FCC SAR Test Report

APPLICANT	:	Motorola Mobility LLC
EQUIPMENT	:	Mobile Cellular Phone
BRAND NAME	:	Motorola
MODEL NAME	:	XT2063-2
FCC ID	:	IHDT56YU1
STANDARD	:	FCC 47 CFR Part 2 (2.1093) ANSI/IEEE C95.1-1992 IEEE 1528-2013

The product was received on Jan. 22, 2020 and testing was started from Apr. 25, 2020 and completed on May 21, 2020. We, Sporton International (Kunshan) Inc, would like to declare that the tested sample has been evaluated in accordance with the procedures and had been in compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of Sporton International (Kunshan) Inc., the test report shall not be reproduced except in full.

Rose Wang

Reviewed by: Rose Wang / Supervisor

Kat Yin

Approved by: Kat Yin / Manager

ACCREDITED Cert #5145.02

Sporton International (Kunshan) Inc.
No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300
People's Republic of China

Table of Contents

Revision History

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FA010812-01	Rev. 01	Initial issue of report	Jun. 10, 2020

1. Statement of Compliance

The maximum results of Specific Absorption Rate (SAR) found during testing for **Motorola Mobility LLC, Mobile Cellular Phone, XT2063-2,** are as follows.

Highest 1g SAR Summary						
Equipment Class	Frequency Band		Head (Separation 0mm)	Hotspot (Separation 5mm)	Body-worn (Separation 5mm)	Highest Simultaneous Transmission
			1g SAR (W/kg)			1g SAR (W/kg)
Licensed	GSM	GSM850	0.24	1.31	1.31	1.59
		GSM1900	<0.10	1.32	1.28	
	WCDMA	Band V	0.35	1.30	1.30	
		Band IV	0.20	1.33	1.33	
		Band II	0.13	1.40	1.40	
	CDMA	CDMA2000 BC0	0.30	**1.48**	**1.45**	
		CDMA2000 BC1	0.11	1.30	1.21	
		CDMA2000 BC10	0.32	1.24	1.23	
	LTE	Band 71	0.18	0.95	0.95	
		Band 12/Band 17	0.25	1.31	1.31	
		Band 13	0.26	1.17	1.17	
		Band 26/Band 5	0.28	1.41	1.41	
		Band 66/Band 4	0.55	1.40	1.33	
		Band 25/Band 2	0.45	1.33	1.26	
		Band 7	0.12	1.32	1.30	
		Band 41/Band 38	0.10	1.42	1.23	
	5G NR	n5	0.19	0.71	0.71	
		n12	0.13	0.80	0.80	
		n71	0.16	0.69	0.69	
		n66	0.63	0.79	0.67	
		n25/n2	0.68	0.72	0.60	
		n41	0.79	0.69	0.69	
DTS	WLAN	2.4GHz WLAN	1.03	1.08	1.08	1.59
NII		5GHz WLAN	**1.10**	1.18	1.18	1.59
DSS	Bluetooth	2.4GHz Bluetooth	0.27	<0.10	<0.10	1.54

Highest 10g SAR Summary				
Equipment Class	Frequency Band		Product Specific 10g SAR (W/kg) (Separation 0mm)	Highest Simultaneous Transmission 10g SAR (W/kg)
Licensed	GSM	GSM850	1.08	3.98
		GSM1900	3.36	
	WCDMA	Band V	2.07	
		Band IV	3.20	
		Band II	2.91	
	CDMA	CDMA2000 BC0	1.77	
		CDMA2000 BC1	2.87	
		CDMA2000 BC10	1.64	
	LTE	Band 12/Band 17	1.28	
		Band 13	1.74	
		Band 26/Band 5	1.90	
		Band 66/Band 4	3.06	
		Band 25/Band 2	2.78	
		Band 7	2.77	
		Band 41/Band 38	2.75	
	5G NR	n66	1.91	
		n25/n2	1.65	
		n41	1.98	
DTS	WLAN	2.4GHz WLAN	1.34	3.98
NII		5GHz WLAN	**3.37**	3.91
Date of Testing:			2020/4/25~2020/5/21	

Remark:

1. This device supports LTE B2 / B4 / B5 / B17 / B38 and B25 / B66 / B26 / B12 / B41. Since the supported frequency span for LTE B2 / B4 / B5 / B17 / B38 falls completely within the supports frequency span for LTE B25 / B66 / B26 / B12 / B41, both LTE bands have the same target power, and both LTE bands share the same transmission path; therefore, SAR was only assessed for LTE B25 / B66 / B26 / B12 / B41.
2. This device supports 5GNR n2 and 5GNR n25. Since the supported frequency span for 5GNR n2 falls completely within the supports frequency span for 5GNR n25, both 5GNR bands have the same target power, and both 5GNR bands share the same transmission path; therefore, SAR was only assessed for 5GNR n25.

Declaration of Conformity:
The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.
Comments and Explanations:
The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

This device is in compliance with Specific Absorption Rate (SAR) for general population/uncontrolled exposure limits (1.6 W/kg for Partial-Body 1g SAR, 4.0 W/kg for Product Specific 10g SAR) specified in FCC 47 CFR part 2 (2.1093) and ANSI/IEEE C95.1-1992, and had been tested in accordance with the measurement methods and procedures specified in IEEE 1528-2013 and FCC KDB publications.

2. Administration Data

Sporton International (Kunshan) Inc. is accredited to ISO/IEC 17025:2017 by American Association for Laboratory Accreditation with Certificate Number 5145.02.

Testing Laboratory		
Test Firm	Sporton International (Kunshan) Inc.	
Test Site Location	No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300 People's Republic of China TEL : +86-512-57900158 FAX : +86-512-57900958	
Test Site No.	FCC Designation No.	FCC Test Firm Registration No.
	CN1257	314309

Applicant	
Company Name	Motorola Mobility LLC
Address	222 W, Merchandise Mart Plaza, Chicago IL 60654 USA

Manufacturer	
Company Name	Motorola Mobility LLC
Address	222 W, Merchandise Mart Plaza, Chicago IL 60654 USA

3. Guidance Applied

The Specific Absorption Rate (SAR) testing specification, method, and procedure for this device is in accordance with the following standards:

- FCC 47 CFR Part 2 (2.1093)
- ANSI/IEEE C95.1-1992
- IEEE 1528-2013
- FCC KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz v01r04
- FCC KDB 865664 D02 SAR Reporting v01r02
- FCC KDB 447498 D01 General RF Exposure Guidance v06
- FCC KDB 648474 D04 SAR Evaluation Considerations for Wireless Handsets v01r03
- FCC KDB 248227 D01 802.11 Wi-Fi SAR v02r02
- FCC KDB 616217 D04 SAR for laptop and tablets v01r02
- FCC KDB 941225 D01 3G SAR Procedures v03r01
- FCC KDB 941225 D05 SAR for LTE Devices v02r05
- FCC KDB 941225 D05A Rel.10 LTE SAR Test Guidance v01r02
- FCC KDB 941225 D06 Hotspot Mode SAR v02r01

4. Equipment Under Test (EUT) Information

4.1 General Information

Product Feature & Specification	
Equipment Name	Mobile Cellular Phone
Brand Name	Motorola
Model Name	XT2063-2
FCC ID	IHDT56YU1
IMEI Code	355526110007098
Wireless Technology and Frequency Range	GSM850: 824.2 MHz ~ 848.8 MHz GSM1900: 1850.2 MHz ~ 1909.8 MHz WCDMA Band II: 1852.4 MHz ~ 1907.6 MHz WCDMA Band IV: 1712.4 MHz ~ 1752.6 MHz WCDMA Band V: 826.4 MHz ~ 846.6 MHz CDMA2000 BC0: 824.7 MHz ~ 848.31 MHz CDMA 2000 BC1: 1851.25 MHz ~ 1908.75 MHz CDMA 2000 BC10: 817.9 MHz ~ 823.1 MHz LTE Band 2: 1850.7 MHz ~ 1909.3 MHz LTE Band 4: 1710.7 MHz ~ 1754.3 MHz LTE Band 5: 824.7 MHz ~ 848.3 MHz LTE Band 7: 2502.5 MHz ~ 2567.5 MHz LTE Band 12: 699.7 MHz ~ 715.3 MHz LTE Band 13: 779.5 MHz ~ 784.5 MHz LTE Band 17: 706.5 MHz ~ 713.5 MHz LTE Band 25: 1850.7 MHz ~ 1914.3 MHz LTE Band 26: 814.7 MHz ~ 848.3 MHz LTE Band 38: 2572.5 MHz ~ 2617.5 MHz LTE Band 41: 2498.5 MHz ~ 2687.5 MHz LTE Band 66: 1710.7 MHz ~ 1779.3 MHz LTE Band 71: 665.5 MHz ~695.5 MHz 5G NR n2 : 1852.5 MHz ~ 1907.5 MHz 5G NR n5 : 826.5 MHz ~ 846.5 MHz 5G NR n12 : 701.5 MHz ~ 713.5 MHz 5G NR n25 : 1852.5 MHz ~ 1912.5 MHz 5G NR n41 : 2506.02MHz ~ 2679.99MHz 5G NR n66 : 1712.5 MHz ~ 1777.5 MHz 5G NR n71 : 665.5 MHz ~ 695.5 MHz WLAN 2.4GHz Band: 2412 MHz ~ 2462 MHz WLAN 5.2GHz Band: 5180 MHz ~ 5240 MHz WLAN 5.3GHz Band: 5260 MHz ~ 5320 MHz WLAN 5.5GHz Band: 5500 MHz ~ 5700 MHz WLAN 5.8GHz Band: 5745 MHz ~ 5825 MHz Bluetooth: 2402 MHz ~ 2480 MHz NFC: 13.56 MHz
Mode	GSM/GPRS/EGPRS RMC/AMR 12.2Kbps HSDPA HSUPA DC-HSDPA HSPA+(16QAM uplink is not supported) CDMA2000 : 1xRTT/1xEv-Do(Rel.0)/1xEv-Do(Rev.A) LTE: QPSK, 16QAM, 64QAM 5G NR : CP-OFDM / DFT-s-OFDM, PI/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM WLAN 2.4GHz 802.11b/g/n HT20 WLAN 5GHz 802.11a/n HT20/HT40 WLAN 5GHz 802.11ac VHT20/VHT40/VHT80 Bluetooth BR/EDR/LE NFC:ASK
HW Version	PVT1

SW Version	QPD30.102
GSM / (E)GPRS Transfer mode	Class B – EUT cannot support Packet Switched and Circuit Switched Network simultaneously but can automatically switch between Packet and Circuit Switched Network.
EUT Stage	Identical Prototype

Remark:

1. 802.11n-HT40 is not supported in 2.4GHz WLAN.
2. This device supports VoIP in GPRS, EGPRS, WCDMA and LTE (e.g. for 3rd-party VoIP), LTE supports VoLTE operation.
3. This device 2.4GHz WLAN support hotspot operation and Bluetooth support tethering applications.
4. This device 2.4GHz WLAN/5.2GHz WLAN/5.8GHz WLAN support hotspot operation, and 5.2GHz WLAN/5.8GHz WLAN supports WiFi Direct (GC/GO), and 5.3GHz / 5.5GHz supports WiFi Direct (GC only).
5. This device does not support DTM operation and supports GRPS/EGRPS mode up to multi-slot class 12.
6. The device implements Proximity sensors/receiver detect mechanism/hotspot trigger reduced power for the power management for SAR compliance at different exposure conditions (head, body-worn, hotspot, extremity).
   The device will invoke corresponding work scenarios power level, which are provided in the operational description.
7. The 2.4GHz/5GHz WLAN can transmit in MIMO antenna mode only and it has no SISO antenna mode.
8. This device implements antenna tuning techniques for several WWAN (cellular) operating modes and frequencies for the purpose of improving antenna efficiency over a broad range of frequencies. Specifically, these techniques are employed in the WCDMA, CDMA, LTE and 5GNR modes. In this report SAR was measured according to the normally required SAR configurations with the tuner active and worst tune state (auto tune) was used for SAR testing. The detail descriptions of the antenna tuner and supplemental data for additional information on section16.
9. This device supports 5GNR FR1 bands as following table.
10. For 5G NR test, using FTM (Factory Test Mode) to perform SAR with default 100% transmission.
11. LTE Band 41 and 5GNR n41 supports HPUE, HPUE power and SAR testing performed separately. LTE Band 41C not supported HPUE.
12. 5G NR supports CP-OFDM and DFT-s-OFDM modulation, for DFT-s-OFDM power is higher than CP-OFDM, so only show DFT-s-OFDM power table and chose CP-OFDM to perform SAR testing.
13. For DFT-s-OFDM and CP-OFDM output power measurement reduction, according to 38.101 maximum power reduction for the CP-OFDM mode will not higher than DFT-s-OFDM mode, therefore, CP-OFDM measurement is unnecessary

<5G NR>

Mode	Band	Duplex	SCS(KHz)	Bandwidths(BW)
NSA	n2/n25	FDD	15	5, 10, 15, 20
	n5	FDD	15	5, 10, 15, 20
	n12	FDD	15	5, 10, 15
	n66	FDD	15	5, 10, 15, 20
	n71	FDD	15	5, 10, 15, 20
	n41	TDD	30	20, 40, 50, 60, 80, 90, 100

4.2 General LTE SAR Test and Reporting Considerations

Summarized necessary items addressed in KDB 941225 D05 v02r05	
FCC ID	IHDT56YU1
Equipment Name	Mobile Cellular Phone
Operating Frequency Range of each LTE transmission band	LTE Band 2: 1850.7 MHz ~ 1909.3 MHz LTE Band 4: 1710.7 MHz ~ 1754.3 MHz LTE Band 5: 824.7 MHz ~ 848.3 MHz LTE Band 7: 2502.5 MHz ~ 2567.5 MHz LTE Band 12: 699.7 MHz ~ 715.3 MHz LTE Band 13: 779.5 MHz ~ 784.5 MHz LTE Band 17: 706.5 MHz ~ 713.5 MHz LTE Band 25: 1850.7 MHz ~ 1914.3 MHz LTE Band 26: 814.7 MHz ~ 848.3 MHz LTE Band 38: 2572.5 MHz ~ 2617.5 MHz LTE Band 41: 2498.5 MHz ~ 2687.5 MHz LTE Band 66: 1710.7 MHz ~ 1779.3 MHz LTE Band 71: 665.5 MHz ~695.5 MHz
Channel Bandwidth	LTE Band 2:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz LTE Band 4:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz LTE Band 5:1.4MHz, 3MHz, 5MHz, 10MHz LTE Band 7: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 12:1.4MHz, 3MHz, 5MHz, 10MHz LTE Band 13: 5MHz, 10MHz LTE Band 17: 5MHz, 10MHz LTE Band 25:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz LTE Band 26:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz LTE Band 38: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 41: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 66:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz LTE Band 71: 5MHz, 10MHz, 15MHz, 20MHz
uplink modulations used	QPSK / 16QAM / 64QAM
LTE Voice / Data requirements	Voice and Data
LTE Release Version	R15, Cat12
CA Support	Supported, Uplink and Downlink
LTE MPR permanently built-in by design	**Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 1, 2 and 3** Modulation | Channel bandwidth / Transmission bandwidth (N_{RB}) | MPR (dB) 1.4 MHz | 3.0 MHz | 5 MHz | 10 MHz | 15 MHz | 20 MHz QPSK: > 5 | > 4 | > 8 | > 12 | > 16 | > 18 | ≤ 1 16 QAM: ≤ 5 | ≤ 4 | ≤ 8 | ≤ 12 | ≤ 16 | ≤ 18 | ≤ 1 16 QAM: > 5 | > 4 | > 8 | > 12 | > 16 | > 18 | ≤ 2 64 QAM: ≤ 5 | ≤ 4 | ≤ 8 | ≤ 12 | ≤ 16 | ≤ 18 | ≤ 2 64 QAM: > 5 | > 4 | > 8 | > 12 | > 16 | > 18 | ≤ 3 256 QAM: ≥ 1 | ≤ 5
LTE A-MPR	In the base station simulator configuration, Network Setting value is set to NS_01 to disable A-MPR during SAR testing and the LTE SAR tests was transmitting on all TTI frames (Maximum TTI)
Spectrum plots for RB configuration	A properly configured base station simulator was used for the SAR and power measurement; therefore, spectrum plots for each RB allocation and offset configuration are not included in the SAR report.
Power reduction applied to satisfy SAR compliance	Yes 1. The device employs proximity sensors that detect the presence of the user's body at the front or back faces of the device. When front or back body worn condition is detected, LTE band 2/4/5/7/13/25/26/66/38/41/41HPUE reduced power will be active. 2. P-sensor can detect handheld state, LTE band 2/4/7/25/66 for front/back/bottom/top sides of product specific 10g SAR condition reduced powers will be active. 3. When hotspot mode is enabled, power reduction will be activated to limit the maximum power of LTE band 2/4/5/7/13/25/26/66/38/41.
LTE Carrier Aggregation Combinations	Inter-Band and Intra-Band possible combinations and the detail power verification please referred to section 13.
LTE Carrier Aggregation Additional Information	1. This device supports LTE Carrier Aggregation (CA) in the uplink for 41C with two component carriers in the uplink. SAR Measurements and conducted powers were evaluated per FCC Guidance. 2. This device supports maximum of 4 carriers in the downlink. Additional following LTE Release features are not supported: Relay, HetNet, Enhanced MIMO, eICI, WiFi

	Offloading, MDH, eMBMA, Cross-Carrier Scheduling, Enhanced SC-FDMA.

Transmission (H, M, L) channel numbers and frequencies in each LTE band

LTE Band 2

	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	18607	1850.7	18615	1851.5	18625	1852.5	18650	1855	18675	1857.5	18700	1860
M	18900	1880	18900	1880	18900	1880	18900	1880	18900	1880	18900	1880
H	19193	1909.3	19185	1908.5	19175	1907.5	19150	1905	19125	1902.5	19100	1900

LTE Band 4

	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	19957	1710.7	19965	1711.5	19975	1712.5	20000	1715	20025	1717.5	20050	1720
M	20175	1732.5	20175	1732.5	20175	1732.5	20175	1732.5	20175	1732.5	20175	1732.5
H	20393	1754.3	20385	1753.5	20375	1752.5	20350	1750	20325	1747.5	20300	1745

LTE Band 5

	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	20407	824.7	20415	825.5	20425	826.5	20450	829
M	20525	836.5	20525	836.5	20525	836.5	20525	836.5
H	20643	848.3	20635	847.5	20625	846.5	20600	844

LTE Band 7

	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	20775	2502.5	20800	2505	20825	2507.5	20850	2510
M	21100	2535	21100	2535	21100	2535	21100	2535
H	21425	2567.5	21400	2565	21375	2562.5	21350	2560

LTE Band 12

	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	23017	699.7	23025	700.5	23035	701.5	23060	704
M	23095	707.5	23095	707.5	23095	707.5	23095	707.5
H	23173	715.3	23165	714.5	23155	713.5	23130	711

LTE Band 13

	Bandwidth 5 MHz		Bandwidth 10 MHz	
	Channel #	Freq.(MHz)	Channel #	Freq.(MHz)
L	23205	779.5	23230	782
M	23230	782		
H	23255	784.5		

LTE Band 17

	Bandwidth 5 MHz		Bandwidth 10 MHz	
	Channel #	Freq.(MHz)	Channel #	Freq. (MHz)
L	23755	706.5	23780	709
M	23790	710	23790	710
H	23825	713.5	23800	711

LTE Band 25

	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	26047	1850.7	26055	1851.5	26065	1852.5	26090	1855	26115	1857.5	26140	1860
M	26340	1880	26340	1880	26340	1880	26340	1880	26340	1880	26340	1880
H	26683	1914.3	26675	1913.5	26665	1912.5	26640	1910	26615	1907.5	26590	1905

LTE Band 26										
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	26697	814.7	26705	815.5	26715	816.5	26740	819	26765	821.5
M	26865	831.5	26865	831.5	26865	831.5	26865	831.5	26865	831.5
H	27033	848.3	27025	847.5	27015	846.5	26990	844	26965	841.5

LTE Band 38								
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	37775	2572.5	37800	2575	37825	2577.5	37850	2580
M	38000	2595	38000	2595	38000	2595	38000	2595
H	38225	2617.5	38200	2615	38175	2612.5	38150	2610

LTE Band 41								
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	39675	2498.5	39700	2501	39725	2503.5	39750	2506
LM	40148	2545.8	40160	2547	40173	2548.3	40185	2549.5
M	40620	2593	40620	2593	40620	2593	40620	2593
HM	41093	2640.3	41080	2639	41068	2637.8	41055	2636.5
H	41565	2687.5	41540	2685	41515	2682.5	41490	2680

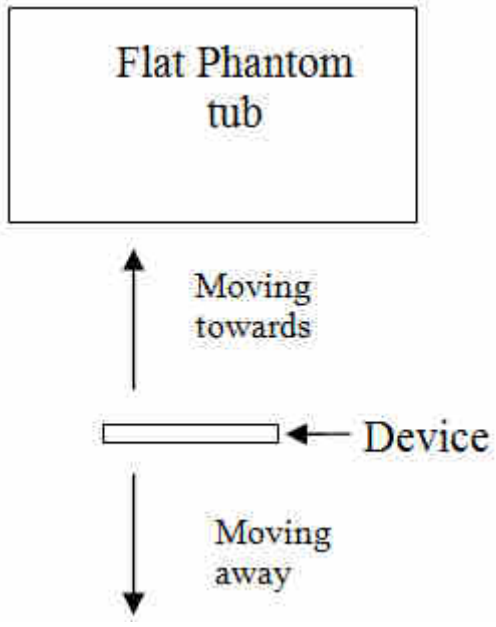
LTE Band 66												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	131979	1710.7	131987	1711.5	131997	1712.5	132022	1715	132047	1717.5	132072	1720
M	132322	1745	132322	1745	132322	1745	132322	1745	132322	1745	132322	1745
H	132665	1779.3	132657	1778.5	132647	1777.5	132622	1775	132597	1772.5	132572	1770

LTE Band 71								
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	133147	665.5	133172	668	133197	670.5	133222	673
M	133297	680.5	133297	680.5	133297	680.5	133297	680.5
H	133447	695.5	133422	693	133397	690.5	133372	688

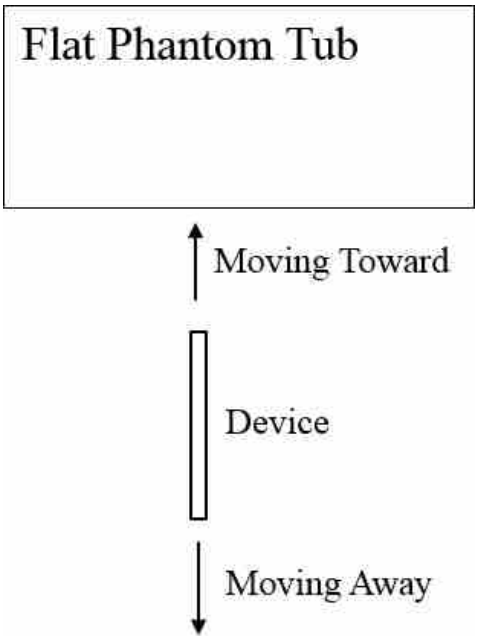
5. Proximity Sensor Triggering Test

5.1 Proximity sensor triggering distances(Per KDB616217§6.2)

1. Proximity sensor triggering distance testing was performed according to the procedures outlined in KDB 616217 D04 section 6.2, and EUT moving further away from the flat phantom and EUT moving toward the flat phantom were both assessed and the tissue-equivalent medium for highest frequency (5825MHz) and lowest (750MHz) frequency was used for proximity sensor triggering testing.
2. Capacitive proximity sensor placed coincident with antenna elements at the bottom end of the phone are utilized to determine when the device comes in proximity of the user's body at the front or back or bottom or left side surface of the device. There is no need to do sensor coverage testing for the proximity sensor is designed to support sufficient detection range and sensitivity to cover regions of the sensors in all applicable directions since the proximity sensor entirely covers the antenna.
3. When the proximity sensor is active, GSM1900, WCDMA band II/IV/V, CDMA BC1 / BC10, LTE band 2/4/5/7/13/25/26/66/38/41/41HPUE, 5GNR n2 / n5 / n25 / n66 / n41 / n41HPUE and WLAN2.4GHz / WLAN5.2GHz / 5.3GHz / 5.5GHz / 5.8GHz reduced power will be active for front/ back body worn SAR.
4. P-sensor can detect handheld state, WCDMA band II/IV, CDMA BC1, LTE band 2/4/7/25/66 and 5GNR n2 / n25 / n66 / n41/n41HPUE for front/back/bottom/top sides of product specific 10g SAR condition reduced powers will be active for handheld SAR.
5. The proximity sensors used to detect the proximity of the user's body at the front or back or bottom side surface of the device use a detection threshold distance. The data shown in the sections below shows the distance(s).
6. For verification of compliance of power reduction scheme, additional SAR testing with EUT transmitting at full RF power at a conservative trigger distance was performed for body worn:
   Front: 14 mm
   Back: 18 mm
7. For verification of compliance of power reduction scheme, additional SAR testing with EUT transmitting at full RF power at a conservative trigger distance was performed for handheld:
   Front: 6 mm
   Back: 8 mm
   Bottom side: 12 mm
   Top Side: 11 mm



Sensor/handheld detection test set-up, front and back faces



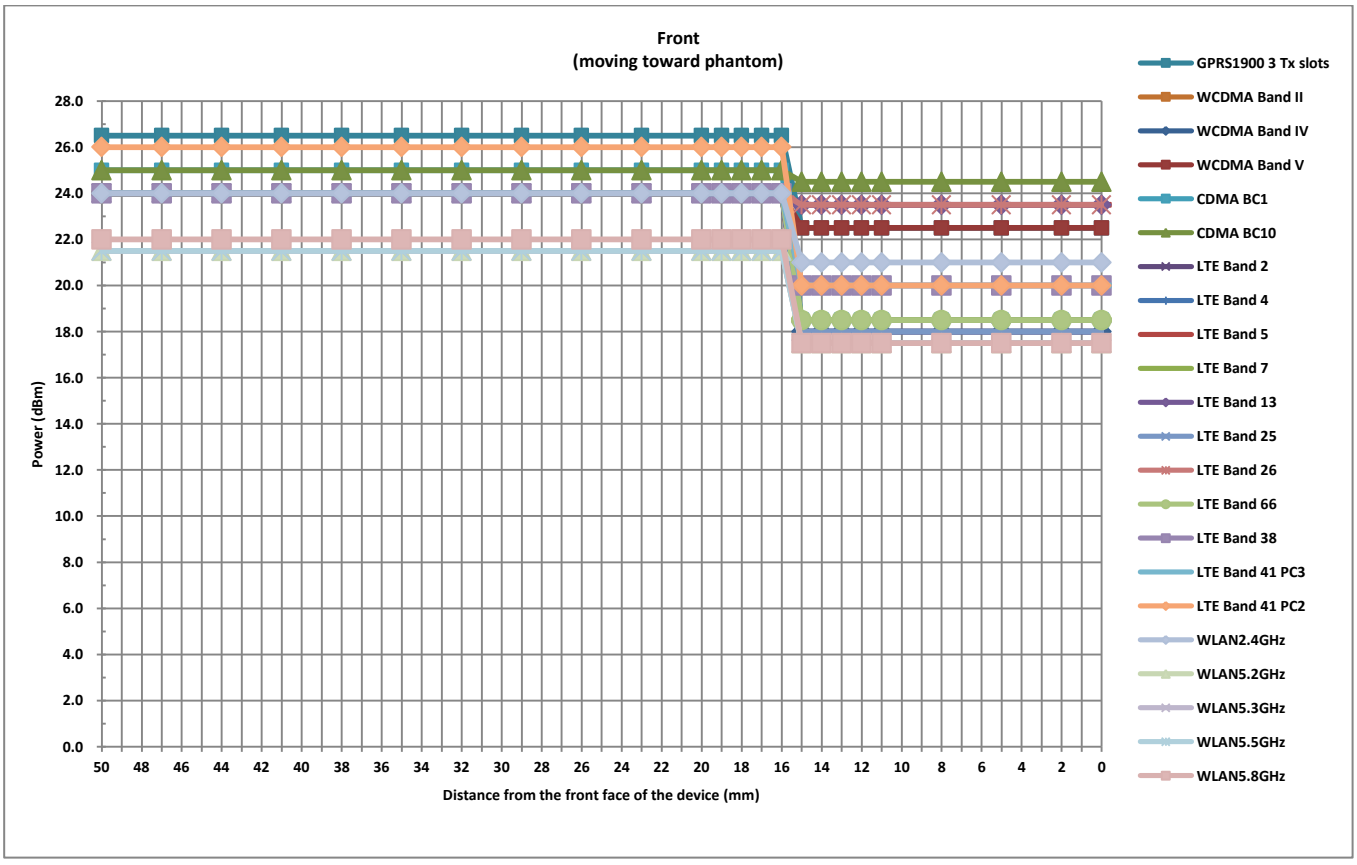
handheld detection test set-up, bottom side and top side

<P-Sensor>

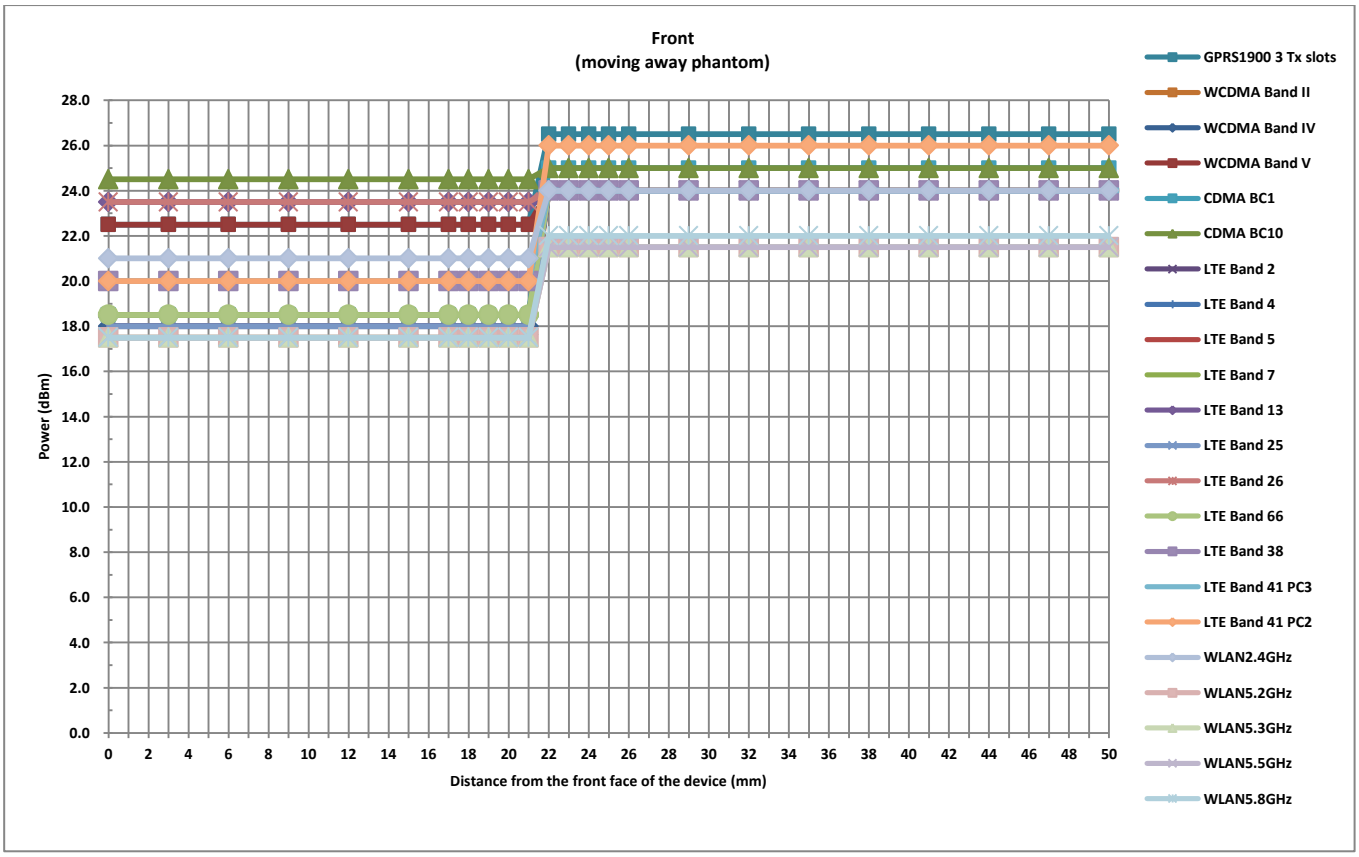
Proximity Sensor Triggering Distance (mm)				
Position	Front		Back	
	Moving towards	Moving away	Moving towards	Moving away
Minimum	15	21	19	23

TX. Band	Proximity Sensor Triggering Power (dBm)		
	Full	Reduced	power reduction (dB)
	max. tune up limit (dBm)	max. tune up limit(dBm)	
GPRS1900 3 Tx slots	26.5	22.5	4.0
WCDMA Band II	24.0	17.5	6.5
WCDMA Band IV	24.0	18.0	6.0
WCDMA Band V	24.0	22.5	1.5
CDMA BC1	25.0	18.5	6.5
CDMA BC10	25.0	24.5	0.5
LTE Band 2	24.0	18.0	6.0
LTE Band 4	24.0	18.5	5.5
LTE Band 5	24.0	23.5	0.5
LTE Band 7	24.0	18.5	5.5
LTE Band 13	24.0	23.5	0.5
LTE Band 25	24.0	18.0	6.0
LTE Band 26	24.0	23.5	0.5
LTE Band 66	24.0	18.5	5.5
LTE Band 38	24.0	20.0	4.0
LTE Band 41	24.0	20.0	4.0
LTE Band 41-HUPE	26.0	20.0	6.0
WLAN2.4GHz	24.0	21.0	3.0
WLAN5.2GHz	21.5	17.5	4.0
WLAN5.3GHz	21.5	17.5	4.0
WLAN5.5GHz	21.5	17.5	4.0
WLAN5.8GHz	22.0	17.5	4.5

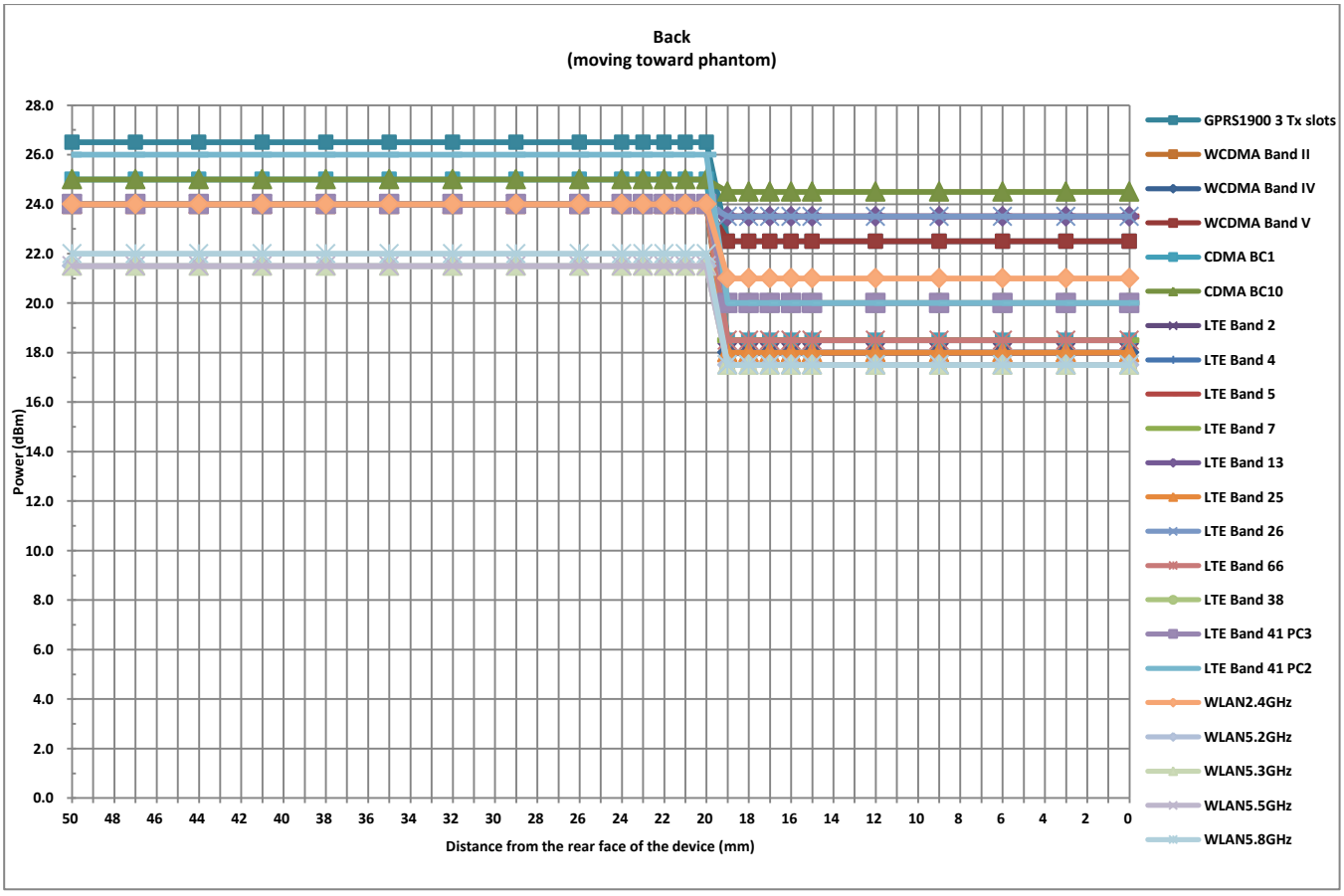
Proximity Sensor Triggering Distance (mm) and Triggering Power (dBm)																									
Front																									
Distance	50	49	46	43	40	37	34	31	28	25	22	20	19	18	17	16	15	14	13	12	10	7	4	1	0
GPRS1900 3 Tx slots	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
WCDMA Band II	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
WCDMA Band IV	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
WCDMA Band V	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
CDMA BC1	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
CDMA BC10	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5
LTE Band 2	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
LTE Band 4	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
LTE Band 5	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5
LTE Band 7	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
LTE Band 13	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5
LTE Band 25	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
LTE Band 26	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5
LTE Band 66	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
LTE Band 38	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
LTE Band 41	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
LTE Band 41-HUPE	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
WLAN2.4GHz	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0
WLAN5.2GHz	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
WLAN5.3GHz	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
WLAN5.5GHz	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
WLAN5.8GHz	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5



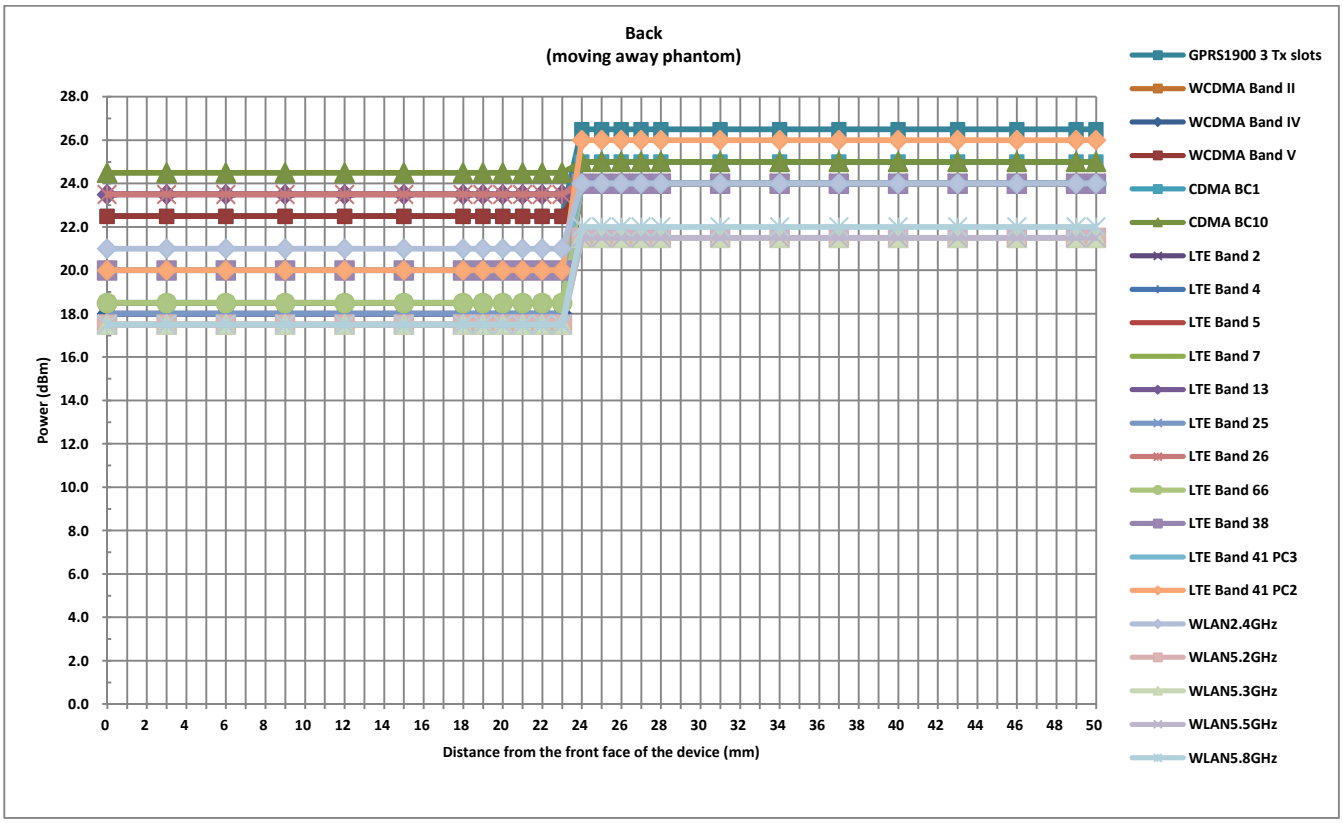
Proximity Sensor Triggering Distance (mm) and Triggering Power (dBm)																								
Front																								
Distance	50	49	46	43	40	37	34	31	28	26	25	24	23	22	21	20	19	18	17	15	12	9	6	3	0
GPRS1900 3 Tx slots	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
WCDMA Band II	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
WCDMA Band IV	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
WCDMA Band V	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
CDMA BC1	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
CDMA BC10	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5
LTE Band 2	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
LTE Band 4	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
LTE Band 5	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5
LTE Band 7	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
LTE Band 13	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5
LTE Band 25	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
LTE Band 26	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5
LTE Band 66	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
LTE Band 38	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
LTE Band 41	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
LTE Band 41-HUPE	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
WLAN2.4GHz	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0
WLAN5.2GHz	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
WLAN5.3GHz	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
WLAN5.5GHz	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
WLAN5.8GHz	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5



Proximity Sensor Triggering Distance (mm) and Triggering Power (dBm)																								
Back																								
Distance	50	49	46	44	41	38	35	32	29	26	24	23	22	21	20	19	18	17	16	15	12	9	6	3	0
GPRS1900 3 Tx slots	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
WCDMA Band II	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
WCDMA Band IV	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
WCDMA Band V	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
CDMA BC1	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
CDMA BC10	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5
LTE Band 2	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
LTE Band 4	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
LTE Band 5	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5
LTE Band 7	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
LTE Band 13	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5
LTE Band 25	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
LTE Band 26	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5
LTE Band 66	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
LTE Band 38	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
LTE Band 41	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
LTE Band 41-HUPE	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
WLAN2.4GHz	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0
WLAN5.2GHz	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
WLAN5.3GHz	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
WLAN5.5GHz	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
WLAN5.8GHz	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5



Proximity Sensor Triggering Distance (mm) and Triggering Power (dBm)																									
Back																									
Distance	50	49	48	46	43	40	37	34	31	28	27	26	25	24	23	22	21	20	19	18	15	12	9	6	3	0
GPRS1900 3 Tx slots	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
WCDMA Band II	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
WCDMA Band IV	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
WCDMA Band V	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
CDMA BC1	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
CDMA BC10	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5
LTE Band 2	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
LTE Band 4	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
LTE Band 5	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5
LTE Band 7	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
LTE Band 13	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5
LTE Band 25	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
LTE Band 26	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5
LTE Band 66	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5
LTE Band 38	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
LTE Band 41	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
LTE Band 41-HUPE	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
WLAN2.4GHz	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0
WLAN5.2GHz	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
WLAN5.3GHz	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
WLAN5.5GHz	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
WLAN5.8GHz	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5

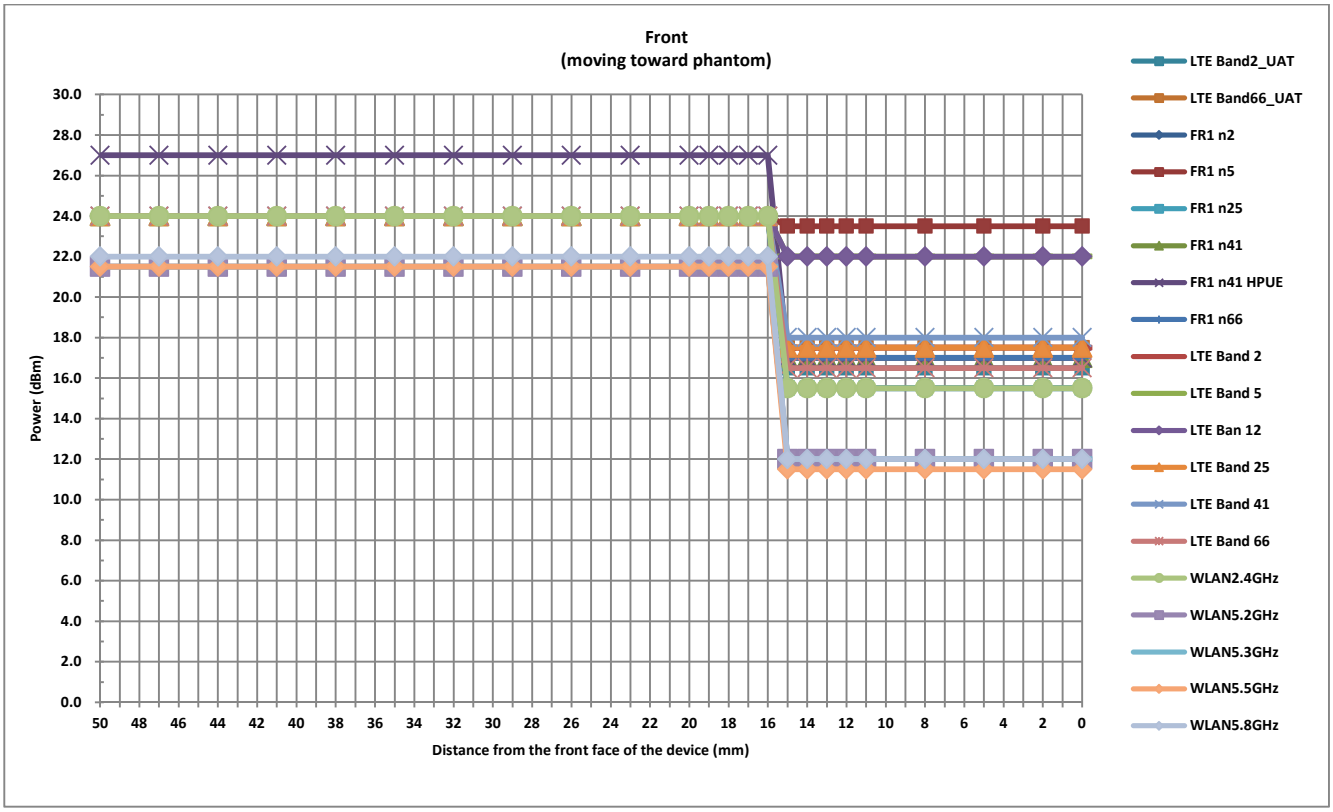


<5GNR and EN-DC>

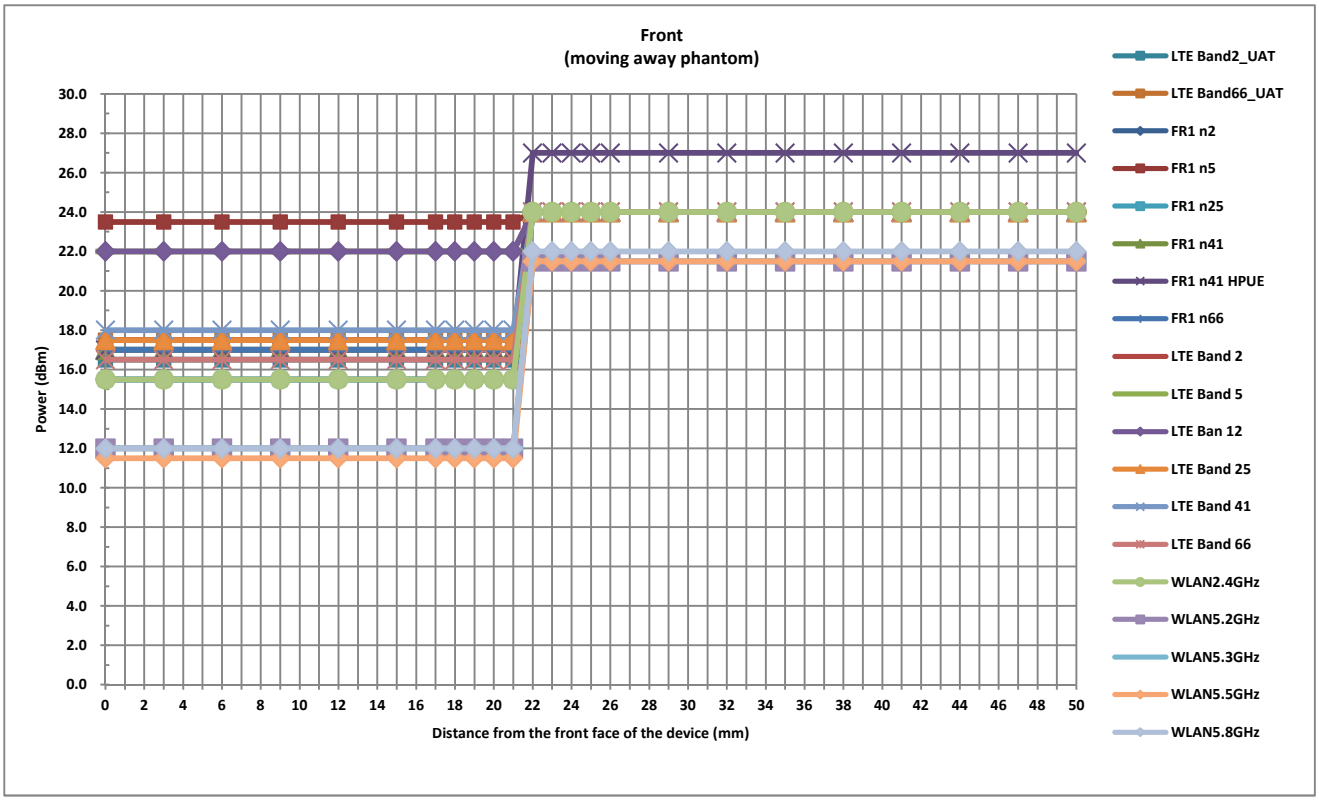
Proximity Sensor Triggering Distance (mm)				
Position	Front		Back	
	Moving towards	Moving away	Moving towards	Moving away
Minimum	15	21	19	23

TX. Band	Proximity Sensor Triggering Power (dBm)		
	Full	Reduced	power reduction (dB)
	max. tune up limit (dBm)	max. tune up limit(dBm)	
LTE Band 2-UAT	24.0	16.5	7.5
LTE Band 66-UAT	24.0	17.5	6.5
n2	24.0	15.5	8.5
n5	24.0	23.5	0.5
n25	24.0	15.5	8.5
n41	24.0	17.0	7.0
n41-HPUE	27.0	17.0	10.0
n66	24.0	17.0	7.0
LTE Band 2	24.0	17.5	6.5
LTE Band 5	24.0	22.0	2.0
LTE Band 12	24.0	22.0	2.0
LTE Band 25	24.0	17.5	6.5
LTE Band 41	24.0	18.0	6.0
LTE Band 66	24.0	16.5	7.5
WLAN2.4GHz	24.0	15.5	8.5
WLAN5.2GHz	21.5	12.0	9.5
WLAN5.3GHz	21.5	12.0	9.5
WLAN5.5GHz	21.5	11.5	10.0
WLAN5.8GHz	22.0	12.0	10.0

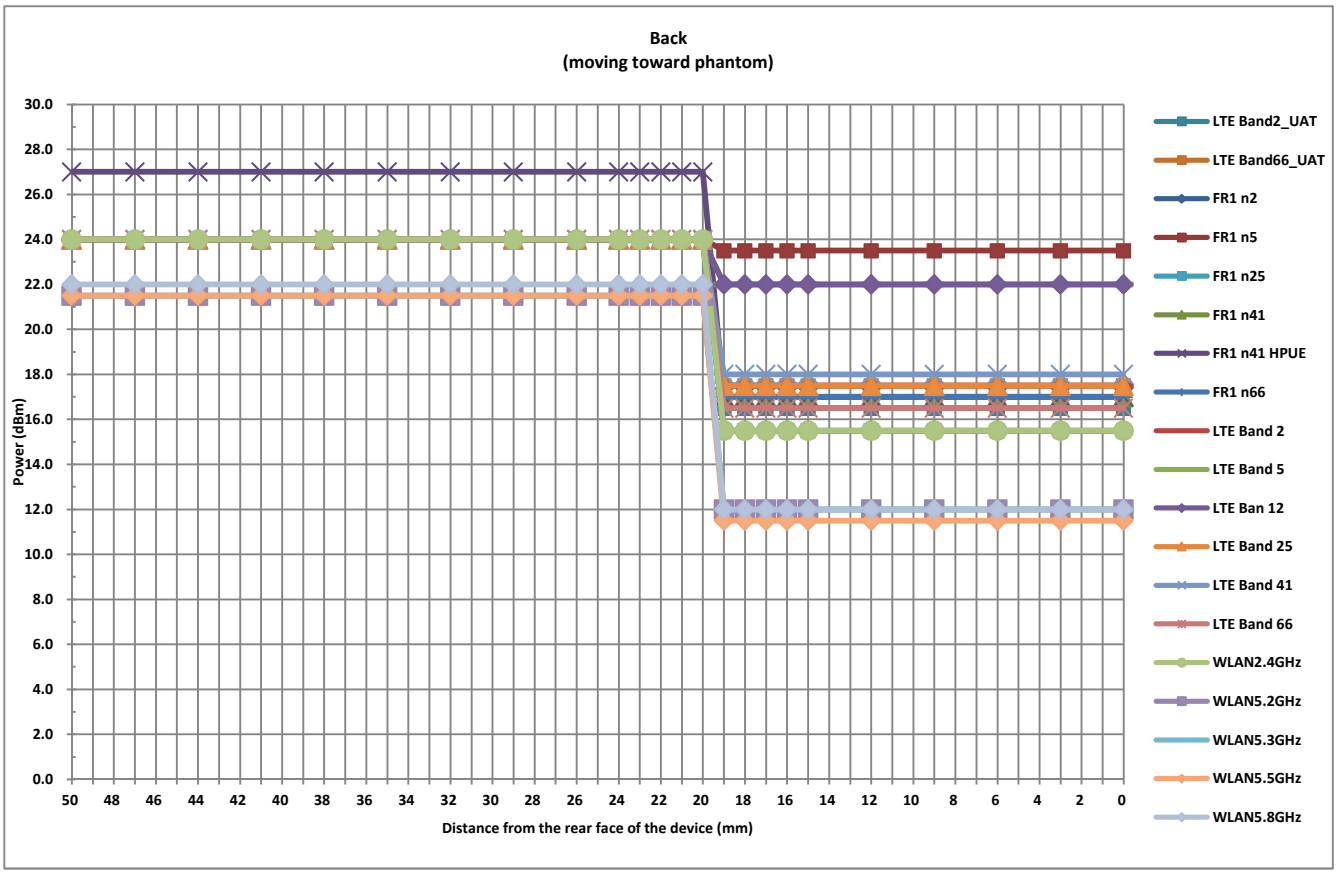
Proximity Sensor Triggering Distance (mm) and Triggering Power (dBm)																									
Front																									
Distance	50	49	46	43	40	37	34	31	28	25	22	20	19	18	17	16	15	14	13	12	10	7	4	1	0
LTE Band 2-UAT	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5
LTE Band 66-UAT	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
n2	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5
n5	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5
n25	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5
n41	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0
n41-HPUE	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0
n66	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0
LTE Band 2	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
LTE Band 5	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0
LTE Band 12	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0
LTE Band 25	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
LTE Band 41	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
LTE Band 66	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5
WLAN2.4GHz	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5
WLAN5.2GHz	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
WLAN5.3GHz	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
WLAN5.5GHz	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5
WLAN5.8GHz	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0



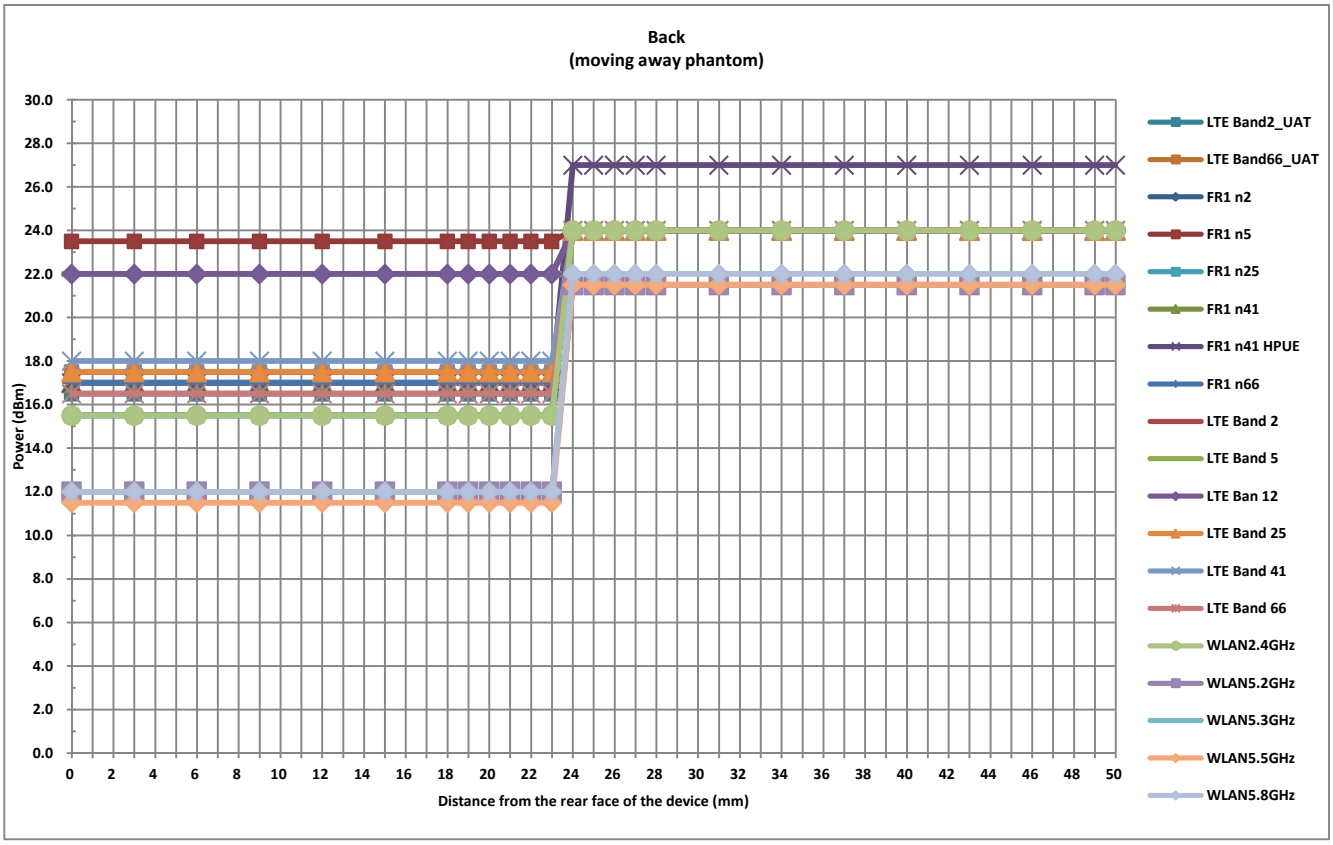
Proximity Sensor Triggering Distance (mm) and Triggering Power (dBm)																								
Front																								
Distance	50	49	46	43	40	37	34	31	28	26	25	24	23	22	21	20	19	18	17	15	12	9	6	3	0
LTE Band 2-UAT	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5
LTE Band 66-UAT	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
n2	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5
n5	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5
n25	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5
n41	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0
n41-HPUE	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0
n66	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0
LTE Band 2	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
LTE Band 5	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0
LTE Band 12	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0
LTE Band 25	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
LTE Band 41	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
LTE Band 66	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5
WLAN2.4GHz	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5
WLAN5.2GHz	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
WLAN5.3GHz	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
WLAN5.5GHz	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5
WLAN5.8GHz	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0



Proximity Sensor Triggering Distance (mm) and Triggering Power (dBm)																								
Back																								
Distance	50	49	46	44	41	38	35	32	29	26	24	23	22	21	20	19	18	17	16	15	12	9	6	3	0
LTE Band 2-UAT	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5
LTE Band 66-UAT	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
n2	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5
n5	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5
n25	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5
n41	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0
n41-HPUE	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0
n66	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0
LTE Band 2	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
LTE Band 5	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0
LTE Band 12	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0
LTE Band 25	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
LTE Band 41	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
LTE Band 66	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5
WLAN2.4GHz	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5
WLAN5.2GHz	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
WLAN5.3GHz	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
WLAN5.5GHz	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5
WLAN5.8GHz	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0



Proximity Sensor Triggering Distance (mm) and Triggering Power (dBm)																									
Back																									
Distance	50	49	48	46	43	40	37	34	31	28	27	26	25	24	23	22	21	20	19	18	15	12	9	6	3	0
LTE Band 2-UAT	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5
LTE Band 66-UAT	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
n2	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5
n5	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5
n25	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5
n41	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0
n41-HPUE	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0
n66	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0
LTE Band 2	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
LTE Band 5	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0
LTE Band 12	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0
LTE Band 25	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
LTE Band 41	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
LTE Band 66	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5
WLAN2.4GHz	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5
WLAN5.2GHz	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
WLAN5.3GHz	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
WLAN5.5GHz	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5
WLAN5.8GHz	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0

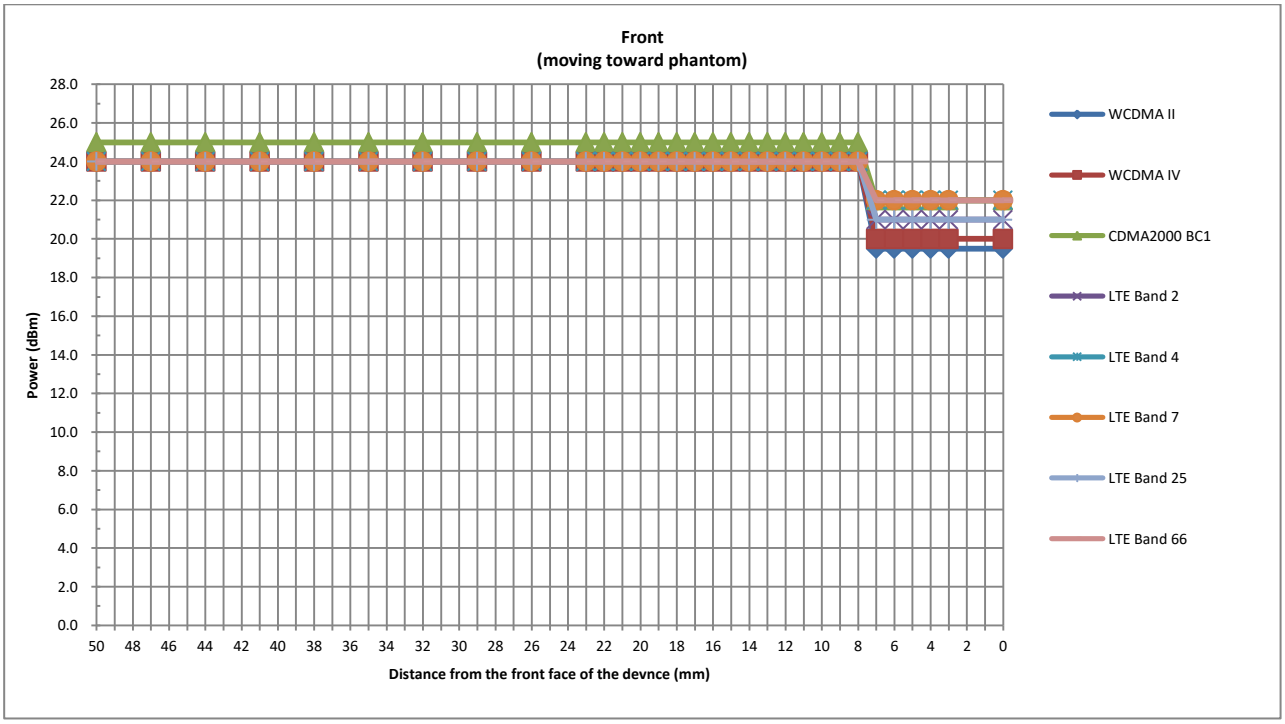


<Handheld>

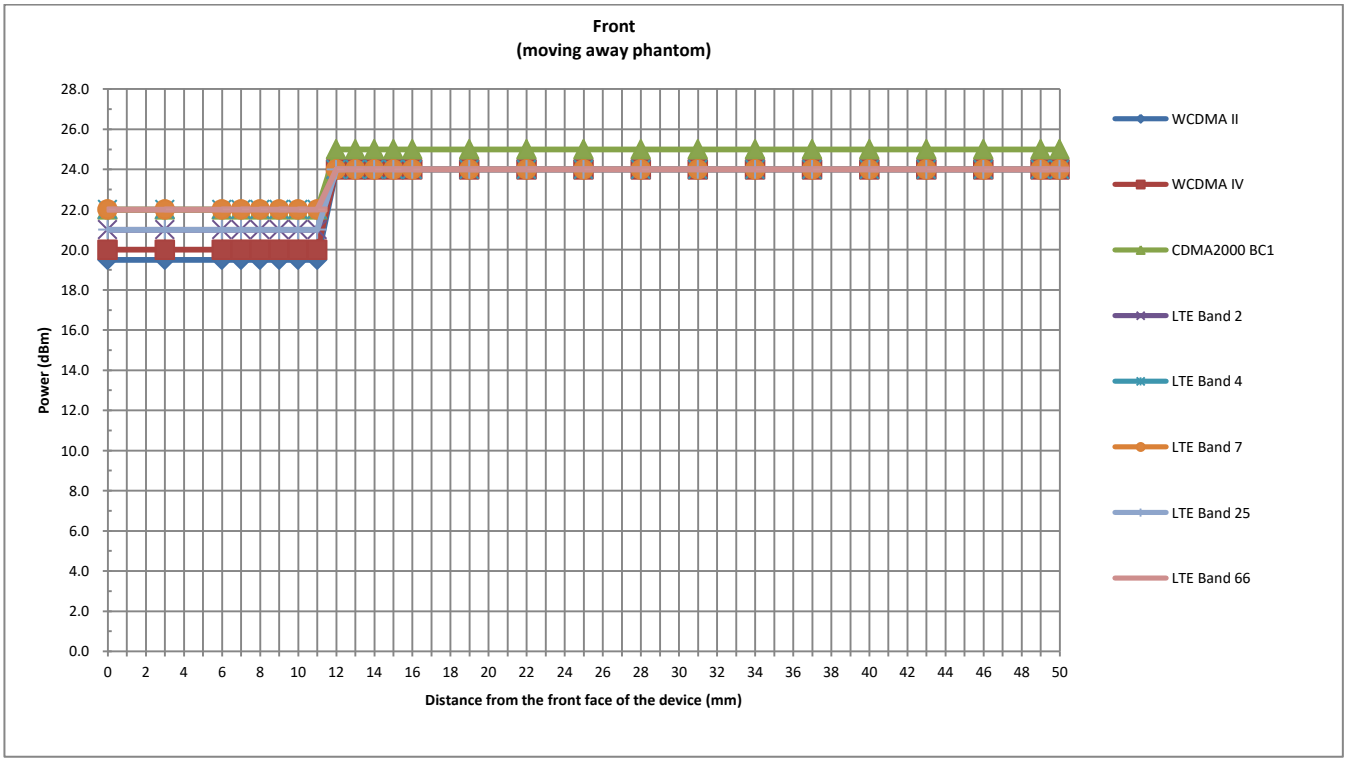
Position	Front		Back		Bottom Side	
	Moving towards	Moving away	Moving towards	Moving away	Moving towards	Moving away
Minimum	7	11	9	13	13	18

TX. Band	Handheld Triggering Power (dBm)		
	Full	Reduced	power reduction (dB)
	max. tune up limit (dBm)	max. tune up limit(dBm)	
WCDMA II	24.0	19.5	4.5
WCDMA IV	24.0	20.0	4.0
CDMA BC1	25.0	22.0	3.0
LTE Band 2	24.0	21.0	3.0
LTE Band 4	24.0	22.0	2.0
LTE Band 7	24.0	22.0	2.0
LTE Band 25	24.0	21.0	3.0
LTE Band 66	24.0	22.0	2.0

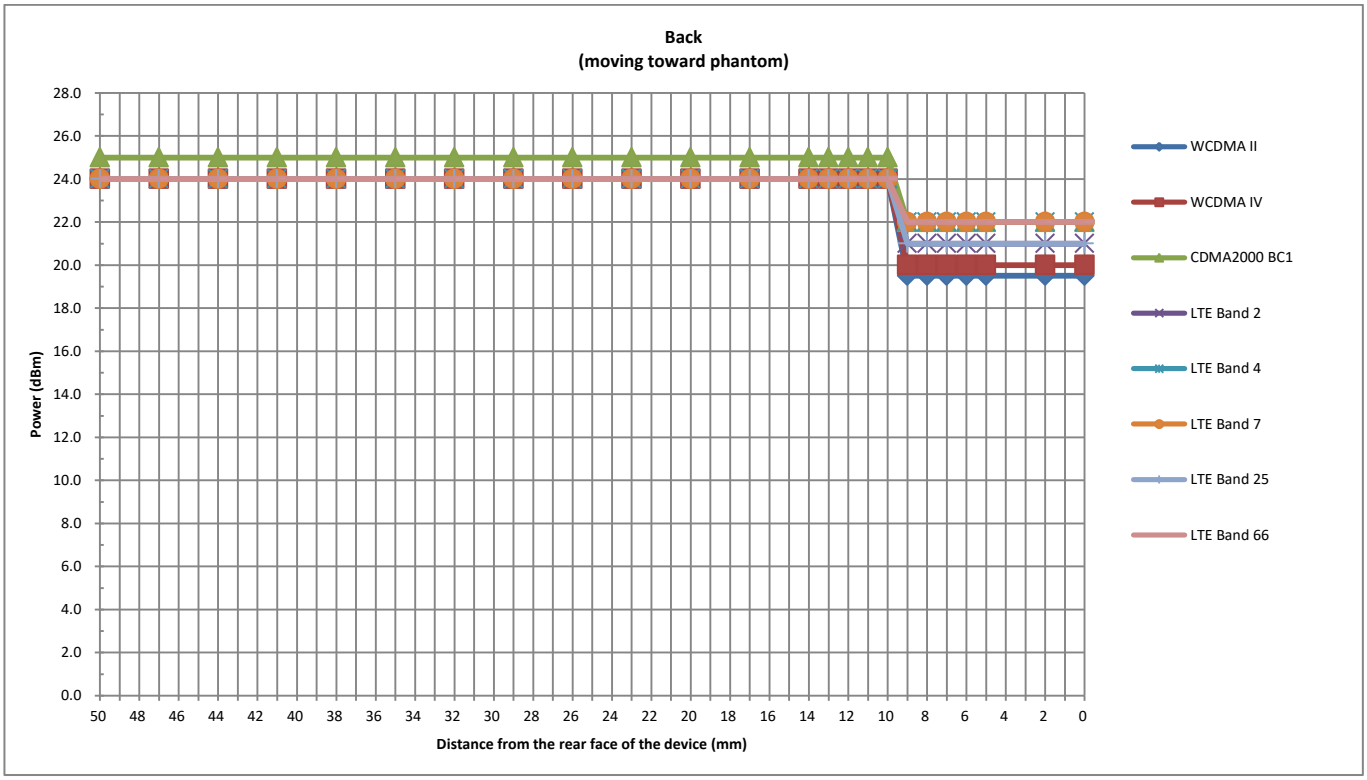
Handheld Triggering Distance (mm) and Triggering Power (dBm)																								
Front																								
Distance	50	48	45	42	39	36	33	30	27	24	21	18	15	12	11	10	9	8	7	6	5	4	3	0
WCDMA II	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	19.5	19.5	19.5	19.5	19.5	19.5
WCDMA IV	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	20.0	20.0	20.0	20.0	20.0	20.0
CDMA BC1	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	22.0	22.0	22.0	22.0	22.0	22.0
LTE Band 2	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	21.0	21.0	21.0	21.0	21.0	21.0
LTE Band 4	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	22.0	22.0	22.0	22.0	22.0	22.0
LTE Band 7	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	22.0	22.0	22.0	22.0	22.0	22.0
LTE Band 25	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	21.0	21.0	21.0	21.0	21.0	21.0
LTE Band 66	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	22.0	22.0	22.0	22.0	22.0	22.0



