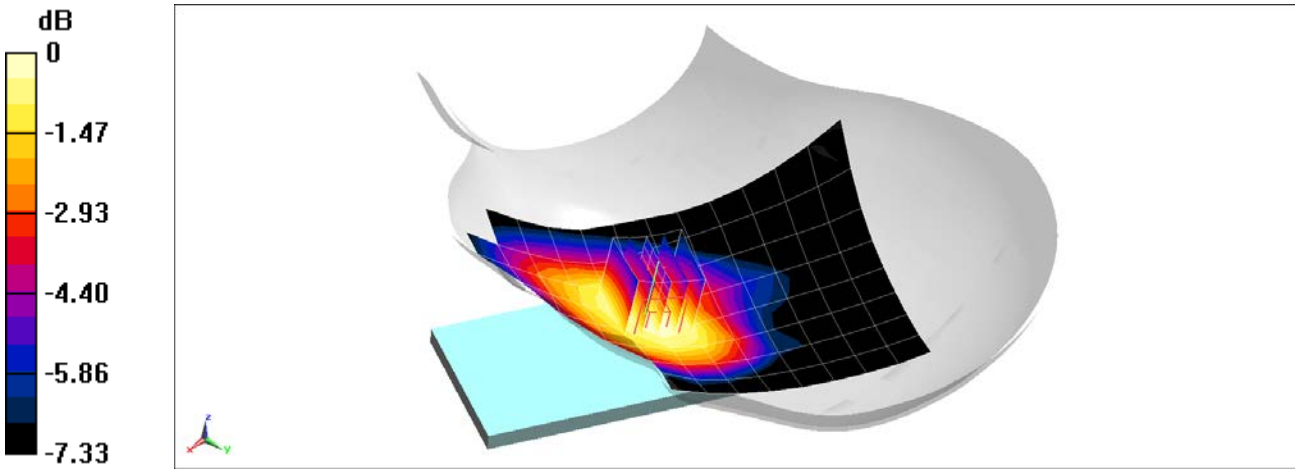
Communication System: UID 0, LTE Band 71; Frequency: 680.5 MHz; Duty Cycle: 1:1
Medium: 750 Head; Medium parameters used (interpolated):
f = 680.5 MHz; σ = 0.872 S/m; ε_r = 40.894; ρ = 1000 kg/m^3
Phantom section: Left Section

Test Date: 10-28-2019; Ambient Temp: 23.4°C; Tissue Temp: 22.3°C

Probe: EX3DV4 - SN7551; ConvF(10.11, 10.11, 10.11) @ 680.5 MHz; Calibrated: 9/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1333; Calibrated: 9/17/2019
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1792
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: LTE Band 71, Left Head, Cheek, Mid.ch,
20 MHz Bandwidth, QPSK, 1 RB, 0 RB Offset

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 12.34 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 0.148 W/kg
SAR(1 g) = 0.120 W/kg



0 dB = 0.139 W/kg = -8.57 dBW/kg

DUT: A3LSMG981U; Type: Portable Handset; Serial: 0449M

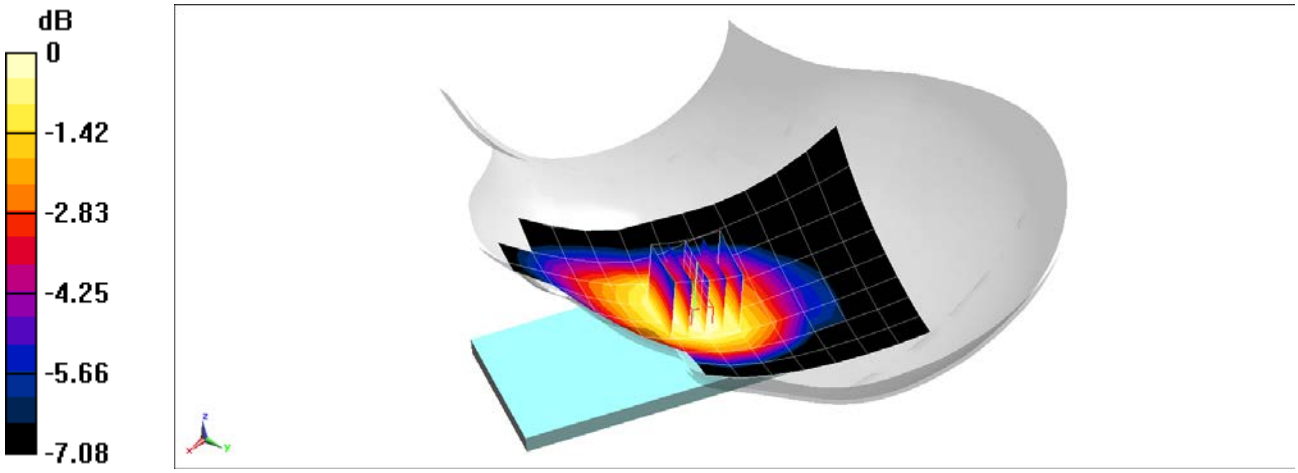
Communication System: UID 0, LTE Band 12; Frequency: 707.5 MHz; Duty Cycle: 1:1
Medium: 750 Head; Medium parameters used (interpolated):
f = 707.5 MHz; σ = 0.881 S/m; ε_r = 40.82; ρ = 1000 kg/m^3
Phantom section: Left Section

Test Date: 10-28-2019; Ambient Temp: 23.4°C; Tissue Temp: 22.3°C

Probe: EX3DV4 - SN7551; ConvF(10.11, 10.11, 10.11) @ 707.5 MHz; Calibrated: 9/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1333; Calibrated: 9/17/2019
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1792
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: LTE Band 12, Left Head, Cheek, Mid.ch, QPSK,
10 MHz Bandwidth, 1 RB, 49 RB Offset

Area Scan (9x14x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 13.98 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 0.191 W/kg
SAR(1 g) = 0.156 W/kg



0 dB = 0.179 W/kg = -7.47 dBW/kg

DUT: A3LSMG981U; Type: Portable Handset; Serial: 0449M

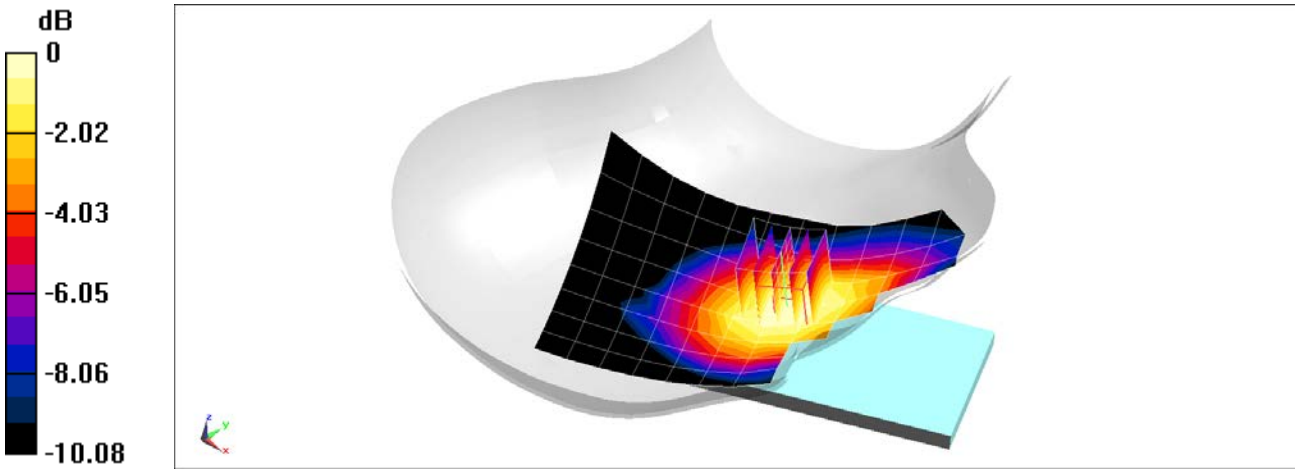
Communication System: UID 0, LTE Band 13; Frequency: 782 MHz; Duty Cycle: 1:1
Medium: 750 Head; Medium parameters used (interpolated):
f = 782 MHz; σ = 0.897 S/m; ε_r = 41.45; ρ = 1000 kg/m^3
Phantom section: Right Section

Test Date: 11-07-2019; Ambient Temp: 24.5°C; Tissue Temp: 20.4°C

Probe: EX3DV4 - SN7551; ConvF(10.11, 10.11, 10.11) @ 782 MHz; Calibrated: 9/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1333; Calibrated: 9/17/2019
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1792
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: LTE Band 13, Right Head, Cheek, Mid.ch,
10 MHz Bandwidth, QPSK, 1 RB, 0 RB Offset

Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 15.84 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 0.260 W/kg
SAR(1 g) = 0.203 W/kg



0 dB = 0.240 W/kg = -6.20 dBW/kg

DUT: A3LSMG981U; Type: Portable Handset; Serial: 0449M

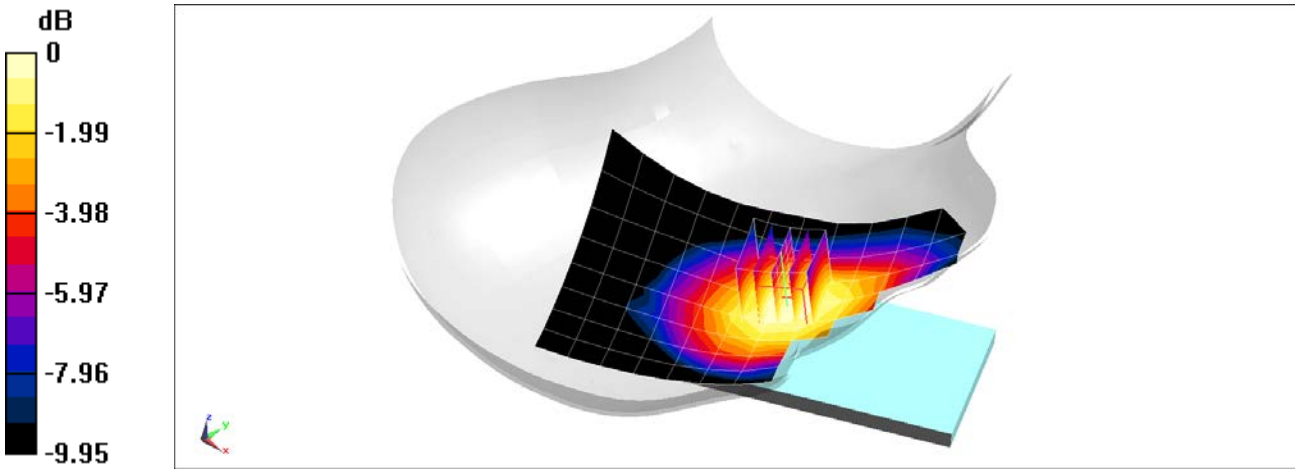
Communication System: UID 0, LTE Band 14; Frequency: 793 MHz; Duty Cycle: 1:1
Medium: 750 Head; Medium parameters used (interpolated):
f = 793 MHz; σ = 0.91 S/m; ε_r = 40.591; ρ = 1000 kg/m^3
Phantom section: Right Section

Test Date: 10-28-2019; Ambient Temp: 23.4°C; Tissue Temp: 22.3°C

Probe: EX3DV4 - SN7551; ConvF(10.11, 10.11, 10.11) @ 793 MHz; Calibrated: 9/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1333; Calibrated: 9/17/2019
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1792
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: LTE Band 14, Right Head, Cheek, Mid.ch,
10 MHz Bandwidth, QPSK, 1 RB, 0 RB Offset

Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 15.85 V/m; Power Drift = 0.00 dB
Peak SAR (extrapolated) = 0.261 W/kg
SAR(1 g) = 0.206 W/kg



0 dB = 0.242 W/kg = -6.16 dBW/kg

DUT: A3LSMG981U; Type: Portable Handset; Serial: 0449M

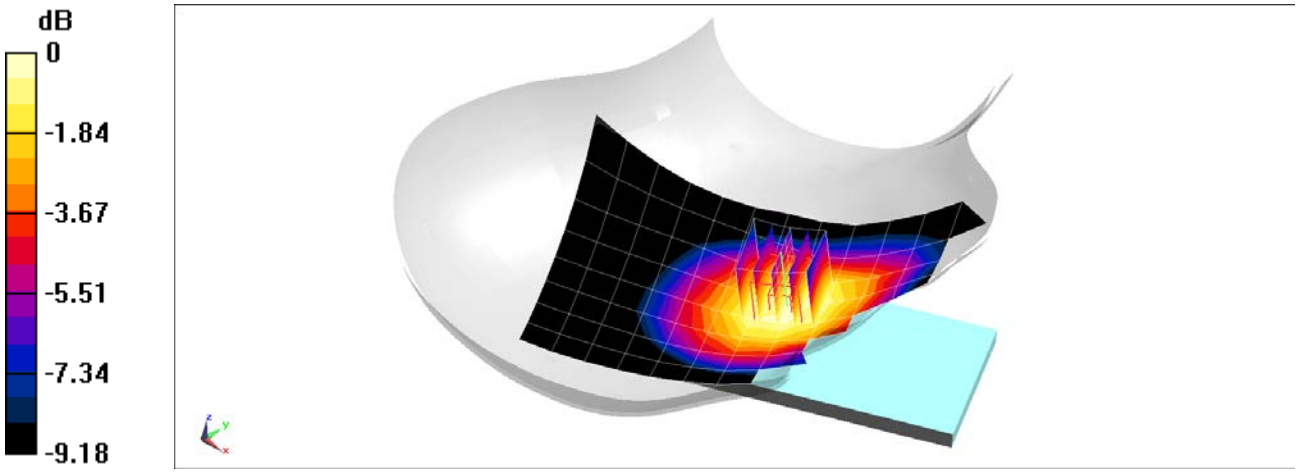
Communication System: UID 0, LTE Band 26; Frequency: 831.5 MHz; Duty Cycle: 1:1
Medium: 835 Head; Medium parameters used (interpolated):
f = 831.5 MHz; σ = 0.885 S/m; ε_r = 40.042; ρ = 1000 kg/m^3
Phantom section: Right Section

Test Date: 10-23-2019; Ambient Temp: 21.5°C; Tissue Temp: 20.1°C

Probe: EX3DV4 - SN7551; ConvF(9.88, 9.88, 9.88) @ 831.5 MHz; Calibrated: 9/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1333; Calibrated: 9/17/2019
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1792
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

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

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 14.91 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 0.224 W/kg
SAR(1 g) = 0.175 W/kg



0 dB = 0.206 W/kg = -6.86 dBW/kg

DUT: A3LSMG981U; Type: Portable Handset; Serial: 1010M

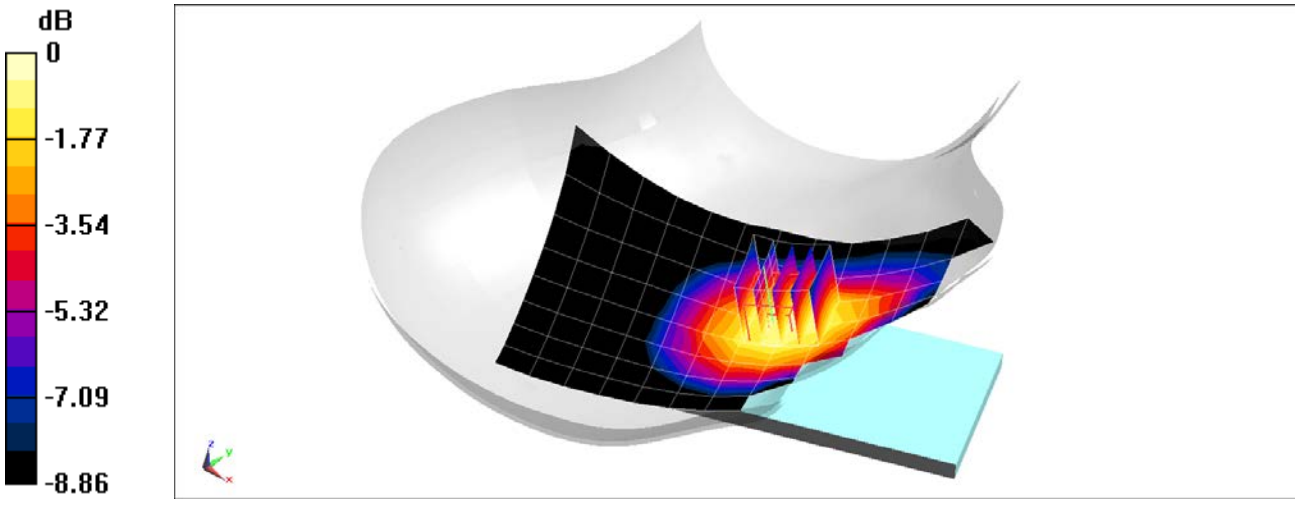
Communication System: UID 0, LTE Band 5 (Cell.); Frequency: 836.5 MHz; Duty Cycle: 1:1
Medium: 835 Head; Medium parameters used (interpolated):
$f = 836.5$ MHz; $\sigma = 0.919$ S/m; $\varepsilon_r = 41.379$; $\rho = 1000$ kg/m^3
Phantom section: Right Section

Test Date: 11-14-2019; Ambient Temp: 22.1°C; Tissue Temp: 21.3°C

Probe: EX3DV4 - SN7417; ConvF(10.07, 10.07, 10.07) @ 836.5 MHz; Calibrated: 2/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn665; Calibrated: 2/13/2019
Phantom: Twin-SAM V5.0 (30); Type: QD 000 P40 CD; Serial: 1647
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: LTE Band 5 (Cell.) ULCA, Right Head, Cheek,
PCC: 10 MHz Bandwidth, QPSK, Ch. 20525, 1 RB, 0 RB Offset
SCC: 5 MHz Bandwidth, QPSK, Ch. 20453, 1 RB, 24 RB Offset

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 14.86 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 0.239 W/kg
SAR(1 g) = 0.185 W/kg



0 dB = 0.218 W/kg = -6.62 dBW/kg

DUT: A3LSMG981U; Type: Portable Handset; Serial: 1010M

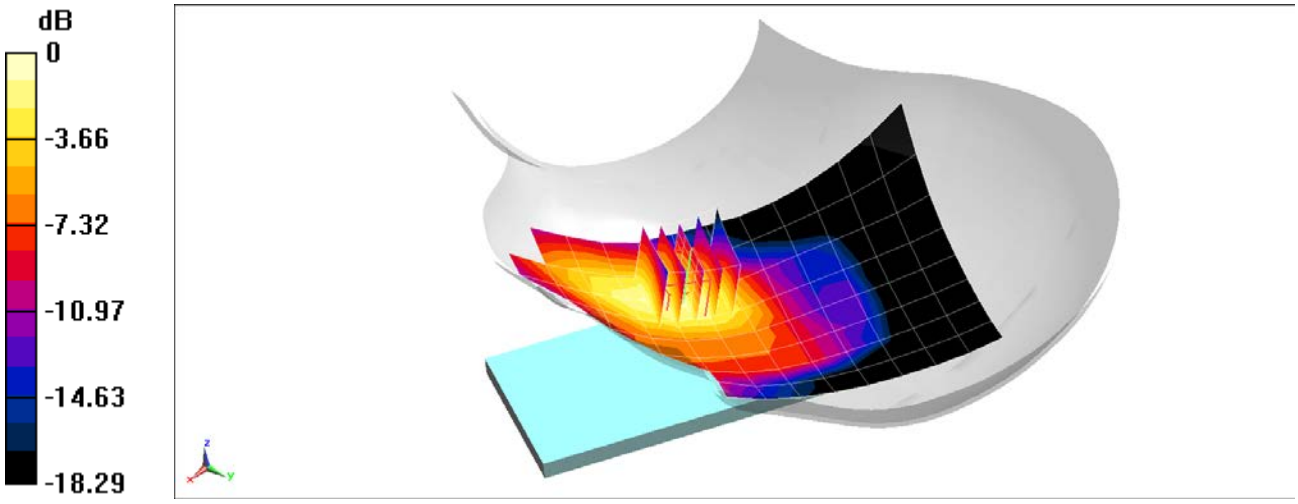
Communication System: UID 0, LTE Band 66 (AWS); Frequency: 1770 MHz; Duty Cycle: 1:1
Medium: 1750 Head; Medium parameters used:
f = 1770 MHz; σ = 1.364 S/m; ε_r = 40.498; ρ = 1000 kg/m^3
Phantom section: Left Section

Test Date: 11-13-2019; Ambient Temp: 22.0°C; Tissue Temp: 20.6°C

Probe: EX3DV4 - SN7551; ConvF(8.34, 8.34, 8.34) @ 1770 MHz; Calibrated: 9/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1333; Calibrated: 9/17/2019
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1792
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: LTE Band 66 (AWS) ULCA, Left Head, Cheek,
PCC: 20 MHz Bandwidth, QPSK, Ch. 132572, 1 RB, 0 RB Offset
SCC: 20 MHz Bandwidth, QPSK, Ch. 132374, 1 RB, 99 RB Offset

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 12.83 V/m; Power Drift = 0.08 dB
Peak SAR (extrapolated) = 0.305 W/kg
SAR(1 g) = 0.198 W/kg



0 dB = 0.263 W/kg = -5.80 dBW/kg

DUT: A3LSMG981U; Type: Portable Handset; Serial: 1077M

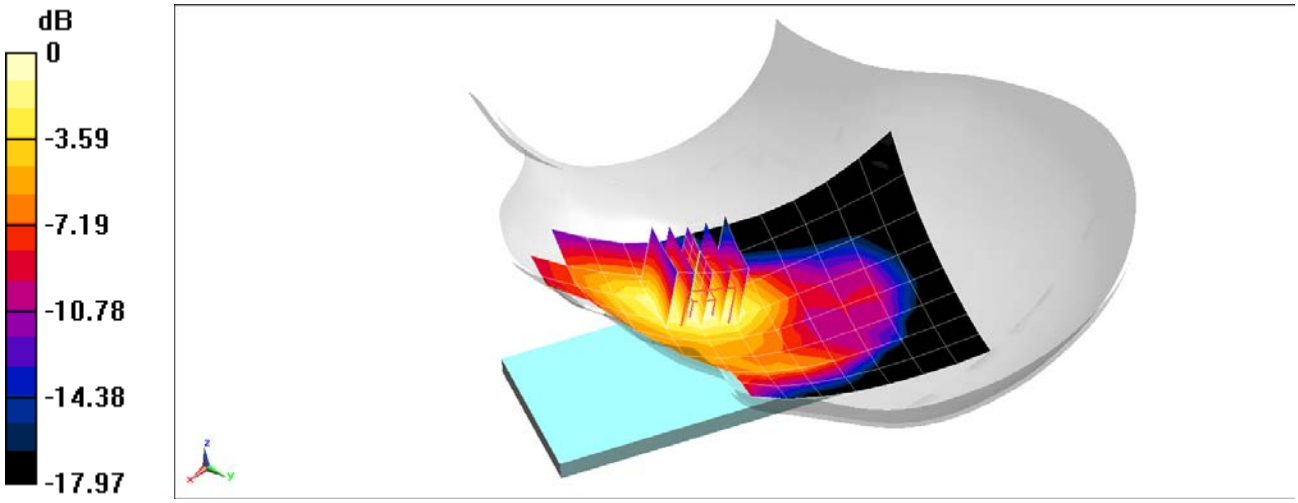
Communication System: UID 0, LTE Band 25 (PCS); Frequency: 1860 MHz; Duty Cycle: 1:1
Medium: 1900 Head; Medium parameters used:
f = 1860 MHz; σ = 1.416 S/m; ε_r = 40.353; ρ = 1000 kg/m^3
Phantom section: Left Section

Test Date: 11-13-2019; Ambient Temp: 22.0°C; Tissue Temp: 20.6°C

Probe: EX3DV4 - SN7551; ConvF(8.05, 8.05, 8.05) @ 1860 MHz; Calibrated: 9/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1333; Calibrated: 9/17/2019
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1792
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: LTE Band 25 (PCS), Left Head, Cheek, Low.ch,
20 MHz Bandwidth, QPSK, 1 RB, 99 RB Offset

Area Scan (9x14x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 14.28 V/m; Power Drift = -0.10 dB
Peak SAR (extrapolated) = 0.398 W/kg
SAR(1 g) = 0.248 W/kg



