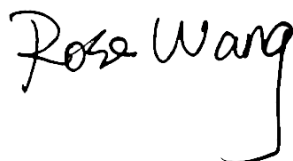


FCC SAR Test Report

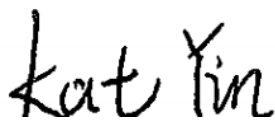
APPLICANT : Motorola Mobility, LLC
EQUIPMENT : Mobile Cellular Phone
BRAND NAME : Motorola
MODEL NAME : XT2071-2, XT2071-3, XT2071-5
FCC ID : IHDT56ZB1
STANDARD : FCC 47 CFR Part 2 (2.1093)
ANSI/IEEE C95.1-1992
IEEE 1528-2013

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.



Reviewed by: Rose Wang / Supervisor



Approved by: Kat Yin / Manager



Sporton International (Kunshan) Inc.

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People's Republic of China



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Appendix A. Plots of System Performance Check
Appendix B. Plots of High SAR Measurement
Appendix C. DASY Calibration Certificate
Appendix D. Test Setup Photos
Appendix E. Conducted RF Output Power Table
Appendix F. Supplemental Tuner SAR Results

Revision History

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FA052803-04	Rev. 01	Initial issue of report.	Jan. 15, 2021
FA052803-04	Rev. 02	Updated the tune up power table from Page 11 to 12.	Jan. 18, 2021

1. Statement of Compliance

The maximum results of Specific Absorption Rate (SAR) found during testing for **Motorola Mobility, LLC**,
Mobile Cellular Phone, XT2071-2, XT2071-3, XT2071-5, 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	0.77	0.77	1.59
		GSM1900	0.16	0.83	0.64	
	WCDMA	Band II	0.21	0.93	0.87	
		Band IV	0.23	0.93	0.82	
		Band V	0.17	0.93	0.75	
	CDMA	CDMA2000 BC0	0.20	0.68	0.67	
		CDMA2000 BC1	0.28	0.66	0.72	
		CDMA2000 BC10	0.15	0.65	0.69	
	LTE	Band 7	0.23	0.93	0.55	
		Band 12/Band 17	< 0.10	0.57	0.50	
		Band 13	0.13	0.62	0.62	
		Band 14	0.15	0.84	0.81	
		Band 25/Band 2	0.23	0.74	0.71	
		Band 26/Band 5	0.17	0.91	0.83	
		Band 30	0.10	0.92	0.92	
		Band 66/Band 4	0.19	0.87	0.80	
		Band 71	< 0.10	0.62	0.19	
		Band 41/Band 38	0.10	0.92	0.68	
		Band 48	< 0.10	0.93	0.39	
	5G NR	n25/n2	0.11	0.72	0.70	
		n66	0.16	0.91	0.91	
		n71	< 0.10	0.45	0.32	
		n5	< 0.10	0.37	0.34	
		n41	0.67	0.71	0.37	
DTS	WLAN	2.4GHz WLAN	0.25	0.44	1.04	1.59
NII		5GHz WLAN	0.20	0.72	1.18	1.59
DSS	Bluetooth	2.4GHz Bluetooth	< 0.10	0.89	0.89	1.59

Highest 10g SAR Summary				
Equipment Class	Frequency Band		Product Specific 10g SAR (W/kg) (Separation 0mm)	Highest Simultaneous Transmission 10g SAR (W/kg)
Licensed	WCDMA	Band II	2.03	3.84
		Band IV	1.05	
	CDMA	CDMA2000 BC10	2.71	
	LTE	Band 7	1.48	
		Band 25/Band 2	1.95	
		Band 30	1.43	
		Band 41/Band 38	2.29	
		Band 48	2.00	
	5G NR	n41	1.54	
DTS	WLAN	2.4GHz WLAN	3.11	3.42
NII		5GHz WLAN	3.24	3.84
Date of Testing:			2020/5/28 ~ 2020/7/15 & 2020/12/26 ~ 2021/1/8	

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, Suite 1800, Chicago, IL 60654, United States

Manufacturer	
Company Name	Motorola Mobility, LLC
Address	222 W Merchandise Mart Plaza, Suite 1800, Chicago, IL 60654, United States

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	XT2071-2, XT2071-3, XT2071-5
FCC ID	IHDT56ZB1
IMEI Code	SIM1: 353590110017293 SIM2: 353590110017301
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 14: 790.5 MHz ~ 795.5 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 30: 2307.5 MHz ~ 2312.5 MHz LTE Band 38: 2572.5 MHz ~ 2617.5 MHz LTE Band 41: 2498.5 MHz ~ 2687.5 MHz LTE Band 48: 3552.5 MHz ~ 3697.5 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 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 ~ 5720 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, 256QAM(Downlink only) 5G NR : CP-OFDM / DFT-s-OFDM, PI/2 BPSK, QPSK, 16QAM, 64QAM WLAN 2.4GHz 802.11b/g/n HT20/HT40 WLAN 5GHz 802.11a/n HT20/HT40 WLAN 5GHz 802.11ac VHT20/VHT40/VHT80 Bluetooth BR/EDR/LE

	NFC:ASK
HW Version	DVT2
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. This device supports VoIP in GPRS, EGPRS, WCDMA, CDMA and LTE (e.g. for 3rd-party VoIP), LTE supports VoLTE operation. 2. This device 2.4GHz WLAN support hotspot operation and Bluetooth support tethering applications. 3. 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). 4. This device does not support DTM operation and supports GRPS/EGPRS mode up to multi-slot class 12. 5. For dual SIM card mobile has two SIM slots and supports dual SIM dual standby. The WWAN radio transmission will be enabled by either one SIM at a time (single active). After pre-scan two SIM cards power, we found test result of the SIM1 was the worse, so we chose SIM1 slot to perform all tests. 6. The device implements the power management and sensor detection for SAR compliance at different exposure conditions (head, body-worn, hotspot/extremity) and the Qualcomm smart transmit will manage to ensure the power level not exceeding the associated power table. Details about the power management decision and sensor detection are provided in the operational description. 7. For Bluetooth when transmit simultaneous with WWAN, power reduction will be activated to head/hotspot / body-worn 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 and LTE 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 section18. 9. For 5G NR test, using FTM (Factory Test Mode) to perform SAR with default 100% transmission. 10. LTE Band 41 and 5G NR n41 supports HPUE, HPUE power and SAR testing performed separately. LTE Band 41C not supported HPUE. 11. NSA and SA mode should perform SAR separately. For the maximum power of SA mode is the same as NSA total power level, so NSA standalone total power level SAR can represent SA mode SAR. 12. 5G NR NSA mode, when DPS adjust total power to 5G NR band, the power level is the same as 5G NR SA mode, So 5G NR NSA mode and SA mode power table only show one time. 13. 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. 14. 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. 15. The device has two work states, flip open and flip close, according to normal using scenario, two state have been performed to SAR testing. 16. This device supports 5G NR FR1 bands as following table. 17. This is a variant report for XT2071-2, XT2071-3, XT2071-5. For model change note, please refer to the product equality declaration exhibit submitted. Based on the similarity between two models, only the hotspot/body-worn retest WLAN2.4GHz/5GHz, and other Bands leverage from original report which can be referred to Sporton Report Number FA052803-01.	

<5G NR>

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

4.2 Maximum Tune-up Limit

General Note:

1. For each cellular band, the device has two WWAN Tx antennas, the antenna selection is based on the connection quality condition, and only one antenna will transmit at a time.
2. The device implements the power management and sensor detection for SAR compliance at different exposure conditions (head, body-worn, hotspot, extremity) by DSI and the Qualcomm Smart Transmit will manage to ensure the power level not exceeding the associated power table. Details about the power management decision and sensor detection are provided in the operational description.
3. Below table shows maximum tune up output power configured for this EUT for various transmit conditions (Device State Index DSI) by manufacturer, and the detail power measurement and tune-up limit refer to appendix E.

Antenna configuration	
Config*	Support transmit antenna and band
Config 0	ANT 1: GSM850/1900, UMTS B2/B4/B5, CDMA BC0/1/10, LTE B2/B4/B5/B7/B12/B13/B14/B17/B25/B26/B30/B38/B41/B48/B66/B71, NR n2/ n5/ n25/ n66/ n71
Config 1	ANT 2: LTE B2/B4/B5/B7/B12/B13/B14/B17/B25/B26/B30/B38/B41/B48/B66/B71, NR n2/ n5/ n25/ n41/ n66/ n71

*Config 0 and 1 means output ports of power measurement for different antennas and bands.

Config0			Maximum Transmit Power Level (dBm)					
Radio Tech	Band Number	Antenna name	Default	Head	Body-Worn	Hotspot		Handeld
				Flip Open	Flip Close	Flip Open	Flip Close	Flip Open
			DSI_4	DSI_2	DSI_5	DSI_3	DSI_5	DSI_6
GSM1Tx	850	ANT1	33.50	33.50	32.50	33.50	32.50	33.50
GSM2Tx	850	ANT1	32.50	32.50	29.50	30.50	29.50	32.50
GSM3Tx	850	ANT1	30.50	30.50	27.50	28.50	27.50	30.50
GSM4Tx	850	ANT1	28.50	28.50	26.00	26.50	26.00	28.50
GSM1Tx	1900	ANT1	30.50	30.50	29.50	30.50	29.50	30.50
GSM2Tx	1900	ANT1	29.50	29.50	26.50	28.50	26.50	29.50
GSM3Tx	1900	ANT1	28.00	28.00	25.00	27.20	25.00	28.00
GSM4Tx	1900	ANT1	26.00	26.00	23.50	25.20	23.50	26.00
WCDMA	B2	ANT1	24.00	24.00	22.00	21.60	22.00	24.00
WCDMA	B4	ANT1	24.00	24.00	21.60	22.20	21.60	24.00
WCDMA	B5	ANT1	24.00	24.00	22.90	22.90	22.90	24.00
CDMA	BC0	ANT1	25.00	25.00	23.40	24.60	23.40	25.00
CDMA	BC1	ANT1	25.00	25.00	21.20	23.00	21.20	25.00
CDMA	BC10	ANT1	25.00	25.00	23.20	20.90	23.20	25.00
LTE	B2	ANT1	24.00	24.00	21.00	21.30	21.00	24.00
LTE	B4	ANT1	24.00	24.00	20.60	22.00	20.60	24.00
LTE	B5	ANT1	24.00	24.00	24.00	24.00	24.00	24.00
LTE	B7	ANT1	24.00	24.00	19.90	19.50	19.90	23.00
LTE	B12	ANT1	24.00	24.00	24.00	24.00	24.00	24.00
LTE	B13	ANT1	24.00	24.00	24.00	24.00	24.00	24.00
LTE	B14	ANT1	24.00	24.00	24.00	24.00	24.00	24.00
LTE	B17	ANT1	24.00	24.00	24.00	24.00	24.00	24.00
LTE	B25	ANT1	24.00	24.00	21.00	21.30	21.00	24.00
LTE	B26	ANT1	24.00	24.00	24.00	24.00	24.00	24.00
LTE	B30	ANT1	24.00	24.00	20.00	20.70	20.00	24.00
LTE	B38	ANT1	24.00	24.00	19.10	21.10	19.10	24.00
LTE	B41 PC3	ANT1	24.00	24.00	19.10	21.10	19.10	24.00
LTE	B41 PC2	ANT1	27.00	27.00	19.10	21.10	19.10	27.00
LTE	B48	ANT1	24.00	24.00	22.50	22.50	22.50	24.00
LTE	B66	ANT1	24.00	24.00	20.60	22.00	20.60	24.00
LTE	B71	ANT1	24.00	24.00	24.00	24.00	24.00	24.00
5G FR1	n2/25	ANT1	22.00	22.00	22.00	22.00	22.00	22.00
5G FR1	n5	ANT1	24.00	24.00	24.00	24.00	24.00	24.00
5G FR1	n66	ANT1	24.00	24.00	24.00	24.00	24.00	24.00
5G FR1	n71	ANT1	25.00	25.00	25.00	25.00	25.00	25.00