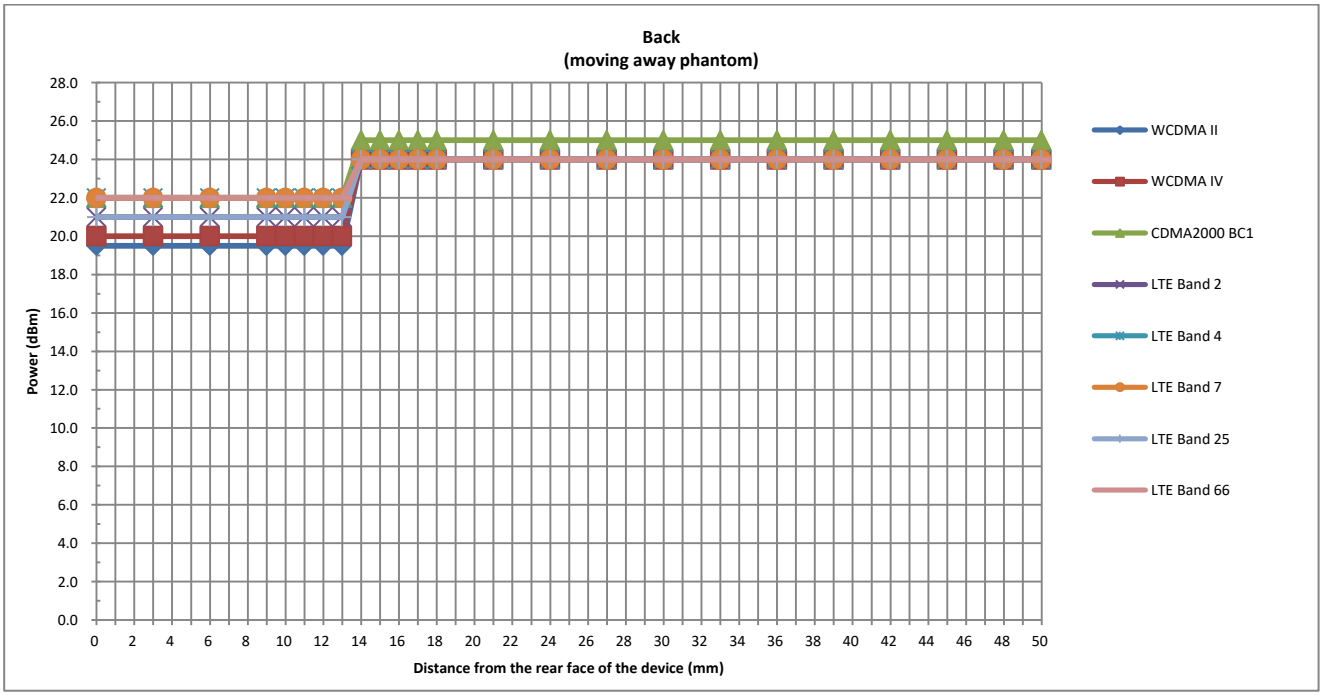
Handheld Triggering Distance (mm) and Triggering Power (dBm)																								
Front																								
Distance	50	47	44	41	38	35	32	29	28	24	21	16	15	14	13	12	11	10	9	8	7	6	3	0
WCDMA II	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5
WCDMA IV	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
CDMA BC1	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0
LTE Band 2	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0
LTE Band 4	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0
LTE Band 7	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0
LTE Band 25	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0
LTE Band 66	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0



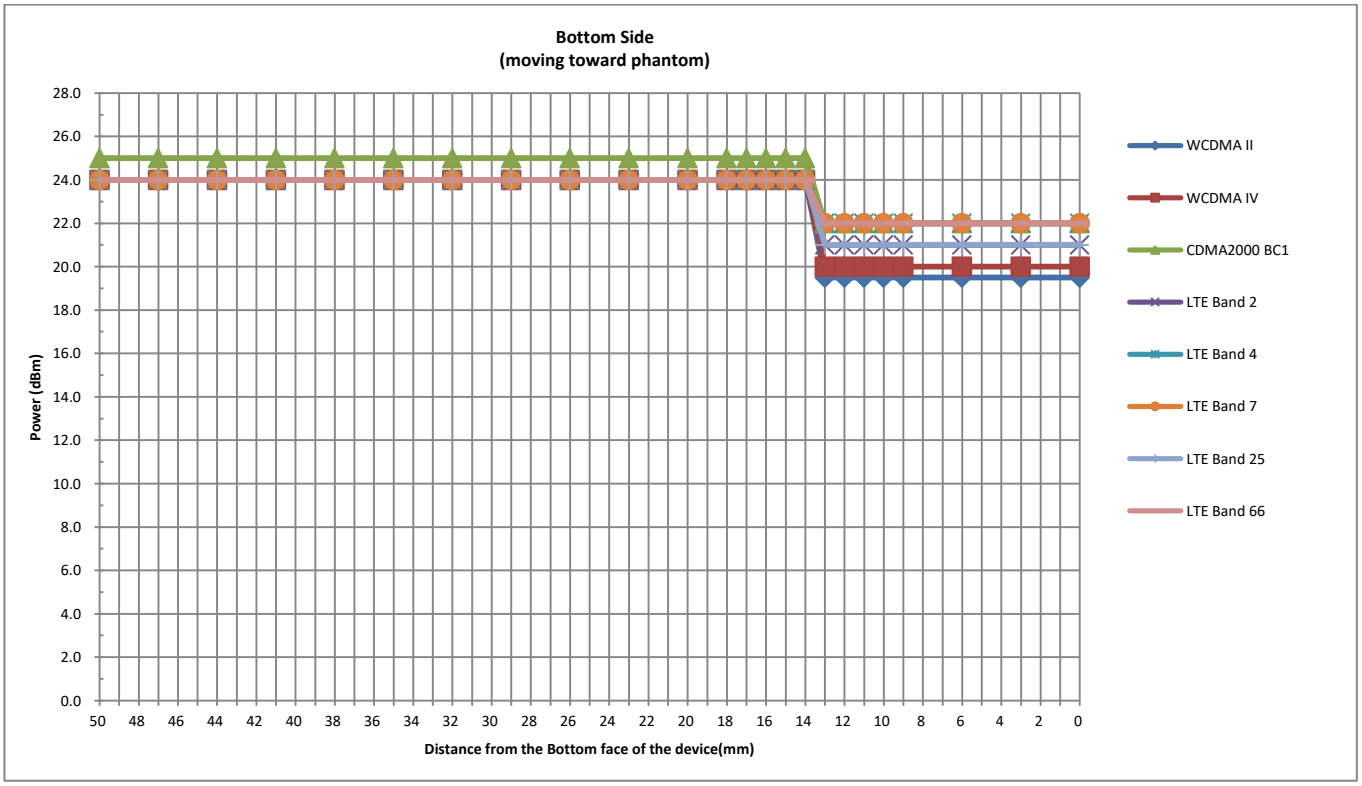
Handheld Triggering Distance (mm) and Triggering Power (dBm)																									
Back																									
Distance	50	47	44	41	38	35	32	29	26	23	20	17	14	13	12	11	10	9	8	7	6	5	4	1	0
WCDMA II	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5
WCDMA IV	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
CDMA BC1	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0
LTE Band 2	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0
LTE Band 4	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0
LTE Band 7	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0
LTE Band 25	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0
LTE Band 66	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0



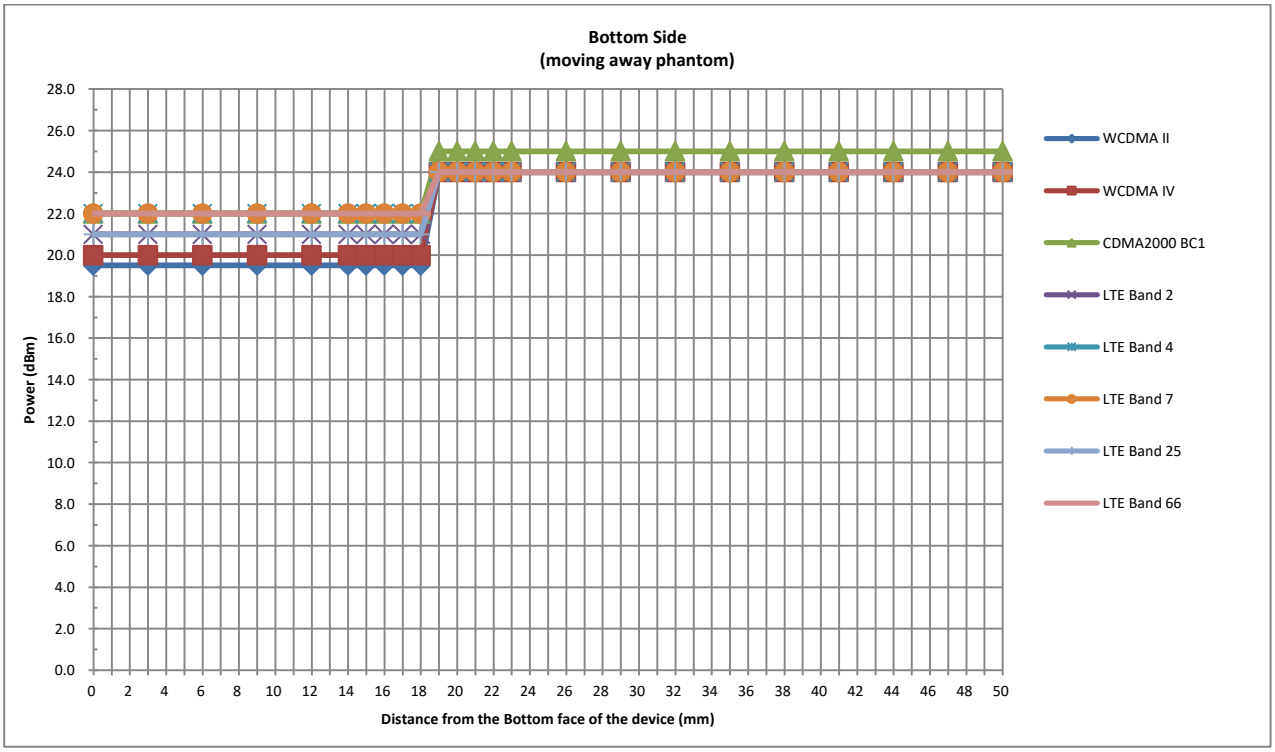
Handheld Triggering Distance (mm) and Triggering Power (dBm)																								
Back																								
Distance	50	47	44	41	38	35	32	29	26	24	21	18	17	16	15	14	13	12	11	10	9	6	3	0
WCDMA II	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5
WCDMA IV	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
CDMA BC1	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0
LTE Band 2	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0
LTE Band 4	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0
LTE Band 7	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0
LTE Band 25	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0
LTE Band 66	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0



Handheld Triggering Distance (mm) and Triggering Power (dBm)																								
Bottom Side																								
Distance	50	47	44	41	38	35	32	29	26	24	21	18	17	16	15	14	13	12	11	10	9	6	3	0
WCDMA II	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5
WCDMA IV	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
CDMA BC1	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0
LTE Band 2	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0
LTE Band 4	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0
LTE Band 7	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0
LTE Band 25	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0
LTE Band 66	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0



Handheld Triggering Distance (mm) and Triggering Power (dBm)																								
Bottom Side																								
Distance	50	48	45	42	39	36	33	29	26	23	22	21	20	19	18	17	16	15	14	12	9	6	3	0
WCDMA II	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5
WCDMA IV	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
CDMA BC1	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0
LTE Band 2	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0
LTE Band 4	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0
LTE Band 7	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0
LTE Band 25	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0
LTE Band 66	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0

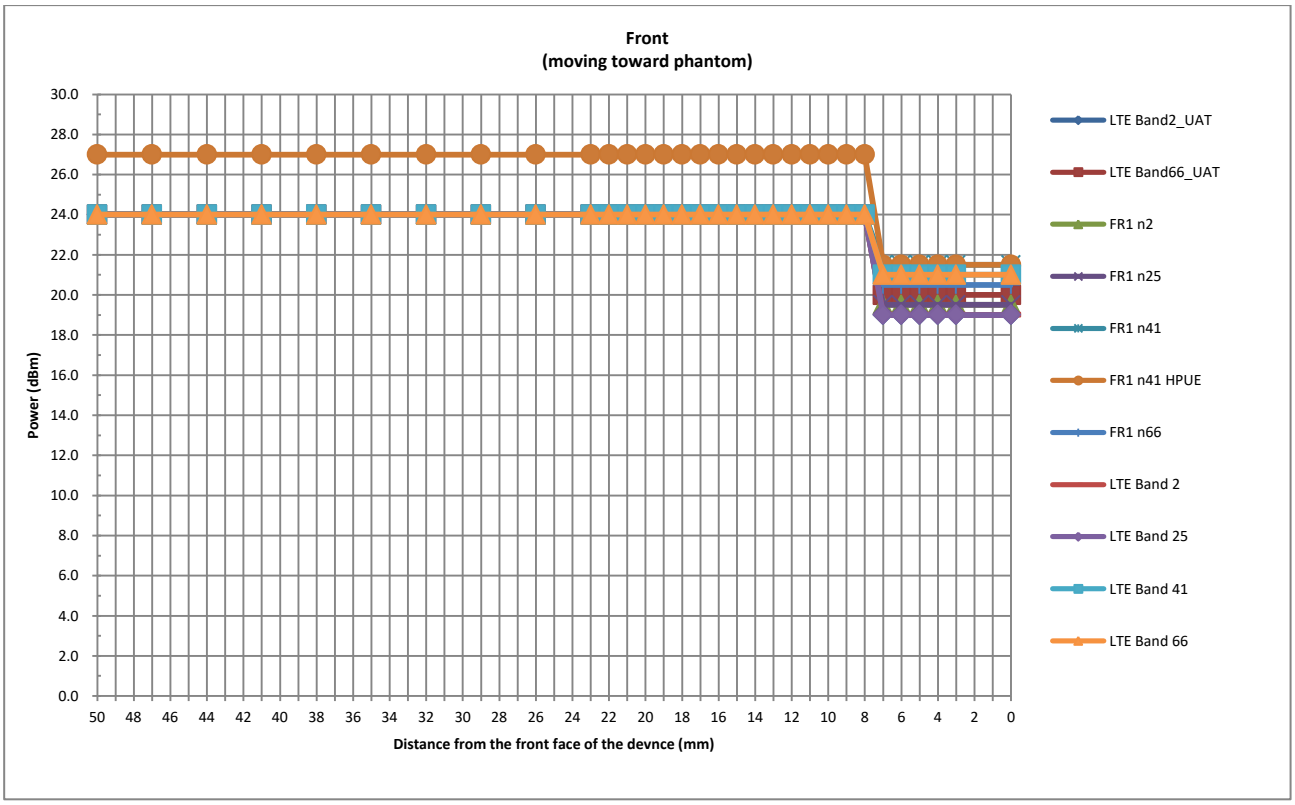


<5GNR and EN-DC>

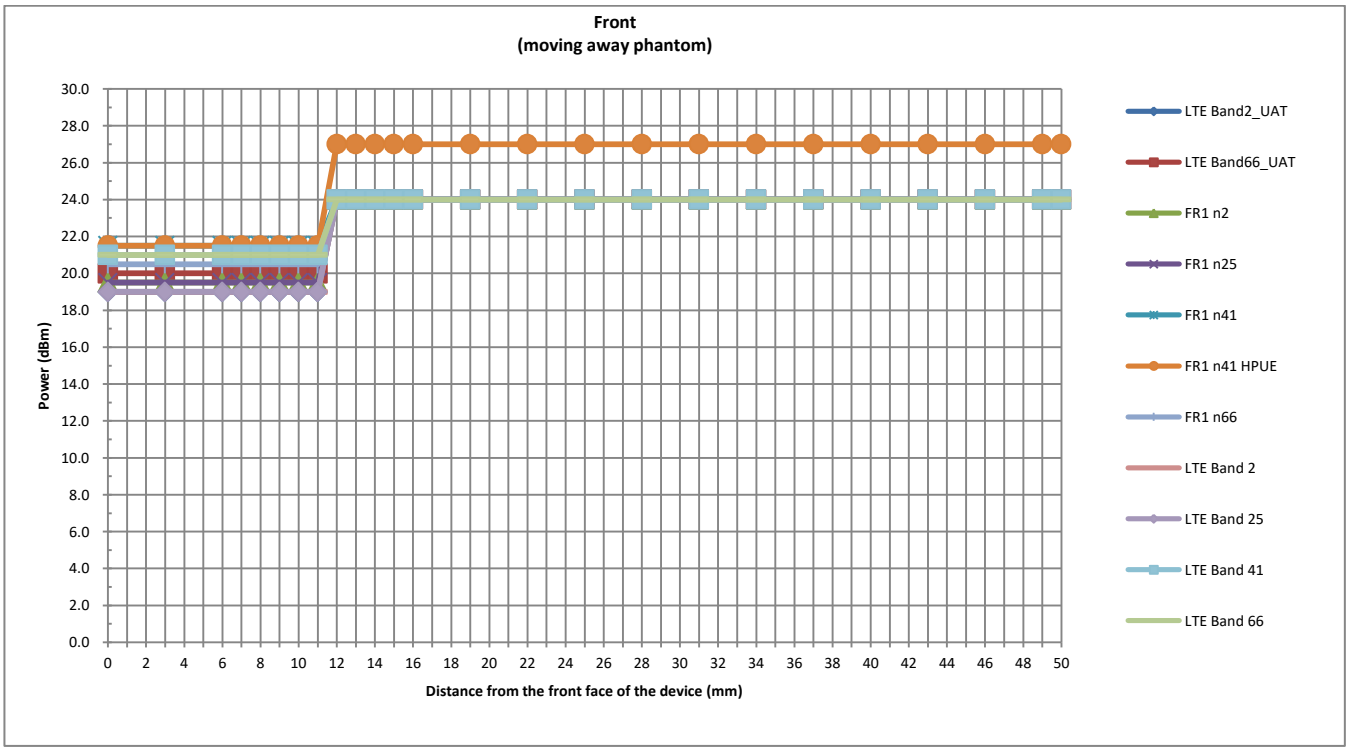
Position	Front		Back		Bottom Side		Top Side	
	Moving towards	Moving away	Moving towards	Moving towards	Moving towards	Moving away	Moving towards	Moving away
Minimum	7	11	9	13	13	18	12	15

TX. Band	Handheld Triggering Power (dBm)		
	Full	Reduced	power reduction (dB)
	max. tune up limit (dBm)	max. tune up limit(dBm)	
LTE Band 2-UAT	24.0	19.0	5.0
LTE Band 66-UAT	24.0	20.0	4.0
n2	24.0	19.5	4.5
n25	24.0	19.5	4.5
n41	24.0	21.5	2.5
n41-HPUE	27.0	21.5	5.5
n66	24.0	20.5	3.5
LTE Band 2	24.0	19.0	5.0
LTE Band 25	24.0	19.0	5.0
LTE Band 41	24.0	21.0	3.0
LTE Band 66	24.0	21.0	3.0

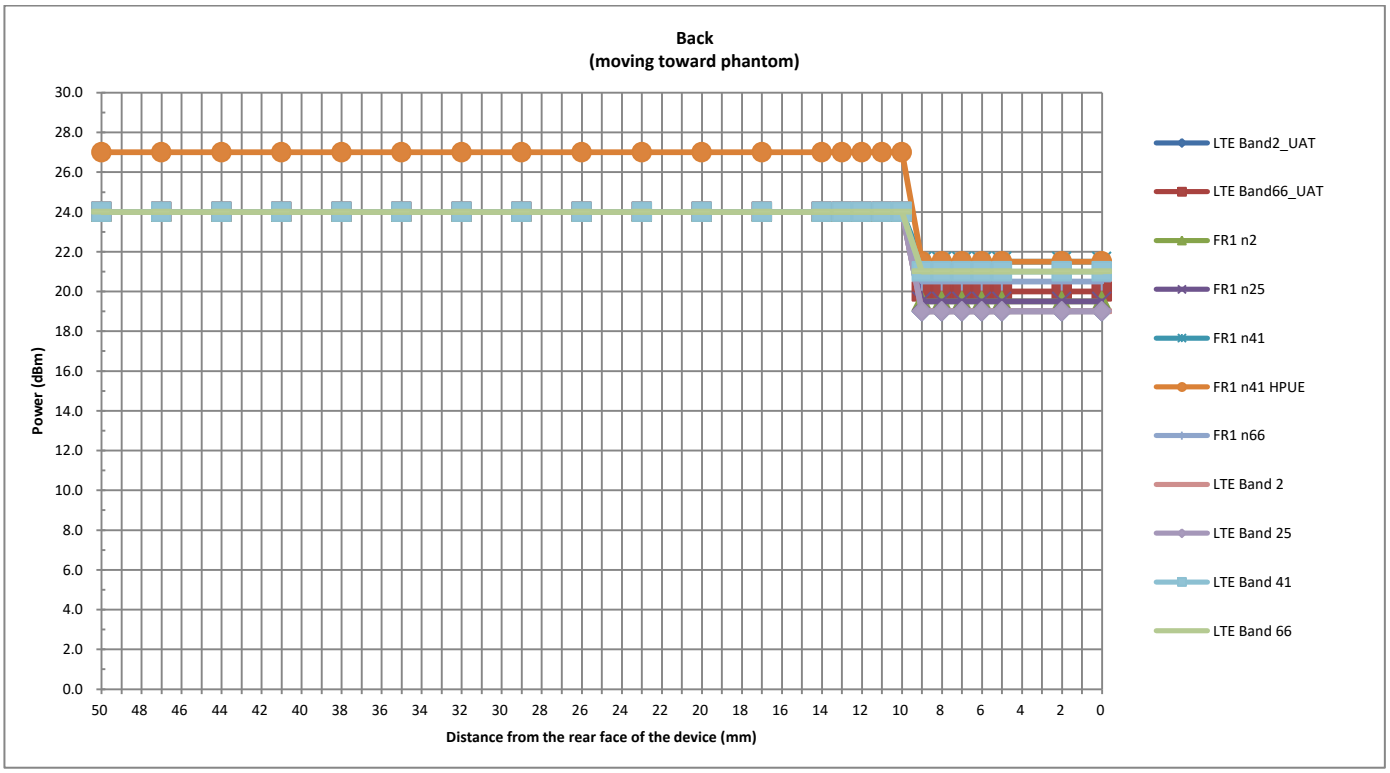
Handheld Triggering Distance (mm) and Triggering Power (dBm)																								
Front																								
Distance	50	48	45	42	39	36	33	30	27	24	21	18	15	12	11	10	9	8	7	6	5	4	3	0
LTE Band 2-UAT	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	19.0	19.0	19.0	19.0	19.0	19.0
LTE Band 66-UAT	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	20.0	20.0	20.0	20.0	20.0	20.0
n2	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	19.5	19.5	19.5	19.5	19.5	19.5
n25	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	19.5	19.5	19.5	19.5	19.5	19.5
n41	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	21.5	21.5	21.5	21.5	21.5	21.5
n41-HPUE	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	21.5	21.5	21.5	21.5	21.5	21.5
n66	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	20.5	20.5	20.5	20.5	20.5	20.5
LTE Band 2	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	19.0	19.0	19.0	19.0	19.0	19.0
LTE Band 25	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	19.0	19.0	19.0	19.0	19.0	19.0
LTE Band 41	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	21.0	21.0	21.0	21.0	21.0	21.0
LTE Band 66	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	21.0	21.0	21.0	21.0	21.0	21.0



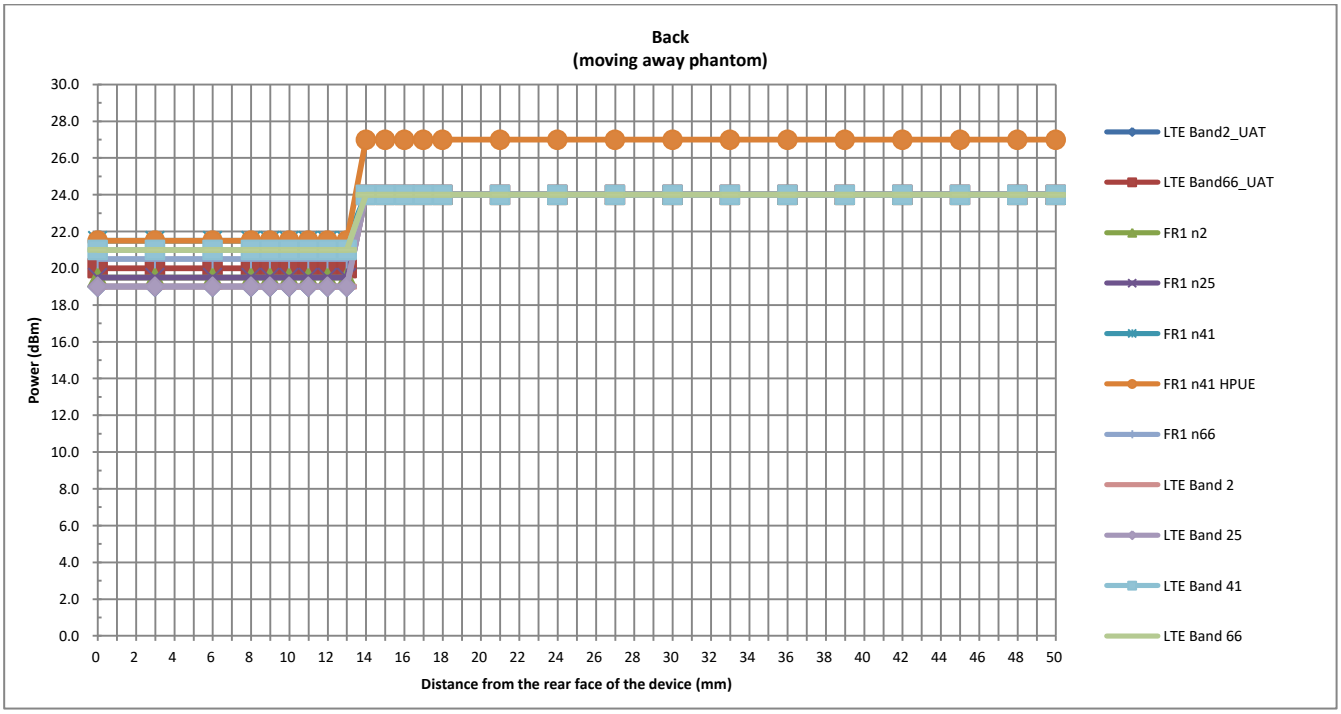
Handheld Triggering Distance (mm) and Triggering Power (dBm)																								
Front																								
Distance	50	47	44	41	38	35	32	29	28	24	21	16	15	14	13	12	11	10	9	8	7	5	2	0
LTE Band 2-UAT	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0
LTE Band 66-UAT	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
n2	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5
n25	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5
n41	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5
n41-HPUE	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5
n66	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5
LTE Band 2	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0
LTE Band 25	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0
LTE Band 41	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0
LTE Band 66	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0



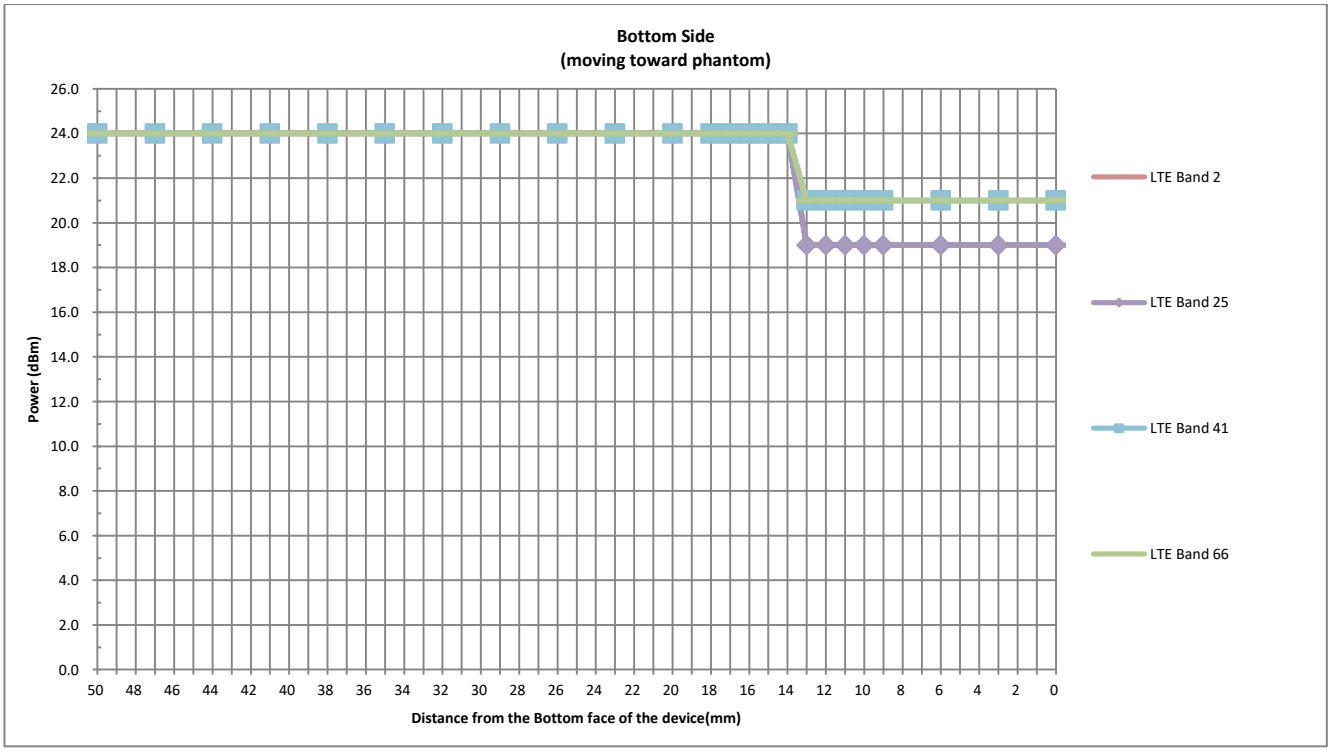
Handheld Triggering Distance (mm) and Triggering Power (dBm)																									
Back																									
Distance	50	47	44	41	38	35	32	29	26	23	20	17	14	13	12	11	10	9	8	7	6	5	4	1	0
LTE Band 2-UAT	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0
LTE Band 66-UAT	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
n2	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5
n25	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5
n41	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5
n41-HPUE	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5
n66	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5
LTE Band 2	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0
LTE Band 25	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0
LTE Band 41	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0
LTE Band 66	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0



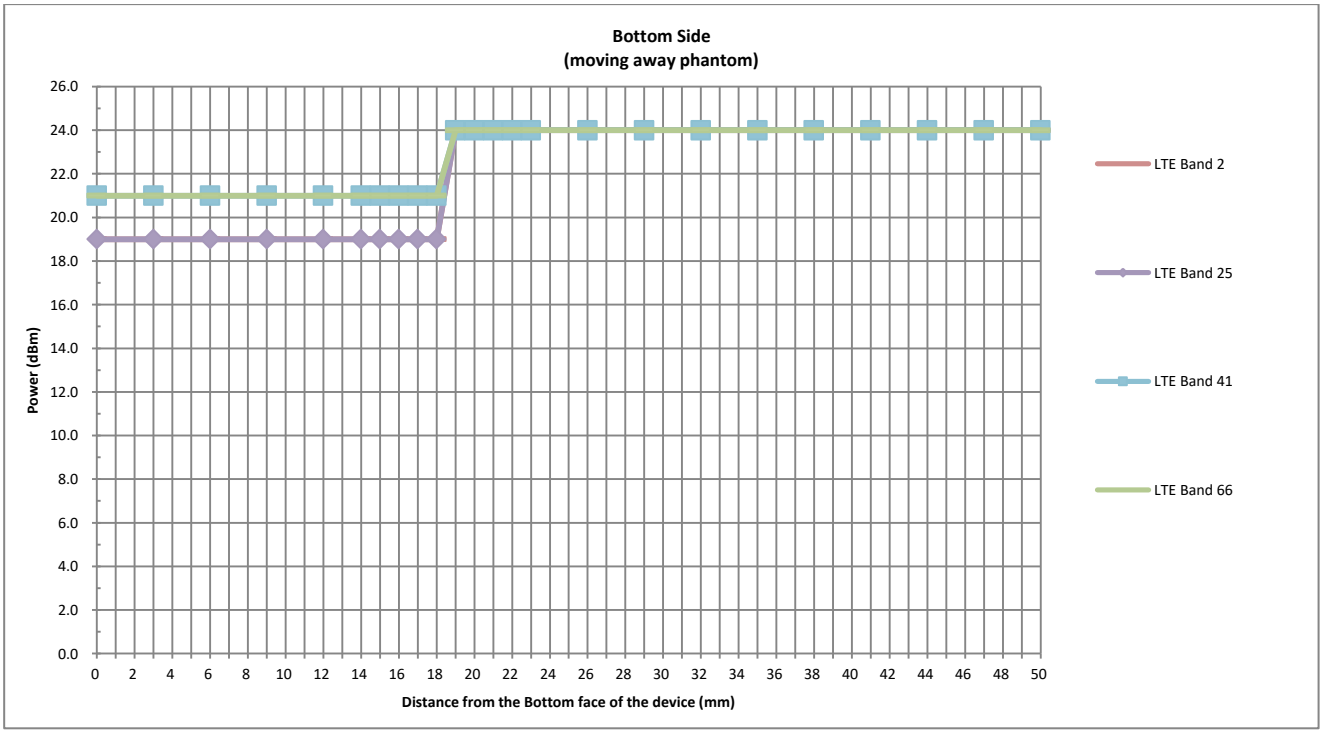
Handheld Triggering Distance (mm) and Triggering Power (dBm)																								
Back																								
Distance	50	47	44	41	38	35	32	29	26	24	21	18	17	16	15	14	13	12	11	10	9	6	3	0
LTE Band 2-UAT	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0
LTE Band 66-UAT	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
n2	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5
n25	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5
n41	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5
n41-HPUE	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5
n66	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5
LTE Band 2	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0
LTE Band 25	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0
LTE Band 41	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0
LTE Band 66	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0



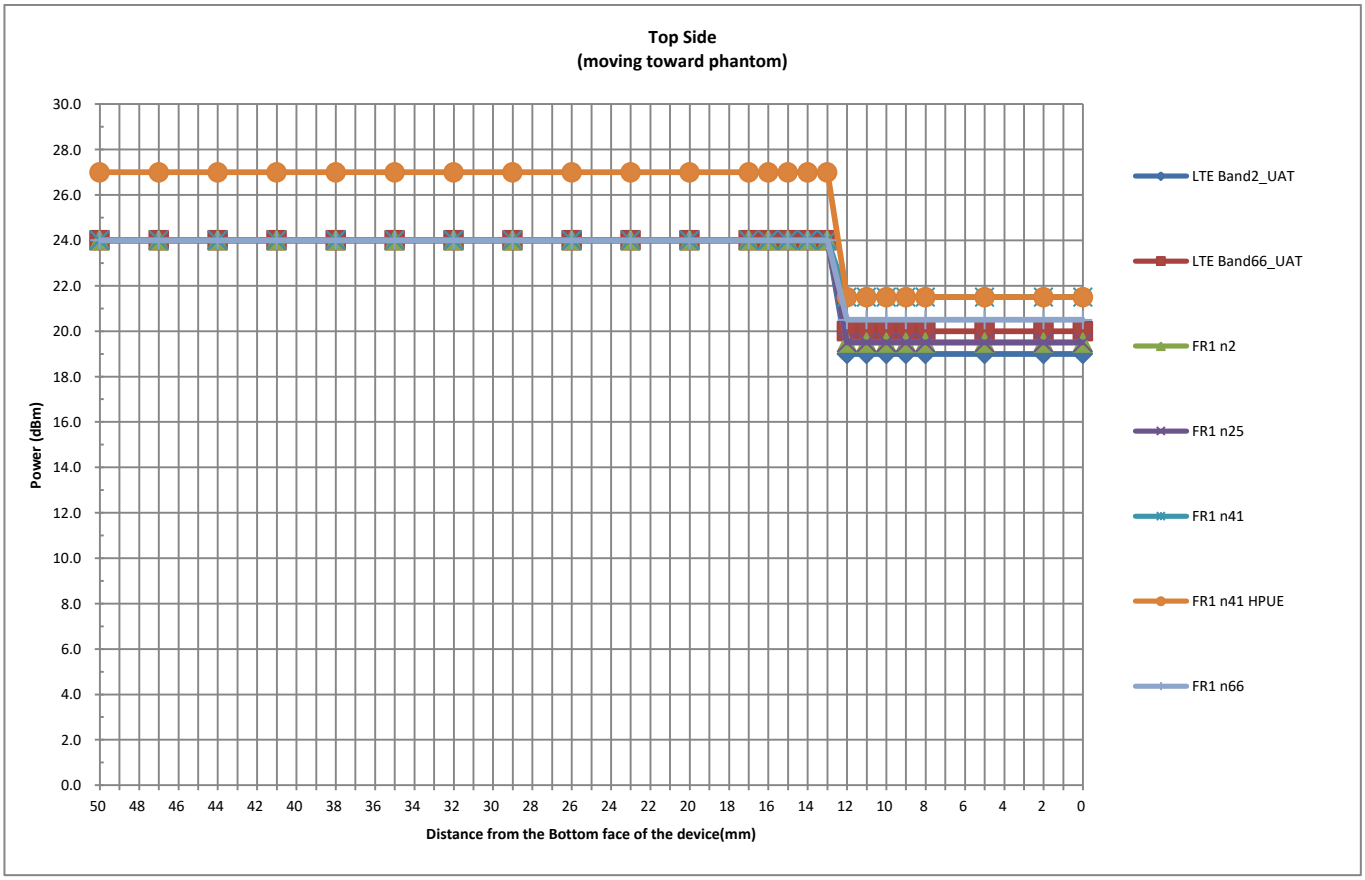
Handheld Triggering Distance (mm) and Triggering Power (dBm)																								
Bottom Side																								
Distance	50	47	44	41	38	35	32	29	26	24	21	18	17	16	15	14	13	12	11	10	9	6	3	0
LTE Band 2	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0
LTE Band 25	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0
LTE Band 41	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0
LTE Band 66	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0



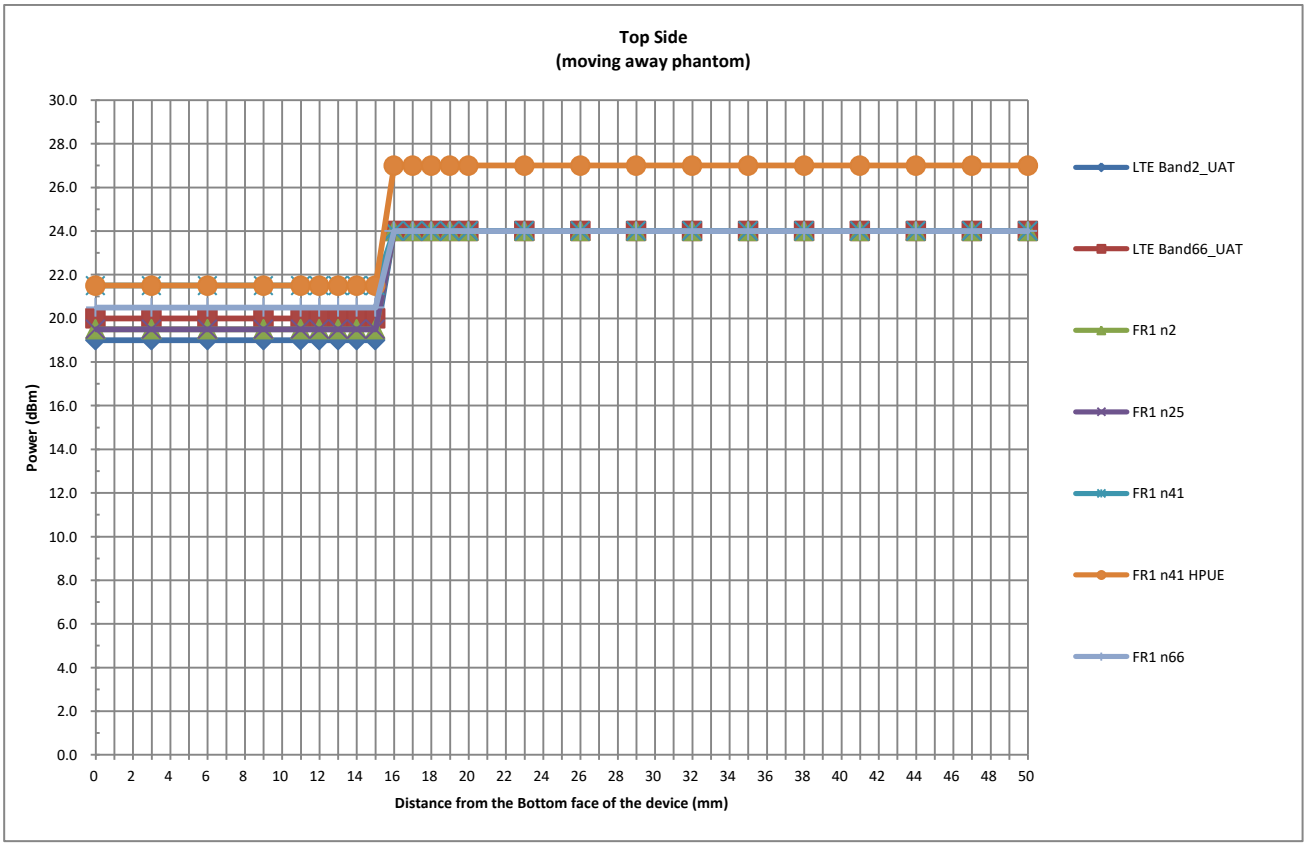
Handheld Triggering Distance (mm) and Triggering Power (dBm)																								
Bottom Side																								
Distance	50	48	45	42	39	36	33	29	26	23	22	21	20	19	18	17	16	15	14	12	9	6	3	0
LTE Band 2	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0
LTE Band 25	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0
LTE Band 41	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0
LTE Band 66	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0



Handheld Triggering Distance (mm) and Triggering Power (dBm)																								
Top Side																								
Distance	50	47	44	41	38	35	32	29	26	24	21	17	16	15	14	13	12	11	10	9	8	5	2	0
LTE Band 2-UAT	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0
LTE Band 66-UAT	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
n2	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5
n25	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5
n41	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5
n41-HPUE	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5
n66	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5



Handheld Triggering Distance (mm) and Triggering Power (dBm)																								
Top Side																								
Distance	50	48	45	42	39	36	33	29	26	23	20	19	18	17	16	15	14	13	12	11	9	6	3	0
LTE Band 2-UAT	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0
LTE Band 66-UAT	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
n2	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5
n25	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5
n41	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5
n41-HPUE	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5
n66	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5



6. RF Exposure Limits

6.1 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.

6.2 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. The 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.

Limits for Occupational/Controlled Exposure (W/kg)

Whole-Body	Partial-Body	Hands, Wrists, Feet and Ankles
0.4	8.0	20.0

Limits for General Population/Uncontrolled Exposure (W/kg)

Whole-Body	Partial-Body	Hands, Wrists, Feet and Ankles
0.08	1.6	4.0

Whole-Body SAR is averaged over the entire body, partial-body SAR is averaged over any 1gram of tissue defined as a tissue volume in the shape of a cube. SAR for hands, wrists, feet and ankles is averaged over any 10 grams of tissue defined as a tissue volume in the shape of a cube.

7. Specific Absorption Rate (SAR)

7.1 Introduction

SAR is related to the rate at which energy is absorbed per unit mass in an object exposed to a radio field. The SAR distribution in a biological body is complicated and is usually carried out by experimental techniques or numerical modeling. The standard recommends limits for two tiers of groups, occupational/controlled and general population/uncontrolled, based on a person's awareness and ability to exercise control over his or her exposure. In general, occupational/controlled exposure limits are higher than the limits for general population/uncontrolled.

7.2 SAR Definition

The SAR definition is the time derivative (rate) of the incremental energy (dW) absorbed by (dissipated in) an incremental mass (dm) contained in a volume element (dv) of a given density (ρ). The equation description is as below:

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

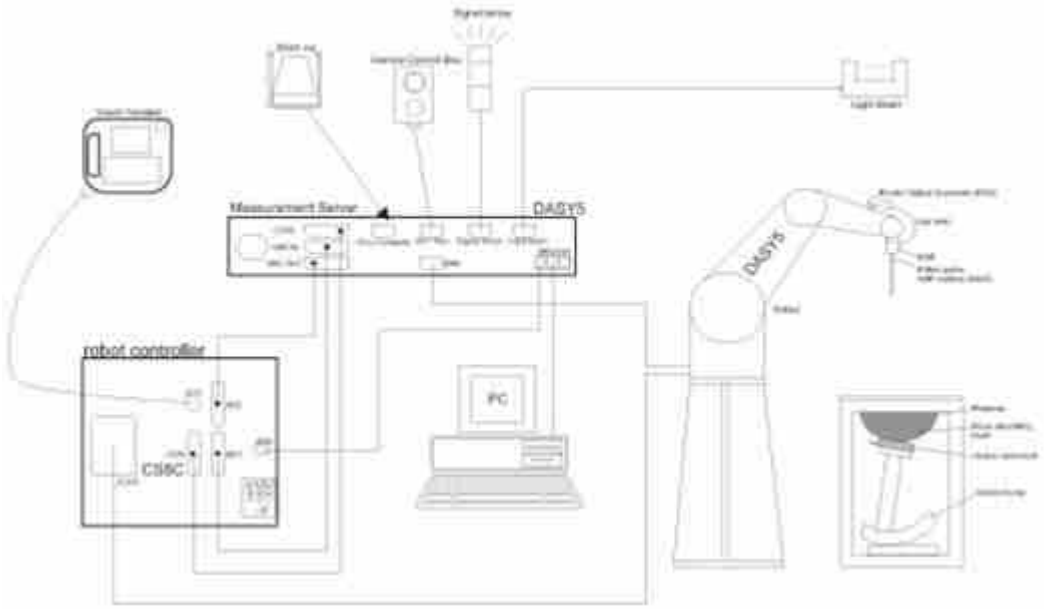
SAR is expressed in units of Watts per kilogram (W/kg)

$$\mathbf{SAR} = \frac{\boldsymbol{\sigma}|\mathbf{E}|^2}{\boldsymbol{\rho}}$$

Where: σ is the conductivity of the tissue, ρ is the mass density of the tissue and E is the RMS electrical field strength.

8. System Description and Setup

The DASY system used for performing compliance tests consists of the following items:



- A standard high precision 6-axis robot with controller, teach pendant and software. An arm extension for accommodating the data acquisition electronics (DAE).
- An isotropic Field probe optimized and calibrated for the targeted measurement.
- A data acquisition electronics (DAE) which performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. The unit is battery powered with standard or rechargeable batteries. The signal is optically transmitted to the EOC.
- The Electro-optical converter (EOC) performs the conversion from optical to electrical signals for the digital communication to the DAE. To use optical surface detection, a special version of the EOC is required. The EOC signal is transmitted to the measurement server.
- The function of the measurement server is to perform the time critical tasks such as signal filtering, control of the robot operation and fast movement interrupts.
- The Light Beam used is for probe alignment. This improves the (absolute) accuracy of the probe positioning.
- A computer running WinXP or Win7 and the DASY5 software.
- Remote control and teach pendant as well as additional circuitry for robot safety such as warning lamps, etc.
- The phantom, the device holder and other accessories according to the targeted measurement.

8.1 E-Field Probe

The SAR measurement is conducted with the dosimetric probe (manufactured by SPEAG).The probe is specially designed and calibrated for use in liquid with high permittivity. The dosimetric probe has special calibration in liquid at different frequency. This probe has a built in optical surface detection system to prevent from collision with phantom.

<ES3DV3 Probe>

Construction	Symmetric design with triangular core Interleaved sensors Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., DGBE)
Frequency	10 MHz – 4 GHz; Linearity: ±0.2 dB (30 MHz – 4 GHz)
Directivity	±0.2 dB in TSL (rotation around probe axis) ±0.3 dB in TSL (rotation normal to probe axis)
Dynamic Range	5 µW/g – >100 mW/g; Linearity: ±0.2 dB
Dimensions	Overall length: 337 mm (tip: 20 mm) Tip diameter: 3.9 mm (body: 12 mm) Distance from probe tip to dipole centers: 3.0 mm

<EX3DV4 Probe>

Construction	Symmetric design with triangular core Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., DGBE)
Frequency	10 MHz – >6 GHz Linearity: ±0.2 dB (30 MHz – 6 GHz)
Directivity	±0.3 dB in TSL (rotation around probe axis) ±0.5 dB in TSL (rotation normal to probe axis)
Dynamic Range	10 µW/g – >100 mW/g Linearity: ±0.2 dB (noise: typically <1 µW/g)
Dimensions	Overall length: 337 mm (tip: 20 mm) Tip diameter: 2.5 mm (body: 12 mm) Typical distance from probe tip to dipole centers: 1 mm

8.2 Data Acquisition Electronics (DAE)

The data acquisition electronics (DAE) consists of a highly sensitive electrometer-grade preamplifier with auto-zeroing, a channel and gain-switching multiplexer, a fast 16 bit AD-converter and a command decoder and control logic unit. Transmission to the measurement server is accomplished through an optical downlink for data and status information as well as an optical uplink for commands and the clock.

The input impedance of the DAE is 200 MOhm; the inputs are symmetrical and floating. Common mode rejection is above 80 dB.

Photo of DAE

8.3 Phantom

<SAM Twin Phantom>

Shell Thickness	2 ± 0.2 mm; Center ear point: 6 ± 0.2 mm
Filling Volume	Approx. 25 liters
Dimensions	Length: 1000 mm; Width: 500 mm; Height: adjustable feet
Measurement Areas	Left Hand, Right Hand, Flat Phantom

The bottom plate contains three pair of bolts for locking the device holder. The device holder positions are adjusted to the standard measurement positions in the three sections. A white cover is provided to tap the phantom during off-periods to prevent water evaporation and changes in the liquid parameters. On the phantom top, three reference markers are provided to identify the phantom position with respect to the robot.

<ELI Phantom>

Shell Thickness	2 ± 0.2 mm (sagging: <1%)
Filling Volume	Approx. 30 liters
Dimensions	Major ellipse axis: 600 mm Minor axis: 400 mm

The ELI phantom is intended for compliance testing of handheld and body-mounted wireless devices in the frequency range of 30 MHz to 6 GHz. ELI4 is fully compatible with standard and all known tissue simulating liquids.

8.4 Device Holder

<Mounting Device for Hand-Held Transmitter>

In combination with the Twin SAM V5.0/V5.0c or ELI phantoms, the Mounting Device for Hand-Held Transmitters enables rotation of the mounted transmitter device to specified spherical coordinates. At the heads, the rotation axis is at the ear opening. Transmitter devices can be easily and accurately positioned according to IEC 62209-1, IEEE 1528, FCC, or other specifications. The device holder can be locked for positioning at different phantom sections (left head, right head, flat). And upgrade kit to Mounting Device to enable easy mounting of wider devices like big smart-phones, e-books, small tablets, etc. It holds devices with width up to 140 mm.

Mounting Device for Hand-Held Transmitters

Mounting Device Adaptor for Wide-Phones

<Mounting Device for Laptops and other Body-Worn Transmitters>

The extension is lightweight and made of POM, acrylic glass and foam. It fits easily on the upper part of the mounting device in place of the phone positioned. The extension is fully compatible with the SAM Twin and ELI phantoms.

Mounting Device for Laptops

9. Measurement Procedures

The measurement procedures are as follows:

<Conducted power measurement>

(a) For WWAN power measurement, use base station simulator to configure EUT WWAN transmission in conducted connection with RF cable, at maximum power in each supported wireless interface and frequency band.
(b) Read the WWAN RF power level from the base station simulator.
(c) For WLAN/BT power measurement, use engineering software to configure EUT WLAN/BT continuously transmission, at maximum RF power in each supported wireless interface and frequency band
(d) Connect EUT RF port through RF cable to the power meter, and measure WLAN/BT output power

<SAR measurement>

(a) Use base station simulator to configure EUT WWAN transmission in radiated connection, and engineering software to configure EUT WLAN/BT continuously transmission, at maximum RF power, in the highest power channel.
(b) Place the EUT in the positions as Appendix D demonstrates.
(c) Set scan area, grid size and other setting on the DASY software.
(d) Measure SAR results for the highest power channel on each testing position.
(e) Find out the largest SAR result on these testing positions of each band
(f) Measure SAR results for other channels in worst SAR testing position if the reported SAR of highest power channel is larger than 0.8 W/kg

According to the test standard, the recommended procedure for assessing the peak spatial-average SAR value consists of the following steps:

(a) Power reference measurement
(b) Area scan
(c) Zoom scan
(d) Power drift measurement

9.1 Spatial Peak SAR Evaluation

The procedure for spatial peak SAR evaluation has been implemented according to the test standard. It can be conducted for 1g and 10g, as well as for user-specific masses. The DASY software includes all numerical procedures necessary to evaluate the spatial peak SAR value.

The base for the evaluation is a "cube" measurement. The measured volume must include the 1g and 10g cubes with the highest averaged SAR values. For that purpose, the center of the measured volume is aligned to the interpolated peak SAR value of a previously performed area scan.

The entire evaluation of the spatial peak values is performed within the post-processing engine (SEMCAD). The system always gives the maximum values for the 1g and 10g cubes. The algorithm to find the cube with highest averaged SAR is divided into the following stages:

(a) Extraction of the measured data (grid and values) from the Zoom Scan
(b) Calculation of the SAR value at every measurement point based on all stored data (A/D values and measurement parameters)
(c) Generation of a high-resolution mesh within the measured volume
(d) Interpolation of all measured values form the measurement grid to the high-resolution grid
(e) Extrapolation of the entire 3-D field distribution to the phantom surface over the distance from sensor to surface
(f) Calculation of the averaged SAR within masses of 1g and 10g

9.2 Power Reference Measurement

The Power Reference Measurement and Power Drift Measurements are for monitoring the power drift of the device under test in the batch process. The minimum distance of probe sensors to surface determines the closest measurement point to phantom surface. This distance cannot be smaller than the distance of sensor calibration points to probe tip as defined in the probe properties.

9.3 Area Scan

The area scan is used as a fast scan in two dimensions to find the area of high field values, before doing a fine measurement around the hot spot. The sophisticated interpolation routines implemented in DASY software can find the maximum found in the scanned area, within a range of the global maximum. The range (in dB0 is specified in the standards for compliance testing. For example, a 2 dB range is required in IEEE standard 1528 and IEC 62209 standards, whereby 3 dB is a requirement when compliance is assessed in accordance with the ARIB standard (Japan), if only one zoom scan follows the area scan, then only the absolute maximum will be taken as reference. For cases where multiple maximums are detected, the number of zoom scans has to be increased accordingly.

Area scan parameters extracted from FCC KDB 865664 D01v01r04 SAR measurement 100 MHz to 6 GHz.

	≤ 3 GHz	> 3 GHz
Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface	5 ± 1 mm	½·δ·ln(2) ± 0.5 mm
Maximum probe angle from probe axis to phantom surface normal at the measurement location	30° ± 1°	20° ± 1°
Maximum area scan spatial resolution: Δx_{Area}, Δy_{Area}	≤ 2 GHz: ≤ 15 mm 2 – 3 GHz: ≤ 12 mm	3 – 4 GHz: ≤ 12 mm 4 – 6 GHz: ≤ 10 mm
	When the x or y dimension of the test device, in the measurement plane orientation, is smaller than the above, the measurement resolution must be ≤ the corresponding x or y dimension of the test device with at least one measurement point on the test device.	

9.4 Zoom Scan

Zoom scans are used assess the peak spatial SAR values within a cubic averaging volume containing 1 gram and 10 gram of simulated tissue. The zoom scan measures points (refer to table below) within a cube shoes base faces are centered on the maxima found in a preceding area scan job within the same procedure. When the measurement is done, the zoom scan evaluates the averaged SAR for 1 gram and 10 gram and displays these values next to the job's label.

Zoom scan parameters extracted from FCC KDB 865664 D01v01r04 SAR measurement 100 MHz to 6 GHz.

			≤ 3 GHz	> 3 GHz
Maximum zoom scan spatial resolution: Δx_{Zoom}, Δy_{Zoom}			≤ 2 GHz: ≤ 8 mm 2 – 3 GHz: ≤ 5 mm*	3 – 4 GHz: ≤ 5 mm* 4 – 6 GHz: ≤ 4 mm*
Maximum zoom scan spatial resolution, normal to phantom surface	uniform grid: $\Delta z_{Zoom}(n)$		≤ 5 mm	3 – 4 GHz: ≤ 4 mm 4 – 5 GHz: ≤ 3 mm 5 – 6 GHz: ≤ 2 mm
	graded grid	$\Delta z_{Zoom}(1)$: between 1st two points closest to phantom surface	≤ 4 mm	3 – 4 GHz: ≤ 3 mm 4 – 5 GHz: ≤ 2.5 mm 5 – 6 GHz: ≤ 2 mm
		$\Delta z_{Zoom}(n>1)$: between subsequent points	≤ 1.5·$\Delta z_{Zoom}(n-1)$	
Minimum zoom scan volume	x, y, z		≥ 30 mm	3 – 4 GHz: ≥ 28 mm 4 – 5 GHz: ≥ 25 mm 5 – 6 GHz: ≥ 22 mm

Note: δ is the penetration depth of a plane-wave at normal incidence to the tissue medium; see draft standard IEEE P1528-2011 for details.

* When zoom scan is required and the *reported* SAR from the *area scan based 1-g SAR estimation* procedures of KDB 447498 is ≤ 1.4 W/kg, ≤ 8 mm, ≤ 7 mm and ≤ 5 mm zoom scan resolution may be applied, respectively, for 2 GHz to 3 GHz, 3 GHz to 4 GHz and 4 GHz to 6 GHz.

9.5 Volume Scan Procedures

The volume scan is used for assess overlapping SAR distributions for antennas transmitting in different frequency bands. It is equivalent to an oversized zoom scan used in standalone measurements. The measurement volume will be used to enclose all the simultaneous transmitting antennas. For antennas transmitting simultaneously in different frequency bands, the volume scan is measured separately in each frequency band. In order to sum correctly to compute the 1g aggregate SAR, the EUT remain in the same test position for all measurements and all volume scan use the same spatial resolution and grid spacing. When all volume scan were completed, the software, SEMCAD postprocessor can combine and subsequently superpose these measurement data to calculating the multiband SAR.

9.6 Power Drift Monitoring

All SAR testing is under the EUT install full charged battery and transmit maximum output power. In DASY measurement software, the power reference measurement and power drift measurement procedures are used for monitoring the power drift of EUT during SAR test. Both these procedures measure the field at a specified reference position before and after the SAR testing. The software will calculate the field difference in dB. If the power drifts more than 5%, the SAR will be retested.

10. Test Equipment List

Manufacturer	Name of Equipment	Type/Model	Serial Number	Calibration	
				Last Cal.	Due Date
SPEAG	750MHz System Validation Kit	D750V3	1087	2019/3/27	2022/3/26
SPEAG	835MHz System Validation Kit	D835V2	4d151	2019/3/27	2022/3/26
SPEAG	1750MHz System Validation Kit	D1750V2	1090	2019/3/27	2022/3/26
SPEAG	1900MHz System Validation Kit	D1900V2	5d170	2019/3/26	2022/3/25
SPEAG	2450MHz System Validation Kit	D2450V2	908	2019/3/25	2022/3/24
SPEAG	2600MHz System Validation Kit	D2600V2	1061	2018/12/7	2021/12/6
SPEAG	5000MHz System Validation Kit	D5GHzV2	1113	2019/9/24	2020/9/23
SPEAG	Data Acquisition Electronics	DAE4	1338	2019/11/20	2020/11/19
SPEAG	Data Acquisition Electronics	DAE4	799	2020/2/10	2021/2/9
SPEAG	Dosimetric E-Field Probe	ES3DV3	3293	2019/11/25	2020/11/24
SPEAG	Dosimetric E-Field Probe	EX3DV4	3857	2019/5/27	2020/5/26
SPEAG	Dosimetric E-Field Probe	ES3DV3	3166	2020/3/2	2021/3/1
SPEAG	SAM Twin Phantom	QD 000 P40 CB	TP-1753	NCR	NCR
SPEAG	SAM Twin Phantom	QD 000 P40 CB	TP-1754	NCR	NCR
SPEAG	SAM Twin Phantom	QD 000 P40 CB	TP-1503	NCR	NCR
SPEAG	Phone Positioner	N/A	N/A	NCR	NCR
Anritsu	Radio Communication Analyzer	MT8821C	6201432831	2020/4/16	2021/4/15
Agilent	Wireless Communication Test Set	E5515C	MY52102706	2020/4/16	2021/4/15
Agilent	ENA Series Network Analyzer	E5071C	MY46111157	2020/4/16	2021/4/15
SPEAG	Dielectric Probe Kit	DAK-3.5	1071	2019/10/28	2020/10/27
Anritsu	Vector Signal Generator	MG3710A	6201682672	2020/1/8	2021/1/7
Rohde & Schwarz	Power Meter	NRVD	102081	2019/8/15	2020/8/14
Rohde & Schwarz	Power Sensor	NRV-Z5	100538	2019/8/14	2020/8/13
Rohde & Schwarz	Power Sensor	NRV-Z5	100539	2019/8/14	2020/8/13
R&S	CBT BLUETOOTH TESTER	CBT	101641	2020/1/8	2021/1/7
EXA	Spectrum Analyzer	FSV7	101631	2020/1/8	2021/1/7
Testo	Hygrometer	608-H1	1241332088	2020/1/8	2021/1/7
FLUKE	DIGITAC THERMOMETER	51II	97240029	2019/8/15	2020/8/14
BONN	POWER AMPLIFIER	BLMA 0830-3	087193A	Note 1	
BONN	POWER AMPLIFIER	BLMA 2060-2	087193B	Note 1	
ARRA	Power Divider	A3200-2	N/A	Note 1	
MCL	Attenuation1	BW-S10W5+	N/A	Note 1	
MCL	Attenuation2	BW-S10W5+	N/A	Note 1	
MCL	Attenuation3	BW-S10W5+	N/A	Note 1	
Agilent	Dual Directional Coupler	778D	20500	Note 1	
Agilent	Dual Directional Coupler	11691D	MY48151020	Note 1	

Note:

1. Prior to system verification and validation, the path loss from the signal generator to the system check source and the power meter, which includes the amplifier, cable, attenuator and directional coupler, was measured by the network analyzer. The reading of the power meter was offset by the path loss difference between the path to the power meter and the path to the system check source to monitor the actual power level fed to the system check
2. Referring to KDB 865664 D01v01r04, the dipole calibration interval can be extended to 3 years with justification. The dipoles are also not physically damaged, or repaired during the interval.
3. The justification data of dipole can be found in appendix C. The return loss is < -20dB, within 20% of prior calibration, the impedance is within 5 ohm of prior calibration.

11. System Verification

11.1 Tissue Simulating Liquids

For the measurement of the field distribution inside the SAM phantom with DASY, the phantom must be filled with around 25 liters of homogeneous body tissue simulating liquid. For head SAR testing, the liquid height from the ear reference point (ERP) of the phantom to the liquid top surface is larger than 15 cm, which is shown in Fig. 11.1. For body SAR testing, the liquid height from the center of the flat phantom to the liquid top surface is larger than 15 cm, which is shown in Fig. 11.2.

Fig 11.1 Photo of Liquid Height for Head SAR

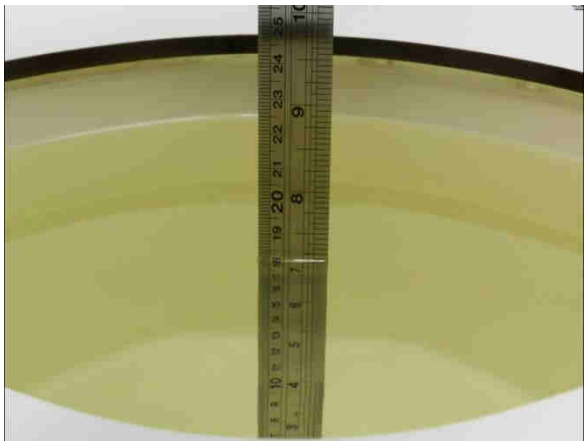


Fig 11.2 Photo of Liquid Height for Body SAR

11.2 Tissue Verification

The following tissue formulations are provided for reference only as some of the parameters have not been thoroughly verified. The composition of ingredients may be modified accordingly to achieve the desired target tissue parameters required for routine SAR evaluation.

Frequency (MHz)	Water (%)	Sugar (%)	Cellulose (%)	Salt (%)	Preventol (%)	DGBE (%)	Conductivity (σ)	Permittivity (εr)
For Head								
750	41.1	57.0	0.2	1.4	0.2	0	0.89	41.9
835	40.3	57.9	0.2	1.4	0.2	0	0.90	41.5
1800, 1900, 2000	55.2	0	0	0.3	0	44.5	1.40	40.0
2450	55.0	0	0	0	0	45.0	1.80	39.2
2600	54.8	0	0	0.1	0	45.1	1.96	39.0

Simulating Liquid for 5GHz, Manufactured by SPEAG

Ingredients	(% by weight)
Water	64~78%
Mineral oil	11~18%
Emulsifiers	9~15%
Additives and Salt	2~3%

<Tissue Dielectric Parameter Check Results>

Frequency (MHz)	Tissue Type	Liquid Temp. (℃)	Conductivity (σ)	Permittivity (ε_r)	Conductivity Target (σ)	Permittivity Target (ε_r)	Delta (σ) (%)	Delta (ε_r) (%)	Limit (%)	Date
750	Head	22.7	0.896	41.730	0.89	41.90	0.67	-0.41	±5	2020/4/25
750	Head	22.8	0.870	41.879	0.89	41.90	-2.25	-0.05	±5	2020/5/3
835	Head	22.8	0.905	41.662	0.90	41.50	0.56	0.39	±5	2020/4/27
835	Head	22.6	0.92	40.553	0.90	41.50	2.22	-2.28	±5	2020/4/29
1750	Head	22.6	1.359	41.039	1.37	40.10	-0.80	2.34	±5	2020/5/1
1900	Head	22.6	1.413	39.041	1.40	40.00	0.93	-2.40	±5	2020/5/4
1900	Head	22.6	1.380	38.830	1.40	40.00	-1.43	-2.93	±5	2020/5/6
2450	Head	22.5	1.746	39.247	1.80	39.20	-3.00	0.12	±5	2020/5/8
2600	Head	22.7	1.978	40.000	1.96	39.00	0.92	2.56	±5	2020/5/13
2600	Head	22.8	1.956	40.043	1.96	39.00	-0.20	2.67	±5	2020/5/13
2600	Head	22.7	1.937	40.111	1.96	39.00	-1.17	2.85	±5	2020/5/15
5250	Head	22.8	4.555	34.768	4.71	35.90	-3.29	-3.15	±5	2020/5/17
5600	Head	22.8	4.897	34.294	5.07	35.50	-3.41	-3.40	±5	2020/5/19
5750	Head	22.8	5.048	34.066	5.22	35.40	-3.30	-3.77	±5	2020/5/21
750	Head	22.6	0.905	42.737	0.89	41.9	1.69	2.00	±5	2020/4/29
835	Head	22.7	0.915	41.263	0.9	41.5	1.67	-0.57	±5	2020/5/3
1750	Head	22.8	1.343	39.241	1.37	40.1	-1.97	-2.14	±5	2020/5/13
1900	Head	22.9	1.429	38.596	1.4	40	2.07	-3.51	±5	2020/5/14
2600	Head	22.8	2.052	37.849	1.96	39	4.69	-2.95	±5	2020/5/18

11.3 System Performance Check Results

Comparing to the original SAR value provided by SPEAG, the verification data should be within its specification of 10 %. Below table shows the target SAR and measured SAR after normalized to 1W input power. The table below indicates the system performance check can meet the variation criterion and the plots can be referred to Appendix A of this report.

<1g SAR>

Date	Frequency (MHz)	Tissue Type	Input Power (mW)	Dipole S/N	Probe S/N	DAE S/N	Measured 1g SAR (W/kg)	Targeted 1g SAR (W/kg)	Normalized 1g SAR (W/kg)	Deviation (%)
2020/4/25	750	Head	250	1087	3857	1338	2.18	8.36	8.72	4.31
2020/5/3	750	Head	250	1087	3857	1338	2.08	8.36	8.32	-0.48
2020/4/27	835	Head	250	4d151	3857	1338	2.40	9.30	9.6	3.23
2020/4/29	835	Head	250	4d151	3857	1338	2.54	9.30	10.16	9.25
2020/5/1	1750	Head	250	1090	3857	1338	9.28	36.40	37.12	1.98
2020/5/4	1900	Head	250	5d170	3857	1338	9.93	39.00	39.72	1.85
2020/5/6	1900	Head	250	5d170	3293	799	9.67	39.00	38.68	-0.82
2020/5/8	2450	Head	250	908	3857	1338	13.10	52.80	52.4	-0.76
2020/5/13	2600	Head	250	1061	3857	1338	14.60	57.70	58.4	1.21
2020/5/13	2600	Head	250	1061	3293	799	15.2	57.70	60.8	5.37
2020/5/15	2600	Head	250	1061	3293	799	14.6	57.70	58.4	1.21
2020/5/17	5250	Head	100	1113	3857	1338	7.52	80.50	75.2	-6.58
2020/5/19	5600	Head	100	1113	3857	1338	7.93	83.40	79.3	-4.92
2020/5/21	5750	Head	100	1113	3857	1338	7.67	80.00	76.7	-4.13
2020/4/29	750	Head	250	1087	3166	1338	2.21	8.36	8.84	5.74
2020/5/3	835	Head	250	4d151	3166	1338	2.5	9.3	10	7.53
2020/5/13	1750	Head	250	1090	3166	1338	8.96	36.4	35.84	-1.54
2020/5/14	1900	Head	250	5d170	3166	1338	10.3	39	41.2	5.64
2020/5/18	2600	Head	250	1061	3166	1338	15.3	57.7	61.2	6.07

<10g SAR>

Date	Frequency (MHz)	Tissue Type	Input Power (mW)	Dipole S/N	Probe S/N	DAE S/N	Measured 10g SAR (W/kg)	Targeted 10g SAR (W/kg)	Normalized 10g SAR (W/kg)	Deviation (%)
2020/4/25	750	Head	250	1087	3857	1338	1.44	5.65	5.76	1.95
2020/5/3	750	Head	250	1087	3857	1338	1.39	5.65	5.56	-1.59
2020/4/27	835	Head	250	4d151	3857	1338	1.56	6.16	6.24	1.30
2020/4/29	835	Head	250	4d151	3857	1338	1.65	6.16	6.6	7.14
2020/5/1	1750	Head	250	1090	3857	1338	4.95	19.20	19.8	3.13
2020/5/4	1900	Head	250	5d170	3857	1338	5.12	20.30	20.48	0.89
2020/5/6	1900	Head	250	5d170	3293	799	5.11	20.30	20.44	0.69
2020/5/8	2450	Head	250	908	3857	1338	6.15	24.20	24.6	1.65
2020/5/13	2600	Head	250	1061	3857	1338	6.28	25.90	25.12	-3.01
2020/5/13	2600	Head	250	1061	3293	799	6.60	25.90	26.4	1.93
2020/5/15	2600	Head	250	1061	3293	799	6.45	25.90	25.8	-0.39
2020/5/17	5250	Head	100	1113	3857	1338	2.14	23.10	21.4	-7.36
2020/5/19	5600	Head	100	1113	3857	1338	2.23	23.80	22.3	-6.30
2020/5/21	5750	Head	100	1113	3857	1338	2.16	22.80	21.6	-5.26
2020/4/29	750	Head	250	1087	3166	1338	1.46	5.65	5.84	3.36
2020/5/3	835	Head	250	4d151	3166	1338	1.63	6.16	6.52	5.84
2020/5/13	1750	Head	250	1090	3166	1338	4.71	19.2	18.84	-1.88
2020/5/14	1900	Head	250	5d170	3166	1338	5.21	20.3	20.84	2.66
2020/5/18	2600	Head	250	1061	3166	1338	6.59	25.9	26.36	1.78

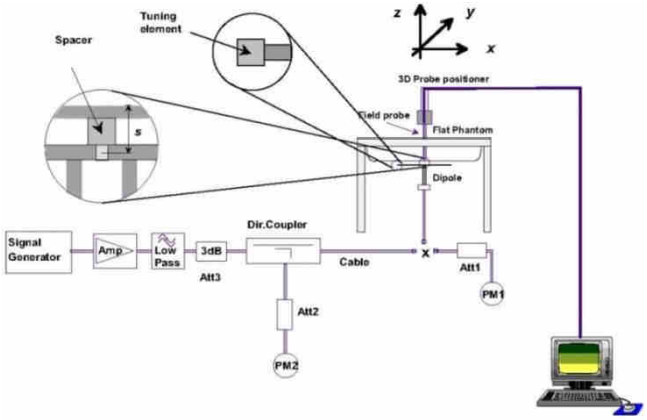


Fig 11.3.1 System Performance Check Setup

Fig 11.3.2 Setup Photo

12. RF Exposure Positions

12.1 Ear and handset reference point

Figure 12.1.1 shows the front, back, and side views of the SAM phantom. The center-of-mouth reference point is labeled “M,” the left ear reference point (ERP) is marked “LE,” and the right ERP is marked “RE.” Each ERP is 15 mm along the B-M (back-mouth) line behind the entrance-to-ear-canal (EEC) point, as shown in Figure 12.1.2 The Reference Plane is defined as passing through the two ear reference points and point M. The line N-F (neck-front), also called the reference pivoting line, is normal to the Reference Plane and perpendicular to both a line passing through RE and LE and the B-M line (see Figure 12.1.3). Both N-F and B-M lines should be marked on the exterior of the phantom shell to facilitate handset positioning. Posterior to the N-F line the ear shape is a flat surface with 6 mm thickness at each ERP, and forward of the N-F line the ear is truncated, as illustrated in Figure 12.1.2. The ear truncation is introduced to preclude the ear lobe from interfering with handset tilt, which could lead to unstable positioning at the cheek.