0 dB = 0.339 W/kg = -4.70 dBW/kg

DUT: A3LSMG981U; Type: Portable Handset; Serial: 1077M

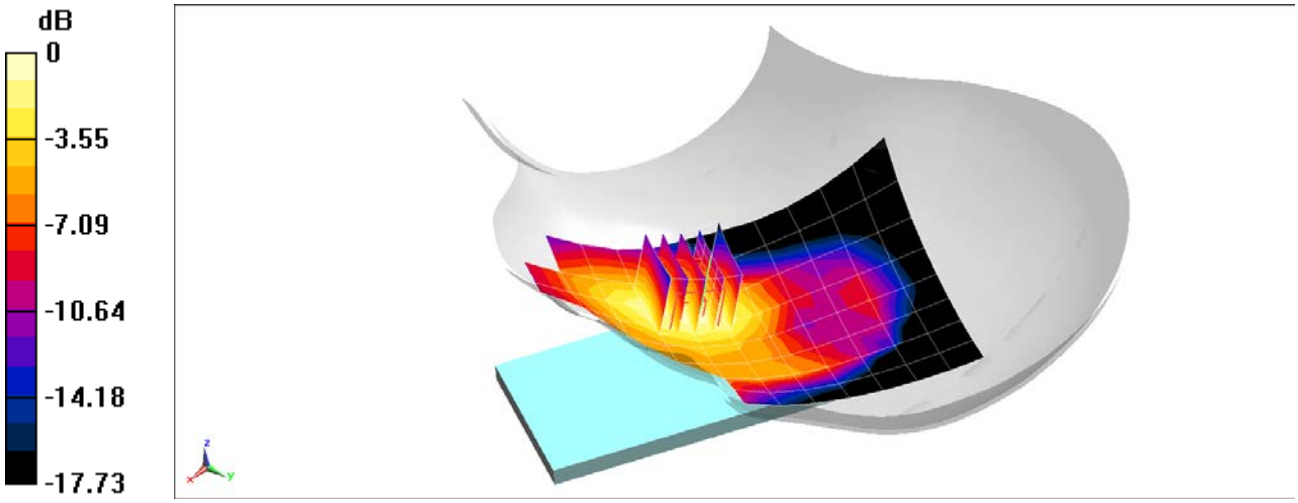
Communication System: UID 0, _LTE Band 2 (PCS); Frequency: 1860 MHz; Duty Cycle: 1:1
Medium: 1900 Head; Medium parameters used:
f = 1860 MHz; σ = 1.416 S/m; ε_r = 40.353; ρ = 1000 kg/m^3
Phantom section: Left Section

Test Date: 11-13-2019; Ambient Temp: 22.0°C; Tissue Temp: 20.6°C

Probe: EX3DV4 - SN7551; ConvF(8.05, 8.05, 8.05) @ 1860 MHz; Calibrated: 9/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1333; Calibrated: 9/17/2019
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1792
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: LTE Band 2 (PCS), Left Head, Cheek, Low.ch,
20 MHz Bandwidth, QPSK, 1 RB, 99 RB Offset

Area Scan (9x14x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 14.34 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 0.406 W/kg
SAR(1 g) = 0.258 W/kg



0 dB = 0.343 W/kg = -4.65 dBW/kg

DUT: A3LSMG981U; Type: Portable Handset; Serial: 0449M

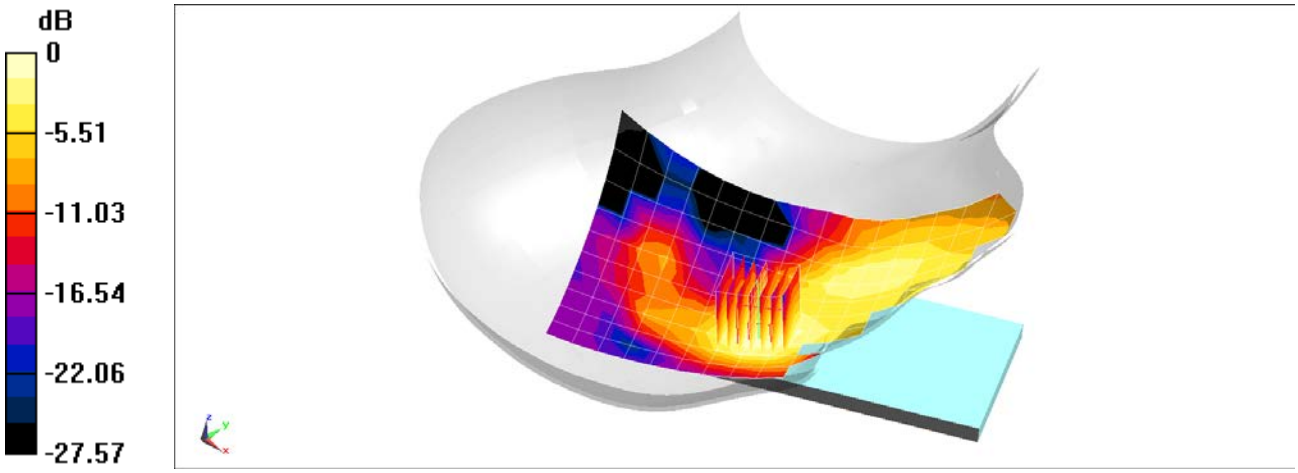
Communication System: UID 0, LTE Band 30; Frequency: 2310 MHz; Duty Cycle: 1:1
Medium: 2450 Head; Medium parameters used:
f = 2310 MHz; σ = 1.75 S/m; ε_r = 38.717; ρ = 1000 kg/m^3
Phantom section: Right Section

Test Date: 10-29-2019; Ambient Temp: 23.8°C; Tissue Temp: 21.5°C

Probe: EX3DV4 - SN7417; ConvF(7.73, 7.73, 7.73) @ 2310 MHz; Calibrated: 2/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn665; Calibrated: 2/13/2019
Phantom: Twin-SAM V5.0 (30); Type: QD 000 P40 CD; Serial: 1647
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

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

Area Scan (11x18x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 8.117 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 0.162 W/kg
SAR(1 g) = 0.094 W/kg



0 dB = 0.136 W/kg = -8.66 dBW/kg

DUT: A3LSMG981U; Type: Portable Handset; Serial: 1014M

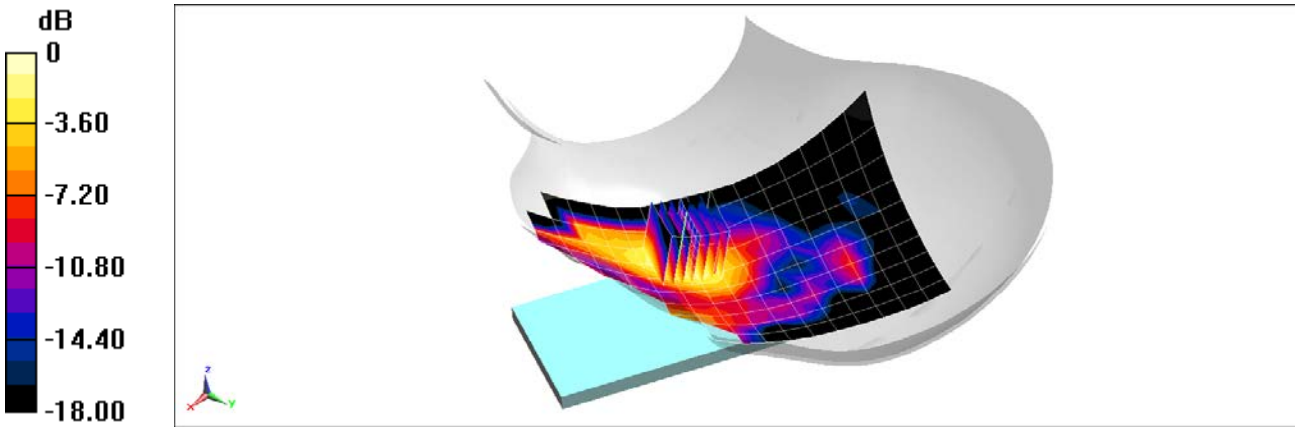
Communication System: UID 0, LTE Band 7; Frequency: 2510 MHz; Duty Cycle: 1:1
Medium: 2450 Head; Medium parameters used:
f = 2510 MHz; σ = 1.896 S/m; ε_r = 38.724; ρ = 1000 kg/m^3
Phantom section: Left Section

Test Date: 12-09-2019; Ambient Temp: 20.8°C; Tissue Temp: 19.8°C

Probe: EX3DV4 - SN7417; ConvF(7.46, 7.46, 7.46) @ 2510 MHz; Calibrated: 2/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn665; Calibrated: 2/13/2019
Phantom: Twin-SAM V5.0 (30); Type: QD 000 P40 CD; Serial: 1647
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: LTE Band 7, Left Head, Cheek, Low.ch,
20 MHz Bandwidth, QPSK, 1 RB, 99 RB Offset

Area Scan (11x18x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 8.889 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 0.218 W/kg
SAR(1 g) = 0.122 W/kg



0 dB = 0.182 W/kg = -7.40 dBW/kg

DUT: A3LSMG981U; Type: Portable Handset; Serial: 4935M

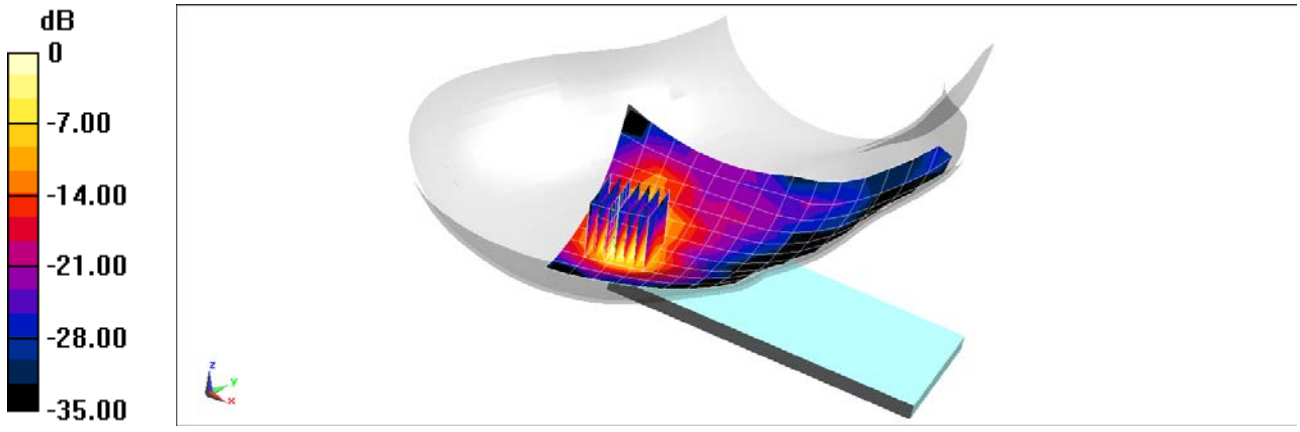
Communication System: UID 0, LTE Band 48; Frequency: 3690 MHz; Duty Cycle: 1:1.58
Medium: 3500 Head; Medium parameters used:
f = 3690 MHz; σ = 3.099 S/m; ε_r = 36.636; ρ = 1000 kg/m^3
Phantom section: Right Section

Test Date: 12-16-2019; Ambient Temp: 20.4°C; Tissue Temp: 20.3°C

Probe: EX3DV4 - SN3589; ConvF(6.02, 6.02, 6.02) @ 3690 MHz; Calibrated: 1/25/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn728; Calibrated: 5/8/2019
Phantom: Twin-SAM V5.0 Left 20; Type: QD 000 P40 CD; Serial: 1715
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: LTE Band 48 ULCA, Right Head, Tilt,
PCC: 20 MHz Bandwidth, QPSK, Ch. 56640, 50 RB, 0 RB Offset
SCC: 20 MHz Bandwidth, QPSK, Ch. 56442, 50 RB, 50 RB Offset

Area Scan (11x17x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (7x7x8)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=1.4mm; Graded Ratio: 1.4
Reference Value = 15.90 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 2.59 W/kg
SAR(1 g) = 0.674 W/kg



0 dB = 1.59 W/kg = 2.01 dBW/kg

DUT: A3LSMG981U; Type: Portable Handset; Serial: 1018M

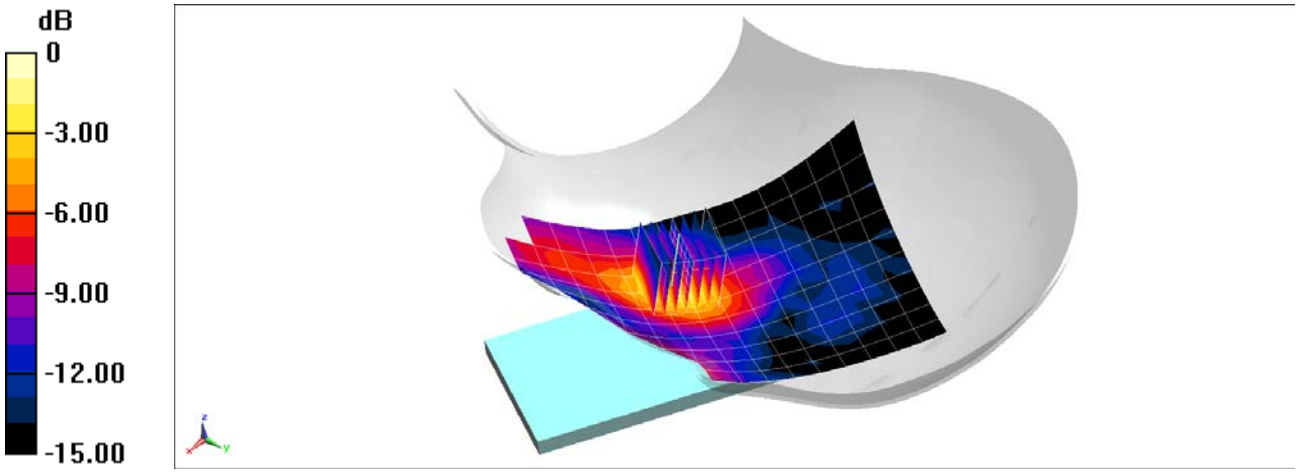
Communication System: UID 0, _LTE Band 41 (Class 2); Frequency: 2593 MHz; Duty Cycle: 1:2.31
Medium: 2450 Head; Medium parameters used (interpolated):
f = 2593 MHz; σ = 1.964 S/m; ε_r = 37.479; ρ = 1000 kg/m^3
Phantom section: Left Section

Test Date: 11-08-2019; Ambient Temp: 22.3°C; Tissue Temp: 21.5°C

Probe: EX3DV4 - SN7417; ConvF(7.17, 7.17, 7.17) @ 2593 MHz; Calibrated: 2/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn665; Calibrated: 2/13/2019
Phantom: Twin-SAM V5.0 (30); Type: QD 000 P40 CD; Serial: 1647
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

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

Area Scan (11x18x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 9.590 V/m; Power Drift = 0.17 dB
Peak SAR (extrapolated) = 0.268 W/kg
SAR(1 g) = 0.145 W/kg



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

DUT: A3LSMG981U; Type: Portable Handset; Serial: 1021M

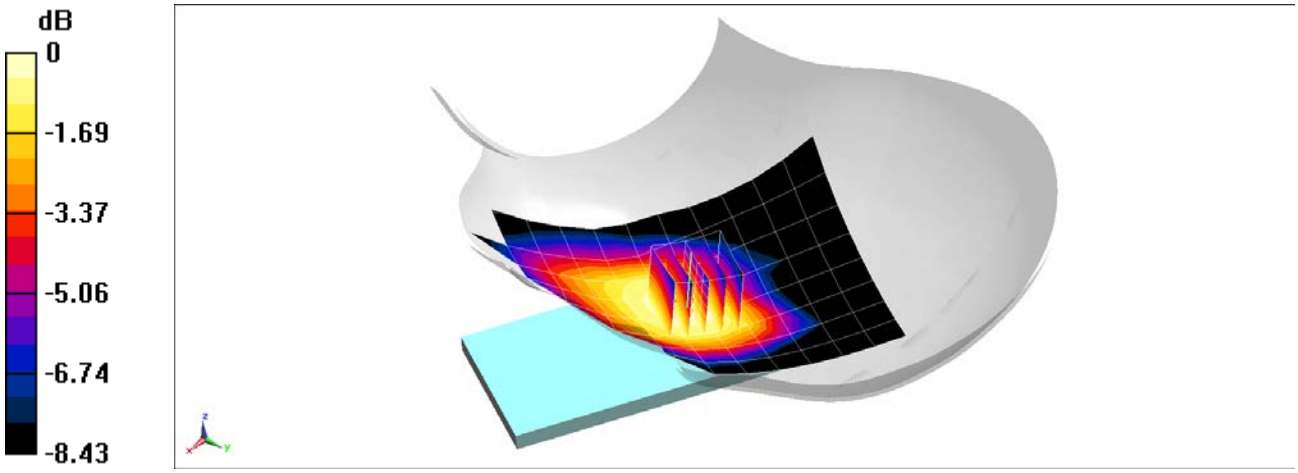
Communication System: UID 0, NR Band n71; Frequency: 680.5 MHz; Duty Cycle: 1:1
Medium: 750 Head; Medium parameters used (interpolated):
f = 680.5 MHz; σ = 0.861 S/m; ε_r = 41.734; ρ = 1000 kg/m^3
Phantom section: Left Section

Test Date: 11-07-2019; Ambient Temp: 24.5°C; Tissue Temp: 20.4°C

Probe: EX3DV4 - SN7551; ConvF(10.11, 10.11, 10.11) @ 680.5 MHz; Calibrated: 9/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1333; Calibrated: 9/17/2019
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1792
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: NR Band n71, Left Head, Cheek,
20 MHz Bandwidth, DFT-s-OFDM QPSK, Ch. 136100, 50 RB, 28 RB Offset

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 12.91 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 0.165 W/kg
SAR(1 g) = 0.132 W/kg



0 dB = 0.153 W/kg = -8.15 dBW/kg

DUT: A3LSMG981U; Type: Portable Handset; Serial: 1021M

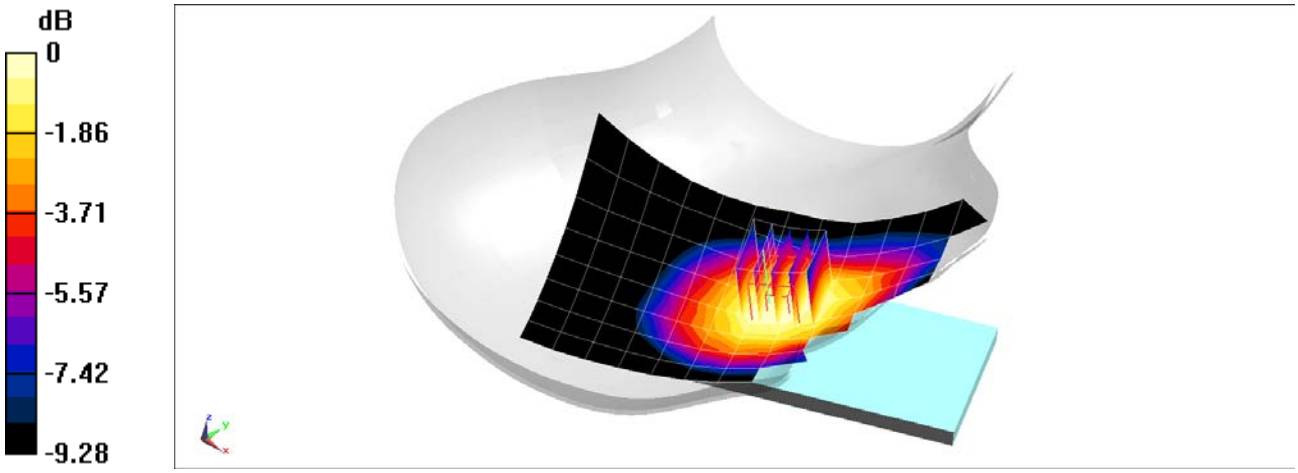
Communication System: UID 0, NR Band n5; Frequency: 836.5 MHz; Duty Cycle: 1:1
Medium: 835 Head; Medium parameters used (interpolated):
f = 836.5 MHz; σ = 0.9 S/m; ε_r = 40.426; ρ = 1000 kg/m^3
Phantom section: Right Section

Test Date: 11-11-2019; Ambient Temp: 20.5°C; Tissue Temp: 20.5°C

Probe: EX3DV4 - SN7551; ConvF(9.88, 9.88, 9.88) @ 836.5 MHz; Calibrated: 9/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1333; Calibrated: 9/17/2019
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1792
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

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

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 14.79 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 0.230 W/kg
SAR(1 g) = 0.179 W/kg



0 dB = 0.210 W/kg = -6.78 dBW/kg

DUT: A3LSMG981U; Type: Portable Handset; Serial: 1005M

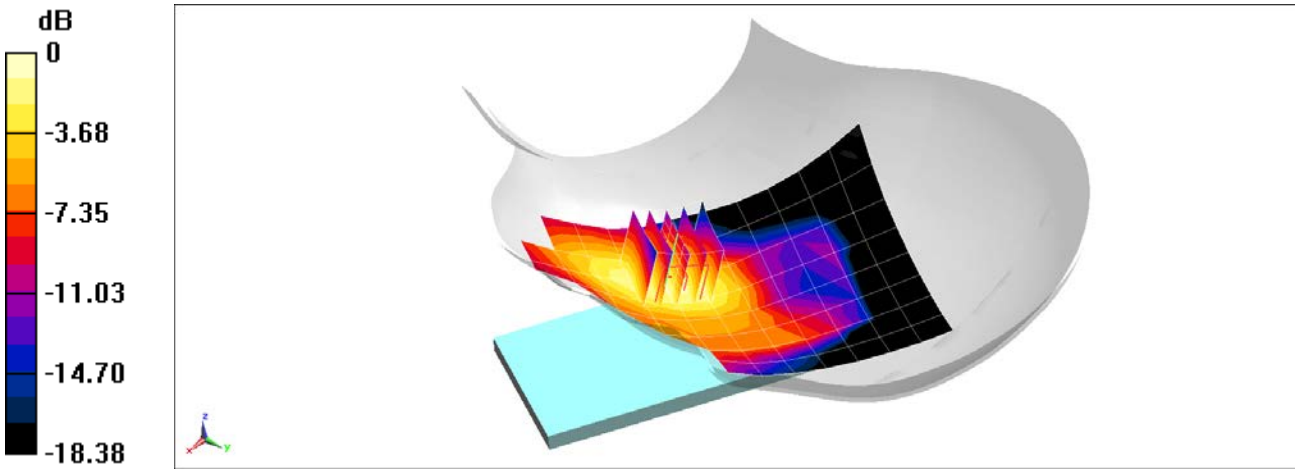
Communication System: UID 0, NR Band n66; Frequency: 1745 MHz; Duty Cycle: 1:1
Medium: 1750 Head; Medium parameters used:
f = 1745 MHz; σ = 1.355 S/m; ε_r = 38.893; ρ = 1000 kg/m^3
Phantom section: Left Section

Test Date: 11-25-2019; Ambient Temp: 22.2°C; Tissue Temp: 21.3°C

Probe: EX3DV4 - SN7551; ConvF(8.34, 8.34, 8.34) @ 1745 MHz; Calibrated: 9/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1333; Calibrated: 9/17/2019
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1792
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: NR Band n66, Left Head, Cheek,
20 MHz Bandwidth, DFT-s-OFDM QPSK, Ch. 349000, 1 RB, 53 RB Offset

Area Scan (9x14x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 13.91 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 0.364 W/kg
SAR(1 g) = 0.234 W/kg



0 dB = 0.310 W/kg = -5.09 dBW/kg

DUT: A3LSMG981U; Type: Portable Handset; Serial: 1005M

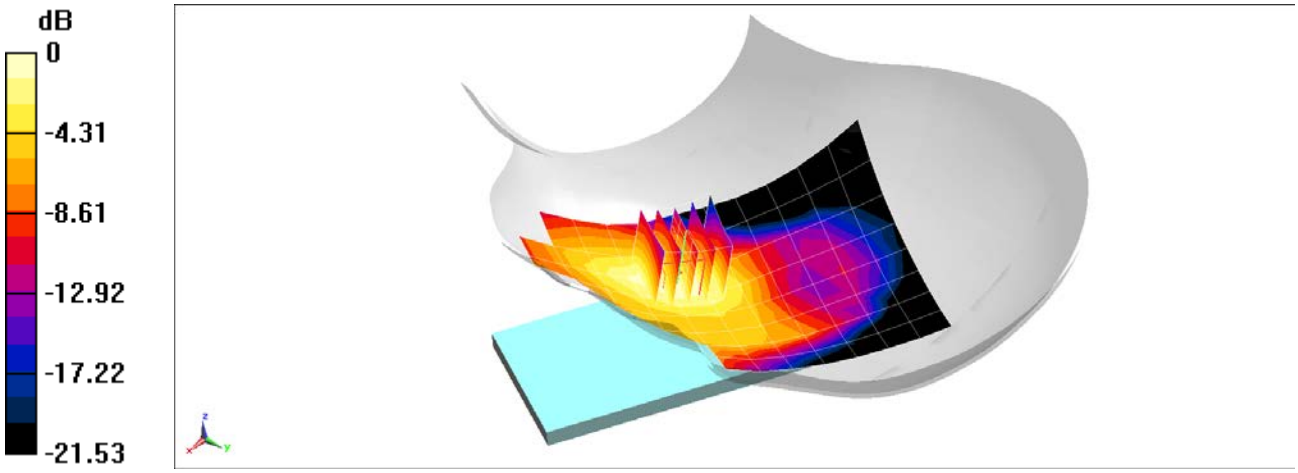
Communication System: UID 0, NR Band n2; Frequency: 1880 MHz; Duty Cycle: 1:1
Medium: 1900 Head; Medium parameters used:
f = 1880 MHz; σ = 1.435 S/m; ε_r = 38.679; ρ = 1000 kg/m^3
Phantom section: Left Section

Test Date: 11-25-2019; Ambient Temp: 22.2°C; Tissue Temp: 21.3°C

Probe: EX3DV4 - SN7551; ConvF(8.05, 8.05, 8.05) @ 1880 MHz; Calibrated: 9/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1333; Calibrated: 9/17/2019
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1792
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: NR Band n2, Left Head, Cheek,
20 MHz Bandwidth, DFT-s-OFDM QPSK, Ch. 376000, 50 RB, 28 RB Offset

Area Scan (9x14x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 13.08 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 0.334 W/kg
SAR(1 g) = 0.208 W/kg