Config1			Maximum Transmit Power Level (dBm)					
Radio Tech	Band Number	Antenna name	Default	Head	Body-Worn	Hotspot		Handeld
				Flip Open	Flip Close	Flip Open	Flip Close	Flip Open
			DSI_4	DSI_2	DSI_5	DSI_3	DSI_5	DSI_6
LTE	B2	ANT2	22.00	22.00	22.00	22.00	22.00	22.00
LTE	B4	ANT2	22.00	22.00	22.00	22.00	22.00	22.00
LTE	B5	ANT2	23.00	23.00	23.00	23.00	23.00	23.00
LTE	B7	ANT2	22.00	22.00	19.40	21.10	19.40	22.00
LTE	B12	ANT2	23.00	23.00	23.00	23.00	23.00	23.00
LTE	B13	ANT2	23.00	23.00	23.00	23.00	23.00	23.00
LTE	B14	ANT2	23.00	23.00	23.00	21.20	23.00	23.00
LTE	B17	ANT2	23.00	23.00	23.00	23.00	23.00	23.00
LTE	B25	ANT2	22.00	22.00	22.00	22.00	22.00	22.00
LTE	B26	ANT2	23.00	23.00	23.00	23.00	23.00	23.00
LTE	B30	ANT2	22.00	22.00	22.00	22.00	22.00	22.00
LTE	B38	ANT2	22.00	22.00	21.00	19.80	21.00	22.00
LTE	B41	ANT2	23.50	23.50	21.00	19.80	21.00	23.50
LTE	B41 PC2	ANT2	25.00	25.00	21.00	19.80	21.00	23.50
LTE	B48	ANT2	22.00	22.00	22.00	22.00	22.00	22.00
LTE	B66	ANT2	22.00	22.00	22.00	22.00	22.00	22.00
LTE	B71	ANT2	23.00	23.00	23.00	23.00	23.00	23.00
5G FR1	n2/25	ANT2	24.00	24.00	24.00	24.00	24.00	24.00
5G FR1	n5	ANT2	24.00	24.00	24.00	24.00	24.00	24.00
5G FR1	n66	ANT2	24.00	24.00	24.00	24.00	24.00	24.00
5G FR1	n71	ANT2	24.00	24.00	24.00	24.00	24.00	24.00
5G FR1	n41 PC3	ANT2	24.00	24.00	18.70	18.70	18.70	24.00
5G FR1	n41 PC2	ANT2	27.00	27.00	18.70	18.70	18.70	24.00

<WLAN Maximum Power>

General Note:

1. The device implements the power management for WLAN SAR compliance at different exposure conditions (head, body-worn, hotspot, extremity). The control logic about the power management decision is provided in the operational description.
2. The WLAN power table relate to each exposure condition is description below:
 - a. Power Table 1/3/4/5: Full power
 - b. Power Table 3: Head SAR for standalone and simultaneously transmit.
 - c. Power Table 2: Hotspot SAR for standalone and simultaneously transmit.
 - d. Power Table 6: Body worn SAR for standalone transmit and Power Table 7 used for simultaneously transmit.
 - e. Power Table 9: Extremity SAR for standalone transmit and Power Table 8 used for simultaneously transmit.
3. The Bluetooth power table relate to each exposure condition is description below:
 - a. Power Table 1: Full power
 - b. Power Table 2: For simultaneously transmit.

<2.4GHz WLAN>

Band	Mode	Channel	Ant 4						Ant 3						Ant 3+4					
			Power Table 1/3/4/5	Power Table 2	Power Table 6	Power Table 7	Power Table 8	Power Table 9	Power Table 1/3/4/5	Power Table 2	Power Table 6	Power Table 7	Power Table 8	Power Table 9	Power Table 1/3/4/5	Power Table 2	Power Table 6	Power Table 7	Power Table 8	Power Table 9
2.4GHz WLAN	802.11b 1Mbps	1	21.00	15.00	17.00	15.00	18.00	21.00	21.00	15.00	17.00	15.00	18.00	21.00	24.00	18.00	20.00	18.00	21.00	24.00
		6	21.00	15.00	17.00	15.00	18.00	21.00	21.00	15.00	17.00	15.00	18.00	21.00	24.00	18.00	20.00	18.00	21.00	24.00
		11	21.00	15.00	17.00	15.00	18.00	21.00	21.00	15.00	17.00	15.00	18.00	21.00	24.00	18.00	20.00	18.00	21.00	24.00
	802.11g 6Mbps	1	15.50	15.00	15.50	15.00	15.50	15.50	15.50	15.00	15.50	15.00	15.50	15.50	18.50	18.00	18.50	18.00	18.50	18.50
		2	18.00	15.00	18.00	15.00	18.00	18.00	18.00	15.00	18.00	15.00	18.00	18.00	21.00	18.00	21.00	18.00	21.00	21.00
		6	20.00	15.00	18.00	15.00	18.00	20.00	20.00	15.00	17.00	15.00	18.00	20.00	23.00	18.00	23.00	18.00	23.00	23.00
		10	18.00	15.00	18.00	15.00	18.00	18.00	18.00	15.00	17.00	15.00	18.00	18.00	21.00	18.00	21.00	18.00	21.00	21.00
		11	14.50	14.50	14.50	14.50	14.50	14.50	14.50	14.50	14.50	14.50	14.50	14.50	17.50	17.50	17.50	17.50	17.50	17.50
	802.11n-HT20 MCS0	1	15.50	15.00	15.50	15.00	15.50	15.50	15.50	15.00	15.50	15.00	15.50	15.50	18.50	18.00	18.50	18.00	18.50	18.50
		2	18.00	15.00	18.00	15.00	18.00	18.00	18.00	15.00	17.00	15.00	18.00	18.00	21.00	18.00	21.00	18.00	21.00	21.00
		6	20.00	15.00	18.00	15.00	18.00	20.00	20.00	15.00	17.00	15.00	18.00	20.00	23.00	18.00	23.00	18.00	23.00	23.00
		10	18.00	15.00	18.00	15.00	18.00	18.00	18.00	15.00	17.00	15.00	18.00	18.00	21.00	18.00	21.00	18.00	21.00	21.00
		11	14.50	14.50	14.50	14.50	14.50	14.50	14.50	14.50	14.50	14.50	14.50	14.50	17.50	17.50	17.50	17.50	17.50	17.50
	802.11n-HT40 MCS0	3	15.50	15.00	15.50	15.00	15.50	15.50	15.50	15.00	15.50	15.00	15.50	15.50	18.50	18.00	18.50	18.00	18.50	18.50
		6	15.50	15.00	15.50	15.00	15.50	15.50	15.50	15.00	15.50	15.00	15.50	15.50	18.50	18.00	18.50	18.00	18.50	18.50
		9	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	16.00	16.00	16.00	16.00	16.00	16.00

< Bluetooth>

Mode	Channel	Ant 4	
		Power Table 2	Power Table 1
BR / EDR (1Mbps)	CH 00	9.00	15.50
	CH 39	9.00	15.50
	CH 78	9.00	15.50