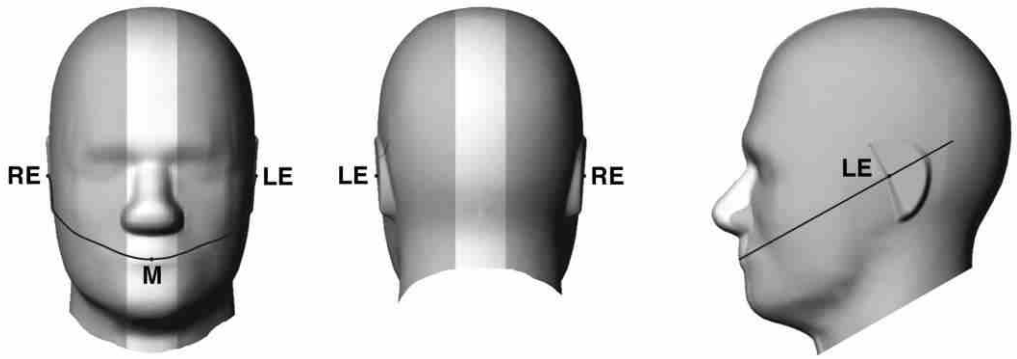


Fig 12.1.1 Front, back, and side views of SAM twin phantom

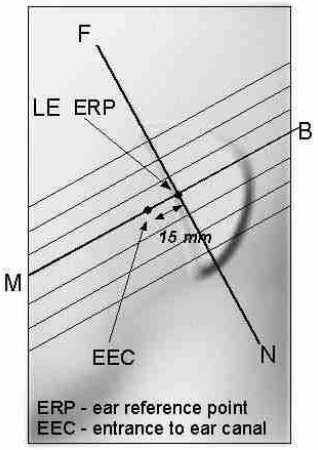


Fig 12.1.2 Close-up side view of phantom showing the ear region.

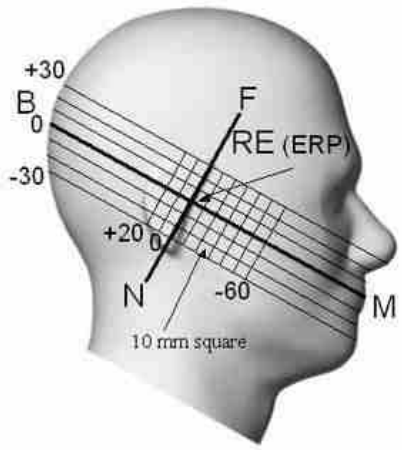


Fig 12.1.3 Side view of the phantom showing relevant markings and seven cross-sectional plane locations

12.2 Definition of the cheek position

1. Ready the handset for talk operation, if necessary. For example, for handsets with a cover piece (flip cover), open the cover. If the handset can transmit with the cover closed, both configurations must be tested.
2. Define two imaginary lines on the handset—the vertical centerline and the horizontal line. The vertical centerline passes through two points on the front side of the handset—the midpoint of the width wt of the handset at the level of the acoustic output (point A in Figure 12.2.1 and Figure 12.2.2), and the midpoint of the width wb of the bottom of the handset (point B). The horizontal line is perpendicular to the vertical centerline and passes through the center of the acoustic output (see Figure 12.2.1). The two lines intersect at point A. Note that for many handsets, point A coincides with the center of the acoustic output; however, the acoustic output may be located elsewhere on the horizontal line. Also note that the vertical centerline is not necessarily parallel to the front face of the handset (see Figure 12.2.2), especially for clamshell handsets, handsets with flip covers, and other irregularly-shaped handsets.
3. Position the handset 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 12.2.3), such that the plane defined by the vertical centerline and the horizontal line of the handset is approximately parallel to the sagittal plane of the phantom.
4. Translate the handset towards the phantom along the line passing through RE and LE until handset point A touches the pinna at the ERP.
5. While maintaining the handset in this plane, rotate it around the LE-RE line until the vertical centerline is in the plane normal to the plane containing B-M and N-F lines, i.e., the Reference Plane.
6. Rotate the handset around the vertical centerline until the handset (horizontal line) is parallel to the N-F line.
7. While maintaining the vertical centerline in the Reference Plane, keeping point A on the line passing through RE and LE, and maintaining the handset contact with the pinna, rotate the handset about the N-F line until any point on the handset is in contact with a phantom point below the pinna on the cheek. See Figure 12.2.3. The actual rotation angles should be documented in the test report.

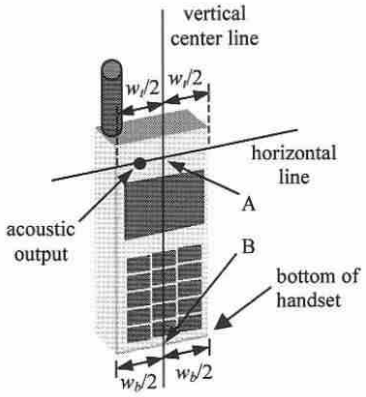


Fig 12.2.1 Handset vertical and horizontal reference lines—"fixed case

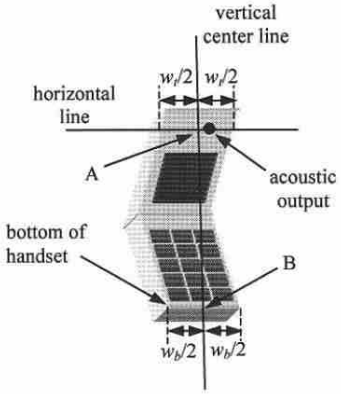


Fig 12.2.2 Handset vertical and horizontal reference lines—"clam-shell case"

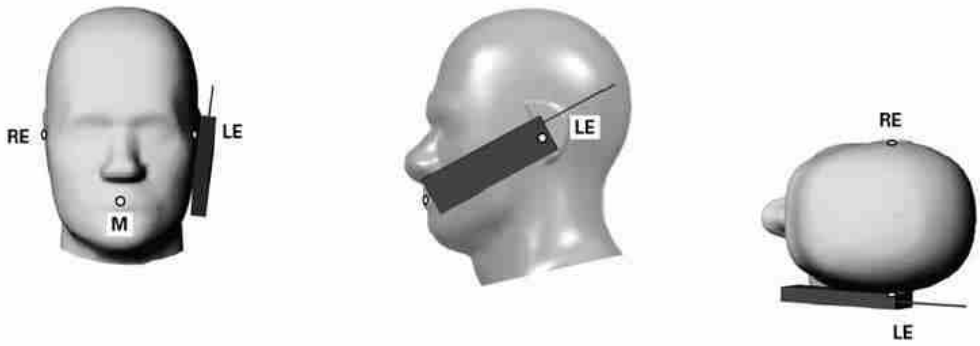


Fig 12.2.3 cheek or touch position. The reference points for the right ear (RE), left ear (LE), and mouth (M), which establish the Reference Plane for handset positioning, are indicated.

12.3 Definition of the tilt position

1. Ready the handset for talk operation, if necessary. For example, for handsets with a cover piece (flip cover), open the cover. If the handset can transmit with the cover closed, both configurations must be tested.
2. While maintaining the orientation of the handset, move the handset away from the pinna along the line passing through RE and LE far enough to allow a rotation of the handset away from the cheek by 15°.
3. Rotate the handset around the horizontal line by 15°.
4. While maintaining the orientation of the handset, move the handset towards the phantom on the line passing through RE and LE until any part of the handset touches the ear. The tilt position is obtained when the contact point is on the pinna. See Figure 12.3.1. If contact occurs at any location other than the pinna, e.g., the antenna at the back of the phantom head, the angle of the handset should be reduced. In this case, the tilt position is obtained if any point on the handset is in contact with the pinna and a second point

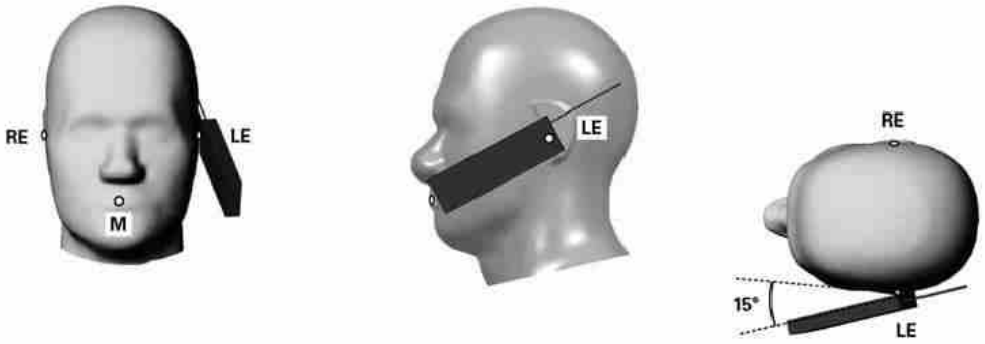


Fig 12.3.1 Tilt position. The reference points for the right ear (RE), left ear (LE), and mouth (M), which define the Reference Plane for handset positioning, are indicated.

12.4 Body Worn Accessory

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 12.4). Per KDB648474 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 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 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 handset attached to the handset.

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

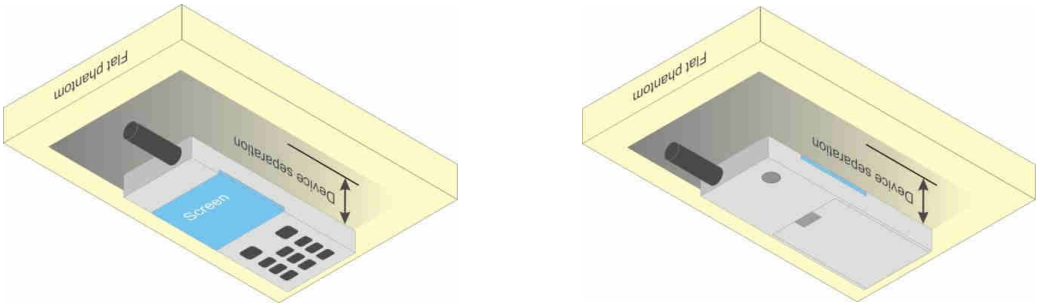


Fig 12.4 Body Worn Position

12.5 Product Specific 10g SAR Exposure

For smart phones with a display diagonal dimension > 15.0 cm or an overall diagonal dimension > 16.0 cm 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, According to KDB648474 D04v01r03, the following phablet procedures should be applied to evaluate SAR compliance for each applicable wireless modes and frequency band. Devices marketed as phablets, regardless of form factors and operating characteristics must be tested as a phablet to determine SAR compliance

1. The normally required head and body-worn accessory SAR test procedures for handsets, including hotspot mode, must be applied.

2. The UMPC mini-tablet procedures must also be applied to test the SAR of all surfaces and edges with an antenna located at ≤ 25 mm from that surface or edge, in direct contact with a flat phantom, for 10-g extremity SAR according to the body-equivalent tissue dielectric parameters in KDB 865664 to address interactive hand use exposure conditions.6 The UMPC mini-tablet 1-g SAR at 5 mm is not required. When hotspot mode applies, 10-g extremity SAR is required only for the surfaces and edges with hotspot mode 1-g reported SAR > 1.2 W/kg.

12.6 Wireless Router

Some battery-operated handsets have the capability to transmit and receive user through simultaneous transmission of WIFI simultaneously with a separate licensed transmitter. The FCC has provided guidance in FCC KDB Publication 941225 D06 v02r01 where SAR test considerations for handsets (L x W ≥ 9 cm x 5 cm) are based on a composite test separation distance of 10mm from the front, back and edges of the device containing transmitting antennas within 2.5cm of their edges, determined form 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 publication 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.

13. Conducted RF Output Power (Unit: dBm)

The detailed conducted power table can refer to Appendix E.

<GSM Conducted Power>

1. Per KDB 447498 D01v06, the maximum output power channel is used for SAR testing and for further SAR test reduction.
2. Per KDB 941225 D01v03r01, for SAR test reduction for GSM / GPRS / EDGE modes is determined by the source-based time-averaged output power including tune-up tolerance. The mode with highest specified time-averaged output power should be tested for SAR compliance in the applicable exposure conditions. For modes with the same specified maximum output power and tolerance, the higher number time-slot configuration should be tested. Therefore, the GPRS 3Tx slots for GSM850/GSM1900 are considered as the primary mode.
3. Other configurations of GSM / GPRS / EDGE are considered as secondary modes. The 3G SAR test reduction procedure is applied, when the maximum output power and tune-up tolerance specified for production units in a secondary mode is ≤ ¼ dB higher than the primary mode, SAR measurement is not required for the secondary mode.

<WCDMA Conducted Power>

1. The following tests were conducted according to the test requirements outlines in 3GPP TS 34.121 specification.
2. The procedures in KDB 941225 D01v03r01 are applied for 3GPP Rel. 6 HSPA to configure the device in the required sub-test mode(s) to determine SAR test exclusion.
3. For DC-HSDPA, the device was configured according to the H-Set 12, Fixed Reference Channel (FRC) configuration in Table C.8.1.12 of 3GPP TS 34.121-1, with the primary and the secondary serving HS-DSCH Cell enabled during the power measurement.

A summary of these settings are illustrated below:

HSDPA Setup Configuration:

a. The EUT was connected to Base Station Agilent E5515C referred to the Setup Configuration.
b. The RF path losses were compensated into the measurements.
c. A call was established between EUT and Base Station with following setting:
   i. Set Gain Factors (β_c and β_d) and parameters were set according to each
   ii. Specific sub-test in the following table, C10.1.4, quoted from the TS 34.121
   iii. Set RMC 12.2Kbps + HSDPA mode.
   iv. Set Cell Power = -86 dBm
   v. Set HS-DSCH Configuration Type to FRC (H-set 1, QPSK)
   vi. Select HSDPA Uplink Parameters
   vii. Set Delta ACK, Delta NACK and Delta CQI = 8
   viii. Set Ack-Nack Repetition Factor to 3
   ix. Set CQI Feedback Cycle (k) to 4 ms
   x. Set CQI Repetition Factor to 2
   xi. Power Ctrl Mode = All Up bits
d. The transmitted maximum output power was recorded.

Table C.10.1.4: β values for transmitter characteristics tests with HS-DPCCH

Sub-test	β_c	β_d	β_d (SF)	β_c/β_d	β_{HS} (Note1, Note 2)	CM (dB) (Note 3)	MPR (dB) (Note 3)
1	2/15	15/15	64	2/15	4/15	0.0	0.0
2	12/15 (Note 4)	15/15 (Note 4)	64	12/15 (Note 4)	24/15	1.0	0.0
3	15/15	8/15	64	15/8	30/15	1.5	0.5
4	15/15	4/15	64	15/4	30/15	1.5	0.5

Note 1: Δ_{ACK}, Δ_{NACK} and Δ_{CQI} = 30/15 with β_{hs} = 30/15 * β_c.

Note 2: For the HS-DPCCH power mask requirement test in clause 5.2C, 5.7A, and the Error Vector Magnitude (EVM) with HS-DPCCH test in clause 5.13.1A, and HSDPA EVM with phase discontinuity in clause 5.13.1AA, Δ_{ACK} and Δ_{NACK} = 30/15 with β_{hs} = 30/15 * β_c, and Δ_{CQI} = 24/15 with β_{hs} = 24/15 * β_c.

Note 3: CM = 1 for β_c/β_d =12/15, β_{hs}/β_c=24/15. For all other combinations of DPDCH, DPCCH and HS-DPCCH the MPR is based on the relative CM difference. This is applicable for only UEs that support HSDPA in release 6 and later releases.

Note 4: For subtest 2 the β_c/β_d ratio of 12/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signalled gain factors for the reference TFC (TF1, TF1) to β_c = 11/15 and β_d = 15/15.

Setup Configuration

HSUPA Setup Configuration:

a. The EUT was connected to Base Station Agilent E5515C referred to the Setup Configuration.
b. The RF path losses were compensated into the measurements.
c. A call was established between EUT and Base Station with following setting * :
   i. Call Configs = 5.2B, 5.9B, 5.10B, and 5.13.2B with QPSK
   ii. Set the Gain Factors (β_c and β_d) and parameters (AG Index) were set according to each specific sub-test in the following table, C11.1.3, quoted from the TS 34.121
   iii. Set Cell Power = -86 dBm
   iv. Set Channel Type = 12.2k + HSPA
   v. Set UE Target Power
   vi. Power Ctrl Mode= Alternating bits
   vii. Set and observe the E-TFCI
   viii. Confirm that E-TFCI is equal to the target E-TFCI of 75 for sub-test 1, and other subtest's E-TFCI
d. The transmitted maximum output power was recorded.

Table C.11.1.3: β values for transmitter characteristics tests with HS-DPCCH and E-DCH

Sub-test	β_c	β_d	β_d (SF)	β_c/β_d	β_{HS} (Note1)	β_{ec}	β_{ed} (Note 4) (Note 5)	β_{ed} (SF)	β_{ed} (Codes)	CM (dB) (Note 2)	MPR (dB) (Note 2) (Note 6)	AG Index (Note 5)	E-TFCI
1	11/15 (Note 3)	15/15 (Note 3)	64	11/15 (Note 3)	22/15	209/225	1309/225	4	1	1.0	0.0	20	75
2	6/15	15/15	64	6/15	12/15	12/15	94/75	4	1	3.0	2.0	12	67
3	15/15	9/15	64	15/9	30/15	30/15	$\beta_{ed}1$: 47/15 $\beta_{ed}2$: 47/15	4 4	2	2.0	1.0	15	92
4	2/15	15/15	64	2/15	4/15	2/15	56/75	4	1	3.0	2.0	17	71
5	15/15	0	-	-	5/15	5/15	47/15	4	1	1.0	0.0	12	67

Note 1: For sub-test 1 to 4, Δ_{ACK}, Δ_{NACK} and Δ_{CQI} = 30/15 with $\beta_{hs} = 30/15 * \beta_c$. For sub-test 5, Δ_{ACK}, Δ_{NACK} and Δ_{CQI} = 5/15 with $\beta_{hs} = 5/15 * \beta_c$.

Note 2: CM = 1 for β_c/β_d =12/15, β_{hs}/β_c=24/15. For all other combinations of DPDCH, DPCCH, HS- DPCCH, E-DPDCH and E-DPCCH the MPR is based on the relative CM difference.

Note 3: For subtest 1 the β_c/β_d ratio of 11/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signalled gain factors for the reference TFC (TF1, TF1) to β_c = 10/15 and β_d = 15/15.

Note 4: In case of testing by UE using E-DPDCH Physical Layer category 1, Sub-test 3 is omitted according to TS25.306 Table 5.1g.

Note 5: β_{ed} can not be set directly; it is set by Absolute Grant Value.

Note 6: For subtests 2, 3 and 4, UE may perform E-DPDCH power scaling at max power which could results in slightly smaller MPR values.

Setup Configuration

DC-HSDPA 3GPP release 8 Setup Configuration:

a. The EUT was connected to Base Station referred to the Setup Configuration below
b. The RF path losses were compensated into the measurements.
c. A call was established between EUT and Base Station with following setting:
   i. Set RMC 12.2Kbps + HSDPA mode.
   ii. Set Cell Power = -25 dBm
   iii. Set HS-DSCH Configuration Type to FRC (H-set 12, QPSK)
   iv. Select HSDPA Uplink Parameters
   v. Set Gain Factors (β_c and β_d) and parameters were set according to each Specific sub-test in the following table, C10.1.4, quoted from the TS 34.121
      a). Subtest 1: β_c/β_d=2/15
      b). Subtest 2: β_c/β_d=12/15
      c). Subtest 3: β_c/β_d=15/8
      d). Subtest 4: β_c/β_d=15/4
   vi. Set Delta ACK, Delta NACK and Delta CQI = 8
   vii. Set Ack-Nack Repetition Factor to 3
   viii. Set CQI Feedback Cycle (k) to 4 ms
   ix. Set CQI Repetition Factor to 2
   x. Power Ctrl Mode = All Up bits
d. The transmitted maximum output power was recorded.

The following tests were conducted according to the test requirements outlines in 3GPP TS 34.121 specification.
A summary of these settings are illustrated below:

C.8.1.12 Fixed Reference Channel Definition H-Set 12

Table C.8.1.12: Fixed Reference Channel H-Set 12

Parameter	Unit	Value
Nominal Avg. Inf. Bit Rate	kbps	60
Inter-TTI Distance	TTI's	1
Number of HARQ Processes	Proces ses	6
Information Bit Payload (N_{INF})	Bits	120
Number Code Blocks	Blocks	1
Binary Channel Bits Per TTI	Bits	960
Total Available SML's in UE	SML's	19200
Number of SML's per HARQ Proc.	SML's	3200
Coding Rate		0.15
Number of Physical Channel Codes	Codes	1
Modulation		QPSK
Note 1: The RMC is intended to be used for DC-HSDPA mode and both cells shall transmit with identical parameters as listed in the table. Note 2: Maximum number of transmission is limited to 1, i.e., retransmission is not allowed. The redundancy and constellation version 0 shall be used.		

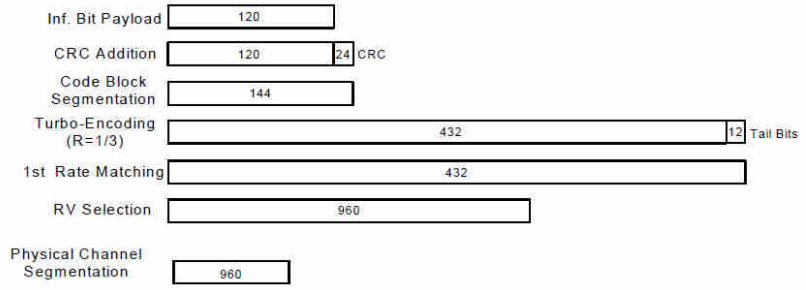


Figure C.8.19: Coding rate for Fixed reference Channel H-Set 12 (QPSK)

Setup Configuration

<WCDMA Conducted Power>

General Note:

1. Per KDB 941225 D01v03r01, for SAR testing is measured using a 12.2 kbps RMC with TPC bits configured to all "1's".
2. Per KDB 941225 D01v03r01, RMC 12.2kbps setting is used to evaluate SAR. The maximum output power and tune-up tolerance specified for production units in HSDPA / HSUPA / DC-HSDPA is ≤ ¼ dB higher than RMC 12.2Kbps or when the highest reported SAR of the RMC12.2Kbps is scaled by the ratio of specified maximum output power and tune-up tolerance of HSDPA / HSUPA / DC-HSDPA to RMC12.2Kbps and the adjusted SAR is ≤ 1.2 W/kg, SAR measurement is not required for HSDPA / HSUPA / DC-HSDPA, and according to the following RF output power, the output power results of the secondary modes (HSDPA / HSUPA / DC-HSDPA) are less than ¼ dB higher than the primary modes; therefore, SAR measurement is not required for HSDPA / HSUPA / DC-HSDPA

<CDMA2000 Conducted Power>

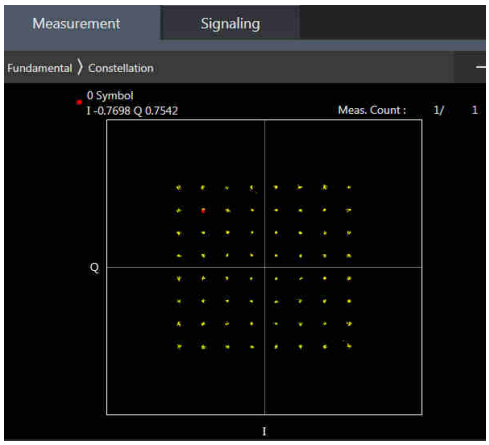
General Note:

1. Per KDB 941225 D01v03r01, SAR for head exposure is measured in RC3 with the handset configured to transmit at full rate in SO55.
2. Per KDB 941225 D01v03r01, in Hotspot mode EUT is treated as data device and SAR is tested with Ev-Do Rev 0 (RTAP 153.6kbps) as the primary mode.
3. Per KDB 941225 D01v03r01, for Body-worn accessory SAR is measured in RC3 with the handset configured in TDSO/SO32 to transmit at full rate on FCH only with all other code channels disabled. The body-worn accessory procedures in KDB Publication 447498 are applied. The 3G SAR test reduction procedure is applied to the multiple code channel configuration (FCH+SCH), with FCH only as the primary mode.

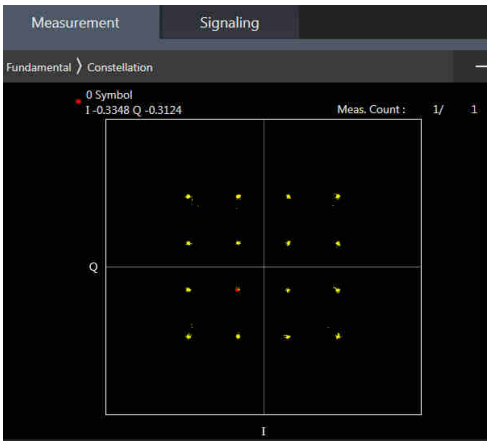
<LTE Conducted Power>

General Note:

1. Anritsu MT8820C base station simulator was used to setup the connection with EUT; the frequency band, channel bandwidth, RB allocation configuration, modulation type are set in the base station simulator to configure EUT transmitting at maximum power and at different configurations which are requested to be reported to FCC, for conducted power measurement and SAR testing.
2. Per KDB 941225 D05v02r05, when a properly configured base station simulator is used for the SAR and power measurements, spectrum plots for each RB allocation and offset configuration is not required.
3. Per KDB 941225 D05v02r05, start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel.
4. Per KDB 941225 D05v02r05, 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure.
5. Per KDB 941225 D05v02r05, for QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested.
6. Per KDB 941225 D05v02r05, 16QAM/64QAM output power for each RB allocation configuration is > not ½ dB higher than the same configuration in QPSK and the reported SAR for the QPSK configuration is ≤ 1.45 W/kg; Per KDB 941225 D05v02r05, 16QAM/64QAM SAR testing is not required.
7. Per KDB 941225 D05v02r05, smaller bandwidth output power for each RB allocation configuration is > not ½ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg; Per KDB 941225 D05v02r05, smaller bandwidth SAR testing is not required.
8. For LTE B4 / B5 / B12 / B17 / B26 / B38 / B71 the maximum bandwidth does not support three non-overlapping channels, per KDB 941225 D05v02r05, 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. LTE B2 / B4 / B5 / B17 / B38 SAR test was covered by B25 / B66 / B26 / B12 / B41; according to April 2015 TCB workshop, SAR test for overlapping LTE bands can be reduced if
   a. the maximum output power, including tolerance, for the smaller band is ≤ the larger band to qualify for the SAR test exclusion
   b. the channel bandwidth and other operating parameters for the smaller band are fully supported by the larger band
10. According to 2017 TCB workshop, for 64 QAM and 16 QAM should be verified by checking the signal constellation with a call box to avoid incorrect maximum power levels due to MPR and other requirements associated with signal modulation, and the following figure is taken from the "Fundamental Measurement >> Modulation Analysis >> constellation" mode of the device connect to the MT8821C base station, therefore, the device 64QAM and 16QAM signal modulation are correct.



64QAM



16QAM

<TDD LTE SAR Measurement>

TDD LTE configuration setup for SAR measurement

SAR was tested with a fixed periodic duty factor according to the highest transmission duty factor implemented for the device and supported by 3GPP.

a. 3GPP TS 36.211 section 4.2 for Type 2 Frame Structure and Table 4.2-2 for uplink-downlink configurations
b. "special subframe S" contains both uplink and downlink transmissions, it has been taken into consideration to determine the transmission duty factor according to the worst case uplink and downlink cyclic prefix requirements for UpPTS
c. Establishing connections with base station simulators ensure a consistent means for testing SAR and recommended for evaluating SAR. The Anritsu MT8820C (firmware: #22.52#004) was used for LTE output power measurements and SAR testing.

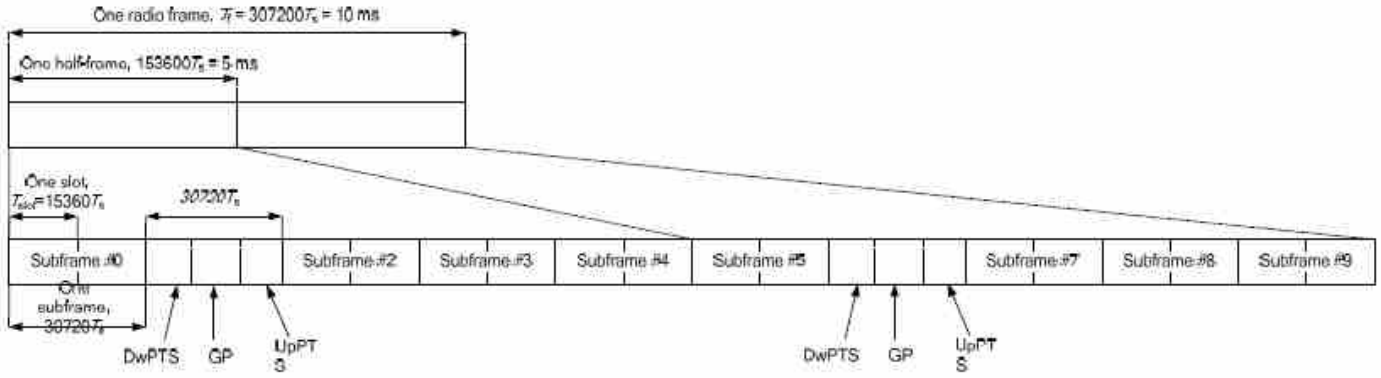


Figure 4.2-1: Frame structure type 2 (for 5 ms switch-point periodicity).

Table 4.2-2: Uplink-downlink configurations.

Uplink-downlink configuration	Downlink-to-Uplink Switch-point periodicity	Subframe number									
		0	1	2	3	4	5	6	7	8	9
0	5 ms	D	S	U	U	U	D	S	U	U	U
1	5 ms	D	S	U	U	D	D	S	U	U	D
2	5 ms	D	S	U	D	D	D	S	U	D	D
3	10 ms	D	S	U	U	U	D	D	D	D	D
4	10 ms	D	S	U	U	D	D	D	D	D	D
5	10 ms	D	S	U	D	D	D	D	D	D	D
6	5 ms	D	S	U	U	U	D	S	U	U	D

Table 4.2-1: Configuration of special subframe (lengths of DwPTS/GP/UpPTS).

Special subframe configuration	Normal cyclic prefix in downlink			Extended cyclic prefix in downlink		
	DwPTS	UpPTS		DwPTS	UpPTS	
		Normal cyclic prefix in uplink	Extended cyclic prefix in uplink		Normal cyclic prefix in uplink	Extended cyclic prefix in uplink
0	$6592 \cdot T_s$	$2192 \cdot T_s$	$2560 \cdot T_s$	$7680 \cdot T_s$	$2192 \cdot T_s$	$2560 \cdot T_s$
1	$19760 \cdot T_s$			$20480 \cdot T_s$		
2	$21952 \cdot T_s$			$23040 \cdot T_s$		
3	$24144 \cdot T_s$			$25600 \cdot T_s$		
4	$26336 \cdot T_s$			$7680 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$
5	$6592 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$	$20480 \cdot T_s$		
6	$19760 \cdot T_s$			$23040 \cdot T_s$		
7	$21952 \cdot T_s$			$12800 \cdot T_s$		
8	$24144 \cdot T_s$			-	-	-
9	$13168 \cdot T_s$			-	-	-

Special subframe (30720·T_s): Normal cyclic prefix in downlink (UpPTS)			
	Special subframe configuration	**Normal cyclic prefix in uplink**	**Extended cyclic prefix in uplink**
Uplink duty factor in one special subframe	**0~4**	7.13%	8.33%
	5~9	14.3%	16.7%

Special subframe(30720·T_s): Extended cyclic prefix in downlink (UpPTS)			
	Special subframe configuration	**Normal cyclic prefix in uplink**	**Extended cyclic prefix in uplink**
Uplink duty factor in one special subframe	**0~3**	7.13%	8.33%
	4~7	14.3%	16.7%

The highest duty factor is resulted from:

For LTE Band 41 Power class 2

i. Uplink-downlink configuration: 1. In a half-frame consisted of 5 subfames, uplink operation is in 2 uplink subframes and 1 special subframe.
ii. special subframe configuration: 5-9 for normal cyclic prefix in downlink, 4-7 for extended cyclic prefix in downlink
iii. for special subframe with extended cyclic prefix in uplink, the total uplink duty factor in one half-frame is: (2+0.167)/5 = 43.3%
iv. for special subframe with normal cyclic prefix in uplink, the total uplink duty factor in one half-frame is: (2+0.143)/5 = 42.9%
v. For TDD LTE SAR measurement, the duty cycle 1:2.33 (42.9 %) was used perform testing and considering the theoretical duty cycle of 43.3% for extended cyclic prefix in the uplink, and the theoretical duty cycle of 42.9% for normal cyclic prefix in uplink, a scaling factor of extended cyclic prefix 43.3%/42.9% = 1.009 is applied to scale-up the measured SAR result. The scaled TDD LTE SAR = measured SAR (W/kg)* Tune-up Scaling Factor* scaling factor for extended cyclic prefix.

For LTE Band 41 Power class 3

i. Uplink-downlink configuration: 0. In a half-frame consisted of 5 subfames, uplink operation is in 3 uplink subframes and 1 special subframe.
ii. special subframe configuration: 5-9 for normal cyclic prefix in downlink, 4-7 for extended cyclic prefix in downlink
iii. for special subframe with extended cyclic prefix in uplink, the total uplink duty factor in one half-frame is: (3+0.167)/5 = 63.3%
iv. for special subframe with normal cyclic prefix in uplink, the total uplink duty factor in one half-frame is: (3+0.143)/5 = 62.9%
v. For TDD LTE SAR measurement, the duty cycle 1:1.59 (62.9 %) was used perform testing and considering the theoretical duty cycle of 63.3% for extended cyclic prefix in the uplink, and the theoretical duty cycle of 62.9% for normal cyclic prefix in uplink, a scaling factor of extended cyclic prefix 63.3%/62.9% = 1.006 is applied to scale-up the measured SAR result. The scaled TDD LTE SAR = measured SAR (W/kg)* Tune-up Scaling Factor* scaling factor for extended cyclic prefix.

The device can adjust uplink/downlink configuration automatically according to the transmitting power class level, as followings:

LTE TDD Band	Power Class level	support uplink/downlink configuration
LTE Band 41	> 23	1,2,3,4,5
	=23	0,1,2,3,4,5,6
	< 23	0,1,2,3,4,5,6

<LTE Carrier Aggregation>

General Note:

1. This device supports Carrier Aggregation on downlink for inter and intra band. For the device supports bands and bandwidths and configurations are provided as follow table was according to 3GPP.
2. In applying the existing power measurement procedures of KDB 941225 D05A for DL CA SAR test exclusion, only the subset with the largest number of combinations of frequency bands and CCs in each row need combination, and for this device that all the configurations were choose to power measurement.
3. The gray color table is covered by other combinations and no need to verify power.

2CC Downlink Carrier Aggregation				3CC Downlink Carrier Aggregation			
Number	Combination	4X4 MIMO	Covered by Measurement Superset	Number	Combination	4X4 MIMO	Covered by Measurement Superset
2CC #1	CA_2C	CA_2C4	3CC #3	3CC #1	CA_2A-2A-4A	CA_2A4-2A4-4A4	
2CC #2	CA_2A-2A	CA_2A4-2A4	3CC #1	3CC #2	CA_2A-2A-5A	CA_2A4-2A4-5A	
2CC #3	CA_2A-4A	CA_2A4-4A4	3CC #1	3CC #3	CA_2C-12A	CA_2C4-12A	
2CC #4	CA_2A-5A	CA_2A4-5A	3CC #2	3CC #4	CA_2A-2A-12A	CA_2A4-2A4-12A	4CC #1
2CC #5	CA_2A-12A	CA_2A4-12A	4CC #1	3CC #5	CA_2C-66A	CA_2C4-66A4	4CC #2
2CC #6	CA_2A-66A	CA_2A4-66A4	4CC #3	3CC #6	CA_2A-2A-66A	CA_2A4-2A4-66A4	4CC #3
2CC #7	CA_2A-71A	CA_2A4-71A	3CC #7	3CC #7	CA_2A-2A-71A	CA_2A4-2A4-71A	
2CC #8	CA_4A-4A	CA_4A4-4A4	3CC #8	3CC #8	CA_2A-4A-4A	CA_2A4-4A4-4A4	
2CC #9	CA_4A-5A	CA_4A4-5A	3CC #18	3CC #9	CA_2A-4A-5A	CA_2A4-4A4-5A	
2CC #10	CA_4A-12A	CA_4A4-12A	3CC #19	3CC #10	CA_2A-4A-12A	CA_2A4-4A4-12A	4CC #4
2CC #11	CA_4A-71A	CA_4A4-71A	3CC #20	3CC #11	CA_2A-4A-71A	CA_2A4-4A4-71A	4CC #7
2CC #12	CA_5A-41A	CA_5A-41A4		3CC #12	CA_2A-12B	CA_2A4-12B	
2CC #13	CA_12B			3CC #13	CA_2A-12A-66A	CA_2A4-12A-66A4	4CC #6
2CC #14	CA_12A-66A	CA_12A-66A4	4CC #8	3CC #14	CA_2A-66B	CA_2A4-66B4	4CC #3
2CC #15	CA_25A-25A	CA_25A4-25A4	3CC #26	3CC #15	CA_2A-66C	CA_2A4-66C4	4CC #4
2CC #16	CA_25A-26A	CA_25A4-26A	3CC #26	3CC #16	CA_2A-66A-66A	CA_2A4-66A4-66A4	4CC #2
2CC #17	CA_25A-41A	CA_25A4-41A4	4CC #9	3CC #17	CA_2A-66A-71A	CA_2A4-66A4-71A	4CC #7
2CC #18	CA_26A-41A	CA_26A-41A4	3CC #28	3CC #18	CA_4A-4A-5A	CA_4A4-4A4-5A	
2CC #19	CA_41C	CA_41C4	3CC #28	3CC #19	CA_4A-4A-12A	CA_4A4-4A4-12A	
2CC #20	CA_41A-41A	CA_41A4-41A4	4CC #10	3CC #20	CA_4A-4A-71A	CA_4A4-4A4-71A	
2CC #21	CA_66B	CA_66B4	3CC #31	3CC #21	CA_4A-12B	CA_4A4-12B	
2CC #22	CA_66C	CA_66C4	3CC #32	3CC #22	CA_5A-12B		
2CC #23	CA_66A-66A	CA_66A4-66A4	4CC #8	3CC #23	CA_12B-66A	CA_12B-66A4	4CC #8
2CC #24	CA_66A-71A	CA_66A4-71A	3CC #34	3CC #24	CA_12A-66C	CA_12A-66C4	4CC #8
				3CC #25	CA_12A-66A-66A	CA_12A-66A4-66A4	4CC #8
				3CC #26	CA_25A-25A-26A	CA_25A4-25A4-26A	
				3CC #27	CA_25A-41C	CA_25A4-41C4	4CC #9
				3CC #28	CA_26A-41C	CA_26A-41C4	
				3CC #29	CA_41D	CA_41D4	4CC #12
				3CC #30	CA_41A-41C	CA_41A4-41C4	4CC #12
				3CC #31	CA_66A-66B	CA_66A4-66B4	
				3CC #32	CA_66A-66C	CA_66A4-66C4	
				3CC #33	CA_66C-71A	CA_66C4-71A4	4CC #7
				3CC #34	CA_66A-66A-71A	CA_66A4-66A4-71A	4CC #7

4CC Downlink Carrier Aggregation			
Number	Combination	4X4 MIMO	Covered by Measurement Superset
4CC #1	CA_2A-2A-12B	CA_2A4-2A4-12B	
4CC #2	CA_2C-66A-66A	CA_2C4-66A4-66A4	
4CC #3	CA_2A-2A-66B	CA_2A4-2A4-66B4	
4CC #4	CA_2A-2A-66C	CA_2A4-2A4-66C4	
4CC #5	CA_2A-4A-12B	CA_2A4-4A4-12B	
4CC #6	CA_2A-12A-66C	CA_2A4-12A-66C4	
4CC #7	CA_2A-66C-71A	CA_2A4-66C4-71A	
4CC #8	CA_12B-66A-66A	CA_12B-66A4-66A4	
4CC #9	CA_25A-41D	CA_25A4-41D4	
4CC #10	CA_41C-41C	CA_41C4-41C4	
4CC #11	CA_41E	CA_41E4	
4CC #12	CA_41A-41D	CA_41A4-41D4	

LTE Carrier Aggregation Conducted Power (Downlink)

i. According to KDB941225 D05A v01r02, Uplink maximum output power measurement with downlink carrier aggregation active should be measured, using the highest output channel measured without downlink carrier aggregation, to confirm that uplink maximum output power with downlink carrier aggregation active remains within the specified tune-up tolerance limits and not more than ¼ dB higher than the maximum output measured without downlink carrier aggregation active.

ii. Uplink maximum output power with downlink carrier aggregation active does not show more than ¼ dB higher than the maximum output power without downlink carrier aggregation active, therefore SAR evaluation with downlink carrier aggregation active can be excluded.

iii. The device supports downlink two carrier aggregation. For power measurement were control and acknowledge data is sent on uplink channels that operate identical to specifications when downlink carrier aggregation is inactive.

iv. Selected highest measured power when downlink carrier aggregation is inactive for conducted power comparison with downlink carrier aggregation is active, to confirm that when downlink carrier aggregation is active uplink maximum output power remains within the specified tune-up tolerance limits and not more than ¼ dB higher than the maximum output power measured when downlink carrier aggregation inactive.

v. For inter-band CA, the SCC selected highest bandwidth and near the middle of its transmission band. For SCC DL RB size and offset will base on the PCC corresponding RB allocation.

vi. For non-contiguous intra-band CA, the SCC selected to provide maximum separation from the PCC and must remain fully within the downlink transmission band.

vii. For Intra-band, contiguous CA, the downlink channels selected to perform the uplink power measurement must satisfy 3GPP channel spacing (5.4.1A of 3GPP TS 36.521 or equivalent) and channel bandwidth (5.4.2A) requirements.

$$\text{Nominal channel spacing} = \left\lfloor \frac{BW_{Channel(1)} + BW_{Channel(2)} - 0.1\left|BW_{Channel(1)} - BW_{Channel(2)}\right|}{0.6} \right\rfloor 0.3 \ \ [\text{MHz}]$$

LTE Carrier Aggregation Conducted Power (Uplink)

1. This device supports uplink carrier aggregation for LTE CA_41C with a maximum of two 20MHz component carriers. For intra band 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. For the non-contiguously allocated resource blocks which the MPR level is determined by various RB separation and RB sizes requirement, and the allowed MPR levels, settings and the conducted powers are permanently implemented in this device per the 3GPP 36.36.101 section 6.2.3A.1.3 requirements.
2. According to FCC guidance, the output power with uplink CA active was measured for the high / middle / low channel configuration with the highest reported SAR for each exposure condition, the power was measured with wideband signal integration over both component carriers.
3. In applying the power measurement procedures of KDB 941225 D05A for DL CA to qualify for UL SAR test exclusion, power measurement is required only for the subset in each row with the largest combination of frequency bands and CCs
4. Maximum output power measurement is required for each UL CA configuration for the required test channels described in KDB 941225 D05. The required test channel should be associated with the UL PCC. For channels at the ends of a frequency band, the SCC and subsequent CCs are added to the side within the transmission band. Otherwise, the CCs should be added alternatively to either side of the PCC.

<Power Measurement Setup>

5G NR Output Power (Unit: dBm)

General Note:

1. NR implementation of n2, n5, n12, n25, n66, n71, and n41 is limited to EN-DC operations only (NSA), with LTE Bands 2/5/12/25/66/41 acting as anchor bands, SAR tests for NR Bands and LTE Anchors Bands were performed separately due to limitations in SAR probe calibration factors.
2. Following 5G NR n2/n5/ n25/n66/n71 support SCS 15KHz DFT/CP-OFDM, PI/2 BPSK/QPSK/16QAM/64QAM/ 256QAM, Bandwidth 5M/10M/15M/20M.
3. Following 5G NR n12 support SCS 15KHz DFT/CP-OFDM, PI/2 BPSK/QPSK/16QAM/64QAM/256QAM, Bandwidth 5M/10M/15M.
4. Following 5G NR n41 support SCS 30KHz DFT/CP-OFDM, PI/2 BPSK/QPSK/16QAM/64QAM/256QAM, Bandwidth 20M/40M/50M/60M/80M/90M/100M.
5. For 5G NR test procedure was following step similar FCC KDB 941225 D05:
   a. For DFT-OFDM and CP-OFDM output power measurement reduction, according to 38.101 maximum power reduction for power class2 and 3, the CP-OFDM mode will not higher than DFT-OFDM mode, therefore, similar FCC KDB 941225 D05 procedure for other modulation output power for each RB allocation configuration is > not ½ dB higher than the same configuration in DFT-QPSK and the reported SAR for the DFT-QPSK configuration is ≤ 1.45 W/kg; CP-OFDM testing is not required.
   b. For DFT-OFDM output power measurement reduction, according to 38.101 maximum power reduction for power class2 and 3, for 16QAM/64QMA/256QAM and smaller bandwidth output power will spot check largest channel bandwidth worst RB configuration to ensure the 16QAM/64QMA/256QAM and smaller bandwidth output power will not ½ dB higher than the same configuration in the largest supported bandwidth.
   c. SAR testing start with the largest channel bandwidth and measure SAR for PI/2 BPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel
   d. 50% RB allocation for PI/2 BPSK SAR testing follows 1RB PI/2 BPSK allocation procedure
   e. PI/2 BPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested
   f. QPSK/16QAM/64QAM/256QAM output powers according to 3GPP MPR will not ½ dB higher than the same configuration in PI/2 BPSK, also reported SAR for the PI/2 BPSK configuration is less than 1.45 W/kg, QPSK/16QAM/64QAM/256QAM SAR testing are not required.
   g. Smaller bandwidth output power for each RB allocation configuration for this device will not ½ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg, smaller bandwidth SAR testing is not required for this device
6. Due to test setup limitations, SAR testing for NR was performed using Factory Test Mode software to establish the connection and perform SAR with 100% transmission.
7. The device implanted DPS (Dynamic Power Share) function to achieve higher uplink data rate keeping the total power unchanged in 5G NR NSA EN-DC mode according to 3GPP 38.213, when the equipment has a dynamic power sharing capability, it adjusts the LTE or NR transmission power so that the instantaneous total power does not exceed the specified value, when the maximum transmission power of NR (P LTE, P NR) and the specified total power (P total) have been set and the instantaneous calculated total transmission power exceeds P total, the NR transmission power is reduced so that the actual transmission power of the user equipment will not exceed Ptotal power.

<3GPP 38.101 MPR for EN-DC>

Table 6.2.2-1 Maximum power reduction (MPR) for power class 3

Modulation		MPR (dB)		
		Edge RB allocations	Outer RB allocations	Inner RB allocations
DFT-s-OFDM	Pi/2 BPSK	≤ 3.5[1]	≤ 1.2[1]	≤ 0.2[1]
		≤ 0.5[2]	≤ 0.5[2]	0[2]
	QPSK	≤ 1		0
	16 QAM	≤ 2		≤ 1
	64 QAM	≤ 2.5		
	256 QAM	≤ 4.5		
CP-OFDM	QPSK	≤ 3		≤ 1.5
	16 QAM	≤ 3		≤ 2
	64 QAM	≤ 3.5		
	256 QAM	≤ 6.5		

NOTE 1: Applicable for UE operating in TDD mode with Pi/2 BPSK modulation and UE indicates support for UE capability *powerBoosting-pi2BPSK* and if the IE *powerBoostPi2BPSK* is set to 1 and 40 % or less slots in radio frame are used for UL transmission for bands n40, n41, n77, n78 and n79. The reference power of 0 dB MPR is 26 dBm.

NOTE 2: Applicable for UE operating in FDD mode, or in TDD mode in bands other than n40, n41, n77, n78 and n79 with Pi/2 BPSK modulation and if the IE *powerBoostPi2BPSK* is set to 0 and if more than 40 % of slots in radio frame are used for UL transmission for bands n40, n41, n77, n78 and n79.

Table 6.2.2-2 Maximum power reduction (MPR) for power class 2

Modulation		MPR (dB)		
		Edge RB allocations	Outer RB allocations	Inner RB allocations
DFT-s-OFDM	Pi/2 BPSK	≤ 3.5	≤ 0.5	0
	QPSK	≤ 3.5	≤ 1	0
	16 QAM	≤ 3.5	≤ 2	≤ 1
	64 QAM	≤ 3.5	≤ 2.5	
	256 QAM	≤ 4.5		
CP-OFDM	QPSK	≤ 3.5	≤ 3	≤ 1.5
	16 QAM	≤ 3.5	≤ 3	≤ 2
	64 QAM	≤ 3.5		
	256 QAM	≤ 6.5		

EN-DC configuration	Uplink EN-DC configuration	E-UTRA configuration	NR configuration
DC_12A_n2A	DC_12A_n2A	12A	n2A
DC_66A_n2A	DC_66A_n2A	66A	n2A
DC_2A_n5A	DC_2A_n5A	2A	n5A
DC_66A_n5A	DC_66A_n5A	66A	n5A
DC_2A_n12A	DC_2A_n12A	2A	n12A
DC_66A_n12A	DC_66A_n12A	66A	n12A
DC_2A_n66A	DC_2A_n66A	2A	n66A
DC_5A_n66A	DC_5A_n66A	5A	n66A
DC_12A_n66A	DC_12A_n66A	12A	n66A
DC_66A_n25A	DC_66A_n25A	66A	n25A
DC_25A_n41A	DC_25A_n41A	25A	n41A
DC_41A_n41A	DC_41A_n41A	41A	n41A
DC_41C_n41A	DC_41C_n41A	41C	n41A
DC_2A_n71A	DC_2A_n71A	2A	n71A
DC_66A_n71A	DC_66A_n71A	66A	n71A

ENDC									
ENDC	Default	Head		Body worn		Hotspot		Handheld	
	max. tune up limit	max. tune up limit	power reduction (dB)	max. tune up limit	power reduction (dB)	max. tune up limit	power reduction (dB)	max. tune up limit	power reduction (dB)
LTE Band2_UAT	24.00	14.50	9.50	16.50	7.50	15.50	8.50	19.00	5.00
LTE Band66_UAT	24.00	16.50	7.50	17.50	6.50	17.00	7.00	20.00	4.00
FR1 n2	24.00	15.50	8.50	15.50	8.50	15.50	8.50	19.50	4.50
FR1 n5	24.00	24.00		23.50	0.50	23.50	0.50	24.00	
FR1 n12	24.00	24.00		24.00		24.00		24.00	
FR1 n25	24.00	15.50	8.50	15.50	8.50	15.50	8.50	19.50	4.50
FR1 n41	24.00	17.00	7.00	17.00	7.00	17.00	7.00	21.50	2.50
FR1 n41（HPUE）	27.00	17.00	10.00	17.00	10.00	17.00	10.00	21.50	5.50
FR1 n66	24.00	15.50	8.50	17.00	7.00	17.00	7.00	20.50	3.50
FR1 n71	24.00	24.00		24.00		24.00		24.00	
LTE Band 2	24.00	24.00		17.50	6.50	14.00	10.00	19.00	5.00
LTE Band 5	24.00	24.00		22.00	2.00	22.00	2.00	24.00	
LTE Ban 12	24.00	24.00		22.00	2.00	22.00	2.00	24.00	
LTE Band 25	24.00	24.00		17.50	6.50	14.00	10.00	19.00	5.00
LTE Band 41	24.00	24.00		18.00	6.00	13.00	11.00	21.00	3.00
LTE Band 66	24.00	24.00		16.50	7.50	15.00	9.00	21.00	3.00

<WLAN Conducted Power>

General Note:

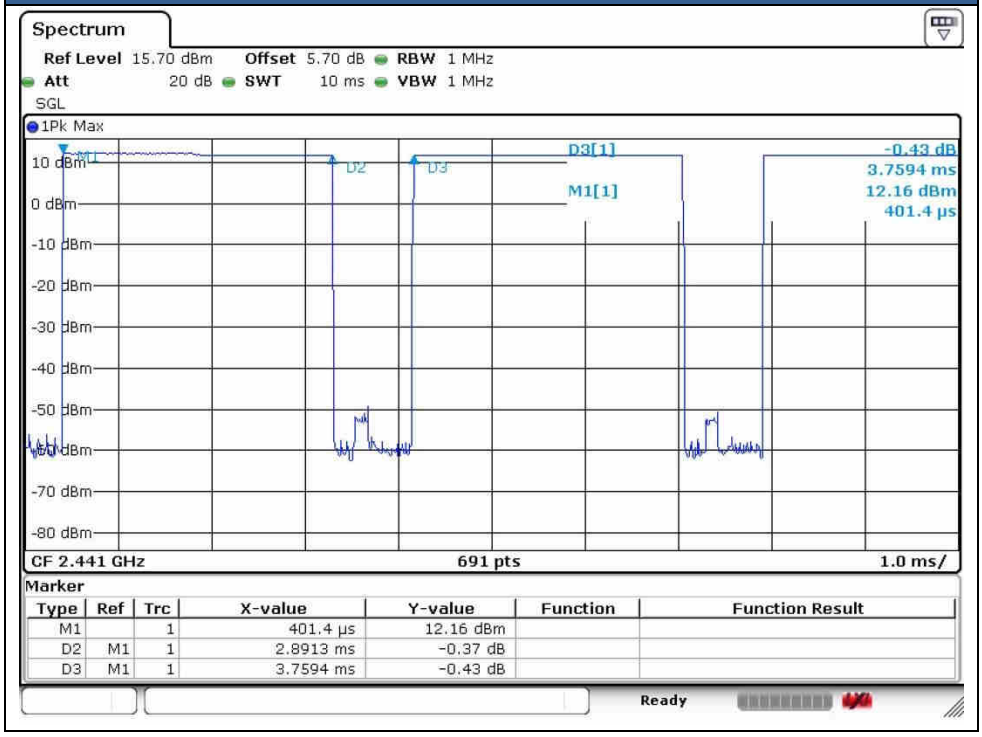
1. Per KDB 248227 D01v02r02, SAR test reduction is determined according to 802.11 transmission mode configurations and certain exposure conditions with multiple test positions. In the 2.4 GHz band, separate SAR procedures are applied to DSSS and OFDM configurations to simplify DSSS test requirements. For OFDM, in both 2.4 and 5 GHz bands, an initial test configuration must be determined for each standalone and aggregated frequency band, according to the transmission mode configuration with the highest maximum output power specified for production units to perform SAR measurements. If the same highest maximum output power applies to different combinations of channel bandwidths, modulations and data rates, additional procedures are applied to determine which test configurations require SAR measurement. When applicable, an initial test position may be applied to reduce the number of SAR measurements required for next to the ear, UMPC mini-tablet or hotspot mode configurations with multiple test positions.
2. For 2.4 GHz 802.11b DSSS, either the initial test position procedure for multiple exposure test positions or the DSSS procedure for fixed exposure position is applied; these are mutually exclusive. For 2.4 GHz and 5 GHz OFDM configurations, the initial test configuration is applied to measure SAR using either the initial test position procedure for multiple exposure test position configurations or the initial test configuration procedures for fixed exposure test conditions. Based on the reported SAR of the measured configurations and maximum output power of the transmission mode configurations that are not included in the initial test configuration, the subsequent test configuration and initial test position procedures are applied to determine if SAR measurements are required for the remaining OFDM transmission configurations. In general, the number of test channels that require SAR measurement is minimized based on maximum output power measured for the test sample(s).
3. For OFDM transmission configurations in the 2.4 GHz and 5 GHz bands, When the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order 802.11a/g/n/ac mode is used for SAR measurement, on the highest measured output power channel for each frequency band.
4. DSSS and OFDM configurations are considered separately according to the required SAR procedures. SAR is measured in the initial test position using the 802.11 transmission mode configuration required by the DSSS procedure or initial test configuration and subsequent test configuration(s) according to the OFDM procedures.18 The initial test position procedure is described in the following:
   a. When the reported SAR of the initial test position is ≤ 0.4 W/kg, further SAR measurement is not required for the other test positions in that exposure configuration and 802.11 transmission mode combinations within the frequency band or aggregated band.
   b. When the reported SAR of the test position is > 0.4 W/kg, SAR is repeated for the 802.11 transmission mode configuration tested in the initial test position to measure the subsequent next closet/smallest test separation distance and maximum coupling test position on the highest maximum output power channel, until the report SAR is ≤ 0.8 W/kg or all required test position are tested.
   c. For all positions/configurations, when the reported SAR is > 0.8 W/kg, SAR is measured for these test positions/configurations on the subsequent next highest measured output power channel(s) until the reported SAR is ≤ 1.2 W/kg or all required channels are tested.

<2.4GHz Bluetooth>

General Note:

1. For 2.4GHz Bluetooth SAR testing was selected 1Mbps, due to its highest average power.
2. The Bluetooth duty cycle is 76.91 % as following figure, according to 2016 Oct. TCB workshop for Bluetooth SAR scaling need further consideration and the theoretical duty cycle is 83.3%, therefore the actual duty cycle will be scaled up to the theoretical value of Bluetooth reported SAR calculation

Bluetooth time-domain plot



14. Antenna Location

The detailed antenna location information can refer to SAR Test Setup Photos.

15. SAR Test Results

General Note:

1. Per KDB 447498 D01v06, the reported SAR is the measured SAR value adjusted for maximum tune-up tolerance.
   a. Tune-up scaling Factor = tune-up limit power (mW) / EUT RF power (mW), where tune-up limit is the maximum rated power among all production units.
   b. For SAR testing of WLAN signal with non-100% duty cycle, the measured SAR is scaled-up by the duty cycle scaling factor which is equal to "1/(duty cycle)"
   c. For WWAN: Reported SAR(W/kg)= Measured SAR(W/kg)*Tune-up Scaling Factor
   d. For BT/WLAN: Reported SAR(W/kg)= Measured SAR(W/kg)* Duty Cycle scaling factor * Tune-up scaling factor
   e. For TDD LTE SAR measurement, the duty cycle 1:1.59 (62.9 %) was used perform testing and considering the theoretical duty cycle of 63.3% for extended cyclic prefix in the uplink, and the theoretical duty cycle of 62.9% for normal cyclic prefix in uplink, a scaling factor of extended cyclic prefix 63.3%/62.9% = 1.006 is applied to scale-up the measured SAR result. The Reported TDD LTE SAR = measured SAR (W/kg)* Tune-up Scaling Factor* scaling factor for extended cyclic prefix.
2. Per KDB 447498 D01v06, for each exposure position, testing of other required channels within the operating mode of a frequency band is not required when the *reported* 1-g or 10-g SAR for the mid-band or highest output power channel is:
   - ≤ 0.8 W/kg or 2.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≤ 100 MHz
   - ≤ 0.6 W/kg or 1.5 W/kg, for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz
   - ≤ 0.4 W/kg or 1.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≥ 200 MHz
3. Per KDB 865664 D01v01r04, for each frequency band, repeated SAR measurement is required when the measured SAR is ≥ 0.8W/kg. Per KDB 865664 D01v01r04, if the extremity repeated SAR is necessary, the same procedures should be adapted for measurements according to extremity and occupational exposure limits by applying a factor of 2.5 for extremity exposure and a factor of 5 for occupational exposure to the corresponding SAR thresholds.
4. Pre KDB648474 D04v01r03, 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. When headset SAR is less than or equal than without headset SAR, no need to verify the remaining channels for headset SAR.
5. The device implements Proximity sensors/receiver detect mechanism/hotspot trigger reduced power for the power management for SAR compliance at different exposure conditions (head, body-worn, hotspot, extremity).
6. The device will invoke corresponding work scenarios power level, which are provided in the operational description.
7. Per KDB648474 D04v01r03, for smart phones with a display diagonal dimension > 15.0 cm or an overall diagonal dimension > 16.0 cm, when hotspot mode applies, 10-g extremity SAR is required only for the surfaces and edges with hotspot mode 1-g reported SAR > 1.2 W/kg, however, when power reduction applies to hotspot mode the measured SAR must be scaled to the maximum output power (for handheld on state, the maximum full power means reduced power), including tolerance, allowed for phablet modes to compare with the 1.2 W/kg SAR test reduction threshold.
   a. For this device SAR for WWAN/WLAN transmitter scaled to maximum output power mode for product specific 10g SAR is higher than 1.2W/kg of GSM850/GSM1900, CDMA2000 BC0/BC1/BC10, WCDMA Band II/IV/V, LTE Band 2/4/5/7/12/13/25/26/38/41/66, 5GNR n2/n25/n66/n41 and WLAN 2.4GHz /WLAN 5.2/5.3/5.5/5.8GHz therefore product specific 10g SAR is necessary.
   b. WLAN 5.3/5.5GHz tested the product specific 10g SAR since it has no hotspot mode.
   c. When 10-g product specific 10g SAR is considered, SAR thresholds is specified in the procedures for SAR test reduction and exclusion should be multiplied by 2.5.
8. For verification of compliance of power reduction scheme, additional SAR testing with EUT transmitting at full RF power at a conservative trigger distance was performed for body worn:
   Front: 14 mm
   Back: 18 mm
9. For verification of compliance of power reduction scheme, additional SAR testing with EUT transmitting at full RF power at a conservative trigger distance was performed for handheld:
   Front: 6 mm
   Back: 8 mm
   Bottom side: 12 mm
   Top Side: 11 mm

GSM Note:

1. Per KDB 941225 D01v03r01, for SAR test reduction for GSM / GPRS / EDGE modes is determined by the source-based time-averaged output power including tune-up tolerance. The mode with highest specified time-averaged output power should be tested for SAR compliance in the applicable exposure conditions. For modes with the same specified maximum output power and tolerance, the higher number time-slot configuration should be tested. Therefore, the GPRS 3Tx slots for GSM850/GSM1900 are considered as the primary mode.
2. Other configurations of GSM / GPRS / EDGE are considered as secondary modes. The 3G SAR test reduction procedure is applied, when the maximum output power and tune-up tolerance specified for production units in a secondary mode is ≤ ¼ dB higher than the primary mode, SAR measurement is not required for the secondary mode.

WCDMA Note:

1. Per KDB 941225 D01v03r01, for SAR testing is measured using a 12.2 kbps RMC with TPC bits configured to all "1's".
2. Per KDB 941225 D01v03r01, RMC 12.2kbps setting is used to evaluate SAR. The maximum output power and tune-up tolerance specified for production units in HSDPA / HSUPA / DC-HSDPA is ≤ ¼ dB higher than RMC 12.2Kbps or when the highest reported SAR of the RMC12.2Kbps is scaled by the ratio of specified maximum output power and tune-up tolerance of HSDPA / HSUPA / DC-HSDPA to RMC12.2Kbps and the adjusted SAR is ≤ 1.2 W/kg, SAR measurement is not required for HSDPA / HSUPA / DC-HSDPA, and according to the following RF output power, the output power results of the secondary modes (HSDPA / HSUPA / DC-HSDPA) are less than ¼ dB higher than the primary modes; therefore, SAR measurement is not required for HSDPA / HSUPA / DC-HSDPA.

LTE Note:

1. Per KDB 941225 D05v02r05, start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel.
2. Per KDB 941225 D05v02r05, 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure.
3. Per KDB 941225 D05v02r05, for QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested.
4. Per KDB 941225 D05v02r05, 16QAM/64QAM output power for each RB allocation configuration is > not ½ dB higher than the same configuration in QPSK and the reported SAR for the QPSK configuration is ≤ 1.45 W/kg; Per KDB 941225 D05v02r05, 16QAM/64QAM SAR testing is not required.
5. Per KDB 941225 D05v02r05, smaller bandwidth output power for each RB allocation configuration is > not ½ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg; Per KDB 941225 D05v02r05, smaller bandwidth SAR testing is not required.
6. This device supports HPUE for LTE band 41 with class 2 level, so HPUE SAR has been performed.
7. For LTE B4 / B5 / B12 / B17 / B26 / B38 the maximum bandwidth does not support three non-overlapping channels, per KDB 941225 D05v02r05, 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.
8. LTE B4 / B5 / B17 / B38 SAR test was covered by LTE B66 / B26 / B12 / B41; according to April 2015 TCB workshop, SAR test for overlapping LTE bands can be reduced if
   c. the maximum output power, including tolerance, for the smaller band is ≤ the larger band to qualify for the SAR test exclusion
   d. the channel bandwidth and other operating parameters for the smaller band are fully supported by the larger band

WLAN Note:

1. Per KDB 248227 D01v02r02, for 2.4GHz 802.11g/n SAR testing is not required when the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg.
2. Per KDB 248227 D01v02r02, U-NII-1 SAR testing is not required when the U-NII-2A band highest reported SAR for a test configuration is ≤ 1.2 W/kg, SAR is not required for U-NII-1 band.
3. When the reported SAR of the test position is > 0.4 W/kg, SAR is repeated for the 802.11 transmission mode configuration tested in the initial test position to measure the subsequent next closet/smallest test separation distance and maximum coupling test position on the highest maximum output power channel, until the report SAR is ≤ 0.8 W/kg or all required test position are tested.
4. For all positions / configurations, when the reported SAR is > 0.8 W/kg, SAR is measured for these test positions / configurations on the subsequent next highest measured output power channel(s) until the reported SAR is ≤ 1.2 W/kg or all required channels are tested.
5. During SAR testing the WLAN transmission was verified using a spectrum analyzer.