0 dB = 0.281 W/kg = -5.51 dBW/kg

DUT: A3LSMG981U; Type: Portable Handset; Serial: 1017M

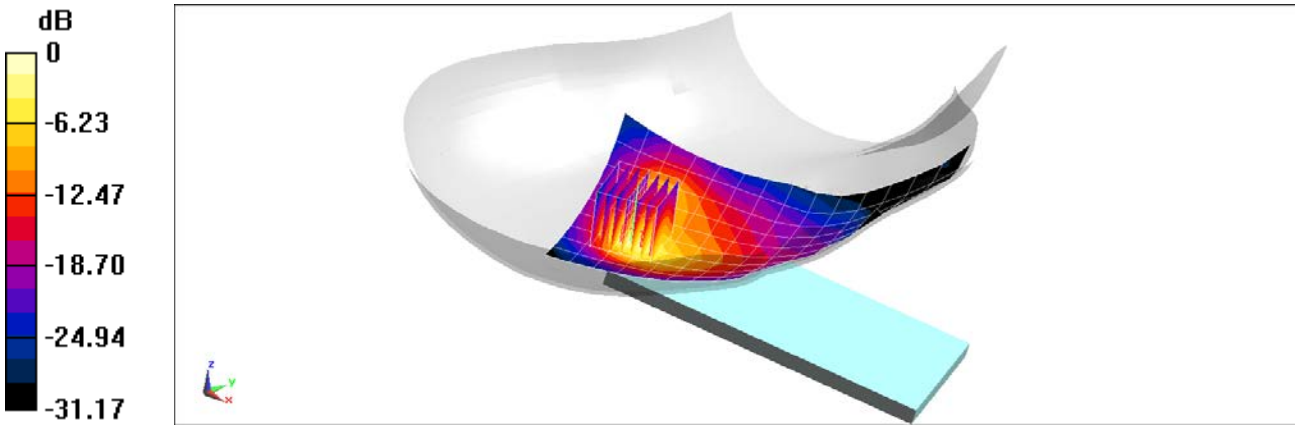
Communication System: UID 0, NR Band n41; Frequency: 2592.99 MHz; Duty Cycle: 1:4
Medium: 2450 Head; Medium parameters used (interpolated):
f = 2592.99 MHz; σ = 1.967 S/m; ε_r = 38.434; ρ = 1000 kg/m^3
Phantom section: Right Section

Test Date: 12-16-2019; Ambient Temp: 20.1°C; Tissue Temp: 19.2°C

Probe: EX3DV4 - SN7417; ConvF(7.17, 7.17, 7.17) @ 2592.99 MHz; Calibrated: 2/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn665; Calibrated: 2/13/2019
Phantom: Twin-SAM V5.0 (30); Type: QD 000 P40 CD; Serial: 1647
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: NR Band n41, Right Head, Tilt, 100 MHz Bandwidth, DFT-s-OFDM QPSK, Ch. 518598, 1 RB, 137 RB Offset

Area Scan (10x17x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 24.90 V/m; Power Drift = 0.13 dB
Peak SAR (extrapolated) = 2.28 W/kg
SAR(1 g) = 0.896 W/kg



0 dB = 1.68 W/kg = 2.25 dBW/kg

DUT: A3LSMG981U; Type: Portable Handset; Serial: 1652M

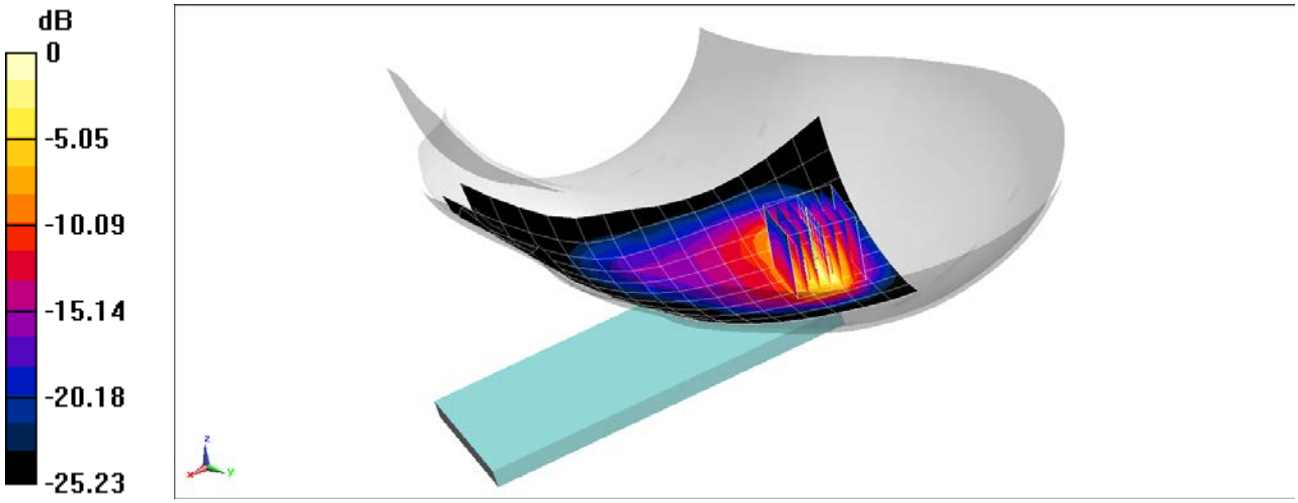
Communication System: UID 0, _IEEE 802.11b; Frequency: 2462 MHz; Duty Cycle: 1:1
Medium: 2450 Head; Medium parameters used (interpolated):
f = 2462 MHz; σ = 1.824 S/m; ε_r = 37.469; ρ = 1000 kg/m^3
Phantom section: Left Section

Test Date: 11-04-2019; Ambient Temp: 22.3°C; Tissue Temp: 20.7°C

Probe: EX3DV4 - SN7417; ConvF(7.46, 7.46, 7.46) @ 2462 MHz; Calibrated: 2/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn665; Calibrated: 2/13/2019
Phantom: Twin-SAM V5.0 (30); Type: QD 000 P40 CD; Serial: 1647
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: IEEE 802.11b Ant 1, 22 MHz Bandwidth, Left Head, Tilt, Ch 11, 1 Mbps

Area Scan (11x18x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 16.51 V/m; Power Drift = 0.15 dB
Peak SAR (extrapolated) = 1.68 W/kg
SAR(1 g) = 0.709 W/kg



0 dB = 1.32 W/kg = 1.21 dBW/kg

DUT: A3LSMG981U; Type: Portable Handset; Serial: 1652M

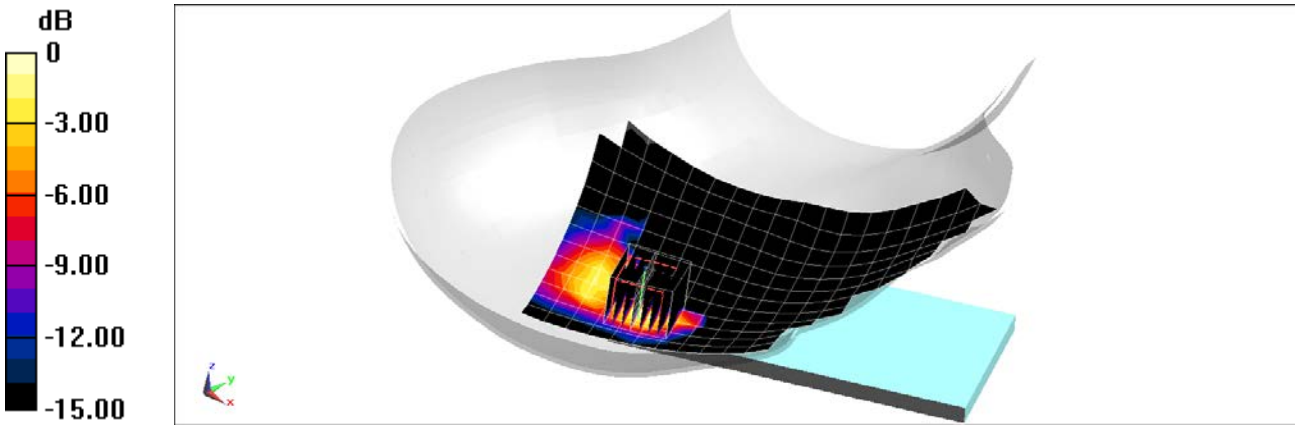
Communication System: UID 0, 802.11ac 5.2-5.8 GHz Band; Frequency: 5775 MHz; Duty Cycle: 1:1
Medium: 5200-5800 Head; Medium parameters used:
f = 5775 MHz; σ = 5.332 S/m; ε_r = 34.92; ρ = 1000 kg/m^3
Phantom section: Right Section

Test Date: 11-10-2019; Ambient Temp: 21.0°C; Tissue Temp: 20.1°C

Probe: EX3DV4 - SN7406; ConvF(5.23, 5.23, 5.23) @ 5775 MHz; Calibrated: 5/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn859; Calibrated: 5/8/2019
Phantom: Twin-SAM V5.0 Right 20; Type: QD 000 P40 CD; Serial: 1759
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: IEEE 802.11ac Ant 2, U-NII-3, 80 MHz Bandwidth,
Right Head, Cheek, Ch 155, 29.3 Mbps

Area Scan (13x22x1): Measurement grid: dx=10mm, dy=10mm
Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm; Graded Ratio: 1.4
Reference Value = 1.549 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 0.396 W/kg
SAR(1 g) = 0.090 W/kg



0 dB = 0.244 W/kg = -6.13 dBW/kg

DUT: A3LSMG981U; Type: Portable Handset; Serial: 1652M

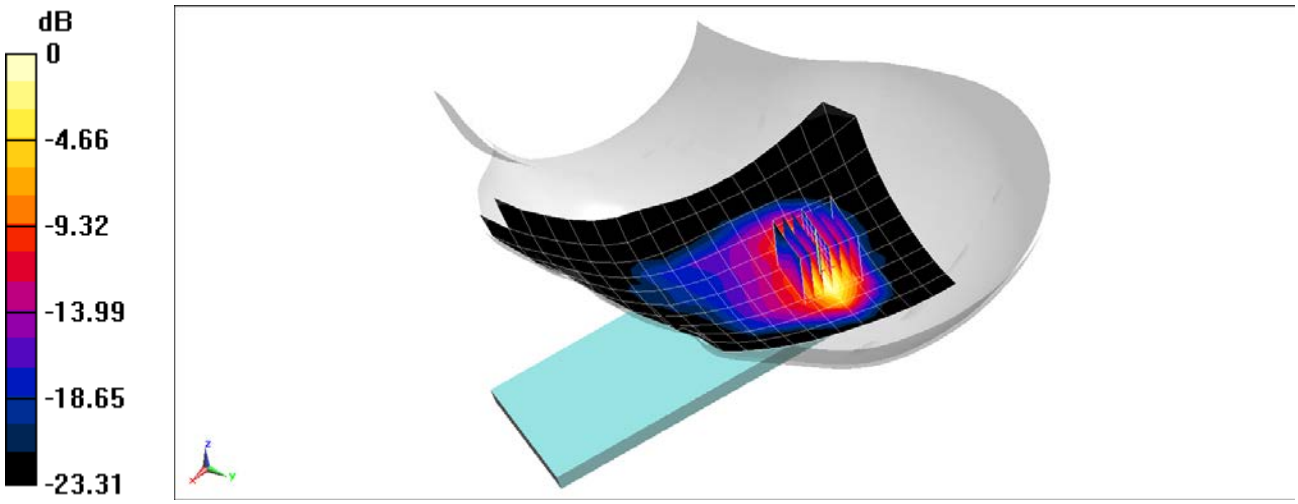
Communication System: UID 0, Bluetooth; Frequency: 2402 MHz; Duty Cycle: 1:1.289
Medium: 2450 Head; Medium parameters used (interpolated):
f = 2402 MHz; σ = 1.826 S/m; ε_r = 39.069; ρ = 1000 kg/m^3
Phantom section: Left Section

Test Date: 11-11-2019; Ambient Temp: 21.3°C; Tissue Temp: 19.2°C

Probe: EX3DV4 - SN7417; ConvF(7.46, 7.46, 7.46) @ 2402 MHz; Calibrated: 2/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn665; Calibrated: 2/13/2019
Phantom: Twin-SAM V5.0 (30); Type: QD 000 P40 CD; Serial: 1647
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: Bluetooth, Left Head, Tilt, Ch 0, 1 Mbps

Area Scan (11x19x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 12.79 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 0.621 W/kg
SAR(1 g) = 0.261 W/kg



0 dB = 0.476 W/kg = -3.22 dBW/kg

DUT: A3LSMG981U; Type: Portable Handset; Serial: 1075M

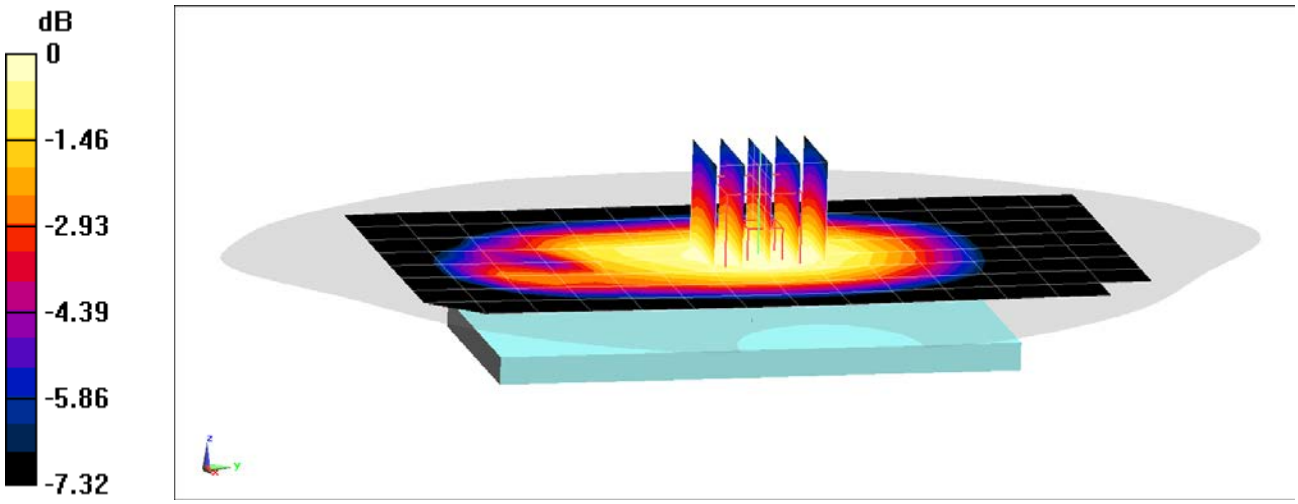
Communication System: UID 0, CDMA; Frequency: 820.1 MHz; Duty Cycle: 1:1
Medium: 835 Body; Medium parameters used (interpolated):
f = 820.1 MHz; σ = 0.943 S/m; ε_r = 55.732; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 11-04-2019; Ambient Temp: 23.1°C; Tissue Temp: 19.9°C

Probe: EX3DV4 - SN7357; ConvF(9.95, 9.95, 9.95) @ 820.1 MHz; Calibrated: 4/24/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1407; Calibrated: 4/18/2019
Phantom: Twin-SAM V4.0 (30); Type: QD 000 P40 CC; Serial: 1167
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: Cell. CDMA BC10, Rule Part 90S, Body SAR, Back side, Mid.ch

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 18.54 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 0.418 W/kg
SAR(1 g) = 0.315 W/kg



0 dB = 0.381 W/kg = -4.19 dBW/kg

DUT: A3LSMG981U; Type: Portable Handset; Serial: 1075M

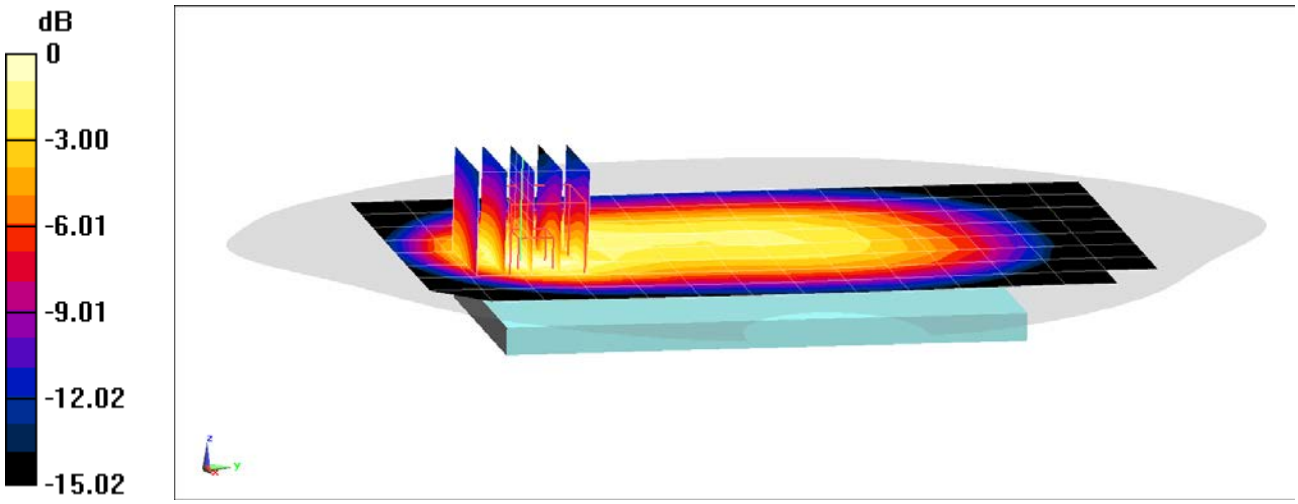
Communication System: UID 0, CDMA; Frequency: 820.1 MHz; Duty Cycle: 1:1
Medium: 835 Body; Medium parameters used (interpolated):
f = 820.1 MHz; σ = 0.943 S/m; ε_r = 55.732; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 11-04-2019; Ambient Temp: 23.1°C; Tissue Temp: 19.9°C

Probe: EX3DV4 - SN7357; ConvF(9.95, 9.95, 9.95) @ 820.1 MHz; Calibrated: 4/24/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1407; Calibrated: 4/18/2019
Phantom: Twin-SAM V4.0 (30); Type: QD 000 P40 CC; Serial: 1167
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: Cell. EVDO BC10, Rule Part 90S, Body SAR, Back side, Mid.ch

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 19.47 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 0.606 W/kg
SAR(1 g) = 0.334 W/kg



0 dB = 0.500 W/kg = -3.01 dBW/kg

DUT: A3LSMG981U; Type: Portable Handset; Serial: 1075M

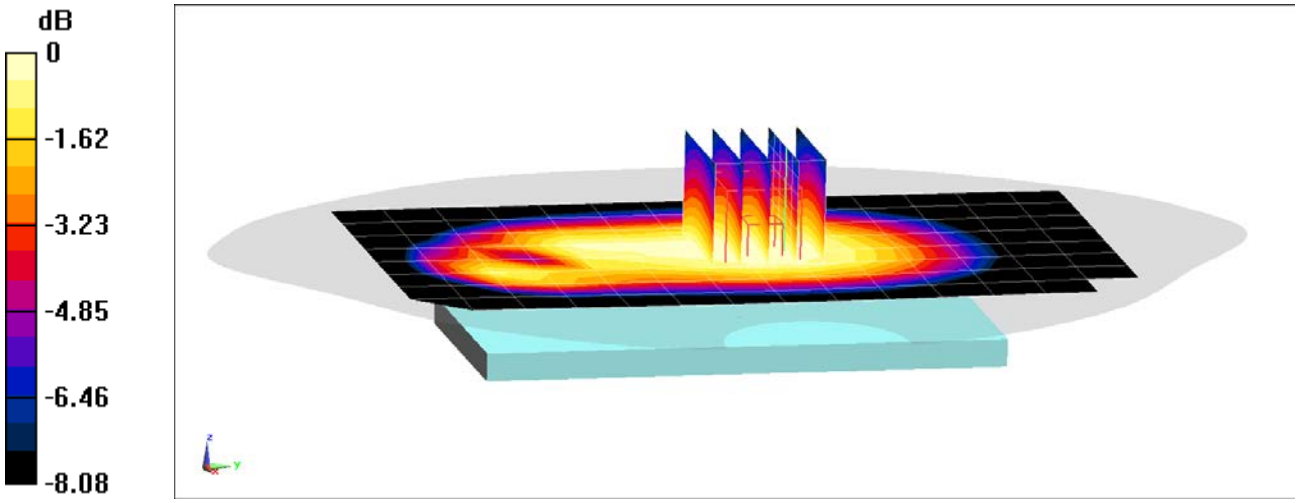
Communication System: UID 0, CDMA; Frequency: 836.52 MHz; Duty Cycle: 1:1
Medium: 835 Body; Medium parameters used (interpolated):
f = 836.52 MHz; σ = 0.958 S/m; ε_r = 55.549; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 11-04-2019; Ambient Temp: 23.1°C; Tissue Temp: 19.9°C

Probe: EX3DV4 - SN7357; ConvF(9.95, 9.95, 9.95) @ 836.52 MHz; Calibrated: 4/24/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1407; Calibrated: 4/18/2019
Phantom: Twin-SAM V4.0 (30); Type: QD 000 P40 CC; Serial: 1167
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: Cell. CDMA, BC 0, Rule Part 22H, Body SAR, Back side, Mid.ch

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (6x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 17.66 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 0.390 W/kg
SAR(1 g) = 0.291 W/kg



0 dB = 0.354 W/kg = -4.51 dBW/kg

DUT: A3LSMG981U; Type: Portable Handset; Serial: 1075M

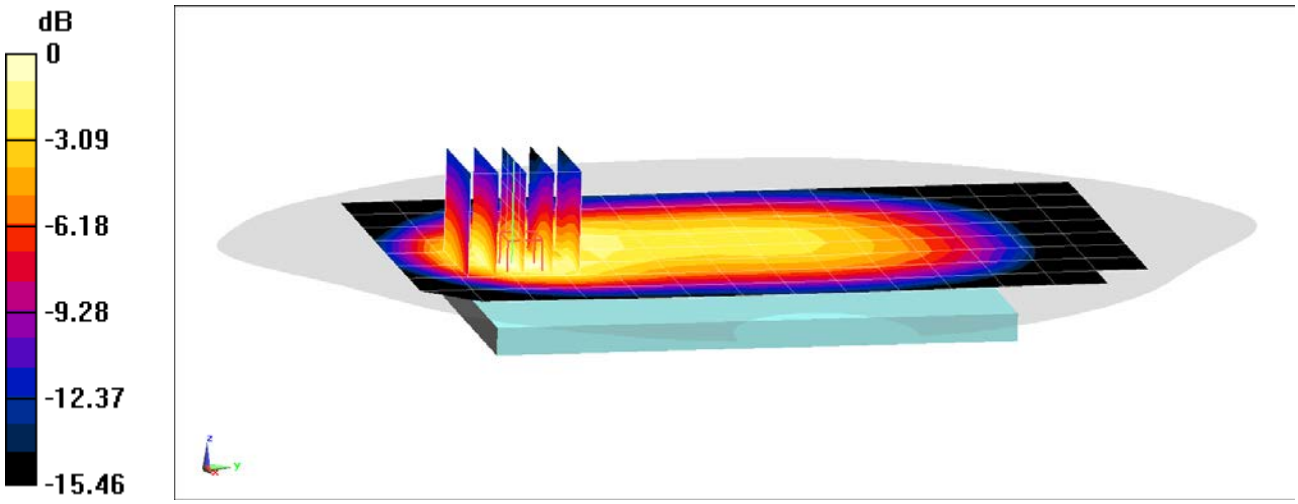
Communication System: UID 0, CDMA; Frequency: 836.52 MHz; Duty Cycle: 1:1
Medium: 835 Body; Medium parameters used (interpolated):
f = 836.52 MHz; σ = 0.958 S/m; ε_r = 55.549; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 11-04-2019; Ambient Temp: 23.1°C; Tissue Temp: 19.9°C

Probe: EX3DV4 - SN7357; ConvF(9.95, 9.95, 9.95) @ 836.52 MHz; Calibrated: 4/24/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1407; Calibrated: 4/18/2019
Phantom: Twin-SAM V4.0 (30); Type: QD 000 P40 CC; Serial: 1167
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: Cell. EVDO, BC 0, Rule Part 22H, Body SAR, Back side, Mid.ch

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 22.28 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 0.828 W/kg
SAR(1 g) = 0.452 W/kg