<5GHz WLAN>

Band	Mode	Channel	Ant 4						Ant 3						Ant 3+4					
			Power Table 1/3/4/5	Power Table 2	Power Table 6	Power Table 7	Power Table 8	Power Table 9	Power Table 1/3/4/5	Power Table 2	Power Table 6	Power Table 7	Power Table 8	Power Table 9	Power Table 1/3/4/5	Power Table 2	Power Table 6	Power Table 7	Power Table 8	Power Table 9
5.2GHz WLAN	802.11a 6Mbps	36	17.00	15.50	17.00	15.50	17.00	17.00	17.00	15.50	17.00	15.50	17.00	17.00	20.00	18.50	20.00	18.50	20.00	20.00
		40	17.00	15.50	17.00	15.50	17.00	17.00	17.00	15.50	17.00	15.50	17.00	17.00	20.00	18.50	20.00	18.50	20.00	20.00
		44	17.00	15.50	17.00	15.50	17.00	17.00	17.00	15.50	17.00	15.50	17.00	17.00	20.00	18.50	20.00	18.50	20.00	20.00
		48	17.00	15.50	17.00	15.50	17.00	17.00	17.00	15.50	17.00	15.50	17.00	17.00	20.00	18.50	20.00	18.50	20.00	20.00
	802.11n-HT20 MCS0	36	17.50	15.50	17.50	15.50	17.50	17.50	17.50	15.50	17.50	15.50	17.50	17.50	20.50	18.50	20.50	18.50	20.50	20.50
		40	17.50	15.50	17.50	15.50	17.50	17.50	17.50	15.50	17.50	15.50	17.50	17.50	20.50	18.50	20.50	18.50	20.50	20.50
		44	17.50	15.50	17.50	15.50	17.50	17.50	17.50	15.50	17.50	15.50	17.50	17.50	20.50	18.50	20.50	18.50	20.50	20.50
		48	17.50	15.50	17.50	15.50	17.50	17.50	17.50	15.50	17.50	15.50	17.50	17.50	20.50	18.50	20.50	18.50	20.50	20.50
	802.11n-HT40 MCS0	38	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	17.00	17.00	17.00	17.00	17.00	17.00
		46	20.00	15.50	19.00	15.50	18.50	20.00	20.00	15.50	18.50	15.50	18.50	20.00	23.00	18.50	22.00	18.50	21.50	23.00
	802.11ac-VHT20 MCS0	36	17.50	15.50	17.50	15.50	17.50	17.50	17.50	15.50	17.50	15.50	17.50	17.50	20.50	18.50	20.50	18.50	20.50	20.50
		40	17.50	15.50	17.50	15.50	17.50	17.50	17.50	15.50	17.50	15.50	17.50	17.50	20.50	18.50	20.50	18.50	20.50	20.50
		44	17.50	15.50	17.50	15.50	17.50	17.50	17.50	15.50	17.50	15.50	17.50	17.50	20.50	18.50	20.50	18.50	20.50	20.50
		48	17.50	15.50	17.50	15.50	17.50	17.50	17.50	15.50	17.50	15.50	17.50	17.50	20.50	18.50	20.50	18.50	20.50	20.50
	802.11ac-VHT40 MCS0	38	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	17.00	17.00	17.00	17.00	17.00	17.00
		46	20.00	15.50	19.00	15.50	18.50	20.00	20.00	15.50	18.50	15.50	18.50	20.00	23.00	18.50	22.00	18.50	21.50	23.00
	802.11ac-VHT80 MCS0	42	15.50	15.50	15.50	15.50	15.50	15.50	15.50	15.50	15.50	15.50	15.50	15.50	18.50	18.50	18.50	18.50	18.50	18.50

Band	Mode	Channel	Ant 4						Ant 3						Ant 3+4					
			Power Table 1/3/4/5	Power Table 2	Power Table 6	Power Table 7	Power Table 8	Power Table 9	Power Table 1/3/4/5	Power Table 2	Power Table 6	Power Table 7	Power Table 8	Power Table 9	Power Table 1/3/4/5	Power Table 2	Power Table 6	Power Table 7	Power Table 8	Power Table 9
5.3GHz WLAN	802.11a 6Mbps	52	17.00	-	17.00	15.50	17.00	17.00	17.00	-	17.00	15.50	17.00	17.00	20.00	-	20.00	18.00	20.00	20.00
		56	17.00	-	17.00	15.50	17.00	17.00	17.00	-	17.00	15.50	17.00	17.00	20.00	-	20.00	18.00	20.00	20.00
		60	17.00	-	17.00	15.50	17.00	17.00	17.00	-	17.00	15.50	17.00	17.00	20.00	-	20.00	18.00	20.00	20.00
		64	17.00	-	17.00	15.50	17.00	17.00	17.00	-	17.00	15.50	17.00	17.00	20.00	-	20.00	18.00	20.00	20.00
	802.11n-HT20 MCS0	52	17.50	-	17.50	15.50	17.50	17.50	17.50	-	17.50	15.50	17.50	17.50	20.50	-	20.50	18.00	20.50	20.50
		56	17.50	-	17.50	15.50	17.50	17.50	17.50	-	17.50	15.50	17.50	17.50	20.50	-	20.50	18.00	20.50	20.50
		60	17.50	-	17.50	15.50	17.50	17.50	17.50	-	17.50	15.50	17.50	17.50	20.50	-	20.50	18.00	20.50	20.50
		64	17.50	-	17.50	15.50	17.50	17.50	17.50	-	17.50	15.50	17.50	17.50	20.50	-	20.50	18.00	20.50	20.50
	802.11n-HT40 MCS0	54	20.00	-	19.00	15.50	18.00	20.00	20.00	-	18.50	15.50	18.00	20.00	23.00	-	22.00	18.00	21.00	23.00
		62	15.50	-	15.50	15.50	15.50	15.50	15.50	-	15.50	15.50	15.50	15.50	18.50	-	18.50	18.00	18.50	18.50
	802.11ac-VHT20 MCS0	52	17.50	-	17.50	15.50	17.50	17.50	17.50	-	17.50	15.50	17.50	17.50	20.50	-	20.50	18.00	20.50	20.50
		56	17.50	-	17.50	15.50	17.50	17.50	17.50	-	17.50	15.50	17.50	17.50	20.50	-	20.50	18.00	20.50	20.50
		60	17.50	-	17.50	15.50	17.50	17.50	17.50	-	17.50	15.50	17.50	17.50	20.50	-	20.50	18.00	20.50	20.50
		64	17.50	-	17.50	15.50	17.50	17.50	17.50	-	17.50	15.50	17.50	17.50	20.50	-	20.50	18.00	20.50	20.50
	802.11ac-VHT40 MCS0	54	20.00	-	19.00	15.50	18.00	20.00	20.00	-	18.50	15.50	18.00	20.00	23.00	-	22.00	18.00	21.00	23.00
		62	15.50	-	15.50	15.50	15.50	15.50	15.50	-	15.50	15.50	15.50	15.50	18.50	-	18.50	18.00	18.50	18.50
	802.11ac-VHT80 MCS0	58	15.50	-	15.50	15.50	15.50	15.50	15.50	-	15.50	15.50	15.50	15.50	18.50	-	18.50	18.00	18.50	18.50

Band	Mode	Channel	Ant 4						Ant 3						Ant 3+4					
			Power Table 1/3/4/5	Power Table 2	Power Table 6	Power Table 7	Power Table 8	Power Table 9	Power Table 1/3/4/5	Power Table 2	Power Table 6	Power Table 7	Power Table 8	Power Table 9	Power Table 1/3/4/5	Power Table 2	Power Table 6	Power Table 7	Power Table 8	Power Table 9
5.5GHz WLAN	802.11a 6Mbps	100	17.50	-	16.50	15.00	17.50	17.50	17.50	-	16.50	15.00	17.50	17.50	20.50	-	19.00	18.00	20.50	20.50
		116	17.50	-	16.50	15.00	17.50	17.50	17.50	-	16.50	15.00	17.50	17.50	20.50	-	19.00	18.00	20.50	20.50
		124	17.50	-	16.50	15.00	17.50	17.50	17.50	-	16.50	15.00	17.50	17.50	20.50	-	19.00	18.00	20.50	20.50
		132	17.50	-	16.50	15.00	17.50	17.50	17.50	-	16.50	15.00	17.50	17.50	20.50	-	19.00	18.00	20.50	20.50
		140	17.50	-	16.50	15.00	17.50	17.50	17.50	-	16.50	15.00	17.50	17.50	20.50	-	19.00	18.00	20.50	20.50
		144	17.50	-	16.50	15.00	17.50	17.50	17.50	-	16.50	15.00	17.50	17.50	20.50	-	19.00	18.00	20.50	20.50
	802.11n-HT20 MCS0	100	17.50	-	16.50	15.00	17.50	17.50	17.50	-	16.50	15.00	17.50	17.50	20.50	-	19.00	18.00	20.50	20.50
		116	17.50	-	16.50	15.00	17.50	17.50	17.50	-	16.50	15.00	17.50	17.50	20.50	-	19.00	18.00	20.50	20.50
		124	17.50	-	16.50	15.00	17.50	17.50	17.50	-	16.50	15.00	17.50	17.50	20.50	-	19.00	18.00	20.50	20.50
		132	17.50	-	16.50	15.00	17.50	17.50	17.50	-	16.50	15.00	17.50	17.50	20.50	-	19.00	18.00	20.50	20.50
		140	17.50	-	16.50	15.00	17.50	17.50	17.50	-	16.50	15.00	17.50	17.50	20.50	-	19.00	18.00	20.50	20.50
		144	17.50	-	16.50	15.00	17.50	17.50	17.50	-	16.50	15.00	17.50	17.50	20.50	-	19.00	18.00	20.50	20.50
	802.11n-HT40 MCS0	102	18.00	-	16.50	15.00	18.00	18.00	18.00	-	16.50	15.00	18.00	18.00	21.00	-	19.00	18.00	21.00	21.00
		110	20.00	-	16.50	15.00	18.00	20.00	20.00	-	16.50	15.00	18.00	20.00	23.00	-	19.00	18.00	21.00	23.00
		126	20.00	-	16.50	15.00	18.00	20.00	20.00	-	16.50	15.00	18.00	20.00	23.00	-	19.00	18.00	21.00	23.00
		134	20.00	-	16.50	15.00	18.00	20.00	20.00	-	16.50	15.00	18.00	20.00	23.00	-	19.00	18.00	21.00	23.00
		142	20.00	-	16.50	15.00	18.00	20.00	20.00	-	16.50	15.00	18.00	20.00	23.00	-	19.00	18.00	21.00	23.00
	802.11ac-VHT20 MCS0	100	17.50	-	16.50	15.00	17.50	17.50	17.50	-	16.50	15.00	17.50	17.50	20.50	-	19.00	18.00	20.50	20.50
		116	17.50	-	16.50	15.00	17.50	17.50	17.50	-	16.50	15.00	17.50	17.50	20.50	-	19.00	18.00	20.50	20.50
		124	17.50	-	16.50	15.00	17.50	17.50	17.50	-	16.50	15.00	17.50	17.50	20.50	-	19.00	18.00	20.50	20.50
		132	17.50	-	16.50	15.00	17.50	17.50	17.50	-	16.50	15.00	17.50	17.50	20.50	-	19.00	18.00	20.50	20.50
		140	17.50	-	16.50	15.00	17.50	17.50	17.50	-	16.50	15.00	17.50	17.50	20.50	-	19.00	18.00	20.50	20.50
		144	17.50	-	16.50	15.00	17.50	17.50	17.50	-	16.50	15.00	17.50	17.50	20.50	-	19.00	18.00	20.50	20.50
	802.11ac-VHT40 MCS0	102	18.00	-	16.50	15.00	18.00	18.00	18.00	-	16.50	15.00	18.00	18.00	21.00	-	19.00	18.00	21.00	21.00
		110	20.00	-	16.50	15.00	18.00	20.00	20.00	-	16.50	15.00	18.00	20.00	23.00	-	19.00	18.00	21.00	23.00
		126	20.00	-	16.50	15.00	18.00	20.00	20.00	-	16.50	15.00	18.00	20.00	23.00	-	19.00	18.00	21.00	23.00
		134	20.00	-	16.50	15.00	18.00	20.00	20.00	-	16.50	15.00	18.00	20.00	23.00	-	19.00	18.00	21.00	23.00
		142	20.00	-	16.50	15.00	18.00	20.00	20.00	-	16.50	15.00	18.00	20.00	23.00	-	19.00	18.00	21.00	23.00
	802.11ac-VHT80 MCS0	106	17.00	-	17.00	15.00	17.00	17.00	17.00	-	17.00	15.00	17.00	17.00	20.00	-	20.00	18.00	20.00	20.00
		122	19.00	-	18.00	15.00	18.00	19.00	19.50	-	18.00	15.00	18.00	19.50	22.50	-	21.00	18.00	21.00	22.50
138		19.00	-	18.00	15.00	18.00	19.00	19.50	-	18.00	15.00	18.00	19.50	22.50	-	21.00	18.00	21.00	22.50	