15.1 Head SAR

<GSM SAR>

Plot No.	Band	Mode	Test Position	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
01	GSM850	GPRS (3 Tx slot)	Right Cheek	Full	189	836.4	28.39	29.50	1.291	-0.01	0.182	**0.235**
	GSM850	GPRS (3 Tx slot)	Right Tilted	Full	189	836.4	28.39	29.50	1.291	0.01	0.095	0.123
	GSM850	GPRS (3 Tx slot)	Left Cheek	Full	189	836.4	28.39	29.50	1.291	0.03	0.151	0.195
	GSM850	GPRS (3 Tx slot)	Left Tilted	Full	189	836.4	28.39	29.50	1.291	0.01	0.087	0.112
	GSM850	GPRS (3 Tx slot)	Right Cheek	Full	128	824.2	28.29	29.50	1.321	0.04	0.162	0.214
	GSM850	GPRS (3 Tx slot)	Right Cheek	Full	251	848.8	28.15	29.50	1.365	-0.07	0.160	0.218
	GSM1900	GPRS (3 Tx slot)	Right Cheek	Full	661	1880	26.06	26.50	1.107	-0.05	0.055	0.061
	GSM1900	GPRS (3 Tx slot)	Right Tilted	Full	661	1880	26.06	26.50	1.107	0.13	0.033	0.037
	GSM1900	GPRS (3 Tx slot)	Left Cheek	Full	661	1880	26.06	26.50	1.107	0.08	0.047	0.052
	GSM1900	GPRS (3 Tx slot)	Left Tilted	Full	661	1880	26.06	26.50	1.107	0.03	0.035	0.038
	GSM1900	GPRS (3 Tx slot)	Right Cheek	Full	512	1850.2	25.61	26.50	1.227	0.02	0.047	0.057
02	GSM1900	GPRS (3 Tx slot)	Right Cheek	Full	810	1909.8	25.82	26.50	1.169	0.05	0.059	**0.069**

<WCDMA SAR>

Plot No.	Band	Mode	Test Position	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WCDMA V	RMC12.2Kbps	Right Cheek	Full	4182	836.4	22.67	24.00	1.358	0.04	0.247	0.336
	WCDMA V	RMC12.2Kbps	Right Tilted	Full	4182	836.4	22.67	24.00	1.358	0.06	0.110	0.149
	WCDMA V	RMC12.2Kbps	Left Cheek	Full	4182	836.4	22.67	24.00	1.358	0.004	0.196	0.266
	WCDMA V	RMC12.2Kbps	Left Tilted	Full	4182	836.4	22.67	24.00	1.358	-0.01	0.114	0.155
03	WCDMA V	RMC12.2Kbps	Right Cheek	Full	4132	826.4	22.65	24.00	1.365	0.05	0.257	**0.351**
	WCDMA V	RMC12.2Kbps	Right Cheek	Full	4233	846.6	22.42	24.00	1.439	0.05	0.222	0.319
	WCDMA IV	RMC12.2Kbps	Right Cheek	Full	1413	1732.6	22.67	24.00	1.358	0.02	0.132	0.179
	WCDMA IV	RMC12.2Kbps	Right Tilted	Full	1413	1732.6	22.67	24.00	1.358	0.16	0.063	0.086
	WCDMA IV	RMC12.2Kbps	Left Cheek	Full	1413	1732.6	22.67	24.00	1.358	0.08	0.075	0.102
	WCDMA IV	RMC12.2Kbps	Left Tilted	Full	1413	1732.6	22.67	24.00	1.358	-0.02	0.044	0.060
	WCDMA IV	RMC12.2Kbps	Right Cheek	Full	1312	1712.4	22.66	24.00	1.361	-0.09	0.135	0.184
04	WCDMA IV	RMC12.2Kbps	Right Cheek	Full	1513	1752.6	22.49	24.00	1.416	-0.06	0.143	**0.202**
05	WCDMA II	RMC12.2Kbps	Right Cheek	Full	9400	1880	22.68	24.00	1.355	0.07	0.096	**0.130**
	WCDMA II	RMC12.2Kbps	Right Tilted	Full	9400	1880	22.68	24.00	1.355	-0.07	0.067	0.091
	WCDMA II	RMC12.2Kbps	Left Cheek	Full	9400	1880	22.68	24.00	1.355	0.01	0.090	0.122
	WCDMA II	RMC12.2Kbps	Left Tilted	Full	9400	1880	22.68	24.00	1.355	0.11	0.079	0.107
	WCDMA II	RMC12.2Kbps	Right Cheek	Full	9262	1852.4	22.65	24.00	1.365	0.03	0.058	0.079
	WCDMA II	RMC12.2Kbps	Right Cheek	Full	9538	1907.6	22.52	24.00	1.406	0.07	0.088	0.124

<CDMA SAR>

Plot No.	Band	Mode	Test Position	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	CDMA2000 BC0	RC3 SO55	Right Cheek	Full	777	848.31	23.53	25.00	1.403	-0.07	0.185	0.260
	CDMA2000 BC0	RC3 SO55	Right Tilted	Full	777	848.31	23.53	25.00	1.403	-0.06	0.076	0.106
	CDMA2000 BC0	RC3 SO55	Left Cheek	Full	777	848.31	23.53	25.00	1.403	-0.07	0.140	0.196
	CDMA2000 BC0	RC3 SO55	Left Tilted	Full	777	848.31	23.53	25.00	1.403	0.12	0.079	0.111
06	CDMA2000 BC0	RC3 SO55	Right Cheek	Full	1013	824.7	23.39	25.00	1.449	0.03	0.210	**0.304**
	CDMA2000 BC0	RC3 SO55	Right Cheek	Full	384	836.52	23.38	25.00	1.452	-0.07	0.208	0.302
07	CDMA2000 BC1	RC3 SO55	Right Cheek	Full	1175	1908.75	23.88	25.00	1.294	0.08	0.083	**0.107**
	CDMA2000 BC1	RC3 SO55	Right Tilted	Full	1175	1908.75	23.88	25.00	1.294	0.1	0.070	0.091
	CDMA2000 BC1	RC3 SO55	Left Cheek	Full	1175	1908.75	23.88	25.00	1.294	0.04	0.079	0.103
	CDMA2000 BC1	RC3 SO55	Left Tilted	Full	1175	1908.75	23.88	25.00	1.294	-0.06	0.039	0.050
	CDMA2000 BC1	RC3 SO55	Right Cheek	Full	25	1851.25	23.63	25.00	1.371	-0.03	0.067	0.092
	CDMA2000 BC1	RC3 SO55	Right Cheek	Full	600	1880	23.82	25.00	1.312	0.1	0.077	0.101
	CDMA2000 BC10	RC3 SO55	Right Cheek	Full	580	820.5	23.39	25.00	1.449	0.13	0.215	0.311
	CDMA2000 BC10	RC3 SO55	Right Tilted	Full	580	820.5	23.39	25.00	1.449	-0.05	0.096	0.139
	CDMA2000 BC10	RC3 SO55	Left Cheek	Full	580	820.5	23.39	25.00	1.449	-0.15	0.174	0.252
	CDMA2000 BC10	RC3 SO55	Left Tilted	Full	580	820.5	23.39	25.00	1.449	-0.08	0.101	0.146
08	CDMA2000 BC10	RC3 SO55	Right Cheek	Full	476	817.9	23.36	25.00	1.459	0.06	0.219	**0.319**
	CDMA2000 BC10	RC3 SO55	Right Cheek	Full	684	823.1	23.36	25.00	1.459	-0.03	0.208	0.303

<FDD LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
09	LTE Band 71	20M	QPSK	1	0	Right Cheek	Full	133322	683	23.22	24.00	1.197	0.02	0.152	**0.182**
	LTE Band 71	20M	QPSK	50	0	Right Cheek	Full	133322	683	23.00	24.00	1.259	0.05	0.132	0.166
	LTE Band 71	20M	QPSK	1	0	Right Tilted	Full	133322	683	23.22	24.00	1.197	-0.02	0.073	0.088
	LTE Band 71	20M	QPSK	50	0	Right Tilted	Full	133322	683	23.00	24.00	1.259	0.04	0.062	0.078
	LTE Band 71	20M	QPSK	1	0	Left Cheek	Full	133322	683	23.22	24.00	1.197	0.02	0.133	0.159
	LTE Band 71	20M	QPSK	50	0	Left Cheek	Full	133322	683	23.00	24.00	1.259	0.06	0.114	0.144
	LTE Band 71	20M	QPSK	1	0	Left Tilted	Full	133322	683	23.22	24.00	1.197	-0.05	0.075	0.090
	LTE Band 71	20M	QPSK	50	0	Left Tilted	Full	133322	683	23.00	24.00	1.259	0.12	0.066	0.083
10	LTE Band 12	10M	QPSK	1	0	Right Cheek	Full	23095	707.5	22.86	24.00	1.300	0.08	0.191	**0.248**
	LTE Band 12	10M	QPSK	25	0	Right Cheek	Full	23095	707.5	22.77	24.00	1.327	0.05	0.150	0.199
	LTE Band 12	10M	QPSK	1	0	Right Tilted	Full	23095	707.5	22.86	24.00	1.300	0.04	0.088	0.115
	LTE Band 12	10M	QPSK	25	0	Right Tilted	Full	23095	707.5	22.77	24.00	1.327	0.04	0.073	0.097
	LTE Band 12	10M	QPSK	1	0	Left Cheek	Full	23095	707.5	22.86	24.00	1.300	0.01	0.149	0.194
	LTE Band 12	10M	QPSK	25	0	Left Cheek	Full	23095	707.5	22.77	24.00	1.327	0.04	0.121	0.161
	LTE Band 12	10M	QPSK	1	0	Left Tilted	Full	23095	707.5	22.86	24.00	1.300	0.02	0.082	0.106
	LTE Band 12	10M	QPSK	25	0	Left Tilted	Full	23095	707.5	22.77	24.00	1.327	0.07	0.066	0.087
EN-DC															
	LTE Band 12	10M	QPSK	1	0	Right Cheek	Full	23095	707.5	22.86	24.00	1.300	0.05	0.191	0.248
	LTE Band 12	10M	QPSK	25	0	Right Cheek	Full	23095	707.5	22.77	24.00	1.327	0.05	0.150	0.199
	LTE Band 12	10M	QPSK	1	0	Right Tilted	Full	23095	707.5	22.86	24.00	1.300	0.04	0.088	0.115
	LTE Band 12	10M	QPSK	25	0	Right Tilted	Full	23095	707.5	22.77	24.00	1.327	0.04	0.073	0.097
	LTE Band 12	10M	QPSK	1	0	Left Cheek	Full	23095	707.5	22.86	24.00	1.300	0.01	0.149	0.194
	LTE Band 12	10M	QPSK	25	0	Left Cheek	Full	23095	707.5	22.77	24.00	1.327	0.04	0.121	0.161
	LTE Band 12	10M	QPSK	1	0	Left Tilted	Full	23095	707.5	22.86	24.00	1.300	0.02	0.082	0.106
	LTE Band 12	10M	QPSK	25	0	Left Tilted	Full	23095	707.5	22.77	24.00	1.327	0.07	0.066	0.087
11	LTE Band 13	10M	QPSK	1	0	Right Cheek	Full	23230	782	22.57	24.00	1.390	0.07	0.187	**0.260**
	LTE Band 13	10M	QPSK	25	0	Right Cheek	Full	23230	782	22.10	24.00	1.549	-0.08	0.166	0.257
	LTE Band 13	10M	QPSK	1	0	Right Tilted	Full	23230	782	22.57	24.00	1.390	-0.09	0.085	0.118
	LTE Band 13	10M	QPSK	25	0	Right Tilted	Full	23230	782	22.10	24.00	1.549	0.07	0.083	0.128
	LTE Band 13	10M	QPSK	1	0	Left Cheek	Full	23230	782	22.57	24.00	1.390	0.07	0.139	0.193
	LTE Band 13	10M	QPSK	25	0	Left Cheek	Full	23230	782	22.10	24.00	1.549	0.05	0.148	0.229
	LTE Band 13	10M	QPSK	1	0	Left Tilted	Full	23230	782	22.57	24.00	1.390	0.03	0.089	0.124
	LTE Band 13	10M	QPSK	25	0	Left Tilted	Full	23230	782	22.10	24.00	1.549	0.09	0.079	0.123
12	LTE Band 26	15M	QPSK	1	0	Right Cheek	Full	26865	831.5	22.94	24.00	1.276	0.18	0.221	**0.282**
	LTE Band 26	15M	QPSK	36	0	Right Cheek	Full	26865	831.5	22.86	24.00	1.300	-0.06	0.185	0.241
	LTE Band 26	15M	QPSK	1	0	Right Tilted	Full	26865	831.5	22.94	24.00	1.276	0.07	0.106	0.135
	LTE Band 26	15M	QPSK	36	0	Right Tilted	Full	26865	831.5	22.86	24.00	1.300	0.08	0.087	0.113
	LTE Band 26	15M	QPSK	1	0	Left Cheek	Full	26865	831.5	22.94	24.00	1.276	0.01	0.093	0.118
	LTE Band 26	15M	QPSK	36	0	Left Cheek	Full	26865	831.5	22.86	24.00	1.300	-0.05	0.079	0.102
	LTE Band 26	15M	QPSK	1	0	Left Tilted	Full	26865	831.5	22.94	24.00	1.276	0.07	0.051	0.065
	LTE Band 26	15M	QPSK	36	0	Left Tilted	Full	26865	831.5	22.86	24.00	1.300	0.09	0.036	0.047
EN-DC															
	LTE Band 5	10M	QPSK	1	0	Right Cheek	Full	20525	836.5	22.81	24.00	1.315	-0.03	0.119	0.157
	LTE Band 5	10M	QPSK	25	0	Right Cheek	Full	20525	836.5	22.63	24.00	1.371	-0.06	0.185	0.254
	LTE Band 5	10M	QPSK	1	0	Right Tilted	Full	20525	836.5	22.81	24.00	1.315	0.07	0.106	0.139
	LTE Band 5	10M	QPSK	25	0	Right Tilted	Full	20525	836.5	22.63	24.00	1.371	0.08	0.087	0.119
	LTE Band 5	10M	QPSK	1	0	Left Cheek	Full	20525	836.5	22.81	24.00	1.315	0.01	0.093	0.122
	LTE Band 5	10M	QPSK	25	0	Left Cheek	Full	20525	836.5	22.63	24.00	1.371	-0.05	0.079	0.108
	LTE Band 5	10M	QPSK	1	0	Left Tilted	Full	20525	836.5	22.81	24.00	1.315	0.07	0.051	0.067
	LTE Band 5	10M	QPSK	25	0	Left Tilted	Full	20525	836.5	22.63	24.00	1.371	0.09	0.036	0.050

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 66	20M	QPSK	1	0	Right Cheek	Full	132322	1745	22.98	24.00	1.265	-0.18	0.130	0.164
	LTE Band 66	20M	QPSK	50	0	Right Cheek	Full	132322	1745	22.78	24.00	1.324	0.17	0.078	0.103
	LTE Band 66	20M	QPSK	1	0	Right Tilted	Full	132322	1745	22.98	24.00	1.265	-0.12	0.122	0.154
	LTE Band 66	20M	QPSK	50	0	Right Tilted	Full	132322	1745	22.78	24.00	1.324	0.13	0.085	0.112
	LTE Band 66	20M	QPSK	1	0	Left Cheek	Full	132322	1745	22.98	24.00	1.265	-0.18	0.121	0.153
	LTE Band 66	20M	QPSK	50	0	Left Cheek	Full	132322	1745	22.78	24.00	1.324	0.02	0.064	0.084
	LTE Band 66	20M	QPSK	1	0	Left Tilted	Full	132322	1745	22.98	24.00	1.265	0.04	0.105	0.133
	LTE Band 66	20M	QPSK	50	0	Left Tilted	Full	132322	1745	22.78	24.00	1.324	0.1	0.071	0.093
	LTE Band 66	20M	QPSK	1	0	Right Cheek	Full	132072	1720	22.88	24.00	1.294	0.01	0.125	0.162
	LTE Band 66	20M	QPSK	1	0	Right Cheek	Full	132572	1770	22.75	24.00	1.334	0.03	0.127	0.169
EN-DC															
	LTE Band 66-UAT	20M	QPSK	1	0	Right Cheek	Reduced	132322	1745	15.67	16.50	1.211	0.15	0.357	0.432
	LTE Band 66-UAT	20M	QPSK	50	0	Right Cheek	Reduced	132322	1745	14.53	15.50	1.250	0.18	0.282	0.353
13	LTE Band 66-UAT	20M	QPSK	1	0	Right Tilted	Reduced	132322	1745	15.67	16.50	1.211	0.11	0.457	**0.553**
	LTE Band 66-UAT	20M	QPSK	50	0	Right Tilted	Reduced	132322	1745	14.53	15.50	1.250	0.09	0.360	0.450
	LTE Band 66-UAT	20M	QPSK	1	0	Left Cheek	Reduced	132322	1745	15.67	16.50	1.211	0.02	0.210	0.254
	LTE Band 66-UAT	20M	QPSK	50	0	Left Cheek	Reduced	132322	1745	14.53	15.50	1.250	0.11	0.170	0.213
	LTE Band 66-UAT	20M	QPSK	1	0	Left Tilted	Reduced	132322	1745	15.67	16.50	1.211	-0.06	0.270	0.327
	LTE Band 66-UAT	20M	QPSK	50	0	Left Tilted	Reduced	132322	1745	14.53	15.50	1.250	0.04	0.216	0.270
	LTE Band 66-UAT	20M	QPSK	1	0	Right Tilted	Reduced	132072	1720	15.54	16.50	1.247	-0.06	0.414	0.516
	LTE Band 66-UAT	20M	QPSK	1	0	Right Tilted	Reduced	132572	1770	15.34	16.50	1.306	0.08	0.050	0.066
	LTE Band 66	20M	QPSK	1	0	Right Cheek	Full	132322	1745	22.98	24.00	1.265	-0.18	0.121	0.153
	LTE Band 66	20M	QPSK	50	0	Right Cheek	Full	132322	1745	22.78	24.00	1.324	0.17	0.078	0.103
	LTE Band 66	20M	QPSK	1	0	Right Tilted	Full	132322	1745	22.98	24.00	1.265	-0.12	0.122	0.154
	LTE Band 66	20M	QPSK	50	0	Right Tilted	Full	132322	1745	22.78	24.00	1.324	0.13	0.085	0.112
	LTE Band 66	20M	QPSK	1	0	Left Cheek	Full	132322	1745	22.98	24.00	1.265	-0.18	0.130	0.164
	LTE Band 66	20M	QPSK	50	0	Left Cheek	Full	132322	1745	22.78	24.00	1.324	0.02	0.064	0.084
	LTE Band 66	20M	QPSK	1	0	Left Tilted	Full	132322	1745	22.98	24.00	1.265	0.04	0.105	0.133
	LTE Band 66	20M	QPSK	50	0	Left Tilted	Full	132322	1745	22.78	24.00	1.324	0.1	0.071	0.093
	LTE Band 66	20M	QPSK	1	0	Right Cheek	Full	132072	1720	22.88	24.00	1.294	0.01	0.125	0.162
	LTE Band 66	20M	QPSK	1	0	Right Cheek	Full	132572	1770	22.75	24.00	1.334	0.05	0.127	0.169

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 25	20M	QPSK	1	0	Right Cheek	Full	26340	1880	22.92	24.00	1.282	0.06	0.086	0.110
	LTE Band 25	20M	QPSK	50	0	Right Cheek	Full	26340	1880	22.69	24.00	1.352	0.04	0.072	0.098
	LTE Band 25	20M	QPSK	1	0	Right Tilted	Full	26340	1880	22.92	24.00	1.282	0.03	0.086	0.110
	LTE Band 25	20M	QPSK	50	0	Right Tilted	Full	26340	1880	22.69	24.00	1.352	0.17	0.073	0.099
	LTE Band 25	20M	QPSK	1	0	Left Cheek	Full	26340	1880	22.92	24.00	1.282	0.08	0.076	0.097
	LTE Band 25	20M	QPSK	50	0	Left Cheek	Full	26340	1880	22.69	24.00	1.352	0.07	0.078	0.105
	LTE Band 25	20M	QPSK	1	0	Left Tilted	Full	26340	1880	22.92	24.00	1.282	0.04	0.065	0.083
	LTE Band 25	20M	QPSK	50	0	Left Tilted	Full	26340	1880	22.69	24.00	1.352	-0.11	0.059	0.080
	LTE Band 25	20M	QPSK	1	0	Right Tilted	Full	26140	1860	22.84	24.00	1.306	0.02	0.084	0.109
	LTE Band 25	20M	QPSK	1	0	Right Tilted	Full	26590	1905	22.87	24.00	1.297	0.06	0.093	0.121
EN-DC															
	LTE Band 25	20M	QPSK	1	0	Right Cheek	Full	26340	1880	22.92	24.00	1.282	0.06	0.086	0.110
	LTE Band 25	20M	QPSK	50	0	Right Cheek	Full	26340	1880	22.69	24.00	1.352	0.04	0.072	0.098
	LTE Band 25	20M	QPSK	1	0	Right Tilted	Full	26340	1880	22.92	24.00	1.282	0.03	0.086	0.110
	LTE Band 25	20M	QPSK	50	0	Right Tilted	Full	26340	1880	22.69	24.00	1.352	0.17	0.073	0.099
	LTE Band 25	20M	QPSK	1	0	Left Cheek	Full	26340	1880	22.92	24.00	1.282	0.08	0.076	0.097
	LTE Band 25	20M	QPSK	50	0	Left Cheek	Full	26340	1880	22.69	24.00	1.352	0.07	0.078	0.105
	LTE Band 25	20M	QPSK	1	0	Left Tilted	Full	26340	1880	22.92	24.00	1.282	0.04	0.065	0.083
	LTE Band 25	20M	QPSK	50	0	Left Tilted	Full	26340	1880	22.69	24.00	1.352	-0.11	0.059	0.080
	LTE Band 25	20M	QPSK	1	0	Right Tilted	Full	26140	1860	22.84	24.00	1.306	0.02	0.084	0.109
	LTE Band 25	20M	QPSK	1	0	Right Tilted	Full	26590	1905	22.87	24.00	1.297	0.09	0.093	0.121
	LTE Band 2-UAT	20M	QPSK	1	0	Right Cheek	Reduced	18900	1880	13.91	14.50	1.146	0.02	0.291	0.333
	LTE Band 2-UAT	20M	QPSK	50	0	Right Cheek	Reduced	18900	1880	13.39	13.50	1.026	0.14	0.239	0.245
	LTE Band 2-UAT	20M	QPSK	1	0	Right Tilted	Reduced	18900	1880	13.91	14.50	1.146	0.02	0.373	0.427
	LTE Band 2-UAT	20M	QPSK	50	0	Right Tilted	Reduced	18900	1880	13.39	13.50	1.026	0.13	0.309	0.317
	LTE Band 2-UAT	20M	QPSK	1	0	Left Cheek	Reduced	18900	1880	13.91	14.50	1.146	0.07	0.187	0.214
	LTE Band 2-UAT	20M	QPSK	50	0	Left Cheek	Reduced	18900	1880	13.39	13.50	1.026	0.11	0.154	0.158
	LTE Band 2-UAT	20M	QPSK	1	0	Left Tilted	Reduced	18900	1880	13.91	14.50	1.146	0.02	0.255	0.292
	LTE Band 2-UAT	20M	QPSK	50	0	Left Tilted	Reduced	18900	1880	13.39	13.50	1.026	0.05	0.212	0.217
14	LTE Band 2-UAT	20M	QPSK	1	0	Right Tilted	Reduced	18700	1860	13.85	14.50	1.161	-0.06	0.390	**0.453**
	LTE Band 2-UAT	20M	QPSK	1	0	Right Tilted	Reduced	19100	1900	13.89	14.50	1.151	0.01	0.333	0.383
	LTE Band 7	20M	QPSK	1	0	Right Cheek	Full	21100	2535	23.27	24.00	1.183	-0.07	0.091	0.108
	LTE Band 7	20M	QPSK	50	0	Right Cheek	Full	21100	2535	23.23	24.00	1.194	0.04	0.078	0.093
	LTE Band 7	20M	QPSK	1	0	Right Tilted	Full	21100	2535	23.27	24.00	1.183	0.08	0.077	0.091
	LTE Band 7	20M	QPSK	50	0	Right Tilted	Full	21100	2535	23.23	24.00	1.194	0.15	0.057	0.068
	LTE Band 7	20M	QPSK	1	0	Left Cheek	Full	21100	2535	23.27	24.00	1.183	0.03	0.080	0.094
	LTE Band 7	20M	QPSK	50	0	Left Cheek	Full	21100	2535	23.23	24.00	1.194	0.07	0.091	0.109
	LTE Band 7	20M	QPSK	1	0	Left Tilted	Full	21100	2535	23.27	24.00	1.183	0.09	0.034	0.041
	LTE Band 7	20M	QPSK	50	0	Left Tilted	Full	21100	2535	23.23	24.00	1.194	0.05	0.030	0.036
15	LTE Band 7	20M	QPSK	50	0	Left Cheek	Full	20850	2510	23.14	24.00	1.219	0.04	0.102	**0.124**
	LTE Band 7	20M	QPSK	50	0	Left Cheek	Full	21350	2560	23.02	24.00	1.253	0.02	0.091	0.114

<TDD LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 41	20M	QPSK	1	0	Right Cheek	Full	40620	2593	23.98	24.00	1.005	62.9	1.006	0.07	0.084	0.085
	LTE Band 41	20M	QPSK	50	0	Right Cheek	Full	40620	2593	23.95	24.00	1.012	62.9	1.006	0.09	0.066	0.067
	LTE Band 41	20M	QPSK	1	0	Right Tilted	Full	40620	2593	23.98	24.00	1.005	62.9	1.006	0.03	0.038	0.038
	LTE Band 41	20M	QPSK	50	0	Right Tilted	Full	40620	2593	23.95	24.00	1.012	62.9	1.006	0.06	0.030	0.031
	LTE Band 41	20M	QPSK	1	0	Left Cheek	Full	40620	2593	23.98	24.00	1.005	62.9	1.006	0.03	0.060	0.060
	LTE Band 41	20M	QPSK	50	0	Left Cheek	Full	40620	2593	23.95	24.00	1.012	62.9	1.006	0.03	0.050	0.051
	LTE Band 41	20M	QPSK	1	0	Left Tilted	Full	40620	2593	23.98	24.00	1.005	62.9	1.006	0.09	0.037	0.038
	LTE Band 41	20M	QPSK	50	0	Left Tilted	Full	40620	2593	23.95	24.00	1.012	62.9	1.006	0.05	0.030	0.031
	LTE Band 41	20M	QPSK	1	0	Right Cheek	Full	39750	2506	22.75	23.00	1.059	62.9	1.006	0.02	0.070	0.074
	LTE Band 41	20M	QPSK	1	0	Right Cheek	Full	40185	2549.5	23.38	24.00	1.153	62.9	1.006	0.01	0.081	0.094
16	LTE Band 41	20M	QPSK	1	0	Right Cheek	Full	41055	2636.5	23.53	24.00	1.114	62.9	1.006	0.06	0.087	**0.098**
	LTE Band 41C	20M	QPSK	1	0	Right Cheek	Full	41055	2636.5	23.44	24.00	1.138	62.9	1.006	0.01	0.060	0.069
	LTE Band 41	20M	QPSK	1	0	Right Cheek	Full	41490	2680	23.54	24.00	1.112	62.9	1.006	0.09	0.081	0.091
	LTE Band 41-HPUE	20M	QPSK	1	0	Right Cheek	Full	40620	2593	25.77	26.00	1.054	42.9	1.009	0.04	0.039	0.041
	LTE Band 41-HPUE	20M	QPSK	50	0	Right Cheek	Full	40620	2593	25.58	26.00	1.102	42.9	1.009	0.06	0.029	0.032
	LTE Band 41-HPUE	20M	QPSK	1	0	Right Tilted	Full	40620	2593	25.77	26.00	1.054	42.9	1.009	-0.01	0.030	0.032
	LTE Band 41-HPUE	20M	QPSK	50	0	Right Tilted	Full	40620	2593	25.58	26.00	1.102	42.9	1.009	0.01	0.015	0.017
	LTE Band 41-HPUE	20M	QPSK	1	0	Left Cheek	Full	40620	2593	25.77	26.00	1.054	42.9	1.009	0.04	0.024	0.026
	LTE Band 41-HPUE	20M	QPSK	50	0	Left Cheek	Full	40620	2593	25.58	26.00	1.102	42.9	1.009	0.08	0.021	0.023
	LTE Band 41-HPUE	20M	QPSK	1	0	Left Tilted	Full	40620	2593	25.77	26.00	1.054	42.9	1.009	0.02	0.014	0.015
	LTE Band 41-HPUE	20M	QPSK	50	0	Left Tilted	Full	40620	2593	25.58	26.00	1.102	42.9	1.009	-0.04	0.010	0.011
	LTE Band 41-HPUE	20M	QPSK	1	0	Right Cheek	Full	39750	2506	24.71	25.00	1.069	42.9	1.009	0.06	0.044	0.047
	LTE Band 41-HPUE	20M	QPSK	1	0	Right Cheek	Full	40185	2549.5	25.51	26.00	1.119	42.9	1.009	0.07	0.040	0.045
	LTE Band 41-HPUE	20M	QPSK	1	0	Right Cheek	Full	41055	2636.5	25.56	26.00	1.107	42.9	1.009	0.08	0.040	0.045
	LTE Band 41-HPUE	20M	QPSK	1	0	Right Cheek	Full	41490	2680	24.31	25.00	1.172	42.9	1.009	0.09	0.040	0.047
EN-DC																	
	LTE Band 41	20M	QPSK	1	0	Right Cheek	Full	40620	2593	23.21	24.00	1.199	62.9	1.006	0.07	0.084	0.101
	LTE Band 41	20M	QPSK	50	0	Right Cheek	Full	40620	2593	23.19	24.00	1.205	62.9	1.006	0.09	0.066	0.080
	LTE Band 41	20M	QPSK	1	0	Right Tilted	Full	40620	2593	23.21	24.00	1.199	62.9	1.006	0.03	0.038	0.046
	LTE Band 41	20M	QPSK	50	0	Right Tilted	Full	40620	2593	23.19	24.00	1.205	62.9	1.006	0.06	0.030	0.036
	LTE Band 41	20M	QPSK	1	0	Left Cheek	Full	40620	2593	23.21	24.00	1.199	62.9	1.006	0.03	0.060	0.072
	LTE Band 41	20M	QPSK	50	0	Left Cheek	Full	40620	2593	23.19	24.00	1.205	62.9	1.006	0.03	0.050	0.061
	LTE Band 41	20M	QPSK	1	0	Left Tilted	Full	40620	2593	23.21	24.00	1.199	62.9	1.006	0.09	0.037	0.045
	LTE Band 41	20M	QPSK	50	0	Left Tilted	Full	40620	2593	23.19	24.00	1.205	62.9	1.006	0.05	0.030	0.037
	LTE Band 41	20M	QPSK	1	0	Right Cheek	Full	39750	2506	23.17	24.00	1.211	62.9	1.006	0.02	0.070	0.085
	LTE Band 41	20M	QPSK	1	0	Right Cheek	Full	40185	2549.5	23.07	24.00	1.239	62.9	1.006	-0.06	0.040	0.050
	LTE Band 41	20M	QPSK	1	0	Right Cheek	Full	41055	2636.5	23.04	24.00	1.247	62.9	1.006	0.06	0.087	0.109
	LTE Band 41	20M	QPSK	1	0	Right Cheek	Full	41490	2680	23.11	24.00	1.227	62.9	1.006	0.09	0.081	0.100

<5G NR SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
17	FR1 n5	20M	PI/2 BPSK	1	1	DFT-15KHz	Right Cheek	Full	167300	836.5	23.31	24.00	1.172	-0.01	0.163	**0.191**
	FR1 n5	20M	PI/2 BPSK	50	0	DFT-15KHz	Right Cheek	Full	167300	836.5	22.85	24.00	1.303	0.07	0.123	0.160
	FR1 n5	20M	PI/2 BPSK	1	1	DFT-15KHz	Right Tilted	Full	167300	836.5	23.31	24.00	1.172	0.04	0.066	0.077
	FR1 n5	20M	PI/2 BPSK	50	0	DFT-15KHz	Right Tilted	Full	167300	836.5	22.85	24.00	1.303	0.16	0.057	0.074
	FR1 n5	20M	PI/2 BPSK	1	1	DFT-15KHz	Left Cheek	Full	167300	836.5	23.31	24.00	1.172	0.08	0.103	0.121
	FR1 n5	20M	PI/2 BPSK	50	0	DFT-15KHz	Left Cheek	Full	167300	836.5	22.85	24.00	1.303	-0.16	0.097	0.127
	FR1 n5	20M	PI/2 BPSK	1	1	DFT-15KHz	Left Tilted	Full	167300	836.5	23.31	24.00	1.172	0.01	0.062	0.072
	FR1 n5	20M	PI/2 BPSK	50	0	DFT-15KHz	Left Tilted	Full	167300	836.5	22.85	24.00	1.303	0.02	0.058	0.076
18	FR1 n12	15M	PI/2 BPSK	1	1	DFT-15KHz	Right Cheek	Full	141500	707.5	23.46	24.00	1.132	-0.01	0.110	**0.125**
	FR1 n12	15M	PI/2 BPSK	36	0	DFT-15KHz	Right Cheek	Full	141500	707.5	23.07	24.00	1.239	-0.02	0.097	0.120
	FR1 n12	15M	PI/2 BPSK	1	1	DFT-15KHz	Right Tilted	Full	141500	707.5	23.46	24.00	1.132	0.01	0.068	0.077
	FR1 n12	15M	PI/2 BPSK	36	0	DFT-15KHz	Right Tilted	Full	141500	707.5	23.07	24.00	1.239	-0.08	0.054	0.066
	FR1 n12	15M	PI/2 BPSK	1	1	DFT-15KHz	Left Cheek	Full	141500	707.5	23.46	24.00	1.132	-0.05	0.082	0.093
	FR1 n12	15M	PI/2 BPSK	36	0	DFT-15KHz	Left Cheek	Full	141500	707.5	23.07	24.00	1.239	0.02	0.092	0.113
	FR1 n12	15M	PI/2 BPSK	1	1	DFT-15KHz	Left Tilted	Full	141500	707.5	23.46	24.00	1.132	0.03	0.067	0.076
	FR1 n12	15M	PI/2 BPSK	36	0	DFT-15KHz	Left Tilted	Full	141500	707.5	23.07	24.00	1.239	0.04	0.054	0.067
19	FR1 n71	20M	PI/2 BPSK	1	1	DFT-15KHz	Right Cheek	Full	136100	680.5	23.49	24.00	1.125	-0.06	0.138	**0.155**
	FR1 n71	20M	PI/2 BPSK	50	0	DFT-15KHz	Right Cheek	Full	136100	680.5	23.25	24.00	1.189	0.08	0.097	0.115
	FR1 n71	20M	PI/2 BPSK	1	1	DFT-15KHz	Right Tilted	Full	136100	680.5	23.49	24.00	1.125	0.03	0.059	0.067
	FR1 n71	20M	PI/2 BPSK	50	0	DFT-15KHz	Right Tilted	Full	136100	680.5	23.25	24.00	1.189	0.06	0.056	0.066
	FR1 n71	20M	PI/2 BPSK	1	1	DFT-15KHz	Left Cheek	Full	136100	680.5	23.49	24.00	1.125	-0.09	0.105	0.118
	FR1 n71	20M	PI/2 BPSK	50	0	DFT-15KHz	Left Cheek	Full	136100	680.5	23.25	24.00	1.189	0.06	0.080	0.095
	FR1 n71	20M	PI/2 BPSK	1	1	DFT-15KHz	Left Tilted	Full	136100	680.5	23.49	24.00	1.125	0.04	0.061	0.069
	FR1 n71	20M	PI/2 BPSK	50	0	DFT-15KHz	Left Tilted	Full	136100	680.5	23.25	24.00	1.189	0.05	0.046	0.054
	FR1 n66	20M	PI/2 BPSK	1	1	DFT-15KHz	Right Cheek	Reduced	349000	1745	14.99	15.50	1.125	0.02	0.474	0.533
	FR1 n66	20M	PI/2 BPSK	50	0	DFT-15KHz	Right Cheek	Reduced	349000	1745	14.91	15.50	1.146	0.13	0.502	0.575
	FR1 n66	20M	PI/2 BPSK	1	1	DFT-15KHz	Right Tilted	Reduced	349000	1745	14.99	15.50	1.125	0.15	0.546	0.614
20	FR1 n66	20M	PI/2 BPSK	50	0	DFT-15KHz	Right Tilted	Reduced	349000	1745	14.91	15.50	1.146	-0.04	0.547	**0.627**
	FR1 n66	20M	PI/2 BPSK	1	1	DFT-15KHz	Left Cheek	Reduced	349000	1745	14.99	15.50	1.125	0.05	0.287	0.323
	FR1 n66	20M	PI/2 BPSK	50	0	DFT-15KHz	Left Cheek	Reduced	349000	1745	14.91	15.50	1.146	0.13	0.282	0.323
	FR1 n66	20M	PI/2 BPSK	1	1	DFT-15KHz	Left Tilted	Reduced	349000	1745	14.99	15.50	1.125	-0.03	0.397	0.446
	FR1 n66	20M	PI/2 BPSK	50	0	DFT-15KHz	Left Tilted	Reduced	349000	1745	14.91	15.50	1.146	0.08	0.375	0.430
	FR1 n66	20M	PI/2 BPSK	50	0	DFT-15KHz	Right Tilted	Reduced	344000	1720	14.75	15.50	1.189	0.02	0.521	0.619
	FR1 n66	20M	PI/2 BPSK	50	0	DFT-15KHz	Right Tilted	Reduced	354000	1770	14.71	15.50	1.199	-0.02	0.507	0.608
	FR1 n25	20M	PI/2 BPSK	1	1	DFT-15KHz	Right Cheek	Reduced	376500	1882.5	15.09	15.50	1.099	0.14	0.409	0.449
	FR1 n25	20M	PI/2 BPSK	50	0	DFT-15KHz	Right Cheek	Reduced	376500	1882.5	14.98	15.50	1.127	0.15	0.453	0.511
	FR1 n25	20M	PI/2 BPSK	1	1	DFT-15KHz	Right Tilted	Reduced	376500	1882.5	15.09	15.50	1.099	0.17	0.525	0.577
21	FR1 n25	20M	PI/2 BPSK	50	0	DFT-15KHz	Right Tilted	Reduced	376500	1882.5	14.98	15.50	1.127	-0.08	0.601	**0.677**
	FR1 n25	20M	PI/2 BPSK	1	1	DFT-15KHz	Left Cheek	Reduced	376500	1882.5	15.09	15.50	1.099	0.02	0.267	0.293
	FR1 n25	20M	PI/2 BPSK	50	0	DFT-15KHz	Left Cheek	Reduced	376500	1882.5	14.98	15.50	1.127	0.02	0.312	0.352
	FR1 n25	20M	PI/2 BPSK	1	1	DFT-15KHz	Left Tilted	Reduced	376500	1882.5	15.09	15.50	1.099	-0.05	0.390	0.429
	FR1 n25	20M	PI/2 BPSK	50	0	DFT-15KHz	Left Tilted	Reduced	376500	1882.5	14.98	15.50	1.127	0.01	0.426	0.480
	FR1 n25	20M	PI/2 BPSK	50	0	DFT-15KHz	Right Tilted	Reduced	372000	1860	14.23	15.50	1.340	0.06	0.501	0.671
	FR1 n25	20M	PI/2 BPSK	50	0	DFT-15KHz	Right Tilted	Reduced	381000	1905	14.37	15.50	1.297	0.09	0.511	0.663
	FR1 n41	100M	PI/2 BPSK	1	1	DFT-30KHz	Right Cheek	Reduced	518598	2592.99	16.89	17.00	1.026	0.01	0.543	0.557
	FR1 n41	100M	PI/2 BPSK	135	0	DFT-30KHz	Right Cheek	Reduced	518598	2592.99	16.87	17.00	1.030	0.07	0.696	0.717
	FR1 n41	100M	PI/2 BPSK	1	1	DFT-30KHz	Right Tilted	Reduced	518598	2592.99	16.89	17.00	1.026	0.12	0.599	0.614
22	FR1 n41	100M	PI/2 BPSK	135	0	DFT-30KHz	Right Tilted	Reduced	518598	2592.99	16.87	17.00	1.030	-0.1	0.769	**0.792**
	FR1 n41	100M	PI/2 BPSK	1	1	DFT-30KHz	Left Cheek	Reduced	518598	2592.99	16.89	17.00	1.026	-0.11	0.388	0.398
	FR1 n41	100M	PI/2 BPSK	135	0	DFT-30KHz	Left Cheek	Reduced	518598	2592.99	16.87	17.00	1.030	0.06	0.515	0.531
	FR1 n41	100M	PI/2 BPSK	1	1	DFT-30KHz	Left Tilted	Reduced	518598	2592.99	16.89	17.00	1.026	-0.08	0.399	0.409
	FR1 n41	100M	PI/2 BPSK	135	0	DFT-30KHz	Left Tilted	Reduced	518598	2592.99	16.87	17.00	1.030	0.13	0.596	0.614
	FR1 n41	100M	PI/2 BPSK	135	0	DFT-30KHz	Right Tilted	Reduced	509202	2546.01	16.37	17.00	1.156	0.03	0.451	0.521
	FR1 n41	100M	PI/2 BPSK	135	0	DFT-30KHz	Right Tilted	Reduced	528000	2640	16.51	17.00	1.119	-0.12	0.538	0.602

<WLAN2.4G SAR>

Plot No.	Band	Mode	Test Position	Antenna	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	1+2	Reduced	1	2412	21.68	22.00	1.076	100	1.000	-0.04	0.287	0.309
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	1+2	Reduced	1	2412	21.68	22.00	1.076	100	1.000	0.09	0.279	0.300
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	1+2	Reduced	1	2412	21.68	22.00	1.076	100	1.000	0.05	0.707	0.761
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	1+2	Reduced	1	2412	21.68	22.00	1.076	100	1.000	-0.05	0.817	0.879
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	1+2	Reduced	6	2437	21.65	22.00	1.084	100	1.000	0.02	0.868	0.941
23	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	1+2	Reduced	11	2462	21.38	22.00	1.153	100	1.000	0.03	0.894	**1.031**
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	1+2	Reduced	6	2437	21.65	22.00	1.084	100	1.000	-0.04	0.684	0.741
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	1+2	Reduced	11	2462	21.38	22.00	1.153	100	1.000	0.04	0.674	0.777
EN-DC															
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	1+2	Reduced	1	2412	17.11	17.50	1.094	100	1.000	-0.11	0.167	0.183
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	1+2	Reduced	1	2412	17.11	17.50	1.094	100	1.000	0.03	0.151	0.165
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	1+2	Reduced	1	2412	17.11	17.50	1.094	100	1.000	0.08	0.330	0.361
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	1+2	Reduced	1	2412	17.11	17.50	1.094	100	1.000	0.1	0.258	0.282
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	1+2	Reduced	6	2437	16.97	17.50	1.130	100	1.000	0.05	0.311	0.351
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	1+2	Reduced	11	2462	16.92	17.50	1.143	100	1.000	0.06	0.318	0.363

<WLAN5G SAR>

Plot No.	Band	Mode	Test Position	Antenna	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WLAN5.3GHz	802.11a 6Mbps	Right Cheek	1+2	Reduced	52	5260	20.43	21.00	1.140	97.93	1.021	-0.01	0.320	0.373
	WLAN5.3GHz	802.11a 6Mbps	Right Tilted	1+2	Reduced	52	5260	20.43	21.00	1.140	97.93	1.021	0.01	0.378	0.440
	WLAN5.3GHz	802.11a 6Mbps	Left Cheek	1+2	Reduced	52	5260	20.43	21.00	1.140	97.93	1.021	0.04	0.573	0.667
	WLAN5.3GHz	802.11a 6Mbps	Left Tilted	1+2	Reduced	52	5260	20.43	21.00	1.140	97.93	1.021	0.08	0.667	0.777
24	WLAN5.3GHz	802.11a 6Mbps	Left Tilted	1+2	Reduced	56	5280	20.32	21.00	1.169	97.93	1.021	0.01	0.920	**1.099**
	WLAN5.3GHz	802.11a 6Mbps	Left Tilted	1+2	Reduced	60	5300	20.39	21.00	1.151	97.93	1.021	-0.1	0.627	0.737
	WLAN5.3GHz	802.11a 6Mbps	Left Tilted	1+2	Reduced	64	5320	20.38	21.00	1.153	97.93	1.021	0.04	0.635	0.748
EN-DC															
	WLAN5.3GHz	802.11a 6Mbps	Right Cheek	1+2	Reduced	52	5260	16.72	17.00	1.067	97.93	1.021	-0.03	0.121	0.132
	WLAN5.3GHz	802.11a 6Mbps	Right Tilted	1+2	Reduced	52	5260	16.72	17.00	1.067	97.93	1.021	0.05	0.124	0.135
	WLAN5.3GHz	802.11a 6Mbps	Left Cheek	1+2	Reduced	52	5260	16.72	17.00	1.067	97.93	1.021	0.08	0.260	0.283
	WLAN5.3GHz	802.11a 6Mbps	Left Tilted	1+2	Reduced	52	5260	16.72	17.00	1.067	97.93	1.021	0.01	0.235	0.256
	WLAN5.3GHz	802.11a 6Mbps	Left Cheek	1+2	Reduced	56	5280	16.72	17.00	1.067	97.93	1.021	-0.08	0.315	0.343
	WLAN5.3GHz	802.11a 6Mbps	Left Cheek	1+2	Reduced	60	5300	16.57	17.00	1.104	97.93	1.021	0.04	0.241	0.272
	WLAN5.3GHz	802.11a 6Mbps	Left Cheek	1+2	Reduced	64	5320	16.54	17.00	1.112	97.93	1.021	-0.01	0.253	0.287
	WLAN5.5GHz	802.11a 6Mbps	Right Cheek	1+2	Reduced	100	5500	20.24	20.50	1.062	97.93	1.021	0.04	0.526	0.570
	WLAN5.5GHz	802.11a 6Mbps	Right Tilted	1+2	Reduced	100	5500	20.24	20.50	1.062	97.93	1.021	0.08	0.632	0.685
	WLAN5.5GHz	802.11a 6Mbps	Left Cheek	1+2	Reduced	100	5500	20.24	20.50	1.062	97.93	1.021	0.02	0.572	0.620
	WLAN5.5GHz	802.11a 6Mbps	Left Tilted	1+2	Reduced	100	5500	20.24	20.50	1.062	97.93	1.021	0.11	0.664	0.720
	WLAN5.5GHz	802.11a 6Mbps	Left Tilted	1+2	Reduced	116	5580	19.98	20.50	1.127	97.93	1.021	0.04	0.694	0.799
25	WLAN5.5GHz	802.11a 6Mbps	Left Tilted	1+2	Reduced	124	5620	19.73	20.50	1.194	97.93	1.021	0.03	0.897	**1.093**
	WLAN5.5GHz	802.11a 6Mbps	Left Tilted	1+2	Reduced	132	5660	19.85	20.50	1.161	97.93	1.021	0.06	0.736	0.873
	WLAN5.5GHz	802.11a 6Mbps	Left Tilted	1+2	Reduced	140	5700	19.62	20.50	1.225	97.93	1.021	0.04	0.845	1.057
EN-DC															
	WLAN5.5GHz	802.11a 6Mbps	Right Cheek	1+2	Reduced	100	5500	14.98	15.00	1.005	97.93	1.021	0.03	0.211	0.216
	WLAN5.5GHz	802.11a 6Mbps	Right Tilted	1+2	Reduced	100	5500	14.98	15.00	1.005	97.93	1.021	0.08	0.214	0.220
	WLAN5.5GHz	802.11a 6Mbps	Left Cheek	1+2	Reduced	100	5500	14.98	15.00	1.005	97.93	1.021	-0.01	0.207	0.212
	WLAN5.5GHz	802.11a 6Mbps	Left Tilted	1+2	Reduced	100	5500	14.98	15.00	1.005	97.93	1.021	0.03	0.222	0.228
	WLAN5.5GHz	802.11a 6Mbps	Left Tilted	1+2	Reduced	116	5580	14.70	15.00	1.072	97.93	1.021	-0.02	0.220	0.241
	WLAN5.5GHz	802.11a 6Mbps	Left Tilted	1+2	Reduced	124	5620	14.61	15.00	1.094	97.93	1.021	0.03	0.273	0.305
	WLAN5.5GHz	802.11a 6Mbps	Left Tilted	1+2	Reduced	132	5660	14.80	15.00	1.047	97.93	1.021	0.06	0.209	0.223
	WLAN5.5GHz	802.11a 6Mbps	Left Tilted	1+2	Reduced	140	5700	14.31	15.00	1.172	97.93	1.021	-0.01	0.205	0.245
	WLAN5.8GHz	802.11a 6Mbps	Right Cheek	1+2	Reduced	157	5785	19.27	20.00	1.183	97.93	1.021	-0.08	0.501	0.605
	WLAN5.8GHz	802.11a 6Mbps	Right Tilted	1+2	Reduced	157	5785	19.27	20.00	1.183	97.93	1.021	0.03	0.498	0.602
	WLAN5.8GHz	802.11a 6Mbps	Left Cheek	1+2	Reduced	157	5785	19.27	20.00	1.183	97.93	1.021	0.03	0.403	0.487
	WLAN5.8GHz	802.11a 6Mbps	Left Tilted	1+2	Reduced	157	5785	19.27	20.00	1.183	97.93	1.021	0.09	0.579	0.699
	WLAN5.8GHz	802.11a 6Mbps	Left Tilted	1+2	Reduced	165	5825	19.24	20.00	1.191	97.93	1.021	0.04	0.514	0.625
26	WLAN5.8GHz	802.11a 6Mbps	Left Tilted	1+2	Reduced	149	5745	19.14	20.00	1.219	97.93	1.021	0.02	0.795	**0.989**
EN-DC															
	WLAN5.8GHz	802.11a 6Mbps	Right Cheek	1+2	Reduced	165	5825	15.15	15.50	1.084	97.93	1.021	0.08	0.179	0.198
	WLAN5.8GHz	802.11a 6Mbps	Right Tilted	1+2	Reduced	165	5825	15.15	15.50	1.084	97.93	1.021	0.06	0.202	0.224
	WLAN5.8GHz	802.11a 6Mbps	Left Cheek	1+2	Reduced	165	5825	15.15	15.50	1.084	97.93	1.021	0.01	0.175	0.194
	WLAN5.8GHz	802.11a 6Mbps	Left Tilted	1+2	Reduced	165	5825	15.15	15.50	1.084	97.93	1.021	0.02	0.226	0.250
	WLAN5.8GHz	802.11a 6Mbps	Left Tilted	1+2	Reduced	149	5745	14.74	15.50	1.191	97.93	1.021	0.05	0.266	0.324
	WLAN5.8GHz	802.11a 6Mbps	Left Tilted	1+2	Reduced	157	5785	15.12	15.50	1.091	97.93	1.021	-0.01	0.230	0.256

<Bluetooth SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	Bluetooth	1Mbps	Right Cheek	0	1	Full	39	2441	11.82	12.50	1.169	76.91	1.083	0.08	0.085	0.108
	Bluetooth	1Mbps	Right Tilted	0	1	Full	39	2441	11.82	12.50	1.169	76.91	1.083	0.04	0.066	0.084
	Bluetooth	1Mbps	Left Cheek	0	1	Full	39	2441	11.82	12.50	1.169	76.91	1.083	0.09	0.157	0.199
	Bluetooth	1Mbps	Left Tilted	0	1	Full	39	2441	11.82	12.50	1.169	76.91	1.083	0.04	0.131	0.166
	Bluetooth	1Mbps	Left Cheek	0	1	Full	0	2402	11.13	12.50	1.371	76.91	1.083	-0.04	0.125	0.186
27	Bluetooth	1Mbps	Left Cheek	0	1	Full	78	2480	10.63	12.50	1.538	76.91	1.083	0.08	0.162	**0.270**

15.2 Hotspot SAR

<GSM SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	GSM850	GPRS (3 Tx slot)	Front	5	Full	189	836.4	28.39	29.50	1.291	-0.05	0.464	0.599
	GSM850	GPRS (3 Tx slot)	Back	5	Full	189	836.4	28.39	29.50	1.291	-0.08	0.861	1.112
	GSM850	GPRS (3 Tx slot)	Back	5	Full	128	824.2	28.29	29.50	1.321	0.03	0.905	1.196
28	GSM850	GPRS (3 Tx slot)	Back	5	Full	251	848.8	28.15	29.50	1.365	0.03	0.959	**1.309**
	GSM850	GPRS (3 Tx slot)	Left Side	5	Full	189	836.4	28.39	29.50	1.291	0.09	0.071	0.092
	GSM850	GPRS (3 Tx slot)	Right Side	5	Full	189	836.4	28.39	29.50	1.291	0.03	0.221	0.285
	GSM850	GPRS (3 Tx slot)	Bottom Side	5	Full	189	836.4	28.39	29.50	1.291	0.03	0.459	0.593
	GSM1900	GPRS (3 Tx slot)	Front	5	Reduced	661	1880	22.36	22.50	1.033	0.04	1.230	1.270
	GSM1900	GPRS (3 Tx slot)	Front	5	Reduced	512	1850.2	22.32	22.50	1.042	-0.14	1.110	1.157
	GSM1900	GPRS (3 Tx slot)	Front	5	Reduced	810	1909.8	22.35	22.50	1.035	0.06	1.240	1.284
	GSM1900	GPRS (3 Tx slot)	Back	5	Reduced	661	1880	22.36	22.50	1.033	0.01	1.150	1.188
	GSM1900	GPRS (3 Tx slot)	Back	5	Reduced	512	1850.2	22.32	22.50	1.042	0.06	1.060	1.105
	GSM1900	GPRS (3 Tx slot)	Back	5	Reduced	810	1909.8	22.35	22.50	1.035	0.19	1.180	1.221
	GSM1900	GPRS (3 Tx slot)	Left Side	5	Reduced	661	1880	20.55	21.00	1.109	0.08	0.033	0.036
	GSM1900	GPRS (3 Tx slot)	Right Side	5	Reduced	661	1880	20.55	21.00	1.109	0.04	0.080	0.089
	GSM1900	GPRS (3 Tx slot)	Bottom Side	5	Reduced	661	1880	20.55	21.00	1.109	0.09	1.170	1.298
	GSM1900	GPRS (3 Tx slot)	Bottom Side	5	Reduced	512	1850.2	20.36	21.00	1.159	0.04	1.080	1.251
29	GSM1900	GPRS (3 Tx slot)	Bottom Side	5	Reduced	810	1909.8	20.38	21.00	1.153	0.01	1.140	**1.315**

<WCDMA SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WCDMA V	RMC12.2Kbps	Front	5	Reduced	4182	836.4	21.24	22.50	1.337	0.06	0.529	0.707
	WCDMA V	RMC12.2Kbps	Back	5	Reduced	4182	836.4	21.24	22.50	1.337	0.01	0.823	1.100
	WCDMA V	RMC12.2Kbps	Back	5	Reduced	4132	826.4	21.22	22.50	1.343	-0.02	0.898	1.206
30	WCDMA V	RMC12.2Kbps	Back	5	Reduced	4233	846.6	21.07	22.50	1.390	0.05	0.936	**1.301**
	WCDMA V	RMC12.2Kbps	Left Side	5	Reduced	4182	836.4	21.24	22.50	1.337	0.09	0.090	0.120
	WCDMA V	RMC12.2Kbps	Right Side	5	Reduced	4182	836.4	21.24	22.50	1.337	0.01	0.268	0.358
	WCDMA V	RMC12.2Kbps	Bottom Side	5	Reduced	4182	836.4	21.24	22.50	1.337	0.05	0.443	0.592
	WCDMA IV	RMC12.2Kbps	Front	5	Reduced	1413	1732.6	17.45	18.00	1.135	0.08	0.833	0.945
	WCDMA IV	RMC12.2Kbps	Front	5	Reduced	1312	1712.4	17.42	18.00	1.143	0.09	0.747	0.854
	WCDMA IV	RMC12.2Kbps	Front	5	Reduced	1513	1752.6	17.28	18.00	1.180	-0.19	0.700	0.826
	WCDMA IV	RMC12.2Kbps	Back	5	Reduced	1413	1732.6	17.45	18.00	1.135	-0.02	0.785	0.891
	WCDMA IV	RMC12.2Kbps	Back	5	Reduced	1312	1712.4	17.42	18.00	1.143	0.01	1.040	1.189
31	WCDMA IV	RMC12.2Kbps	Back	5	Reduced	1513	1752.6	17.28	18.00	1.180	-0.02	1.130	**1.334**
	WCDMA IV	RMC12.2Kbps	Left Side	5	Reduced	1413	1732.6	15.44	16.50	1.276	0.19	0.026	0.033
	WCDMA IV	RMC12.2Kbps	Right Side	5	Reduced	1413	1732.6	15.44	16.50	1.276	0.08	0.092	0.118
	WCDMA IV	RMC12.2Kbps	Bottom Side	5	Reduced	1413	1732.6	15.44	16.50	1.276	0.12	0.691	0.882
	WCDMA IV	RMC12.2Kbps	Bottom Side	5	Reduced	1312	1712.4	15.39	16.50	1.291	-0.01	0.756	0.976
	WCDMA IV	RMC12.2Kbps	Bottom Side	5	Reduced	1513	1752.6	15.31	16.50	1.315	0.09	0.947	1.246
	WCDMA II	RMC12.2Kbps	Front	5	Reduced	9400	1880	16.42	17.50	1.282	-0.08	0.962	1.234
	WCDMA II	RMC12.2Kbps	Front	5	Reduced	9262	1852.4	16.40	17.50	1.288	0.02	0.909	1.171
	WCDMA II	RMC12.2Kbps	Front	5	Reduced	9538	1907.6	16.40	17.50	1.288	0.05	1.010	1.301
	WCDMA II	RMC12.2Kbps	Back	5	Reduced	9400	1880	16.42	17.50	1.282	0.03	0.933	1.196
	WCDMA II	RMC12.2Kbps	Back	5	Reduced	9262	1852.4	16.40	17.50	1.288	0.01	0.933	1.202
32	WCDMA II	RMC12.2Kbps	Back	5	Reduced	9538	1907.6	16.40	17.50	1.288	0.08	1.090	**1.404**
	WCDMA II	RMC12.2Kbps	Left Side	5	Reduced	9400	1880	15.48	16.00	1.127	0.05	0.045	0.050
	WCDMA II	RMC12.2Kbps	Right Side	5	Reduced	9400	1880	15.48	16.00	1.127	0.09	0.019	0.022
	WCDMA II	RMC12.2Kbps	Bottom Side	5	Reduced	9400	1880	15.48	16.00	1.127	0.05	0.972	1.096
	WCDMA II	RMC12.2Kbps	Bottom Side	5	Reduced	9262	1852.4	15.44	16.00	1.138	0.08	1.170	1.331
	WCDMA II	RMC12.2Kbps	Bottom Side	5	Reduced	9538	1907.6	15.41	16.00	1.146	0.08	1.170	1.340

<CDMA SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	CDMA2000 BC0	RTAP 153.6Kbps	Front	5	Full	777	848.31	23.59	25.00	1.384	-0.05	0.716	0.991
	CDMA2000 BC0	RTAP 153.6Kbps	Front	5	Full	384	836.52	23.45	25.00	1.429	0.01	0.597	0.853
	CDMA2000 BC0	RTAP 153.6Kbps	Front	5	Full	1013	824.7	23.44	25.00	1.432	0.01	0.739	1.058
	CDMA2000 BC0	RTAP 153.6Kbps	Back	5	Full	777	848.31	23.59	25.00	1.384	0.14	0.944	1.306
	CDMA2000 BC0	RTAP 153.6Kbps	Back	5	Full	384	836.52	23.45	25.00	1.429	0.07	0.872	1.246
33	CDMA2000 BC0	RTAP 153.6Kbps	Back	5	Full	1013	824.7	23.44	25.00	1.432	0.02	1.030	**1.475**
	CDMA2000 BC0	RTAP 153.6Kbps	Left Side	5	Full	777	848.31	23.59	25.00	1.384	0.16	0.102	0.141
	CDMA2000 BC0	RTAP 153.6Kbps	Right Side	5	Full	777	848.31	23.59	25.00	1.384	0.07	0.263	0.364
	CDMA2000 BC0	RTAP 153.6Kbps	Bottom Side	5	Full	777	848.31	23.59	25.00	1.384	0.08	0.602	0.833
	CDMA2000 BC0	RTAP 153.6Kbps	Bottom Side	5	Full	384	836.52	23.45	25.00	1.429	0.09	0.649	0.927
	CDMA2000 BC0	RTAP 153.6Kbps	Bottom Side	5	Full	1013	824.7	23.44	25.00	1.432	0.01	0.699	1.001
	CDMA2000 BC1	RTAP 153.6Kbps	Front	5	Reduced	1175	1908.75	15.59	16.50	1.233	0.07	0.209	0.258
	CDMA2000 BC1	RTAP 153.6Kbps	Back	5	Reduced	1175	1908.75	15.59	16.50	1.233	-0.04	0.147	0.181
	CDMA2000 BC1	RTAP 153.6Kbps	Left Side	5	Reduced	1175	1908.75	15.59	16.50	1.233	-0.06	0.024	0.030
	CDMA2000 BC1	RTAP 153.6Kbps	Right Side	5	Reduced	1175	1908.75	15.59	16.50	1.233	-0.06	0.061	0.075
34	CDMA2000 BC1	RTAP 153.6Kbps	Bottom Side	5	Reduced	1175	1908.75	15.59	16.50	1.233	0.15	1.050	**1.295**
	CDMA2000 BC1	RTAP 153.6Kbps	Bottom Side	5	Reduced	25	1851.25	15.51	16.50	1.256	0.05	0.934	1.173
	CDMA2000 BC1	RTAP 153.6Kbps	Bottom Side	5	Reduced	600	1880	15.63	16.50	1.222	0.07	1.020	1.246
	CDMA2000 BC10	RTAP 153.6Kbps	Front	5	Reduced	580	820.5	23.49	24.00	1.125	-0.02	0.775	0.872
	CDMA2000 BC10	RTAP 153.6Kbps	Front	5	Reduced	476	817.9	23.45	24.00	1.135	-0.02	0.813	0.923
	CDMA2000 BC10	RTAP 153.6Kbps	Front	5	Reduced	684	823.1	23.41	24.00	1.146	-0.01	0.782	0.896
35	CDMA2000 BC10	RTAP 153.6Kbps	Back	5	Reduced	580	820.5	23.49	24.00	1.125	0.11	1.100	**1.237**
	CDMA2000 BC10	RTAP 153.6Kbps	Back	5	Reduced	476	817.9	23.45	24.00	1.135	0.1	1.040	1.180
	CDMA2000 BC10	RTAP 153.6Kbps	Back	5	Reduced	684	823.1	23.41	24.00	1.146	0.05	1.100	1.226
	CDMA2000 BC10	RTAP 153.6Kbps	Left Side	5	Reduced	580	820.5	23.49	24.00	1.125	0.14	0.105	0.118
	CDMA2000 BC10	RTAP 153.6Kbps	Right Side	5	Reduced	580	820.5	23.49	24.00	1.125	0.08	0.299	0.336
	CDMA2000 BC10	RTAP 153.6Kbps	Bottom Side	5	Reduced	580	820.5	23.49	24.00	1.125	0.06	0.751	0.845
	CDMA2000 BC10	RTAP 153.6Kbps	Bottom Side	5	Reduced	476	817.9	23.45	24.00	1.135	0.08	0.624	0.708
	CDMA2000 BC10	RTAP 153.6Kbps	Bottom Side	5	Reduced	684	823.1	23.41	24.00	1.146	-0.02	0.618	0.708

<FDD LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 71	20M	QPSK	1	0	Front	5	Full	133322	683	23.22	24.00	1.197	-0.03	0.497	0.595
	LTE Band 71	20M	QPSK	50	0	Front	5	Full	133322	683	23.00	24.00	1.259	0.02	0.509	0.641
36	LTE Band 71	20M	QPSK	1	0	Back	5	Full	133322	683	23.22	24.00	1.197	0.01	0.797	**0.954**
	LTE Band 71	20M	QPSK	50	0	Back	5	Full	133322	683	23.00	24.00	1.259	0.06	0.748	0.942
	LTE Band 71	20M	QPSK	100	0	Back	5	Full	133322	683	22.75	24.00	1.334	0.03	0.706	0.941
	LTE Band 71	20M	QPSK	1	0	Left Side	5	Full	133322	683	23.22	24.00	1.197	0.09	0.144	0.172
	LTE Band 71	20M	QPSK	50	0	Left Side	5	Full	133322	683	23.00	24.00	1.259	0.13	0.118	0.149
	LTE Band 71	20M	QPSK	1	0	Right Side	5	Full	133322	683	23.22	24.00	1.197	0.16	0.266	0.318
	LTE Band 71	20M	QPSK	50	0	Right Side	5	Full	133322	683	23.00	24.00	1.259	0.06	0.223	0.281
	LTE Band 71	20M	QPSK	1	0	Bottom Side	5	Full	133322	683	23.22	24.00	1.197	0.07	0.459	0.549
	LTE Band 71	20M	QPSK	50	0	Bottom Side	5	Full	133322	683	23.00	24.00	1.259	0.03	0.424	0.534
	LTE Band 12	10M	QPSK	1	0	Front	5	Full	23095	707.5	22.86	24.00	1.300	0.01	0.636	0.827
	LTE Band 12	10M	QPSK	25	0	Front	5	Full	23095	707.5	22.77	24.00	1.327	-0.04	0.538	0.714
	LTE Band 12	10M	QPSK	50	0	Front	5	Full	23095	707.5	22.65	24.00	1.365	0.12	0.633	0.864
37	LTE Band 12	10M	QPSK	1	0	Back	5	Full	23095	707.5	22.86	24.00	1.300	0.11	1.010	**1.313**
	LTE Band 12	10M	QPSK	25	0	Back	5	Full	23095	707.5	22.77	24.00	1.327	0.1	0.831	1.103
	LTE Band 12	10M	QPSK	50	0	Back	5	Full	23095	707.5	22.65	24.00	1.365	0.09	0.704	0.961
	LTE Band 12	10M	QPSK	1	0	Left Side	5	Full	23095	707.5	22.86	24.00	1.300	0.02	0.147	0.191
	LTE Band 12	10M	QPSK	25	0	Left Side	5	Full	23095	707.5	22.77	24.00	1.327	0.05	0.119	0.158
	LTE Band 12	10M	QPSK	1	0	Right Side	5	Full	23095	707.5	22.86	24.00	1.300	0.07	0.268	0.348
	LTE Band 12	10M	QPSK	25	0	Right Side	5	Full	23095	707.5	22.77	24.00	1.327	0.06	0.224	0.297
	LTE Band 12	10M	QPSK	1	0	Bottom Side	5	Full	23095	707.5	22.86	24.00	1.300	0.05	0.523	0.680
	LTE Band 12	10M	QPSK	25	0	Bottom Side	5	Full	23095	707.5	22.77	24.00	1.327	0.09	0.441	0.585
EN-DC																
	LTE Band 12	10M	QPSK	1	0	Front	5	Reduced	23095	707.5	21.96	22.00	1.009	0.01	0.414	0.418
	LTE Band 12	10M	QPSK	25	0	Front	5	Reduced	23095	707.5	21.95	22.00	1.012	0.01	0.418	0.423
	LTE Band 12	10M	QPSK	1	0	Back	5	Reduced	23095	707.5	21.96	22.00	1.009	-0.18	0.724	0.731
	LTE Band 12	10M	QPSK	25	0	Back	5	Reduced	23095	707.5	21.95	22.00	1.012	0.03	0.727	0.735
	LTE Band 12	10M	QPSK	1	0	Left Side	5	Reduced	23095	707.5	21.96	22.00	1.009	-0.02	0.092	0.093
	LTE Band 12	10M	QPSK	25	0	Left Side	5	Reduced	23095	707.5	21.95	22.00	1.012	0.14	0.092	0.093
	LTE Band 12	10M	QPSK	1	0	Right Side	5	Reduced	23095	707.5	21.96	22.00	1.009	0.07	0.209	0.211
	LTE Band 12	10M	QPSK	25	0	Right Side	5	Reduced	23095	707.5	21.95	22.00	1.012	0.04	0.215	0.217
	LTE Band 12	10M	QPSK	1	0	Bottom Side	5	Reduced	23095	707.5	21.96	22.00	1.009	0.01	0.409	0.413
	LTE Band 12	10M	QPSK	25	0	Bottom Side	5	Reduced	23095	707.5	21.95	22.00	1.012	-0.07	0.408	0.413
	LTE Band 13	10M	QPSK	1	0	Front	5	Reduced	23230	782	22.57	23.50	1.239	-0.06	0.741	0.918
	LTE Band 13	10M	QPSK	25	0	Front	5	Reduced	23230	782	22.10	23.50	1.380	0.01	0.729	1.006
	LTE Band 13	10M	QPSK	50	0	Front	5	Reduced	23230	782	22.08	23.50	1.387	0.05	0.843	1.169
38	LTE Band 13	10M	QPSK	1	0	Back	5	Reduced	23230	782	22.57	23.50	1.239	-0.05	0.948	**1.174**
	LTE Band 13	10M	QPSK	25	0	Back	5	Reduced	23230	782	22.10	23.50	1.380	0.04	0.907	1.172
	LTE Band 13	10M	QPSK	50	0	Back	5	Reduced	23230	782	22.08	23.50	1.387	0.05	0.882	1.166
	LTE Band 13	10M	QPSK	1	0	Left Side	5	Reduced	23230	782	22.57	23.50	1.239	0.16	0.160	0.198
	LTE Band 13	10M	QPSK	25	0	Left Side	5	Reduced	23230	782	22.10	23.50	1.380	0.04	0.172	0.237
	LTE Band 13	10M	QPSK	1	0	Right Side	5	Reduced	23230	782	22.57	23.50	1.239	0.03	0.314	0.389
	LTE Band 13	10M	QPSK	25	0	Right Side	5	Reduced	23230	782	22.10	23.50	1.380	0.05	0.302	0.417
	LTE Band 13	10M	QPSK	1	0	Bottom Side	5	Reduced	23230	782	22.57	23.50	1.239	0.03	0.505	0.626
	LTE Band 13	10M	QPSK	25	0	Bottom Side	5	Reduced	23230	782	22.10	23.50	1.380	0.09	0.481	0.664

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 26	15M	QPSK	1	0	Front	5	Reduced	26865	831.5	22.59	23.50	1.233	-0.02	1.030	1.270
	LTE Band 26	15M	QPSK	36	0	Front	5	Reduced	26865	831.5	22.48	23.50	1.265	-0.06	0.711	0.899
	LTE Band 26	15M	QPSK	75	0	Front	5	Reduced	26865	831.5	22.45	23.50	1.274	-0.18	0.874	1.113
39	LTE Band 26	15M	QPSK	1	0	Back	5	Reduced	26865	831.5	22.59	23.50	1.233	0.03	1.140	**1.406**
	LTE Band 26	15M	QPSK	36	0	Back	5	Reduced	26865	831.5	22.48	23.50	1.265	0.1	0.964	1.219
	LTE Band 26	15M	QPSK	75	0	Back	5	Reduced	26865	831.5	22.45	23.50	1.274	0.07	0.984	1.253
	LTE Band 26	15M	QPSK	1	0	Left Side	5	Reduced	26865	831.5	22.59	23.50	1.233	0.07	0.136	0.168
	LTE Band 26	15M	QPSK	36	0	Left Side	5	Reduced	26865	831.5	22.48	23.50	1.265	0.13	0.118	0.149
	LTE Band 26	15M	QPSK	1	0	Right Side	5	Reduced	26865	831.5	22.59	23.50	1.233	-0.02	0.384	0.474
	LTE Band 26	15M	QPSK	36	0	Right Side	5	Reduced	26865	831.5	22.48	23.50	1.265	-0.03	0.298	0.377
	LTE Band 26	15M	QPSK	1	0	Bottom Side	5	Reduced	26865	831.5	22.59	23.50	1.233	0.04	0.786	0.969
	LTE Band 26	15M	QPSK	36	0	Bottom Side	5	Reduced	26865	831.5	22.48	23.50	1.265	0.05	0.667	0.844
EN-DC																
	LTE Band 5	10M	QPSK	1	0	Front	5	Reduced	20525	836.5	21.23	22.00	1.194	0.04	0.406	0.485
	LTE Band 5	10M	QPSK	25	0	Front	5	Reduced	20525	836.5	21.10	22.00	1.230	0.03	0.425	0.523
	LTE Band 5	10M	QPSK	1	0	Back	5	Reduced	20525	836.5	21.23	22.00	1.194	0.11	0.622	0.743
	LTE Band 5	10M	QPSK	25	0	Back	5	Reduced	20525	836.5	21.10	22.00	1.230	0.06	0.630	0.775
	LTE Band 5	10M	QPSK	1	0	Left Side	5	Reduced	20525	836.5	21.23	22.00	1.194	0.14	0.089	0.106
	LTE Band 5	10M	QPSK	25	0	Left Side	5	Reduced	20525	836.5	21.10	22.00	1.230	0.06	0.090	0.111
	LTE Band 5	10M	QPSK	1	0	Right Side	5	Reduced	20525	836.5	21.23	22.00	1.194	0.12	0.188	0.224
	LTE Band 5	10M	QPSK	25	0	Right Side	5	Reduced	20525	836.5	21.10	22.00	1.230	0.06	0.180	0.221
	LTE Band 5	10M	QPSK	1	0	Bottom Side	5	Reduced	20525	836.5	21.23	22.00	1.194	0.01	0.456	0.544
	LTE Band 5	10M	QPSK	25	0	Bottom Side	5	Reduced	20525	836.5	21.10	22.00	1.230	-0.03	0.480	0.591

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 66	20M	QPSK	1	0	Front	5	Reduced	132322	1745	18.18	18.50	1.076	0.02	1.020	1.098
	LTE Band 66	20M	QPSK	1	0	Front	5	Reduced	132072	1720	17.87	18.50	1.156	0.05	0.938	1.084
	LTE Band 66	20M	QPSK	1	0	Front	5	Reduced	132572	1770	18.07	18.50	1.104	0.07	0.946	1.044
	LTE Band 66	20M	QPSK	50	0	Front	5	Reduced	132322	1745	18.02	18.50	1.117	0.14	1.060	1.184
	LTE Band 66	20M	QPSK	50	0	Front	5	Reduced	132072	1720	17.68	18.50	1.208	0.03	0.961	1.161
	LTE Band 66	20M	QPSK	50	0	Front	5	Reduced	132572	1770	17.95	18.50	1.135	0.13	1.070	1.214
	LTE Band 66	20M	QPSK	100	0	Front	5	Reduced	132322	1745	17.95	18.50	1.135	0.04	1.110	1.260
	LTE Band 66	20M	QPSK	1	0	Back	5	Reduced	132322	1745	18.18	18.50	1.076	-0.09	0.939	1.011
	LTE Band 66	20M	QPSK	1	0	Back	5	Reduced	132072	1720	17.87	18.50	1.156	0.1	0.773	0.894
	LTE Band 66	20M	QPSK	1	0	Back	5	Reduced	132572	1770	18.07	18.50	1.104	0.08	0.913	1.008
	LTE Band 66	20M	QPSK	50	0	Back	5	Reduced	132322	1745	18.02	18.50	1.117	0.06	0.999	1.116
	LTE Band 66	20M	QPSK	50	0	Back	5	Reduced	132072	1720	17.68	18.50	1.208	0.08	0.772	0.932
	LTE Band 66	20M	QPSK	50	0	Back	5	Reduced	132572	1770	17.95	18.50	1.135	0.07	0.833	0.945
	LTE Band 66	20M	QPSK	100	0	Back	5	Reduced	132322	1745	17.95	18.50	1.135	0.08	1.170	1.328
	LTE Band 66	20M	QPSK	1	0	Left Side	5	Reduced	132322	1745	15.81	16.50	1.172	0.01	0.050	0.058
	LTE Band 66	20M	QPSK	50	0	Left Side	5	Reduced	132322	1745	15.69	16.50	1.205	-0.05	0.051	0.062
	LTE Band 66	20M	QPSK	1	0	Right Side	5	Reduced	132322	1745	15.81	16.50	1.172	0.03	0.119	0.139
	LTE Band 66	20M	QPSK	50	0	Right Side	5	Reduced	132322	1745	15.69	16.50	1.205	-0.07	0.121	0.146
	LTE Band 66	20M	QPSK	1	0	Bottom Side	5	Reduced	132322	1745	15.81	16.50	1.172	0.04	1.020	1.196
	LTE Band 66	20M	QPSK	1	0	Bottom Side	5	Reduced	132072	1720	15.50	16.50	1.259	0.09	0.996	1.254
	LTE Band 66	20M	QPSK	1	0	Bottom Side	5	Reduced	132572	1770	15.68	16.50	1.208	0.01	1.150	1.389
	LTE Band 66	20M	QPSK	50	0	Bottom Side	5	Reduced	132322	1745	15.69	16.50	1.205	0.07	1.080	1.301
	LTE Band 66	20M	QPSK	50	0	Bottom Side	5	Reduced	132072	1720	15.31	16.50	1.315	0.09	0.966	1.271
	LTE Band 66	20M	QPSK	50	0	Bottom Side	5	Reduced	132572	1770	15.56	16.50	1.242	0.01	1.120	1.391
40	LTE Band 66	20M	QPSK	100	0	Bottom Side	5	Reduced	132322	1745	15.62	16.50	1.225	0.07	1.140	**1.396**
EN-DC																
	LTE Band 66-UAT	20M	QPSK	1	0	Front	5	Reduced	132322	1745	16.45	17.50	1.274	0.08	0.309	0.394
	LTE Band 66-UAT	20M	QPSK	50	0	Front	5	Reduced	132322	1745	15.32	16.50	1.312	0.05	0.248	0.325
	LTE Band 66-UAT	20M	QPSK	1	0	Back	5	Reduced	132322	1745	16.45	17.50	1.274	0.03	0.451	0.574
	LTE Band 66-UAT	20M	QPSK	1	0	Back	5	Reduced	132072	1720	16.01	17.50	1.409	-0.06	0.406	0.572
	LTE Band 66-UAT	20M	QPSK	1	0	Back	5	Reduced	132572	1770	16.19	17.50	1.352	0.14	0.427	0.577
	LTE Band 66-UAT	20M	QPSK	50	0	Back	5	Reduced	132322	1745	15.32	16.50	1.312	0.02	0.379	0.497
	LTE Band 66-UAT	20M	QPSK	1	0	Left Side	5	Reduced	132322	1745	15.95	17.00	1.274	0.01	0.190	0.242
	LTE Band 66-UAT	20M	QPSK	50	0	Left Side	5	Reduced	132322	1745	15.00	16.00	1.259	-0.04	0.152	0.191
	LTE Band 66-UAT	20M	QPSK	1	0	Right Side	5	Reduced	132322	1745	15.95	17.00	1.274	0.02	0.037	0.047
	LTE Band 66-UAT	20M	QPSK	50	0	Right Side	5	Reduced	132322	1745	15.00	16.00	1.259	0.04	0.029	0.037
	LTE Band 66-UAT	20M	QPSK	1	0	Top Side	5	Reduced	132322	1745	15.95	17.00	1.274	-0.04	0.578	0.736
	LTE Band 66-UAT	20M	QPSK	1	0	Top Side	5	Reduced	132072	1720	15.70	17.00	1.349	-0.04	0.456	0.615
	LTE Band 66-UAT	20M	QPSK	1	0	Top Side	5	Reduced	132572	1770	15.60	17.00	1.380	-0.06	0.579	0.799
	LTE Band 66-UAT	20M	QPSK	50	0	Top Side	5	Reduced	132322	1745	15.00	16.00	1.259	0.08	0.468	0.589
	LTE Band 66	20M	QPSK	1	0	Front	5	Reduced	132322	1745	16.24	16.50	1.062	0.07	0.646	0.686
	LTE Band 66	20M	QPSK	50	0	Front	5	Reduced	132322	1745	16.22	16.50	1.067	-0.01	0.660	0.704
	LTE Band 66	20M	QPSK	50	0	Front	5	Reduced	132072	1720	16.00	16.50	1.122	0.08	0.502	0.563
	LTE Band 66	20M	QPSK	50	0	Front	5	Reduced	132572	1770	16.15	16.50	1.084	-0.01	0.709	0.769
	LTE Band 66	20M	QPSK	1	0	Back	5	Reduced	132322	1745	16.24	16.50	1.062	0.01	0.637	0.676
	LTE Band 66	20M	QPSK	50	0	Back	5	Reduced	132322	1745	16.22	16.50	1.067	-0.01	0.650	0.693
	LTE Band 66	20M	QPSK	1	0	Left Side	5	Reduced	132322	1745	14.86	15.00	1.033	-0.1	0.029	0.030
	LTE Band 66	20M	QPSK	50	0	Left Side	5	Reduced	132322	1745	14.72	15.00	1.067	-0.09	0.030	0.032
	LTE Band 66	20M	QPSK	1	0	Right Side	5	Reduced	132322	1745	14.86	15.00	1.033	0.05	0.066	0.068
	LTE Band 66	20M	QPSK	50	0	Right Side	5	Reduced	132322	1745	14.72	15.00	1.067	-0.01	0.069	0.074
	LTE Band 66	20M	QPSK	1	0	Bottom Side	5	Reduced	132322	1745	14.86	15.00	1.033	-0.03	0.638	0.659
	LTE Band 66	20M	QPSK	50	0	Bottom Side	5	Reduced	132322	1745	14.72	15.00	1.067	0.03	0.670	0.715