0 dB = 0.675 W/kg = -1.71 dBW/kg

DUT: A3LSMG981U; Type: Portable Handset; Serial: 1075M

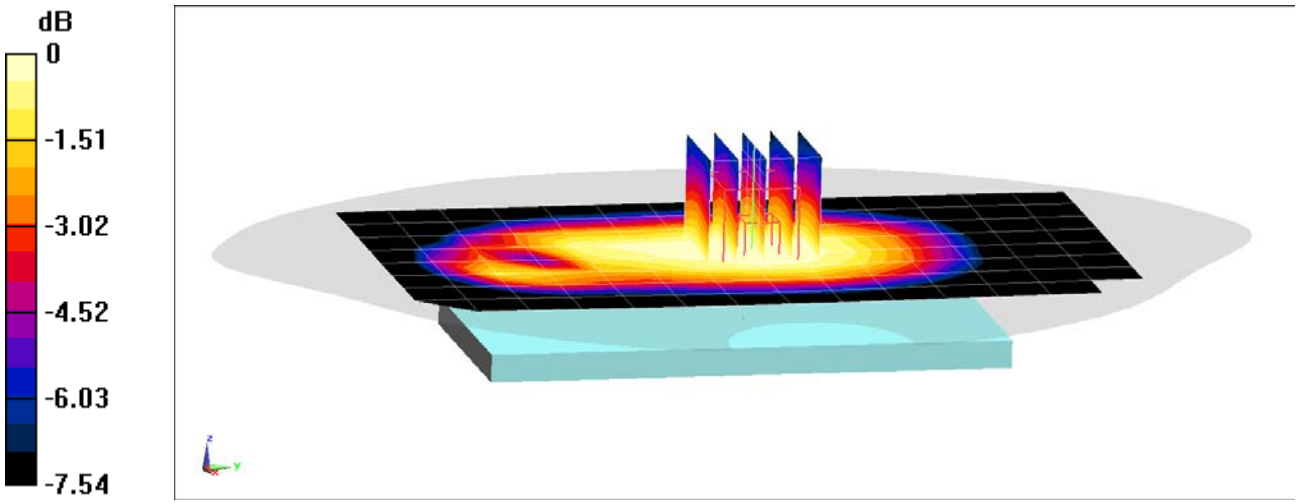
Communication System: UID 0, GSM; Frequency: 836.6 MHz; Duty Cycle: 1:8.3
Medium: 835 Body; Medium parameters used (interpolated):
f = 836.6 MHz; σ = 0.96 S/m; ε_r = 54.515; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 11-06-2019; Ambient Temp: 23.7°C; Tissue Temp: 20.1°C

Probe: EX3DV4 - SN7357; ConvF(9.95, 9.95, 9.95) @ 836.6 MHz; Calibrated: 4/24/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1407; Calibrated: 4/18/2019
Phantom: Twin-SAM V4.0 (30); Type: QD 000 P40 CC; Serial: 1167
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

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

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 14.89 V/m; Power Drift = 0.00 dB
Peak SAR (extrapolated) = 0.271 W/kg
SAR(1 g) = 0.207 W/kg



0 dB = 0.248 W/kg = -6.06 dBW/kg

DUT: A3LSMG981U; Type: Portable Handset; Serial: 1075M

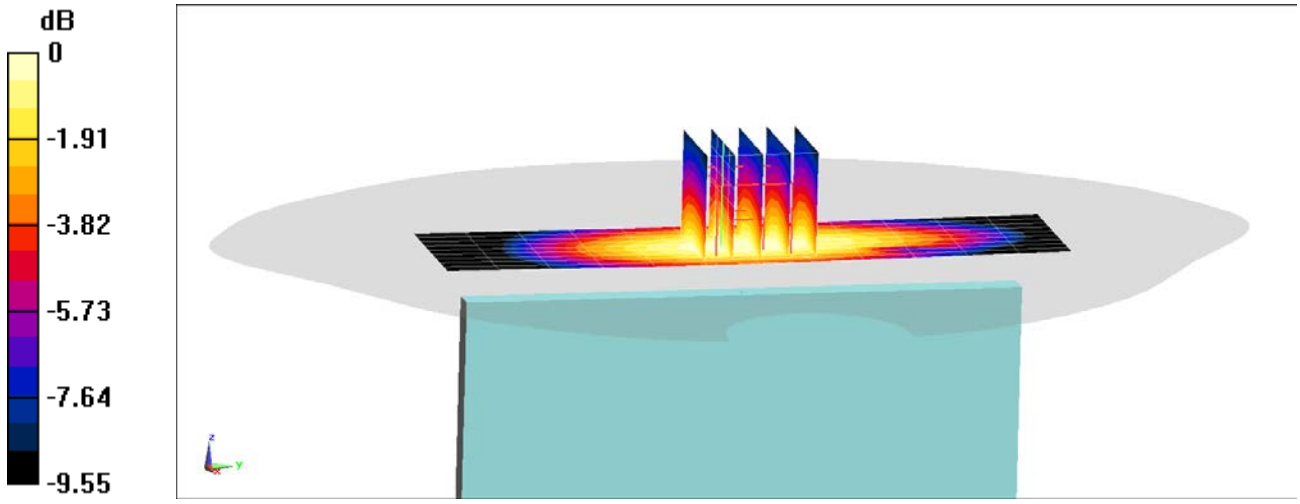
Communication System: UID 0, _GSM GPRS; 2 Tx slots; Frequency: 836.6 MHz; Duty Cycle: 1:4.15
Medium: 835 Body; Medium parameters used (interpolated):
f = 836.6 MHz; σ = 0.96 S/m; ε_r = 54.515; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 11-06-2019; Ambient Temp: 23.7°C; Tissue Temp: 20.1°C

Probe: EX3DV4 - SN7357; ConvF(9.95, 9.95, 9.95) @ 836.6 MHz; Calibrated: 4/24/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1407; Calibrated: 4/18/2019
Phantom: Twin-SAM V4.0 (30); Type: QD 000 P40 CC; Serial: 1167
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: GPRS 850, Body SAR, Right Edge, Mid.ch, 2 Tx Slots

Area Scan (10x13x1): Measurement grid: dx=5mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 19.80 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 0.538 W/kg
SAR(1 g) = 0.358 W/kg



0 dB = 0.472 W/kg = -3.26 dBW/kg

DUT: A3LSMG981U; Type: Portable Handset; Serial: 1075M

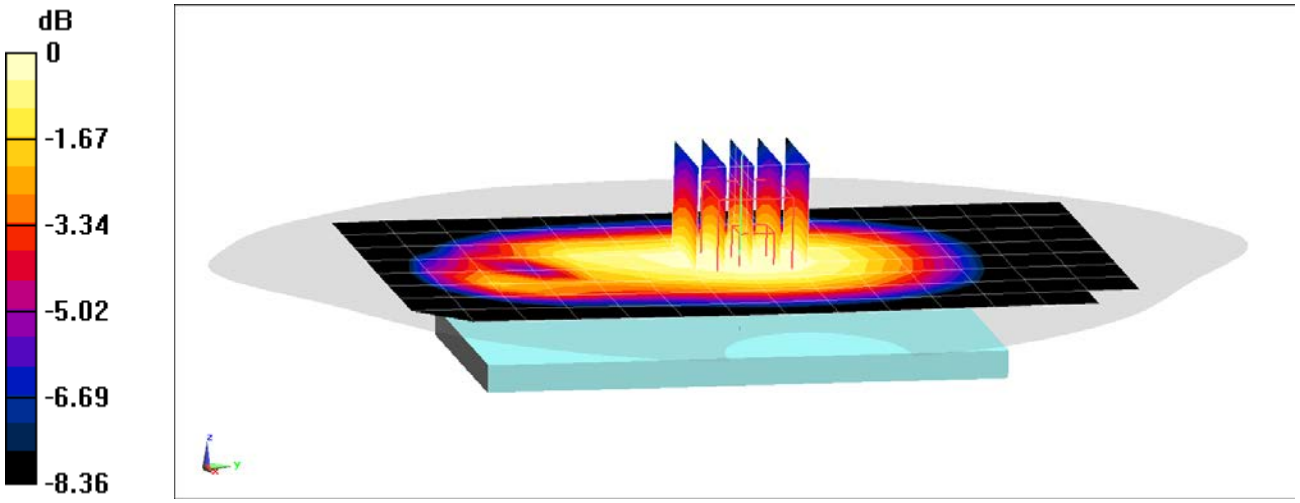
Communication System: UID 0, UMTS; Frequency: 836.6 MHz; Duty Cycle: 1:1
Medium: 835 Body; Medium parameters used (interpolated):
f = 836.6 MHz; σ = 0.958 S/m; ε_r = 55.549; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 11-04-2019; Ambient Temp: 23.1°C; Tissue Temp: 19.9°C

Probe: EX3DV4 - SN7357; ConvF(9.95, 9.95, 9.95) @ 836.6 MHz; Calibrated: 4/24/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1407; Calibrated: 4/18/2019
Phantom: Twin-SAM V4.0 (30); Type: QD 000 P40 CC; Serial: 1167
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

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

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 17.99 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 0.405 W/kg
SAR(1 g) = 0.303 W/kg



0 dB = 0.367 W/kg = -4.35 dBW/kg

DUT: A3LSMG981U; Type: Portable Handset; Serial: 1075M

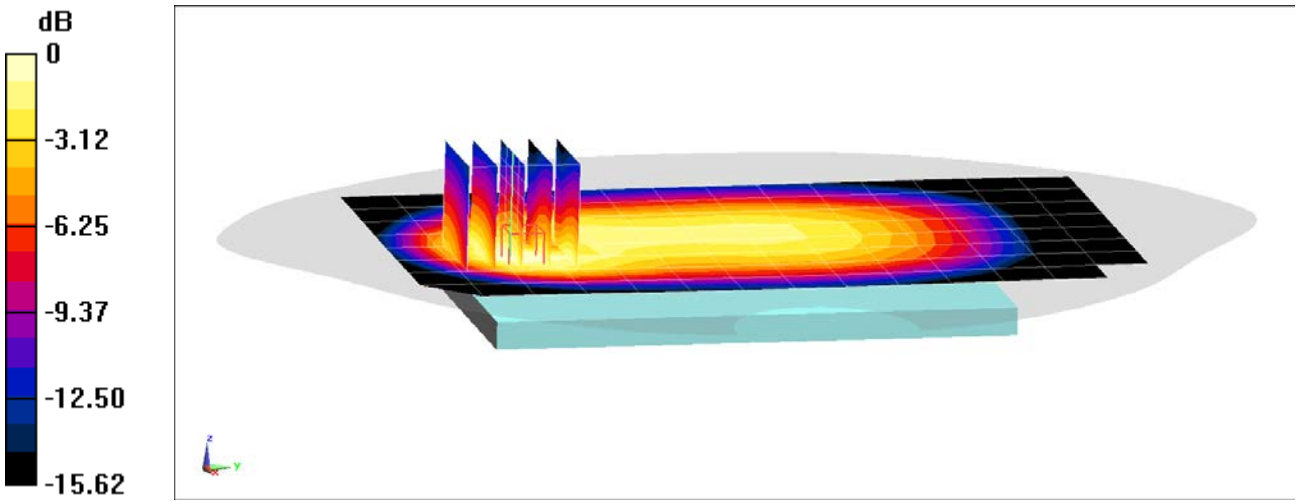
Communication System: UID 0, UMTS; Frequency: 836.6 MHz; Duty Cycle: 1:1
Medium: 835 Body; Medium parameters used (interpolated):
f = 836.6 MHz; σ = 0.958 S/m; ε_r = 55.549; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 11-04-2019; Ambient Temp: 23.1°C; Tissue Temp: 19.9°C

Probe: EX3DV4 - SN7357; ConvF(9.95, 9.95, 9.95) @ 836.6 MHz; Calibrated: 4/24/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1407; Calibrated: 4/18/2019
Phantom: Twin-SAM V4.0 (30); Type: QD 000 P40 CC; Serial: 1167
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

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

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 20.93 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 0.719 W/kg
SAR(1 g) = 0.394 W/kg



0 dB = 0.586 W/kg = -2.32 dBW/kg

DUT: A3LSMG981U; Type: Portable Handset; Serial: 1078M

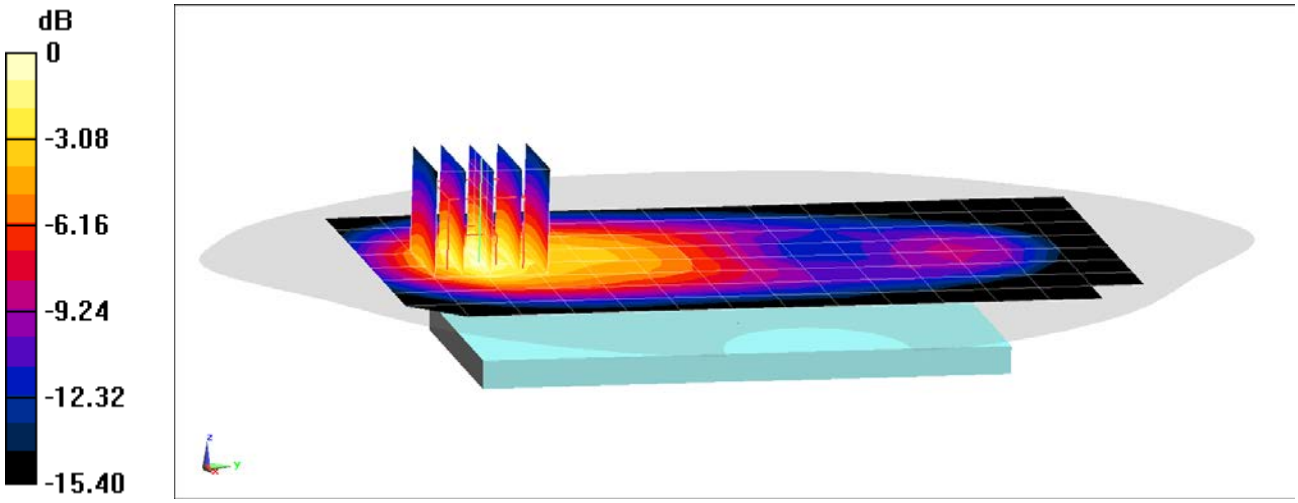
Communication System: UID 0, UMTS; Frequency: 1752.6 MHz; Duty Cycle: 1:1
Medium: 1750 Body; Medium parameters used (interpolated):
f = 1752.6 MHz; σ = 1.533 S/m; ε_r = 50.993; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 10-28-2019; Ambient Temp: 19.5°C; Tissue Temp: 19.1°C

Probe: EX3DV4 - SN7488; ConvF(8.68, 8.68, 8.68) @ 1752.6 MHz; Calibrated: 1/24/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1530; Calibrated: 1/15/2019
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1800
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: UMTS 1750, Body SAR, Back side, High.ch

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan 1 (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 25.41 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 1.47 W/kg
SAR(1 g) = 0.899 W/kg



0 dB = 1.27 W/kg = 1.04 dBW/kg

DUT: A3LSMG981U; Type: Portable Handset; Serial: 1078M

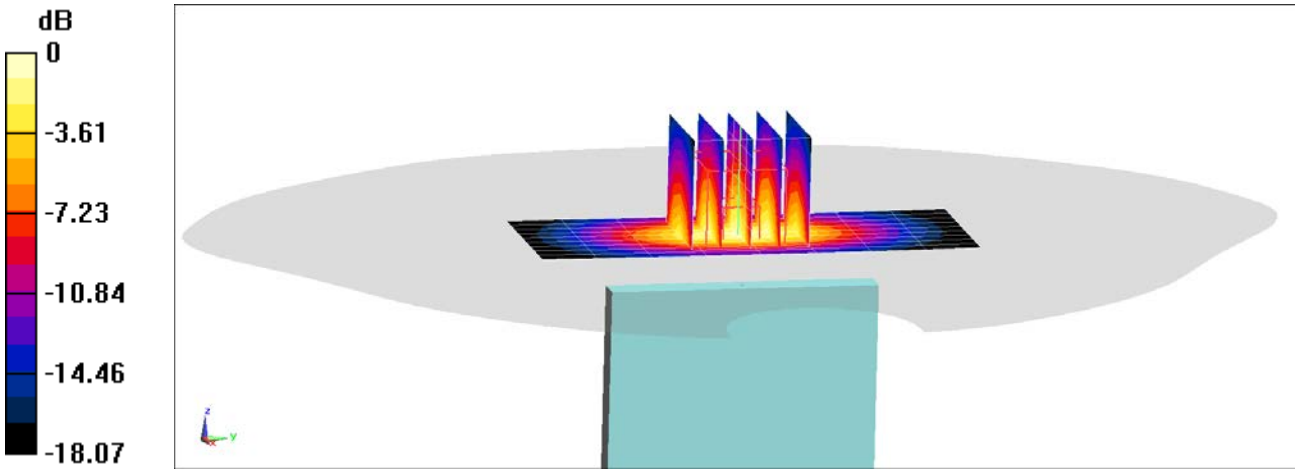
Communication System: UID 0, UMTS; Frequency: 1712.4 MHz; Duty Cycle: 1:1
Medium: 1750 Body; Medium parameters used (interpolated):
f = 1712.4 MHz; σ = 1.489 S/m; ε_r = 53.251; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 11-25-2019; Ambient Temp: 20.6°C; Tissue Temp: 20.3°C

Probe: EX3DV4 - SN7357; ConvF(8.26, 8.26, 8.26) @ 1712.4 MHz; Calibrated: 4/24/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1407; Calibrated: 4/18/2019
Phantom: Right Back Twin-SAM V5.0 (30); Type: QD 000 P40 CD; Serial: 1692
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: UMTS 1750, Body SAR, Bottom Edge, Low.ch

Area Scan (10x9x1): Measurement grid: dx=5mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 26.65 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 1.67 W/kg
SAR(1 g) = 0.945 W/kg



0 dB = 1.42 W/kg = 1.52 dBW/kg

DUT: A3LSMG981U; Type: Portable Handset; Serial: 1078M

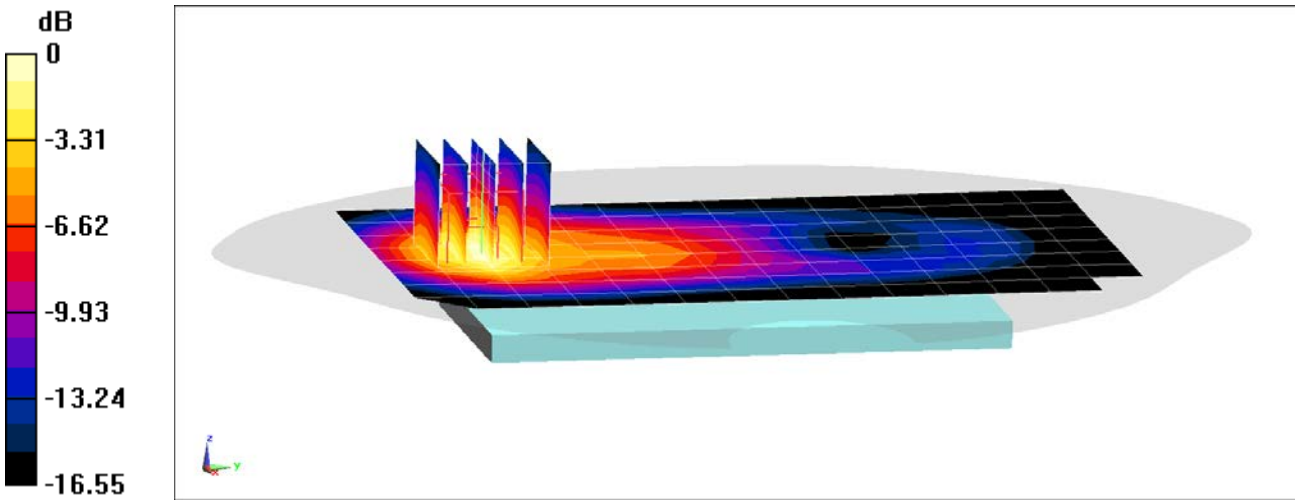
Communication System: UID 0, CDMA; Frequency: 1908.75 MHz; Duty Cycle: 1:1
Medium: 1900 Body; Medium parameters used (interpolated):
f = 1908.75 MHz; σ = 1.581 S/m; ε_r = 51.981; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 10-30-2019; Ambient Temp: 21.5°C; Tissue Temp: 22.4°C

Probe: EX3DV4 - SN7406; ConvF(7.95, 7.95, 7.95) @ 1908.75 MHz; Calibrated: 5/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn859; Calibrated: 5/8/2019
Phantom: Twin-SAM V5.0 Right 30; Type: QD 000 P40 CD; Serial: 1759
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: PCS CDMA, Body SAR, Back side, High.ch

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 23.83 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 1.39 W/kg
SAR(1 g) = 0.821 W/kg



0 dB = 1.19 W/kg = 0.76 dBW/kg

DUT: A3LSMG981U; Type: Portable Handset; Serial: 1075M

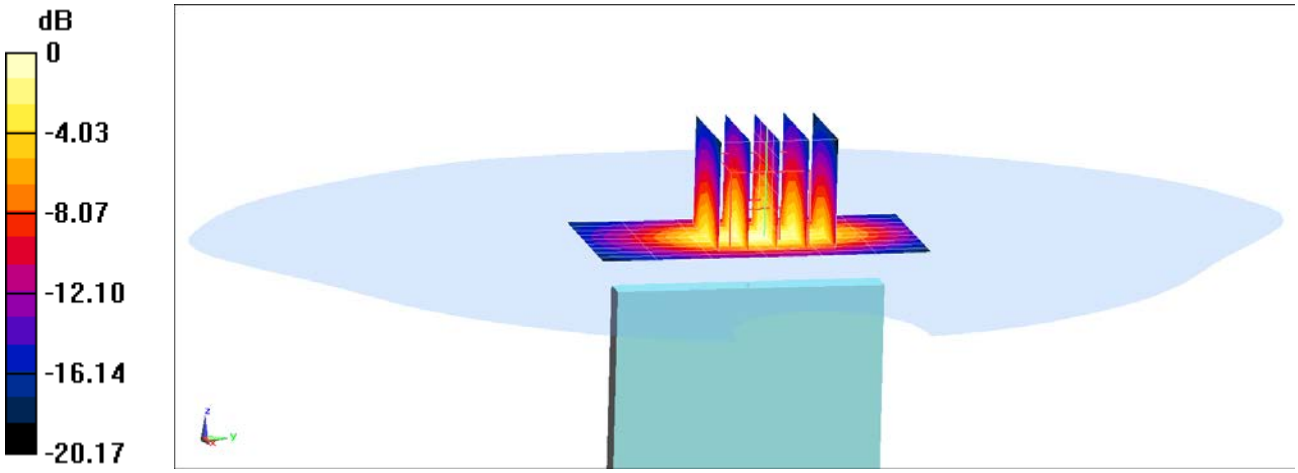
Communication System: UID 0, CDMA; Frequency: 1908.75 MHz; Duty Cycle: 1:1
Medium: 1900 Body; Medium parameters used (interpolated):
f = 1908.75 MHz; σ = 1.577 S/m; ε_r = 51.37; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 11-26-2019; Ambient Temp: 20.9°C; Tissue Temp: 22.8°C

Probe: EX3DV4 - SN7488; ConvF(8.37, 8.37, 8.37) @ 1908.75 MHz; Calibrated: 1/24/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1530; Calibrated: 1/15/2019
Phantom: SAM Left; Type: QD000P40CC; Serial: TP: 1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: PCS EVDO, Body SAR, Bottom Edge, High.ch

Area Scan (10x7x1): Measurement grid: dx=5mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 25.78 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 1.71 W/kg
SAR(1 g) = 0.923 W/kg



0 dB = 1.43 W/kg = 1.55 dBW/kg

DUT: A3LSMG981U; Type: Portable Handset; Serial: 1078M

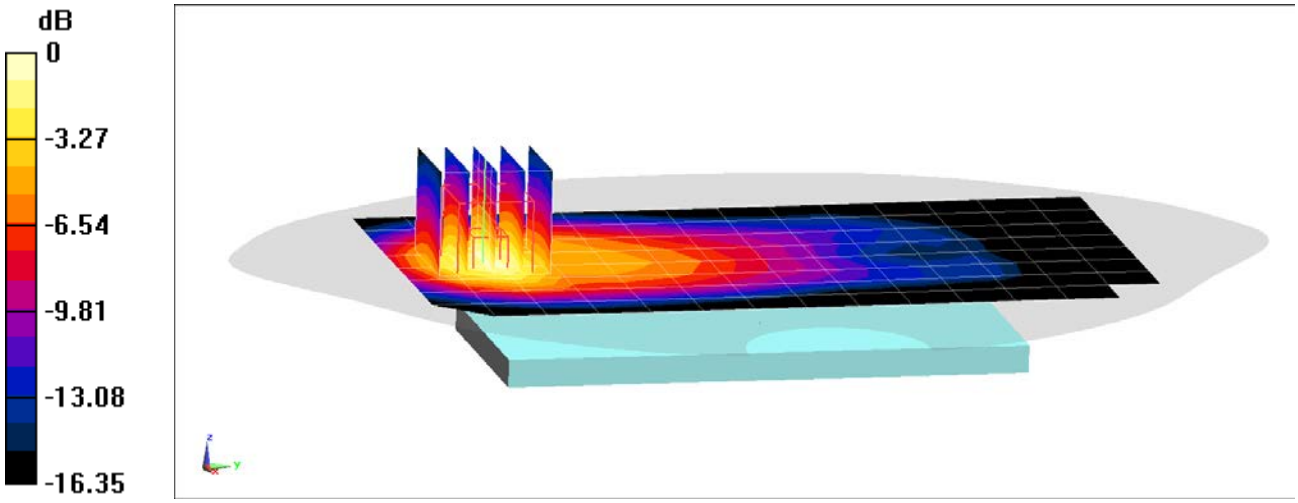
Communication System: UID 0, GSM; Frequency: 1850.2 MHz; Duty Cycle: 1:8.3
Medium: 1900 Body; Medium parameters used (interpolated):
f = 1850.2 MHz; σ = 1.514 S/m; ε_r = 52.2; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 10-30-2019; Ambient Temp: 21.5°C; Tissue Temp: 22.4°C