Band	Mode	Channel	Ant 4						Ant 3						Ant 3+4					
			Power Table 1/3/4/5	Power Table 2	Power Table 6	Power Table 7	Power Table 8	Power Table 9	Power Table 1/3/4/5	Power Table 2	Power Table 6	Power Table 7	Power Table 8	Power Table 9	Power Table 1/3/4/5	Power Table 2	Power Table 6	Power Table 7	Power Table 8	Power Table 9
5.8GHz WLAN	802.11a 6Mbps	149	21.00	15.00	19.00	15.00	17.50	21.00	21.00	15.00	17.50	15.00	17.50	21.00	24.00	18.00	22.00	18.00	20.50	24.00
		157	21.00	15.00	19.00	15.00	17.50	21.00	21.00	15.00	17.50	15.00	17.50	21.00	24.00	18.00	22.00	18.00	20.50	24.00
		165	21.00	15.00	19.00	15.00	17.50	21.00	21.00	15.00	17.50	15.00	17.50	21.00	24.00	18.00	22.00	18.00	20.50	24.00
	802.11n-HT20 MCS0	149	20.50	15.00	19.00	15.00	17.50	20.50	20.50	15.00	17.50	15.00	17.50	20.50	23.00	18.00	22.00	18.00	20.50	23.00
		157	20.50	15.00	19.00	15.00	17.50	20.50	20.50	15.00	17.50	15.00	17.50	20.50	23.00	18.00	22.00	18.00	20.50	23.00
		165	20.50	15.00	19.00	15.00	17.50	20.50	20.50	15.00	17.50	15.00	17.50	20.50	23.00	18.00	22.00	18.00	20.50	23.00
	802.11n-HT40 MCS0	151	20.50	15.00	19.00	15.00	17.50	20.50	20.50	15.00	17.50	15.00	17.50	20.50	23.00	18.00	22.00	18.00	20.50	23.00
		159	20.50	15.00	19.00	15.00	17.50	20.50	20.50	15.00	17.50	15.00	17.50	20.50	23.00	18.00	22.00	18.00	20.50	23.00
	802.11ac-VHT20 MCS0	149	20.50	15.00	19.00	15.00	17.50	20.50	20.50	15.00	17.50	15.00	17.50	20.50	23.00	18.00	22.00	18.00	20.50	23.00
		157	20.50	15.00	19.00	15.00	17.50	20.50	20.50	15.00	17.50	15.00	17.50	20.50	23.00	18.00	22.00	18.00	20.50	23.00
		165	20.50	15.00	19.00	15.00	17.50	20.50	20.50	15.00	17.50	15.00	17.50	20.50	23.00	18.00	22.00	18.00	20.50	23.00
	802.11ac-VHT40 MCS0	151	20.00	15.00	19.00	15.00	17.50	20.00	20.00	15.00	17.50	15.00	17.50	20.00	23.00	18.00	22.00	18.00	20.50	23.00
		159	20.00	15.00	19.00	15.00	17.50	20.00	20.00	15.00	17.50	15.00	17.50	20.00	23.00	18.00	22.00	18.00	20.50	23.00
	802.11ac-VHT80 MCS0	155	20.00	15.00	19.00	15.00	17.50	20.00	20.00	15.00	19.00	15.00	17.50	20.00	23.00	18.00	22.00	18.00	20.50	23.00



4.3 General LTE SAR Test and Reporting Considerations

Summarized necessary items addressed in KDB 941225 D05 v02r05																																																																									
FCC ID	IHDT56ZB1																																																																								
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 14: 790.5 MHz ~ 795.5 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 30: 2307.5 MHz ~ 2312.5 MHz LTE Band 38: 2572.5 MHz ~ 2617.5 MHz LTE Band 41: 2498.5 MHz ~ 2687.5 MHz LTE Band 48: 3552.5 MHz ~ 3697.5 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 14: 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 30: 5MHz, 10MHz LTE Band 38: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 41: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 48: 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, Cat18																																																																								
CA Support	Supported, Uplink and Downlink																																																																								
LTE MPR permanently built-in by design	<table><tr><th colspan="8">Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 1, 2 and 3</th></tr><tr><th rowspan="2">Modulation</th><th colspan="6">Channel bandwidth / Transmission bandwidth (N_{RB})</th><th rowspan="2">MPR (dB)</th></tr><tr><th>1.4 MHz</th><th>3.0 MHz</th><th>5 MHz</th><th>10 MHz</th><th>15 MHz</th><th>20 MHz</th></tr><tr><td>QPSK</td><td>> 5</td><td>> 4</td><td>> 8</td><td>> 12</td><td>> 16</td><td>> 18</td><td>≤ 1</td></tr><tr><td>16 QAM</td><td>≤ 5</td><td>≤ 4</td><td>≤ 8</td><td>≤ 12</td><td>≤ 16</td><td>≤ 18</td><td>≤ 1</td></tr><tr><td>16 QAM</td><td>> 5</td><td>> 4</td><td>> 8</td><td>> 12</td><td>> 16</td><td>> 18</td><td>≤ 2</td></tr><tr><td>64 QAM</td><td>≤ 5</td><td>≤ 4</td><td>≤ 8</td><td>≤ 12</td><td>≤ 16</td><td>≤ 18</td><td>≤ 2</td></tr><tr><td>64 QAM</td><td>> 5</td><td>> 4</td><td>> 8</td><td>> 12</td><td>> 16</td><td>> 18</td><td>≤ 3</td></tr><tr><td>256 QAM</td><td colspan="6">≥ 1</td><td>≤ 5</td></tr></table>			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
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 The device has several different power modes for body-worn, hotspot/extremity conditions SAR compliance; power selection is determined by the device's positioning and usage scenarios.																																																																								
LTE Carrier Aggregation Combinations	Intra/Inter Band possible combinations and the detail power verification please referred to section 14.																																																																								
LTE Carrier Aggregation Additional Information	1. This device supports LTE Carrier Aggregation (CA) in the uplink for 5B, 41C, 66B and 66C 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)	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)	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)	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 14														
	Bandwidth 5 MHz				Bandwidth 10 MHz									
	Channel #		Channel #		Channel #		Freq.(MHz)							
L	23305		790.5		23330		793							
M	23330		793											
H	23355		795.5											
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)	Ch. #	Freq. (MHz)
L	26697	814.7	26705	815.5	26715	816.5	26740	819	26765	821.5	26790	824.5
M	26865	831.5	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	26940	838.5
LTE Band 30												
	Bandwidth 5 MHz					Bandwidth 10 MHz						
	Channel #			Freq.(MHz)		Channel #				Freq.(MHz)		
L	27685			2307.5		27710				2310		
M	27710			2310								
H	27735			2312.5								
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)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	37775	2572.5	37800	2575	37825	2577.5	37850	2580	37875	2582.5	37900	2585
M	38000	2595	38000	2595	38000	2595	38000	2595	38000	2595	38000	2595
H	38225	2617.5	38200	2615	38175	2612.5	38150	2610	38125	2607.5	38100	2605
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)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	39675	2498.5	39700	2501	39725	2503.5	39750	2506	39775	2508.5	39800	2511
LM	40148	2545.8	40160	2547	40173	2548.3	40185	2549.5	40197	2550.7	40210	2552
M	40620	2593	40620	2593	40620	2593	40620	2593	40620	2593	40620	2593
HM	41093	2640.3	41080	2639	41068	2637.8	41055	2636.5	41042	2635.2	41030	2634
H	41565	2687.5	41540	2685	41515	2682.5	41490	2680	41465	2677.5	41440	2675
LTE Band 48												
	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	55265	3552.5	55290	3555	55315	3557.5	55340	3560	55365	3562.5	55390	3565
L M	55810	3607	55815	3607.5	55820	3608	55830	3609	55840	3610	55850	3611
M H	56170	3643	56165	3642.5	56160	3642	56150	3641	56140	3640	56130	3639
H	56715	3697.5	56690	3695	56665	3692.5	56640	3690	56615	3687.5	56590	3685
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)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	133147	665.5	133172	668	133197	670.5	133222	673	133247	675.5	133272	678
M	133247	675.5	133272	678	133297	680.5	133322	683	133347	685.5	133372	688
H	133447	695.5	133422	693	133397	690.5	133372	688	133347	685.5	133322	683