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 25	20M	QPSK	1	0	Front	5	Reduced	26340	1880	17.14	18.00	1.219	0.13	0.869	1.059
	LTE Band 25	20M	QPSK	1	0	Front	5	Reduced	26140	1860	16.92	18.00	1.282	0.17	0.812	1.041
	LTE Band 25	20M	QPSK	1	0	Front	5	Reduced	26590	1905	16.95	18.00	1.274	0.05	0.921	1.173
	LTE Band 25	20M	QPSK	50	0	Front	5	Reduced	26340	1880	17.11	18.00	1.227	0.03	0.876	1.075
	LTE Band 25	20M	QPSK	50	0	Front	5	Reduced	26140	1860	17.03	18.00	1.250	0.02	0.81	1.013
	LTE Band 25	20M	QPSK	50	0	Front	5	Reduced	26590	1905	16.99	18.00	1.262	0.07	0.972	1.226
	LTE Band 25	20M	QPSK	100	0	Front	5	Reduced	26340	1880	17.05	18.00	1.245	0.09	0.905	1.126
	LTE Band 25	20M	QPSK	1	0	Back	5	Reduced	26340	1880	17.14	18.00	1.219	0.05	0.888	1.082
	LTE Band 25	20M	QPSK	1	0	Back	5	Reduced	26140	1860	16.92	18.00	1.282	0.01	0.821	1.053
	LTE Band 25	20M	QPSK	1	0	Back	5	Reduced	26590	1905	16.95	18.00	1.274	0.02	0.968	1.233
	LTE Band 25	20M	QPSK	50	0	Back	5	Reduced	26340	1880	17.11	18.00	1.227	-0.02	0.91	1.117
	LTE Band 25	20M	QPSK	50	0	Back	5	Reduced	26140	1860	17.03	18.00	1.250	0.09	0.848	1.060
	LTE Band 25	20M	QPSK	50	0	Back	5	Reduced	26590	1905	16.99	18.00	1.262	0.01	1.000	1.262
	LTE Band 25	20M	QPSK	100	0	Back	5	Reduced	26340	1880	17.05	18.00	1.245	0.07	0.941	1.171
	LTE Band 25	20M	QPSK	1	0	Left Side	5	Reduced	26340	1880	15.18	16.00	1.208	0.08	0.030	0.036
	LTE Band 25	20M	QPSK	50	0	Left Side	5	Reduced	26340	1880	15.08	16.00	1.236	0.16	0.031	0.038
	LTE Band 25	20M	QPSK	1	0	Right Side	5	Reduced	26340	1880	15.18	16.00	1.208	0.04	0.058	0.069
	LTE Band 25	20M	QPSK	50	0	Right Side	5	Reduced	26340	1880	15.08	16.00	1.236	0.18	0.060	0.074
	LTE Band 25	20M	QPSK	1	0	Bottom Side	5	Reduced	26340	1880	15.18	16.00	1.208	0.06	0.939	1.134
	LTE Band 25	20M	QPSK	1	0	Bottom Side	5	Reduced	26140	1860	14.93	16.00	1.279	0.05	0.903	1.155
	LTE Band 25	20M	QPSK	1	0	Bottom Side	5	Reduced	26590	1905	15.00	16.00	1.259	0.01	1.000	1.259
	LTE Band 25	20M	QPSK	50	0	Bottom Side	5	Reduced	26340	1880	15.08	16.00	1.236	0.05	0.968	1.196
	LTE Band 25	20M	QPSK	50	0	Bottom Side	5	Reduced	26140	1860	15.03	16.00	1.250	0.07	0.957	1.196
41	LTE Band 25	20M	QPSK	50	0	Bottom Side	5	Reduced	26590	1905	14.89	16.00	1.291	0.06	1.03	**1.330**
	LTE Band 25	20M	QPSK	100	0	Bottom Side	5	Reduced	26340	1880	15.06	16.00	1.242	0.02	0.988	1.227
EN-DC																
	LTE Band 2-UAT	20M	QPSK	1	0	Front	5	Reduced	18900	1880	15.39	16.50	1.291	0.03	0.313	0.404
	LTE Band 2-UAT	20M	QPSK	50	0	Front	5	Reduced	18900	1880	14.33	15.50	1.309	0.04	0.247	0.323
	LTE Band 2-UAT	20M	QPSK	1	0	Back	5	Reduced	18900	1880	15.39	16.50	1.291	0.02	0.412	0.532
	LTE Band 2-UAT	20M	QPSK	1	0	Back	5	Reduced	18700	1860	15.26	16.50	1.330	0.06	0.435	0.579
	LTE Band 2-UAT	20M	QPSK	1	0	Back	5	Reduced	19100	1900	15.27	16.50	1.327	0.01	0.398	0.528
	LTE Band 2-UAT	20M	QPSK	50	0	Back	5	Reduced	18900	1880	14.33	15.50	1.309	0.09	0.320	0.419
	LTE Band 2-UAT	20M	QPSK	1	0	Left Side	5	Reduced	18900	1880	14.35	15.50	1.303	-0.01	0.187	0.244
	LTE Band 2-UAT	20M	QPSK	50	0	Left Side	5	Reduced	18900	1880	13.10	14.50	1.380	0.04	0.151	0.208
	LTE Band 2-UAT	20M	QPSK	1	0	Right Side	5	Reduced	18900	1880	14.35	15.50	1.303	0.01	0.027	0.035
	LTE Band 2-UAT	20M	QPSK	50	0	Right Side	5	Reduced	18900	1880	13.10	14.50	1.380	-0.08	0.023	0.031
	LTE Band 2-UAT	20M	QPSK	1	0	Top Side	5	Reduced	18900	1880	14.35	15.50	1.303	-0.01	0.584	0.761
	LTE Band 2-UAT	20M	QPSK	1	0	Top Side	5	Reduced	18700	1860	14.30	15.50	1.318	-0.01	0.597	0.787
	LTE Band 2-UAT	20M	QPSK	1	0	Top Side	5	Reduced	19100	1900	14.18	15.50	1.355	0.05	0.510	0.691
	LTE Band 2-UAT	20M	QPSK	50	0	Top Side	5	Reduced	18900	1880	13.10	14.50	1.380	0.04	0.481	0.664
	LTE Band 25	20M	QPSK	1	0	Front	5	Reduced	26340	1880	17.16	17.50	1.081	0.01	0.635	0.687
	LTE Band 25	20M	QPSK	50	0	Front	5	Reduced	26340	1880	17.14	17.50	1.086	0.03	0.650	0.706
	LTE Band 25	20M	QPSK	50	0	Front	5	Reduced	26140	1860	17.05	17.50	1.109	-0.05	0.668	0.741
	LTE Band 25	20M	QPSK	50	0	Front	5	Reduced	26590	1905	16.88	17.50	1.153	0.03	0.611	0.705
	LTE Band 25	20M	QPSK	1	0	Back	5	Reduced	26340	1880	17.16	17.50	1.081	0.01	0.595	0.643
	LTE Band 25	20M	QPSK	50	0	Back	5	Reduced	26340	1880	17.14	17.50	1.086	-0.07	0.601	0.653
	LTE Band 25	20M	QPSK	1	0	Left Side	5	Reduced	26340	1880	12.95	14.00	1.274	0.06	0.018	0.023
	LTE Band 25	20M	QPSK	50	0	Left Side	5	Reduced	26340	1880	12.89	14.00	1.291	-0.18	0.020	0.025
	LTE Band 25	20M	QPSK	1	0	Right Side	5	Reduced	26340	1880	12.95	14.00	1.274	0.04	0.039	0.049
	LTE Band 25	20M	QPSK	50	0	Right Side	5	Reduced	26340	1880	12.89	14.00	1.291	-0.18	0.040	0.051
	LTE Band 25	20M	QPSK	1	0	Bottom Side	5	Reduced	26340	1880	12.95	14.00	1.274	-0.01	0.593	0.755
	LTE Band 25	20M	QPSK	50	0	Bottom Side	5	Reduced	26340	1880	12.89	14.00	1.291	0.06	0.612	0.790

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 7	20M	QPSK	1	0	Front	5	Reduced	21100	2535	18.01	18.50	1.119	0.01	0.918	1.028
	LTE Band 7	20M	QPSK	1	0	Front	5	Reduced	20850	2510	17.84	18.50	1.164	-0.06	0.886	1.031
	LTE Band 7	20M	QPSK	1	0	Front	5	Reduced	21350	2560	17.85	18.50	1.161	0.05	0.982	1.141
	LTE Band 7	20M	QPSK	50	0	Front	5	Reduced	21100	2535	17.89	18.50	1.151	0.08	0.973	1.120
	LTE Band 7	20M	QPSK	50	0	Front	5	Reduced	20850	2510	17.74	18.50	1.191	0.03	0.927	1.104
	LTE Band 7	20M	QPSK	50	0	Front	5	Reduced	21350	2560	17.48	18.50	1.265	0.01	1.030	1.303
	LTE Band 7	20M	QPSK	100	0	Front	5	Reduced	21100	2535	17.88	18.50	1.153	0.09	1.010	1.165
	LTE Band 7	20M	QPSK	1	0	Back	5	Reduced	21100	2535	18.01	18.50	1.119	0.03	0.835	0.935
	LTE Band 7	20M	QPSK	1	0	Back	5	Reduced	20850	2510	17.84	18.50	1.164	-0.01	0.803	0.935
	LTE Band 7	20M	QPSK	1	0	Back	5	Reduced	21350	2560	17.85	18.50	1.161	0.06	0.876	1.017
	LTE Band 7	20M	QPSK	50	0	Back	5	Reduced	21100	2535	17.89	18.50	1.151	0.04	0.847	0.975
	LTE Band 7	20M	QPSK	50	0	Back	5	Reduced	20850	2510	17.74	18.50	1.191	0.16	0.820	0.977
	LTE Band 7	20M	QPSK	50	0	Back	5	Reduced	21350	2560	17.48	18.50	1.265	0.04	0.905	1.145
	LTE Band 7	20M	QPSK	100	0	Back	5	Reduced	21100	2535	17.88	18.50	1.153	0.01	0.856	0.987
	LTE Band 7	20M	QPSK	1	0	Left Side	5	Reduced	21100	2535	14.11	15.00	1.227	-0.08	0.010	0.013
	LTE Band 7	20M	QPSK	50	0	Left Side	5	Reduced	21100	2535	14.03	15.00	1.250	0.06	0.011	0.014
	LTE Band 7	20M	QPSK	1	0	Right Side	5	Reduced	21100	2535	14.11	15.00	1.227	0.08	0.003	0.004
	LTE Band 7	20M	QPSK	50	0	Right Side	5	Reduced	21100	2535	14.03	15.00	1.250	0.03	0.035	0.043
	LTE Band 7	20M	QPSK	1	0	Bottom Side	5	Reduced	21100	2535	14.11	15.00	1.227	0.11	0.934	1.146
	LTE Band 7	20M	QPSK	1	0	Bottom Side	5	Reduced	20850	2510	13.86	15.00	1.300	0.11	0.916	1.191
42	LTE Band 7	20M	QPSK	1	0	Bottom Side	5	Reduced	21350	2560	13.64	15.00	1.368	0.13	0.964	**1.318**
	LTE Band 7	20M	QPSK	50	0	Bottom Side	5	Reduced	21100	2535	14.03	15.00	1.250	0.19	0.946	1.183
	LTE Band 7	20M	QPSK	50	0	Bottom Side	5	Reduced	20850	2510	13.70	15.00	1.349	0.03	0.966	1.303
	LTE Band 7	20M	QPSK	50	0	Bottom Side	5	Reduced	21350	2560	13.91	15.00	1.285	0.06	0.992	1.275
	LTE Band 7	20M	QPSK	100	0	Bottom Side	5	Reduced	21100	2535	13.96	15.00	1.271	0.02	0.952	1.210

<TDD LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 41	20M	QPSK	1	0	Front	5	Reduced	40620	2593	19.25	20.00	1.189	62.9	1.006	0.08	0.814	0.973
	LTE Band 41	20M	QPSK	1	0	Front	5	Reduced	39750	2506	18.90	20.00	1.288	62.9	1.006	0.05	0.883	1.144
	LTE Band 41	20M	QPSK	1	0	Front	5	Reduced	40185	2549.5	18.98	20.00	1.265	62.9	1.006	-0.03	0.967	1.230
	LTE Band 41	20M	QPSK	1	0	Front	5	Reduced	41055	2636.5	18.81	20.00	1.315	62.9	1.006	0.07	0.887	1.174
	LTE Band 41	20M	QPSK	1	0	Front	5	Reduced	41490	2680	18.81	20.00	1.315	62.9	1.006	0.07	0.826	1.093
	LTE Band 41	20M	QPSK	50	0	Front	5	Reduced	40620	2593	19.21	20.00	1.199	62.9	1.006	0.15	0.843	1.017
	LTE Band 41	20M	QPSK	50	0	Front	5	Reduced	39750	2506	18.89	20.00	1.291	62.9	1.006	0.12	0.891	1.157
	LTE Band 41	20M	QPSK	50	0	Front	5	Reduced	40185	2549.5	18.95	20.00	1.274	62.9	1.006	0.07	0.874	1.120
	LTE Band 41	20M	QPSK	50	0	Front	5	Reduced	41055	2636.5	18.96	20.00	1.271	62.9	1.006	0.11	0.794	1.015
	LTE Band 41	20M	QPSK	50	0	Front	5	Reduced	41490	2680	19.12	20.00	1.225	62.9	1.006	0.04	0.805	0.992
	LTE Band 41	20M	QPSK	100	0	Front	5	Reduced	40620	2593	19.16	20.00	1.213	62.9	1.006	0.07	0.793	0.968
	LTE Band 41	20M	QPSK	1	0	Back	5	Reduced	40620	2593	19.25	20.00	1.189	62.9	1.006	0.01	0.791	0.946
	LTE Band 41	20M	QPSK	1	0	Back	5	Reduced	39750	2506	18.90	20.00	1.288	62.9	1.006	0.02	0.892	1.156
	LTE Band 41	20M	QPSK	1	0	Back	5	Reduced	40185	2549.5	18.98	20.00	1.265	62.9	1.006	0.05	0.830	1.056
	LTE Band 41	20M	QPSK	1	0	Back	5	Reduced	41055	2636.5	18.81	20.00	1.315	62.9	1.006	0.07	0.806	1.066
	LTE Band 41	20M	QPSK	1	0	Back	5	Reduced	41490	2680	18.81	20.00	1.315	62.9	1.006	0.03	0.822	1.088
	LTE Band 41	20M	QPSK	50	0	Back	5	Reduced	40620	2593	19.21	20.00	1.199	62.9	1.006	0.07	0.820	0.989
	LTE Band 41	20M	QPSK	50	0	Back	5	Reduced	39790	2510	18.89	20.00	1.291	62.9	1.006	0.01	0.924	1.200
	LTE Band 41	20M	QPSK	50	0	Back	5	Reduced	39750	2506	18.89	20.00	1.291	62.9	1.006	0.09	0.939	1.220
	LTE Band 41/HPUE	20M	QPSK	50	0	Back	5	Reduced	40620	2593	19.21	20.00	1.199	42.9	1.009	0.02	0.452	0.547
	LTE Band 41/HPUE	20M	QPSK	50	0	Back	5	Reduced	39750	2506	18.89	20.00	1.291	42.9	1.009	-0.01	0.593	0.773
	LTE Band 41/HPUE	20M	QPSK	50	0	Back	5	Reduced	40185	2549.5	18.95	20.00	1.274	42.9	1.009	0.02	0.546	0.702
	LTE Band 41/HPUE	20M	QPSK	50	0	Back	5	Reduced	41055	2636.5	18.96	20.00	1.271	42.9	1.009	0.02	0.515	0.660
	LTE Band 41/HPUE	20M	QPSK	50	0	Back	5	Reduced	41490	2680	19.12	20.00	1.225	42.9	1.009	0.02	0.529	0.654
	LTE Band 41	20M	QPSK	50	0	Back	5	Reduced	40185	2549.5	18.95	20.00	1.274	62.9	1.006	0.08	0.960	1.230
	LTE Band 41	20M	QPSK	50	0	Back	5	Reduced	41055	2636.5	18.96	20.00	1.271	62.9	1.006	0.08	0.912	1.166
	LTE Band 41	20M	QPSK	50	0	Back	5	Reduced	41490	2680	19.12	20.00	1.225	62.9	1.006	0.06	0.905	1.115
	LTE Band 41	20M	QPSK	100	0	Back	5	Reduced	40620	2593	19.16	20.00	1.213	62.9	1.006	0.02	0.840	1.025
	LTE Band 41	20M	QPSK	1	0	Left Side	5	Reduced	40620	2593	14.54	15.00	1.112	62.9	1.006	0.08	0.007	0.008
	LTE Band 41	20M	QPSK	50	0	Left Side	5	Reduced	40620	2593	14.44	15.00	1.138	62.9	1.006	0.08	0.008	0.009
	LTE Band 41	20M	QPSK	1	0	Right Side	5	Reduced	40620	2593	14.54	15.00	1.112	62.9	1.006	-0.05	0.034	0.037
	LTE Band 41	20M	QPSK	50	0	Right Side	5	Reduced	40620	2593	14.44	15.00	1.138	62.9	1.006	0.03	0.040	0.046
	LTE Band 41	20M	QPSK	1	0	Bottom Side	5	Reduced	40620	2593	14.54	15.00	1.112	62.9	1.006	0.02	1.020	1.141
	LTE Band 41	20M	QPSK	1	0	Bottom Side	5	Reduced	39750	2506	14.06	15.00	1.242	62.9	1.006	0.09	1.130	1.411
	LTE Band 41	20M	QPSK	1	0	Bottom Side	5	Reduced	40185	2549.5	14.24	15.00	1.191	62.9	1.006	0.01	1.080	1.294
	LTE Band 41	20M	QPSK	1	0	Bottom Side	5	Reduced	41055	2636.5	14.14	15.00	1.219	62.9	1.006	0.11	1.000	1.226
	LTE Band 41	20M	QPSK	1	0	Bottom Side	5	Reduced	41490	2680	14.22	15.00	1.197	62.9	1.006	-0.04	0.962	1.158
	LTE Band 41	20M	QPSK	50	0	Bottom Side	5	Reduced	40620	2593	14.44	15.00	1.138	62.9	1.006	0.05	1.010	1.156
	LTE Band 41	20M	QPSK	50	0	Bottom Side	5	Reduced	39750	2506	14.16	15.00	1.213	62.9	1.006	0.09	1.150	1.404
43	LTE Band 41	20M	QPSK	50	0	Bottom Side	5	Reduced	40185	2549.5	14.15	15.00	1.216	62.9	1.006	0.09	1.160	**1.419**
	LTE Band 41C	20M	QPSK	50	0	Bottom Side	5	Reduced	40185	2549.5	13.93	15.00	1.279	62.9	1.006	0.01	0.840	1.081
	LTE Band 41	20M	QPSK	50	0	Bottom Side	5	Reduced	41055	2636.5	14.05	15.00	1.245	62.9	1.006	0.01	1.060	1.327
	LTE Band 41	20M	QPSK	50	0	Bottom Side	5	Reduced	41490	2680	14.39	15.00	1.151	62.9	1.006	0.03	1.030	1.192
	LTE Band 41	20M	QPSK	100	0	Bottom Side	5	Reduced	40620	2593	14.36	15.00	1.159	62.9	1.006	0.09	1.020	1.189
	LTE Band 41/HPUE	20M	QPSK	1	0	Bottom Side	5	Reduced	40620	2593	14.54	15.00	1.112	42.9	1.009	0.01	0.636	0.713
	LTE Band 41/HPUE	20M	QPSK	1	0	Bottom Side	5	Reduced	39750	2506	14.06	15.00	1.242	42.9	1.009	0.03	0.714	0.895
	LTE Band 41/HPUE	20M	QPSK	1	0	Bottom Side	5	Reduced	40185	2549.5	14.24	15.00	1.191	42.9	1.009	-0.06	0.715	0.859
	LTE Band 41/HPUE	20M	QPSK	1	0	Bottom Side	5	Reduced	41055	2636.5	14.14	15.00	1.219	42.9	1.009	0.03	0.693	0.852
	LTE Band 41/HPUE	20M	QPSK	1	0	Bottom Side	5	Reduced	41490	2680	14.22	15.00	1.197	42.9	1.009	0.06	0.670	0.809

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
EN-DC																		
	LTE Band 41	20M	QPSK	1	0	Front	5	Reduced	40620	2593	17.93	18.00	1.016	62.9	1.006	0.05	0.633	0.647
	LTE Band 41	20M	QPSK	1	0	Front	5	Reduced	39750	2506	17.87	18.00	1.030	62.9	1.006	0.02	0.631	0.654
	LTE Band 41	20M	QPSK	1	0	Front	5	Reduced	40185	2549.5	17.70	18.00	1.072	62.9	1.006	-0.02	0.616	0.664
	LTE Band 41	20M	QPSK	1	0	Front	5	Reduced	41055	2636.5	17.78	18.00	1.052	62.9	1.006	0.09	0.512	0.542
	LTE Band 41	20M	QPSK	1	0	Front	5	Reduced	41490	2680	17.91	18.00	1.021	62.9	1.006	0.01	0.510	0.524
	LTE Band 41	20M	QPSK	50	0	Front	5	Reduced	40620	2593	17.92	18.00	1.019	62.9	1.006	0.07	0.768	0.787
	LTE Band 41C	20M	QPSK	50	0	Front	5	Reduced	40620	2593	17.11	18.00	1.227	62.9	1.006	0.01	0.571	0.705
	LTE Band 41	20M	QPSK	50	0	Front	5	Reduced	39750	2506	17.90	18.00	1.023	62.9	1.006	-0.03	0.623	0.641
	LTE Band 41	20M	QPSK	50	0	Front	5	Reduced	40185	2549.5	17.87	18.00	1.030	62.9	1.006	0.05	0.636	0.659
	LTE Band 41	20M	QPSK	50	0	Front	5	Reduced	41055	2636.5	17.76	18.00	1.057	62.9	1.006	0.06	0.545	0.579
	LTE Band 41	20M	QPSK	50	0	Front	5	Reduced	41490	2680	17.87	18.00	1.030	62.9	1.006	0.04	0.553	0.573
	LTE Band 41-HPUE	20M	QPSK	50	0	Front	5	Reduced	40620	2593	17.92	18.00	1.019	42.9	1.009	0.06	0.503	0.517
	LTE Band 41-HPUE	20M	QPSK	50	0	Front	5	Reduced	39750	2506	17.90	18.00	1.023	42.9	1.009	0.03	0.421	0.435
	LTE Band 41-HPUE	20M	QPSK	50	0	Front	5	Reduced	40185	2549.5	17.87	18.00	1.030	42.9	1.009	0.05	0.344	0.358
	LTE Band 41-HPUE	20M	QPSK	50	0	Front	5	Reduced	41055	2636.5	17.76	18.00	1.057	42.9	1.009	0.06	0.319	0.340
	LTE Band 41-HPUE	20M	QPSK	50	0	Front	5	Reduced	41490	2680	17.87	18.00	1.030	42.9	1.009	0.01	0.311	0.323
	LTE Band 41	20M	QPSK	100	0	Front	5	Reduced	40620	2593	17.78	18.00	1.052	62.9	1.006	0.07	0.520	0.550
	LTE Band 41	20M	QPSK	1	0	Back	5	Reduced	40620	2593	17.93	18.00	1.016	62.9	1.006	-0.05	0.655	0.670
	LTE Band 41	20M	QPSK	1	0	Back	5	Reduced	39750	2506	17.87	18.00	1.030	62.9	1.006	0.01	0.600	0.622
	LTE Band 41	20M	QPSK	1	0	Back	5	Reduced	40185	2549.5	17.70	18.00	1.072	62.9	1.006	0.11	0.653	0.704
	LTE Band 41	20M	QPSK	1	0	Back	5	Reduced	41055	2636.5	17.78	18.00	1.052	62.9	1.006	0.17	0.617	0.653
	LTE Band 41	20M	QPSK	1	0	Back	5	Reduced	41490	2680	17.91	18.00	1.021	62.9	1.006	0.06	0.647	0.665
	LTE Band 41	20M	QPSK	50	0	Back	5	Reduced	40620	2593	17.92	18.00	1.019	62.9	1.006	0.02	0.642	0.658
	LTE Band 41	20M	QPSK	50	0	Back	5	Reduced	39750	2506	17.90	18.00	1.023	62.9	1.006	0.06	0.685	0.705
	LTE Band 41	20M	QPSK	50	0	Back	5	Reduced	40185	2549.5	17.87	18.00	1.030	62.9	1.006	0.05	0.682	0.707
	LTE Band 41	20M	QPSK	50	0	Back	5	Reduced	41055	2636.5	17.76	18.00	1.057	62.9	1.006	0.07	0.664	0.706
	LTE Band 41	20M	QPSK	50	0	Back	5	Reduced	41490	2680	17.87	18.00	1.030	62.9	1.006	0.01	0.706	0.732
	LTE Band 41	20M	QPSK	100	0	Back	5	Reduced	40620	2593	17.78	18.00	1.052	62.9	1.006	0.06	0.661	0.700
	LTE Band 41	20M	QPSK	1	0	Left Side	5	Reduced	40620	2593	12.63	13.00	1.089	62.9	1.006	0.07	0.005	0.006
	LTE Band 41	20M	QPSK	50	0	Left Side	5	Reduced	40620	2593	12.18	13.00	1.208	62.9	1.006	0.11	0.006	0.007
	LTE Band 41	20M	QPSK	1	0	Right Side	5	Reduced	40620	2593	12.63	13.00	1.089	62.9	1.006	0.07	0.029	0.032
	LTE Band 41	20M	QPSK	50	0	Right Side	5	Reduced	40620	2593	12.18	13.00	1.208	62.9	1.006	0.09	0.029	0.035
	LTE Band 41	20M	QPSK	1	0	Bottom Side	5	Reduced	40620	2593	12.63	13.00	1.089	62.9	1.006	0.02	0.491	0.538
	LTE Band 41	20M	QPSK	1	0	Bottom Side	5	Reduced	39750	2506	12.48	13.00	1.127	62.9	1.006	0.01	0.539	0.611
	LTE Band 41	20M	QPSK	1	0	Bottom Side	5	Reduced	40185	2549.5	12.23	13.00	1.194	62.9	1.006	0.02	0.544	0.653
	LTE Band 41	20M	QPSK	1	0	Bottom Side	5	Reduced	41055	2636.5	12.31	13.00	1.172	62.9	1.006	0.06	0.490	0.578
	LTE Band 41	20M	QPSK	1	0	Bottom Side	5	Reduced	41490	2680	12.21	13.00	1.199	62.9	1.006	0.01	0.453	0.547
	LTE Band 41	20M	QPSK	50	0	Bottom Side	5	Reduced	40620	2593	12.18	13.00	1.208	62.9	1.006	0.03	0.487	0.592
	LTE Band 41	20M	QPSK	50	0	Bottom Side	5	Reduced	39750	2506	11.92	13.00	1.282	62.9	1.006	0.03	0.538	0.694
	LTE Band 41	20M	QPSK	50	0	Bottom Side	5	Reduced	40185	2549.5	11.84	13.00	1.306	62.9	1.006	0.08	0.525	0.690
	LTE Band 41	20M	QPSK	50	0	Bottom Side	5	Reduced	41055	2636.5	11.93	13.00	1.279	62.9	1.006	0.01	0.496	0.638
	LTE Band 41	20M	QPSK	50	0	Bottom Side	5	Reduced	41490	2680	11.91	13.00	1.285	62.9	1.006	0.01	0.481	0.622
	LTE Band 41	20M	QPSK	100	0	Bottom Side	5	Reduced	40620	2593	12.16	13.00	1.213	62.9	1.006	0.08	0.477	0.582

<5G NR SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	FR1 n5	20M	PI/2 BPSK	1	1	DFT-15KHz	Front	5	Reduced	167300	836.5	23.31	23.50	1.045	-0.08	0.466	0.487
	FR1 n5	20M	PI/2 BPSK	50	0	DFT-15KHz	Front	5	Reduced	167300	836.5	22.85	23.50	1.161	-0.03	0.424	0.492
44	FR1 n5	20M	PI/2 BPSK	1	1	DFT-15KHz	Back	5	Reduced	167300	836.5	23.31	23.50	1.045	0.07	0.680	**0.710**
	FR1 n5	20M	PI/2 BPSK	50	0	DFT-15KHz	Back	5	Reduced	167300	836.5	22.85	23.50	1.161	-0.04	0.608	0.706
	FR1 n5	20M	PI/2 BPSK	1	1	DFT-15KHz	Left Side	5	Reduced	167300	836.5	23.31	23.50	1.045	-0.02	0.111	0.116
	FR1 n5	20M	PI/2 BPSK	50	0	DFT-15KHz	Left Side	5	Reduced	167300	836.5	22.85	23.50	1.161	-0.02	0.088	0.103
	FR1 n5	20M	PI/2 BPSK	1	1	DFT-15KHz	Right Side	5	Reduced	167300	836.5	23.31	23.50	1.045	-0.06	0.241	0.252
	FR1 n5	20M	PI/2 BPSK	50	0	DFT-15KHz	Right Side	5	Reduced	167300	836.5	22.85	23.50	1.161	-0.03	0.215	0.250
	FR1 n5	20M	PI/2 BPSK	1	1	DFT-15KHz	Bottom Side	5	Reduced	167300	836.5	23.31	23.50	1.045	0.05	0.375	0.392
	FR1 n5	20M	PI/2 BPSK	50	0	DFT-15KHz	Bottom Side	5	Reduced	167300	836.5	22.85	23.50	1.161	-0.03	0.369	0.429
	FR1 n12	15M	PI/2 BPSK	1	1	DFT-15KHz	Front	5	Full	141500	707.5	23.46	24.00	1.132	-0.06	0.464	0.525
	FR1 n12	15M	PI/2 BPSK	36	0	DFT-15KHz	Front	5	Full	141500	707.5	23.07	24.00	1.239	-0.02	0.415	0.514
45	FR1 n12	15M	PI/2 BPSK	1	1	DFT-15KHz	Back	5	Full	141500	707.5	23.46	24.00	1.132	-0.09	0.705	**0.798**
	FR1 n12	15M	PI/2 BPSK	36	0	DFT-15KHz	Back	5	Full	141500	707.5	23.07	24.00	1.239	-0.01	0.605	0.749
	FR1 n12	15M	PI/2 BPSK	1	1	DFT-15KHz	Left Side	5	Full	141500	707.5	23.46	24.00	1.132	-0.07	0.092	0.105
	FR1 n12	15M	PI/2 BPSK	36	0	DFT-15KHz	Left Side	5	Full	141500	707.5	23.07	24.00	1.239	-0.08	0.085	0.106
	FR1 n12	15M	PI/2 BPSK	1	1	DFT-15KHz	Right Side	5	Full	141500	707.5	23.46	24.00	1.132	-0.03	0.305	0.345
	FR1 n12	15M	PI/2 BPSK	36	0	DFT-15KHz	Right Side	5	Full	141500	707.5	23.07	24.00	1.239	-0.09	0.266	0.330
	FR1 n12	15M	PI/2 BPSK	1	1	DFT-15KHz	Bottom Side	5	Full	141500	707.5	23.46	24.00	1.132	-0.05	0.405	0.459
	FR1 n12	15M	PI/2 BPSK	36	0	DFT-15KHz	Bottom Side	5	Full	141500	707.5	23.07	24.00	1.239	-0.03	0.359	0.445
	FR1 n71	20M	PI/2 BPSK	1	1	DFT-15KHz	Front	5	Full	136100	680.5	23.49	24.00	1.125	-0.03	0.345	0.388
	FR1 n71	20M	PI/2 BPSK	50	0	DFT-15KHz	Front	5	Full	136100	680.5	23.25	24.00	1.189	0.06	0.386	0.459
	FR1 n71	20M	PI/2 BPSK	1	1	DFT-15KHz	Back	5	Full	136100	680.5	23.49	24.00	1.125	-0.07	0.566	0.637
46	FR1 n71	20M	PI/2 BPSK	50	0	DFT-15KHz	Back	5	Full	136100	680.5	23.25	24.00	1.189	0.01	0.581	**0.691**
	FR1 n71	20M	PI/2 BPSK	1	1	DFT-15KHz	Left Side	5	Full	136100	680.5	23.49	24.00	1.125	0.02	0.143	0.161
	FR1 n71	20M	PI/2 BPSK	50	0	DFT-15KHz	Left Side	5	Full	136100	680.5	23.25	24.00	1.189	0.01	0.076	0.090
	FR1 n71	20M	PI/2 BPSK	1	1	DFT-15KHz	Right Side	5	Full	136100	680.5	23.49	24.00	1.125	0.01	0.218	0.245
	FR1 n71	20M	PI/2 BPSK	50	0	DFT-15KHz	Right Side	5	Full	136100	680.5	23.25	24.00	1.189	-0.16	0.185	0.220
	FR1 n71	20M	PI/2 BPSK	1	1	DFT-15KHz	Bottom Side	5	Full	136100	680.5	23.49	24.00	1.125	-0.07	0.264	0.297
	FR1 n71	20M	PI/2 BPSK	50	0	DFT-15KHz	Bottom Side	5	Full	136100	680.5	23.25	24.00	1.189	0.01	0.181	0.215
	FR1 n66	20M	PI/2 BPSK	1	1	DFT-15KHz	Front	5	Reduced	349000	1745	16.28	17.00	1.180	0.06	0.283	0.334
	FR1 n66	20M	PI/2 BPSK	50	0	DFT-15KHz	Front	5	Reduced	349000	1745	16.09	17.00	1.233	0.05	0.265	0.327
	FR1 n66	20M	PI/2 BPSK	1	1	DFT-15KHz	Back	5	Reduced	349000	1745	16.28	17.00	1.180	0.1	0.446	0.526
	FR1 n66	20M	PI/2 BPSK	50	0	DFT-15KHz	Back	5	Reduced	349000	1745	16.09	17.00	1.233	-0.06	0.465	0.573
	FR1 n66	20M	PI/2 BPSK	50	0	DFT-15KHz	Back	5	Reduced	344000	1720	15.98	17.00	1.265	-0.15	0.494	0.625
	FR1 n66	20M	PI/2 BPSK	50	0	DFT-15KHz	Back	5	Reduced	354000	1770	15.91	17.00	1.285	-0.09	0.522	0.671
	FR1 n66	20M	PI/2 BPSK	1	1	DFT-15KHz	Left Side	5	Reduced	349000	1745	16.28	17.00	1.180	0.07	0.269	0.318
	FR1 n66	20M	PI/2 BPSK	50	0	DFT-15KHz	Left Side	5	Reduced	349000	1745	16.09	17.00	1.233	0.07	0.279	0.344
	FR1 n66	20M	PI/2 BPSK	1	1	DFT-15KHz	Right Side	5	Reduced	349000	1745	16.28	17.00	1.180	0.02	0.047	0.055
	FR1 n66	20M	PI/2 BPSK	50	0	DFT-15KHz	Right Side	5	Reduced	349000	1745	16.09	17.00	1.233	0.16	0.047	0.058
	FR1 n66	20M	PI/2 BPSK	1	1	DFT-15KHz	Top Side	5	Reduced	349000	1745	16.28	17.00	1.180	0.12	0.634	0.748
	FR1 n66	20M	PI/2 BPSK	50	0	DFT-15KHz	Top Side	5	Reduced	349000	1745	16.09	17.00	1.233	-0.05	0.631	0.778
	FR1 n66	20M	PI/2 BPSK	50	0	DFT-15KHz	Top Side	5	Reduced	344000	1720	15.98	17.00	1.265	-0.08	0.595	0.753
47	FR1 n66	20M	PI/2 BPSK	50	0	DFT-15KHz	Top Side	5	Reduced	354000	1770	15.91	17.00	1.285	-0.13	0.616	**0.792**

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	FR1 n25	20M	PI/2 BPSK	1	1	DFT-15KHz	Front	5	Reduced	376500	1882.5	15.09	15.50	1.099	0.15	0.232	0.255
	FR1 n25	20M	PI/2 BPSK	50	0	DFT-15KHz	Front	5	Reduced	376500	1882.5	14.98	15.50	1.127	0.1	0.213	0.240
	FR1 n25	20M	PI/2 BPSK	1	1	DFT-15KHz	Back	5	Reduced	376500	1882.5	15.09	15.50	1.099	-0.06	0.404	0.444
	FR1 n25	20M	PI/2 BPSK	50	0	DFT-15KHz	Back	5	Reduced	376500	1882.5	14.98	15.50	1.127	-0.06	0.424	0.478
	FR1 n25	20M	PI/2 BPSK	50	0	DFT-15KHz	Back	5	Reduced	372000	1860	14.23	15.50	1.340	0.04	0.447	0.599
	FR1 n25	20M	PI/2 BPSK	50	0	DFT-15KHz	Back	5	Reduced	381000	1905	14.37	15.50	1.297	-0.17	0.334	0.433
	FR1 n25	20M	PI/2 BPSK	1	1	DFT-15KHz	Left Side	5	Reduced	376500	1882.5	15.09	15.50	1.099	0.01	0.180	0.198
	FR1 n25	20M	PI/2 BPSK	50	0	DFT-15KHz	Left Side	5	Reduced	376500	1882.5	14.98	15.50	1.127	0.18	0.176	0.198
	FR1 n25	20M	PI/2 BPSK	1	1	DFT-15KHz	Right Side	5	Reduced	376500	1882.5	15.09	15.50	1.099	-0.06	0.029	0.032
	FR1 n25	20M	PI/2 BPSK	50	0	DFT-15KHz	Right Side	5	Reduced	376500	1882.5	14.98	15.50	1.127	0.14	0.030	0.034
	FR1 n25	20M	PI/2 BPSK	1	1	DFT-15KHz	Top Side	5	Reduced	376500	1882.5	15.09	15.50	1.099	0.1	0.598	0.657
	FR1 n25	20M	PI/2 BPSK	50	0	DFT-15KHz	Top Side	5	Reduced	376500	1882.5	14.98	15.50	1.127	0.08	0.514	0.579
	FR1 n25	20M	PI/2 BPSK	1	1	DFT-15KHz	Top Side	5	Reduced	372000	1860	14.91	15.50	1.146	0.17	0.603	0.691
48	FR1 n25	20M	PI/2 BPSK	1	1	DFT-15KHz	Top Side	5	Reduced	381000	1905	14.94	15.50	1.138	-0.12	0.629	**0.716**
	FR1 n41	100M	PI/2 BPSK	1	1	DFT-30KHz	Front	5	Reduced	518598	2592.99	16.89	17.00	1.026	0.06	0.313	0.321
	FR1 n41	100M	PI/2 BPSK	135	0	DFT-30KHz	Front	5	Reduced	518598	2592.99	16.87	17.00	1.030	0.05	0.360	0.371
	FR1 n41	100M	PI/2 BPSK	1	1	DFT-30KHz	Back	5	Reduced	518598	2592.99	16.89	17.00	1.026	0.05	0.615	0.631
49	FR1 n41	100M	PI/2 BPSK	135	0	DFT-30KHz	Back	5	Reduced	518598	2592.99	16.87	17.00	1.030	-0.08	0.674	**0.694**
	FR1 n41	100M	PI/2 BPSK	135	0	DFT-30KHz	Back	5	Reduced	509202	2546.01	16.37	17.00	1.156	0.01	0.332	0.384
	FR1 n41	100M	PI/2 BPSK	135	0	DFT-30KHz	Back	5	Reduced	528000	2640	16.51	17.00	1.119	0.16	0.602	0.674
	FR1 n41	100M	PI/2 BPSK	1	1	DFT-30KHz	Left Side	5	Reduced	518598	2592.99	16.89	17.00	1.026	-0.04	0.067	0.069
	FR1 n41	100M	PI/2 BPSK	135	0	DFT-30KHz	Left Side	5	Reduced	518598	2592.99	16.87	17.00	1.030	-0.02	0.094	0.097
	FR1 n41	100M	PI/2 BPSK	1	1	DFT-30KHz	Right Side	5	Reduced	518598	2592.99	16.89	17.00	1.026	-0.03	0.037	0.038
	FR1 n41	100M	PI/2 BPSK	135	0	DFT-30KHz	Right Side	5	Reduced	518598	2592.99	16.87	17.00	1.030	-0.02	0.048	0.049
	FR1 n41	100M	PI/2 BPSK	1	1	DFT-30KHz	Top Side	5	Reduced	518598	2592.99	16.89	17.00	1.026	-0.05	0.527	0.541
	FR1 n41	100M	PI/2 BPSK	135	0	DFT-30KHz	Top Side	5	Reduced	518598	2592.99	16.87	17.00	1.030	-0.08	0.638	0.657

<WLAN2.4G SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WLAN2.4GHz	802.11b 1Mbps	Front	5	1+2	Reduced	1	2412	20.21	21.00	1.199	100	1.000	0.09	0.163	0.196
	WLAN2.4GHz	802.11b 1Mbps	Back	5	1+2	Reduced	1	2412	20.21	21.00	1.199	100	1.000	0.01	0.608	0.729
	WLAN2.4GHz	802.11b 1Mbps	Left Side	5	1+2	Reduced	1	2412	20.21	21.00	1.199	100	1.000	0.08	0.017	0.020
	WLAN2.4GHz	802.11b 1Mbps	Right Side	5	1+2	Reduced	1	2412	20.21	21.00	1.199	100	1.000	0.05	0.202	0.242
	WLAN2.4GHz	802.11b 1Mbps	Top Side	5	1+2	Reduced	1	2412	20.21	21.00	1.199	100	1.000	0.04	0.227	0.272
50	WLAN2.4GHz	802.11b 1Mbps	Back	5	1+2	Reduced	6	2437	20.07	21.00	1.239	100	1.000	0.15	0.873	**1.081**
	WLAN2.4GHz	802.11b 1Mbps	Back	5	1+2	Reduced	11	2462	19.84	21.00	1.306	100	1.000	-0.11	0.621	0.811
EN-DC																
	WLAN2.4GHz	802.11b 1Mbps	Front	5	1+2	Reduced	1	2412	15.46	15.50	1.009	100	1.000	0.03	0.054	0.054
	WLAN2.4GHz	802.11b 1Mbps	Back	5	1+2	Reduced	1	2412	15.46	15.50	1.009	100	1.000	0.05	0.249	0.251
	WLAN2.4GHz	802.11b 1Mbps	Left Side	5	1+2	Reduced	1	2412	15.46	15.50	1.009	100	1.000	0.06	0.006	0.006
	WLAN2.4GHz	802.11b 1Mbps	Right Side	5	1+2	Reduced	1	2412	15.46	15.50	1.009	100	1.000	-0.02	0.014	0.015
	WLAN2.4GHz	802.11b 1Mbps	Top Side	5	1+2	Reduced	1	2412	15.46	15.50	1.009	100	1.000	-0.01	0.069	0.069
	WLAN2.4GHz	802.11b 1Mbps	Back	5	1+2	Reduced	6	2437	14.79	15.50	1.178	100	1.000	0.06	0.288	0.339
	WLAN2.4GHz	802.11b 1Mbps	Back	5	1+2	Reduced	11	2462	14.69	15.50	1.205	100	1.000	0.08	0.185	0.223

<WLAN5G SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WLAN5.2GHz	802.11a 6Mbps	Front	5	1+2	Reduced	44	5220	17.01	17.50	1.119	97.93	1.021	0.06	0.082	0.093
	WLAN5.2GHz	802.11a 6Mbps	Back	5	1+2	Reduced	44	5220	17.01	17.50	1.119	97.93	1.021	0.04	0.852	0.974
	WLAN5.2GHz	802.11a 6Mbps	Left Side	5	1+2	Reduced	44	5220	17.01	17.50	1.119	97.93	1.021	-0.01	0.031	0.035
	WLAN5.2GHz	802.11a 6Mbps	Right Side	5	1+2	Reduced	44	5220	17.01	17.50	1.119	97.93	1.021	0.05	0.051	0.059
	WLAN5.2GHz	802.11a 6Mbps	Top Side	5	1+2	Reduced	44	5220	17.01	17.50	1.119	97.93	1.021	0.03	0.109	0.125
	WLAN5.2GHz	802.11a 6Mbps	Back	5	1+2	Reduced	36	5180	16.98	17.50	1.127	97.93	1.021	0.08	0.756	0.870
	WLAN5.2GHz	802.11a 6Mbps	Back	5	1+2	Reduced	40	5200	17.00	17.50	1.122	97.93	1.021	-0.09	0.877	1.005
51	WLAN5.2GHz	802.11a 6Mbps	Back	5	1+2	Reduced	48	5240	16.92	17.50	1.143	97.93	1.021	0.05	0.994	**1.160**
EN-DC																
	WLAN5.2GHz	802.11a 6Mbps	Front	5	1+2	Reduced	44	5220	11.44	12.00	1.138	97.93	1.021	0.01	0.021	0.024
	WLAN5.2GHz	802.11a 6Mbps	Back	5	1+2	Reduced	44	5220	11.44	12.00	1.138	97.93	1.021	0.06	0.278	0.323
	WLAN5.2GHz	802.11a 6Mbps	Left Side	5	1+2	Reduced	44	5220	11.44	12.00	1.138	97.93	1.021	0.02	0.013	0.015
	WLAN5.2GHz	802.11a 6Mbps	Right Side	5	1+2	Reduced	44	5220	11.44	12.00	1.138	97.93	1.021	-0.05	0.014	0.016
	WLAN5.2GHz	802.11a 6Mbps	Top Side	5	1+2	Reduced	44	5220	11.44	12.00	1.138	97.93	1.021	0.01	0.035	0.041
	WLAN5.2GHz	802.11a 6Mbps	Back	5	1+2	Reduced	36	5180	11.70	12.00	1.072	97.93	1.021	-0.05	0.229	0.251
	WLAN5.2GHz	802.11a 6Mbps	Back	5	1+2	Reduced	40	5200	11.60	12.00	1.096	97.93	1.021	0.05	0.275	0.308
	WLAN5.2GHz	802.11a 6Mbps	Back	5	1+2	Reduced	48	5240	11.65	12.00	1.084	97.93	1.021	0.06	0.311	0.344
	WLAN5.8GHz	802.11a 6Mbps	Front	5	1+2	Reduced	165	5825	16.74	17.50	1.191	97.93	1.021	0.03	0.079	0.095
	WLAN5.8GHz	802.11a 6Mbps	Back	5	1+2	Reduced	165	5825	16.74	17.50	1.191	97.93	1.021	0.01	0.766	0.932
	WLAN5.8GHz	802.11a 6Mbps	Left Side	5	1+2	Reduced	165	5825	16.74	17.50	1.191	97.93	1.021	-0.03	0.018	0.022
	WLAN5.8GHz	802.11a 6Mbps	Right Side	5	1+2	Reduced	165	5825	16.74	17.50	1.191	97.93	1.021	0.02	0.027	0.032
	WLAN5.8GHz	802.11a 6Mbps	Top Side	5	1+2	Reduced	165	5825	16.74	17.50	1.191	97.93	1.021	0.05	0.181	0.220
52	WLAN5.8GHz	802.11a 6Mbps	Back	5	1+2	Reduced	149	5745	16.52	17.50	1.253	97.93	1.021	-0.09	0.922	**1.179**
	WLAN5.8GHz	802.11a 6Mbps	Back	5	1+2	Reduced	157	5785	16.67	17.50	1.210	97.93	1.021	-0.02	0.759	0.938
EN-DC																
	WLAN5.8GHz	802.11a 6Mbps	Front	5	1+2	Reduced	165	5825	11.42	12.00	1.143	97.93	1.021	-0.16	0.030	0.035
	WLAN5.8GHz	802.11a 6Mbps	Back	5	1+2	Reduced	165	5825	11.42	12.00	1.143	97.93	1.021	0.05	0.223	0.260
	WLAN5.8GHz	802.11a 6Mbps	Left Side	5	1+2	Reduced	165	5825	11.42	12.00	1.143	97.93	1.021	0.03	0.007	0.008
	WLAN5.8GHz	802.11a 6Mbps	Right Side	5	1+2	Reduced	165	5825	11.42	12.00	1.143	97.93	1.021	0.18	0.011	0.013
	WLAN5.8GHz	802.11a 6Mbps	Top Side	5	1+2	Reduced	165	5825	11.42	12.00	1.143	97.93	1.021	0.02	0.070	0.082
	WLAN5.8GHz	802.11a 6Mbps	Back	5	1+2	Reduced	149	5745	11.28	12.00	1.180	97.93	1.021	0.03	0.306	0.369
	WLAN5.8GHz	802.11a 6Mbps	Back	5	1+2	Reduced	157	5785	11.44	12.00	1.138	97.93	1.021	0.09	0.236	0.274

<Bluetooth SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	Bluetooth	1Mbps	Front	5	Full	39	2441	11.82	12.50	1.169	76.91	1.083	0.05	0.058	0.074
	Bluetooth	1Mbps	Back	5	Full	39	2441	11.82	12.50	1.169	76.91	1.083	0.02	0.054	0.069
	Bluetooth	1Mbps	Left Side	5	Full	39	2441	11.82	12.50	1.169	76.91	1.083	0.01	0.005	0.006
	Bluetooth	1Mbps	Right Side	5	Full	39	2441	11.82	12.50	1.169	76.91	1.083	-0.03	0.054	0.068
53	Bluetooth	1Mbps	Top Side	5	Full	39	2441	11.82	12.50	1.169	76.91	1.083	0.08	0.064	**0.081**
	Bluetooth	1Mbps	Top Side	5	Full	0	2402	11.13	12.50	1.371	76.91	1.083	-0.05	0.043	0.064
	Bluetooth	1Mbps	Top Side	5	Full	78	2480	10.63	12.50	1.538	76.91	1.083	0.02	0.049	0.081
	Bluetooth	1Mbps	Front	5	Full	0	2402	11.13	12.50	1.371	76.91	1.083	0.09	0.032	0.047
	Bluetooth	1Mbps	Front	5	Full	78	2480	10.63	12.50	1.538	76.91	1.083	0.07	0.046	0.076

15.3 Body Worn Accessory SAR

<GSM SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Headset	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	GSM850	GPRS (3 Tx slot)	Front	5	-	Full	189	836.4	28.39	29.50	1.291	-0.05	0.464	0.599
	GSM850	GPRS (3 Tx slot)	Back	5	-	Full	189	836.4	28.39	29.50	1.291	-0.08	0.861	1.112
	GSM850	GPRS (3 Tx slot)	Back	5	-	Full	128	824.2	28.29	29.50	1.321	0.03	0.905	1.196
54	GSM850	GPRS (3 Tx slot)	Back	5	-	Full	251	848.8	28.15	29.50	1.365	0.03	0.959	**1.309**
	GSM850	GPRS (3 Tx slot)	Back	5	Headset	Full	251	848.8	28.15	29.50	1.365	-0.02	0.540	0.737
	GSM1900	GPRS (3 Tx slot)	Front	5	-	Reduced	661	1880	22.36	22.50	1.033	0.04	1.230	1.270
	GSM1900	GPRS (3 Tx slot)	Front	5	-	Reduced	512	1850.2	22.32	22.50	1.042	-0.14	1.110	1.157
55	GSM1900	GPRS (3 Tx slot)	Front	5	-	Reduced	810	1909.8	22.35	22.50	1.035	0.06	1.240	**1.284**
	GSM1900	GPRS (3 Tx slot)	Back	5	-	Reduced	661	1880	22.36	22.50	1.033	0.01	1.150	1.188
	GSM1900	GPRS (3 Tx slot)	Back	5	-	Reduced	512	1850.2	22.32	22.50	1.042	0.06	1.060	1.105
	GSM1900	GPRS (3 Tx slot)	Back	5	-	Reduced	810	1909.8	22.35	22.50	1.035	0.19	1.180	1.221
	GSM1900	GPRS (3 Tx slot)	Front	5	Headset	Reduced	810	1909.8	22.35	22.50	1.035	0.14	0.400	0.414
	GSM1900	GPRS (3 Tx slot)	Front	14	-	Full	810	1909.8	25.82	26.50	1.169	-0.06	0.567	0.663
	GSM1900	GPRS (3 Tx slot)	Back	18	-	Full	810	1909.8	25.82	26.50	1.169	0.09	0.253	0.296

<WCDMA SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Headset	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WCDMA V	RMC12.2Kbps	Front	5	-	Reduced	4182	836.4	21.24	22.50	1.337	0.06	0.529	0.707
	WCDMA V	RMC12.2Kbps	Back	5	-	Reduced	4182	836.4	21.24	22.50	1.337	0.01	0.823	1.100
	WCDMA V	RMC12.2Kbps	Back	5	-	Reduced	4132	826.4	21.22	22.50	1.343	-0.02	0.898	1.206
56	WCDMA V	RMC12.2Kbps	Back	5	-	Reduced	4233	846.6	21.07	22.50	1.390	0.05	0.936	**1.301**
	WCDMA V	RMC12.2Kbps	Back	5	Headset	Reduced	4233	846.6	21.07	22.50	1.390	-0.05	0.909	1.263
	WCDMA V	RMC12.2Kbps	Front	14	-	Full	4182	836.4	22.67	24.00	1.358	-0.09	0.280	0.380
	WCDMA V	RMC12.2Kbps	Back	18	-	Full	4233	846.6	22.42	24.00	1.439	0.05	0.249	0.358
	WCDMA IV	RMC12.2Kbps	Front	5	-	Reduced	1413	1732.6	17.45	18.00	1.135	0.08	0.833	0.945
	WCDMA IV	RMC12.2Kbps	Front	5	-	Reduced	1312	1712.4	17.42	18.00	1.143	0.09	0.747	0.854
	WCDMA IV	RMC12.2Kbps	Front	5	-	Reduced	1513	1752.6	17.28	18.00	1.180	-0.19	0.700	0.826
	WCDMA IV	RMC12.2Kbps	Back	5	-	Reduced	1413	1732.6	17.45	18.00	1.135	-0.02	0.785	0.891
	WCDMA IV	RMC12.2Kbps	Back	5	-	Reduced	1312	1712.4	17.42	18.00	1.143	0.01	1.040	1.189
57	WCDMA IV	RMC12.2Kbps	Back	5	-	Reduced	1513	1752.6	17.28	18.00	1.180	-0.02	1.130	**1.334**
	WCDMA IV	RMC12.2Kbps	Back	5	Headset	Reduced	1513	1752.6	17.28	18.00	1.180	0.05	0.568	0.670
	WCDMA IV	RMC12.2Kbps	Front	14	-	Full	1413	1732.6	22.67	24.00	1.358	0.02	0.694	0.943
	WCDMA IV	RMC12.2Kbps	Back	18	-	Full	1513	1752.6	22.49	24.00	1.416	0.05	0.510	0.722
	WCDMA II	RMC12.2Kbps	Front	5	-	Reduced	9400	1880	16.42	17.50	1.282	-0.08	0.962	1.234
	WCDMA II	RMC12.2Kbps	Front	5	-	Reduced	9262	1852.4	16.40	17.50	1.288	0.02	0.909	1.171
	WCDMA II	RMC12.2Kbps	Front	5	-	Reduced	9538	1907.6	16.40	17.50	1.288	0.05	1.010	1.301
	WCDMA II	RMC12.2Kbps	Back	5	-	Reduced	9400	1880	16.42	17.50	1.282	0.03	0.933	1.196
	WCDMA II	RMC12.2Kbps	Back	5	-	Reduced	9262	1852.4	16.40	17.50	1.288	0.01	0.933	1.202
58	WCDMA II	RMC12.2Kbps	Back	5	-	Reduced	9538	1907.6	16.40	17.50	1.288	0.08	1.090	**1.404**
	WCDMA II	RMC12.2Kbps	Back	5	Headset	Reduced	9538	1907.6	16.40	17.50	1.288	-0.01	0.440	0.567
	WCDMA II	RMC12.2Kbps	Front	14	-	Full	9538	1907.6	22.52	24.00	1.406	0.09	0.774	1.088
	WCDMA II	RMC12.2Kbps	Back	18	-	Full	9538	1907.6	22.52	24.00	1.406	-0.09	0.523	0.735

<CDMA SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Headset	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	CDMA2000 BC0	RC3 SO32 (F+SCH)	Front	5	-	Full	777	848.31	23.50	25.00	1.413	0.06	0.618	0.873
	CDMA2000 BC0	RC3 SO32 (F+SCH)	Front	5	-	Full	384	836.52	23.38	25.00	1.452	-0.07	0.543	0.788
	CDMA2000 BC0	RC3 SO32 (F+SCH)	Front	5	-	Full	1013	824.7	23.38	25.00	1.452	-0.03	0.601	0.873
	CDMA2000 BC0	RC3 SO32 (F+SCH)	Back	5	-	Full	777	848.31	23.50	25.00	1.413	0.07	0.913	1.290
	CDMA2000 BC0	RC3 SO32 (F+SCH)	Back	5	-	Full	384	836.52	23.38	25.00	1.452	0.05	0.913	1.326
59	CDMA2000 BC0	RC3 SO32 (F+SCH)	Back	5	-	Full	1013	824.7	23.38	25.00	1.452	0.04	0.998	**1.449**
	CDMA2000 BC0	RC3 SO32 (F+SCH)	Back	5	Headset	Full	1013	824.7	23.38	25.00	1.452	0.05	0.673	0.977
	CDMA2000 BC1	RC3 SO32 (F+SCH)	Front	5	-	Reduced	1175	1908.75	17.45	18.50	1.274	0.03	0.897	1.142
	CDMA2000 BC1	RC3 SO32 (F+SCH)	Front	5	-	Reduced	25	1851.25	17.27	18.50	1.327	0.01	0.754	1.001
	CDMA2000 BC1	RC3 SO32 (F+SCH)	Front	5	-	Reduced	600	1880	17.35	18.50	1.303	0.01	0.738	0.962
	CDMA2000 BC1	RC3 SO32 (F+SCH)	Back	5	-	Reduced	1175	1908.75	17.45	18.50	1.274	0.07	0.742	0.945
	CDMA2000 BC1	RC3 SO32 (F+SCH)	Back	5	-	Reduced	25	1851.25	17.27	18.50	1.327	0.03	0.531	0.705
60	CDMA2000 BC1	RC3 SO32 (F+SCH)	Back	5	-	Reduced	600	1880	17.35	18.50	1.303	0.05	0.927	**1.208**
	CDMA2000 BC1	RC3 SO32 (F+SCH)	Back	5	Headset	Reduced	600	1880	17.35	18.50	1.303	0.04	0.243	0.317
	CDMA2000 BC1	RC3 SO32 (F+SCH)	Front	14	-	Full	1175	1908.75	23.90	25.00	1.288	-0.07	0.736	0.948
	CDMA2000 BC1	RC3 SO32 (F+SCH)	Back	18	-	Full	600	1880	23.82	25.00	1.312	0.07	0.336	0.441
	CDMA2000 BC10	RC3 SO32 (F+SCH)	Front	5	-	Reduced	580	820.5	23.39	24.00	1.151	-0.03	0.681	0.784
	CDMA2000 BC10	RC3 SO32 (F+SCH)	Front	5	-	Reduced	476	817.9	23.37	24.00	1.156	-0.02	0.651	0.753
	CDMA2000 BC10	RC3 SO32 (F+SCH)	Front	5	-	Reduced	684	823.1	23.37	24.00	1.156	-0.11	0.665	0.769
	CDMA2000 BC10	RC3 SO32 (F+SCH)	Back	5	-	Reduced	580	820.5	23.39	24.00	1.151	0.09	1.010	1.162
61	CDMA2000 BC10	RC3 SO32 (F+SCH)	Back	5	-	Reduced	476	817.9	23.37	24.00	1.156	0.05	1.060	**1.225**
	CDMA2000 BC10	RC3 SO32 (F+SCH)	Back	5	-	Reduced	684	823.1	23.37	24.00	1.156	-0.03	1.060	1.225
	CDMA2000 BC10	RC3 SO32 (F+SCH)	Back	5	Headset	Reduced	476	817.9	23.37	24.00	1.156	0.03	0.604	0.698
	CDMA2000 BC10	RC3 SO32 (F+SCH)	Front	14	-	Full	580	820.5	23.39	25.00	1.449	-0.02	0.296	0.429
	CDMA2000 BC10	RC3 SO32 (F+SCH)	Back	18	-	Full	476	817.9	23.37	25.00	1.455	0.09	0.255	0.371

<FDD LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Headset	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 71	20M	QPSK	1	0	Front	5	-	Full	133322	683	23.22	24.00	1.197	-0.03	0.497	0.595
	LTE Band 71	20M	QPSK	50	0	Front	5	-	Full	133322	683	23.00	24.00	1.259	0.02	0.509	0.641
62	LTE Band 71	20M	QPSK	1	0	Back	5	-	Full	133322	683	23.22	24.00	1.197	0.01	0.797	**0.954**
	LTE Band 71	20M	QPSK	50	0	Back	5	-	Full	133322	683	23.00	24.00	1.259	0.06	0.748	0.942
	LTE Band 71	20M	QPSK	100	0	Back	5	-	Full	133322	683	22.75	24.00	1.334	0.03	0.706	0.941
	LTE Band 12	10M	QPSK	1	0	Front	5	-	Full	23095	707.5	22.86	24.00	1.300	0.01	0.636	0.827
	LTE Band 12	10M	QPSK	25	0	Front	5	-	Full	23095	707.5	22.77	24.00	1.327	-0.04	0.538	0.714
	LTE Band 12	10M	QPSK	50	0	Front	5	-	Full	23095	707.5	22.65	24.00	1.365	0.12	0.633	0.864
63	LTE Band 12	10M	QPSK	1	0	Back	5	-	Full	23095	707.5	22.86	24.00	1.300	0.11	1.010	**1.313**
	LTE Band 12	10M	QPSK	25	0	Back	5	-	Full	23095	707.5	22.77	24.00	1.327	0.1	0.831	1.103
	LTE Band 12	10M	QPSK	50	0	Back	5	-	Full	23095	707.5	22.65	24.00	1.365	0.09	0.704	0.961
	LTE Band 12	10M	QPSK	1	0	Back	5	Headset	Full	23095	707.5	22.86	24.00	1.300	0.17	0.665	0.865
EN-DC																	
	LTE Band 12	10M	QPSK	1	0	Front	5		Reduced	23095	707.5	21.96	22.00	1.009	0.01	0.414	0.418
	LTE Band 12	10M	QPSK	25	0	Front	5		Reduced	23095	707.5	21.95	22.00	1.012	0.01	0.418	0.423
	LTE Band 12	10M	QPSK	1	0	Back	5		Reduced	23095	707.5	21.96	22.00	1.009	-0.18	0.724	0.731
	LTE Band 12	10M	QPSK	25	0	Back	5		Reduced	23095	707.5	21.95	22.00	1.012	0.03	0.727	0.735
	LTE Band 12	10M	QPSK	25	0	Front	14		Full	23095	707.5	22.77	24.00	1.327	-0.13	0.254	0.337
	LTE Band 12	10M	QPSK	25	0	Back	18		Full	23095	707.5	22.77	24.00	1.327	-0.02	0.257	0.341
	LTE Band 13	10M	QPSK	1	0	Front	5	-	Reduced	23230	782	22.57	23.50	1.239	-0.06	0.741	0.918
	LTE Band 13	10M	QPSK	25	0	Front	5	-	Reduced	23230	782	22.10	23.50	1.380	0.01	0.729	1.006
	LTE Band 13	10M	QPSK	50	0	Front	5	-	Reduced	23230	782	22.08	23.50	1.387	0.05	0.843	1.169
64	LTE Band 13	10M	QPSK	1	0	Back	5	-	Reduced	23230	782	22.57	23.50	1.239	-0.05	0.948	**1.174**
	LTE Band 13	10M	QPSK	25	0	Back	5	-	Reduced	23230	782	22.10	23.50	1.380	0.04	0.849	1.172
	LTE Band 13	10M	QPSK	50	0	Back	5	-	Reduced	23230	782	22.08	23.50	1.387	0.05	0.841	1.166
	LTE Band 13	10M	QPSK	1	0	Back	5	Headset	Reduced	23230	782	22.57	23.50	1.239	0.04	0.678	0.840
	LTE Band 13	10M	QPSK	50	0	Front	14	-	Full	23230	782	22.08	24.00	1.556	-0.02	0.303	0.471
	LTE Band 13	10M	QPSK	1	0	Back	18	-	Full	23230	782	22.57	24.00	1.390	-0.06	0.302	0.420
	LTE Band 26	15M	QPSK	1	0	Front	5	-	Reduced	26865	831.5	22.59	23.50	1.233	-0.02	1.030	1.270
	LTE Band 26	15M	QPSK	36	0	Front	5	-	Reduced	26865	831.5	22.48	23.50	1.265	-0.06	0.711	0.899
	LTE Band 26	15M	QPSK	75	0	Front	5	-	Reduced	26865	831.5	22.45	23.50	1.274	-0.18	0.874	1.113
65	LTE Band 26	15M	QPSK	1	0	Back	5	-	Reduced	26865	831.5	22.59	23.50	1.233	0.03	1.140	**1.406**
	LTE Band 26	15M	QPSK	36	0	Back	5	-	Reduced	26865	831.5	22.48	23.50	1.265	0.1	0.964	1.219
	LTE Band 26	15M	QPSK	75	0	Back	5	-	Reduced	26865	831.5	22.45	23.50	1.274	0.07	0.984	1.253
	LTE Band 26	15M	QPSK	1	0	Back	5	Headset	Reduced	26865	831.5	22.59	23.50	1.233	0.15	0.670	0.826
	LTE Band 26	15M	QPSK	1	0	Front	14	-	Full	26865	831.5	22.94	24.00	1.276	0.09	0.158	0.202
	LTE Band 26	15M	QPSK	1	0	Back	18	-	Full	26865	831.5	22.94	24.00	1.276	-0.05	0.149	0.190
EN-DC																	
	LTE Band 5	10M	QPSK	1	0	Front	5		Reduced	20525	836.5	21.23	22.00	1.194	0.04	0.406	0.485
	LTE Band 5	10M	QPSK	25	0	Front	5		Reduced	20525	836.5	21.10	22.00	1.230	0.03	0.425	0.523
	LTE Band 5	10M	QPSK	1	0	Back	5		Reduced	20525	836.5	21.23	22.00	1.194	0.11	0.622	0.743
	LTE Band 5	10M	QPSK	25	0	Back	5		Reduced	20525	836.5	21.10	22.00	1.230	0.06	0.630	0.775
	LTE Band 5	10M	QPSK	25	0	Front	14		Full	20525	836.5	22.63	24.00	1.371	0.09	0.158	0.217
	LTE Band 5	10M	QPSK	25	0	Back	18		Full	20525	836.5	22.63	24.00	1.371	-0.05	0.149	0.204

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Headset	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 66	20M	QPSK	1	0	Front	5	-	Reduced	132322	1745	18.18	18.5	1.076	0.02	1.020	1.098
	LTE Band 66	20M	QPSK	1	0	Front	5	-	Reduced	132072	1720	17.87	18.5	1.156	0.05	0.938	1.084
	LTE Band 66	20M	QPSK	1	0	Front	5	-	Reduced	132572	1770	18.07	18.5	1.104	0.07	0.946	1.044
	LTE Band 66	20M	QPSK	50	0	Front	5	-	Reduced	132322	1745	18.02	18.5	1.117	0.14	1.060	1.184
	LTE Band 66	20M	QPSK	50	0	Front	5	-	Reduced	132072	1720	17.68	18.5	1.208	0.03	0.961	1.161
	LTE Band 66	20M	QPSK	50	0	Front	5	-	Reduced	132572	1770	17.95	18.5	1.135	0.13	1.070	1.214
	LTE Band 66	20M	QPSK	100	0	Front	5	-	Reduced	132322	1745	17.95	18.5	1.135	0.04	1.110	1.260
	LTE Band 66	20M	QPSK	1	0	Back	5	-	Reduced	132322	1745	18.18	18.5	1.076	-0.09	0.939	1.011
	LTE Band 66	20M	QPSK	1	0	Back	5	-	Reduced	132072	1720	17.87	18.5	1.156	0.1	0.773	0.894
	LTE Band 66	20M	QPSK	1	0	Back	5	-	Reduced	132572	1770	18.07	18.5	1.104	0.08	0.913	1.008
	LTE Band 66	20M	QPSK	50	0	Back	5	-	Reduced	132322	1745	18.02	18.5	1.117	0.06	0.999	1.116
	LTE Band 66	20M	QPSK	50	0	Back	5	-	Reduced	132072	1720	17.68	18.5	1.208	0.08	0.772	0.932
	LTE Band 66	20M	QPSK	50	0	Back	5	-	Reduced	132572	1770	17.95	18.5	1.135	0.07	0.833	0.945
66	LTE Band 66	20M	QPSK	100	0	Back	5	-	Reduced	132322	1745	17.95	18.5	1.135	0.08	1.170	**1.328**
	LTE Band 66	20M	QPSK	100	0	Back	5	Headset	Reduced	132322	1745	17.95	18.5	1.135	0.04	0.553	0.628
	LTE Band 66	20M	QPSK	100	0	Front	14	-	Full	132322	1745	22.78	24	1.324	0.08	0.551	0.730
	LTE Band 66	20M	QPSK	100	0	Back	18	-	Full	132322	1745	22.78	24	1.324	-0.18	0.537	0.711
EN-DC																	
	LTE Band 66-UAT	20M	QPSK	1	0	Front	5		Reduced	132322	1745	16.45	17.50	1.274	0.08	0.309	0.394
	LTE Band 66-UAT	20M	QPSK	50	0	Front	5		Reduced	132322	1745	15.32	16.50	1.312	0.05	0.248	0.325
	LTE Band 66-UAT	20M	QPSK	1	0	Back	5		Reduced	132322	1745	16.45	17.50	1.274	0.03	0.451	0.574
	LTE Band 66-UAT	20M	QPSK	1	0	Back	5		Reduced	132072	1720	16.01	17.50	1.409	-0.06	0.406	0.572
	LTE Band 66-UAT	20M	QPSK	1	0	Back	5		Reduced	132572	1770	16.19	17.50	1.352	0.14	0.427	0.577
	LTE Band 66-UAT	20M	QPSK	50	0	Back	5		Reduced	132322	1745	15.32	16.50	1.312	0.02	0.379	0.497
	LTE Band 66-UAT	20M	QPSK	1	0	Front	14		Full	132322	1745	22.45	24.00	1.429	0.05	0.554	0.792
	LTE Band 66-UAT	20M	QPSK	1	0	Back	18		Full	132572	1770	22.29	24.00	1.483	0.02	0.446	0.661
	LTE Band 66	20M	QPSK	1	0	Front	5		Reduced	132322	1745	16.24	16.50	1.062	0.07	0.646	0.686
	LTE Band 66	20M	QPSK	50	0	Front	5		Reduced	132322	1745	16.22	16.50	1.067	-0.01	0.660	0.704
	LTE Band 66	20M	QPSK	50	0	Front	5		Reduced	132072	1720	16.00	16.50	1.122	0.08	0.502	0.563
	LTE Band 66	20M	QPSK	50	0	Front	5		Reduced	132572	1770	16.15	16.50	1.084	-0.01	0.709	0.769
	LTE Band 66	20M	QPSK	1	0	Back	5		Reduced	132322	1745	16.24	16.50	1.062	0.01	0.637	0.676
	LTE Band 66	20M	QPSK	50	0	Back	5		Reduced	132322	1745	16.22	16.50	1.067	-0.01	0.650	0.693