Probe: EX3DV4 - SN7406; ConvF(7.95, 7.95, 7.95) @ 1850.2 MHz; Calibrated: 5/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn859; Calibrated: 5/8/2019
Phantom: Twin-SAM V5.0 Right 30; Type: QD 000 P40 CD; Serial: 1759
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: GSM 1900, Body SAR, Back side, Low.ch

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 12.78 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 0.386 W/kg
SAR(1 g) = 0.231 W/kg



0 dB = 0.332 W/kg = -4.79 dBW/kg

DUT: A3LSMG981U; Type: Portable Handset; Serial: 1078M

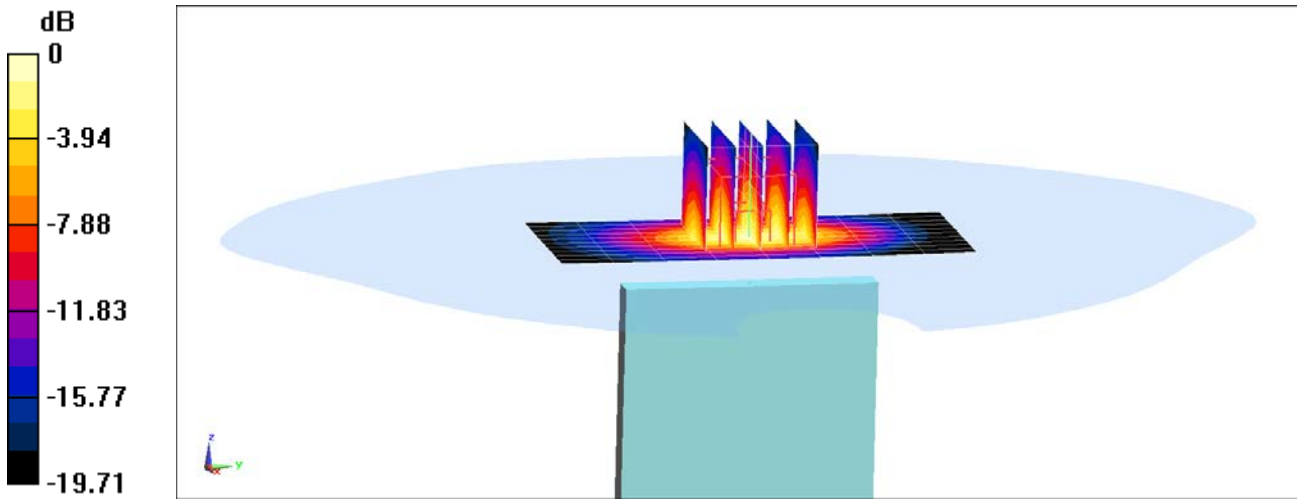
Communication System: UID 0, GSM GPRS; 4 Tx slots; Frequency: 1909.8 MHz; Duty Cycle: 1:2.076
Medium: 1900 Body; Medium parameters used:
f = 1910 MHz; σ = 1.593 S/m; ε_r = 51.763; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-09-2019; Ambient Temp: 20.2°C; Tissue Temp: 22.0°C

Probe: EX3DV4 - SN7488; ConvF(8.37, 8.37, 8.37) @ 1909.8 MHz; Calibrated: 1/24/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1530; Calibrated: 1/15/2019
Phantom: SAM Left; Type: QD000P40CC; Serial: TP: 1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: GPRS 1900, Body SAR, Bottom Edge, High.ch, 4 Tx Slots

Area Scan (10x7x1): Measurement grid: dx=5mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 24.97 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 1.65 W/kg
SAR(1 g) = 0.907 W/kg



0 dB = 1.80 W/kg = 2.55 dBW/kg

DUT: A3LSMG981U; Type: Portable Handset; Serial: 1078M

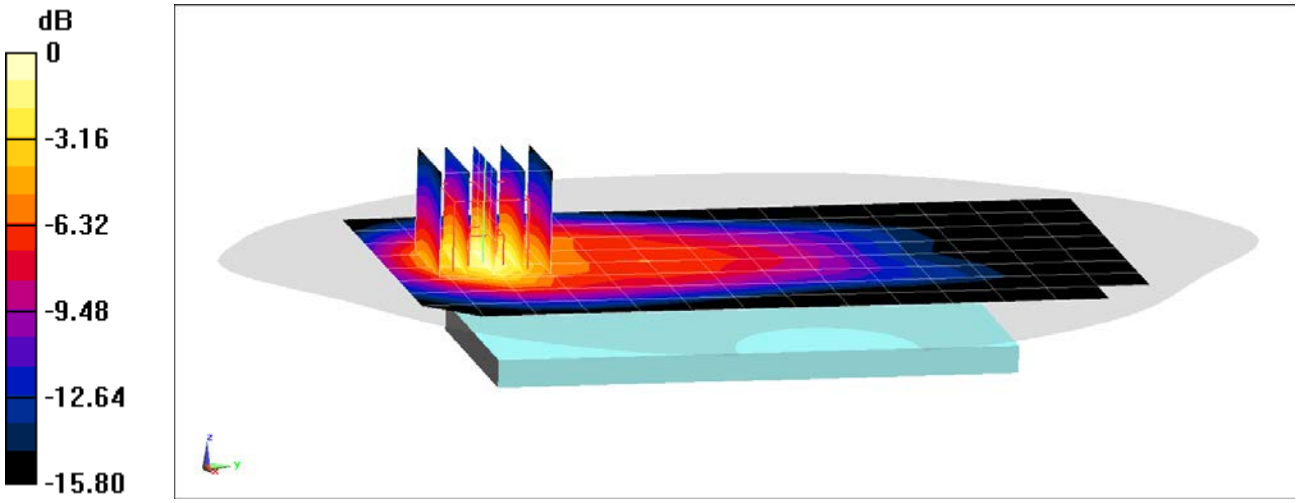
Communication System: UID 0, UMTS; Frequency: 1852.4 MHz; Duty Cycle: 1:1
Medium: 1900 Body; Medium parameters used (interpolated):
f = 1852.4 MHz; σ = 1.514 S/m; ε_r = 51.919; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 11-11-2019; Ambient Temp: 21.5°C; Tissue Temp: 22.3°C

Probe: EX3DV4 - SN7488; ConvF(8.37, 8.37, 8.37) @ 1852.4 MHz; Calibrated: 1/24/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1530; Calibrated: 1/15/2019
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1800
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: UMTS 1900, Body SAR, Back side, Low.ch

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 23.66 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 1.29 W/kg
SAR(1 g) = 0.766 W/kg



0 dB = 1.11 W/kg = 0.45 dBW/kg

DUT: A3LSMG981U; Type: Portable Handset; Serial: 1075M

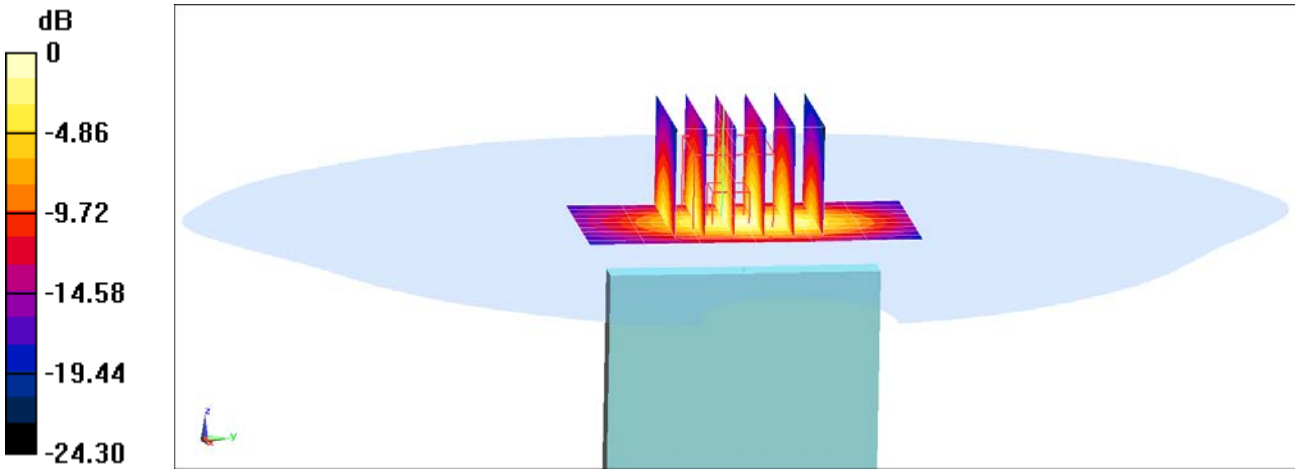
Communication System: UID 0, UMTS; Frequency: 1907.6 MHz; Duty Cycle: 1:1
Medium: 1900 Body; Medium parameters used (interpolated):
f = 1907.6 MHz; σ = 1.583 S/m; ε_r = 50.838; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-02-2019; Ambient Temp: 20.7°C; Tissue Temp: 21.7°C

Probe: EX3DV4 - SN7488; ConvF(8.37, 8.37, 8.37) @ 1907.6 MHz; Calibrated: 1/24/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1530; Calibrated: 1/15/2019
Phantom: SAM Left; Type: QD000P40CC; Serial: TP: 1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: UMTS 1900, Body SAR, Bottom Edge, High.ch

Area Scan (10x7x1): Measurement grid: dx=5mm, dy=15mm
Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 24.90 V/m; Power Drift = 0.19 dB
Peak SAR (extrapolated) = 2.25 W/kg
SAR(1 g) = 1.19 W/kg



0 dB = 1.73 W/kg = 2.38 dBW/kg

DUT: A3LSMG981U; Type: Portable Handset; Serial: 0433M

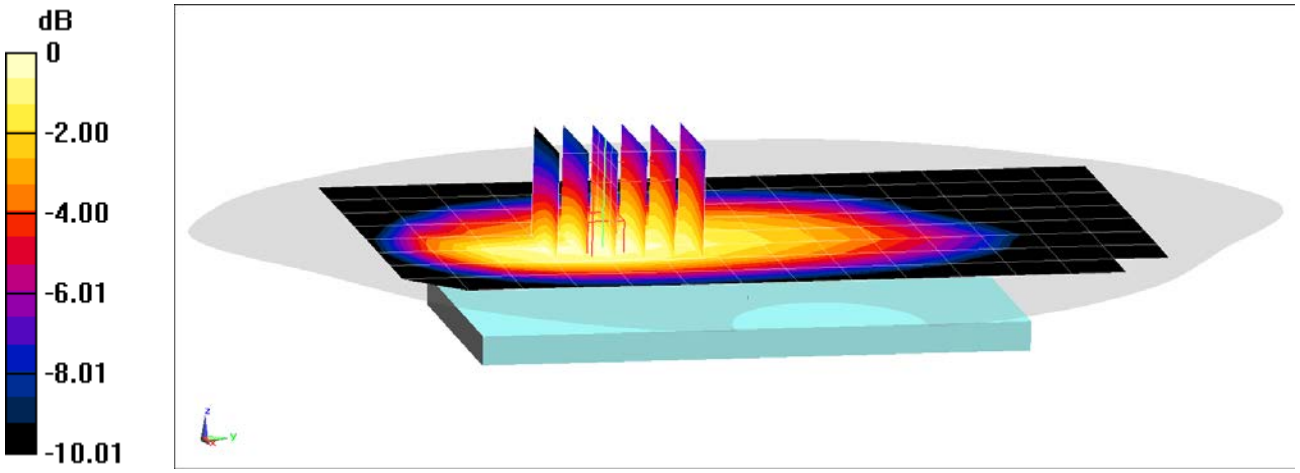
Communication System: UID 0, LTE Band 71; Frequency: 680.5 MHz; Duty Cycle: 1:1
Medium: 750 Body; Medium parameters used (interpolated):
f = 680.5 MHz; σ = 0.912 S/m; ε_r = 57.543; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 10-28-2019; Ambient Temp: 21.3°C; Tissue Temp: 21.3°C

Probe: EX3DV4 - SN7410; ConvF(10.01, 10.01, 10.01) @ 680.5 MHz; Calibrated: 7/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2019
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1630
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: LTE Band 71, Body SAR, Back side, Mid.ch,
20 MHz Bandwidth, QPSK, 1 RB, 0 RB Offset

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 15.12 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 0.273 W/kg
SAR(1 g) = 0.197 W/kg



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

DUT: A3LSMG981U; Type: Portable Handset; Serial: 0433M

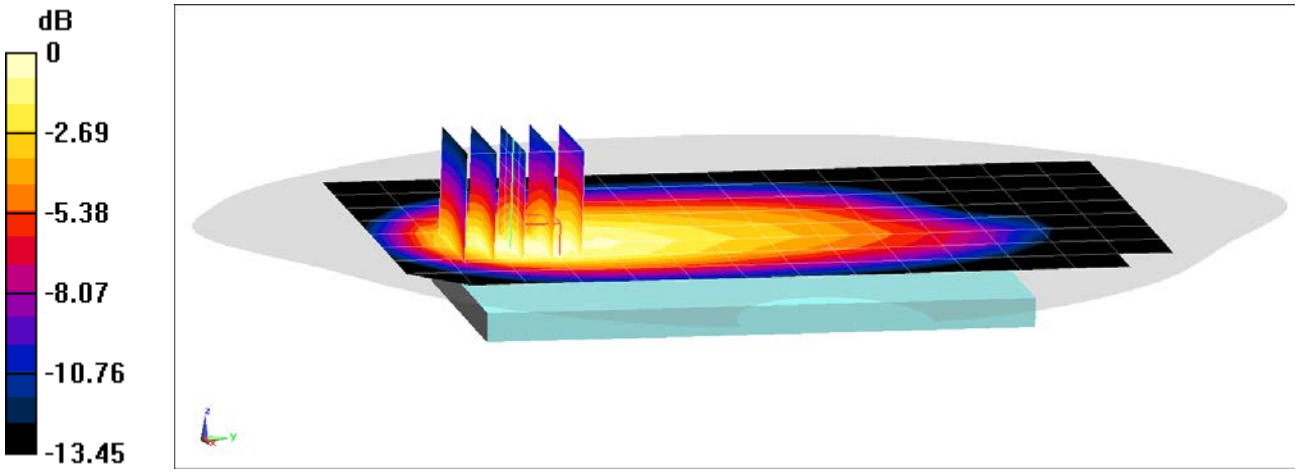
Communication System: UID 0, LTE Band 71; Frequency: 680.5 MHz; Duty Cycle: 1:1
Medium: 750 Body; Medium parameters used (interpolated):
f = 680.5 MHz; σ = 0.912 S/m; ε_r = 57.543; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 10-28-2019; Ambient Temp: 21.3°C; Tissue Temp: 21.3°C

Probe: EX3DV4 - SN7410; ConvF(10.01, 10.01, 10.01) @ 680.5 MHz; Calibrated: 7/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2019
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1630
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: LTE Band 71, Body SAR, Back side, Mid.ch,
20 MHz Bandwidth, QPSK, 1 RB, 0 RB Offset

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 17.26 V/m; Power Drift = -0.16 dB
Peak SAR (extrapolated) = 0.438 W/kg
SAR(1 g) = 0.262 W/kg



0 dB = 0.362 W/kg = -4.41 dBW/kg

DUT: A3LSMG981U; Type: Portable Handset; Serial: 0433M

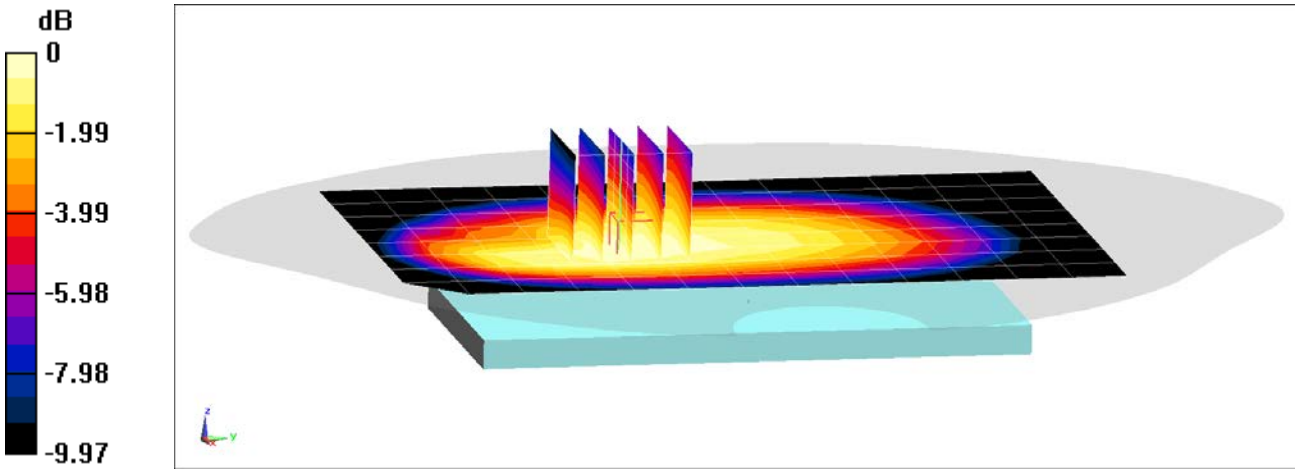
Communication System: UID 0, LTE Band 12; Frequency: 707.5 MHz; Duty Cycle: 1:1
Medium: 750 Body; Medium parameters used (interpolated):
f = 707.5 MHz; σ = 0.935 S/m; ε_r = 57.316; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 10-28-2019; Ambient Temp: 21.3°C; Tissue Temp: 21.3°C

Probe: EX3DV4 - SN7410; ConvF(10.01, 10.01, 10.01) @ 707.5 MHz; Calibrated: 7/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2019
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1630
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: LTE Band 12, Body SAR, Back side, Mid.ch,
10 MHz Bandwidth, QPSK, 1 RB, 49 RB Offset

Area Scan (9x14x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 16.58 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 0.331 W/kg
SAR(1 g) = 0.245 W/kg



0 dB = 0.298 W/kg = -5.26 dBW/kg

DUT: A3LSMG981U; Type: Portable Handset; Serial: 0433M

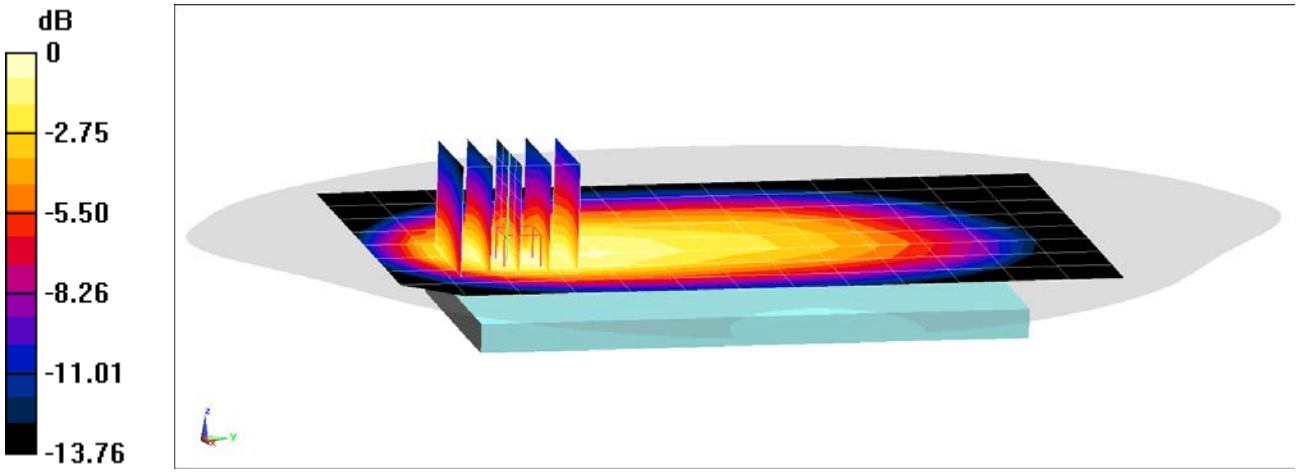
Communication System: UID 0, LTE Band 12; Frequency: 707.5 MHz; Duty Cycle: 1:1
Medium: 750 Body; Medium parameters used (interpolated):
f = 707.5 MHz; σ = 0.935 S/m; ε_r = 57.316; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 10-28-2019; Ambient Temp: 21.3°C; Tissue Temp: 21.3°C

Probe: EX3DV4 - SN7410; ConvF(10.01, 10.01, 10.01) @ 707.5 MHz; Calibrated: 7/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2019
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1630
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: LTE Band 12, Body SAR, Back side, Mid.ch,
10 MHz Bandwidth, QPSK, 1 RB, 49 RB Offset

Area Scan (9x14x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 19.63 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 0.579 W/kg
SAR(1 g) = 0.333 W/kg



0 dB = 0.492 W/kg = -3.08 dBW/kg

DUT: A3LSMG981U; Type: Portable Handset; Serial: 0433M

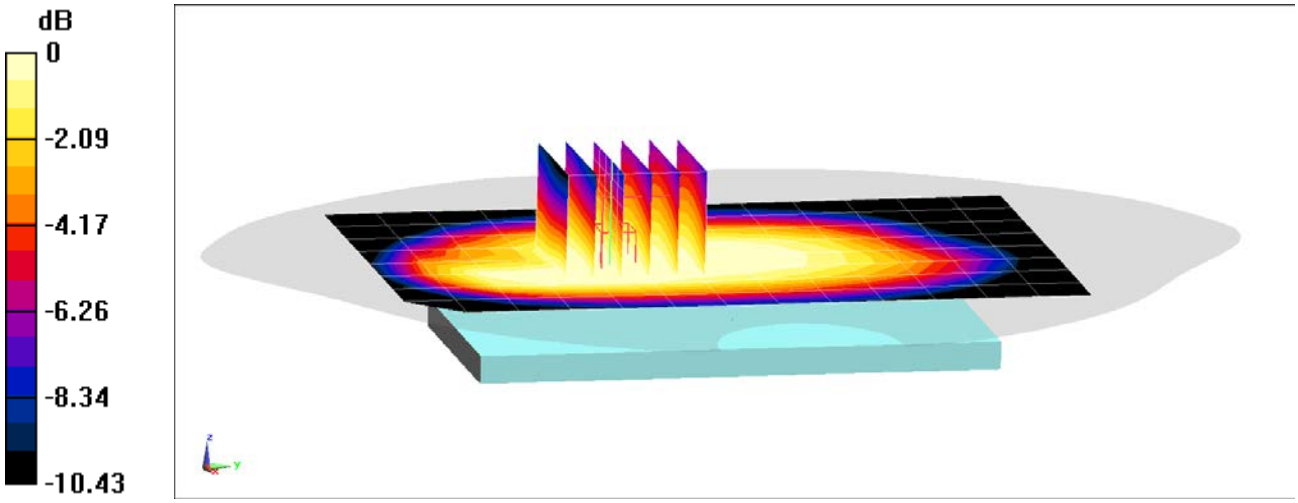
Communication System: UID 0, LTE Band 13; Frequency: 782 MHz; Duty Cycle: 1:1
Medium: 750 Body; Medium parameters used (interpolated):
f = 782 MHz; σ = 1.004 S/m; ε_r = 56.649; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 10-28-2019; Ambient Temp: 21.3°C; Tissue Temp: 21.3°C

Probe: EX3DV4 - SN7410; ConvF(10.01, 10.01, 10.01) @ 782 MHz; Calibrated: 7/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2019
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1630
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

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

Area Scan (9x14x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 15.58 V/m; Power Drift = -0.12 dB
Peak SAR (extrapolated) = 0.277 W/kg
SAR(1 g) = 0.212 W/kg



0 dB = 0.252 W/kg = -5.99 dBW/kg

DUT: A3LSMG981U; Type: Portable Handset; Serial: 0433M

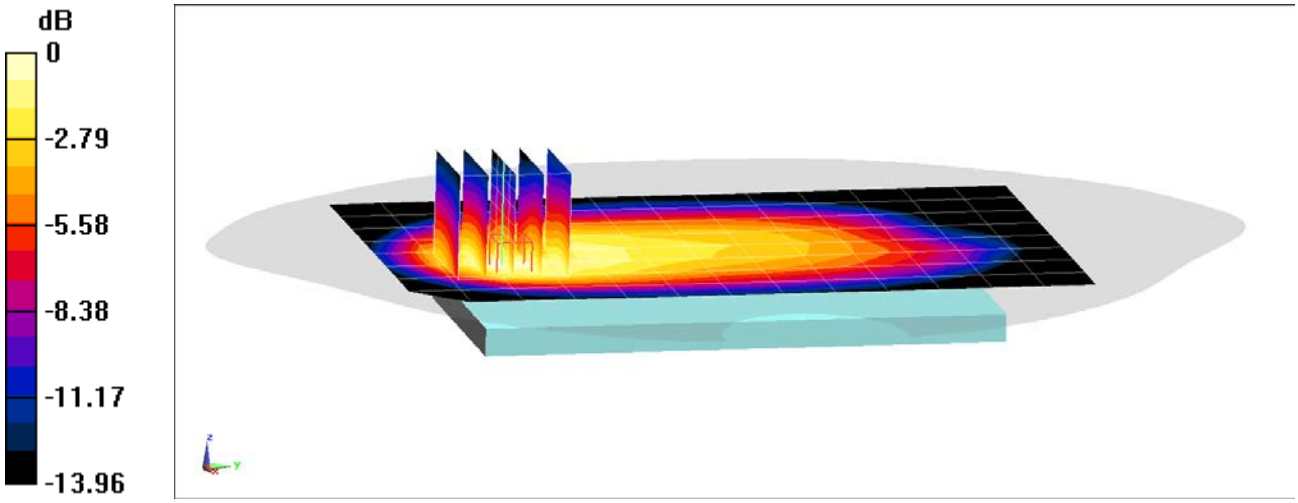
Communication System: UID 0, LTE Band 13; Frequency: 782 MHz; Duty Cycle: 1:1
Medium: 750 Body; Medium parameters used (interpolated):
f = 782 MHz; σ = 1.004 S/m; ε_r = 56.649; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 10-28-2019; Ambient Temp: 21.3°C; Tissue Temp: 21.3°C