5G NR Information														
Operating Frequency Range of each 5G NR transmission band	5G NR n2 : 1852.5 MHz ~ 1907.5 MHz													
	5G NR n5 : 826.5 MHz ~ 846.5 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													
Channel Bandwidth	5G NR n2: 5MHz, 10MHz, 15MHz, 20MHz													
	5G NR n5: 5MHz, 10MHz, 15MHz, 20MHz													
	5G NR n25: 5MHz, 10MHz, 15MHz, 20MHz													
	5G NR n66: 5MHz, 10MHz, 15MHz, 20MHz													
	5G NR n71: 5MHz, 10MHz, 15MHz, 20MHz													
	5G NR n41: 20MHz, 40MHz, 50MHz, 60MHz, 80MHz, 90MHz, 100MHz													
SCS	FDD: SCS15KHz, TDD: SCS30KHz													
uplink modulations used	DFT-s-OFDM: PI/2 BPSK / QPSK / 16QAM / 64QAM CP-OFDM QPSK / 16QAM / 64QAM													
A-MPR (Additional MPR) disabled for SAR Testing?	Yes													
LTE Anchor Bands for n5	LTE B2/7/30/66													
LTE Anchor Bands for n25	LTE B12/66													
L TE Anchor Bands for n2	LTE B5/12/30/66													
LTE Anchor Bands for n66	LTE B2/5/12/30													
LTE Anchor Bands for n71	LTE B2/66													
LTE Anchor Bands for n41	LTE B2/25/26/41/66													
Transmission (H, M, L) channel numbers and frequencies in each 5G NR band														
NR Band 2														
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz							
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)						
L	370500	1852.5	371000	1855	371500	1857.5	372000	1860						
M	376000	1880	376000	1880	376000	1880	376000	1880						
H	381500	1907.5	381000	1905	380500	1902.5	380000	1900						
NR Band 5														
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz							
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)						
L	165300	826.5	165800	829	166300	831.5	166800	834						
M	167300	836.5	167300	836.5	167300	836.5	167300	836.5						
H	169300	846.5	168800	844	168300	841.5	167800	839						
NR Band 25														
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz							
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)						
L	370500	1852.5	371000	1855	371500	1857.5	372000	1860						
M	376000	1880	376000	1880	376000	1880	376000	1880						
H	382500	1912.5	382000	1910	381500	1907.5	381000	1905						
NR Band 66														
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz							
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)						
L	342500	1712.5	343000	1715	343500	1717.5	344000	1720						
M	349000	1745	349000	1745	349000	1745	349000	1745						
H	355500	1777.5	355000	1775	354500	1772.5	354000	1770						
NR Band 71														
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz							
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)						
L	133100	665.5	133600	668	134100	670.5	134600	673						
M	136100	680.5	136100	680.5	136100	680.5	136100	680.5						
H	139100	695.5	138600	693	138100	690.5	137600	688						
NR Band 41														
	Bandwidth 20MHz		Bandwidth 40MHz		Bandwidth 50MHz		Bandwidth 60MHz		Bandwidth 80MHz		Bandwidth 90MHz		Bandwidth 100MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	501204	2506.02	503202	2516.01	504204	2521.02	505200	2526	507204	2536.02	508200	2541	509202	2546.01
M	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99
H	535998	2679.99	534000	2670	532998	2664.99	531996	2659.98	529998	2649.99	528996	2644.98	528000	2640

5. Smart Transmit feature for RF Exposure compliance

The FCC RF exposure limit is defined based on time-averaged RF exposure. The product implements Qualcomm Smart Transmit feature which controls the instantaneous transmitting power for WWAN transmitter to ensure the product in compliance with FCC RF exposure limit over a defined time window, for SAR (transmit frequency ≤ 6GHz). To control and manage transmitting power in real time and to ensure at all times the time-averaged RF exposure is compliant to the regulation requirement.

This report describes the procedures for the SAR char generation, and the parameters obtained from SAR characterization (referred to as SAR char, respectively) will be used as input for Smart Transmit. SAR char will be entered via the Embedded File System (EFS) to enable the Smart Transmit Feature.

<Terminologies in this report>

P_{limit}	The time-averaged RF power which corresponds to SAR_design_target.
P_{max}	Maximum target power level
SAR_design_target:	The design target for SAR compliance. It should be less than regulatory SAR limit to account for all device design related uncertainties.
SAR char	P _{limit} for all the technologies/bands for all applicable DSI

<SAR Characterization>

SAR char must be generated to cover all radio configurations and usage scenarios that the wireless device supports for operating at 6 GHz or below. It will then be used as input for Smart Transmit to control and manage RF exposure for f < 6 GHz.

<SAR design target and uncertainty>

Exposure conditions	Trigger Conditions	DSI	SAR design target	W/kg
Head	Earpiece on	2	1g SAR design target	0.74
Body Worn/Hotspot	Proximity Sensor on or Hotspot on (Flip Open)	3	1g SAR design target	0.74
Body Worn/Hotspot	Proximity Sensor on or Hotspot on (Flip Close)	5	1g SAR design target	0.74
Extremity	Proximity sensor on	6	10g SAR design target	2.0

	Uncertainty dB (k=2)
Sub6 radio TxAGC	1.0
Device to device variation	1.2
Total uncertainty	1.5

To account for total uncertainty, SAR_design_target should be determined as:

$$SAR_design_target < SAR_{regulatory_limit} \times 10^{\frac{-total\ uncertainty}{10}}$$

The Smart Transmit algorithm maintains the time-averaged transmit power, in turn, time-averaged RF exposure of SAR_design_target, below the predefined time-averaged power limit, for each characterized technology and band.

Smart Transmit allows the device to transmit at higher power instantaneously, as high as Pmax, when needed, but enforces power limiting to maintain time-averaged transmit power to Plimit. Below table shows Plimit EFS settings and maximum tune up output power Pmax configured for this EUT for various transmit conditions (Device State Index DSI).

<P_{limit} for supported technologies and bands (P_{limit} in EFS file)>

ANT1								
Radio Tech	Band Number	Antenna name	Head Flip open (DSI2)	Flip Open body sensor on (Front/Back) /Hotspot on (DSI3)	Flip Close body sensor on/Hotspot on (DSI5)	Flip Open /Extremity sensor on (DSI6)	Proximity Sensor off (DSI4)	Pmax*
GSM2Tx	850**	ANT1	31.0	23.5	22.5	31.0	27.2	25.5
GSM3Tx	1900**	ANT1	30.0	21.9	19.7	30.0	28.1	22.7
WCDMA	B2	ANT1	29.0	20.6	21.0	23.5	26.9	23.0
WCDMA	B4	ANT1	29.0	21.2	20.6	22.8	27.9	23.0
WCDMA	B5	ANT1	30.0	21.9	21.9	30.0	24.3	23.0
CDMA	BC0	ANT1	30.5	23.6	22.4	30.5	27.7	24.0
CDMA	BC1	ANT1	29.0	19.9	20.2	23.0	26.7	24.0
CDMA	BC10	ANT1	31.5	22.0	22.2	31.5	29.9	24.0
LTE	B2/25	ANT1	28.5	20.3	20.0	23.5	26.8	23.0
LTE	B4/66	ANT1	28.5	21.0	19.6	23.1	27.7	23.0
LTE	B5	ANT1	30.5	23.0	23.0	30.5	30.5	23.0
LTE	B7	ANT1	30.5	18.5	18.9	22.0	25.4	23.0
LTE	B12/17	ANT1	32.5	26.5	24.5	32.5	32.5	23.0
LTE	B13	ANT1	31.5	25.5	24.0	31.5	31.5	23.0
LTE	B14	ANT1	30.5	24.0	23.0	30.5	30.5	23.0
LTE	B26	ANT1	30.5	23.0	23.0	30.5	30.5	23.0
LTE	B30	ANT1	31.5	19.7	19.0	25.0	28.7	23.0
LTE	B38**	ANT1	33.0	18.1	16.1	22.0	25.9	21.0
LTE	B41**	ANT1	31.5	18.1	16.1	22.0	25.9	21.0
LTE	B48**	ANT1	27.5	19.0	19.0	27.5	27.5	18.0
LTE	B71	ANT1	33.0	24.0	26.0	33.0	33.0	23.0
5G FR	N5	ANT1	33.0	33.0	27.2	33.0	33.0	23.0
5G FR	n2/25	ANT1	33.0	21.0	21.0	33.0	33.0	21.0
5G FR	n66	ANT1	31.0	23.5	23.0	31.0	31.0	23.0
5G FR	n71	ANT1	33.0	24.0	24.0	33.0	33.0	24.0

ANT2								
Radio Tech	Band Number	Antenna name	Head Flip open (DSI2)	Flip Open body sensor on (Front/Back) /Hotspot on (DSI3)	Flip Close body sensor on/Hotspot on (DSI5)	Flip Open /Extremity sensor on (DSI6)	Proximity Sensor off (DSI4)	Pmax*
LTE	B2/25	ANT2	30.0	21.0	21.0	30.0	30.0	21.0
LTE	B4/66	ANT2	29.5	23.5	23.5	29.5	29.5	21.0
LTE	B5	ANT2	33.0	24.5	22.9	33.0	33.0	22.0
LTE	B7	ANT2	27.0	20.1	18.4	22.7	25.8	21.0
LTE	B12/17	ANT2	33.0	28.5	27.5	33.0	33.0	22.0
LTE	B13	ANT2	32.5	24.5	24.5	32.5	32.5	22.0
LTE	B14	ANT2	32.0	22.0	22.0	32.0	32.0	22.0
LTE	B26	ANT2	33.0	24.5	22.9	33.0	33.0	22.0
LTE	B30	ANT2	32.5	21.5	20.0	32.5	32.5	21.0
LTE	B38**	ANT2	33.0	16.8	18.0	22.0	30.0	20.5
LTE	B41**	ANT2	29.5	16.8	18.0	22.0	29.5	20.5
LTE	B48**	ANT2	30.5	19.5	19.5	21.0	30.5	21.0
LTE	B71	ANT2	33.0	30.5	28.0	33.0	33.0	22.0
5G FR	n5	ANT2	33.0	27.0	27.0	33.0	33.0	22.0
5G FR	n2/25	ANT2	33.0	23.0	23.0	33.0	33.0	23.0
5G FR	n66	ANT2	30.5	23.5	23.5	30.5	30.5	23.0
5G FR	n71	ANT2	33.0	23.0	23.0	33.0	33.0	23.0
5G FR	n41	ANT2	27.0	17.7	17.7	23.1	27.0	23.0

*P_{max} is used for RF tune up procedure. The maximum allowed output power is equal to P_{max} + 1dB uncertainty.