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Headset	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 25	20M	QPSK	1	0	Front	5	-	Reduced	26340	1880	17.14	18	1.219	0.13	0.869	1.059
	LTE Band 25	20M	QPSK	1	0	Front	5	-	Reduced	26140	1860	16.92	18	1.282	0.17	0.812	1.041
	LTE Band 25	20M	QPSK	1	0	Front	5	-	Reduced	26590	1905	16.95	18	1.274	0.05	0.921	1.173
	LTE Band 25	20M	QPSK	50	0	Front	5	-	Reduced	26340	1880	17.11	18	1.227	0.03	0.876	1.075
	LTE Band 25	20M	QPSK	50	0	Front	5	-	Reduced	26140	1860	17.03	18	1.250	0.02	0.81	1.013
	LTE Band 25	20M	QPSK	50	0	Front	5	-	Reduced	26590	1905	16.99	18	1.262	0.07	0.972	1.226
	LTE Band 25	20M	QPSK	100	0	Front	5	-	Reduced	26340	1880	17.05	18	1.245	0.09	0.905	1.126
	LTE Band 25	20M	QPSK	1	0	Back	5	-	Reduced	26340	1880	17.14	18	1.219	0.05	0.888	1.082
	LTE Band 25	20M	QPSK	1	0	Back	5	-	Reduced	26140	1860	16.92	18	1.282	0.01	0.821	1.053
	LTE Band 25	20M	QPSK	1	0	Back	5	-	Reduced	26590	1905	16.95	18	1.274	0.02	0.968	1.233
	LTE Band 25	20M	QPSK	50	0	Back	5	-	Reduced	26340	1880	17.11	18	1.227	-0.02	0.91	1.117
	LTE Band 25	20M	QPSK	50	0	Back	5	-	Reduced	26140	1860	17.03	18	1.250	0.09	0.848	1.060
67	LTE Band 25	20M	QPSK	50	0	Back	5	-	Reduced	26590	1905	16.99	18	1.262	0.01	1.000	**1.262**
	LTE Band 25	20M	QPSK	100	0	Back	5	-	Reduced	26340	1880	17.05	18	1.245	0.07	0.941	1.171
	LTE Band 25	20M	QPSK	50	0	Back	5	Headset	Reduced	26590	1905	16.99	18	1.262	0.03	0.524	0.661
	LTE Band 25	20M	QPSK	50	0	Front	14	-	Full	26590	1905	22.53	24.00	1.403	0.01	0.565	0.793
	LTE Band 25	20M	QPSK	50	0	Back	18	-	Full	26590	1905	22.53	24.00	1.403	0.04	0.541	0.759
EN-DC																	
	LTE Band 25	20M	QPSK	1	0	Front	5	-	Reduced	26340	1880	17.16	17.50	1.081	0.01	0.635	0.687
	LTE Band 25	20M	QPSK	50	0	Front	5	-	Reduced	26340	1880	17.14	17.50	1.086	0.03	0.650	0.706
	LTE Band 25	20M	QPSK	50	0	Front	5	-	Reduced	26140	1860	17.05	17.50	1.109	-0.05	0.668	0.741
	LTE Band 25	20M	QPSK	50	0	Front	5	-	Reduced	26590	1905	16.88	17.50	1.153	0.03	0.611	0.705
	LTE Band 25	20M	QPSK	1	0	Back	5	-	Reduced	26340	1880	17.16	17.50	1.081	0.01	0.595	0.643
	LTE Band 25	20M	QPSK	50	0	Back	5	-	Reduced	26340	1880	17.14	17.50	1.086	-0.07	0.601	0.653
	LTE Band 2-UAT	20M	QPSK	1	0	Front	5		Reduced	18900	1880	15.39	16.50	1.291	0.03	0.313	0.404
	LTE Band 2-UAT	20M	QPSK	50	0	Front	5		Reduced	18900	1880	14.33	15.50	1.309	0.04	0.247	0.323
	LTE Band 2-UAT	20M	QPSK	1	0	Back	5		Reduced	18900	1880	15.39	16.50	1.291	0.02	0.412	0.532
	LTE Band 2-UAT	20M	QPSK	1	0	Back	5		Reduced	18700	1860	15.26	16.50	1.330	0.06	0.435	0.579
	LTE Band 2-UAT	20M	QPSK	1	0	Back	5		Reduced	19100	1900	15.27	16.50	1.327	0.01	0.398	0.528
	LTE Band 2-UAT	20M	QPSK	50	0	Back	5		Reduced	18900	1880	14.33	15.50	1.309	0.09	0.320	0.419
	LTE Band 2-UAT	20M	QPSK	1	0	Front	14		Full	18900	1880	22.88	24.00	1.294	0.04	0.577	0.747
	LTE Band 2-UAT	20M	QPSK	1	0	Back	18		Full	18700	1860	22.85	24.00	1.303	0.06	0.490	0.639
	LTE Band 7	20M	QPSK	1	0	Front	5	-	Reduced	21100	2535	18.01	18.50	1.119	0.01	0.918	1.028
	LTE Band 7	20M	QPSK	1	0	Front	5	-	Reduced	20850	2510	17.84	18.50	1.164	-0.06	0.886	1.031
	LTE Band 7	20M	QPSK	1	0	Front	5	-	Reduced	21350	2560	17.85	18.50	1.161	0.05	0.982	1.141
	LTE Band 7	20M	QPSK	50	0	Front	5	-	Reduced	21100	2535	17.89	18.50	1.151	0.08	0.973	1.120
	LTE Band 7	20M	QPSK	50	0	Front	5	-	Reduced	20850	2510	17.74	18.50	1.191	0.03	0.927	1.104
68	LTE Band 7	20M	QPSK	50	0	Front	5	-	Reduced	21350	2560	17.48	18.50	1.265	0.01	1.030	**1.303**
	LTE Band 7	20M	QPSK	100	0	Front	5	-	Reduced	21100	2535	17.88	18.50	1.153	0.09	1.010	1.165
	LTE Band 7	20M	QPSK	1	0	Back	5	-	Reduced	21100	2535	18.01	18.50	1.119	0.03	0.835	0.935
	LTE Band 7	20M	QPSK	1	0	Back	5	-	Reduced	20850	2510	17.84	18.50	1.164	-0.01	0.803	0.935
	LTE Band 7	20M	QPSK	1	0	Back	5	-	Reduced	21350	2560	17.85	18.50	1.161	0.06	0.876	1.017
	LTE Band 7	20M	QPSK	50	0	Back	5	-	Reduced	21100	2535	17.89	18.50	1.151	0.04	0.847	0.975
	LTE Band 7	20M	QPSK	50	0	Back	5	-	Reduced	20850	2510	17.74	18.50	1.191	0.16	0.820	0.977
	LTE Band 7	20M	QPSK	50	0	Back	5	-	Reduced	21350	2560	17.48	18.50	1.265	0.04	0.905	1.145
	LTE Band 7	20M	QPSK	100	0	Back	5	-	Reduced	21100	2535	17.88	18.50	1.153	0.01	0.856	0.987
	LTE Band 7	20M	QPSK	50	0	Front	5	Headset	Reduced	21350	2560	17.48	18.50	1.265	0.07	0.401	0.507
	LTE Band 7	20M	QPSK	50	0	Front	14	-	Full	21350	2560	23.02	24.00	1.253	0.08	0.806	1.010
	LTE Band 7	20M	QPSK	50	0	Back	18	-	Full	21350	2560	23.02	24.00	1.253	0.11	0.513	0.643

<TDD LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Headset	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 41	20M	QPSK	1	0	Front	5	-	Reduced	40620	2593	19.25	20.00	1.189	62.9	1.006	0.08	0.814	0.973
	LTE Band 41	20M	QPSK	1	0	Front	5	-	Reduced	39750	2506	18.9	20.00	1.288	62.9	1.006	0.05	0.883	1.144
	LTE Band 41	20M	QPSK	1	0	Front	5	-	Reduced	40185	2549.5	18.98	20.00	1.265	62.9	1.006	-0.03	0.967	1.230
	LTE Band 41	20M	QPSK	1	0	Front	5	-	Reduced	41055	2636.5	18.81	20.00	1.315	62.9	1.006	0.07	0.887	1.174
	LTE Band 41	20M	QPSK	1	0	Front	5	-	Reduced	41490	2680	18.81	20.00	1.315	62.9	1.006	0.07	0.826	1.093
	LTE Band 41	20M	QPSK	50	0	Front	5	-	Reduced	40620	2593	19.21	20.00	1.199	62.9	1.006	0.15	0.843	1.017
	LTE Band 41	20M	QPSK	50	0	Front	5	-	Reduced	39750	2506	18.89	20.00	1.291	62.9	1.006	0.12	0.891	1.157
	LTE Band 41	20M	QPSK	50	0	Front	5	-	Reduced	40185	2549.5	18.95	20.00	1.274	62.9	1.006	0.07	0.874	1.120
	LTE Band 41	20M	QPSK	50	0	Front	5	-	Reduced	41055	2636.5	18.96	20.00	1.271	62.9	1.006	0.11	0.794	1.015
	LTE Band 41	20M	QPSK	50	0	Front	5	-	Reduced	41490	2680	19.12	20.00	1.225	62.9	1.006	0.04	0.805	0.992
	LTE Band 41	20M	QPSK	100	0	Front	5	-	Reduced	40620	2593	19.16	20.00	1.213	62.9	1.006	0.07	0.793	0.968
	LTE Band 41	20M	QPSK	1	0	Back	5	-	Reduced	40620	2593	19.25	20.00	1.189	62.9	1.006	0.01	0.791	0.946
	LTE Band 41	20M	QPSK	1	0	Back	5	-	Reduced	39750	2506	18.9	20.00	1.288	62.9	1.006	0.02	0.892	1.156
	LTE Band 41	20M	QPSK	1	0	Back	5	-	Reduced	40185	2549.5	18.98	20.00	1.265	62.9	1.006	0.05	0.830	1.056
	LTE Band 41	20M	QPSK	1	0	Back	5	-	Reduced	41055	2636.5	18.81	20.00	1.315	62.9	1.006	0.07	0.806	1.066
	LTE Band 41	20M	QPSK	1	0	Back	5	-	Reduced	41490	2680	18.81	20.00	1.315	62.9	1.006	0.03	0.822	1.088
	LTE Band 41	20M	QPSK	50	0	Back	5	-	Reduced	40620	2593	19.21	20.00	1.199	62.9	1.006	0.07	0.820	0.989
	LTE Band 41	20M	QPSK	50	0	Back	5	-	Reduced	39750	2506	18.89	20.00	1.291	62.9	1.006	0.09	0.939	1.220
	LTE Band 41-HPUE	20M	QPSK	50	0	Back	5	-	Reduced	40620	2593	19.21	20.00	1.199	42.9	1.009	0.02	0.452	0.547
	LTE Band 41-HPUE	20M	QPSK	50	0	Back	5	-	Reduced	39750	2506	18.89	20.00	1.291	42.9	1.009	-0.01	0.593	0.773
	LTE Band 41-HPUE	20M	QPSK	50	0	Back	5	-	Reduced	40185	2549.5	18.95	20.00	1.274	42.9	1.009	0.02	0.546	0.702
	LTE Band 41-HPUE	20M	QPSK	50	0	Back	5	-	Reduced	41055	2636.5	18.96	20.00	1.271	42.9	1.009	0.02	0.515	0.660
	LTE Band 41-HPUE	20M	QPSK	50	0	Back	5	-	Reduced	41490	2680	19.12	20.00	1.225	42.9	1.009	0.02	0.529	0.654
69	LTE Band 41	20M	QPSK	50	0	Back	5	-	Reduced	40185	2549.5	18.95	20.00	1.274	62.9	1.006	0.08	0.960	**1.230**
	LTE Band 41C	20M	QPSK	50	0	Back	5	-	Reduced	40185	2549.5	18.72	20.00	1.343	62.9	1.006	0.08	0.770	1.040
	LTE Band 41	20M	QPSK	50	0	Back	5	-	Reduced	41055	2636.5	18.96	20.00	1.271	62.9	1.006	0.08	0.912	1.166
	LTE Band 41	20M	QPSK	50	0	Back	5	-	Reduced	41490	2680	19.12	20.00	1.225	62.9	1.006	0.06	0.905	1.115
	LTE Band 41	20M	QPSK	100	0	Back	5	-	Reduced	40620	2593	19.16	20.00	1.213	62.9	1.006	0.02	0.840	1.025
	LTE Band 41	20M	QPSK	50	0	Back	5	Headset	Reduced	40185	2549.5	18.95	20.00	1.274	62.9	1.006	0.01	0.491	0.629
	LTE Band 41	20M	QPSK	1	0	Front	14	-	Full	40185	2549.5	23.38	24.00	1.153	62.9	1.006	-0.02	0.594	0.689
	LTE Band 41	20M	QPSK	50	0	Back	18	-	Full	40185	2549.5	23.38	24.00	1.153	62.9	1.006	0.03	0.426	0.494

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Headset	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
EN-DC																			
	LTE Band 41	20M	QPSK	1	0	Front	5	-	Reduced	40620	2593	17.93	18.00	1.016	62.9	1.006	0.05	0.633	0.647
	LTE Band 41	20M	QPSK	1	0	Front	5	-	Reduced	39750	2506	17.87	18.00	1.030	62.9	1.006	0.02	0.631	0.654
	LTE Band 41	20M	QPSK	1	0	Front	5	-	Reduced	40185	2549.5	17.70	18.00	1.072	62.9	1.006	-0.02	0.616	0.664
	LTE Band 41	20M	QPSK	1	0	Front	5	-	Reduced	41055	2636.5	17.78	18.00	1.052	62.9	1.006	0.09	0.512	0.542
	LTE Band 41	20M	QPSK	1	0	Front	5	-	Reduced	41490	2680	17.91	18.00	1.021	62.9	1.006	0.01	0.510	0.524
	LTE Band 41	20M	QPSK	50	0	Front	5	-	Reduced	40620	2593	17.92	18.00	1.019	62.9	1.006	0.07	0.768	0.787
	LTE Band 41C	20M	QPSK	50	0	Front	5	-	Reduced	40620	2593	17.11	18.00	1.227	62.9	1.006	0.01	0.571	0.705
	LTE Band 41	20M	QPSK	50	0	Front	5	-	Reduced	39750	2506	17.90	18.00	1.023	62.9	1.006	-0.03	0.623	0.641
	LTE Band 41	20M	QPSK	50	0	Front	5	-	Reduced	40185	2549.5	17.87	18.00	1.030	62.9	1.006	0.05	0.636	0.659
	LTE Band 41	20M	QPSK	50	0	Front	5	-	Reduced	41055	2636.5	17.76	18.00	1.057	62.9	1.006	0.06	0.545	0.579
	LTE Band 41	20M	QPSK	50	0	Front	5	-	Reduced	41490	2680	17.87	18.00	1.030	62.9	1.006	0.04	0.553	0.573
	LTE Band 41-HPUE	20M	QPSK	50	0	Front	5	-	Reduced	40620	2593	17.92	18.00	1.019	42.9	1.009	0.06	0.503	0.517
	LTE Band 41-HPUE	20M	QPSK	50	0	Front	5	-	Reduced	39750	2506	17.90	18.00	1.023	42.9	1.009	0.03	0.421	0.435
	LTE Band 41-HPUE	20M	QPSK	50	0	Front	5	-	Reduced	40185	2549.5	17.87	18.00	1.030	42.9	1.009	0.05	0.344	0.358
	LTE Band 41-HPUE	20M	QPSK	50	0	Front	5	-	Reduced	41055	2636.5	17.76	18.00	1.057	42.9	1.009	0.06	0.319	0.340
	LTE Band 41-HPUE	20M	QPSK	50	0	Front	5	-	Reduced	41490	2680	17.87	18.00	1.030	42.9	1.009	0.01	0.311	0.323
	LTE Band 41	20M	QPSK	100	0	Front	5	-	Reduced	40620	2593	17.78	18.00	1.052	62.9	1.006	0.07	0.520	0.550
	LTE Band 41	20M	QPSK	1	0	Back	5	-	Reduced	40620	2593	17.93	18.00	1.016	62.9	1.006	-0.05	0.655	0.670
	LTE Band 41	20M	QPSK	1	0	Back	5	-	Reduced	39750	2506	17.87	18.00	1.030	62.9	1.006	0.01	0.600	0.622
	LTE Band 41	20M	QPSK	1	0	Back	5	-	Reduced	40185	2549.5	17.70	18.00	1.072	62.9	1.006	0.11	0.653	0.704
	LTE Band 41	20M	QPSK	1	0	Back	5	-	Reduced	41055	2636.5	17.78	18.00	1.052	62.9	1.006	0.17	0.617	0.653
	LTE Band 41	20M	QPSK	1	0	Back	5	-	Reduced	41490	2680	17.91	18.00	1.021	62.9	1.006	0.06	0.647	0.665
	LTE Band 41	20M	QPSK	50	0	Back	5	-	Reduced	40620	2593	17.92	18.00	1.019	62.9	1.006	0.02	0.642	0.658
	LTE Band 41	20M	QPSK	50	0	Back	5	-	Reduced	39750	2506	17.90	18.00	1.023	62.9	1.006	0.06	0.685	0.705
	LTE Band 41	20M	QPSK	50	0	Back	5	-	Reduced	40185	2549.5	17.87	18.00	1.030	62.9	1.006	0.05	0.682	0.707
	LTE Band 41	20M	QPSK	50	0	Back	5	-	Reduced	41055	2636.5	17.76	18.00	1.057	62.9	1.006	0.07	0.664	0.706
	LTE Band 41	20M	QPSK	50	0	Back	5	-	Reduced	41490	2680	17.87	18.00	1.030	62.9	1.006	0.01	0.706	0.732
	LTE Band 41	20M	QPSK	100	0	Back	5	-	Reduced	40620	2593	17.78	18.00	1.052	62.9	1.006	0.06	0.661	0.700

<5G NR SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	FR1 n5	20M	PI/2 BPSK	1	1	DFT-15KHz	Front	5	Reduced	167300	836.5	23.31	23.50	1.045	-0.08	0.466	0.487
	FR1 n5	20M	PI/2 BPSK	50	0	DFT-15KHz	Front	5	Reduced	167300	836.5	22.85	23.50	1.161	-0.03	0.424	0.492
70	FR1 n5	20M	PI/2 BPSK	1	1	DFT-15KHz	Back	5	Reduced	167300	836.5	23.31	23.50	1.045	0.07	0.680	**0.710**
	FR1 n5	20M	PI/2 BPSK	50	0	DFT-15KHz	Back	5	Reduced	167300	836.5	22.85	23.50	1.161	-0.04	0.608	0.706
	FR1 n12	15M	PI/2 BPSK	1	1	DFT-15KHz	Front	5	Full	141500	707.5	23.46	24.00	1.132	-0.06	0.464	0.525
	FR1 n12	15M	PI/2 BPSK	36	0	DFT-15KHz	Front	5	Full	141500	707.5	23.07	24.00	1.239	-0.02	0.415	0.514
71	FR1 n12	15M	PI/2 BPSK	1	1	DFT-15KHz	Back	5	Full	141500	707.5	23.46	24.00	1.132	-0.09	0.705	**0.798**
	FR1 n12	15M	PI/2 BPSK	36	0	DFT-15KHz	Back	5	Full	141500	707.5	23.07	24.00	1.239	-0.01	0.605	0.749
	FR1 n71	20M	PI/2 BPSK	1	1	DFT-15KHz	Front	5	Full	136100	680.5	23.49	24.00	1.125	-0.03	0.345	0.388
	FR1 n71	20M	PI/2 BPSK	50	0	DFT-15KHz	Front	5	Full	136100	680.5	23.25	24.00	1.189	0.06	0.386	0.459
	FR1 n71	20M	PI/2 BPSK	1	1	DFT-15KHz	Back	5	Full	136100	680.5	23.49	24.00	1.125	-0.07	0.566	0.637
72	FR1 n71	20M	PI/2 BPSK	50	0	DFT-15KHz	Back	5	Full	136100	680.5	23.25	24.00	1.189	0.01	0.581	**0.691**
	FR1 n66	20M	PI/2 BPSK	1	1	DFT-15KHz	Front	5	Reduced	349000	1745	16.28	17.00	1.180	0.06	0.283	0.334
	FR1 n66	20M	PI/2 BPSK	50	0	DFT-15KHz	Front	5	Reduced	349000	1745	16.09	17.00	1.233	0.05	0.265	0.327
	FR1 n66	20M	PI/2 BPSK	1	1	DFT-15KHz	Back	5	Reduced	349000	1745	16.28	17.00	1.180	0.1	0.446	0.526
	FR1 n66	20M	PI/2 BPSK	50	0	DFT-15KHz	Back	5	Reduced	349000	1745	16.09	17.00	1.233	-0.06	0.465	0.573
	FR1 n66	20M	PI/2 BPSK	50	0	DFT-15KHz	Back	5	Reduced	344000	1720	15.98	17.00	1.265	-0.15	0.494	0.625
73	FR1 n66	20M	PI/2 BPSK	50	0	DFT-15KHz	Back	5	Reduced	354000	1770	15.91	17.00	1.285	-0.09	0.522	**0.671**
	FR1 n66	20M	PI/2 BPSK	1	1	DFT-15KHz	Front	14	Full	349000	1745	23.27	24.00	1.183	0.01	0.431	0.510
	FR1 n66	20M	PI/2 BPSK	50	0	DFT-15KHz	Back	18	Full	354000	1770	22.59	24.00	1.384	0.02	0.346	0.479
	FR1 n25	20M	PI/2 BPSK	1	1	DFT-15KHz	Front	5	Reduced	376500	1882.5	15.09	15.50	1.099	0.15	0.232	0.255
	FR1 n25	20M	PI/2 BPSK	50	0	DFT-15KHz	Front	5	Reduced	376500	1882.5	14.98	15.50	1.127	0.1	0.213	0.240
	FR1 n25	20M	PI/2 BPSK	1	1	DFT-15KHz	Back	5	Reduced	376500	1882.5	15.09	15.50	1.099	-0.06	0.404	0.444
	FR1 n25	20M	PI/2 BPSK	50	0	DFT-15KHz	Back	5	Reduced	376500	1882.5	14.98	15.50	1.127	-0.06	0.424	0.478
74	FR1 n25	20M	PI/2 BPSK	50	0	DFT-15KHz	Back	5	Reduced	372000	1860	14.23	15.50	1.340	0.04	0.447	**0.599**
	FR1 n25	20M	PI/2 BPSK	50	0	DFT-15KHz	Back	5	Reduced	381000	1905	14.37	15.50	1.297	-0.17	0.334	0.433
	FR1 n25	20M	PI/2 BPSK	1	1	DFT-15KHz	Front	14	Full	376500	1882.5	23.23	24.00	1.194	0.04	0.344	0.411
	FR1 n25	20M	PI/2 BPSK	50	0	DFT-15KHz	Back	18	Full	372000	1860	22.69	24.00	1.352	0.15	0.196	0.265
	FR1 n41	100M	PI/2 BPSK	1	1	DFT-30KHz	Front	5	Reduced	518598	2592.99	16.89	17.00	1.026	0.06	0.313	0.321
	FR1 n41	100M	PI/2 BPSK	135	0	DFT-30KHz	Front	5	Reduced	518598	2592.99	16.87	17.00	1.030	0.05	0.360	0.371
	FR1 n41	100M	PI/2 BPSK	1	1	DFT-30KHz	Back	5	Reduced	518598	2592.99	16.89	17.00	1.026	0.05	0.615	0.631
75	FR1 n41	100M	PI/2 BPSK	135	0	DFT-30KHz	Back	5	Reduced	518598	2592.99	16.87	17.00	1.030	-0.08	0.674	**0.694**
	FR1 n41	100M	PI/2 BPSK	135	0	DFT-30KHz	Back	5	Reduced	509202	2546.01	16.37	17.00	1.156	0.01	0.332	0.384
	FR1 n41	100M	PI/2 BPSK	135	0	DFT-30KHz	Back	5	Reduced	528000	2640	16.51	17.00	1.119	0.16	0.602	0.674
	FR1 n41	100M	BPSK	135	0	DFT-30KHz	Front	14	Full	518598	2592.99	23.37	24.00	1.156	0.05	0.241	0.279
	FR1 n41	100M	BPSK	135	0	DFT-30KHz	Back	18	Full	518598	2592.99	23.37	24.00	1.156	0.16	0.304	0.351
	FR1 n41 HPUE	100M	BPSK	135	0	DFT-30KHz	Back	18	Full	518598	2592.99	26.53	27.00	1.114	0.01	0.305	0.340

<WLAN2.4G SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WLAN2.4GHz	802.11b 1Mbps	Front	5	1+2	Reduced	1	2412	20.21	21.00	1.199	100	1.000	0.09	0.163	0.196
	WLAN2.4GHz	802.11b 1Mbps	Back	5	1+2	Reduced	1	2412	20.21	21.00	1.199	100	1.000	0.01	0.608	0.729
76	WLAN2.4GHz	802.11b 1Mbps	Back	5	1+2	Reduced	6	2437	20.07	21.00	1.239	100	1.000	0.15	0.873	**1.081**
	WLAN2.4GHz	802.11b 1Mbps	Back	5	1+2	Reduced	11	2462	19.84	21.00	1.306	100	1.000	-0.11	0.621	0.811
	WLAN2.4GHz	802.11b 1Mbps	Front	14	1+2	Full	1	2412	23.22	24.00	1.196	100	1.000	0.04	0.114	0.136
	WLAN2.4GHz	802.11b 1Mbps	Back	18	1+2	Full	6	2437	23.10	24.00	1.230	100	1.000	-0.01	0.283	0.348
EN-DC																
	WLAN2.4GHz	802.11b 1Mbps	Front	5	1+2	Reduced	1	2412	15.46	15.50	1.009	100	1.000	0.03	0.054	0.054
	WLAN2.4GHz	802.11b 1Mbps	Back	5	1+2	Reduced	1	2412	15.46	15.50	1.009	100	1.000	0.05	0.249	0.251
	WLAN2.4GHz	802.11b 1Mbps	Back	5	1+2	Reduced	6	2437	14.79	15.50	1.178	100	1.000	0.06	0.288	0.339
	WLAN2.4GHz	802.11b 1Mbps	Back	5	1+2	Reduced	11	2462	14.69	15.50	1.205	100	1.000	0.08	0.185	0.223

<WLAN5G SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WLAN5.2GHz	802.11a 6Mbps	Front	5	1+2	Reduced	44	5220	17.01	17.50	1.119	97.93	1.021	0.06	0.082	0.093
	WLAN5.2GHz	802.11a 6Mbps	Back	5	1+2	Reduced	44	5220	17.01	17.50	1.119	97.93	1.021	0.04	0.852	0.974
	WLAN5.2GHz	802.11a 6Mbps	Back	5	1+2	Reduced	36	5180	16.98	17.50	1.127	97.93	1.021	0.08	0.756	0.870
	WLAN5.2GHz	802.11a 6Mbps	Back	5	1+2	Reduced	40	5200	17.00	17.50	1.122	97.93	1.021	-0.09	0.877	1.005
77	WLAN5.2GHz	802.11a 6Mbps	Back	5	1+2	Reduced	48	5240	16.92	17.50	1.143	97.93	1.021	0.05	0.994	**1.160**
	WLAN5.2GHz	802.11a 6Mbps	Front	14	1+2	Full	44	5220	20.71	21.50	1.199	97.93	1.021	0.06	0.078	0.095
	WLAN5.2GHz	802.11a 6Mbps	Back	18	1+2	Full	48	5240	20.78	21.50	1.180	97.93	1.021	-0.04	0.505	0.609
EN-DC																
	WLAN5.2GHz	802.11a 6Mbps	Front	5	1+2	Reduced	44	5220	11.44	12.00	1.138	97.93	1.021	0.01	0.021	0.024
	WLAN5.2GHz	802.11a 6Mbps	Back	5	1+2	Reduced	44	5220	11.44	12.00	1.138	97.93	1.021	0.06	0.278	0.323
	WLAN5.2GHz	802.11a 6Mbps	Back	5	1+2	Reduced	36	5180	11.70	12.00	1.072	97.93	1.021	0.02	0.013	0.015
	WLAN5.2GHz	802.11a 6Mbps	Back	5	1+2	Reduced	40	5200	11.60	12.00	1.096	97.93	1.021	-0.05	0.014	0.016
	WLAN5.2GHz	802.11a 6Mbps	Back	5	1+2	Reduced	48	5240	11.65	12.00	1.084	97.93	1.021	0.01	0.035	0.041
	WLAN5.3GHz	802.11a 6Mbps	Front	5	1+2	Reduced	52	5260	16.94	17.50	1.138	97.93	1.021	0.04	0.082	0.095
	WLAN5.3GHz	802.11a 6Mbps	Back	5	1+2	Reduced	52	5260	16.94	17.50	1.138	97.93	1.021	-0.04	0.844	0.980
	WLAN5.3GHz	802.11a 6Mbps	Back	5	1+2	Reduced	56	5280	16.86	17.50	1.159	97.93	1.021	0.06	0.851	1.007
	WLAN5.3GHz	802.11a 6Mbps	Back	5	1+2	Reduced	60	5300	16.89	17.50	1.151	97.93	1.021	0.14	0.857	1.007
78	WLAN5.3GHz	802.11a 6Mbps	Back	5	1+2	Reduced	64	5320	16.86	17.50	1.159	97.93	1.021	-0.09	0.935	**1.106**
	WLAN5.3GHz	802.11a 6Mbps	Front	14	1+2	Full	52	5260	20.43	21.50	1.279	97.93	1.021	-0.11	0.057	0.074
	WLAN5.3GHz	802.11a 6Mbps	Back	18	1+2	Full	64	5320	20.38	21.50	1.294	97.93	1.021	0.03	0.444	0.587
EN-DC																
	WLAN5.3GHz	802.11a 6Mbps	Front	5	1+2	Reduced	52	5260	11.60	12.00	1.096	97.93	1.021	-0.12	0.027	0.030
	WLAN5.3GHz	802.11a 6Mbps	Back	5	1+2	Reduced	52	5260	11.60	12.00	1.096	97.93	1.021	0.08	0.276	0.309
	WLAN5.3GHz	802.11a 6Mbps	Back	5	1+2	Reduced	56	5280	11.47	12.00	1.130	97.93	1.021	-0.06	0.239	0.276
	WLAN5.3GHz	802.11a 6Mbps	Back	5	1+2	Reduced	60	5300	11.59	12.00	1.099	97.93	1.021	0.03	0.253	0.284
	WLAN5.3GHz	802.11a 6Mbps	Back	5	1+2	Reduced	64	5320	11.59	12.00	1.099	97.93	1.021	-0.01	0.281	0.315
	WLAN5.5GHz	802.11a 6Mbps	Front	5	1+2	Reduced	100	5500	16.38	17.50	1.294	97.93	1.021	0.04	0.078	0.103
79	WLAN5.5GHz	802.11a 6Mbps	Back	5	1+2	Reduced	100	5500	16.38	17.50	1.294	97.93	1.021	0.06	0.889	**1.175**
	WLAN5.5GHz	802.11a 6Mbps	Back	5	1+2	Reduced	116	5580	16.21	17.50	1.346	97.93	1.021	0.02	0.721	0.991
	WLAN5.5GHz	802.11a 6Mbps	Back	5	1+2	Reduced	124	5620	15.90	17.50	1.445	97.93	1.021	-0.07	0.795	1.173
	WLAN5.5GHz	802.11a 6Mbps	Back	5	1+2	Reduced	132	5660	16.00	17.50	1.413	97.93	1.021	-0.11	0.742	1.070
	WLAN5.5GHz	802.11a 6Mbps	Back	5	1+2	Reduced	140	5700	15.72	17.50	1.507	97.93	1.021	0.03	0.703	1.081
	WLAN5.5GHz	802.11a 6Mbps	Front	14	1+2	Full	100	5500	20.44	21.50	1.276	97.93	1.021	0.02	0.078	0.102
	WLAN5.5GHz	802.11a 6Mbps	Back	18	1+2	Full	100	5500	20.44	21.50	1.276	97.93	1.021	0.01	0.473	0.616
EN-DC																
	WLAN5.5GHz	802.11a 6Mbps	Front	5	1+2	Reduced	100	5500	11.40	11.50	1.023	97.93	1.021	-0.03	0.032	0.033
	WLAN5.5GHz	802.11a 6Mbps	Back	5	1+2	Reduced	100	5500	11.40	11.50	1.023	97.93	1.021	0.08	0.255	0.266
	WLAN5.5GHz	802.11a 6Mbps	Back	5	1+2	Reduced	116	5580	11.30	11.50	1.047	97.93	1.021	0.01	0.249	0.266
	WLAN5.5GHz	802.11a 6Mbps	Back	5	1+2	Reduced	124	5620	11.17	11.50	1.079	97.93	1.021	-0.06	0.250	0.275
	WLAN5.5GHz	802.11a 6Mbps	Back	5	1+2	Reduced	132	5660	11.15	11.50	1.084	97.93	1.021	-0.06	0.252	0.279
	WLAN5.5GHz	802.11a 6Mbps	Back	5	1+2	Reduced	140	5700	10.86	11.50	1.159	97.93	1.021	0.07	0.229	0.271
	WLAN5.8GHz	802.11a 6Mbps	Front	5	1+2	Reduced	165	5825	16.74	17.50	1.191	97.93	1.021	0.03	0.079	0.095
	WLAN5.8GHz	802.11a 6Mbps	Back	5	1+2	Reduced	165	5825	16.74	17.50	1.191	97.93	1.021	0.01	0.766	0.932
80	WLAN5.8GHz	802.11a 6Mbps	Back	5	1+2	Reduced	149	5745	16.52	17.50	1.253	97.93	1.021	-0.09	0.922	**1.179**
	WLAN5.8GHz	802.11a 6Mbps	Back	5	1+2	Reduced	157	5785	16.67	17.50	1.210	97.93	1.021	-0.02	0.759	0.938
	WLAN5.8GHz	802.11a 6Mbps	Front	14	1+2	Full	165	5825	20.78	22.00	1.324	97.93	1.021	-0.01	0.114	0.154
	WLAN5.8GHz	802.11a 6Mbps	Back	18	1+2	Full	149	5745	20.83	22.00	1.309	97.93	1.021	0.06	0.414	0.553
EN-DC																
	WLAN5.8GHz	802.11a 6Mbps	Front	5	1+2	Reduced	165	5825	11.42	12.00	1.143	97.93	1.021	-0.16	0.030	0.035
	WLAN5.8GHz	802.11a 6Mbps	Back	5	1+2	Reduced	165	5825	11.42	12.00	1.143	97.93	1.021	0.05	0.223	0.260
	WLAN5.8GHz	802.11a 6Mbps	Back	5	1+2	Reduced	149	5745	11.28	12.00	1.180	97.93	1.021	0.03	0.306	0.369
	WLAN5.8GHz	802.11a 6Mbps	Back	5	1+2	Reduced	157	5785	11.44	12.00	1.138	97.93	1.021	0.09	0.236	0.274

<Bluetooth SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	Bluetooth	1Mbps	Front	5	1	Full	39	2441	11.82	12.50	1.169	76.91	1.083	0.05	0.058	0.074
	Bluetooth	1Mbps	Back	5	1	Full	39	2441	11.82	12.50	1.169	76.91	1.083	0.02	0.054	0.069
	Bluetooth	1Mbps	Front	5	1	Full	0	2402	11.13	12.50	1.371	76.91	1.083	0.09	0.032	0.047
81	Bluetooth	1Mbps	Front	5	1	Full	78	2480	10.63	12.50	1.538	76.91	1.083	0.08	0.046	**0.076**

15.4 Product specific 10g SAR

<GSM SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)
82	GSM850	GPRS (3 Tx slot)	Back	0	Full	189	836.4	28.39	29.50	1.291	0.05	0.834	**1.077**
	GSM850	GPRS (3 Tx slot)	Back	0	Full	128	824.2	28.29	29.50	1.321	-0.14	0.649	0.858
	GSM850	GPRS (3 Tx slot)	Back	0	Full	251	848.8	28.15	29.50	1.365	-0.05	0.691	0.943
	GSM1900	GPRS (3 Tx slot)	Front	0	Full	661	1880	26.06	26.50	1.107	-0.06	2.250	2.490
	GSM1900	GPRS (3 Tx slot)	Front	0	Full	512	1850.2	25.61	26.50	1.227	0.04	1.930	2.369
	GSM1900	GPRS (3 Tx slot)	Front	0	Full	810	1909.8	25.82	26.50	1.169	0.06	2.140	2.503
	GSM1900	GPRS (3 Tx slot)	Back	0	Full	661	1880	26.06	26.50	1.107	-0.04	2.350	2.601
	GSM1900	GPRS (3 Tx slot)	Back	0	Full	512	1850.2	25.61	26.50	1.227	0.06	1.800	2.209
	GSM1900	GPRS (3 Tx slot)	Back	0	Full	810	1909.8	25.82	26.50	1.169	0.11	2.130	2.491
	GSM1900	GPRS (3 Tx slot)	Bottom Side	0	Full	661	1880	26.06	26.50	1.107	0.06	2.600	2.877
83	GSM1900	GPRS (3 Tx slot)	Bottom Side	0	Full	512	1850.2	25.61	26.50	1.227	0.02	2.740	**3.363**
	GSM1900	GPRS (3 Tx slot)	Bottom Side	0	Full	810	1909.8	25.82	26.50	1.169	-0.08	2.270	2.655

<WCDMA SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)
84	WCDMA V	RMC12.2Kbps	Back	0	Full	4182	836.4	22.67	24.00	1.358	0.06	1.520	**2.065**
	WCDMA V	RMC12.2Kbps	Back	0	Full	4132	826.4	22.65	24.00	1.365	0.08	0.936	1.277
	WCDMA V	RMC12.2Kbps	Back	0	Full	4233	846.6	22.42	24.00	1.439	0.09	1.410	2.029
	WCDMA IV	RMC12.2Kbps	Front	0	Reduced	1413	1732.6	19.96	20.00	1.009	0.06	2.100	2.119
	WCDMA IV	RMC12.2Kbps	Front	0	Reduced	1312	1712.4	19.93	20.00	1.016	0.06	2.210	2.246
	WCDMA IV	RMC12.2Kbps	Front	0	Reduced	1513	1752.6	19.92	20.00	1.019	0.08	2.820	2.872
	WCDMA IV	RMC12.2Kbps	Back	0	Reduced	1413	1732.6	19.96	20.00	1.009	0.02	2.790	2.816
	WCDMA IV	RMC12.2Kbps	Back	0	Reduced	1312	1712.4	19.93	20.00	1.016	0.07	2.960	3.008
85	WCDMA IV	RMC12.2Kbps	Back	0	Reduced	1513	1752.6	19.92	20.00	1.019	0.08	3.140	**3.198**
	WCDMA IV	RMC12.2Kbps	Bottom Side	0	Reduced	1413	1732.6	19.96	20.00	1.009	0.02	1.450	1.463
	WCDMA IV	RMC12.2Kbps	Bottom Side	0	Reduced	1312	1712.4	19.93	20.00	1.016	0.03	1.690	1.717
	WCDMA IV	RMC12.2Kbps	Bottom Side	0	Reduced	1513	1752.6	19.92	20.00	1.019	0.01	1.560	1.589
	WCDMA IV	RMC12.2Kbps	Front	6	Full	1513	1752.6	22.49	24.00	1.416	0.05	1.690	2.393
	WCDMA IV	RMC12.2Kbps	Back	8	Full	1513	1752.6	22.49	24.00	1.416	0.12	1.320	1.869
	WCDMA IV	RMC12.2Kbps	Bottom Side	12	Full	1312	1712.4	22.66	24.00	1.361	0.07	1.060	1.443
86	WCDMA II	RMC12.2Kbps	Front	0	Reduced	9400	1880	18.74	19.50	1.191	0.09	2.440	**2.907**
	WCDMA II	RMC12.2Kbps	Front	0	Reduced	9262	1852.4	18.73	19.50	1.194	0.07	2.290	2.734
	WCDMA II	RMC12.2Kbps	Front	0	Reduced	9538	1907.6	18.72	19.50	1.197	0.05	2.340	2.800
	WCDMA II	RMC12.2Kbps	Back	0	Reduced	9400	1880	18.74	19.50	1.191	0.02	2.200	2.621
	WCDMA II	RMC12.2Kbps	Back	0	Reduced	9262	1852.4	18.73	19.50	1.194	0.02	1.850	2.209
	WCDMA II	RMC12.2Kbps	Back	0	Reduced	9538	1907.6	18.72	19.50	1.197	0.06	2.180	2.609
	WCDMA II	RMC12.2Kbps	Bottom Side	0	Reduced	9400	1880	18.74	19.50	1.191	0.08	1.650	1.966
	WCDMA II	RMC12.2Kbps	Bottom Side	0	Reduced	9262	1852.4	18.73	19.50	1.194	0.17	1.290	1.540
	WCDMA II	RMC12.2Kbps	Bottom Side	0	Reduced	9538	1907.6	18.72	19.50	1.197	0.16	1.030	1.233
	WCDMA II	RMC12.2Kbps	Front	6	Full	9400	1880	22.68	24.00	1.355	0.16	1.720	2.331
	WCDMA II	RMC12.2Kbps	Back	8	Full	9400	1880	22.68	24.00	1.355	0.1	1.260	1.708
	WCDMA II	RMC12.2Kbps	Bottom Side	12	Full	9400	1880	22.68	24.00	1.355	0.01	1.180	1.599

<CDMA SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)
	CDMA2000 BC0	RTAP 153.6Kbps	Back	0	Full	1013	824.7	23.44	25.00	1.432	0.01	1.210	1.733
	CDMA2000 BC0	RTAP 153.6Kbps	Back	0	Full	384	836.52	23.45	25.00	1.429	0.1	1.190	1.700
	CDMA2000 BC0	RTAP 153.6Kbps	Back	0	Full	777	848.31	23.59	25.00	1.384	0.03	0.998	1.381
87	CDMA2000 BC0	RTAP 153.6Kbps	Front	0	Full	384	836.52	23.45	25.00	1.429	0.02	1.240	**1.772**
	CDMA2000 BC0	RTAP 153.6Kbps	Front	0	Full	1013	824.7	23.44	25.00	1.432	0.02	0.766	1.097
	CDMA2000 BC0	RTAP 153.6Kbps	Front	0	Full	777	848.31	23.59	25.00	1.384	0.04	0.953	1.319
	CDMA2000 BC1	RTAP 153.6Kbps	Front	0	Reduced	1175	1908.75	21.53	22	1.114	0.09	2.400	2.674
	CDMA2000 BC1	RTAP 153.6Kbps	Front	0	Reduced	25	1851.25	21.21	22	1.199	0.01	1.530	1.835
88	CDMA2000 BC1	RTAP 153.6Kbps	Front	0	Reduced	600	1880	21.39	22	1.151	0.03	2.490	**2.865**
	CDMA2000 BC1	RTAP 153.6Kbps	Back	0	Reduced	1175	1908.75	21.53	22	1.114	0.03	1.550	1.727
	CDMA2000 BC1	RTAP 153.6Kbps	Back	0	Reduced	25	1851.25	21.21	22	1.199	0.04	1.390	1.667
	CDMA2000 BC1	RTAP 153.6Kbps	Back	0	Reduced	600	1880	21.39	22	1.151	0.06	2.290	2.635
	CDMA2000 BC1	RTAP 153.6Kbps	Bottom Side	0	Reduced	1175	1908.75	21.53	22	1.114	0.09	2.450	2.730
	CDMA2000 BC1	RTAP 153.6Kbps	Bottom Side	0	Reduced	25	1851.25	21.21	22	1.199	0.11	1.760	2.111
	CDMA2000 BC1	RTAP 153.6Kbps	Bottom Side	0	Reduced	600	1880	21.39	22	1.151	0.12	1.490	1.715
	CDMA2000 BC1	RTAP 153.6Kbps	Front	6	Full	600	1880	23.87	25.00	1.297	-0.08	0.848	1.100
	CDMA2000 BC1	RTAP 153.6Kbps	Back	8	Full	600	1880	23.87	25.00	1.297	0.08	0.726	0.942
	CDMA2000 BC1	RTAP 153.6Kbps	Bottom Side	12	Full	1175	1908.75	23.95	25.00	1.274	0.01	1.380	1.757
	CDMA2000 BC10	RTAP 153.6Kbps	Front	0	Full	476	817.9	23.49	25.00	1.416	0.19	0.885	1.253
	CDMA2000 BC10	RTAP 153.6Kbps	Back	0	Full	580	820.5	23.49	25.00	1.416	0.07	1.080	1.529
89	CDMA2000 BC10	RTAP 153.6Kbps	Back	0	Full	476	817.9	23.45	25.00	1.429	0.06	1.150	**1.643**
	CDMA2000 BC10	RTAP 153.6Kbps	Back	0	Full	684	823.1	23.41	25.00	1.442	0.01	1.010	1.457

<FDD LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)
90	LTE Band 12	10M	QPSK	1	0	Back	0	Full	23095	707.5	22.86	24.00	1.300	0.04	0.983	**1.278**
	LTE Band 12	10M	QPSK	25	0	Back	0	Full	23095	707.5	22.77	24.00	1.327	0.04	0.842	1.118
EN-DC																
	LTE Band 12	10M	QPSK	1	0	Back	0	Full	23095	707.5	22.86	24.00	1.300	0.04	0.983	1.278
	LTE Band 12	10M	QPSK	25	0	Back	0	Full	23095	707.5	22.77	24.00	1.327	0.04	0.842	1.118
	LTE Band 13	10M	QPSK	1	0	Back	0	Full	23230	782	22.57	24.00	1.390	0.16	1.010	1.404
91	LTE Band 13	10M	QPSK	25	0	Back	0	Full	23230	782	22.10	24.00	1.549	0.09	1.120	**1.735**
92	LTE Band 26	15M	QPSK	1	0	Back	0	Full	26865	831.5	22.94	24.00	1.276	0.05	1.490	**1.902**
	LTE Band 26	15M	QPSK	36	0	Back	0	Full	26865	831.5	22.86	24.00	1.300	0.05	1.370	1.781
EN-DC																
	LTE Band 5	10M	QPSK	1	0	Back	0	Full	20525	836.5	22.81	24.00	1.315	0.13	1.330	1.749
	LTE Band 5	10M	QPSK	25	0	Back	0	Full	20525	836.5	22.63	24.00	1.371	0.01	1.250	1.714
	LTE Band 66	20M	QPSK	1	0	Front	0	Reduced	132322	1745	21.65	22.00	1.084	0.096	2.090	2.265
	LTE Band 66	20M	QPSK	1	0	Front	0	Reduced	132072	1720	21.50	22.00	1.122	-0.02	1.860	2.087
	LTE Band 66	20M	QPSK	1	0	Front	0	Reduced	132572	1770	21.39	22.00	1.151	0.05	2.250	2.589
	LTE Band 66	20M	QPSK	50	0	Front	0	Reduced	132322	1745	21.45	22.00	1.135	0.01	2.240	2.542
	LTE Band 66	20M	QPSK	50	0	Front	0	Reduced	132072	1720	21.29	22.00	1.178	0.08	2.410	2.838
93	LTE Band 66	20M	QPSK	50	0	Front	0	Reduced	132572	1770	21.33	22.00	1.167	0.04	2.620	**3.057**
	LTE Band 66	20M	QPSK	100	0	Front	0	Reduced	132322	1745	21.45	22.00	1.135	-0.06	2.440	2.769
	LTE Band 66	20M	QPSK	1	0	Back	0	Reduced	132322	1745	21.65	22.00	1.084	0.01	1.870	2.027
	LTE Band 66	20M	QPSK	1	0	Back	0	Reduced	132072	1720	21.50	22.00	1.122	0.07	1.620	1.818
	LTE Band 66	20M	QPSK	1	0	Back	0	Reduced	132572	1770	21.39	22.00	1.151	0.06	2.110	2.428
	LTE Band 66	20M	QPSK	50	0	Back	0	Reduced	132322	1745	21.45	22.00	1.135	0.08	2.280	2.588
	LTE Band 66	20M	QPSK	50	0	Back	0	Reduced	132072	1720	21.29	22.00	1.178	-0.05	2.030	2.391
	LTE Band 66	20M	QPSK	50	0	Back	0	Reduced	132572	1770	21.33	22.00	1.167	0.01	2.260	2.637
	LTE Band 66	20M	QPSK	100	0	Back	0	Reduced	132322	1745	21.45	22.00	1.135	0.09	2.270	2.576
	LTE Band 66	20M	QPSK	1	0	Bottom Side	0	Reduced	132322	1745	21.65	22.00	1.084	-0.04	2.360	2.558
	LTE Band 66	20M	QPSK	1	0	Bottom Side	0	Reduced	132072	1720	21.50	22.00	1.122	0.05	1.950	2.188
	LTE Band 66	20M	QPSK	1	0	Bottom Side	0	Reduced	132572	1770	21.39	22.00	1.151	0.09	2.080	2.394
	LTE Band 66	20M	QPSK	50	0	Bottom Side	0	Reduced	132322	1745	21.45	22.00	1.135	0.01	2.390	2.713
	LTE Band 66	20M	QPSK	50	0	Bottom Side	0	Reduced	132072	1720	21.29	22.00	1.178	0.04	2.030	2.391
	LTE Band 66	20M	QPSK	50	0	Bottom Side	0	Reduced	132572	1770	21.33	22.00	1.167	0.07	2.190	2.555
	LTE Band 66	20M	QPSK	100	0	Bottom Side	0	Reduced	132322	1745	21.45	22.00	1.135	0.02	2.350	2.667
	LTE Band 66	20M	QPSK	50	0	Front	6	Full	132572	1770	22.69	24.00	1.352	0.02	1.210	1.636
	LTE Band 66	20M	QPSK	50	0	Back	8	Full	132572	1770	22.69	24.00	1.352	0.04	0.993	1.343
	LTE Band 66	20M	QPSK	50	0	Bottom Side	12	Full	132322	1745	22.78	24.00	1.324	0.11	0.931	1.233
EN-DC																
	LTE Band 66-UAT	20M	QPSK	1	0	Front	0	Reduced	132322	1745	18.27	20.00	1.489	0.04	0.569	0.847
	LTE Band 66-UAT	20M	QPSK	50	0	Front	0	Reduced	132322	1745	17.19	19.00	1.517	0.05	0.467	0.708
	LTE Band 66-UAT	20M	QPSK	1	0	Back	0	Reduced	132322	1745	18.27	20.00	1.489	0.02	0.993	1.479
	LTE Band 66-UAT	20M	QPSK	50	0	Back	0	Reduced	132322	1745	17.19	19.00	1.517	0.09	0.850	1.289
	LTE Band 66-UAT	20M	QPSK	1	0	Top Side	0	Reduced	132322	1745	18.27	20.00	1.489	0.02	1.200	1.787
	LTE Band 66-UAT	20M	QPSK	1	0	Top Side	0	Reduced	132072	1720	18.07	20.00	1.560	0.06	0.918	1.432
	LTE Band 66-UAT	20M	QPSK	1	0	Top Side	0	Reduced	132572	1770	18.25	20.00	1.496	-0.02	1.220	1.825
	LTE Band 66-UAT	20M	QPSK	50	0	Top Side	0	Reduced	132322	1745	17.19	19.00	1.517	-0.01	1.020	1.547
	LTE Band 66-UAT	20M	QPSK	1	0	Front	0	Full	132322	1745	22.45	24.00	1.429	0.05	0.747	1.067
	LTE Band 66-UAT	20M	QPSK	1	0	Back	0	Full	132322	1745	22.45	24.00	1.429	0.05	1.020	1.457
	LTE Band 66-UAT	20M	QPSK	1	0	Top Side	0	Full	132572	1770	22.29	24.00	1.483	0.04	0.553	0.820
	LTE Band 66	20M	QPSK	1	0	Front	0	Reduced	132322	1745	20.65	21.00	1.084	0.09	1.780	1.929
	LTE Band 66	20M	QPSK	50	0	Front	0	Reduced	132322	1745	20.63	21.00	1.089	0.04	1.830	1.993
	LTE Band 66	20M	QPSK	50	0	Front	0	Reduced	132072	1720	20.40	21.00	1.148	0.05	1.230	1.412
	LTE Band 66	20M	QPSK	50	0	Front	0	Reduced	132572	1770	20.35	21.00	1.161	0.07	1.490	1.731
	LTE Band 66	20M	QPSK	1	0	Back	0	Reduced	132322	1745	20.65	21.00	1.084	0.01	0.911	0.987
	LTE Band 66	20M	QPSK	50	0	Back	0	Reduced	132322	1745	20.63	21.00	1.089	-0.02	1.290	1.405
	LTE Band 66	20M	QPSK	1	0	Bottom Side	0	Reduced	132322	1745	20.65	21.00	1.084	0.05	1.450	1.572
	LTE Band 66	20M	QPSK	50	0	Bottom Side	0	Reduced	132322	1745	20.63	21.00	1.089	0.12	1.510	1.644

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)
	LTE Band 25	20M	QPSK	1	0	Front	0	Reduced	26340	1880	20.26	21.00	1.186	0.07	2.16	2.561
	LTE Band 25	20M	QPSK	1	0	Front	0	Reduced	26140	1860	20.03	21.00	1.250	0.08	2.19	2.738
	LTE Band 25	20M	QPSK	1	0	Front	0	Reduced	26590	1905	20.18	21.00	1.208	0.02	2.22	2.681
	LTE Band 25	20M	QPSK	50	0	Front	0	Reduced	26340	1880	20.23	21.00	1.194	-0.01	2.28	2.722
94	LTE Band 25	20M	QPSK	50	0	Front	0	Reduced	26140	1860	20.12	21.00	1.225	0.04	2.27	**2.780**
	LTE Band 25	20M	QPSK	50	0	Front	0	Reduced	26590	1905	20.15	21.00	1.216	0.04	2.26	2.749
	LTE Band 25	20M	QPSK	100	0	Front	0	Reduced	26340	1880	20.16	21.00	1.213	0.06	2.04	2.475
	LTE Band 25	20M	QPSK	1	0	Back	0	Reduced	26340	1880	20.26	21.00	1.186	-0.03	2	2.372
	LTE Band 25	20M	QPSK	1	0	Back	0	Reduced	26140	1860	20.03	21.00	1.250	0.04	1.97	2.463
	LTE Band 25	20M	QPSK	1	0	Back	0	Reduced	26590	1905	20.18	21.00	1.208	0.02	1.94	2.343
	LTE Band 25	20M	QPSK	50	0	Back	0	Reduced	26340	1880	20.23	21.00	1.194	0.01	2.02	2.412
	LTE Band 25	20M	QPSK	50	0	Back	0	Reduced	26140	1860	20.12	21.00	1.225	0.02	2	2.449
	LTE Band 25	20M	QPSK	50	0	Back	0	Reduced	26590	1905	20.15	21.00	1.216	0.03	2.08	2.530
	LTE Band 25	20M	QPSK	100	0	Back	0	Reduced	26340	1880	20.16	21.00	1.213	0.09	2.13	2.585
	LTE Band 25	20M	QPSK	1	0	Bottom Side	0	Reduced	26340	1880	20.26	21.00	1.186	0.05	1.67	1.980
	LTE Band 25	20M	QPSK	1	0	Bottom Side	0	Reduced	26140	1860	20.03	21.00	1.250	0.08	1.88	2.350
	LTE Band 25	20M	QPSK	1	0	Bottom Side	0	Reduced	26590	1905	20.18	21.00	1.208	0.02	1.5	1.812
	LTE Band 25	20M	QPSK	50	0	Bottom Side	0	Reduced	26340	1880	20.23	21.00	1.194	-0.03	1.68	2.006
	LTE Band 25	20M	QPSK	50	0	Bottom Side	0	Reduced	26140	1860	20.12	21.00	1.225	0.02	1.9	2.327
	LTE Band 25	20M	QPSK	50	0	Bottom Side	0	Reduced	26590	1905	20.15	21.00	1.216	0.09	1.59	1.934
	LTE Band 25	20M	QPSK	100	0	Bottom Side	0	Reduced	26340	1880	20.16	21.00	1.213	0.09	1.66	2.014
	LTE Band 25	20M	QPSK	50	0	Front	6	Full	26140	1860	22.51	24.00	1.409	0.07	0.303	0.427
	LTE Band 25	20M	QPSK	100	0	Back	8	Full	26340	1880	22.59	24.00	1.384	0.02	0.233	0.322
	LTE Band 25	20M	QPSK	50	0	Bottom Side	12	Full	26140	1860	22.51	24.00	1.409	0.06	0.236	0.333
EN-DC																
	LTE Band 25	20M	QPSK	1	0	Front	0mm	Reduced	26340	1880	18.98	19.00	1.005	-0.07	1.790	1.798
	LTE Band 25	20M	QPSK	50	0	Front	0mm	Reduced	26340	1860	18.92	19.00	1.019	0.06	1.890	1.925
	LTE Band 25	20M	QPSK	50	0	Front	0mm	Reduced	26140	1860	18.72	19.00	1.067	0.01	1.590	1.696
	LTE Band 25	20M	QPSK	50	0	Front	0mm	Reduced	26590	1905	18.81	19.00	1.045	0.05	1.380	1.442
	LTE Band 25	20M	QPSK	1	0	Back	0mm	Reduced	26340	1880	18.98	19.00	1.005	0.09	1.630	1.638
	LTE Band 25	20M	QPSK	50	0	Back	0mm	Reduced	26340	1860	18.92	19.00	1.019	0.11	1.610	1.640
	LTE Band 25	20M	QPSK	1	0	Bottom Side	0mm	Reduced	26340	1880	18.98	19.00	1.005	0.03	1.190	1.195
	LTE Band 25	20M	QPSK	50	0	Bottom Side	0mm	Reduced	26340	1905	18.92	19.00	1.019	0.05	1.180	1.202
	LTE Band 2-UAT	20M	QPSK	1	0	Front	0mm	Reduced	18900	1880	17.74	19.00	1.337	0.02	0.657	0.878
	LTE Band 2-UAT	20M	QPSK	50	0	Front	0mm	Reduced	18900	1880	16.84	18.00	1.306	0.07	0.527	0.688
	LTE Band 2-UAT	20M	QPSK	1	0	Back	0mm	Reduced	18900	1880	17.74	19.00	1.337	-0.03	1.190	1.591
	LTE Band 2-UAT	20M	QPSK	50	0	Back	0mm	Reduced	18900	1880	16.84	18.00	1.306	-0.07	1.020	1.332
	LTE Band 2-UAT	20M	QPSK	1	0	Top Side	0mm	Reduced	18900	1880	17.74	19.00	1.337	0.02	1.250	1.671
	LTE Band 2-UAT	20M	QPSK	1	0	Top Side	0mm	Reduced	18700	1860	17.7	19.00	1.349	0.06	1.370	1.848
	LTE Band 2-UAT	20M	QPSK	1	0	Top Side	0mm	Reduced	19100	1900	17.54	19.00	1.400	-0.01	1.110	1.554
	LTE Band 2-UAT	20M	QPSK	50	0	Top Side	0mm	Reduced	18900	1880	16.84	18.00	1.306	-0.05	1.060	1.385
	LTE Band 2-UAT	20M	QPSK	1	0	Front	6mm	Full	18900	1880	22.88	24.00	1.294	0.01	0.940	1.217
	LTE Band 2-UAT	20M	QPSK	1	0	Back	8mm	Full	18900	1880	22.88	24.00	1.294	0.02	1.350	1.747
	LTE Band 2-UAT	20M	QPSK	1	0	Top Side	11mm	Full	18700	1860	22.85	24.00	1.303	0.04	0.904	1.178

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)
	LTE Band 7	20M	QPSK	1	0	Front	0	Reduced	21100	2535	21.82	22.00	1.042	0.02	2.190	2.283
	LTE Band 7	20M	QPSK	1	0	Front	0	Reduced	20850	2510	21.51	22.00	1.119	0.03	2.170	2.429
	LTE Band 7	20M	QPSK	1	0	Front	0	Reduced	21350	2560	21.42	22.00	1.143	0.02	2.260	2.583
	LTE Band 7	20M	QPSK	50	0	Front	0	Reduced	21100	2535	21.77	22.00	1.054	0.06	2.280	2.404
	LTE Band 7	20M	QPSK	50	0	Front	0	Reduced	20850	2510	21.43	22.00	1.140	0.09	2.270	2.588
	LTE Band 7	20M	QPSK	50	0	Front	0	Reduced	21350	2560	21.56	22.00	1.107	0.03	2.330	2.578
	LTE Band 7	20M	QPSK	100	0	Front	0	Reduced	21100	2535	21.61	22.00	1.094	0.05	2.320	2.538
	LTE Band 7	20M	QPSK	1	0	Back	0	Reduced	21100	2535	21.82	22.00	1.042	-0.06	2.230	2.324
	LTE Band 7	20M	QPSK	1	0	Back	0	Reduced	20850	2510	21.51	22.00	1.119	0.09	2.230	2.496
	LTE Band 7	20M	QPSK	1	0	Back	0	Reduced	21350	2560	21.42	22.00	1.143	0.01	2.380	2.720
	LTE Band 7	20M	QPSK	50	0	Back	0	Reduced	21100	2535	21.77	22.00	1.054	0.07	2.390	2.520
	LTE Band 7	20M	QPSK	50	0	Back	0	Reduced	20850	2510	21.43	22.00	1.140	0.03	2.350	2.680
95	LTE Band 7	20M	QPSK	50	0	Back	0	Reduced	21350	2560	21.56	22.00	1.107	0.02	2.500	**2.767**
	LTE Band 7	20M	QPSK	100	0	Back	0	Reduced	21100	2535	21.61	22.00	1.094	0.09	2.410	2.636
	LTE Band 7	20M	QPSK	1	0	Bottom Side	0	Reduced	21100	2535	21.82	22.00	1.042	0.03	2.340	2.439
	LTE Band 7	20M	QPSK	1	0	Bottom Side	0	Reduced	20850	2510	21.51	22.00	1.119	0.07	2.270	2.541
	LTE Band 7	20M	QPSK	1	0	Bottom Side	0	Reduced	21350	2560	21.42	22.00	1.143	0.08	2.270	2.594
	LTE Band 7	20M	QPSK	50	0	Bottom Side	0	Reduced	21100	2535	21.77	22.00	1.054	0.03	2.460	2.594
	LTE Band 7	20M	QPSK	50	0	Bottom Side	0	Reduced	20850	2510	21.43	22.00	1.140	0.07	2.420	2.759
	LTE Band 7	20M	QPSK	50	0	Bottom Side	0	Reduced	21350	2560	21.56	22.00	1.107	0.08	2.440	2.700
	LTE Band 7	20M	QPSK	100	0	Bottom Side	0	Reduced	21100	2535	21.61	22.00	1.094	0.06	2.490	2.724
	LTE Band 7	20M	QPSK	50	0	Front	6	Full	20850	2510	23.14	24.00	1.219	0.1	1.110	1.353
	LTE Band 7	20M	QPSK	50	0	Back	8	Full	21350	2560	23.02	24.00	1.253	-0.07	0.079	0.099
	LTE Band 7	20M	QPSK	50	0	Bottom Side	12	Full	20850	2510	23.14	24.00	1.219	0.19	1.230	1.499

<TDD LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)
	LTE Band 41	20M	QPSK	1	0	Front	0	Full	40620	2593	23.98	24.00	1.005	62.9	1.006	0.07	2.150	2.173
	LTE Band 41	20M	QPSK	1	0	Front	0	Full	39750	2506	22.75	23.00	1.059	62.9	1.006	0.03	2.300	2.451
	LTE Band 41	20M	QPSK	1	0	Front	0	Full	40185	2549.5	23.38	24.00	1.153	62.9	1.006	0.05	2.150	2.495
	LTE Band 41	20M	QPSK	1	0	Front	0	Full	41055	2636.5	23.53	24.00	1.114	62.9	1.006	0.09	2.000	2.242
	LTE Band 41	20M	QPSK	1	0	Front	0	Full	41490	2680	23.54	24.00	1.112	62.9	1.006	0.01	1.890	2.114
	LTE Band 41	20M	QPSK	50	0	Front	0	Full	40620	2593	23.95	24.00	1.012	62.9	1.006	-0.03	2.060	2.096
	LTE Band 41	20M	QPSK	50	0	Front	0	Full	39750	2506	22.80	23.00	1.047	62.9	1.006	-0.01	2.230	2.349
	LTE Band 41	20M	QPSK	50	0	Front	0	Full	40185	2549.5	23.50	24.00	1.122	62.9	1.006	0.05	2.170	2.449
	LTE Band 41	20M	QPSK	50	0	Front	0	Full	41055	2636.5	23.85	24.00	1.035	62.9	1.006	-0.05	2.000	2.083
	LTE Band 41	20M	QPSK	50	0	Front	0	Full	41490	2680	23.85	24.00	1.035	62.9	1.006	0.03	2.010	2.093
	LTE Band 41	20M	QPSK	100	0	Front	0	Full	40620	2593	23.93	24.00	1.016	62.9	1.006	-0.06	2.060	2.106
	LTE Band 41	20M	QPSK	1	0	Back	0	Full	40620	2593	23.98	24.00	1.005	62.9	1.006	0.01	1.970	1.991
	LTE Band 41	20M	QPSK	1	0	Back	0	Full	39750	2506	22.75	23.00	1.059	62.9	1.006	-0.03	2.250	2.398
	LTE Band 41	20M	QPSK	1	0	Back	0	Full	40185	2549.5	23.38	24.00	1.153	62.9	1.006	0.06	2.280	2.646
	LTE Band 41	20M	QPSK	1	0	Back	0	Full	41055	2636.5	23.53	24.00	1.114	62.9	1.006	0.08	2.220	2.489
	LTE Band 41	20M	QPSK	1	0	Back	0	Full	41490	2680	23.54	24.00	1.112	62.9	1.006	0.01	2.300	2.572
	LTE Band 41	20M	QPSK	50	0	Back	0	Full	40620	2593	23.95	24.00	1.012	62.9	1.006	0.09	2.010	2.045
	LTE Band 41	20M	QPSK	50	0	Back	0	Full	39750	2506	22.80	23.00	1.047	62.9	1.006	0.05	2.270	2.391
	LTE Band 41	20M	QPSK	50	0	Back	0	Full	40185	2549.5	23.50	24.00	1.122	62.9	1.006	0.07	2.250	2.540
	LTE Band 41	20M	QPSK	50	0	Back	0	Full	41055	2636.5	23.85	24.00	1.035	62.9	1.006	0.12	2.080	2.166
	LTE Band 41	20M	QPSK	50	0	Back	0	Full	41490	2680	23.85	24.00	1.035	62.9	1.006	0.05	2.090	2.176
	LTE Band 41	20M	QPSK	100	0	Back	0	Full	40620	2593	23.93	24.00	1.016	62.9	1.006	-0.03	2.050	2.096
96	LTE Band 41	20M	QPSK	1	0	Bottom Side	0	Full	40620	2593	23.98	24.00	1.005	62.9	1.006	0.08	2.720	**2.749**
	LTE Band 41C	20M	QPSK	1	0	Bottom Side	0	Full	40620	2593	23.42	24.00	1.143	62.9	1.006	0.01	2.270	2.610
	LTE Band 41	20M	QPSK	1	0	Bottom Side	0	Full	39750	2506	22.75	23.00	1.059	62.9	1.006	0.12	2.520	2.685
	LTE Band 41	20M	QPSK	1	0	Bottom Side	0	Full	40185	2549.5	23.38	24.00	1.153	62.9	1.006	0.01	2.320	2.692
	LTE Band 41	20M	QPSK	1	0	Bottom Side	0	Full	41055	2636.5	23.53	24.00	1.114	62.9	1.006	0.09	2.280	2.556
	LTE Band 41	20M	QPSK	1	0	Bottom Side	0	Full	41490	2680	23.54	24.00	1.112	62.9	1.006	0.01	1.960	2.192
	LTE Band 41	20M	QPSK	50	0	Bottom Side	0	Full	40620	2593	23.95	24.00	1.012	62.9	1.006	-0.03	2.330	2.371
	LTE Band 41	20M	QPSK	50	0	Bottom Side	0	Full	39750	2506	22.80	23.00	1.047	62.9	1.006	0.05	2.110	2.223
	LTE Band 41	20M	QPSK	50	0	Bottom Side	0	Full	40185	2549.5	23.50	24.00	1.122	62.9	1.006	0.09	1.890	2.133
	LTE Band 41	20M	QPSK	50	0	Bottom Side	0	Full	41055	2636.5	23.85	24.00	1.035	62.9	1.006	0.07	1.720	1.791
	LTE Band 41	20M	QPSK	50	0	Bottom Side	0	Full	41490	2680	23.85	24.00	1.035	62.9	1.006	0.01	1.600	1.666
	LTE Band 41	20M	QPSK	100	0	Bottom Side	0	Full	40620	2593	23.93	24.00	1.016	62.9	1.006	0.02	2.310	2.362

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)
	LTE Band 41/HPUE	20M	QPSK	1	0	Front	0	Full	40620	2593	25.77	26.00	1.054	42.9	1.009	0.01	1.970	2.096
	LTE Band 41/HPUE	20M	QPSK	1	0	Front	0	Full	39750	2506	24.71	25.00	1.069	42.9	1.009	-0.03	2.370	2.556
	LTE Band 41/HPUE	20M	QPSK	1	0	Front	0	Full	40185	2549.5	25.51	26.00	1.119	42.9	1.009	0.05	2.330	2.632
	LTE Band 41/HPUE	20M	QPSK	1	0	Front	0	Full	41055	2636.5	25.56	26.00	1.107	42.9	1.009	0.04	2.040	2.278
	LTE Band 41/HPUE	20M	QPSK	1	0	Front	0	Full	41490	2680	24.31	25.00	1.172	42.9	1.009	0.01	1.660	1.963
	LTE Band 41/HPUE	20M	QPSK	50	0	Front	0	Full	40620	2593	25.58	26.00	1.102	42.9	1.009	0.08	1.660	1.845
	LTE Band 41/HPUE	20M	QPSK	50	0	Front	0	Full	39750	2506	24.87	25.00	1.030	42.9	1.009	0.02	2.100	2.183
	LTE Band 41/HPUE	20M	QPSK	50	0	Front	0	Full	40185	2549.5	25.39	26.00	1.151	42.9	1.009	0.06	2.170	2.520
	LTE Band 41/HPUE	20M	QPSK	50	0	Front	0	Full	41055	2636.5	25.17	26.00	1.211	42.9	1.009	0.05	1.930	2.357
	LTE Band 41/HPUE	20M	QPSK	50	0	Front	0	Full	41490	2680	24.84	25.00	1.038	42.9	1.009	-0.03	1.430	1.497
	LTE Band 41/HPUE	20M	QPSK	100	0	Front	0	Full	40620	2593	25.55	26.00	1.109	42.9	1.009	0.05	1.640	1.835
	LTE Band 41/HPUE	20M	QPSK	1	0	Back	0	Full	40620	2593	25.77	26.00	1.054	42.9	1.009	0.01	1.530	1.628
	LTE Band 41/HPUE	20M	QPSK	1	0	Back	0	Full	39750	2506	24.71	25.00	1.069	42.9	1.009	0.09	1.670	1.801
	LTE Band 41/HPUE	20M	QPSK	1	0	Back	0	Full	40185	2549.5	25.51	26.00	1.119	42.9	1.009	0.05	1.670	1.886
	LTE Band 41/HPUE	20M	QPSK	1	0	Back	0	Full	41055	2636.5	25.56	26.00	1.107	42.9	1.009	0.05	1.600	1.787
	LTE Band 41/HPUE	20M	QPSK	1	0	Back	0	Full	41490	2680	24.31	25.00	1.172	42.9	1.009	-0.03	1.470	1.739
	LTE Band 41/HPUE	20M	QPSK	50	0	Back	0	Full	40620	2593	25.58	26.00	1.102	42.9	1.009	0.01	1.260	1.400
	LTE Band 41/HPUE	20M	QPSK	50	0	Back	0	Full	39750	2506	24.87	25.00	1.030	42.9	1.009	0.07	1.450	1.508
	LTE Band 41/HPUE	20M	QPSK	50	0	Back	0	Full	40185	2549.5	25.39	26.00	1.151	42.9	1.009	0.06	1.520	1.765
	LTE Band 41/HPUE	20M	QPSK	50	0	Back	0	Full	41055	2636.5	25.17	26.00	1.211	42.9	1.009	0.05	1.400	1.710
	LTE Band 41/HPUE	20M	QPSK	50	0	Back	0	Full	41490	2680	24.84	25.00	1.038	42.9	1.009	-0.03	1.240	1.298
	LTE Band 41/HPUE	20M	QPSK	100	0	Back	0	Full	40620	2593	25.55	26.00	1.109	42.9	1.009	0.02	1.250	1.399
	LTE Band 41/HPUE	20M	QPSK	1	0	Bottom Side	0	Full	40620	2593	25.77	26.00	1.054	42.9	1.009	-0.02	1.950	2.075
	LTE Band 41/HPUE	20M	QPSK	1	0	Bottom Side	0	Full	39750	2506	24.71	25.00	1.069	42.9	1.009	0.07	1.890	2.039
	LTE Band 41/HPUE	20M	QPSK	1	0	Bottom Side	0	Full	40185	2549.5	25.51	26.00	1.119	42.9	1.009	0.09	1.780	2.011
	LTE Band 41/HPUE	20M	QPSK	1	0	Bottom Side	0	Full	41055	2636.5	25.56	26.00	1.107	42.9	1.009	0.01	1.870	2.088
	LTE Band 41/HPUE	20M	QPSK	1	0	Bottom Side	0	Full	41490	2680	24.31	25.00	1.172	42.9	1.009	0.08	1.590	1.881
	LTE Band 41/HPUE	20M	QPSK	50	0	Bottom Side	0	Full	40620	2593	25.58	26.00	1.102	42.9	1.009	-0.02	1.680	1.867
	LTE Band 41/HPUE	20M	QPSK	50	0	Bottom Side	0	Full	39750	2506	24.87	25.00	1.030	42.9	1.009	-0.05	1.540	1.601
	LTE Band 41/HPUE	20M	QPSK	50	0	Bottom Side	0	Full	40185	2549.5	25.39	26.00	1.151	42.9	1.009	-0.03	1.470	1.707
	LTE Band 41/HPUE	20M	QPSK	50	0	Bottom Side	0	Full	41055	2636.5	25.17	26.00	1.211	42.9	1.009	-0.12	1.740	2.125
	LTE Band 41/HPUE	20M	QPSK	50	0	Bottom Side	0	Full	41490	2680	24.84	25.00	1.038	42.9	1.009	0.01	1.580	1.654
	LTE Band 41/HPUE	20M	QPSK	100	0	Bottom Side	0	Full	40620	2593	25.55	26.00	1.109	42.9	1.009	0.08	2.000	2.238