Probe: EX3DV4 - SN7410; ConvF(10.01, 10.01, 10.01) @ 782 MHz; Calibrated: 7/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2019
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1630
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

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

Area Scan (9x14x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 19.25 V/m; Power Drift = -0.13 dB
Peak SAR (extrapolated) = 0.605 W/kg
SAR(1 g) = 0.349 W/kg



0 dB = 0.505 W/kg = -2.97 dBW/kg

DUT: A3LSMG981U; Type: Portable Handset; Serial: 0433M

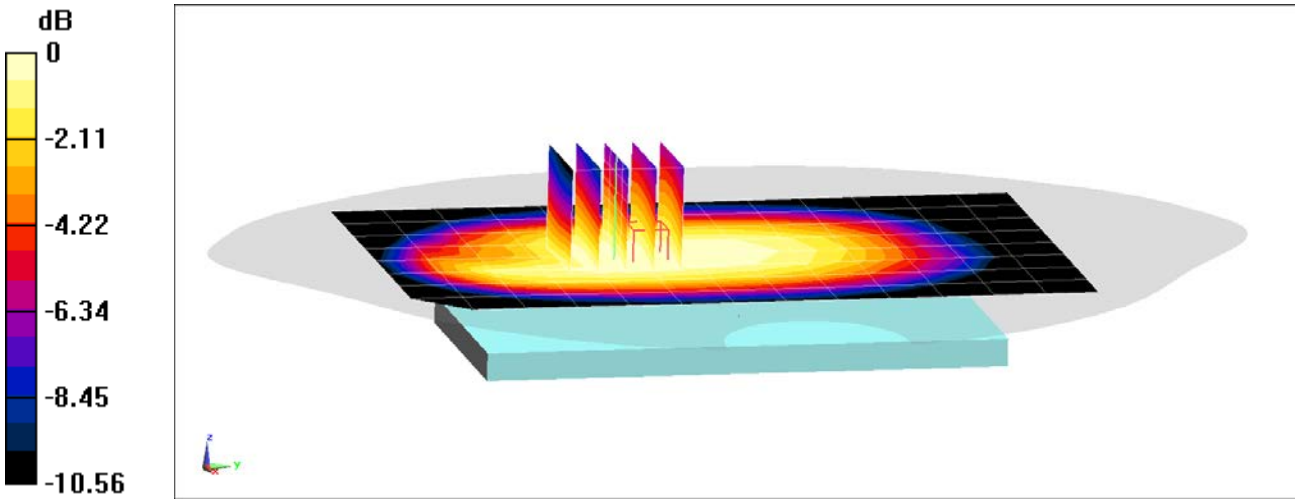
Communication System: UID 0, LTE Band 14; Frequency: 793 MHz; Duty Cycle: 1:1
Medium: 750 Body; Medium parameters used (interpolated):
f = 793 MHz; σ = 1.007 S/m; ε_r = 55.966; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 10-29-2019; Ambient Temp: 23.0°C; Tissue Temp: 21.1°C

Probe: EX3DV4 - SN7410; ConvF(10.01, 10.01, 10.01) @ 793 MHz; Calibrated: 7/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2019
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1630
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

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

Area Scan (9x14x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 16.97 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 0.360 W/kg
SAR(1 g) = 0.280 W/kg



0 dB = 0.332 W/kg = -4.79 dBW/kg

DUT: A3LSMG981U; Type: Portable Handset; Serial: 0433M

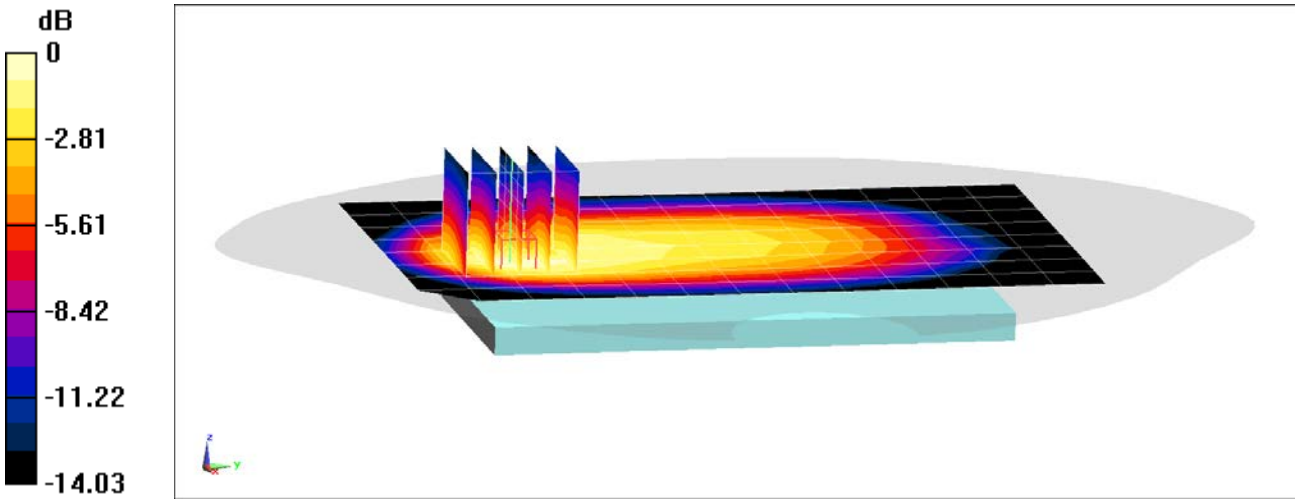
Communication System: UID 0, LTE Band 14; Frequency: 793 MHz; Duty Cycle: 1:1
Medium: 750 Body; Medium parameters used (interpolated):
f = 793 MHz; σ = 1.007 S/m; ε_r = 55.966; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 10-29-2019; Ambient Temp: 23.0°C; Tissue Temp: 21.1°C

Probe: EX3DV4 - SN7410; ConvF(10.01, 10.01, 10.01) @ 793 MHz; Calibrated: 7/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2019
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1630
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

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

Area Scan (9x14x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 20.48 V/m; Power Drift = -0.12 dB
Peak SAR (extrapolated) = 0.673 W/kg
SAR(1 g) = 0.392 W/kg



0 dB = 0.568 W/kg = -2.46 dBW/kg

DUT: A3LSMG981U; Type: Portable Handset; Serial: 0433M

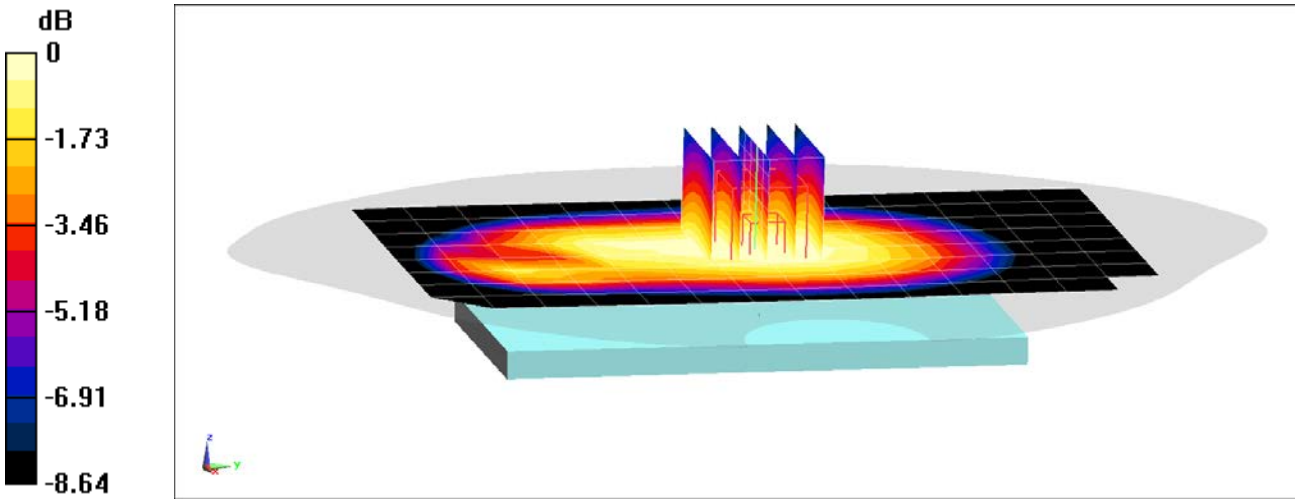
Communication System: UID 0, LTE Band 26; Frequency: 831.5 MHz; Duty Cycle: 1:1
Medium: 835 Body; Medium parameters used (interpolated):
f = 831.5 MHz; σ = 0.953 S/m; ε_r = 55.604; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 11-04-2019; Ambient Temp: 23.1°C; Tissue Temp: 19.9°C

Probe: EX3DV4 - SN7357; ConvF(9.95, 9.95, 9.95) @ 831.5 MHz; Calibrated: 4/24/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1407; Calibrated: 4/18/2019
Phantom: Twin-SAM V4.0 (30); Type: QD 000 P40 CC; Serial: 1167
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: LTE Band 26 (Cell.), Body SAR, Back side, Mid.ch,
15 MHz Bandwidth, QPSK, 1 RB, 0 RB Offset

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (6x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 15.08 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 0.286 W/kg
SAR(1 g) = 0.214 W/kg



0 dB = 0.260 W/kg = -5.85 dBW/kg

DUT: A3LSMG981U; Type: Portable Handset; Serial: 0433M

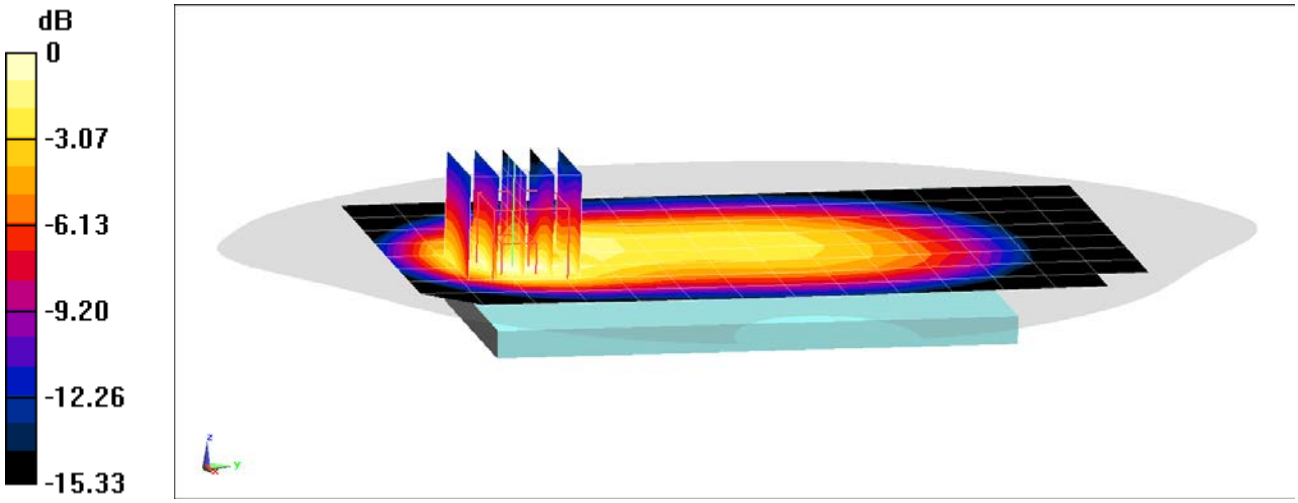
Communication System: UID 0, LTE Band 26; Frequency: 831.5 MHz; Duty Cycle: 1:1
Medium: 835 Body; Medium parameters used (interpolated):
f = 831.5 MHz; σ = 0.953 S/m; ε_r = 55.604; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 11-04-2019; Ambient Temp: 23.1°C; Tissue Temp: 19.9°C

Probe: EX3DV4 - SN7357; ConvF(9.95, 9.95, 9.95) @ 831.5 MHz; Calibrated: 4/24/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1407; Calibrated: 4/18/2019
Phantom: Twin-SAM V4.0 (30); Type: QD 000 P40 CC; Serial: 1167
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: LTE Band 26 (Cell.), Body SAR, Back side, Mid.ch,
15 MHz Bandwidth, QPSK, 1 RB, 0 RB Offset

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 19.27 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 0.622 W/kg
SAR(1 g) = 0.342 W/kg



0 dB = 0.498 W/kg = -3.03 dBW/kg

DUT: A3LSMG981U; Type: Portable Handset; Serial: 1010M

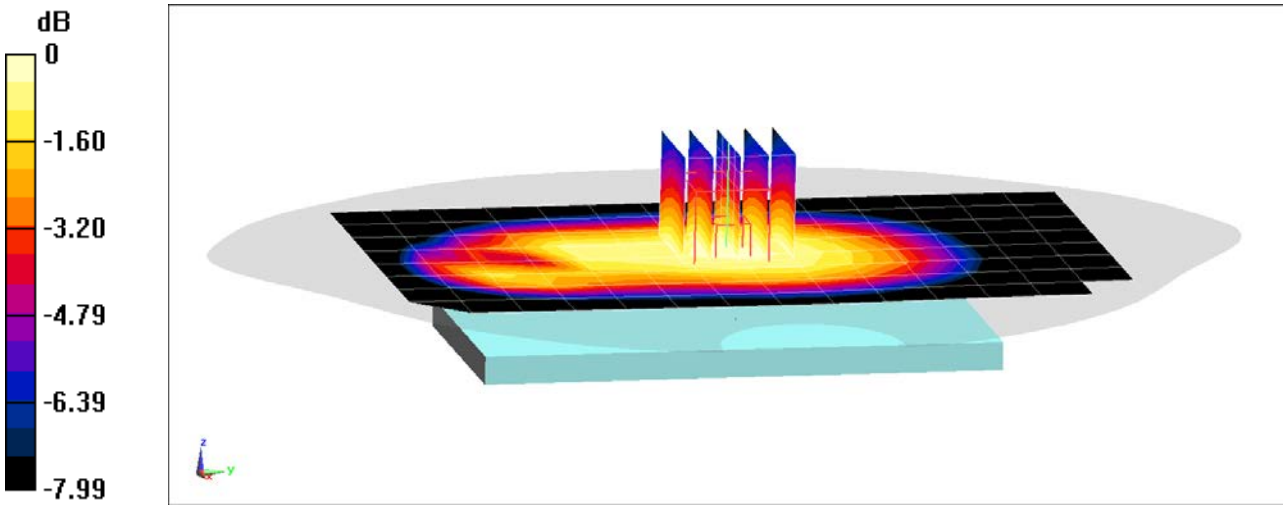
Communication System: UID 0, LTE Band 5; Frequency: 836.5 MHz; Duty Cycle: 1:1
Medium: 835 Body; Medium parameters used (interpolated):
f = 836.5 MHz; σ = 0.958 S/m; ε_r = 54.678; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 11-13-2019; Ambient Temp: 22.0°C; Tissue Temp: 20.3°C

Probe: EX3DV4 - SN7357; ConvF(9.95, 9.95, 9.95) @ 836.5 MHz; Calibrated: 4/24/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1407; Calibrated: 4/18/2019
Phantom: Twin-SAM V4.0 (30); Type: QD 000 P40 CC; Serial: 1167
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: LTE Band 5 (Cell.) ULCA, Body SAR, Back side,
PCC: 10 MHz Bandwidth, QPSK, Ch. 20525, 1 RB, 0 RB Offset
SCC: 5 MHz Bandwidth, QPSK, Ch. 20453, 1 RB, 24 RB Offset

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 14.88 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 0.276 W/kg
SAR(1 g) = 0.207 W/kg



0 dB = 0.251 W/kg = -6.00 dBW/kg

DUT: A3LSMG981U; Type: Portable Handset; Serial: 1010M

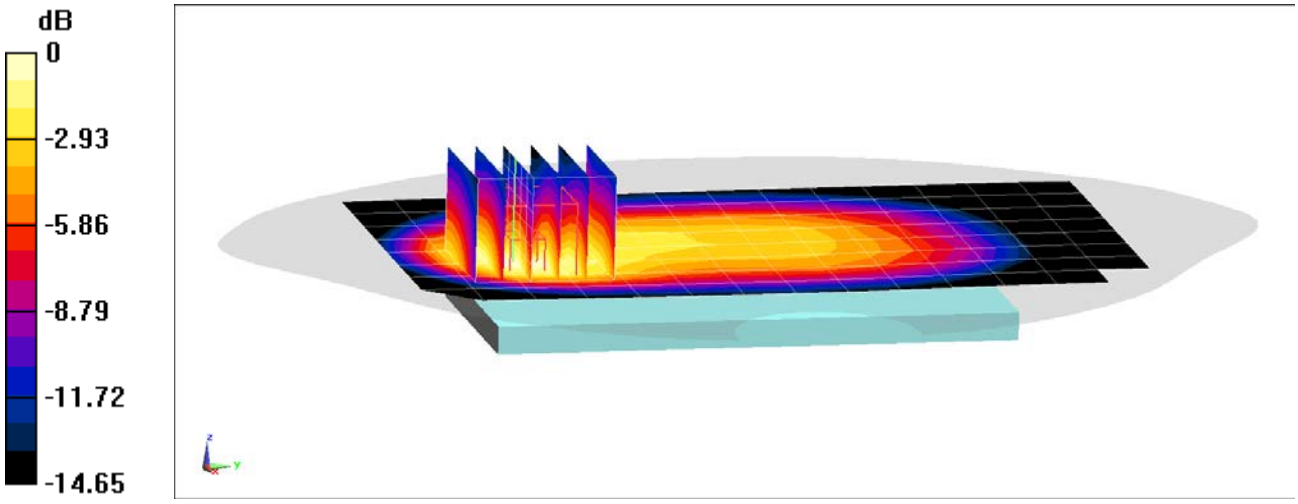
Communication System: UID 0, LTE Band 5; Frequency: 836.5 MHz; Duty Cycle: 1:1
Medium: 835 Body; Medium parameters used (interpolated):
f = 836.5 MHz; σ = 0.958 S/m; ε_r = 54.678; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 11-13-2019; Ambient Temp: 22.0°C; Tissue Temp: 20.3°C

Probe: EX3DV4 - SN7357; ConvF(9.95, 9.95, 9.95) @ 836.5 MHz; Calibrated: 4/24/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1407; Calibrated: 4/18/2019
Phantom: Twin-SAM V4.0 (30); Type: QD 000 P40 CC; Serial: 1167
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: LTE Band 5 (Cell.) ULCA, Body SAR, Back side,
PCC: 10 MHz Bandwidth, QPSK, Ch. 20525, 1 RB, 0 RB Offset
SCC: 5 MHz Bandwidth, QPSK, Ch. 20453, 1 RB, 24 RB Offset

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 19.42 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 0.678 W/kg
SAR(1 g) = 0.373 W/kg



0 dB = 0.537 W/kg = -2.70 dBW/kg

DUT: A3LSMG981U; Type: Portable Handset; Serial: 1010M

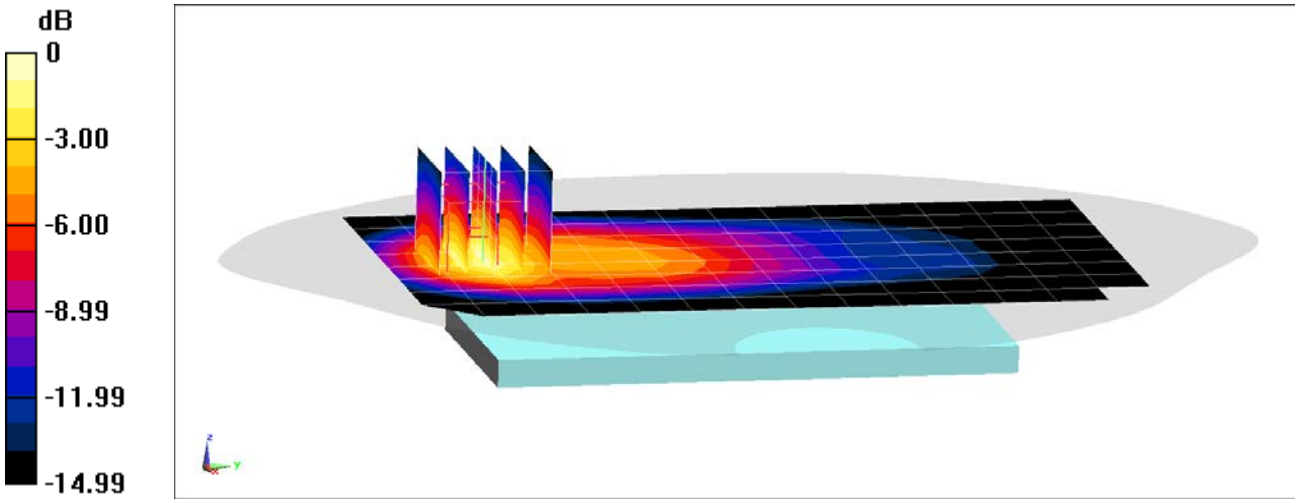
Communication System: UID 0, LTE Band 66 (AWS); Frequency: 1770 MHz; Duty Cycle: 1:1
Medium: 1750 Body; Medium parameters used:
f = 1770 MHz; σ = 1.526 S/m; ε_r = 51.329; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 11-11-2019; Ambient Temp: 21.8°C; Tissue Temp: 21.0°C

Probe: EX3DV4 - SN7409; ConvF(7.85, 7.85, 7.85) @ 1770 MHz; Calibrated: 6/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1334; Calibrated: 6/20/2019
Phantom: Front; Type: QD 000 P40 CD; Serial: 1686
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: LTE Band 66 (AWS) ULCA, Body SAR, Back side,
PCC: 20 MHz Bandwidth, QPSK, Ch. 132572, 1 RB, 0 RB Offset
SCC: 20 MHz Bandwidth, QPSK, Ch. 132374, 1 RB, 99 RB Offset

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 22.33 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 1.34 W/kg
SAR(1 g) = 0.796 W/kg



0 dB = 1.13 W/kg = 0.53 dBW/kg

DUT: A3LSMG981U; Type: Portable Handset; Serial: 1010M

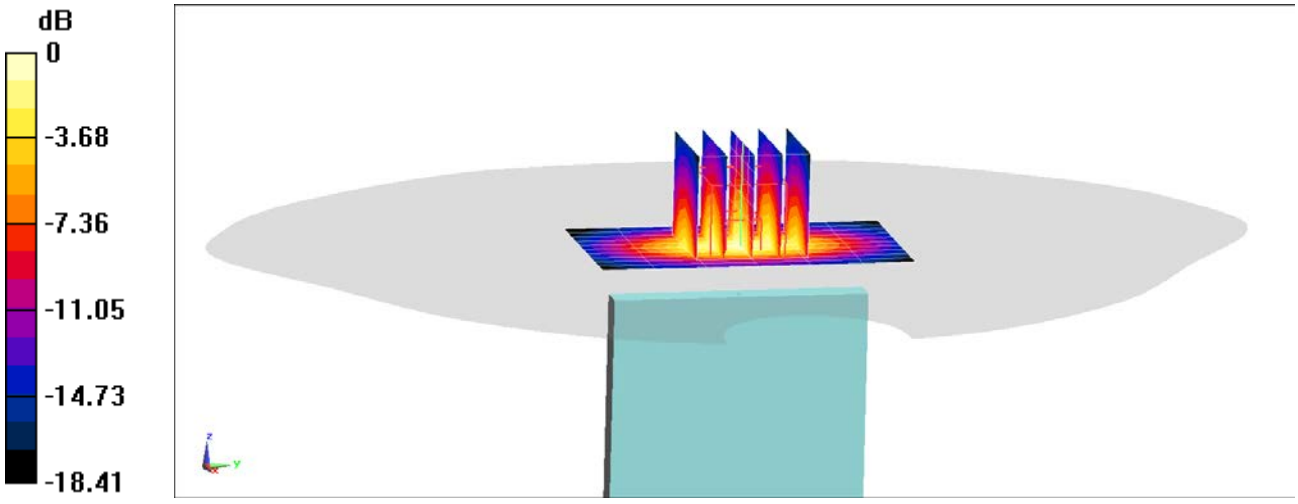
Communication System: UID 0, LTE Band 66 (AWS); Frequency: 1770 MHz; Duty Cycle: 1:1
Medium: 1750 Body; Medium parameters used:
f = 1770 MHz; σ = 1.555 S/m; ε_r = 52.646; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-03-2019; Ambient Temp: 21.2°C; Tissue Temp: 20.2°C

Probe: EX3DV4 - SN7357; ConvF(8.26, 8.26, 8.26) @ 1770 MHz; Calibrated: 4/24/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1407; Calibrated: 4/18/2019
Phantom: Right Back Twin-SAM V5.0 (30); Type: QD 000 P40 CD; Serial: 1692
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: LTE Band 66 (AWS) ULCA, Body SAR, Bottom Edge,
PCC: 20 MHz Bandwidth, QPSK, Ch. 132572, 1 RB, 0 RB Offset
SCC: 20 MHz Bandwidth, QPSK, Ch. 132374, 1 RB, 99 RB Offset