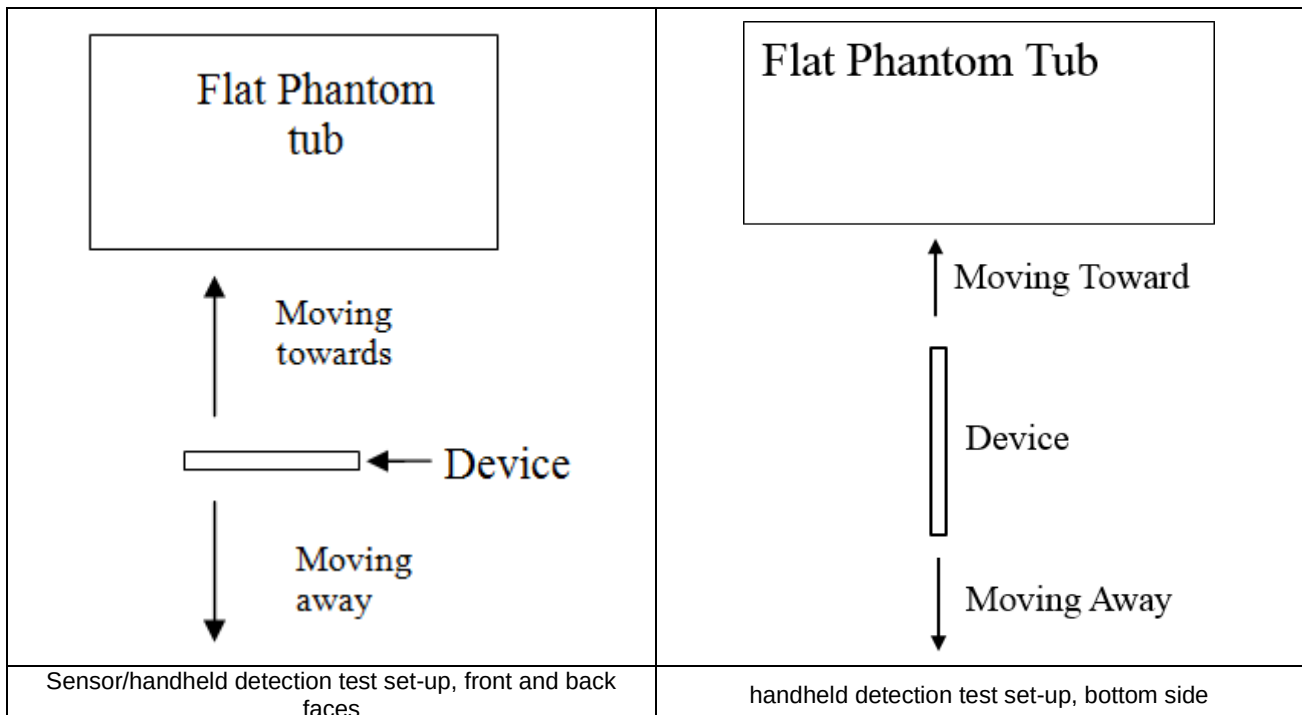
**All P_{limit} power levels entered in the Table correspond to average power levels after accounting for duty cycle in the case TDD modulation schemes (for e.g., GSM & LTE TDD).

The max allowed output power is the P_{limit} + 1dB device uncertainty, and if P_{limit} is higher than P_{max}, the device output power will be P_{max} instead.

6. Proximity Sensor Triggering Test

6.1 Proximity sensor triggering distances(Per KDB616217§6.2)

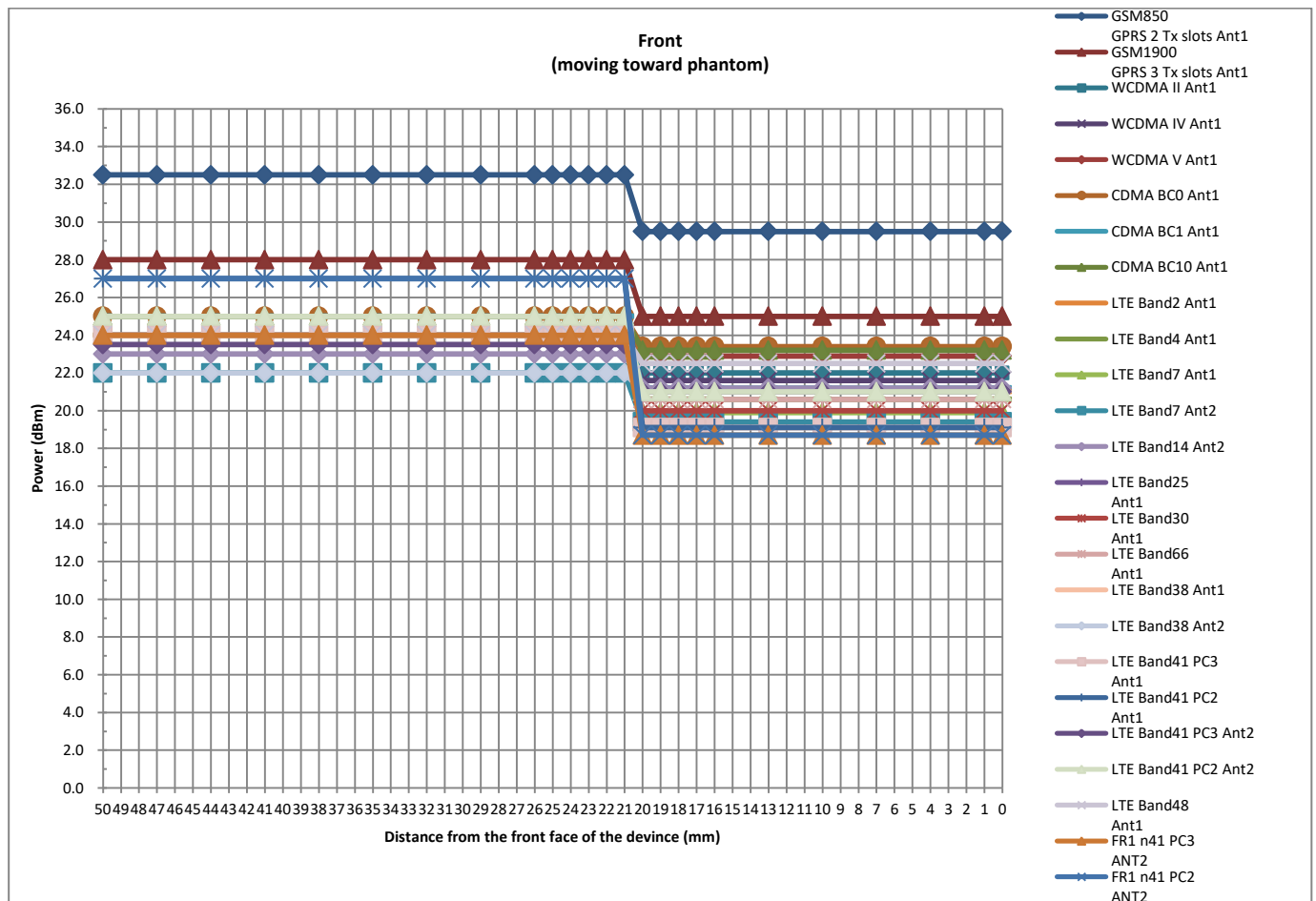
- Proximity sensor triggering distance testing was performed according to the procedures outlined in KDB 616217 D04 section 6.2, and EUT moving further away from the flat phantom and EUT moving toward the flat phantom were both assessed and the tissue-equivalent medium for highest frequency (5825MHz) and lowest (750MHz) frequency was used for proximity sensor triggering testing.
- 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 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.
- When the proximity sensor is active, GSM850/1900, WCDMA band II/IV/V, CDMA BC0/BC1/BC10, LTE band 2/4/7/14/25/30/6638/41/48, 5GNR n41HPUE and WLAN2.4GHz / WLAN5.2GHz / 5.3GHz / 5.5GHz / 5.8GHz reduced power will be active for front or back body worn SAR.
- P-sensor can detect handheld state, LTE band 7, 5GNR n41HPUE for front/back/bottom sides of product specific 10g SAR condition reduced powers will be active for handheld SAR.
- 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).
- 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:
WWAN:
Front: [19 mm](#)
Back: [15mm](#)
WLAN:
Back: [15mm](#)
- 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:
WWAN:
Front: [13 mm](#)
Back: [11mm](#)
Bottom side: [13 mm](#)