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)
EN-DC																		
	LTE Band 41	20M	QPSK	1	0	Front	0	Reduced	40620	2593	20.77	21.00	1.054	62.9	1.006	0.01	1.320	1.400
	LTE Band 41	20M	QPSK	50	0	Front	0	Reduced	40620	2593	20.56	21.00	1.107	62.9	1.006	0.09	1.340	1.492
	LTE Band 41	20M	QPSK	1	0	Back	0	Reduced	40620	2593	20.77	21.00	1.054	62.9	1.006	0.09	1.290	1.368
	LTE Band 41	20M	QPSK	50	0	Back	0	Reduced	40620	2593	20.56	21.00	1.107	62.9	1.006	0.02	1.300	1.447
	LTE Band 41	20M	QPSK	1	0	Bottom Side	0	Reduced	40620	2593	20.77	21.00	1.054	62.9	1.006	0.06	1.450	1.538
	LTE Band 41	20M	QPSK	1	0	Bottom Side	0	Reduced	39750	2506	20.56	21.00	1.107	62.9	1.006	0.05	1.700	1.893
	LTE Band 41	20M	QPSK	1	0	Bottom Side	0	Reduced	40185	2549.5	20.65	21.00	1.084	62.9	1.006	0.01	1.800	1.963
	LTE Band 41 HPUE	20M	QPSK	1	0	Bottom Side	0	Reduced	40185	2549.5	20.65	21.00	1.084	42.9	1.009	0.01	0.942	1.030
	LTE Band 41 HPUE	20M	QPSK	1	0	Bottom Side	0	Reduced	40620	2593	20.77	21.00	1.054	42.9	1.009	0.01	1.190	1.266
	LTE Band 41 HPUE	20M	QPSK	1	0	Bottom Side	0	Reduced	39750	2506	20.56	21.00	1.107	42.9	1.009	0.01	0.856	0.956
	LTE Band 41 HPUE	20M	QPSK	1	0	Bottom Side	0	Reduced	41055	2636.5	20.54	21.00	1.112	42.9	1.009	0.01	0.849	0.952
	LTE Band 41 HPUE	20M	QPSK	1	0	Bottom Side	0	Reduced	41490	2680	20.67	21.00	1.079	42.9	1.009	0.01	0.999	1.088
	LTE Band 41C	20M	QPSK	1	0	Bottom Side	0	Reduced	40185	2549.5	20.65	21.00	1.084	62.9	1.006	0.03	1.070	1.312
	LTE Band 41	20M	QPSK	1	0	Bottom Side	0	Reduced	41055	2636.5	20.54	21.00	1.112	62.9	1.006	0.02	1.430	1.599
	LTE Band 41	20M	QPSK	1	0	Bottom Side	0	Reduced	41490	2680	20.67	21.00	1.079	62.9	1.006	0.09	1.390	1.509
	LTE Band 41	20M	QPSK	50	0	Bottom Side	0	Reduced	40620	2593	20.56	21.00	1.107	62.9	1.006	0.05	1.320	1.470

<5G NR SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)
	FR1 n66	20M	PI/2 BPSK	1	1	DFT-15KHz	Front	0	Reduced	349000	1745	19.99	20.50	1.125	0.09	1.030	1.158
	FR1 n66	20M	PI/2 BPSK	50	0	DFT-15KHz	Front	0	Reduced	349000	1745	19.96	20.50	1.132	0.09	1.040	1.178
	FR1 n66	20M	PI/2 BPSK	1	1	DFT-15KHz	Back	0	Reduced	349000	1745	19.99	20.50	1.125	-0.19	1.400	1.574
	FR1 n66	20M	PI/2 BPSK	50	0	DFT-15KHz	Back	0	Reduced	349000	1745	19.96	20.50	1.132	-0.09	1.400	1.585
	FR1 n66	20M	PI/2 BPSK	1	1	DFT-15KHz	Top Side	0	Reduced	349000	1745	19.99	20.50	1.125	0.04	1.670	1.878
	FR1 n66	20M	PI/2 BPSK	50	0	DFT-15KHz	Top Side	0	Reduced	349000	1745	19.96	20.50	1.132	-0.16	1.620	1.834
	FR1 n66	20M	PI/2 BPSK	1	1	DFT-15KHz	Top Side	0	Reduced	344000	1720	19.91	20.50	1.146	0.08	1.620	1.856
97	FR1 n66	20M	PI/2 BPSK	1	1	DFT-15KHz	Top Side	0	Reduced	354000	1770	19.94	20.50	1.138	-0.08	1.680	**1.911**
	FR1 n66	20M	PI/2 BPSK	50	0	DFT-15KHz	Front	6	Full	349000	1745	22.96	24.00	1.271	0.09	0.526	0.668
	FR1 n66	20M	PI/2 BPSK	50	0	DFT-15KHz	Back	8	Full	349000	1745	22.96	24.00	1.271	-0.09	0.575	0.731
	FR1 n66	20M	PI/2 BPSK	1	1	DFT-15KHz	Top Side	11	Full	354000	1770	23.00	24.00	1.259	-0.16	0.498	0.627
	FR1 n25	20M	PI/2 BPSK	1	1	DFT-15KHz	Front	0	Reduced	376500	1882.5	19.20	19.50	1.072	0.04	0.829	0.888
	FR1 n25	20M	PI/2 BPSK	50	0	DFT-15KHz	Front	0	Reduced	376500	1882.5	19.19	19.50	1.074	0.08	0.779	0.837
	FR1 n25	20M	PI/2 BPSK	1	1	DFT-15KHz	Back	0	Reduced	376500	1882.5	19.20	19.50	1.072	0.04	1.300	1.393
	FR1 n25	20M	PI/2 BPSK	50	0	DFT-15KHz	Back	0	Reduced	376500	1882.5	19.19	19.50	1.074	0.01	1.340	1.439
	FR1 n25	20M	PI/2 BPSK	1	1	DFT-15KHz	Top Side	0	Reduced	376500	1882.5	19.20	19.50	1.072	-0.18	1.470	1.575
	FR1 n25	20M	PI/2 BPSK	50	0	DFT-15KHz	Top Side	0	Reduced	376500	1882.5	19.19	19.50	1.074	0.17	1.490	1.600
98	FR1 n25	20M	PI/2 BPSK	50	0	DFT-15KHz	Top Side	0	Reduced	372000	1860	19.17	19.50	1.079	0.17	1.530	**1.651**
	FR1 n25	20M	PI/2 BPSK	50	0	DFT-15KHz	Top Side	0	Reduced	381000	1905	19.15	19.50	1.084	-0.04	1.490	1.615
	FR1 n25	20M	PI/2 BPSK	1	1	DFT-15KHz	Front	6	Full	376500	1882.5	23.23	24.00	1.194	0.04	0.496	0.592
	FR1 n25	20M	PI/2 BPSK	50	0	DFT-15KHz	Back	8	Full	376500	1882.5	23.11	24.00	1.227	0.01	0.842	1.034
	FR1 n25	20M	PI/2 BPSK	50	0	DFT-15KHz	Top Side	11	Full	372000	1860	22.69	24.00	1.352	0.17	0.484	0.654
	FR1 n41	100M	PI/2 BPSK	1	1	DFT-30KHz	Front	0	Reduced	518598	2592.99	21.27	21.50	1.054	0.01	0.866	0.913
	FR1 n41	100M	PI/2 BPSK	135	0	DFT-30KHz	Front	0	Reduced	518598	2592.99	21.24	21.50	1.062	0.1	0.870	0.924
	FR1 n41	100M	PI/2 BPSK	1	1	DFT-30KHz	Back	0	Reduced	518598	2592.99	21.27	21.50	1.054	-0.04	1.550	1.634
99	FR1 n41	100M	PI/2 BPSK	135	0	DFT-30KHz	Back	0	Reduced	518598	2592.99	21.24	21.50	1.062	-0.01	1.860	**1.975**
	FR1 n41	100M	PI/2 BPSK	135	0	DFT-30KHz	Back	0	Reduced	509202	2546.01	21.16	21.50	1.081	0.05	1.620	1.752
	FR1 n41	100M	PI/2 BPSK	135	0	DFT-30KHz	Back	0	Reduced	528000	2640	21.09	21.50	1.099	0.03	1.510	1.659
	FR1 n41	100M	PI/2 BPSK	1	1	DFT-30KHz	Top Side	0	Reduced	518598	2592.99	21.27	21.50	1.054	-0.01	1.440	1.518
	FR1 n41	100M	PI/2 BPSK	135	0	DFT-30KHz	Top Side	0	Reduced	518598	2592.99	21.24	21.50	1.062	-0.05	1.350	1.433
	FR1 n41	100M	PI/2 BPSK	135	0	DFT-30KHz	Front	6	Full	518598	2592.99	23.37	24.00	1.156	0.02	0.452	0.523
	FR1 n41	100M	PI/2 BPSK	135	0	DFT-30KHz	Back	8	Full	518598	2592.99	23.37	24.00	1.156	0.03	0.529	0.612
	FR1 n41 HPUE	100M	PI/2 BPSK	135	0	DFT-30KHz	Back	8	Full	518598	2592.99	26.53	27.00	1.114	0.03	0.531	0.592
	FR1 n41	100M	PI/2 BPSK	1	1	DFT-30KHz	Top Side	11	Full	518598	2592.99	23.74	24.00	1.062	0.08	0.253	0.269

<WLAN2.4G SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)
	WLAN2.4GHz	802.11b 1Mbps	Front	0	1+2	Full	1	2412	23.22	24.00	1.196	100	1.000	0.03	1.030	1.232
	WLAN2.4GHz	802.11b 1Mbps	Back	0	1+2	Full	1	2412	23.22	24.00	1.196	100	1.000	0.05	0.925	1.106
	WLAN2.4GHz	802.11b 1Mbps	Left Side	0	1+2	Full	1	2412	23.22	24.00	1.196	100	1.000	0.02	0.045	0.053
	WLAN2.4GHz	802.11b 1Mbps	Right Side	0	1+2	Full	1	2412	23.22	24.00	1.196	100	1.000	0.04	0.701	0.839
100	WLAN2.4GHz	802.11b 1Mbps	Top Side	0	1+2	Full	1	2412	23.22	24.00	1.196	100	1.000	0.11	1.120	**1.340**
	WLAN2.4GHz	802.11b 1Mbps	Top Side	0	1+2	Full	6	2437	23.10	24.00	1.230	100	1.000	-0.07	1.070	1.316
	WLAN2.4GHz	802.11b 1Mbps	Top Side	0	1+2	Full	11	2462	23.02	24.00	1.254	100	1.000	0.04	1.040	1.304
EN-DC																
	WLAN2.4GHz	802.11b 1Mbps	Front	0	1+2	Reduced	1	2412	20.54	21.00	1.112	100	1.000	0.09	0.548	0.609
	WLAN2.4GHz	802.11b 1Mbps	Back	0	1+2	Reduced	1	2412	20.54	21.00	1.112	100	1.000	0.04	0.579	0.644
	WLAN2.4GHz	802.11b 1Mbps	Left Side	0	1+2	Reduced	1	2412	20.54	21.00	1.112	100	1.000	0.05	0.021	0.023
	WLAN2.4GHz	802.11b 1Mbps	Right Side	0	1+2	Reduced	1	2412	20.54	21.00	1.112	100	1.000	-0.02	0.366	0.407
	WLAN2.4GHz	802.11b 1Mbps	Top Side	0	1+2	Reduced	1	2412	20.54	21.00	1.112	100	1.000	0.03	0.550	0.611
	WLAN2.4GHz	802.11b 1Mbps	Top Side	0	1+2	Reduced	6	2437	20.40	21.00	1.148	100	1.000	-0.08	0.565	0.649
	WLAN2.4GHz	802.11b 1Mbps	Top Side	0	1+2	Reduced	11	2462	20.19	21.00	1.205	100	1.000	0.01	0.542	0.653

<WLAN5G SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)
	WLAN5.2GHz	802.11a 6Mbps	Front	0	1+2	Full	48	5240	20.78	21.50	1.180	97.93	1.021	0.01	0.362	0.436
101	WLAN5.2GHz	802.11a 6Mbps	Back	0	1+2	Full	48	5240	20.78	21.50	1.180	97.93	1.021	0.02	2.720	**3.278**
	WLAN5.2GHz	802.11a 6Mbps	Back	0	1+2	Reduced	48	5240	20.78	21.00	1.052	97.93	1.021	0.02	2.720	2.921
	WLAN5.2GHz	802.11a 6Mbps	Left Side	0	1+2	Full	48	5240	20.78	21.50	1.180	97.93	1.021	0.04	0.069	0.083
	WLAN5.2GHz	802.11a 6Mbps	Right Side	0	1+2	Full	48	5240	20.78	21.50	1.180	97.93	1.021	0.09	0.195	0.235
	WLAN5.2GHz	802.11a 6Mbps	Top Side	0	1+2	Full	48	5240	20.78	21.50	1.180	97.93	1.021	0.03	0.711	0.857
	WLAN5.2GHz	802.11a 6Mbps	Back	0	1+2	Full	36	5180	20.56	21.50	1.242	97.93	1.021	0.02	2.150	2.726
	WLAN5.2GHz	802.11a 6Mbps	Back	0	1+2	Full	40	5200	20.72	21.50	1.197	97.93	1.021	-0.05	2.300	2.810
EN-DC																
	WLAN5.2GHz	802.11a 6Mbps	Front	0	1+2	Reduced	44	5220	15.64	16.00	1.086	97.93	1.021	-0.04	0.362	0.402
	WLAN5.2GHz	802.11a 6Mbps	Back	0	1+2	Reduced	44	5220	15.64	16.00	1.086	97.93	1.021	0.06	0.488	0.541
	WLAN5.2GHz	802.11a 6Mbps	Left Side	0	1+2	Reduced	44	5220	15.64	16.00	1.086	97.93	1.021	0.07	0.016	0.018
	WLAN5.2GHz	802.11a 6Mbps	Right Side	0	1+2	Reduced	44	5220	15.64	16.00	1.086	97.93	1.021	-0.1	0.003	0.004
	WLAN5.2GHz	802.11a 6Mbps	Top Side	0	1+2	Reduced	44	5220	15.64	16.00	1.086	97.93	1.021	0.06	0.141	0.156
	WLAN5.2GHz	802.11a 6Mbps	Back	0	1+2	Reduced	36	5180	15.61	16.00	1.094	97.93	1.021	0.08	0.615	0.687
	WLAN5.2GHz	802.11a 6Mbps	Back	0	1+2	Reduced	40	5200	15.64	16.00	1.086	97.93	1.021	0.07	0.487	0.540
	WLAN5.2GHz	802.11a 6Mbps	Back	0	1+2	Reduced	48	5240	15.65	16.00	1.084	97.93	1.021	-0.05	0.477	0.528
	WLAN5.3GHz	802.11a 6Mbps	Front	0	1+2	Full	52	5260	20.43	21.50	1.279	97.93	1.021	0.03	0.375	0.490
	WLAN5.3GHz	802.11a 6Mbps	Back	0	1+2	Full	52	5260	20.43	21.50	1.279	97.93	1.021	0.02	2.350	3.070
	WLAN5.3GHz	802.11a 6Mbps	Back	0	1+2	Reduced	52	5260	20.43	21.00	1.140	97.93	1.021	0.05	2.350	2.736
	WLAN5.3GHz	802.11a 6Mbps	Left Side	0	1+2	Full	52	5260	20.43	21.50	1.279	97.93	1.021	0.06	0.052	0.067
	WLAN5.3GHz	802.11a 6Mbps	Right Side	0	1+2	Full	52	5260	20.43	21.50	1.279	97.93	1.021	0.07	0.132	0.172
	WLAN5.3GHz	802.11a 6Mbps	Top Side	0	1+2	Full	52	5260	20.43	21.50	1.279	97.93	1.021	0.01	0.415	0.542
102	WLAN5.3GHz	802.11a 6Mbps	Back	0	1+2	Full	56	5280	20.32	21.50	1.312	97.93	1.021	0.07	2.310	**3.095**
	WLAN5.3GHz	802.11a 6Mbps	Back	0	1+2	Full	60	5300	20.39	21.50	1.291	97.93	1.021	-0.06	2.220	2.927
	WLAN5.3GHz	802.11a 6Mbps	Back	0	1+2	Full	64	5320	20.38	21.50	1.294	97.93	1.021	-0.07	2.240	2.960
EN-DC																
	WLAN5.3GHz	802.11a 6Mbps	Front	0	1+2	Reduced	52	5260	14.55	15.00	1.109	97.93	1.021	-0.03	0.048	0.054
	WLAN5.3GHz	802.11a 6Mbps	Back	0	1+2	Reduced	52	5260	14.55	15.00	1.109	97.93	1.021	0.05	0.548	0.621
	WLAN5.3GHz	802.11a 6Mbps	Left Side	0	1+2	Reduced	52	5260	14.55	15.00	1.109	97.93	1.021	0.09	0.008	0.009
	WLAN5.3GHz	802.11a 6Mbps	Right Side	0	1+2	Reduced	52	5260	14.55	15.00	1.109	97.93	1.021	-0.07	0.023	0.026
	WLAN5.3GHz	802.11a 6Mbps	Top Side	0	1+2	Reduced	52	5260	14.55	15.00	1.109	97.93	1.021	0.04	0.089	0.101
	WLAN5.3GHz	802.11a 6Mbps	Back	0	1+2	Reduced	56	5280	14.57	15.00	1.104	97.93	1.021	-0.05	0.521	0.587
	WLAN5.3GHz	802.11a 6Mbps	Back	0	1+2	Reduced	60	5300	14.64	15.00	1.086	97.93	1.021	0.06	0.609	0.676
	WLAN5.3GHz	802.11a 6Mbps	Back	0	1+2	Reduced	64	5320	14.59	15.00	1.099	97.93	1.021	-0.01	0.517	0.580

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)
	WLAN5.5GHz	802.11n-HT40 MCS0	Front	0	1+2	Full	110	5550	21.18	21.50	1.076	96.32	1.038	0.06	0.319	0.356
103	WLAN5.5GHz	802.11n-HT40 MCS0	Back	0	1+2	Full	110	5550	21.18	21.50	1.076	96.32	1.038	-0.02	3.020	**3.374**
	WLAN5.5GHz	802.11n-HT40 MCS0	Back	0	1+2	Reduced	110	5550	19.99	20.50	1.125	96.32	1.038	0.07	2.460	2.872
	WLAN5.5GHz	802.11n-HT40 MCS0	Left Side	0	1+2	Full	110	5550	21.18	21.50	1.076	96.32	1.038	-0.03	0.042	0.047
	WLAN5.5GHz	802.11n-HT40 MCS0	Right Side	0	1+2	Full	110	5550	21.18	21.50	1.076	96.32	1.038	0.02	0.071	0.080
	WLAN5.5GHz	802.11n-HT40 MCS0	Top Side	0	1+2	Full	110	5550	21.18	21.50	1.076	96.32	1.038	0.05	0.579	0.647
	WLAN5.5GHz	802.11n-HT40 MCS0	Back	0	1+2	Full	102	5510	20.38	21.50	1.294	96.32	1.038	0.04	1.980	2.660
	WLAN5.5GHz	802.11n-HT40 MCS0	Back	0	1+2	Full	134	5670	20.93	21.50	1.140	96.32	1.038	0.06	2.455	2.906
	WLAN5.5GHz	802.11n-HT40 MCS0	Back	8	1+2	Full	110	5550	21.18	21.50	1.076	96.32	1.038	0.02	0.606	0.677
EN-DC																
	WLAN5.5GHz	802.11a 6Mbps	Front	0	1+2	Reduced	100	5500	13.93	14.00	1.016	97.93	1.021	-0.06	0.057	0.059
	WLAN5.5GHz	802.11a 6Mbps	Back	0	1+2	Reduced	100	5500	13.93	14.00	1.016	97.93	1.021	0.04	0.438	0.454
	WLAN5.5GHz	802.11a 6Mbps	Left Side	0	1+2	Reduced	100	5500	13.93	14.00	1.016	97.93	1.021	0.01	0.009	0.009
	WLAN5.5GHz	802.11a 6Mbps	Right Side	0	1+2	Reduced	100	5500	13.93	14.00	1.016	97.93	1.021	-0.01	0.015	0.016
	WLAN5.5GHz	802.11a 6Mbps	Top Side	0	1+2	Reduced	100	5500	13.93	14.00	1.016	97.93	1.021	0.01	0.125	0.130
	WLAN5.5GHz	802.11a 6Mbps	Back	0	1+2	Reduced	116	5580	13.81	14.00	1.045	97.93	1.021	0.06	0.536	0.572
	WLAN5.5GHz	802.11a 6Mbps	Back	0	1+2	Reduced	124	5620	13.55	14.00	1.109	97.93	1.021	-0.02	0.421	0.477
	WLAN5.5GHz	802.11a 6Mbps	Back	0	1+2	Reduced	132	5660	13.66	14.00	1.081	97.93	1.021	0.07	0.454	0.501
	WLAN5.5GHz	802.11a 6Mbps	Back	0	1+2	Reduced	140	5700	13.27	14.00	1.183	97.93	1.021	0.03	0.429	0.518
	WLAN5.8GHz	802.11a 6Mbps	Front	0	1+2	Full	165	5825	20.78	22.00	1.324	97.93	1.021	0.09	0.364	0.492
	WLAN5.8GHz	802.11a 6Mbps	Back	0	1+2	Full	165	5825	20.78	22.00	1.324	97.93	1.021	0.08	2.030	2.744
	WLAN5.8GHz	802.11a 6Mbps	Left Side	0	1+2	Full	165	5825	20.78	22.00	1.324	97.93	1.021	0.03	0.024	0.032
	WLAN5.8GHz	802.11a 6Mbps	Right Side	0	1+2	Full	165	5825	20.78	22.00	1.324	97.93	1.021	0.01	0.074	0.100
	WLAN5.8GHz	802.11a 6Mbps	Top Side	0	1+2	Full	165	5825	20.78	22.00	1.324	97.93	1.021	-0.05	0.479	0.648
	WLAN5.8GHz	802.11a 6Mbps	Back	0	1+2	Full	149	5745	20.83	22.00	1.308	97.93	1.021	0.07	2.140	2.858
104	WLAN5.8GHz	802.11a 6Mbps	Back	0	1+2	Full	157	5785	20.84	22.00	1.307	97.93	1.021	-0.04	2.300	**3.070**
	WLAN5.8GHz	802.11a 6Mbps	Back	0	1+2	Reduced	157	5785	20.84	21.50	1.165	97.93	1.021	-0.04	2.300	2.736
EN-DC																
	WLAN5.8GHz	802.11a 6Mbps	Front	0	1+2	Reduced	165	5825	14.44	15.00	1.138	97.93	1.021	0.06	0.088	0.102
	WLAN5.8GHz	802.11a 6Mbps	Back	0	1+2	Reduced	165	5825	14.44	15.00	1.138	97.93	1.021	0.07	0.486	0.564
	WLAN5.8GHz	802.11a 6Mbps	Left Side	0	1+2	Reduced	165	5825	14.44	15.00	1.138	97.93	1.021	-0.01	0.000	0.000
	WLAN5.8GHz	802.11a 6Mbps	Right Side	0	1+2	Reduced	165	5825	14.44	15.00	1.138	97.93	1.021	0.06	0.017	0.020
	WLAN5.8GHz	802.11a 6Mbps	Top Side	0	1+2	Reduced	165	5825	14.44	15.00	1.138	97.93	1.021	-0.08	0.104	0.121
	WLAN5.8GHz	802.11a 6Mbps	Back	0	1+2	Reduced	149	5745	14.27	15.00	1.183	97.93	1.021	0.06	0.457	0.552
	WLAN5.8GHz	802.11a 6Mbps	Back	0	1+2	Reduced	157	5785	14.46	15.00	1.132	97.93	1.021	0.02	0.520	0.601

15.5 Repeated SAR Measurement

<1g>

No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Ant.	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Ratio	Reported 1g SAR (W/kg)
1st	WLAN2.4GHz	-	-	-	-	802.11b 1Mbps	Left Cheek	0	1+2	Reduced	11	2462	21.38	22.00	1.153	100	1.000	0.03	0.894	1	1.031
2nd	WLAN2.4GHz	-	-	-	-	802.11b 1Mbps	Left Cheek	0	1+2	Reduced	11	2462	21.38	22.00	1.153	100	1.000	0.04	0.877	1.019	1.012
1st	WLAN5.5GHz	-	-	-	-	802.11a 6Mbps	Left Tilted	0	1+2	Full	124	5620	19.73	20.50	1.194	97.95	1.021	0.03	0.897	1	1.093
2nd	WLAN5.5GHz	-	-	-	-	802.11a 6Mbps	Left Tilted	0	1+2	Full	124	5620	19.73	20.50	1.194	97.95	1.021	-0.1	0.814	1.102	0.992
1st	GSM1900	-	-	-	-	GPRS (3 Tx slot)	Front	5	-	Reduced	810	1909.8	22.35	22.50	1.035	-	-	0.06	1.240	1	1.284
2nd	GSM1900	-	-	-	-	GPRS (3 Tx slot)	Front	5	-	Reduced	810	1909.8	22.35	22.50	1.035	-	-	-0.04	1.200	1.033	1.242
1st	LTE Band 12	10M	QPSK	1	0	-	Back	5	-	Full	23095	707.5	22.86	24.00	1.300	-	-	0.11	1.010	1	1.313
2nd	LTE Band 12	10M	QPSK	1	0	-	Back	5	-	Full	23095	707.5	22.86	24.00	1.300	-	-	0.01	0.992	1.018	1.290
1st	LTE Band 26	15M	QPSK	1	0	-	Back	5	-	Reduced	26865	831.5	22.59	23.50	1.233	-	-	0.03	1.140	1	1.406
2nd	LTE Band 26	15M	QPSK	1	0	-	Back	5	-	Reduced	26865	831.5	22.59	23.50	1.233	-	-	-0.1	1.070	1.065	1.319
1st	LTE Band 66	20M	QPSK	100	0	-	Back	5	-	Reduced	132322	1745	17.95	18.5	1.135	-	-	0.08	1.170	1	1.328
2nd	LTE Band 66	20M	QPSK	100	0	-	Back	5	-	Reduced	132322	1745	17.95	18.5	1.135	-	-	0.04	1.120	1.045	1.271
1st	LTE Band 41	20M	QPSK	50	0	-	Bottom Side	5	-	Reduced	39750	2506	14.16	15	1.213	62.9	1.006	0.09	1.150	1	1.404
2nd	LTE Band 41	20M	QPSK	50	0	-	Bottom Side	5	-	Reduced	39750	2506	14.16	15	1.213	62.9	1.006	0.04	1.120	1.027	1.367
1st	WLAN5.2GHz	-	-	-	-	802.11a 6Mbps	Back	5	1+2	Full	48	5240	16.92	17.50	1.143	97.95	1.021	0.05	0.994	1	1.160
2nd	WLAN5.2GHz	-	-	-	-	802.11a 6Mbps	Back	5	1+2	Full	48	5240	16.92	17.50	1.143	97.95	1.021	0.07	0.900	1.104	1.050
1st	WLAN5.3GHz	-	-	-	-	802.11a 6Mbps	Back	5	1+2	Full	64	5320	16.86	17.50	1.159	97.95	1.021	-0.09	0.935	1	1.106
2nd	WLAN5.3GHz	-	-	-	-	802.11a 6Mbps	Back	5	1+2	Full	64	5320	16.86	17.50	1.159	97.95	1.021	0.06	0.878	1.065	1.039
1st	WLAN5.8GHz	-	-	-	-	802.11a 6Mbps	Back	5	1+2	Full	149	5745	16.52	17.50	1.253	97.95	1.021	-0.09	0.922	1	1.179
2nd	WLAN5.8GHz	-	-	-	-	802.11a 6Mbps	Back	5	1+2	Full	149	5745	16.52	17.50	1.253	97.95	1.021	0.04	0.873	1.056	1.117

<10g>

No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Ant.	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Ratio	Reported 10g SAR (W/kg)
1st	GSM1900	-	-	-	-	GPRS (3 Tx slot)	Bottom Side	0	-	Full	512	1850.2	25.61	26.50	1.227	-	-	0.02	2.740	1	3.363
2nd	GSM1900	-	-	-	-	GPRS (3 Tx slot)	Bottom Side	0	-	Full	512	1850.2	25.61	26.50	1.227	-	-	-0.01	2.700	1.015	3.314
1st	WCDMA IV					RMC12.2Kbps	Back	0	-	Reduced	1513	1752.6	19.92	20.00	1.019	-	-	0.08	3.140	1	3.198
2nd	WCDMA IV					RMC12.2Kbps	Back	0	-	Reduced	1513	1752.6	19.92	20.00	1.019	-	-	0.01	3.110	1.010	3.168
1st	WLAN5.2GHz	-	-	-	-	802.11a 6Mbps	Back	0	1+2	Full	48	5240	20.78	21.50	1.180	97.95	1.021	0.02	2.720	1	3.278
2nd	WLAN5.2GHz	-	-	-	-	802.11a 6Mbps	Back	0	1+2	Full	48	5240	20.78	21.50	1.180	97.95	1.021	0.05	2.690	1.011	3.242
1st	WLAN5.5GHz	-	-	-	-	802.11n-HT40 MCS0	Back	0	1+2	Full	110	5550	21.18	21.50	1.076	96.32	1.038	-0.02	3.020	1	3.374
2nd	WLAN5.5GHz	-	-	-	-	802.11n-HT40 MCS0	Back	0	1+2	Full	110	5550	21.18	21.50	1.076	96.32	1.038	0.08	2.970	1.017	3.319
1st	WLAN5.8GHz	-	-	-	-	802.11a 6Mbps	Back	0	1+2	Full	157	5785	20.84	22.00	1.307	97.95	1.021	-0.04	2.300	1	3.070
2nd	WLAN5.8GHz	-	-	-	-	802.11a 6Mbps	Back	0	1+2	Full	157	5785	20.84	22.00	1.307	97.95	1.021	0.03	2.270	1.013	3.030

General Note:

1. Per KDB 865664 D01v01r04, for each frequency band, repeated SAR measurement is required only when the measured SAR is ≥0.8W/kg.
2. Per KDB 865664 D01v01r04, if the ratio among the repeated measurement is ≤ 1.2 and the measured SAR <1.45W/kg, only one repeated measurement is required.
3. Per KDB 865664 D01v01r04, if the extremity repeated SAR is necessary, the same procedures should be adapted for measurements according to extremity and occupational exposure limits by applying a factor of 2.5 for extremity exposure and a factor of 5 for occupational exposure to the corresponding SAR thresholds.
4. The ratio is the difference in percentage between original and repeated *measured SAR*.
5. All measurement SAR result is scaled-up to account for tune-up tolerance and is compliant.

15.6 TDD B41 Linearity Data Analysis

General Note:
This device support Power Class 2 and Power Class 3 operations for LTE Band 41. The highest available duty cycle for Power Class 2 operation is 43.3% using UL-DL configuration 1. Per FCC Guidance based on the device behavior, all SAR tests were performed using Power Class 3. Power Class 2 is tested using the highest SAR test configuration in Power Class 3 for each LTE configuration and exposure condition combination, according to the highest time averaged power for all applicable uplink-downlink configurations in Power Class 2. When the reported SAR vs. output power is linearly scaled with < 10% discrepancy between power classes and all reported SAR are < 1.4 W/kg, Separate SAR testing for Power Class 2 is not required

LTE Band 41(HPUE)-Linearity Data for Hotspot		
	LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	15.00	15.00
Reported 1g SAR (W/kg)	1.419	0.895
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	20.02	13.69
Linearity SAR (W/kg)	0.971	
% deviation from expected linearity		-7.79%
LTE Band 41(HPUE)-Linearity Data for Body-worn		
	LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	20.00	20.00
Reported 1g SAR (W/kg)	1.230	0.773
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	63.30	43.30
Linearity SAR (W/kg)	0.841	
% deviation from expected linearity		-8.13%

LTE Band 41(HPUE)-Linearity Data for Hotspot		
	LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	18.00	18.00
Reported 1g SAR (W/kg)	0.787	0.517
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	39.94	27.32
Linearity SAR (W/kg)	0.538	
% deviation from expected linearity		-3.96%
LTE Band 41(HPUE)-Linearity Data for Body-worn		
	LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	18.00	18.00
Reported 1g SAR (W/kg)	0.787	0.517
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	39.94	27.32
Linearity SAR (W/kg)	0.538	
% deviation from expected linearity		-3.96%
LTE Band 41(HPUE)-Linearity Data for Handheld		
	LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	21.00	21.00
Reported 10g SAR (W/kg)	1.963	1.262
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	79.69	54.51
Linearity SAR (W/kg)	1.343	
% deviation from expected linearity		-6.02%

16. Simultaneous Transmission Analysis

No.	Simultaneous Transmission Configurations	Portable Handset			
		Head	Body-worn	Hotspot	Product specific 10g SAR
1.	GSM Voice + WLAN2.4GHz MIMO	Yes	Yes		Yes
2.	GPRS/EDGE + WLAN2.4GHz MIMO	Yes	Yes	Yes	Yes
3.	CDMA + WLAN2.4GHz MIMO	Yes	Yes	Yes	Yes
4.	WCDMA + WLAN2.4GHz MIMO	Yes	Yes	Yes	Yes
5.	LTE + WLAN2.4GHz MIMO	Yes	Yes	Yes	Yes
6.	GSM Voice + WLAN5.3/5.5GHz MIMO	Yes	Yes		Yes
7.	GPRS/EDGE + WLAN5.3/5.5GHz MIMO	Yes	Yes		Yes
8.	CDMA + WLAN5.3/5.5GHz MIMO	Yes	Yes		Yes
9.	WCDMA + WLAN5.3/5.5GHz MIMO	Yes	Yes		Yes
10.	LTE + WLAN5.3/5.5GHz MIMO	Yes	Yes		Yes
11.	GSM Voice + WLAN5.2/5.8GHz MIMO	Yes	Yes		Yes
12.	GPRS/EDGE + WLAN5.2/5.8GHz MIMO	Yes	Yes	Yes	Yes
13.	CDMA + WLAN5.2/5.8GHz MIMO	Yes	Yes	Yes	Yes
14.	WCDMA + WLAN5.2/5.8GHz MIMO	Yes	Yes	Yes	Yes
15.	LTE + WLAN5.2/5.8GHz MIMO	Yes	Yes	Yes	Yes
16.	GSM Voice + Bluetooth	Yes	Yes		Yes
17.	GPRS/EDGE + Bluetooth	Yes	Yes	Yes	Yes
18.	CDMA + Bluetooth	Yes	Yes	Yes	Yes
19.	WCDMA + Bluetooth	Yes	Yes	Yes	Yes
20.	LTE + Bluetooth	Yes	Yes	Yes	Yes
21.	5G NR + LTE+ 2.4GHz WLAN MIMO	Yes	Yes	Yes	Yes
22.	5G NR+ LTE + WLAN5.3/5.5GHz MIMO	Yes	Yes		Yes
23.	5G NR+ LTE + WLAN5.2/5.8GHz MIMO	Yes	Yes	Yes	Yes
24.	5G NR + LTE + Bluetooth	Yes	Yes	Yes	Yes

General Note:

1. This device supports VoIP in GPRS, EGPRS, WCDMA, CDMA and LTE (e.g. for 3rd-party VoIP), LTE supports VoLTE operation.
2. EUT will choose each GSM, WCDMA, CDMA and LTE according to the network signal condition; therefore, they will not operate simultaneously at any moment.
3. This device 2.4GHz WLAN support hotspot operation and Bluetooth support tethering applications.
4. This device 2.4GHz WLAN/ 5.2GHz WLAN/5.8GHz WLAN support hotspot operation, and 5.2GHz WLAN/5.8GHz WLAN supports WLAN Direct (GC/GO), and 5.3GHz / 5.5GHz supports WLAN Direct (GC only).
5. EUT will choose either WLAN 2.4GHz or WLAN 5GHz according to the network signal condition; therefore, 2.4GHz WLAN and 5GHz WLAN will not operate simultaneously at any moment though they have independent antenna.
6. WLAN 2.4GHz and Bluetooth share the same antenna so can't transmit simultaneously.
7. According to the EUT character, WLAN 5GHz and Bluetooth can't transmit simultaneously.
8. Chose the worst zoom scan SAR of WLAN correspondingly for co-located with WWAN analysis.
9. The reported SAR summation is calculated based on the same configuration and test position.
10. Per KDB 447498 D01v06, simultaneous transmission SAR is compliant if,
    i) 1g Scalar SAR summation < 1.6W/kg and 10g Scalar SAR summation < 4.0W/kg.
    ii) SPLSR = (SAR1 + SAR2)^1.5 / (min. separation distance, mm), and the peak separation distance is determined from the square root of [(x1-x2)2 + (y1-y2)2 + (z1-z2)2], where (x1, y1, z1) and (x2, y2, z2) are the coordinates of the extrapolated peak SAR locations in the zoom scan.
    iii) If SPLSR ≤ 0.04 for 1g SAR and SPLSR≤ 0.10 for 10g SAR , simultaneously transmission SAR measurement is not necessary.
    iv) Simultaneously transmission SAR measurement, and the reported multi-band 1g SAR < 1.6W/kg and 10g SAR < 4.0W/kg.
    v) The SPLSR calculated results please refer to section 15.5.

16.1 Head Exposure Conditions

WWAN Band		Exposure Position	1	2	3	4	1+2	1+3	1+4
			WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2	Bluetooth Ant 1	Summed	Summed	Summed
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)
GSM	GSM850	Right Cheek	0.235	0.309	0.605	0.108	0.54	0.84	0.34
		Right Tilted	0.123	0.300	0.685	0.084	0.42	0.81	0.21
		Left Cheek	0.195	1.031	0.667	0.270	1.23	0.86	0.47
		Left Tilted	0.112	0.879	1.099	0.166	0.99	1.21	0.28
	GSM1900	Right Cheek	0.069	0.309	0.605	0.108	0.38	0.67	0.18
		Right Tilted	0.037	0.300	0.685	0.084	0.34	0.72	0.12
		Left Cheek	0.052	1.031	0.667	0.270	1.08	0.72	0.32
		Left Tilted	0.038	0.879	1.099	0.166	0.92	1.14	0.20
WCDMA	WCDMA II	Right Cheek	0.130	0.309	0.605	0.108	0.44	0.74	0.24
		Right Tilted	0.091	0.300	0.685	0.084	0.39	0.78	0.18
		Left Cheek	0.122	1.031	0.667	0.270	1.15	0.79	0.39
		Left Tilted	0.107	0.879	1.099	0.166	0.99	1.21	0.27
	WCDMA IV	Right Cheek	0.202	0.309	0.605	0.108	0.51	0.81	0.31
		Right Tilted	0.086	0.300	0.685	0.084	0.39	0.77	0.17
		Left Cheek	0.102	1.031	0.667	0.270	1.13	0.77	0.37
		Left Tilted	0.060	0.879	1.099	0.166	0.94	1.16	0.23
	WCDMA V	Right Cheek	0.351	0.309	0.605	0.108	0.66	0.96	0.46
		Right Tilted	0.149	0.300	0.685	0.084	0.45	0.83	0.23
		Left Cheek	0.266	1.031	0.667	0.270	1.30	0.93	0.54
		Left Tilted	0.155	0.879	1.099	0.166	1.03	1.25	0.32
CDMA	CDMA2000 BC0	Right Cheek	0.304	0.309	0.605	0.108	0.61	0.91	0.41
		Right Tilted	0.106	0.300	0.685	0.084	0.41	0.79	0.19
		Left Cheek	0.196	1.031	0.667	0.270	1.23	0.86	0.47
		Left Tilted	0.111	0.879	1.099	0.166	0.99	1.21	0.28
	CDMA2000 BC1	Right Cheek	0.107	0.309	0.605	0.108	0.42	0.71	0.22
		Right Tilted	0.091	0.300	0.685	0.084	0.39	0.78	0.18
		Left Cheek	0.103	1.031	0.667	0.270	1.13	0.77	0.37
		Left Tilted	0.050	0.879	1.099	0.166	0.93	1.15	0.22
	CDMA2000 BC10	Right Cheek	0.319	0.309	0.605	0.108	0.63	0.92	0.43
		Right Tilted	0.139	0.300	0.685	0.084	0.44	0.82	0.22
		Left Cheek	0.252	1.031	0.667	0.270	1.28	0.92	0.52
		Left Tilted	0.146	0.879	1.099	0.166	1.03	1.25	0.31

WWAN Band		Exposure Position	1	2	3	4	1+2	1+3	1+4
			WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2	Bluetooth Ant 1	Summed	Summed	Summed
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)
LTE	LTE Band 71	Right Cheek	0.182	0.309	0.605	0.108	0.49	0.79	0.29
		Right Tilted	0.088	0.300	0.685	0.084	0.39	0.77	0.17
		Left Cheek	0.159	1.031	0.667	0.270	1.19	0.83	0.43
		Left Tilted	0.090	0.879	1.099	0.166	0.97	1.19	0.26
	LTE Band 12	Right Cheek	0.248	0.309	0.605	0.108	0.56	0.85	0.36
		Right Tilted	0.115	0.300	0.685	0.084	0.42	0.80	0.20
		Left Cheek	0.194	1.031	0.667	0.270	1.23	0.86	0.46
		Left Tilted	0.106	0.879	1.099	0.166	0.99	1.21	0.27
	LTE Band 13	Right Cheek	0.260	0.309	0.605	0.108	0.57	0.87	0.37
		Right Tilted	0.128	0.300	0.685	0.084	0.43	0.81	0.21
		Left Cheek	0.229	1.031	0.667	0.270	1.26	0.90	0.50
		Left Tilted	0.124	0.879	1.099	0.166	1.00	1.22	0.29
	LTE Band 26	Right Cheek	0.282	0.309	0.605	0.108	0.59	0.89	0.39
		Right Tilted	0.135	0.300	0.685	0.084	0.44	0.82	0.22
		Left Cheek	0.118	1.031	0.667	0.270	1.15	0.79	0.39
		Left Tilted	0.065	0.879	1.099	0.166	0.94	1.16	0.23
	LTE Band 66	Right Cheek	0.169	0.309	0.605	0.108	0.48	0.77	0.28
		Right Tilted	0.154	0.300	0.685	0.084	0.45	0.84	0.24
		Left Cheek	0.153	1.031	0.667	0.270	1.18	0.82	0.42
		Left Tilted	0.133	0.879	1.099	0.166	1.01	1.23	0.30
	LTE Band 25	Right Cheek	0.110	0.309	0.605	0.108	0.42	0.72	0.22
		Right Tilted	0.121	0.300	0.685	0.084	0.42	0.81	0.21
		Left Cheek	0.105	1.031	0.667	0.270	1.14	0.77	0.38
		Left Tilted	0.083	0.879	1.099	0.166	0.96	1.18	0.25
	LTE Band 7	Right Cheek	0.108	0.309	0.605	0.108	0.42	0.71	0.22
		Right Tilted	0.091	0.300	0.685	0.084	0.39	0.78	0.18
		Left Cheek	0.124	1.031	0.667	0.270	1.16	0.79	0.39
		Left Tilted	0.041	0.879	1.099	0.166	0.92	1.14	0.21
	LTE Band 41	Right Cheek	0.098	0.309	0.605	0.108	0.41	0.70	0.21
		Right Tilted	0.038	0.300	0.685	0.084	0.34	0.72	0.12
		Left Cheek	0.060	1.031	0.667	0.270	1.09	0.73	0.33
		Left Tilted	0.038	0.879	1.099	0.166	0.92	1.14	0.20

5G NR

WWAN Band		Exposure Position	1 WWAN 1g SAR (W/kg)	2 LTE Band2_UAT 1g SAR (W/kg)	3 LTE Band66_UAT 1g SAR (W/kg)	4 2.4GHz WLAN Ant 1+2 1g SAR (W/kg)	5 5GHz WLAN Ant 1+2 1g SAR (W/kg)	6 Bluetooth Ant 1 1g SAR (W/kg)	1+2+4 Summed 1g SAR (W/kg)	1+3+4 Summed 1g SAR (W/kg)	1+2+5 Summed 1g SAR (W/kg)	1+3+5 Summed 1g SAR (W/kg)	1+2+6 Summed 1g SAR (W/kg)	1+3+6 Summed 1g SAR (W/kg)
5G NR	FR1 n5	Right Cheek	0.191	0.333	0.432	0.183	0.216	0.108	0.71	0.81	0.74	0.84	0.63	0.73
		Right Tilted	0.077	0.453	0.553	0.165	0.224	0.084	0.70	0.80	0.75	0.85	0.61	0.71
		Left Cheek	0.127	0.214	0.254	0.363	0.343	0.270	0.70	0.74	0.68	0.72	0.61	0.65
		Left Tilted	0.076	0.292	0.327	0.282	0.324	0.166	0.65	0.69	0.69	0.73	0.53	0.57
	FR1 n12	Right Cheek	0.125	0.333	0.432	0.183	0.216	0.108	0.64	0.74	0.67	0.77	0.57	0.67
		Right Tilted	0.077	0.453	0.154	0.165	0.224	0.084	0.70	0.40	0.75	0.46	0.61	0.32
		Left Cheek	0.113	0.214	0.254	0.363	0.343	0.270	0.69	0.73	0.67	0.71	0.60	0.64
		Left Tilted	0.076	0.292	0.327	0.282	0.324	0.166	0.65	0.69	0.69	0.73	0.53	0.57
	FR1 n71	Right Cheek	0.155	0.333	0.432	0.183	0.216	0.108	0.67	0.77	0.70	0.80	0.60	0.70
		Right Tilted	0.067	0.453	0.553	0.165	0.224	0.084	0.69	0.79	0.74	0.84	0.60	0.70
		Left Cheek	0.118	0.214	0.254	0.363	0.343	0.270	0.70	0.74	0.68	0.72	0.60	0.64
		Left Tilted	0.069	0.292	0.327	0.282	0.324	0.166	0.64	0.68	0.69	0.72	0.53	0.56

WWAN Band		Exposure Position	1 WWAN 1g SAR (W/kg)	2 2.4GHz WLAN Ant 1+2 1g SAR (W/kg)	3 5GHz WLAN Ant 1+2 1g SAR (W/kg)	4 Bluetooth Ant 1 1g SAR (W/kg)	5 FR1 N41 1g SAR (W/kg)	1+2+5 Summed 1g SAR (W/kg)	1+3+5 Summed 1g SAR (W/kg)	1+4+5 Summed 1g SAR (W/kg)
LTE	LTE Band 25	Right Cheek	0.110	0.183	0.216	0.108	0.717	1.01	1.04	0.94
		Right Tilted	0.121	0.165	0.224	0.084	0.792	1.08	1.14	1.00
		Left Cheek	0.105	0.363	0.343	0.27	0.531	1.00	0.98	0.91
		Left Tilted	0.083	0.282	0.324	0.166	0.614	0.98	1.02	0.86
	LTE Band 41	Right Cheek	0.109	0.183	0.216	0.108	0.717	1.01	1.04	0.93
		Right Tilted	0.046	0.165	0.224	0.084	0.792	1.00	1.06	0.92
		Left Cheek	0.072	0.363	0.343	0.27	0.531	0.97	0.95	0.87
		Left Tilted	0.045	0.282	0.324	0.166	0.614	0.94	0.98	0.83

WWAN Band		Exposure Position	1 WWAN 1g SAR (W/kg)	2 2.4GHz WLAN Ant 1+2 1g SAR (W/kg)	3 5GHz WLAN Ant 1+2 1g SAR (W/kg)	4 Bluetooth Ant 1 1g SAR (W/kg)	5 FR1 N25 1g SAR (W/kg)	1+2+5 Summed 1g SAR (W/kg)	1+3+5 Summed 1g SAR (W/kg)	1+4+5 Summed 1g SAR (W/kg)
LTE	LTE Band 66	Right Cheek	0.169	0.183	0.216	0.108	0.511	0.86	0.90	0.79
		Right Tilted	0.154	0.165	0.224	0.084	0.677	1.00	1.06	0.92
		Left Cheek	0.164	0.363	0.343	0.27	0.352	0.88	0.86	0.79
		Left Tilted	0.133	0.282	0.324	0.166	0.48	0.90	0.94	0.78

WWAN Band		Exposure Position	1	2	3	4	5	1+2+5 Summed 1g SAR (W/kg)	1+3+5 Summed 1g SAR (W/kg)	1+4+5 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2	Bluetooth Ant 1	FR1 N66			
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)			
LTE	LTE Band 25	Right Cheek	0.110	0.183	0.216	0.108	0.575	0.87	0.90	0.79
		Right Tilted	0.121	0.165	0.224	0.084	0.627	0.91	0.97	0.83
		Left Cheek	0.105	0.363	0.343	0.27	0.323	0.79	0.77	0.70
		Left Tilted	0.083	0.282	0.324	0.166	0.446	0.81	0.85	0.70
	LTE Band 5	Right Cheek	0.254	0.183	0.216	0.108	0.575	1.01	1.05	0.94
		Right Tilted	0.139	0.165	0.224	0.084	0.627	0.93	0.99	0.85
		Left Cheek	0.122	0.363	0.343	0.27	0.323	0.81	0.79	0.72
		Left Tilted	0.067	0.282	0.324	0.166	0.446	0.80	0.84	0.68
	LTE Band 12	Right Cheek	0.248	0.183	0.216	0.108	0.575	1.01	1.04	0.93
		Right Tilted	0.115	0.165	0.224	0.084	0.627	0.91	0.97	0.83
		Left Cheek	0.194	0.363	0.343	0.27	0.323	0.88	0.86	0.79
		Left Tilted	0.106	0.282	0.324	0.166	0.446	0.83	0.88	0.72

WWAN Band		Exposure Position	1	2	3	4	5	1+2+5 Summed 1g SAR (W/kg)	1+3+5 Summed 1g SAR (W/kg)	1+4+5 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2	Bluetooth Ant 1	FR1 N2			
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)			
LTE	LTE Band 12	Right Cheek	0.248	0.183	0.216	0.108	0.511	0.94	0.98	0.87
		Right Tilted	0.115	0.165	0.224	0.084	0.677	0.96	1.02	0.88
		Left Cheek	0.194	0.363	0.343	0.27	0.352	0.91	0.89	0.82
		Left Tilted	0.106	0.282	0.324	0.166	0.48	0.87	0.91	0.75
	LTE Band 66	Right Cheek	0.169	0.183	0.216	0.108	0.511	0.86	0.90	0.79
		Right Tilted	0.154	0.165	0.224	0.084	0.677	1.00	1.06	0.92
		Left Cheek	0.164	0.363	0.343	0.27	0.352	0.88	0.86	0.79
		Left Tilted	0.133	0.282	0.324	0.166	0.48	0.90	0.94	0.78

16.2 Hotspot Exposure Conditions

WWAN Band		Exposure Position	1	2	3	4	1+2	SPLSR	Case No	1+3	SPLSR	Case No	1+4
			WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2	Bluetooth Ant 1	Summed			Summed			Summed
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)			1g SAR (W/kg)			1g SAR (W/kg)
GSM	GSM850	Front	0.599	0.196	0.095	0.076	0.80			0.69			0.68
		Back	1.309	1.081	1.179	0.069	**2.39**	**0.04**	**#01**	**2.49**	**0.03**	**#02**	1.38
		Left side	0.092	0.020	0.035	0.006	0.11			0.13			0.10
		Right side	0.285	0.242	0.059	0.068	0.53			0.34			0.35
		Top side		0.272	0.220	0.081	0.27			0.22			0.08
		Bottom side	0.593				0.59			0.59			0.59
	GSM1900	Front	1.284	0.196	0.095	0.076	1.48			1.38			1.36
		Back	1.221	1.081	1.179	0.069	**2.30**	**0.03**	**#03**	**2.40**	**0.03**	**#04**	1.29
		Left side	0.036	0.020	0.035	0.006	0.06			0.07			0.04
		Right side	0.089	0.242	0.059	0.068	0.33			0.15			0.16
		Top side		0.272	0.220	0.081	0.27			0.22			0.08
		Bottom side	1.315				1.32			1.32			1.32
WCDMA	WCDMA II	Front	1.301	0.196	0.095	0.076	1.50			1.40			1.38
		Back	1.404	1.081	1.179	0.069	**2.49**	**0.04**	**#05**	**2.58**	**0.03**	**#06**	1.47
		Left side	0.050	0.020	0.035	0.006	0.07			0.09			0.06
		Right side	0.022	0.242	0.059	0.068	0.26			0.08			0.09
		Top side		0.272	0.220	0.081	0.27			0.22			0.08
		Bottom side	1.340				1.34			1.34			1.34
	WCDMA IV	Front	0.945	0.196	0.095	0.076	1.14			1.04			1.02
		Back	1.334	1.081	1.179	0.069	**2.42**	**0.04**	**#07**	**2.51**	**0.03**	**#08**	1.40
		Left side	0.033	0.020	0.035	0.006	0.05			0.07			0.04
		Right side	0.118	0.242	0.059	0.068	0.36			0.18			0.19
		Top side		0.272	0.220	0.081	0.27			0.22			0.08
		Bottom side	1.246				1.25			1.25			1.25
	WCDMA V	Front	0.707	0.196	0.095	0.076	0.90			0.80			0.78
		Back	1.301	1.081	1.179	0.069	**2.38**	**0.04**	**#09**	**2.48**	**0.03**	**#10**	1.37
		Left side	0.120	0.020	0.035	0.006	0.14			0.16			0.13
		Right side	0.358	0.242	0.059	0.068	0.60			0.42			0.43
		Top side		0.272	0.220	0.081	0.27			0.22			0.08
		Bottom side	0.592				0.59			0.59			0.59
CDMA	CDMA2000 BC0	Front	1.058	0.196	0.095	0.076	1.25			1.15			1.13
		Back	1.475	1.081	1.179	0.069	**2.56**	**0.04**	**#11**	**2.65**	**0.03**	**#12**	**1.54**
		Left side	0.141	0.020	0.035	0.006	0.16			0.18			0.15
		Right side	0.364	0.242	0.059	0.068	0.61			0.42			0.43
		Top side		0.272	0.220	0.081	0.27			0.22			0.08
		Bottom side	1.001				1.00			1.00			1.00
	CDMA2000 BC1	Front	0.258	0.196	0.095	0.076	0.45			0.35			0.33
		Back	0.181	1.081	1.179	0.069	1.26			1.36			0.25
		Left side	0.030	0.020	0.035	0.006	0.05			0.07			0.04
		Right side	0.075	0.242	0.059	0.068	0.32			0.13			0.14
		Top side		0.272	0.220	0.081	0.27			0.22			0.08
		Bottom side	1.295				1.30			1.30			1.30
	CDMA2000 BC10	Front	0.923	0.196	0.095	0.076	1.12			1.02			1.00
		Back	1.237	1.081	1.179	0.069	**2.32**	**0.03**	**#13**	**2.42**	**0.03**	**#14**	1.31
		Left side	0.118	0.020	0.035	0.006	0.14			0.15			0.12
		Right side	0.336	0.242	0.059	0.068	0.58			0.40			0.40
		Top side		0.272	0.220	0.081	0.27			0.22			0.08
		Bottom side	0.845				0.85			0.85			0.85

WWAN Band		Exposure Position	1	2	3	4	1+2	SPLSR	Case No	1+3	SPLSR	Case No	1+4
			WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2	Bluetooth Ant 1	Summed			Summed			Summed
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)			1g SAR (W/kg)			1g SAR (W/kg)
LTE	LTE Band 71	Front	0.641	0.196	0.095	0.076	0.84			0.74			0.72
		Back	0.954	1.081	1.179	0.069	**2.04**	**0.03**	**#15**	**2.13**	**0.02**	**#16**	1.02
		Left side	0.172	0.020	0.035	0.006	0.19			0.21			0.18
		Right side	0.318	0.242	0.059	0.068	0.56			0.38			0.39
		Top side		0.272	0.220	0.081	0.27			0.22			0.08
		Bottom side	0.549				0.55			0.55			0.55
	LTE Band 12	Front	0.864	0.196	0.095	0.076	1.06			0.96			0.94
		Back	1.313	1.081	1.179	0.069	**2.39**	**0.04**	**#17**	**2.49**	**0.03**	**#18**	1.38
		Left side	0.191	0.020	0.035	0.006	0.21			0.23			0.20
		Right side	0.348	0.242	0.059	0.068	0.59			0.41			0.42
		Top side		0.272	0.220	0.081	0.27			0.22			0.08
		Bottom side	0.680				0.68			0.68			0.68
	LTE Band 13	Front	1.169	0.196	0.095	0.076	1.37			1.26			1.25
		Back	1.174	1.081	1.179	0.069	**2.26**	**0.03**	**#20**	**2.35**	**0.03**	**#19**	1.24
		Left side	0.237	0.020	0.035	0.006	0.26			0.27			0.24
		Right side	0.417	0.242	0.059	0.068	0.66			0.48			0.49
		Top side		0.272	0.220	0.081	0.27			0.22			0.08
		Bottom side	0.664				0.66			0.66			0.66
	LTE Band 26	Front	1.270	0.196	0.095	0.076	1.47			1.37			1.35
		Back	1.406	1.081	1.179	0.069	**2.49**	**0.04**	**#22**	**2.59**	**0.03**	**#21**	1.48
		Left side	0.168	0.020	0.035	0.006	0.19			0.20			0.17
		Right side	0.474	0.242	0.059	0.068	0.72			0.53			0.54
		Top side		0.272	0.220	0.081	0.27			0.22			0.08
		Bottom side	0.969				0.97			0.97			0.97
	LTE Band 66	Front	1.260	0.196	0.095	0.076	1.46			1.36			1.34
		Back	1.328	1.081	1.179	0.069	**2.41**	**0.04**	**#24**	**2.51**	**0.03**	**#23**	1.40
		Left side	0.062	0.020	0.035	0.006	0.08			0.10			0.07
		Right side	0.146	0.242	0.059	0.068	0.39			0.21			0.21
		Top side		0.272	0.220	0.081	0.27			0.22			0.08
		Bottom side	1.396				1.40			1.40			1.40
	LTE Band 25	Front	1.226	0.196	0.095	0.076	1.42			1.32			1.30
		Back	1.262	1.081	1.179	0.069	**2.34**	**0.04**	**#26**	**2.44**	**0.03**	**#25**	1.33
		Left side	0.038	0.020	0.035	0.006	0.06			0.07			0.04
		Right side	0.074	0.242	0.059	0.068	0.32			0.13			0.14
		Top side		0.272	0.220	0.081	0.27			0.22			0.08
		Bottom side	1.330				1.33			1.33			1.30
	LTE Band 7	Front	1.303	0.196	0.095	0.076	1.50			1.40			1.38
		Back	1.145	1.081	1.179	0.069	**2.23**	**0.03**	**#27**	**2.32**	**0.02**	**#28**	1.21
		Left side	0.014	0.020	0.035	0.006	0.03			0.05			0.02
		Right side	0.043	0.242	0.059	0.068	0.29			0.10			0.11
		Top side		0.272	0.220	0.081	0.27			0.22			0.08
		Bottom side	1.318				1.32			1.32			1.32
	LTE Band 41	Front	1.230	0.196	0.095	0.076	1.43			1.33			1.31
		Back	1.230	1.081	1.179	0.069	**2.31**	**0.04**	**#29**	**2.41**	**0.03**	**#30**	1.30
		Left side	0.009	0.020	0.035	0.006	0.03			0.04			0.02
		Right side	0.046	0.242	0.059	0.068	0.29			0.11			0.11
		Top side		0.272	0.220	0.081	0.27			0.22			0.08
		Bottom side	1.419				1.42			1.42			1.42

5G NR

WWAN Band		Exposure Position	1	2	3	4	5	6	1+2+4 Summed 1g SAR (W/kg)	SPLSR	Case No	1+3+4 Summed 1g SAR (W/kg)	SPLSR	Case No	1+2+5 Summed 1g SAR (W/kg)	SPLSR	Case No	1+3+5 Summed 1g SAR (W/kg)	SPLSR	Case No	1+2+6 Summed 1g SAR (W/kg)	1+3+6 Summed 1g SAR (W/kg)
			WWAN	LTE Band2_UAT	LTE Band66_UAT	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2	Bluetooth Ant 1															
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)															
5G NR	FR1 n5	Front	0.492	0.404	0.394	0.054	0.035	0.076	0.95			0.94			0.93			0.92			0.97	0.96
		Back	0.710	0.579	0.577	0.339	0.369	0.069	**1.63**	**0.02**	**#59**	**1.63**	**0.02**	**#60**	**1.66**	**0.02**	**#61**	**1.66**	**0.02**	**#62**	1.36	1.36
		Left side	0.116	0.244	0.242	0.006	0.015	0.006	0.37			0.36			0.38			0.37			0.37	0.36
		Right side	0.252	0.035	0.047	0.015	0.016	0.068	0.30			0.31			0.30			0.32			0.36	0.37
		Top side		0.787	0.799	0.069	0.082	0.081	0.86			0.87			0.87			0.88			0.87	0.88
		Bottom side	0.429						0.43			0.43			0.43			0.43			0.43	0.43
	FR1 n12	Front	0.525	0.404	0.394	0.054	0.035	0.076	0.98			0.97			0.96			0.95			1.01	1.00
		Back	0.798	0.579	0.577	0.339	0.369	0.069	**1.72**	**0.02**	**#63**	**1.71**	**0.02**	**#64**	**1.75**	**0.02**	**#65**	**1.74**	**0.02**	**#66**	1.45	1.44
		Left side	0.106	0.244	0.242	0.006	0.015	0.006	0.36			0.35			0.37			0.36			0.36	0.35
		Right side	0.345	0.035	0.047	0.015	0.016	0.068	0.40			0.41			0.40			0.41			0.45	0.46
		Top side		0.787	0.799	0.069	0.082	0.081	0.86			0.87			0.87			0.88			0.87	0.88
		Bottom side	0.459						0.46			0.46			0.46			0.46			0.46	0.46
	FR1 n71	Front	0.459	0.404	0.394	0.054	0.035	0.076	0.92			0.91			0.90			0.89			0.94	0.93
		Back	0.691	0.579	0.577	0.339	0.369	0.069	**1.61**	**0.02**	**#67**	**1.61**	**0.02**	**#68**	**1.64**	**0.02**	**#69**	**1.64**	**0.02**	**#70**	1.34	1.34
		Left side	0.161	0.244	0.242	0.006	0.015	0.006	0.41			0.41			0.42			0.42			0.41	0.41
		Right side	0.245	0.035	0.047	0.015	0.016	0.068	0.30			0.31			0.30			0.31			0.35	0.36
		Top side		0.787	0.799	0.069	0.082	0.081	0.86			0.87			0.87			0.88			0.87	0.88
		Bottom side	0.297						0.30			0.30			0.30			0.30			0.30	0.30

WWAN Band		Exposure Position	1	2	3	4	5	1+2+5 Summed 1g SAR (W/kg)	SPLSR	Case No	1+3+5 Summed 1g SAR (W/kg)	SPLSR	Case No	1+4+5 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2	Bluetooth Ant 1	FR1 N41							
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)							
LTE	LTE Band 25	Front	0.741	0.054	0.035	0.076	0.371	1.17			1.15			1.19
		Back	0.653	0.339	0.369	0.069	0.694	**1.69**	**0.02**	**#71**	**1.72**	**0.02**	**#72**	1.42
		Left side	0.025	0.006	0.015	0.006	0.097	0.13			0.14			0.13
		Right side	0.051	0.015	0.016	0.068	0.049	0.12			0.12			0.17
		Top side		0.069	0.082	0.081	0.657	0.73			0.74			0.74
		Bottom side	0.790					0.79			0.79			0.79
	LTE Band 41	Front	0.787	0.054	0.035	0.076	0.371	1.21			1.19			1.23
		Back	0.732	0.339	0.369	0.069	0.694	**1.77**	**0.02**	**#73**	**1.80**	**0.02**	**#74**	1.50
		Left side	0.007	0.006	0.015	0.006	0.097	0.11			0.12			0.11
		Right side	0.035	0.015	0.016	0.068	0.049	0.10			0.10			0.15
		Top side		0.069	0.082	0.081	0.657	0.73			0.74			0.74
		Bottom side	0.694					0.69			0.69			0.69

WWAN Band		Exposure Position	1 WWAN 1g SAR (W/kg)	2 2.4GHz WLAN Ant 1+2 1g SAR (W/kg)	3 5GHz WLAN Ant 1+2 1g SAR (W/kg)	4 Bluetooth Ant 1 1g SAR (W/kg)	5 FR1 N25 1g SAR (W/kg)	1+2+5 Summed 1g SAR (W/kg)	SPLSR	Case No	1+3+5 Summed 1g SAR (W/kg)	SPLSR	Case No	1+4+5 Summed 1g SAR (W/kg)
LTE	LTE Band 66	Front	0.769	0.054	0.035	0.076	0.255	1.08			1.06			1.10
		Back	0.693	0.339	0.369	0.069	0.599	**1.63**	**0.02**	**#75**	**1.66**	**0.03**	**#76**	1.36
		Left side	0.032	0.006	0.015	0.006	0.198	0.24			0.25			0.24
		Right side	0.074	0.015	0.016	0.068	0.034	0.12			0.12			0.18
		Top side		0.069	0.082	0.081	0.716	0.79			0.80			0.80
		Bottom side	0.715					0.72			0.72			0.72

WWAN Band		Exposure Position	1 WWAN 1g SAR (W/kg)	2 2.4GHz WLAN Ant 1+2 1g SAR (W/kg)	3 5GHz WLAN Ant 1+2 1g SAR (W/kg)	4 Bluetooth Ant 1 1g SAR (W/kg)	5 FR1 N66 1g SAR (W/kg)	1+2+5 Summed 1g SAR (W/kg)	SPLSR	Case No	1+3+5 Summed 1g SAR (W/kg)	SPLSR	Case No	1+4+5 Summed 1g SAR (W/kg)
LTE	LTE Band 25	Front	0.741	0.054	0.035	0.076	0.334	1.13			1.11			1.15
		Back	0.653	0.339	0.369	0.069	0.671	**1.66**	**0.02**	**#77**	**1.69**	**0.03**	**#78**	1.39
		Left side	0.025	0.006	0.015	0.006	0.344	0.38			0.38			0.38
		Right side	0.051	0.015	0.016	0.068	0.058	0.12			0.13			0.18
		Top side		0.069	0.082	0.081	0.792	0.86			0.87			0.87
		Bottom side	0.790					0.79			0.79			0.79
	LTE Band 5	Front	0.523	0.054	0.035	0.076	0.334	0.91			0.89			0.93
		Back	0.775	0.339	0.369	0.069	0.671	**1.79**	**0.02**	**#79**	**1.82**	**0.03**	**#80**	1.52
		Left side	0.111	0.006	0.015	0.006	0.344	0.46			0.47			0.46
		Right side	0.224	0.015	0.016	0.068	0.058	0.30			0.30			0.35
		Top side		0.069	0.082	0.081	0.792	0.86			0.87			0.87
		Bottom side	0.591					0.59			0.59			0.59
	LTE Band 12	Front	0.423	0.054	0.035	0.076	0.334	0.81			0.79			0.83
		Back	0.735	0.339	0.369	0.069	0.671	**1.75**	**0.02**	**#81**	**1.78**	**0.03**	**#82**	1.48
		Left side	0.093	0.006	0.015	0.006	0.344	0.44			0.45			0.44
		Right side	0.217	0.015	0.016	0.068	0.058	0.29			0.29			0.34
		Top side		0.069	0.082	0.081	0.792	0.86			0.87			0.87
		Bottom side	0.413					0.41			0.41			0.41

WWAN Band		Exposure Position	1 WWAN 1g SAR (W/kg)	2 2.4GHz WLAN Ant 1+2 1g SAR (W/kg)	3 5GHz WLAN Ant 1+2 1g SAR (W/kg)	4 Bluetooth Ant 1 1g SAR (W/kg)	5 FR1 N2 1g SAR (W/kg)	1+2+5 Summed 1g SAR (W/kg)	SPLSR	Case No	1+3+5 Summed 1g SAR (W/kg)	SPLSR	Case No	1+4+5 Summed 1g SAR (W/kg)
LTE	LTE Band 12	Front	0.423	0.054	0.035	0.076	0.255	0.73			0.71			0.75
		Back	0.735	0.339	0.369	0.069	0.599	**1.67**	**0.02**	**#83**	**1.70**	**0.03**	**#84**	1.40
		Left side	0.093	0.006	0.015	0.006	0.198	0.30			0.31			0.30
		Right side	0.217	0.015	0.016	0.068	0.034	0.27			0.27			0.32
		Top side		0.069	0.082	0.081	0.716	0.79			0.80			0.80
		Bottom side	0.413					0.41			0.41			0.41
	LTE Band 66	Front	0.769	0.054	0.035	0.076	0.255	1.08			1.06			1.10
		Back	0.693	0.339	0.369	0.069	0.599	**1.63**		*	**1.66**		*	1.36
		Left side	0.032	0.006	0.015	0.006	0.198	0.24			0.25			0.24
		Right side	0.074	0.015	0.016	0.068	0.034	0.12			0.12			0.18
		Top side		0.069	0.082	0.081	0.716	0.79			0.80			0.80
		Bottom side	0.715					0.72			0.72			0.72

16.3 Body-Worn Accessory Exposure Conditions

WWAN Band		Exposure Position	1	2	3	4	1+2	SPLSR	Case No	1+3	SPLSR	Case No	1+4
			WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2	Bluetooth Ant 1	Summed			Summed			Summed
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)			1g SAR (W/kg)			1g SAR (W/kg)
GSM	GSM850	Front	0.599	0.196	0.103	0.076	0.80			0.70			0.68
		Back	1.309	1.081	1.179	0.069	**2.39**	**0.04**	**#01**	**2.49**	**0.03**	**#02**	1.38
		Back with Headset	0.737				0.74			0.74			0.74
	GSM1900	Front	1.284	0.196	0.103	0.076	1.48			1.39			1.36
		Back	1.221	1.081	1.179	0.069	**2.30**	**0.03**	**#03**	**2.40**	**0.03**	**#04**	1.29
		Front with Headset	0.414				0.41			0.41			0.41
WCDMA	WCDMA II	Front	1.301	0.196	0.103	0.076	1.50			1.40			1.38
		Back	1.404	1.081	1.179	0.069	**2.49**	**0.04**	**#05**	**2.58**	**0.03**	**#06**	1.47
		Back with Headset	0.567				0.57			0.57			0.57
	WCDMA IV	Front	0.945	0.196	0.103	0.076	1.14			1.05			1.02
		Back	1.334	1.081	1.179	0.069	**2.42**	**0.04**	**#07**	**2.51**	**0.03**	**#08**	1.40
		Back with Headset	0.670				0.67			0.67			0.67
	WCDMA V	Front	0.707	0.196	0.103	0.076	0.90			0.81			0.78
		Back	1.301	1.081	1.179	0.069	**2.38**	**0.04**	**#09**	**2.48**	**0.03**	**#10**	1.37
		Back with Headset	1.263				1.26			1.26			1.26
CDMA	CDMA2000 BC0	Front	0.873	0.196	0.103	0.076	1.07			0.98			0.95
		Back	1.449	1.081	1.179	0.069	**2.53**	**0.04**	**#31**	**2.63**	**0.03**	**#32**	1.52
		Back with Headset	0.977				0.98			0.98			0.98
	CDMA2000 BC1	Front	1.142	0.196	0.103	0.076	1.34			1.25			1.22
		Back	1.208	1.081	1.179	0.069	**2.29**	**0.04**	**#33**	**2.39**	**0.03**	**#34**	1.28
		Back with Headset	0.317				0.32			0.32			0.32
	CDMA2000 BC10	Front	0.784	0.196	0.103	0.076	0.98			0.89			0.86
		Back	1.225	1.081	1.179	0.069	**2.31**	**0.03**	**#35**	**2.40**	**0.03**	**#36**	1.29
		Back with Headset	0.698				0.70			0.70			0.70
LTE	LTE Band 71	Front	0.641	0.196	0.103	0.076	0.84			0.74			0.72
		Back	0.954	1.081	1.179	0.069	**2.04**	**0.03**	**#15**	**2.13**	**0.02**	**#16**	1.02
	LTE Band 12	Front	0.864	0.196	0.103	0.076	1.06			0.97			0.94
		Back	1.313	1.081	1.179	0.069	**2.39**	**0.04**	**#17**	**2.49**	**0.03**	**#18**	1.38
		Back with Headset	0.865				0.87			0.87			0.87
	LTE Band 13	Front	1.169	0.196	0.103	0.076	1.37			1.27			1.25
		Back	1.174	1.081	1.179	0.069	**2.26**	**0.03**	**#20**	**2.35**	**0.03**	**#19**	1.24
		Back with Headset	0.840				0.84			0.84			0.84
	LTE Band 26	Front	1.270	0.196	0.103	0.076	1.47			1.37			1.35
		Back	1.406	1.081	1.179	0.069	**2.49**	**0.04**	**#22**	**2.59**	**0.03**	**#21**	1.48
		Back with Headset	0.826				0.83			0.83			0.83
	LTE Band 66	Front	1.260	0.196	0.103	0.076	1.46			1.36			1.34
		Back	1.328	1.081	1.179	0.069	**2.41**	**0.04**	**#24**	**2.51**	**0.03**	**#23**	1.40
		Back with Headset	0.628				0.63			0.63			0.63
	LTE Band 25	Front	1.226	0.196	0.103	0.076	1.42			1.33			1.30
		Back	1.262	1.081	1.179	0.069	**2.34**	**0.04**	**#26**	**2.44**	**0.03**	**#25**	1.33
		Back with Headset	0.661				0.66			0.66			0.66
	LTE Band 7	Front	1.303	0.196	0.103	0.076	1.50			1.41			1.38
		Back	1.145	1.081	1.179	0.069	**2.23**	**0.03**	**#27**	**2.32**	**0.02**	**#28**	1.21
		Front with Headset	0.507				0.51			0.51			0.51
	LTE Band 41	Front	1.230	0.196	0.103	0.076	1.43			1.33			1.31
		Back	1.230	1.081	1.179	0.069	**2.31**	**0.04**	**#29**	**2.41**	**0.03**	**#30**	1.30
		Back with Headset	0.629				0.63			0.63			0.63