Area Scan (11x7x1): Measurement grid: dx=5mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 24.17 V/m; Power Drift = 0.00 dB
Peak SAR (extrapolated) = 1.46 W/kg
SAR(1 g) = 0.811 W/kg



0 dB = 1.24 W/kg = 0.93 dBW/kg

DUT: A3LSMG981U; Type: Portable Handset; Serial: 1077M

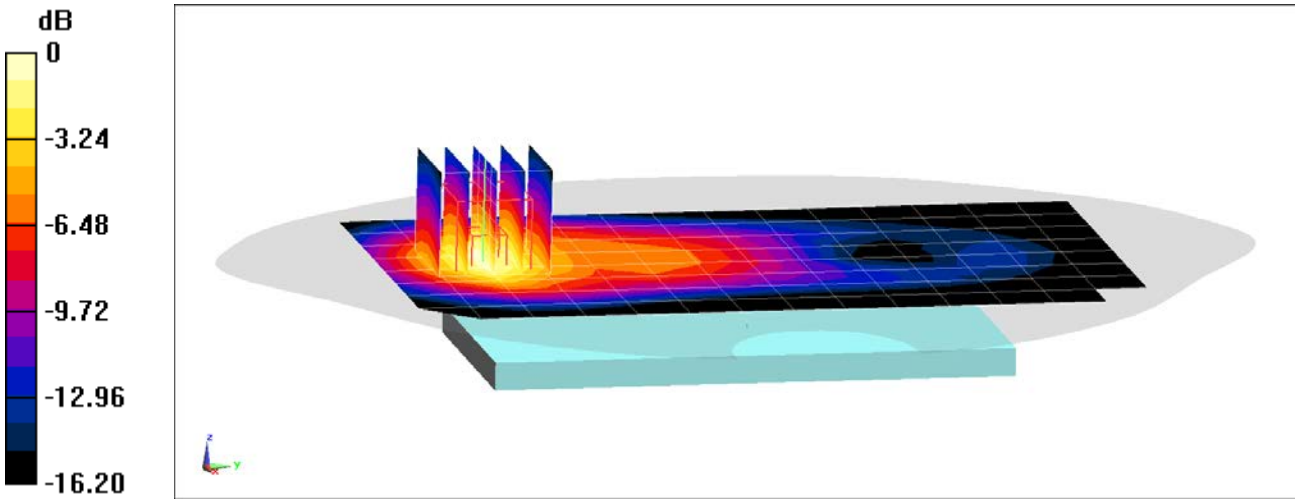
Communication System: UID 0, LTE Band 25 (PCS); Frequency: 1860 MHz; Duty Cycle: 1:1
Medium: 1900 Body; Medium parameters used:
f = 1860 MHz; σ = 1.522 S/m; ε_r = 51.895; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 11-11-2019; Ambient Temp: 21.5°C; Tissue Temp: 22.3°C

Probe: EX3DV4 - SN7488; ConvF(8.37, 8.37, 8.37) @ 1860 MHz; Calibrated: 1/24/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1530; Calibrated: 1/15/2019
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1800
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: LTE Band 25 (PCS), Body SAR, Back side, Low.ch,
20 MHz Bandwidth, QPSK, 1 RB, 99 RB Offset

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 23.46 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 1.26 W/kg
SAR(1 g) = 0.753 W/kg



0 dB = 1.07 W/kg = 0.29 dBW/kg

DUT: A3LSMG981U; Type: Portable Handset; Serial: 1077M

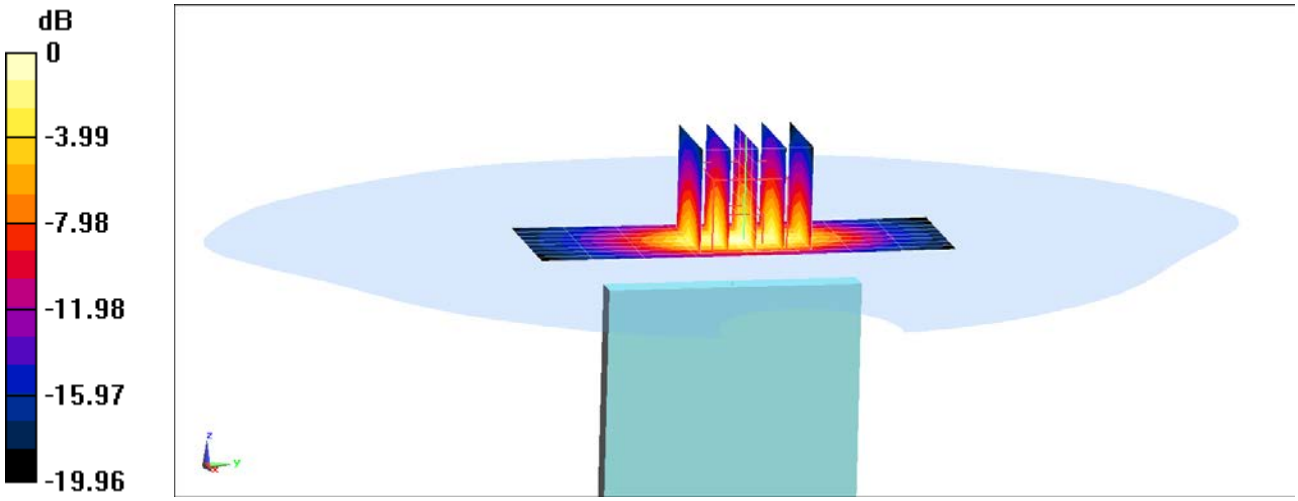
Communication System: UID 0, LTE Band 25 (PCS); Frequency: 1882.5 MHz; Duty Cycle: 1:1
Medium: 1900 Body; Medium parameters used (interpolated):
f = 1882.5 MHz; σ = 1.557 S/m; ε_r = 50.932; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-02-2019; Ambient Temp: 20.7°C; Tissue Temp: 21.7°C

Probe: EX3DV4 - SN7488; ConvF(8.37, 8.37, 8.37) @ 1882.5 MHz; Calibrated: 1/24/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1530; Calibrated: 1/15/2019
Phantom: SAM Left; Type: QD000P40CC; Serial: TP: 1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: LTE Band 25 (PCS), Body SAR, Bottom Edge, Mid.ch,
20 MHz Bandwidth, QPSK, 100 RB, 0 RB Offset

Area Scan (9x9x1): Measurement grid: dx=5mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 26.84 V/m; Power Drift = -0.10 dB
Peak SAR (extrapolated) = 1.85 W/kg
SAR(1 g) = 0.991 W/kg



0 dB = 1.54 W/kg = 1.88 dBW/kg

DUT: A3LSMG981U; Type: Portable Handset; Serial: 1077M

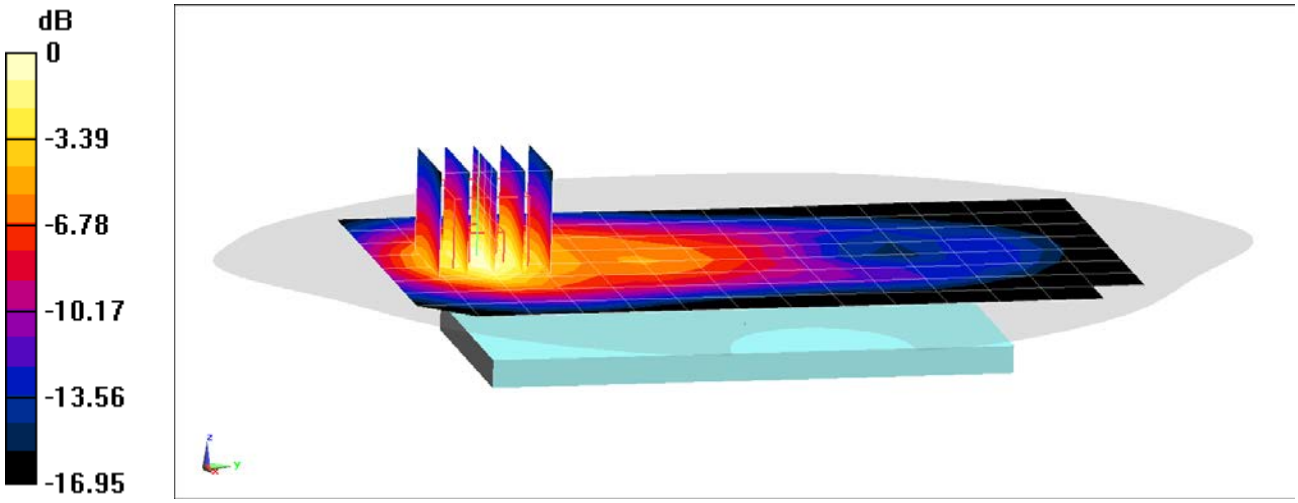
Communication System: UID 0, LTE Band 2 (PCS); Frequency: 1860 MHz; Duty Cycle: 1:1
Medium: 1900 Body; Medium parameters used:
f = 1860 MHz; σ = 1.522 S/m; ε_r = 51.895; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 11-11-2019; Ambient Temp: 21.5°C; Tissue Temp: 22.3°C

Probe: EX3DV4 - SN7488; ConvF(8.37, 8.37, 8.37) @ 1860 MHz; Calibrated: 1/24/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1530; Calibrated: 1/15/2019
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1800
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: LTE Band 2 (PCS), Body SAR, Back side, Low.ch,
20 MHz Bandwidth, QPSK, 1 RB, 99 RB Offset

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 22.48 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 1.19 W/kg
SAR(1 g) = 0.716 W/kg



0 dB = 1.01 W/kg = 0.04 dBW/kg

DUT: A3LSMG981U; Type: Portable Handset; Serial: 1077M

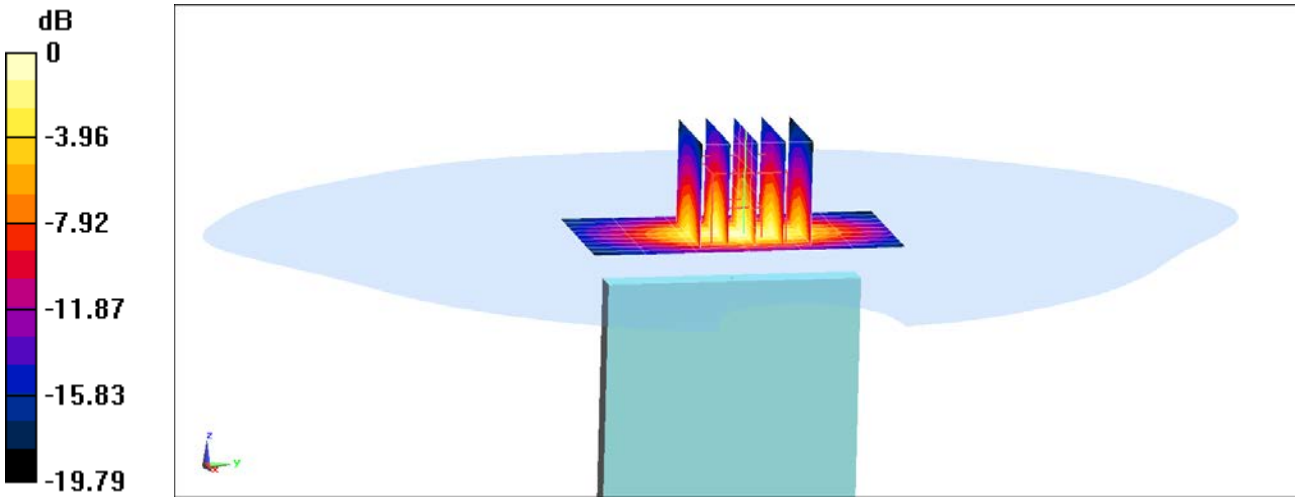
Communication System: UID 0, LTE Band 2 (PCS); Frequency: 1880 MHz; Duty Cycle: 1:1
Medium: 1900 Body; Medium parameters used:
f = 1880 MHz; σ = 1.555 S/m; ε_r = 50.942; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-02-2019; Ambient Temp: 20.7°C; Tissue Temp: 21.7°C

Probe: EX3DV4 - SN7488; ConvF(8.37, 8.37, 8.37) @ 1880 MHz; Calibrated: 1/24/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1530; Calibrated: 1/15/2019
Phantom: SAM Left; Type: QD000P40CC; Serial: TP: 1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: LTE Band 2 (PCS), Body SAR, Bottom Edge, Mid.ch,
20 MHz Bandwidth, QPSK, 50 RB, 25 RB Offset

Area Scan (10x7x1): Measurement grid: dx=5mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 26.68 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 1.84 W/kg
SAR(1 g) = 0.982 W/kg



0 dB = 1.53 W/kg = 1.85 dBW/kg

DUT: A3LSMG981U; Type: Portable Handset; Serial: 1014M

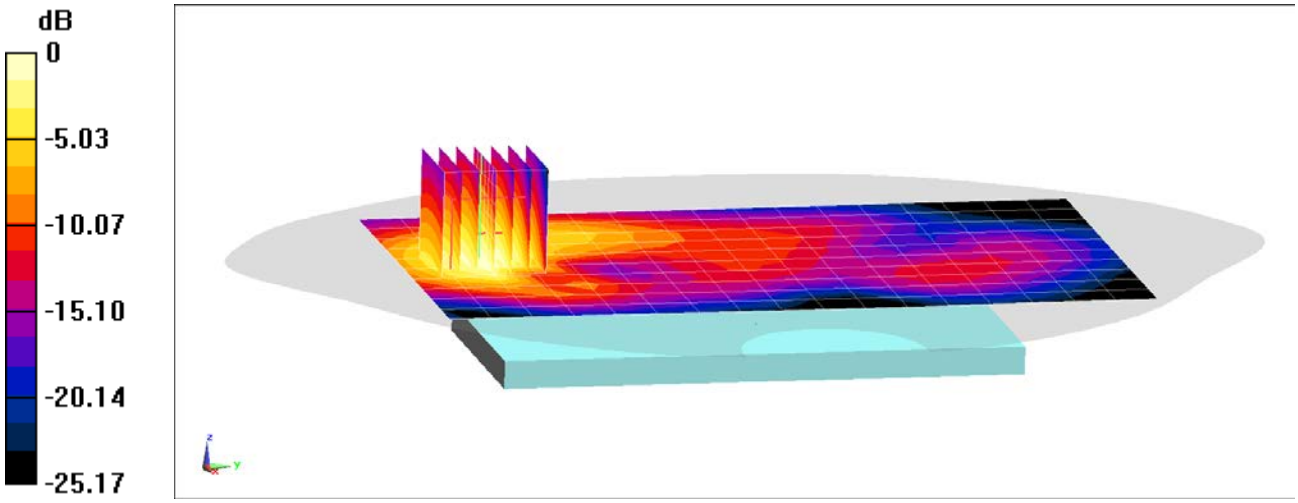
Communication System: UID 0, LTE Band 30; Frequency: 2310 MHz; Duty Cycle: 1:1
Medium: 2450 Body; Medium parameters used:
f = 2310 MHz; σ = 1.876 S/m; ε_r = 53.244; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 10-31-2019; Ambient Temp: 22.7°C; Tissue Temp: 22.5°C

Probe: EX3DV4 - SN7547; ConvF(7.47, 7.47, 7.47) @ 2310 MHz; Calibrated: 7/15/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1323; Calibrated: 7/11/2019
Phantom: LeftTwin-SAM V5.0; Type: QD 000 P40 CD; Serial: TP1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: LTE Band 30, Body SAR, Back side, Mid.ch,
10 MHz Bandwidth, QPSK, 1 RB, 0 RB Offset

Area Scan (11x18x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 19.94 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 1.22 W/kg
SAR(1 g) = 0.682 W/kg



0 dB = 1.01 W/kg = 0.04 dBW/kg

DUT: A3LSMG981U; Type: Portable Handset; Serial: 0932M

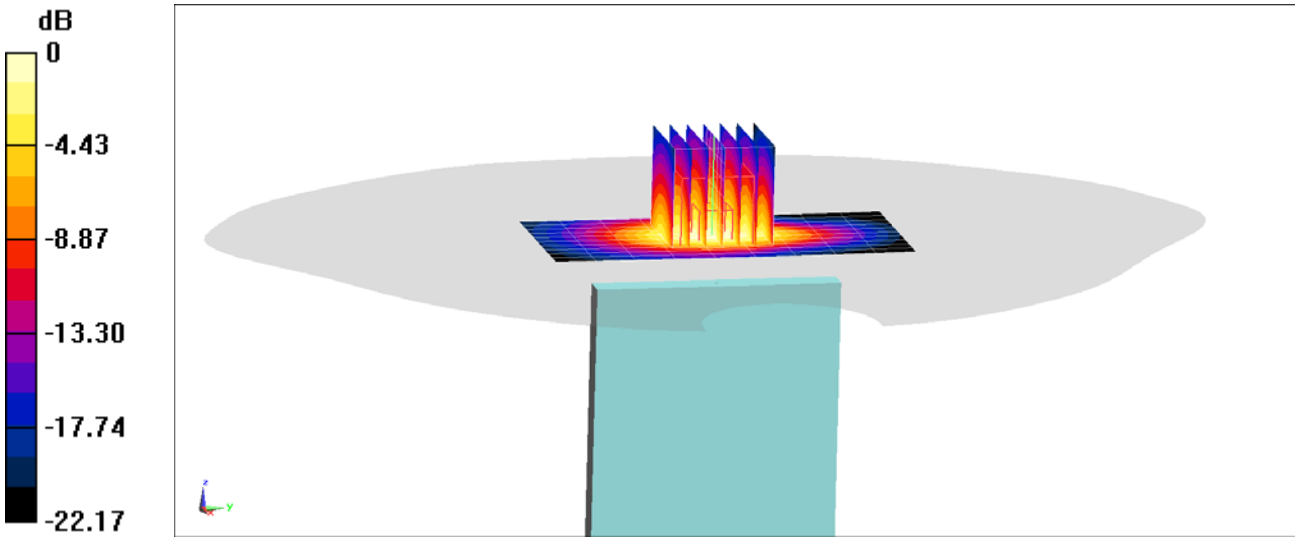
Communication System: UID 0, LTE Band 30; Frequency: 2310 MHz; Duty Cycle: 1:1
Medium: 2450 Body; Medium parameters used:
f = 2310 MHz; σ = 1.871 S/m; ε_r = 52.265; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-09-2019; Ambient Temp: 23.5°C; Tissue Temp: 22.0°C

Probe: EX3DV4 - SN7547; ConvF(7.47, 7.47, 7.47) @ 2310 MHz; Calibrated: 7/15/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1323; Calibrated: 7/11/2019
Phantom: LeftTwin-SAM V5.0; Type: QD 000 P40 CD; Serial: TP1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: LTE Band 30, Body SAR, Bottom Edge, Mid.ch,
10 MHz Bandwidth, QPSK, 25 RB, 12 RB Offset

Area Scan (11x10x1): Measurement grid: dx=5mm, dy=12mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 24.54 V/m; Power Drift = -0.09 dB
Peak SAR (extrapolated) = 1.89 W/kg
SAR(1 g) = 0.977 W/kg



0 dB = 1.57 W/kg = 1.96 dBW/kg

DUT: A3LSMG981U; Type: Portable Handset; Serial: 1014M

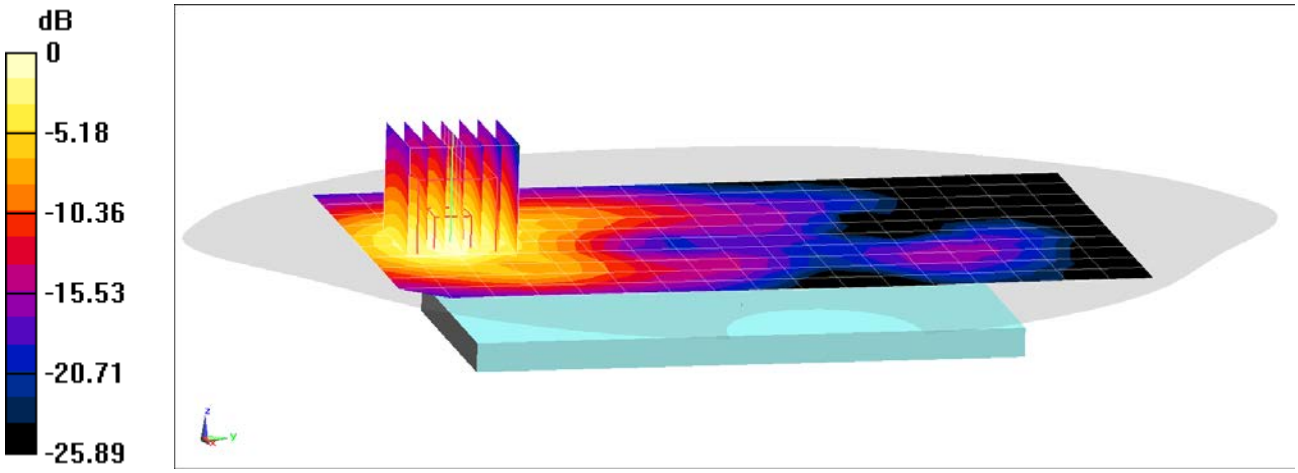
Communication System: UID 0, LTE Band 7; Frequency: 2510 MHz; Duty Cycle: 1:1
Medium: 2450 Body; Medium parameters used:
f = 2510 MHz; σ = 2.115 S/m; ε_r = 51.264; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 11-11-2019; Ambient Temp: 22.9°C; Tissue Temp: 22.3°C

Probe: EX3DV4 - SN7547; ConvF(7.3, 7.3, 7.3) @ 2510 MHz; Calibrated: 7/15/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1323; Calibrated: 7/11/2019
Phantom: LeftTwin-SAM V5.0; Type: QD 000 P40 CD; Serial: TP1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: LTE Band 7, Body SAR, Back side, Low.ch,
20 MHz Bandwidth, QPSK, 1 RB, 99 RB Offset

Area Scan (11x18x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 17.66 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 1.12 W/kg
SAR(1 g) = 0.604 W/kg



0 dB = 0.920 W/kg = -0.36 dBW/kg

DUT: A3LSMG981U; Type: Portable Handset; Serial: 1014M

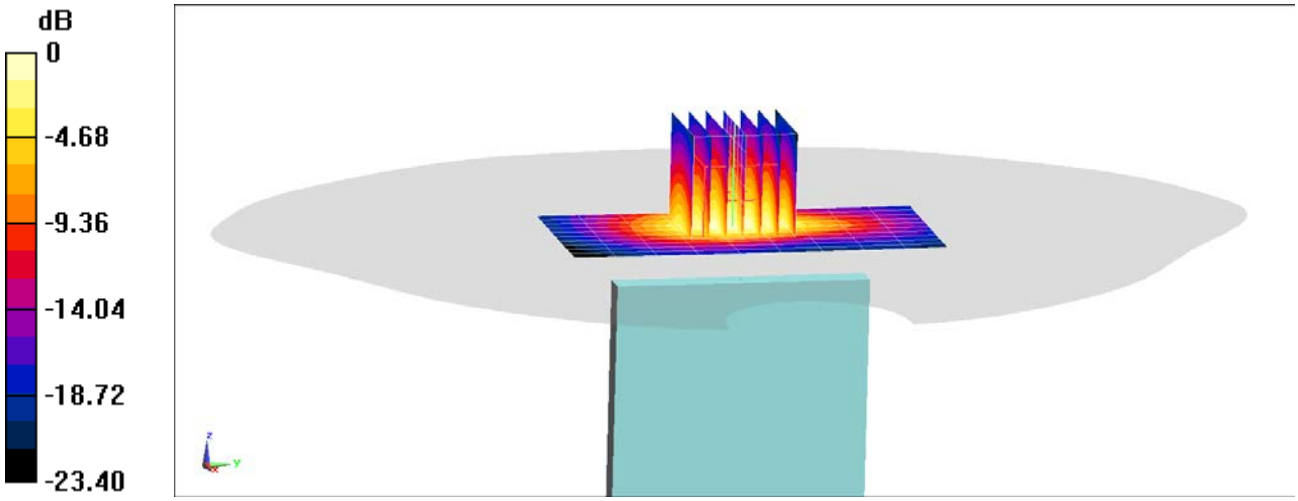
Communication System: UID 0, LTE Band 7; Frequency: 2510 MHz; Duty Cycle: 1:1
Medium: 2450 Body; Medium parameters used:
f = 2510 MHz; σ = 2.11 S/m; ε_r = 51.97; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-03-2019; Ambient Temp: 23.5°C; Tissue Temp: 22.4°C

Probe: EX3DV4 - SN7547; ConvF(7.3, 7.3, 7.3) @ 2510 MHz; Calibrated: 7/15/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1323; Calibrated: 7/11/2019
Phantom: LeftTwin-SAM V5.0; Type: QD 000 P40 CD; Serial: TP1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: LTE Band 7, Body SAR, Bottom Edge, Low.ch,
20 MHz Bandwidth, QPSK, 50 RB, 25 RB Offset

Area Scan (11x10x1): Measurement grid: dx=5mm, dy=12mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 20.73 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 1.58 W/kg
SAR(1 g) = 0.791 W/kg