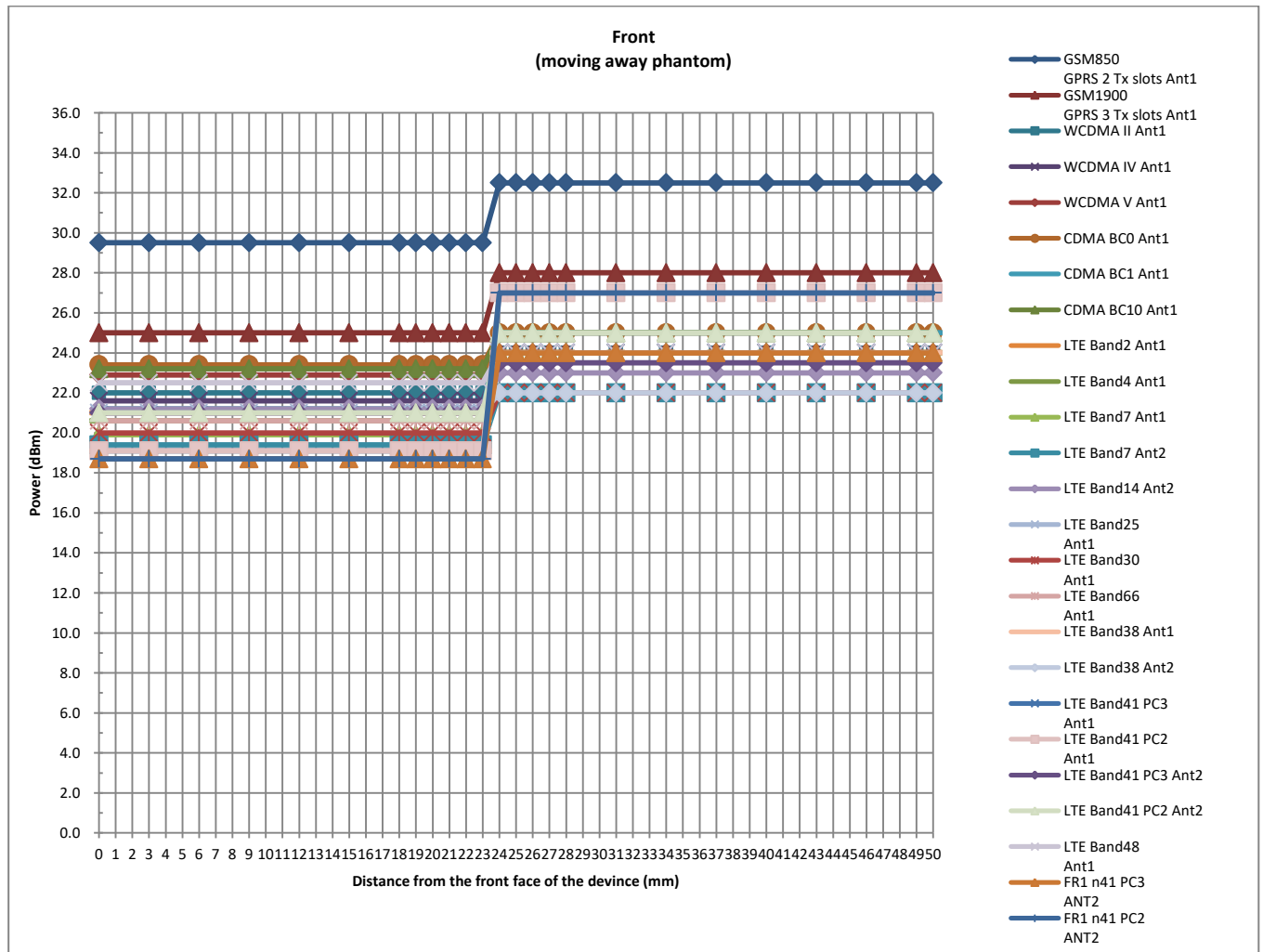


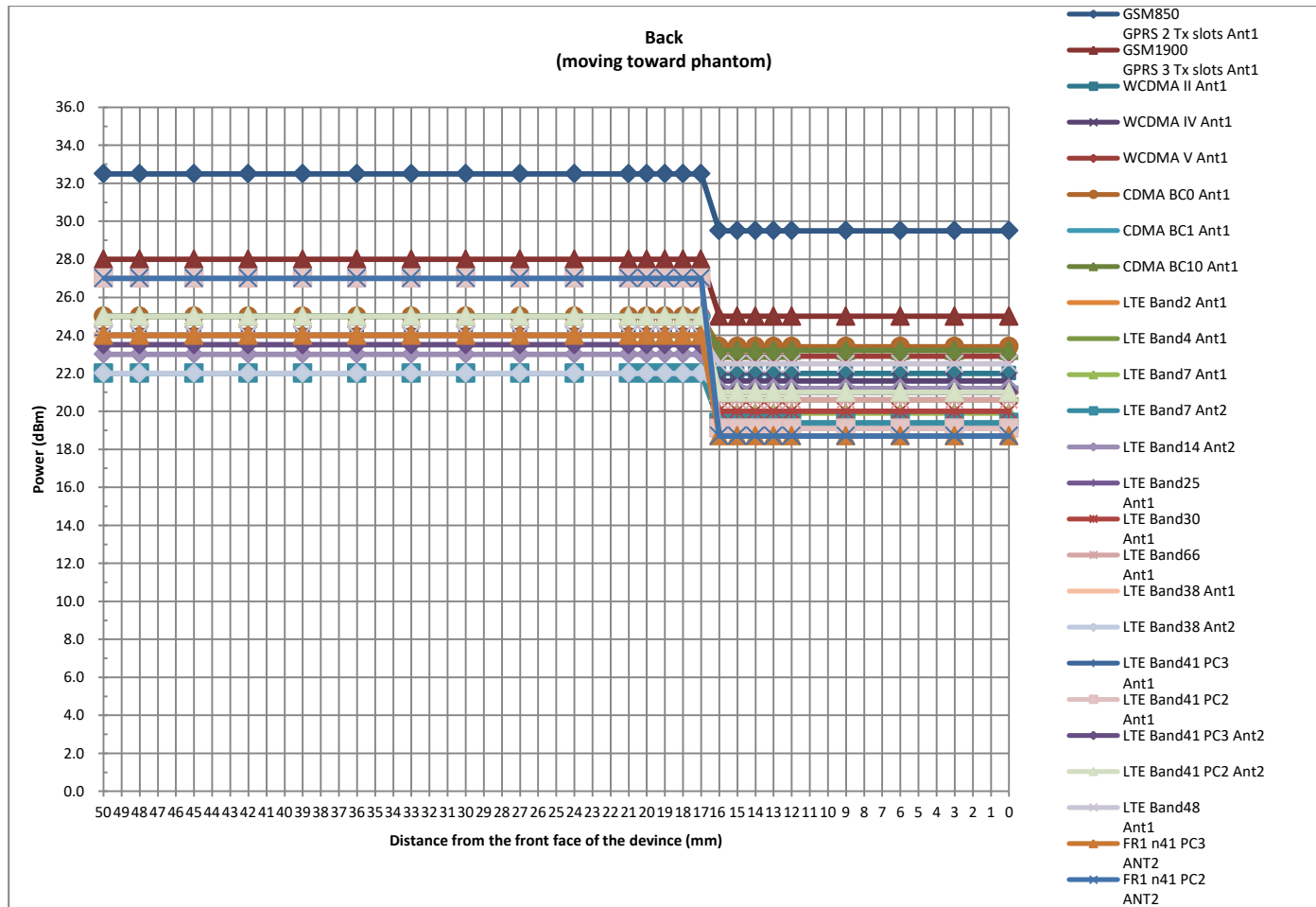
<P-Sensor- WWAN>

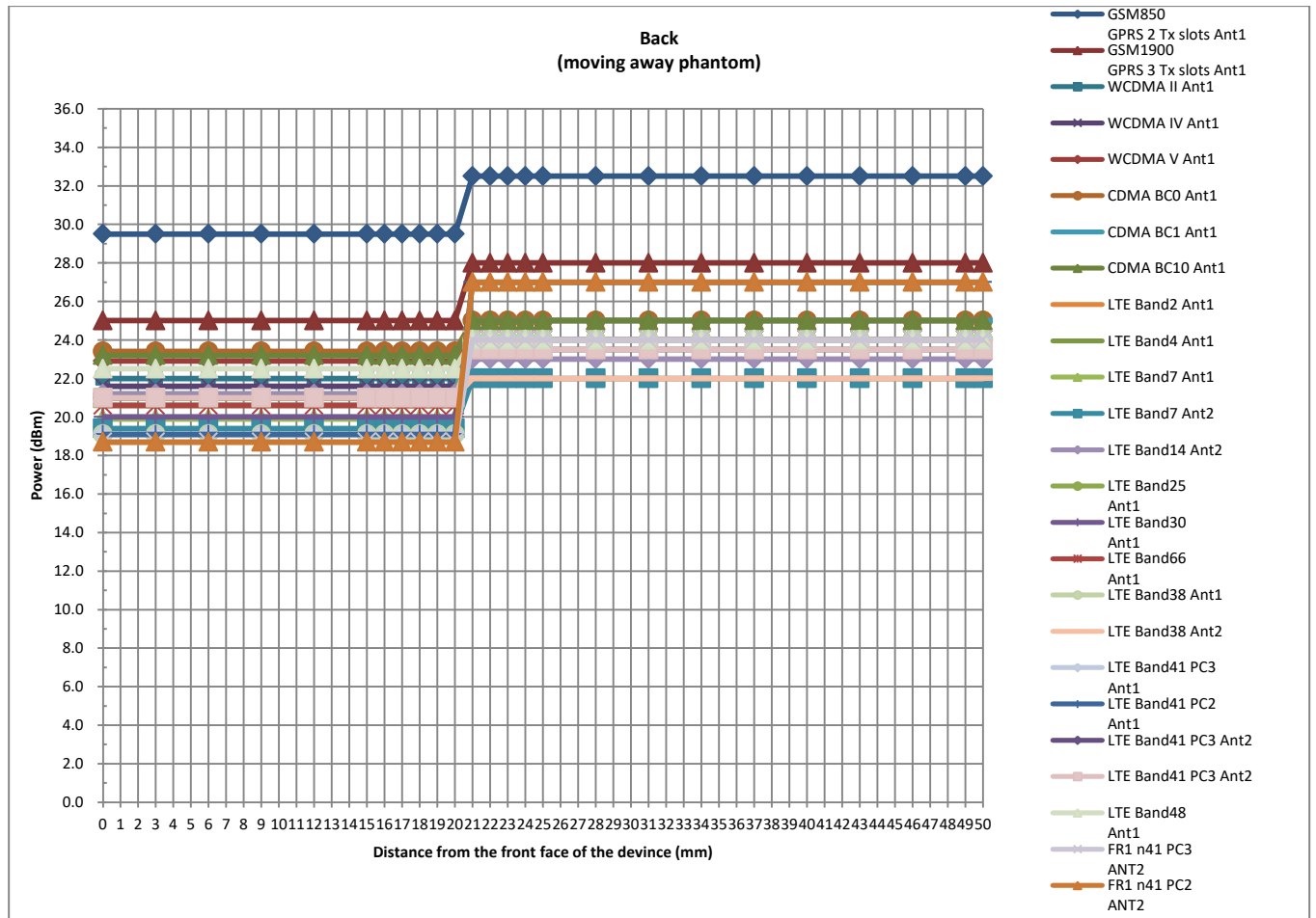
Proximity Sensor Triggering Distance (mm)				
Position	Front		Back	
	Moving towards	Moving away	Moving towards	Moving away
Minimum	20	23	16	20

TX. Band	Proximity Sensor Triggering Power (dBm)		
	Full	Reduced	power reduction (dB)
	max. tune up limit (dBm)	max. tune up limit(dBm)	
GPRS850 2 Tx slots Ant 1	32.5	29.5	3.0
GPRS1900 3 Tx slots Ant 1	28.0	25.0	3.0
WCDMA Band II Ant 1	24.0	22.0	2.0
WCDMA Band IV Ant 1	24.0	21.6	2.4
WCDMA Band V Ant 1	24.0	22.9	1.1
CDMA BC0 Ant 1	25.0	23.40	1.6
CDMA BC1 Ant 1	25.0	21.20	3.8
CDMA BC10 Ant 1	25.0	23.20	1.8
LTE Band 2 Ant 1	24.0	21.0	3.0
LTE Band 4 Ant 1	24.0	20.6	3.4
LTE Band 7 Ant 1	24.0	19.9	4.1
LTE Band 7 Ant 2	22.0	19.4	2.6
LTE Band14 Ant 2	23.0	21.2	1.8
LTE Band 25 Ant 1	24.0	21.0	3.0
LTE Band 30 Ant 1	24.0	20.0	4.0
LTE Band 66 Ant 1	24.0	20.6	3.4
LTE Band 38 Ant 1	24.0	19.1	4.9
LTE Band 38 Ant 2	22.0	21.0	1.0
LTE Band 41 PC3 Ant 1	24.0	19.1	4.9
LTE Band 41 PC2 Ant 1	27.0	19.1	7.9
LTE Band 41 PC3 Ant 2	23.5	21.0	2.5
LTE Band 41 PC2 Ant 2	25.0	21.0	4.0
LTE Band48 Ant 1	24.0	22.5	1.5
FR1 n41 PC3 Ant 2	24.0	18.7	5.3
FR1 n41 PC2 Ant 2	27.0	18.7	8.3