WWAN Band		Exposure Position	1	2	3	4	1+2	1+3	1+4
			WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2	Bluetooth Ant 1	Summed	Summed	Summed
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)
GSM	GSM1900	Front at 14mm	0.663	0.136	0.154	0.076	0.80	0.82	0.74
		Back at 18mm	0.296	0.348	0.616	0.069	0.64	0.91	0.37
WCDMA	WCDMA II	Front at 14mm	1.088	0.136	0.154	0.076	1.22	1.24	1.16
		Back at 18mm	0.735	0.348	0.616	0.069	1.08	1.35	0.80
	WCDMA IV	Front at 14mm	0.943	0.136	0.154	0.076	1.08	1.10	1.02
		Back at 18mm	0.722	0.348	0.616	0.069	1.07	1.34	0.79
	WCDMA V	Front at 14mm	0.380	0.136	0.154	0.076	0.52	0.53	0.46
		Back at 18mm	0.358	0.348	0.616	0.069	0.71	0.97	0.43
CDMA	CDMA2000 BC1	Front at 14mm	0.948	0.136	0.154	0.076	1.08	1.10	1.02
		Back at 18mm	0.441	0.348	0.616	0.069	0.79	1.06	0.51
	CDMA2000 BC10	Front at 14mm	0.429	0.136	0.154	0.076	0.57	0.58	0.51
		Back at 18mm	0.371	0.348	0.616	0.069	0.72	0.99	0.44
LTE	LTE Band 13	Front at 14mm	0.471	0.136	0.154	0.076	0.61	0.63	0.55
		Back at 18mm	0.420	0.348	0.616	0.069	0.77	1.04	0.49
	LTE Band 26	Front at 14mm	0.202	0.136	0.154	0.076	0.34	0.36	0.28
		Back at 18mm	0.190	0.348	0.616	0.069	0.54	0.81	0.26
	LTE Band 66	Front at 14mm	0.730	0.136	0.154	0.076	0.87	0.88	0.81
		Back at 18mm	0.711	0.348	0.616	0.069	1.06	1.33	0.78
	LTE Band 25	Front at 14mm	0.793	0.136	0.154	0.076	0.93	0.95	0.87
		Back at 18mm	0.759	0.348	0.616	0.069	1.11	1.38	0.83
	LTE Band 7	Front at 14mm	1.010	0.136	0.154	0.076	1.15	1.16	1.09
		Back at 18mm	0.643	0.348	0.616	0.069	0.99	1.26	0.71
	LTE Band 41	Front at 14mm	0.689	0.136	0.154	0.076	0.83	0.84	0.77
		Back at 18mm	0.494	0.348	0.616	0.069	0.84	1.11	0.56

5G NR

WWAN Band		Exposure Position	1 WWAN 1g SAR (W/kg)	2 LTE Band2_UAT 1g SAR (W/kg)	3 LTE Band66_UAT 1g SAR (W/kg)	4 2.4GHz WLAN Ant 1+2 1g SAR (W/kg)	5 5GHz WLAN Ant 1+2 1g SAR (W/kg)	6 Bluetooth Ant 1 1g SAR (W/kg)	1+2+4 Summed 1g SAR (W/kg)	SPLSR	Case No	1+3+4 Summed 1g SAR (W/kg)	SPLSR	Case No	1+2+5 Summed 1g SAR (W/kg)	SPLSR	Case No	1+3+5 Summed 1g SAR (W/kg)	SPLSR	Case No	1+2+6 Summed 1g SAR (W/kg)	1+3+6 Summed 1g SAR (W/kg)
5G NR	FR1 n5	Front	0.492	0.404	0.394	0.054	0.035	0.076	0.95			0.94			0.93			0.92			0.97	0.96
		Back	0.710	0.579	0.577	0.339	0.369	0.069	**1.63**	**0.02**	**#59**	**1.63**	**0.02**	**#60**	**1.66**	**0.02**	**#61**	**1.66**	**0.02**	**#62**	1.36	1.36
	FR1 n12	Front	0.525	0.404	0.394	0.054	0.035	0.076	0.98			0.97			0.96			0.95			1.01	1.00
		Back	0.798	0.579	0.577	0.339	0.369	0.069	**1.72**	**0.02**	**#63**	**1.71**	**0.02**	**#64**	**1.75**	**0.02**	**#65**	**1.74**	**0.02**	**#66**	1.45	1.44
	FR1 n71	Front	0.459	0.404	0.394	0.054	0.035	0.076	0.92			0.91			0.90			0.89			0.94	0.93
		Back	0.691	0.579	0.577	0.339	0.369	0.069	**1.61**	**0.02**	**#67**	**1.61**	**0.02**	**#68**	**1.64**	**0.02**	**#69**	**1.64**	**0.02**	**#70**	1.34	1.34

WWAN Band		Exposure Position	1 WWAN 1g SAR (W/kg)	2 2.4GHz WLAN Ant 1+2 1g SAR (W/kg)	3 5GHz WLAN Ant 1+2 1g SAR (W/kg)	4 Bluetooth Ant 1 1g SAR (W/kg)	5 FR1 N41 1g SAR (W/kg)	1+2+5 Summed 1g SAR (W/kg)	SPLSR	Case No	1+3+5 Summed 1g SAR (W/kg)	SPLSR	Case No	1+4+5 Summed 1g SAR (W/kg)
LTE	LTE Band 25	Front	0.741	0.054	0.035	0.076	0.371	1.17			1.15			1.19
		Back	0.653	0.339	0.369	0.069	0.694	**1.69**	**0.02**	**#71**	**1.72**	**0.02**	**#72**	1.42
	LTE Band 41	Front	0.787	0.054	0.035	0.076	0.371	1.21			1.19			1.23
		Back	0.732	0.339	0.369	0.069	0.694	**1.77**	**0.02**	**#73**	**1.80**	**0.02**	**#74**	1.50

WWAN Band		Exposure Position	1 WWAN 1g SAR (W/kg)	2 2.4GHz WLAN Ant 1+2 1g SAR (W/kg)	3 5GHz WLAN Ant 1+2 1g SAR (W/kg)	4 Bluetooth Ant 1 1g SAR (W/kg)	5 FR1 N25 1g SAR (W/kg)	1+2+5 Summed 1g SAR (W/kg)	SPLSR	Case No	1+3+5 Summed 1g SAR (W/kg)	SPLSR	Case No	1+4+5 Summed 1g SAR (W/kg)
LTE	LTE Band 66	Front	0.769	0.054	0.035	0.076	0.255	1.08			1.06			1.10
		Back	0.693	0.339	0.369	0.069	0.599	**1.63**	**0.02**	**#75**	**1.66**	**0.03**	**#76**	1.36

WWAN Band		Exposure Position	1 WWAN 1g SAR (W/kg)	2 2.4GHz WLAN Ant 1+2 1g SAR (W/kg)	3 5GHz WLAN Ant 1+2 1g SAR (W/kg)	4 Bluetooth Ant 1 1g SAR (W/kg)	5 FR1 N66 1g SAR (W/kg)	1+2+5 Summed 1g SAR (W/kg)	SPLSR	Case No	1+3+5 Summed 1g SAR (W/kg)	SPLSR	Case No	1+4+5 Summed 1g SAR (W/kg)
LTE	LTE Band 25	Front	0.741	0.054	0.035	0.076	0.334	1.13			1.11			1.15
		Back	0.653	0.339	0.369	0.069	0.671	**1.66**	**0.02**	**#77**	**1.69**	**0.03**	**#78**	1.39
	LTE Band 5	Front	0.523	0.054	0.035	0.076	0.334	0.91			0.89			0.93
		Back	0.775	0.339	0.369	0.069	0.671	**1.79**	**0.02**	**#79**	**1.82**	**0.03**	**#80**	1.52
	LTE Band 12	Front	0.423	0.054	0.035	0.076	0.334	0.81			0.79			0.83
		Back	0.735	0.339	0.369	0.069	0.671	**1.75**	**0.02**	**#81**	**1.78**	**0.03**	**#82**	1.48

WWAN Band		Exposure Position	1 WWAN 1g SAR (W/kg)	2 2.4GHz WLAN Ant 1+2 1g SAR (W/kg)	3 5GHz WLAN Ant 1+2 1g SAR (W/kg)	4 Bluetooth Ant 1 1g SAR (W/kg)	5 FR1 N2 1g SAR (W/kg)	1+2+5 Summed 1g SAR (W/kg)			1+3+5 Summed 1g SAR (W/kg)			1+4+5 Summed 1g SAR (W/kg)
LTE	LTE Band 12	Front	0.423	0.054	0.035	0.076	0.255	0.73			0.71			0.75
		Back	0.735	0.339	0.369	0.069	0.599	**1.67**	**0.02**	**#83**	**1.70**	**0.03**	**#84**	1.40
	LTE Band 66	Front	0.769	0.054	0.035	0.076	0.255	1.08			1.06			1.10
		Back	0.693	0.339	0.369	0.069	0.599	1.63		*	1.66		*	1.36

"*"means sum SAR value is higher than 1.6W/Kg for LTE Band 66_fr1 n2 at body, the multi-band analysis is included at LTE Band 66_fr1 n25. Due to LTE Band 66_fr1 n2 simultaneous value was covered by LTE Band 66_fr1 n25, so multi-band analysis for LTE Band 66_fr1 n25can represent LTE Band 66_fr1 n2.

WWAN Band		Exposure Position	1	2	3	4	5	1+2+5 Summed 1g SAR (W/kg)	1+3+5 Summed 1g SAR (W/kg)	SPLSR	Case No	1+4+5 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2	Bluetooth Ant 1	FR1 N41					
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)					
LTE	LTE Band 25	Front at 14mm -	0.793	0.136	0.154	0.076	0.279	1.21	1.23			1.15
		Back at 18mm -	0.759	0.348	0.616	0.069	0.351	1.46	**1.73**	**0.02**	**#85**	1.18
	LTE Band 41	Front at 14mm -	0.740	0.136	0.154	0.076	0.279	1.16	1.17			1.10
		Back at 18mm -	0.533	0.348	0.616	0.069	0.351	1.23	1.50			0.95

WWAN Band		Exposure Position	1	2	3	4	5	1+2+5 Summed 1g SAR (W/kg)	1+3+5 Summed 1g SAR (W/kg)	1+4+5 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2	Bluetooth Ant 1	FR1 N25			
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)			
LTE	LTE Band 66	Front at 14mm -	0.730	0.136	0.154	0.076	0.411	1.28	1.30	1.22
		Back at 18mm -	0.711	0.348	0.616	0.069	0.265	1.32	**1.59**	1.05

WWAN Band		Exposure Position	1	2	3	4	5	1+2+5 Summed 1g SAR (W/kg)	1+3+5 Summed 1g SAR (W/kg)	SPLSR	Case No	1+4+5 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2	Bluetooth Ant 1	FR1 N66					
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)					
LTE	LTE Band 25	Front at 14mm -	0.793	0.136	0.154	0.076	0.510	1.44	1.46			1.38
		Back at 18mm -	0.759	0.348	0.616	0.069	0.479	1.59	**1.85**	**0.03**	**#86**	1.31
	LTE Band 5	Front at 14mm -	0.217	0.136	0.154	0.076	0.510	0.86	0.88			0.80
		Back at 18mm -	0.204	0.339	0.618	0.069	0.479	1.02	1.30			0.75
	LTE Band 12	Front at 14mm -	0.337	0.136	0.154	0.076	0.510	0.98	1.00			0.92
		Back at 18mm -	0.341	0.339	0.618	0.069	0.479	1.16	1.44			0.89

WWAN Band		Exposure Position	1	2	3	4	5	**1+2+5 Summed 1g SAR (W/kg)**	**1+3+5 Summed 1g SAR (W/kg)**	**1+4+5 Summed 1g SAR (W/kg)**
			WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2	Bluetooth Ant 1	FR1 N2			
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)			
LTE	LTE Band 12	Front at 14mm	0.337	0.136	0.154	0.076	0.411	0.88	0.90	0.82
		Back at 18mm	0.341	0.339	0.618	0.069	0.265	0.95	1.22	0.68
	LTE Band 66	Front at 14mm	0.730	0.136	0.154	0.076	0.411	1.28	1.30	1.22
		Back at 18mm	0.711	0.348	0.616	0.069	0.265	1.32	**1.59**	1.05

16.4 Product specific 10g SAR Exposure Conditions

WWAN Band		Exposure Position	1 WWAN 10g SAR (W/kg)	2 2.4GHz WLAN Ant 1+2 10g SAR (W/kg)	3 5GHz WLAN Ant 1+2 10g SAR (W/kg)	1+2 Summed 10g SAR (W/kg)	SPLSR	Case No	1+3 Summed 10g SAR (W/kg)	SPLSR	Case No
GSM	GSM850	Front		1.232	0.492	1.23			0.49		
		Back	1.077	1.106	2.921	2.18			**4.00**	**0.05**	**#37**
		Left side		0.053	0.083	0.05			0.08		
		Right side		0.839	0.235	0.84			0.24		
		Top side		1.340	0.857	1.34			0.86		
		Bottom side				0.00			0.00		
	GSM1900	Front	2.503	1.232	0.492	3.74			3.00		
		Back	2.601	1.106	2.921	3.71			**5.52**	**0.09**	**#38**
		Left side		0.053	0.083	0.05			0.08		
		Right side		0.839	0.235	0.84			0.24		
		Top side		1.340	0.857	1.34			0.86		
		Bottom side	3.363			3.36			3.36		
WCDMA	WCDMA II	Front	2.907	1.232	0.492	**4.14**	**0.05**	**#39**	3.40		
		Back	2.621	1.106	2.921	3.73			**5.54**	**0.09**	**#40**
		Left side		0.053	0.083	0.05			0.08		
		Right side		0.839	0.235	0.84			0.24		
		Top side		1.340	0.857	1.34			0.86		
		Bottom side	1.966			1.97			1.97		
	WCDMA IV	Front	2.872	1.232	0.492	**4.10**	**0.05**	**#41**	3.36		
		Back	3.198	1.106	2.921	**4.30**	**0.08**	**#42**	**6.12**	**0.10**	**#43**
		Left side		0.053	0.083	0.05			0.08		
		Right side		0.839	0.235	0.84			0.24		
		Top side		1.340	0.857	1.34			0.86		
		Bottom side	1.717			1.72			1.72		
	WCDMA V	Front		1.232	0.492	1.23			0.49		
		Back	2.065	1.106	2.921	3.17			**4.99**	**0.07**	**#44**
		Left side		0.053	0.083	0.05			0.08		
		Right side		0.839	0.235	0.84			0.24		
		Top side		1.340	0.857	1.34			0.86		
		Bottom side				0.00			0.00		
CDMA	CDMA2000 BC0	Front	1.772	1.232	0.492	3.00			2.26		
		Back	1.733	1.106	2.921	2.84			**4.65**	**0.07**	**#45**
		Left side		0.053	0.083	0.05			0.08		
		Right side		0.839	0.235	0.84			0.24		
		Top side		1.340	0.857	1.34			0.86		
		Bottom side				0.00			0.00		
	CDMA2000 BC1	Front	2.865	1.232	0.492	**4.10**	**0.05**	**#46**	3.36		
		Back	2.635	1.106	2.921	3.74			**5.56**	**0.09**	**#47**
		Left side		0.053	0.083	0.05			0.08		
		Right side		0.839	0.235	0.84			0.24		
		Top side		1.340	0.857	1.34			0.86		
		Bottom side	2.730			2.73			2.73		
	CDMA2000 BC10	Front	1.253	1.232	0.492	2.49			1.75		
		Back	1.643	1.106	2.921	2.75			**4.56**	**0.07**	**#48**
		Left side		0.053	0.083	0.05			0.08		
		Right side		0.839	0.235	0.84			0.24		
		Top side		1.340	0.857	1.34			0.86		
		Bottom side				0.00			0.00		

WWAN Band		Exposure Position	1 WWAN 10g SAR (W/kg)	2 2.4GHz WLAN Ant 1+2 10g SAR (W/kg)	3 5GHz WLAN Ant 1+2 10g SAR (W/kg)	1+2 Summed 10g SAR (W/kg)	SPLSR	Case No	1+3 Summed 10g SAR (W/kg)	SPLSR	Case No
LTE	LTE Band 71	Front		1.232	0.492	1.23			0.49		
		Back		1.106	2.921	1.11			2.92		
		Left side		0.053	0.083	0.05			0.08		
		Right side		0.839	0.235	0.84			0.24		
		Top side		1.340	0.857	1.34			0.86		
		Bottom side				0.00			0.00		
	LTE Band 12	Front		1.232	0.492	1.23			0.49		
		Back	1.278	1.106	2.921	2.38			**4.20**	**0.06**	**#49**
		Left side		0.053	0.083	0.05			0.08		
		Right side		0.839	0.235	0.84			0.24		
		Top side		1.340	0.857	1.34			0.86		
		Bottom side				0.00			0.00		
	LTE Band 13	Front		1.232	0.492	1.23			0.49		
		Back	1.735	1.106	2.921	2.84			**4.66**	**0.07**	**#50**
		Left side		0.053	0.083	0.05			0.08		
		Right side		0.839	0.235	0.84			0.24		
		Top side		1.340	0.857	1.34			0.86		
		Bottom side				0.00			0.00		
	LTE Band 26	Front		1.232	0.492	1.23			0.49		
		Back	1.902	1.106	2.921	3.01			**4.82**	**0.07**	**#51**
		Left side		0.053	0.083	0.05			0.08		
		Right side		0.839	0.235	0.84			0.24		
		Top side		1.340	0.857	1.34			0.86		
		Bottom side				0.00			0.00		
	LTE Band 66	Front	3.057	1.232	0.492	**4.29**	**0.06**	**#52**	3.55		
		Back	2.637	1.106	2.921	3.74			**5.56**	**0.09**	**#53**
		Left side		0.053	0.083	0.05			0.08		
		Right side		0.839	0.235	0.84			0.24		
		Top side		1.340	0.857	1.34			0.86		
		Bottom side	2.713			2.71			2.71		
	LTE Band 25	Front	2.780	1.232	0.492	**4.01**	**0.05**	**#54**	3.27		
		Back	2.585	1.106	2.921	3.69			**5.51**	**0.09**	**#55**
		Left side		0.053	0.083	0.05			0.08		
		Right side		0.839	0.235	0.84			0.24		
		Top side		1.340	0.857	1.34			0.86		
		Bottom side	2.350			2.35			2.35		
	LTE Band 7	Front	2.588	1.232	0.492	3.82			3.08		
		Back	2.767	1.106	2.921	3.87			**5.69**	**0.09**	**#56**
		Left side		0.053	0.083	0.05			0.08		
		Right side		0.839	0.235	0.84			0.24		
		Top side		1.340	0.857	1.34			0.86		
		Bottom side	2.759			2.76			2.76		
	LTE Band 41	Front	2.632	1.232	0.492	3.86			3.12		
		Back	2.646	1.106	2.921	3.75			**5.57**	**0.09**	**#58**
		Left side		0.053	0.083	0.05			0.08		
		Right side		0.839	0.235	0.84			0.24		
		Top side		1.340	0.857	1.34			0.86		
		Bottom side	2.749			2.75			2.75		

WWAN Band		Exposure Position	1	2	3	1+2 Summed 10g SAR (W/kg)	1+3 Summed 10g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2		
			10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)		
WCDMA	WCDMA II	Front at 6mm	2.331	1.232	0.492	3.56	2.82
		Back at 8mm	1.708	1.106	0.677	2.81	2.39
		Bottom Side at 12mm	1.599			1.60	1.60
	WCDMA IV	Front at 6mm	2.393	1.232	0.492	3.63	2.89
		Back at 8mm	1.869	1.106	0.677	2.98	2.55
		Bottom Side at 12mm	1.443			1.44	1.44
CDMA	CDMA2000 BC1	Front at 6mm	1.100	1.232	0.492	2.33	1.59
		Back at 8mm	0.942	1.106	0.677	2.05	1.62
		Bottom Side at 12mm	1.757			1.76	1.76
LTE	LTE Band 66	Front at 6mm	1.636	1.232	0.492	2.87	2.13
		Back at 8mm	1.343	1.106	0.677	2.45	2.02
		Bottom Side at 12mm	1.233			1.23	1.23
	LTE Band 25	Front at 6mm	0.427	1.232	0.492	1.66	0.92
		Back at 8mm	0.322	1.106	0.677	1.43	1.00
		Bottom Side at 12mm	0.333			0.33	0.33
	LTE Band 7	Front at 6mm	1.353	1.232	0.492	2.59	1.85
		Back at 8mm	0.099	1.106	0.677	1.21	0.78
		Bottom Side at 12mm	1.499			1.50	1.50

<5G NR>

WWAN Band		Exposure Position	1	2	3	4	5	6	1+2+4 Summed 10g SAR (W/kg)	1+2+5 Summed 10g SAR (W/kg)	1+2+6 Summed 10g SAR (W/kg)	1+3+4 Summed 10g SAR (W/kg)	1+3+5 Summed 10g SAR (W/kg)	1+3+6 Summed 10g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2	FR1 n5	FR1 n12	FR1 n71						
			10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)						
LTE	LTE Band 2-UAT	Front	0.878	0.609	0.402				1.49	1.49	1.49	1.28	1.28	1.28
		Back	1.591	0.644	0.687				2.24	2.24	2.24	2.28	2.28	2.28
		Top side	1.848	0.653	0.156				2.50	2.50	2.50	2.00	2.00	2.00
	LTE Band 66-UAT	Front	0.847	0.609	0.402				1.46	1.46	1.46	1.25	1.25	1.25
		Back	1.479	0.644	0.687				2.12	2.12	2.12	2.17	2.17	2.17
		Top side	1.825	0.653	0.156				2.48	2.48	2.48	1.98	1.98	1.98

WWAN Band		Exposure Position	1	2	3	4	1+2+4 Summed 10g SAR (W/kg)	SPLSR	Case No	1+3+4 Summed 10g SAR (W/kg)	SPLSR	Case No
			WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2	FR1 n41						
			10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)						
LTE	LTE Band 25	Front	1.925	0.609	0.402	0.924	3.46			3.25		
		Back	1.640	0.644	0.687	1.975	**4.26**	**0.08**	**#87**	**4.30**	**0.09**	**#88**
		Top side		0.653	0.156	1.518	2.17			1.67		
		Bottom side	1.202				1.20			1.20		
	LTE Band 41	Front	1.492	0.609	0.402	0.924	3.03			2.82		
		Back	1.447	0.644	0.687	1.975	**4.07**	**0.08**	**#89**	**4.11**	**0.09**	**#90**
		Top side		0.653	0.156	1.518	2.17			1.67		
		Bottom side	1.963				1.96			1.96		

WWAN Band		Exposure Position	1	2	3	4	1+2+4 Summed 10g SAR (W/kg)	1+3+4 Summed 10g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2	FR1 n25		
			10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)		
LTE	LTE Band 66	Front	1.993	0.609	0.402	0.888	3.49	3.28
		Back	1.405	0.644	0.687	1.439	3.49	3.53
		Top side		0.653	0.156	1.651	2.30	1.81
		Bottom side	1.644				1.64	1.64

WWAN Band		Exposure Position	1	2	3	4	1+2+4 Summed 10g SAR (W/kg)	1+3+4 Summed 10g SAR (W/kg)	SPLSR	Case No
			WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2	FR1 n66				
			10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)				
LTE	LTE Band 25	Front	1.925	0.609	0.402	1.178	3.71	3.51		
		Back	1.640	0.644	0.687	1.585	3.87	**3.91**		
		Top side		0.653	0.156	1.911	2.56	2.07		
		Bottom side	1.202				1.20	1.20		
	LTE Band 5	Front		0.609	0.402	1.178	1.79	1.58		
		Back	1.749	0.644	0.687	1.585	**3.98**	**4.02**	**0.08**	**#91**
		Top side		0.653	0.156	1.911	2.56	2.07		
		Bottom side					0.00	0.00		
	LTE Band 12	Front		0.609	0.402	1.178	1.79	1.58		
		Back	1.278	0.644	0.687	1.585	3.51	3.55		
		Top side		0.653	0.156	1.911	2.56	2.07		
		Bottom side								

WWAN Band		Exposure Position	1	2	3	4	1+2+4 Summed 10g SAR (W/kg)	1+3+4 Summed 10g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2	FR1 n2		
			10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)		
LTE	LTE Band 12	Front		0.609	0.402	0.888	1.50	1.29
		Back	1.278	0.644	0.687	1.439	3.36	3.40
		Top side		0.653	0.156	1.651	2.30	1.81
		Bottom side					0.00	0.00
	LTE Band 66	Front	1.993	0.609	0.402	0.888	3.49	3.28
		Back	1.405	0.644	0.687	1.439	3.49	3.53
		Top side		0.653	0.156	1.651	2.30	1.81
		Bottom side	1.644				1.64	1.64

WWAN Band		Exposure Position	1	2	3	4	5	6	1+2+4 Summed 10g SAR (W/kg)	1+2+5 Summed 10g SAR (W/kg)	1+2+6 Summed 10g SAR (W/kg)	1+3+4 Summed 10g SAR (W/kg)	1+3+5 Summed 10g SAR (W/kg)	1+3+6 Summed 10g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2	FR1 n5	FR1 n12	FR1 n71						
			10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)						
LTE	LTE Band 2-UAT	Front at 6mm	1.217	1.232	0.492				2.45	2.45	2.45	1.71	1.71	1.71
		Back at 8mm	1.747	1.106	0.677				2.85	2.85	2.85	2.42	2.42	2.42
		Top side at 11mm	1.178						1.18	1.18	1.18	1.18	1.18	1.18
	LTE Band 66-UAT	Front at 6mm	1.067	1.232	0.492				2.30	2.30	2.30	1.56	1.56	1.56
		Back at 8mm	1.457	1.106	0.677				2.56	2.56	2.56	2.13	2.13	2.13
		Top side at 11mm	0.820						0.82	0.82	0.82	0.82	0.82	0.82

WWAN Band		Exposure Position	1	2	3	4	1+2+4 Summed 10g SAR (W/kg)	1+3+4 Summed 10g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2	FR1 n41		
			10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)		
LTE	LTE Band 25	Front at 6mm	0.427	1.232	0.492	0.523	2.18	1.44
		Back at 8mm	0.322	1.106	0.677	0.612	2.04	1.61
		Bottom side at 12mm	0.333			0.000	0.33	0.33
	LTE Band 41	Front at 6mm		1.232	0.492	0.523	1.76	1.02
		Back at 8mm		1.106	0.677	0.612	1.72	1.29
		Bottom side at 12mm						

WWAN Band		Exposure Position	1	2	3	4	1+2+4 Summed 10g SAR (W/kg)	1+3+4 Summed 10g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2	FR1 n25		
			10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)		
LTE	LTE Band 66	Front at 6mm	1.636	1.232	0.492	0.592	3.46	2.72
		Back at 8mm	1.343	1.106	0.677	1.034	3.48	3.05
		Bottom side at 12mm	1.233				1.23	1.23

WWAN Band		Exposure Position	1	2	3	4	1+2+4 Summed 10g SAR (W/kg)	1+3+4 Summed 10g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2	FR1 n66		
			10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)		
LTE	LTE Band 25	Front at 6mm	0.427	1.232	0.492	0.668	2.33	1.59
		Back at 8mm	0.322	1.106	0.677	0.731	2.16	1.73
		Bottom side at 12mm	0.333			0.000	0.33	0.33
	LTE Band 5	Front at 6mm		1.232	0.492	0.668	1.90	1.16
		Back at 8mm		1.106	0.677	0.731	1.84	1.41
		Bottom side at 12mm						
	LTE Band 12	Front at 6mm		1.232	0.492	0.668	1.90	1.16
		Back at 8mm		1.106	0.677	0.731	1.84	1.41
		Bottom side at 12mm						

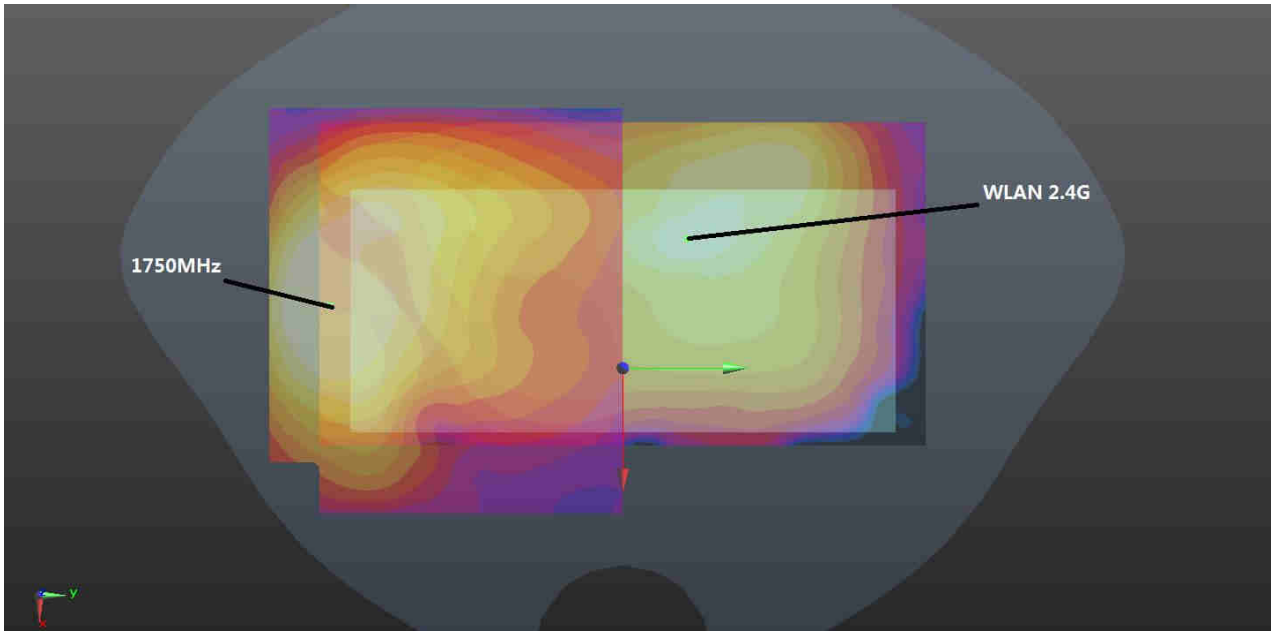
WWAN Band		Exposure Position	1	2	3	4	1+2+4 Summed 10g SAR (W/kg)	1+3+4 Summed 10g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2	FR1 n2		
			10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)		
LTE	LTE Band 12	Front at 6mm		1.232	0.492	0.592	1.82	1.08
		Back at 8mm		1.106	0.677	1.034	2.14	1.71
		Bottom side at 12mm						
	LTE Band 66	Front at 6mm	1.636	1.232	0.492	0.592	3.46	2.72
		Back at 8mm	1.343	1.106	0.677	1.034	3.48	3.05
		Bottom side at 12mm	1.233				1.23	1.23

Remark:
1. For Bluetooth Product specific 10g stand-alone SAR is not required for a transmitter or antenna, due to 1g hotspot SAR is <1.2W/kg.
2. If SPLSR ≤ 0.10 for 10g SAR, simultaneously transmission SAR measurement is not necessary.

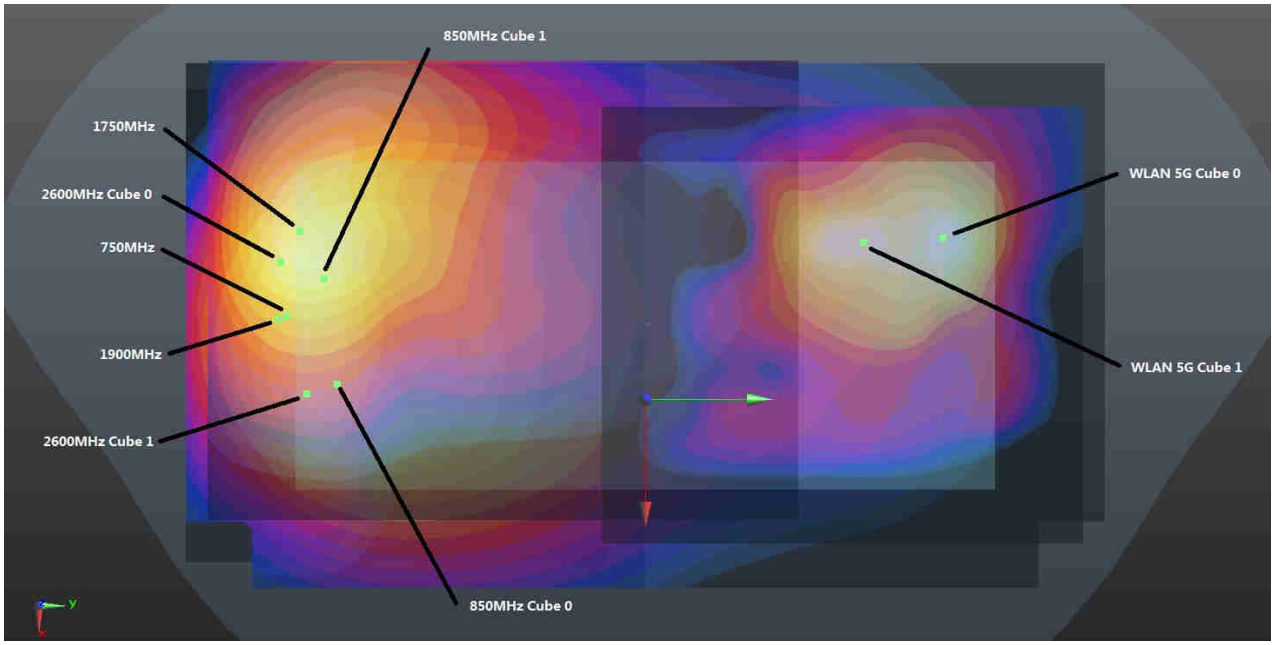
16.5 SPLSR Evaluation and Analysis

General Note:

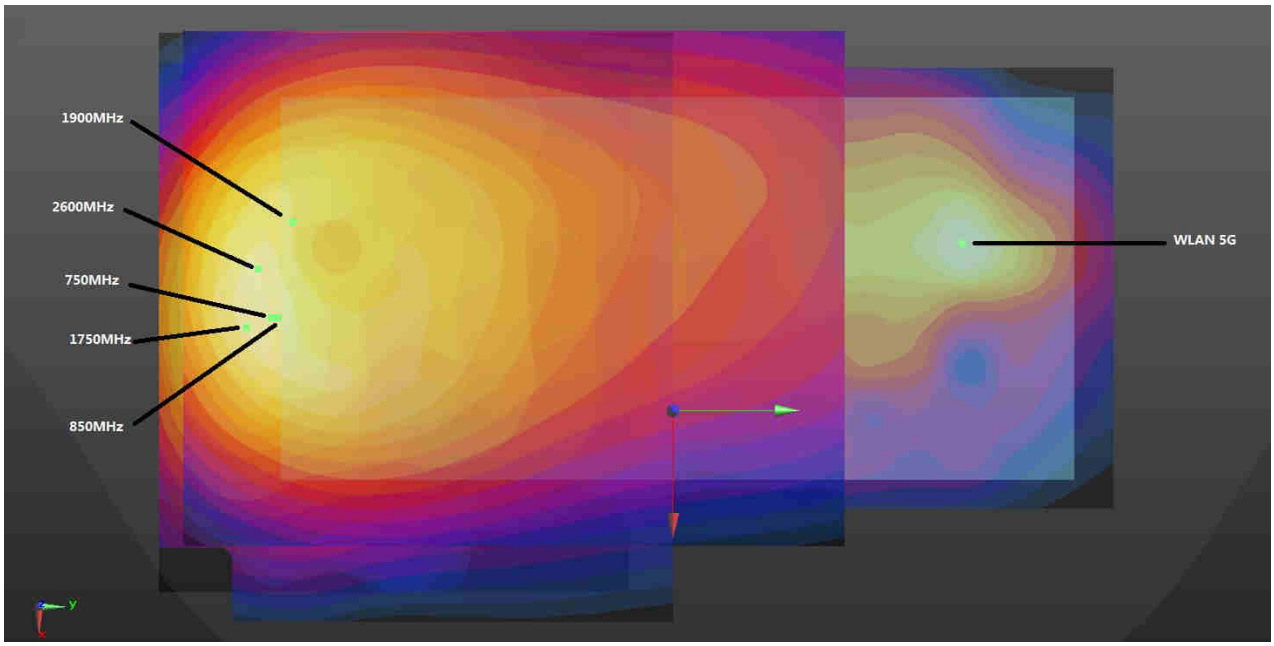
1. When standalone SAR is measured for both antennas in the pair, the peak location separation distance is computed by the square root of [(x1−x2)2 + (y1−y2)2 + (z1−z2)2], where (x1, y1, z1) and (x2, y2, z2) are the coordinates in the area scans or extrapolated peak SAR locations in the zoom scans, as appropriate.
2. SPLSR = (SAR1 + SAR2)1.5 / (min. separation distance, mm). If SPLSR ≤ 0.04 for 1g SAR and SPLSR ≤ 0.10 for 10g SAR, simultaneously transmission SAR measurement is not necessary.



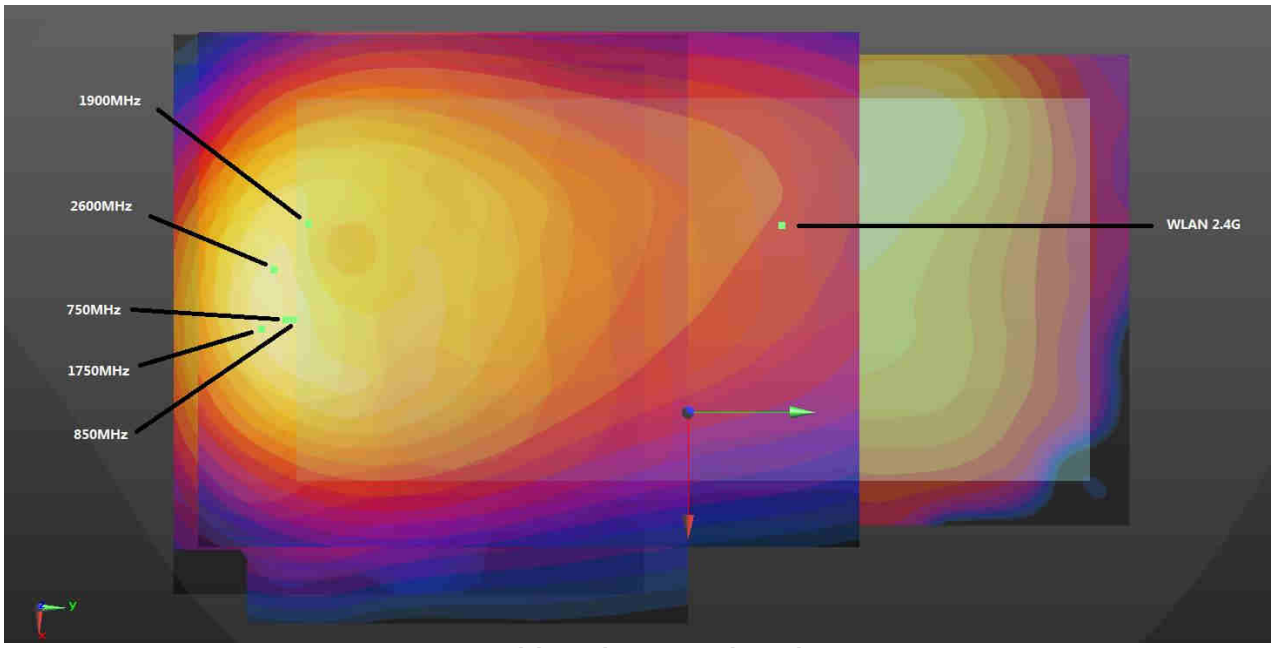
Back(0mm)+2.4GHz(0mm)



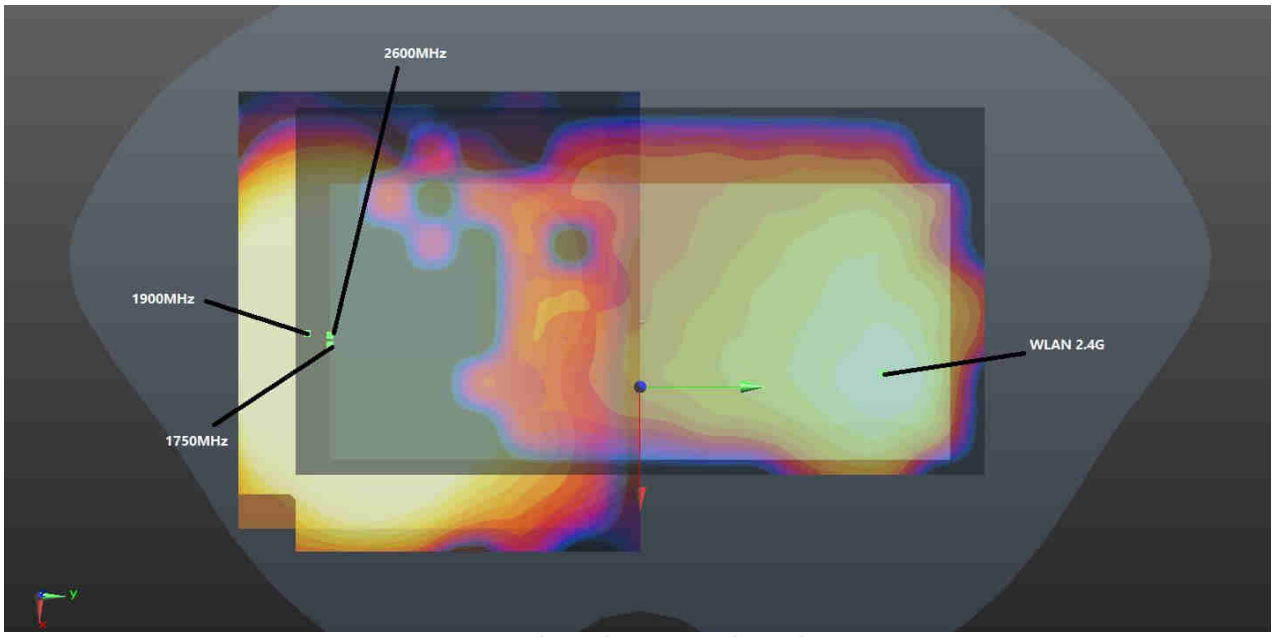
Back(0mm)+5GHz(0mm)



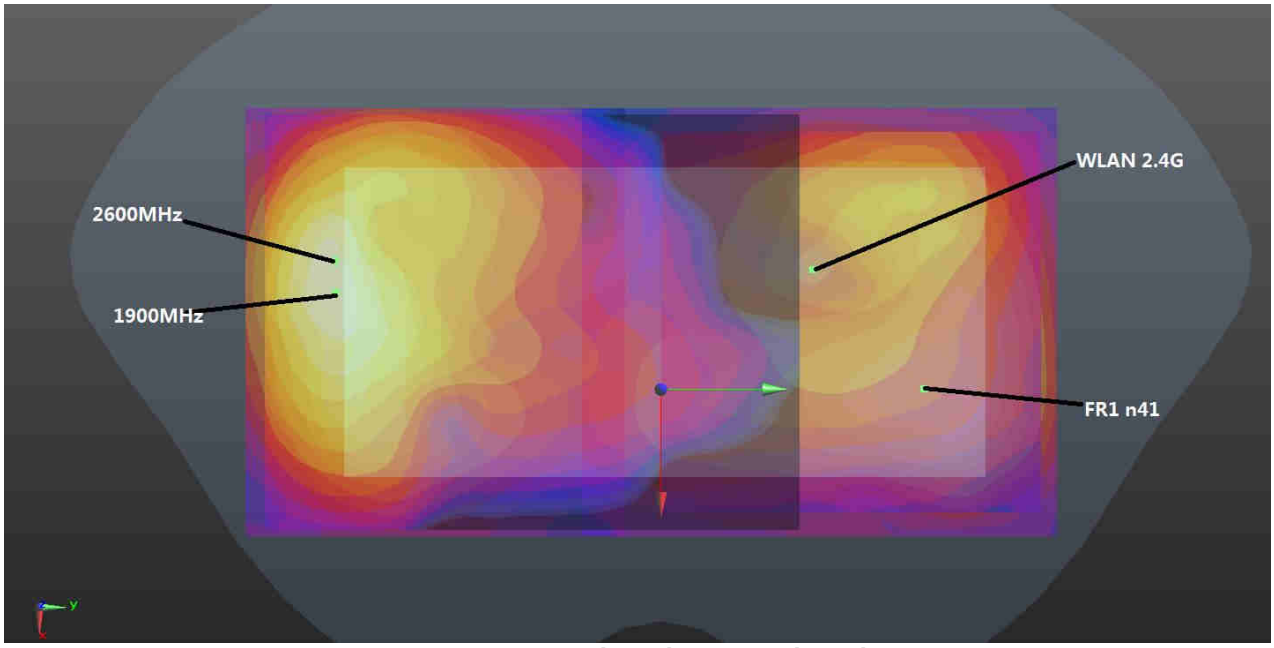
Back(5mm)+5GHz(5mm)



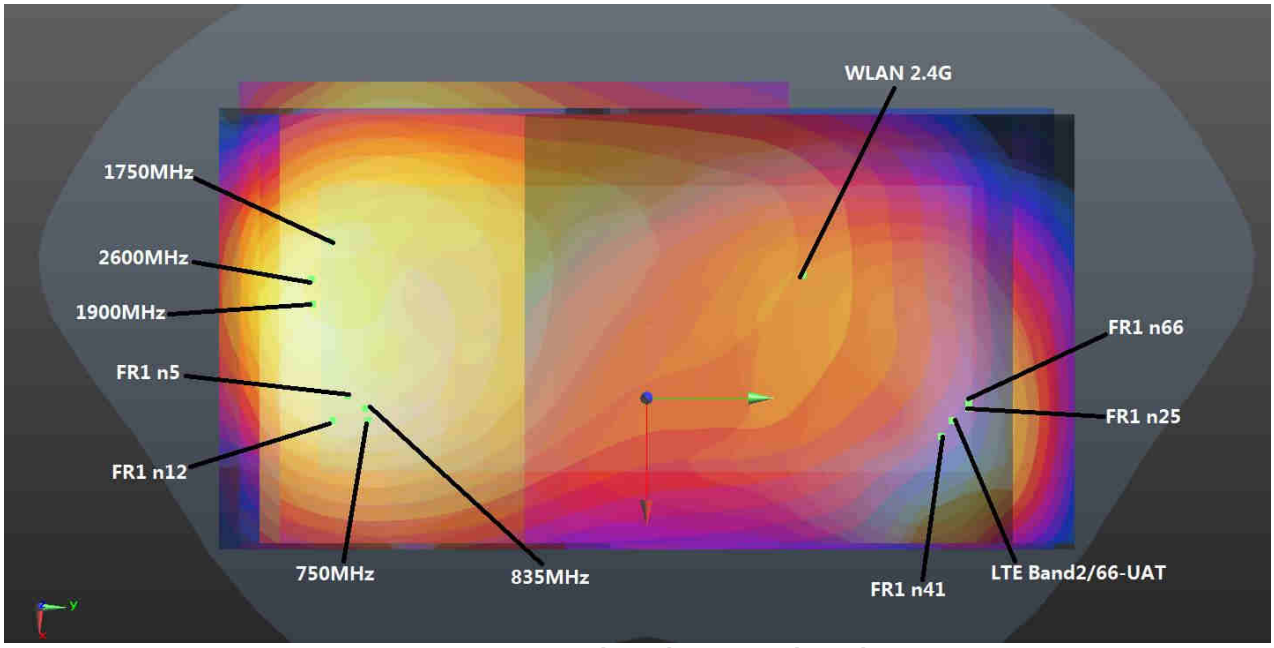
Back(5mm)+ 2.4GHz(5mm)



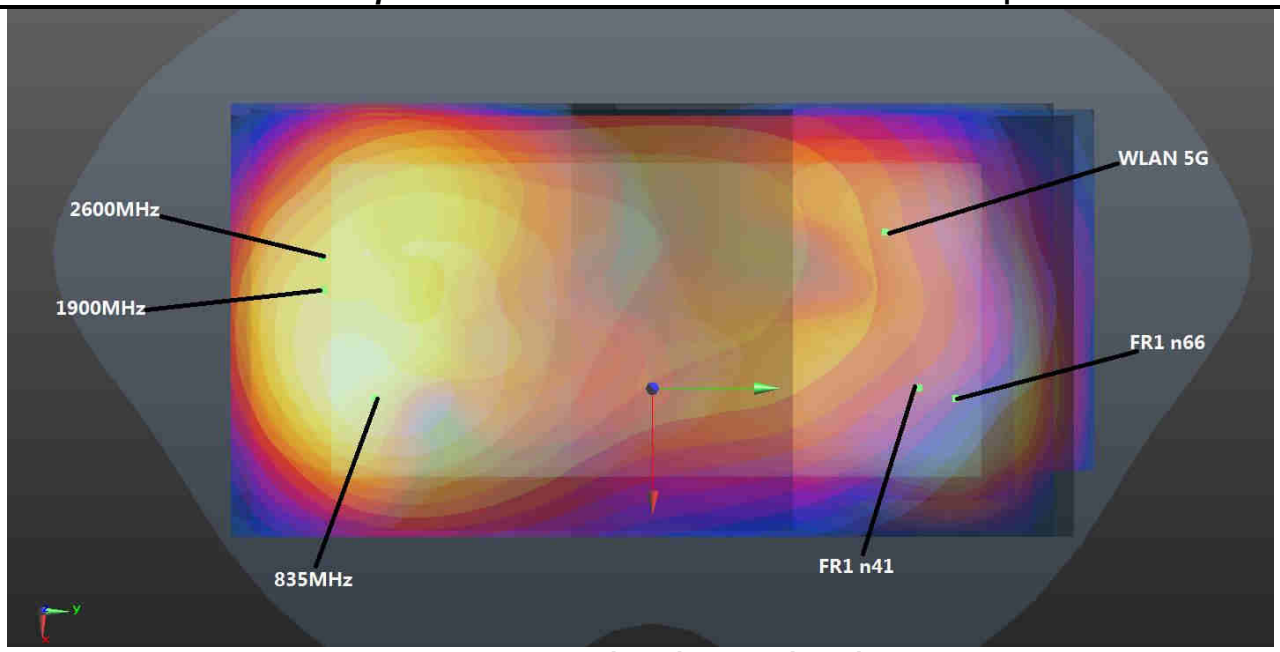
Front(0mm)+ 2.4GHz(0mm)



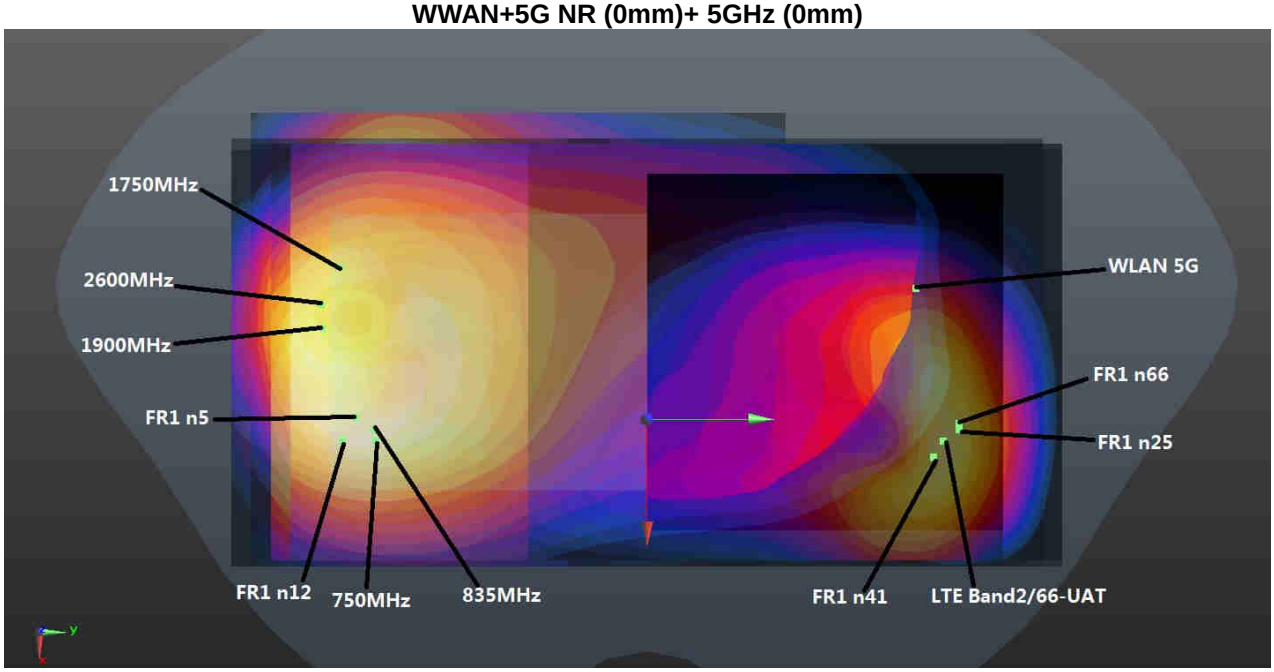
WWAN+5G NR (0mm)+ 2.4GHz(0mm)



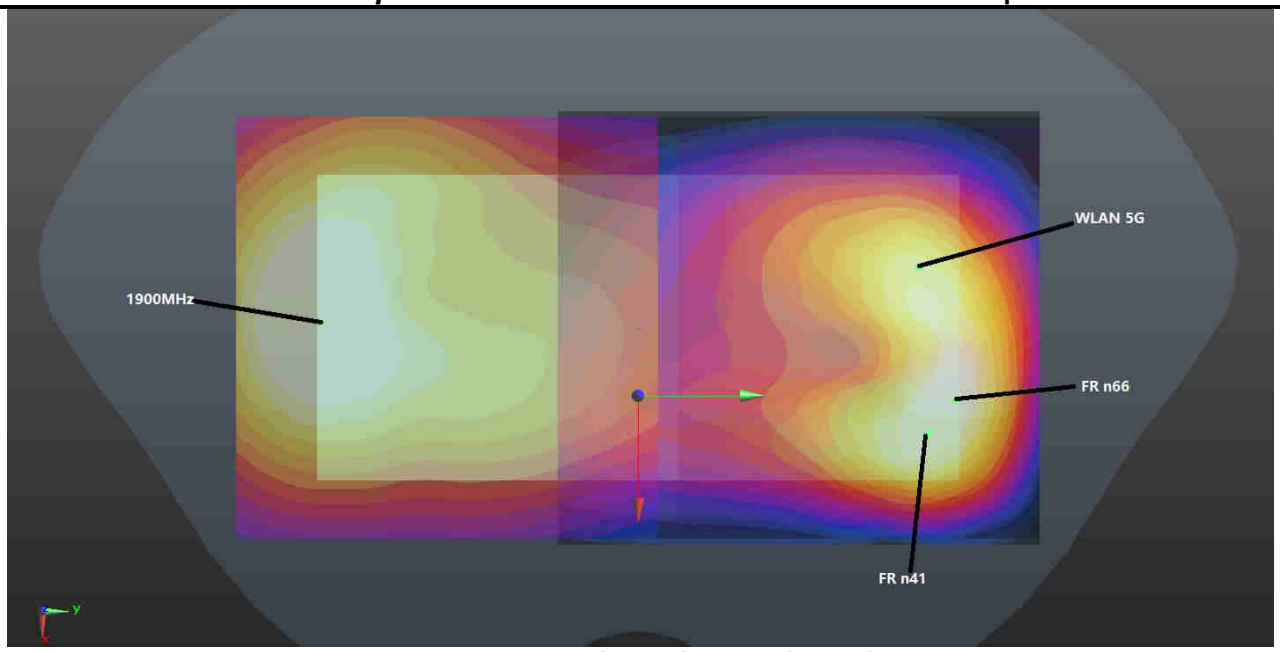
WWAN+5G NR (5mm)+ 2.4GHz(5mm)



WWAN+5G NR (0mm)+ 5GHz (0mm)



WWAN+5GNR (5mm)+ 5GHz(5mm)



WWAN+5G NR (18mm)+ 5GHz(18mm)

Hotspot / Body Worn											
	Band	Position	SAR (W/kg)	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				(mm)	X	Y	Z				
Case 1	GSM850	Back	1.309	5mm	12.3	-77.3	-0.54	100.7	2.39	0.04	Not required
	WLAN2.4GHz		1.081	5mm	-16.2	19.2	-3.63				
Case 2	GSM850	Back	1.309	5mm	12.3	-77.3	-0.54	140.6	2.49	0.03	Not required
	WLAN5GHz		1.179	5mm	-9.2	61.6	-3.09				
Case 3	GSM1900	Back	1.221	5mm	-10.7	-80.4	-0.31	99.8	2.30	0.03	Not required
	WLAN2.4GHz		1.081	5mm	-16.2	19.2	-3.63				
Case 4	GSM1900	Back	1.221	5mm	-10.7	-80.4	-0.31	142.0	2.40	0.03	Not required
	WLAN5GHz		1.179	5mm	-9.2	61.6	-3.09				
Case 5	WCDMA II	Back	1.404	5mm	-10.6	-83.4	-0.35	102.8	2.49	0.04	Not required
	WLAN2.4GHz		1.081	5mm	-16.2	19.2	-3.63				
Case 6	WCDMA II	Back	1.404	5mm	-10.6	-83.4	-0.35	145.0	2.58	0.03	Not required
	WLAN5GHz		1.179	5mm	-9.2	61.6	-3.09				

	Band	Position	SAR (W/kg)	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				(mm)	X	Y	Z				
Case 7	WCDMA IV	Back	1.334	5mm	0	-85.4	0.1	105.9	2.42	0.04	Not required
	WLAN2.4GHz		1.081	5mm	-16.2	19.2	-3.63				
Case 8	WCDMA IV	Back	1.334	5mm	0	-85.4	0.1	147.3	2.51	0.03	Not required
	WLAN5GHz		1.179	5mm	-9.2	61.6	-3.09				
Case 9	WCDMA V	Back	1.301	5mm	7.6	-80.5	0.34	102.6	2.38	0.04	Not required
	WLAN2.4GHz		1.081	5mm	-16.2	19.2	-3.63				
Case 10	WCDMA V	Back	1.301	5mm	7.6	-80.5	0.34	143.1	2.48	0.03	Not required
	WLAN5GHz		1.179	5mm	-9.2	61.6	-3.09				
Case 11	CDMA2000 BC0	Back	1.475	5mm	9.2	-80.4	0.31	102.9	2.56	0.04	Not required
	WLAN2.4GHz		1.081	5mm	-16.2	19.2	-3.63				
Case 12	CDMA2000 BC0	Back	1.475	5mm	9.2	-80.4	0.31	143.2	2.65	0.03	Not required
	WLAN5GHz		1.179	5mm	-9.2	61.6	-3.09				
Case 13	CDMA2000 BC10	Back	1.237	5mm	-0.4	-80.4	-0.61	100.9	2.32	0.03	Not required
	WLAN2.4GHz		1.081	5mm	-16.2	19.2	-3.63				

	Band	Position	SAR (W/kg)	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				(mm)	X	Y	Z				
Case 14	CDMA2000 BC10	Back	1.237	5mm	-0.4	-80.4	-0.61	142.3	2.42	0.03	Not required
	WLAN5GHz		1.179	5mm	-9.2	61.6	-3.09				
Case 15	LTE Band 71	Back	0.954	5mm	2.8	-78.8	-1.53	99.8	2.04	0.03	Not required
	WLAN2.4GHz		1.081	5mm	-16.2	19.2	-3.63				
Case 16	LTE Band 71	Back	0.954	5mm	2.8	-78.8	-1.53	140.9	2.13	0.02	Not required
	WLAN5GHz		1.179	5mm	-9.2	61.6	-3.09				
Case 17	LTE Band 12	Back	1.313	5mm	4.4	-78.7	-1.59	100.1	2.39	0.04	Not required
	WLAN2.4GHz		1.081	5mm	-16.2	19.2	-3.63				
Case 18	LTE Band 12	Back	1.313	5mm	4.4	-78.7	-1.59	141.0	2.49	0.03	Not required
	WLAN5GHz		1.179	5mm	-9.2	61.6	-3.09				
Case 19	LTE Band 13	Back	1.174	5mm	4.4	-75.6	-1.57	137.9	2.35	0.03	Not required
	WLAN5GHz		1.179	5mm	-9.2	61.6	-3.09				
Case 20	LTE Band 13	Back	1.174	5mm	4.4	-75.6	-1.57	97.0	2.26	0.03	Not required
	WLAN2.4GHz		1.081	5mm	-16.2	19.2	-3.63				

	Band	Position	SAR (W/kg)	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				(mm)	X	Y	Z				
Case 21	LTE Band 26	Back	1.406	5mm	10.7	-78.9	-0.54	141.9	2.59	0.03	Not required
	WLAN5GHz		1.179	5mm	-9.2	61.6	-3.09				
Case 22	LTE Band 26	Back	1.406	5mm	10.7	-78.9	-0.54	101.8	2.49	0.04	Not required
	WLAN2.4GHz		1.081	5mm	-16.2	19.2	-3.63				
Case 23	LTE Band 66	Back	1.328	5mm	-23.1	-77.4	-0.4	139.7	2.51	0.03	Not required
	WLAN5GHz		1.179	5mm	-9.2	61.6	-3.09				
Case 24	LTE Band 66	Back	1.328	5mm	-23.1	-77.4	-0.4	96.9	2.41	0.04	Not required
	WLAN2.4GHz		1.081	5mm	-16.2	19.2	-3.63				
Case 25	LTE Band 25	Back	1.262	5mm	-23.1	-75.9	-0.39	138.2	2.44	0.03	Not required
	WLAN5GHz		1.179	5mm	-9.2	61.6	-3.09				
Case 26	LTE Band 25	Back	1.262	5mm	-23.1	-75.9	-0.39	95.4	2.34	0.04	Not required
	WLAN2.4GHz		1.081	5mm	-16.2	19.2	-3.63				
Case 27	LTE Band 7	Back	1.145	5mm	-13	-83.6	0.29	102.9	2.23	0.03	Not required
	WLAN2.4GHz		1.081	5mm	-16.2	19.2	-3.63				

	Band	Position	SAR (W/kg)	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				(mm)	X	Y	Z				
Case 28	LTE Band 7	Back	1.145	5mm	-13	-83.6	0.29	145.3	2.32	0.02	Not required
	WLAN5GHz		1.179	5mm	-9.2	61.6	-3.09				
Case 29	LTE Band 41	Back	1.23	5mm	-12.2	-80	0.34	99.4	2.31	0.04	Not required
	WLAN2.4GHz		1.081	5mm	-16.2	19.2	-3.63				
Case 30	LTE Band 41	Back	1.23	5mm	-12.2	-80	0.34	141.7	2.41	0.03	Not required
	WLAN5GHz		1.179	5mm	-9.2	61.6	-3.09				
Case 31	CDMA2000 BC0-	Back	1.449	5mm	19.5	-72	0.34	98.0	2.53	0.04	Not required
	WLAN2.4GHz		1.081	5mm	-16.2	19.2	-3.63				
Case 32	CDMA2000 BC0-	Back	1.449	5mm	19.5	-72	0.34	136.7	2.63	0.03	Not required
	WLAN5GHz		1.179	5mm	-9.2	61.6	-3.09				
Case 33	CDMA2000 BC1-	Back	1.208	5mm	-4.6	-77.9	0.08	97.9	2.29	0.04	Not required
	WLAN2.4GHz		1.081	5mm	-16.2	19.2	-3.63				
Case 34	CDMA2000 BC1-	Back	1.208	5mm	-4.6	-77.9	0.08	139.6	2.39	0.03	Not required
	WLAN5GHz		1.179	5mm	-9.2	61.6	-3.09				

	Band	Position	SAR (W/kg)	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				(mm)	X	Y	Z				
Case 35	CDMA2000 BC10-	Back	1.225	5mm	20.9	-75.3	0.44	101.6	2.31	0.03	Not required
	WLAN2.4GHz		1.081	5mm	-16.2	19.2	-3.63				

	Band	Position	SAR (W/kg)	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				(mm)	X	Y	Z				
Case 36	CDMA2000 BC10-	Back	1.225	5mm	20.9	-75.3	0.44	140.2	2.40	0.03	Not required
	WLAN5GHz		1.179	5mm	-9.2	61.6	-3.09				

10g SAR

	Band	Position	SAR (W/kg)	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				(mm)	X	Y	Z				
Case 37	GSM850 Cube 0	Back	1.077	0mm	10.8	-80.4	-0.49	153.3	4.00	0.05	Not required
	WLAN5GHz Cube 0		2.921	0mm	-16.8	70.4	-3.33				
	GSM850 Cube 0	Back	1.077	0mm	10.8	-80.4	-0.49	130.7	3.58	0.05	Not required
	WLAN5GHz Cube1		2.503	0mm	-19	46.8	-3.48				
	GSM850 Cube1	Back	0.912	0mm	-22.8	-80.4	-0.59	150.9	3.83	0.05	Not required
	WLAN5GHz Cube 0		2.921	0mm	-16.8	70.4	-3.33				
	GSM850 Cube1	Back	0.912	0mm	-22.8	-80.4	-0.59	127.3	3.42	0.05	Not required
	WLAN5GHz Cube1		2.503	0mm	-19	46.8	-3.48				

	Band	Position	SAR (W/kg)	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				(mm)	X	Y	Z				
Case 38	GSM1900	Back	2.601	0mm	-16.6	-77.5	0.37	147.9	5.52	0.09	Not required
	WLAN5GHz Cube0		2.921	0mm	-16.8	70.4	-3.33				
	GSM1900	Back	2.601	0mm	-16.6	-77.5	0.37	124.4	5.10	0.09	Not required
	WLAN5GHz Cube1		2.503	0mm	-19	46.8	-3.48				

	Band	Position	SAR (W/kg)	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				(mm)	X	Y	Z				
Case 39	WCDMA II	Front	2.907	0mm	9.4	-83.8	0.62	159.3	4.14	0.05	Not required
	WLAN2.4GHz		1.232	0mm	16.2	75.3	-2.88				

	Band	Position	SAR (W/kg)	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				(mm)	X	Y	Z				
Case 40	WCDMA II	Back	2.621	0mm	-1.8	-87	0.5	158.2	5.54	0.08	Not required
	WLAN5GHz Cube0		2.921	0mm	-16.8	70.4	-3.33				
	WCDMA II	Back	2.621	0mm	-1.8	-87	0.5	135.0	5.12	0.09	Not required
	WLAN5GHz Cube1		2.503	0mm	-19	46.8	-3.48				

	Band	Position	SAR (W/kg)	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				(mm)	X	Y	Z				
Case 41	WCDMA IV	Front	2.872	0mm	6	-81	0.4	156.7	4.10	0.05	Not required
	WLAN2.4GHz		1.232	0mm	16.2	75.3	-2.88				

	Band	Position	SAR (W/kg)	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				(mm)	X	Y	Z				
Case 42	WCDMA IV	Back	3.198	0mm	-3.1	-87	0.48	107.1	4.30	0.08	Not required
	WLAN2.4GHz		1.106	0mm	-16.2	19.2	-3.63				

	Band	Position	SAR (W/kg)	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				(mm)	X	Y	Z				
Case 43	WCDMA IV	Back	3.198	0mm	-3.1	-87	0.48	158.0	6.12	0.10	Not required
	WLAN5GHz Cube0		2.921	0mm	-16.8	70.4	-3.33				
	WCDMA IV	Back	3.198	0mm	-3.1	-87	0.48	134.8	5.70	0.10	Not required
	WLAN5GHz Cube1		2.503	0mm	-19	46.8	-3.48				

	Band	Position	SAR (W/kg)	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				(mm)	X	Y	Z				
Case 44	WCDMA V Cube0	Back	2.065	0mm	9.3	-82	0.49	154.7	4.99	0.07	Not required
	WLAN5GHz Cube0		2.921	0mm	-16.8	70.4	-3.33				
	WCDMA V Cube0	Back	2.065	0mm	9.3	-82	0.49	131.9	4.57	0.07	Not required
	WLAN5GHz Cube1		2.503	0mm	-19	46.8	-3.48				
	WCDMA V Cube1	Back	1.644	0mm	-25.9	-83.5	0.34	154.2	4.57	0.06	Not required
	WLAN5GHz Cube0		2.921	0mm	-16.8	70.4	-3.33				
	WCDMA V Cube1	Back	1.644	0mm	-25.9	-83.5	0.34	130.5	4.15	0.06	Not required
	WLAN5GHz Cube1		2.503	0mm	-19	46.8	-3.48				

	Band	Position	SAR (W/kg)	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				(mm)	X	Y	Z				
Case 45	CDMA2000 BC0 Cube0	Back	1.733	0mm	18.3	-68.9	0.38	143.7	4.65	0.07	Not required
	WLAN5GHz Cube0		2.921	0mm	-16.8	70.4	-3.33				
	CDMA2000 BC0 Cube0	Back	1.733	0mm	18.3	-68.9	0.38	121.6	4.24	0.07	Not required
	WLAN5GHz Cube1		2.503	0mm	-19	46.8	-3.48				
	CDMA2000 BC0 Cube1	Back	1.373	0mm	-15.3	-71.9	0.25	142.4	4.29	0.06	Not required
	WLAN5GHz Cube0		2.921	0mm	-16.8	70.4	-3.33				
	CDMA2000 BC0 Cube1	Back	1.373	0mm	-15.3	-71.9	0.25	118.8	3.88	0.06	Not required
	WLAN5GHz Cube1		2.503	0mm	-19	46.8	-3.48				

	Band	Position	SAR (W/kg)	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				(mm)	X	Y	Z				
Case 46	CDMA2000 BC1	Front	2.865	0mm	1.6	-83.7	0.48	159.7	4.10	0.05	Not required
	WLAN2.4GHz		1.232	0mm	16.2	75.3	-2.88				

	Band	Position	SAR (W/kg)	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				(mm)	X	Y	Z				
Case 47	CDMA2000 BC1	Back	2.635	0mm	-6.3	-84	0.28	154.8	5.56	0.08	Not required
	WLAN5GHz Cube0		2.921	0mm	-16.8	70.4	-3.33				
	CDMA2000 BC1	Back	2.635	0mm	-6.3	-84	0.28	131.5	5.14	0.09	Not required
	WLAN5GHz Cube1		2.503	0mm	-19	46.8	-3.48				

	Band	Position	SAR (W/kg)	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				(mm)	X	Y	Z				
Case 48	CDMA2000 BC10	Back	1.643	0mm	17.5	-71.9	0.61	146.4	4.56	0.07	Not required
	WLAN5GHz Cube0		2.921	0mm	-16.8	70.4	-3.33				
	CDMA2000 BC10	Back	1.643	0mm	17.5	-71.9	0.61	124.3	4.15	0.07	Not required
	WLAN5GHz Cube1		2.503	0mm	-19	46.8	-3.48				

	Band	Position	SAR (W/kg)	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				(mm)	X	Y	Z				
Case 49	LTE Band 12	Back	1.278	0mm	2.8	-80.4	-1.31	152.1	4.20	0.06	Not required
	WLAN5GHz Cube0		2.921	0mm	-16.8	70.4	-3.33				
	LTE Band 12	Back	1.278	0mm	2.8	-80.4	-1.31	129.1	3.78	0.06	Not required
	WLAN5GHz Cube1		2.503	0mm	-19	46.8	-3.48				