0 dB = 1.28 W/kg = 1.07 dBW/kg

DUT: A3LSMG981U; Type: Portable Handset; Serial: 0384S

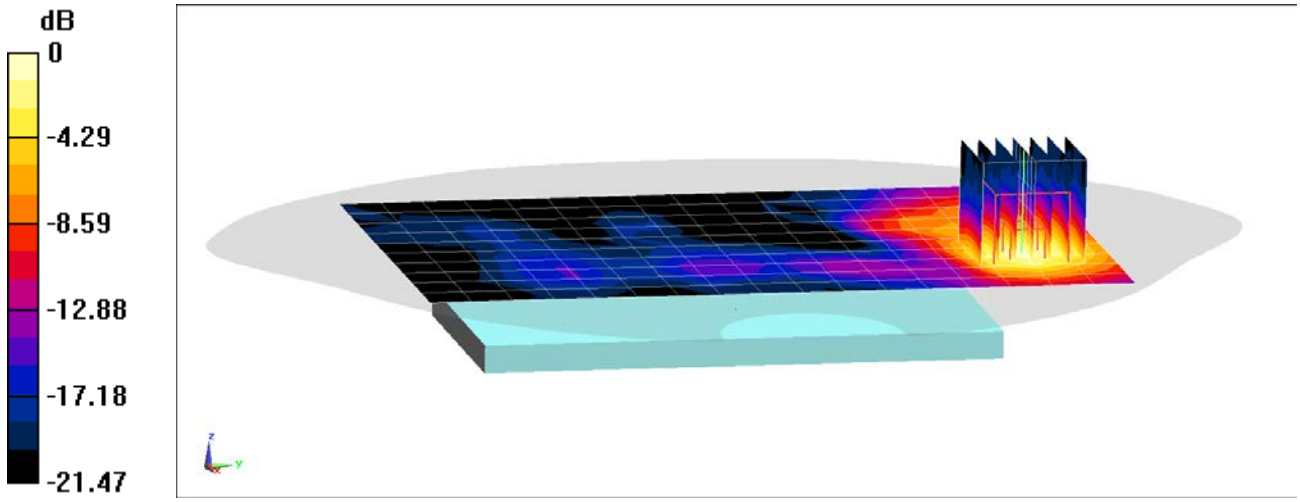
Communication System: UID 0, LTE Band 48; Frequency: 3603.3 MHz; Duty Cycle: 1:1.58
Medium: 3500 Body; Medium parameters used (interpolated):
f = 3603.3 MHz; σ = 3.566 S/m; ε_r = 49.847; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 12-02-2019; Ambient Temp: 21.3°C; Tissue Temp: 20.1°C

Probe: EX3DV4 - SN3914; ConvF(6.58, 6.58, 6.58) @ 3603.3 MHz; Calibrated: 2/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1272; Calibrated: 2/14/2019
Phantom: Twin-SAM V5.0 Left 30; Type: QD 000 P40 CD; Serial: 1687
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: LTE Band 48 ULCA, Body SAR, Back side,
PCC: 20 MHz Bandwidth, QPSK, Ch. 55773, 1 RB, 0 RB Offset
SCC: 20 MHz Bandwidth, QPSK, Ch. 55575, 1 RB, 99 RB Offset

Area Scan (11x18x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (7x7x8)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=1.4mm; Graded Ratio: 1.4
Reference Value = 10.62 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 0.923 W/kg
SAR(1 g) = 0.365 W/kg



0 dB = 0.662 W/kg = -1.79 dBW/kg

DUT: A3LSMG981U; Type: Portable Handset; Serial: 0384S

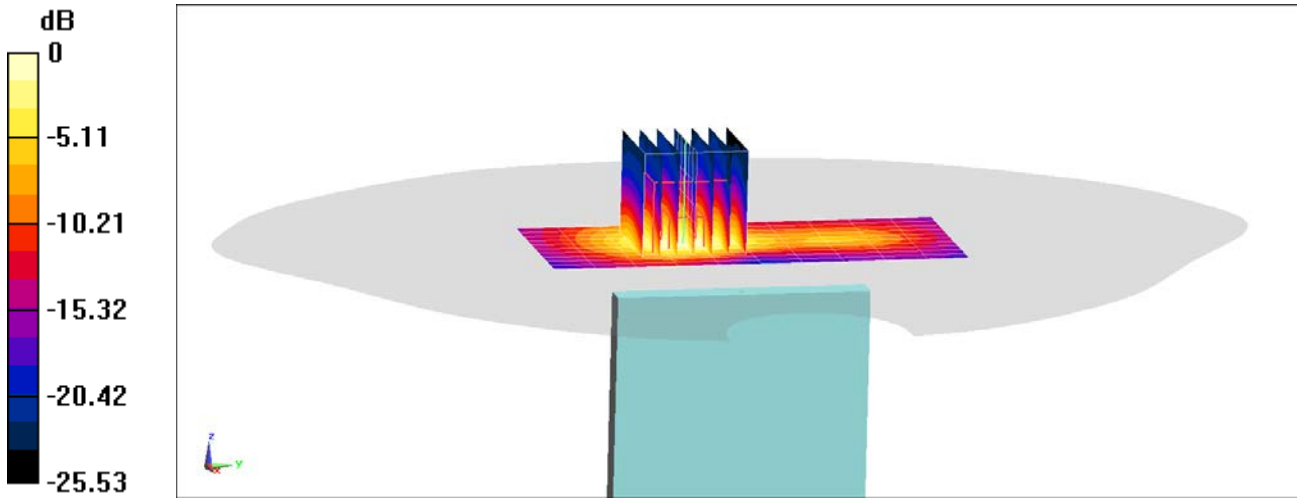
Communication System: UID 0, LTE Band 48; Frequency: 3603.3 MHz; Duty Cycle: 1:1.58
Medium: 3500 Body; Medium parameters used (interpolated):
f = 3603.3 MHz; σ = 3.566 S/m; ε_r = 49.847; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-02-2019; Ambient Temp: 21.3°C; Tissue Temp: 20.1°C

Probe: EX3DV4 - SN3914; ConvF(6.58, 6.58, 6.58) @ 3603.3 MHz; Calibrated: 2/19/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1272; Calibrated: 2/14/2019
Phantom: Twin-SAM V5.0 Left 30; Type: QD 000 P40 CD; Serial: 1687
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: LTE Band 48 ULCA, Body SAR, Top Edge,
PCC: 20 MHz Bandwidth, QPSK, Ch. 55773 1 RB, 0 RB Offset
SCC: 20 MHz Bandwidth, QPSK, Ch. 55575 1 RB, 99 RB Offset

Area Scan (11x11x1): Measurement grid: dx=5mm, dy=12mm
Zoom Scan (7x7x8)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=1.4mm; Graded Ratio: 1.4
Reference Value = 15.68 V/m; Power Drift = 0.13 dB
Peak SAR (extrapolated) = 2.39 W/kg
SAR(1 g) = 0.811 W/kg



0 dB = 1.62 W/kg = 2.10 dBW/kg

DUT: A3LSMG981U; Type: Portable Handset; Serial: 1018M

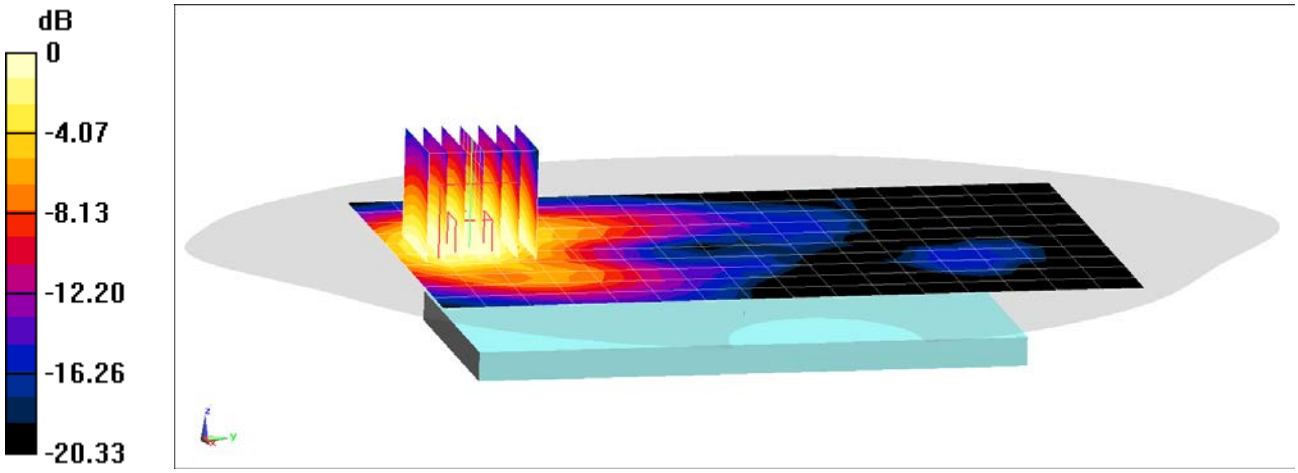
Communication System: UID 0, _LTE Band 41 (Class 2); Frequency: 2593 MHz; Duty Cycle: 1:2.31
Medium: 2450 Body; Medium parameters used (interpolated):
f = 2593 MHz; σ = 2.193 S/m; ε_r = 51.259; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 11-07-2019; Ambient Temp: 22.9°C; Tissue Temp: 21.9°C

Probe: EX3DV4 - SN7547; ConvF(7.18, 7.18, 7.18) @ 2593 MHz; Calibrated: 7/15/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1323; Calibrated: 7/11/2019
Phantom: LeftTwin-SAM V5.0; Type: QD 000 P40 CD; Serial: TP1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: LTE Band 41 PC2 with ULCA, Body SAR, Back side,
PCC: 20 MHz Bandwidth, QPSK, Ch. 40620, 1 RB, 0 RB Offset
SCC: 20 MHz Bandwidth, QPSK, Ch. 40422, 1 RB, 99 RB Offset

Area Scan (11x17x1): Measurement grid: dx=12mm, dy=12mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 15.51 V/m; Power Drift = 0.00 dB
Peak SAR (extrapolated) = 0.929 W/kg
SAR(1 g) = 0.482 W/kg



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

DUT: A3LSMG981U; Type: Portable Handset; Serial: 0932M

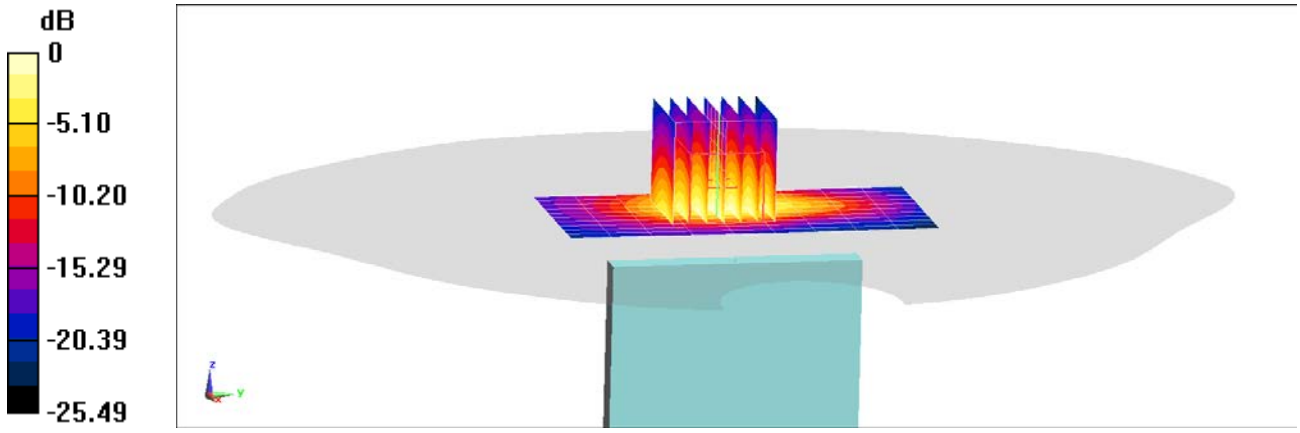
Communication System: UID 0, _LTE Band 41 (Class 2); Frequency: 2636.5 MHz; Duty Cycle: 1:2.31
Medium: 2450 Body; Medium parameters used (interpolated):
f = 2636.5 MHz; σ = 2.262 S/m; ε_r = 51.604; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 12-03-2019; Ambient Temp: 23.5°C; Tissue Temp: 22.4°C

Probe: EX3DV4 - SN7547; ConvF(7.18, 7.18, 7.18) @ 2636.5 MHz; Calibrated: 7/15/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1323; Calibrated: 7/11/2019
Phantom: LeftTwin-SAM V5.0; Type: QD 000 P40 CD; Serial: TP1375
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: LTE Band 41 PC2 with ULCA, Body SAR, Bottom Edge,
PCC: 20 MHz Bandwidth, QPSK, Ch. 41055, 50 RB, 0 RB Offset
SCC: 20 MHz Bandwidth, QPSK, Ch. 40857, 50 RB, 50 RB Offset

Area Scan (11x10x1): Measurement grid: dx=5mm, dy=12mm
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 17.94 V/m; Power Drift = -0.11 dB
Peak SAR (extrapolated) = 2.22 W/kg
SAR(1 g) = 1.08 W/kg



0 dB = 1.73 W/kg = 2.38 dBW/kg

DUT: A3LSMG981U; Type: Portable Handset; Serial: 1021M

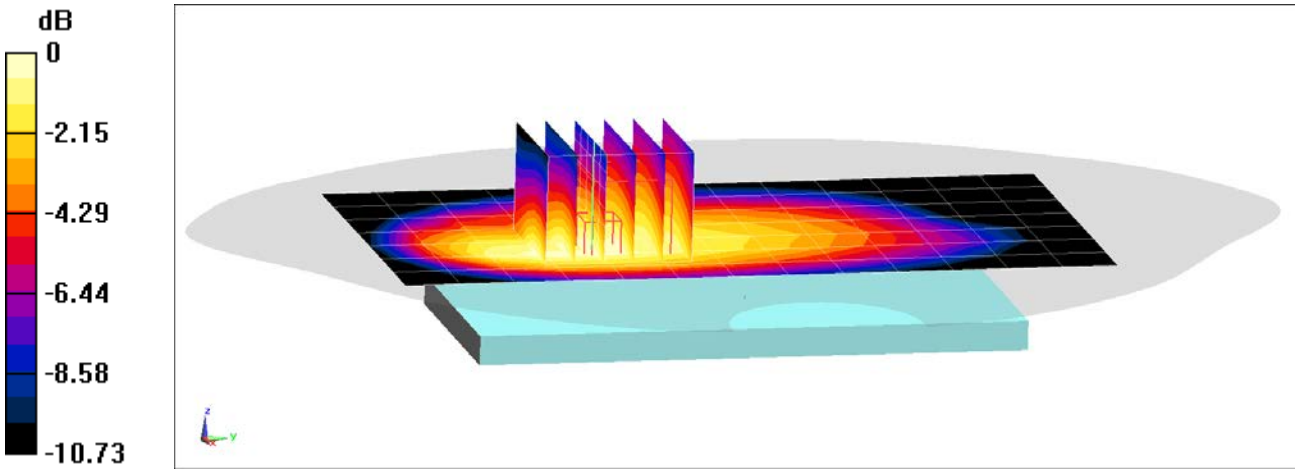
Communication System: UID 0, NR Band n71; Frequency: 680.5 MHz; Duty Cycle: 1:1
Medium: 750 Body; Medium parameters used (interpolated):
f = 680.5 MHz; σ = 0.915 S/m; ε_r = 57.719; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 11-06-2019; Ambient Temp: 22.2°C; Tissue Temp: 23.5°C

Probe: EX3DV4 - SN7410; ConvF(10.01, 10.01, 10.01) @ 680.5 MHz; Calibrated: 7/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2019
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1630
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: NR Band n71, Body SAR, Back Side,
20 MHz Bandwidth, DFT-s-OFDM QPSK, Ch. 136100, 50 RB, 28 RB Offset

Area Scan (8x14x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 15.52 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 0.287 W/kg
SAR(1 g) = 0.204 W/kg



0 dB = 0.258 W/kg = -5.88 dBW/kg

DUT: A3LSMG981U; Type: Portable Handset; Serial: 1021M

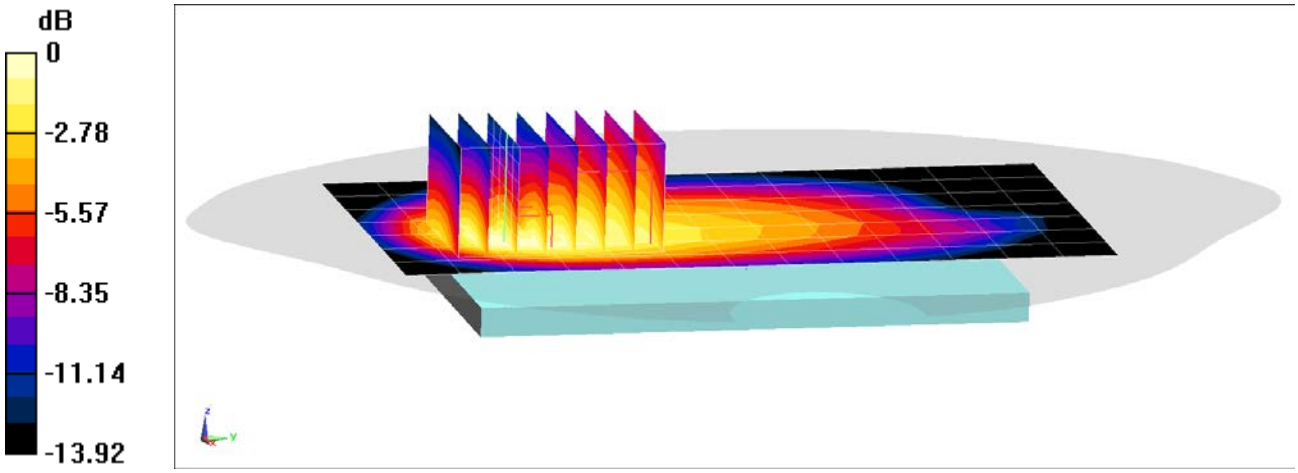
Communication System: UID 0, NR Band n71; Frequency: 680.5 MHz; Duty Cycle: 1:1
Medium: 750 Body; Medium parameters used (interpolated):
f = 680.5 MHz; σ = 0.915 S/m; ε_r = 57.719; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 11-06-2019; Ambient Temp: 22.2°C; Tissue Temp: 23.5°C

Probe: EX3DV4 - SN7410; ConvF(10.01, 10.01, 10.01) @ 680.5 MHz; Calibrated: 7/16/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1322; Calibrated: 7/11/2019
Phantom: Twin-SAM V5.0; Type: QD 000 P40 CD; Serial: 1630
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: NR Band n71, Body SAR, Back Side,
20 MHz Bandwidth, DFT-s-OFDM QPSK, Ch. 136100, 50 RB, 28 RB Offset

Area Scan (8x14x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (6x8x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 18.72 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 0.499 W/kg
SAR(1 g) = 0.298 W/kg



0 dB = 0.425 W/kg = -3.72 dBW/kg

DUT: A3LSMG981U; Type: Portable Handset; Serial: 1021M

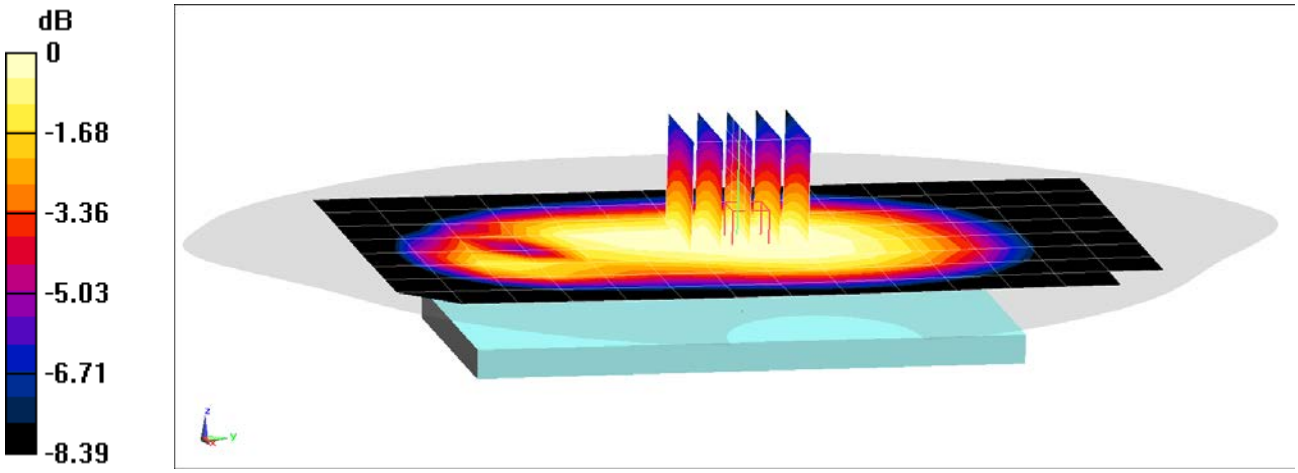
Communication System: UID 0, NR Band n5; Frequency: 836.5 MHz; Duty Cycle: 1:1
Medium: 835 Body; Medium parameters used (interpolated):
f = 836.5 MHz; σ = 0.968 S/m; ε_r = 56.089; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.5 cm

Test Date: 11-18-2019; Ambient Temp: 20.6°C; Tissue Temp: 20.0°C

Probe: EX3DV4 - SN7357; ConvF(9.95, 9.95, 9.95) @ 836.5 MHz; Calibrated: 4/24/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1407; Calibrated: 4/18/2019
Phantom: Twin-SAM V4.0 (30); Type: QD 000 P40 CC; Serial: 1167
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: NR Band n5, Body SAR, Back Side,
20 MHz Bandwidth, DFT-s-OFDM QPSK, Ch. 167300, 50 RB, 28 RB Offset

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 14.48 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 0.269 W/kg
SAR(1 g) = 0.200 W/kg



0 dB = 0.243 W/kg = -6.14 dBW/kg

DUT: A3LSMG981U; Type: Portable Handset; Serial: 1021M

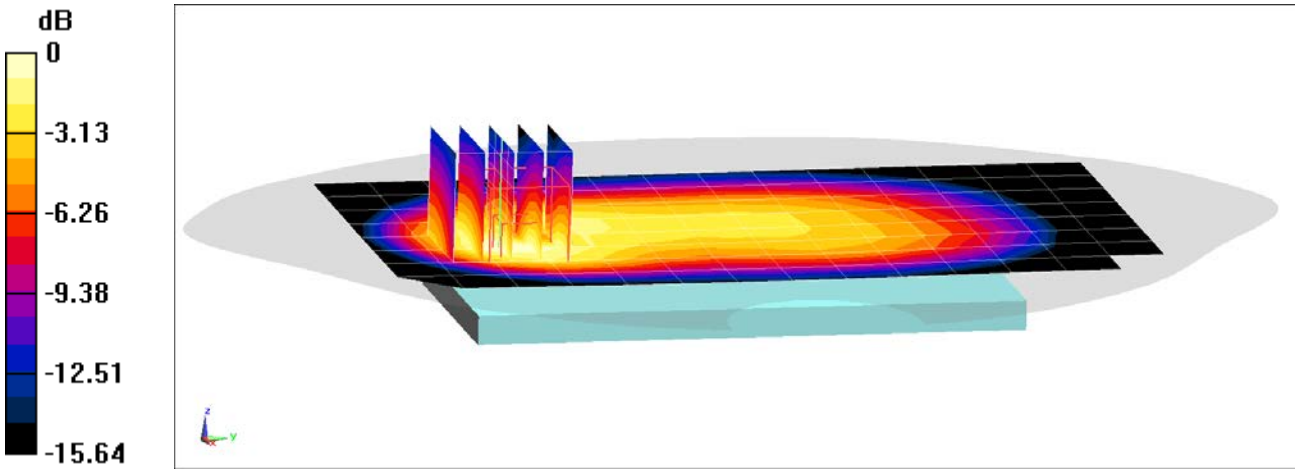
Communication System: UID 0, NR Band n5; Frequency: 836.5 MHz; Duty Cycle: 1:1
Medium: 835 Body; Medium parameters used (interpolated):
f = 836.5 MHz; σ = 0.968 S/m; ε_r = 56.089; ρ = 1000 kg/m^3
Phantom section: Flat Section; Space: 1.0 cm

Test Date: 11-18-2019; Ambient Temp: 20.6°C; Tissue Temp: 20.0°C

Probe: EX3DV4 - SN7357; ConvF(9.95, 9.95, 9.95) @ 836.5 MHz; Calibrated: 4/24/2019
Sensor-Surface: 1.4mm (Mechanical Surface Detection)
Electronics: DAE4 Sn1407; Calibrated: 4/18/2019
Phantom: Twin-SAM V4.0 (30); Type: QD 000 P40 CC; Serial: 1167
Measurement SW: DASY52, Version 52.10 (2);SEMCAD X Version 14.6.12 (7470)

Mode: NR Band n5, Body SAR, Back Side,
20 MHz Bandwidth, DFT-s-OFDM QPSK, Ch. 167300, 50 RB, 28 RB Offset

Area Scan (9x15x1): Measurement grid: dx=15mm, dy=15mm
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 19.48 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 0.623 W/kg
SAR(1 g) = 0.345 W/kg



0 dB = 0.506 W/kg = -2.96 dBW/kg