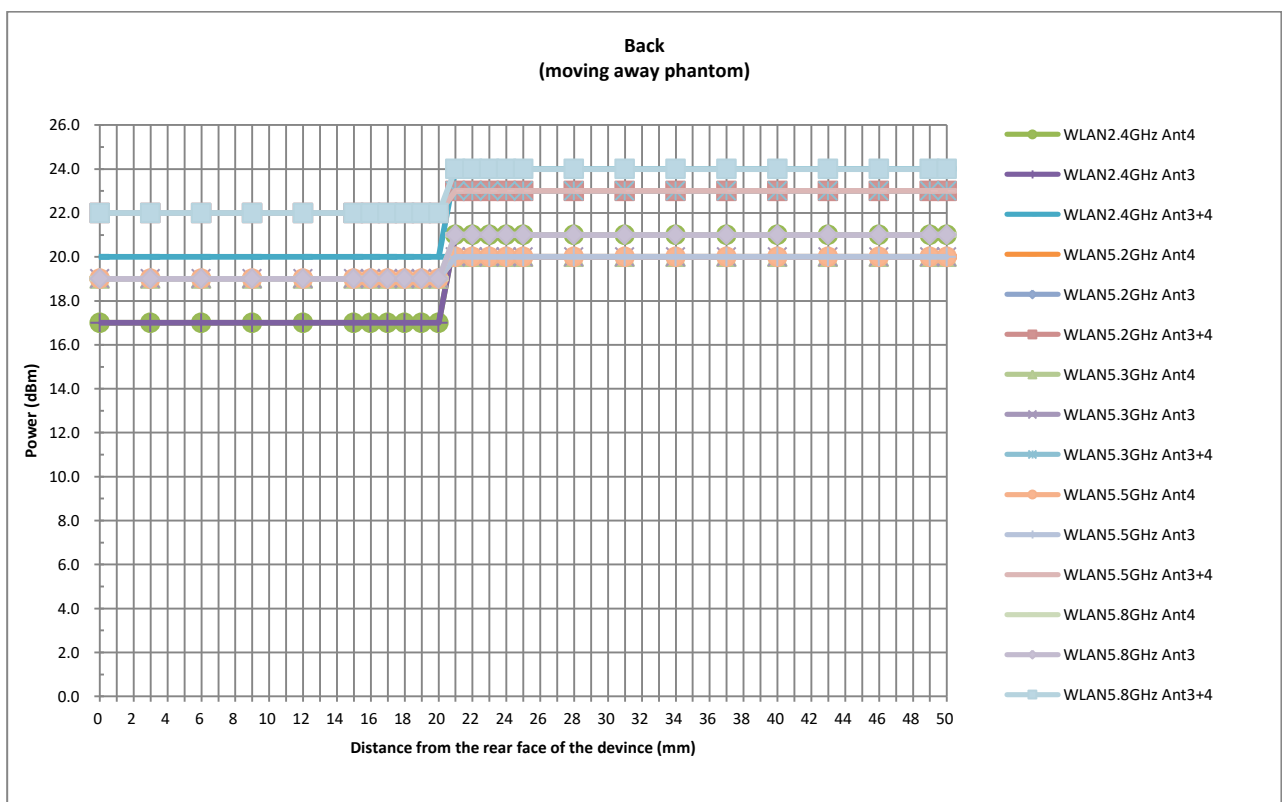
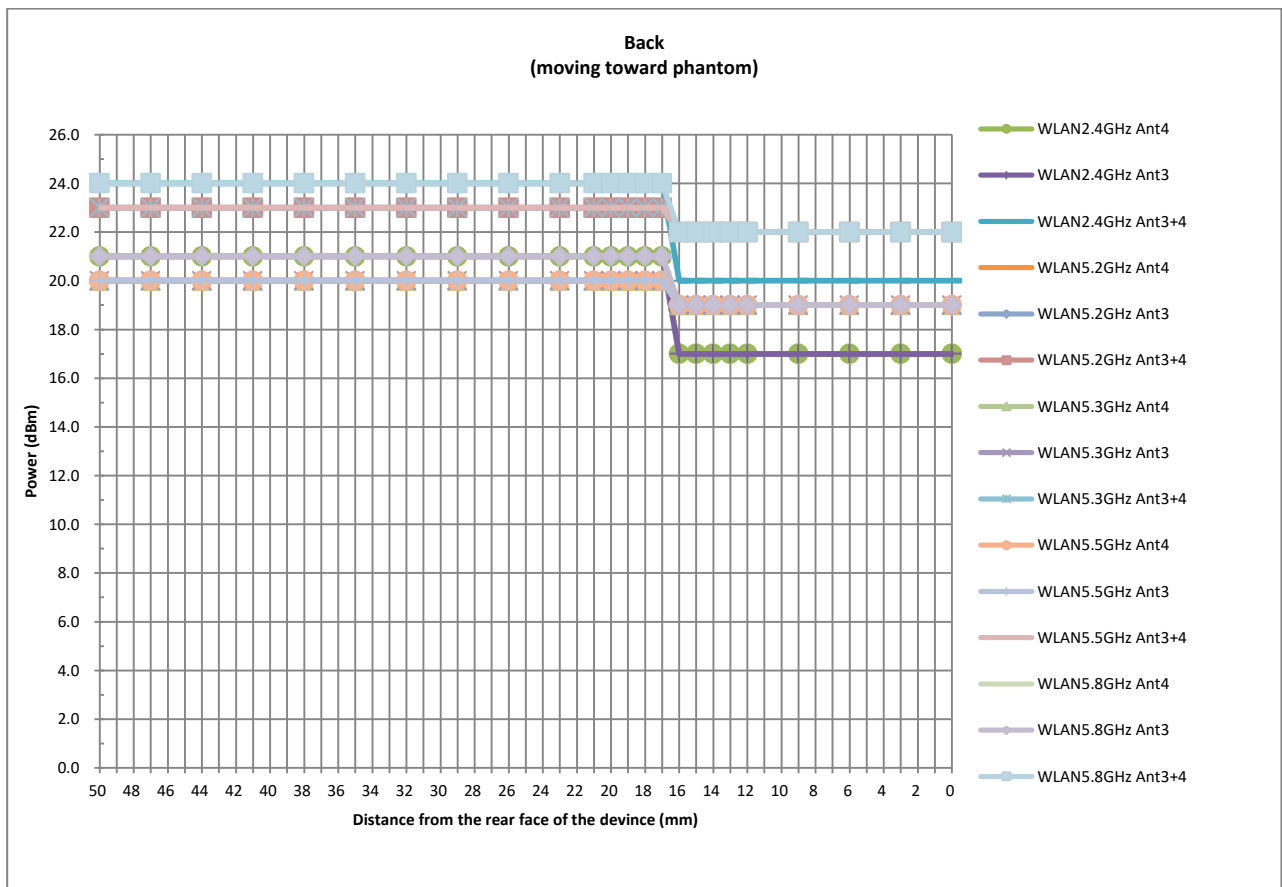




<P-Sensor- WLAN>

Proximity Sensor Triggering Distance (mm)		
Position	Back	
	Moving towards	Moving away
Minimum	16	20

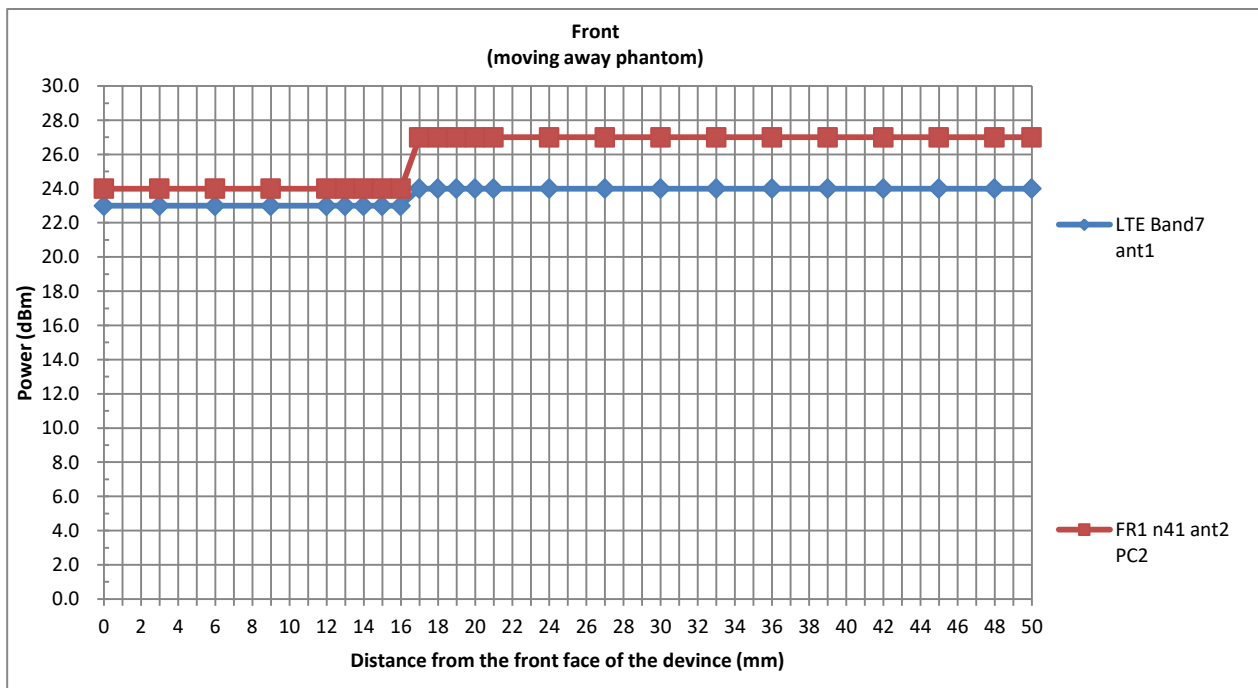
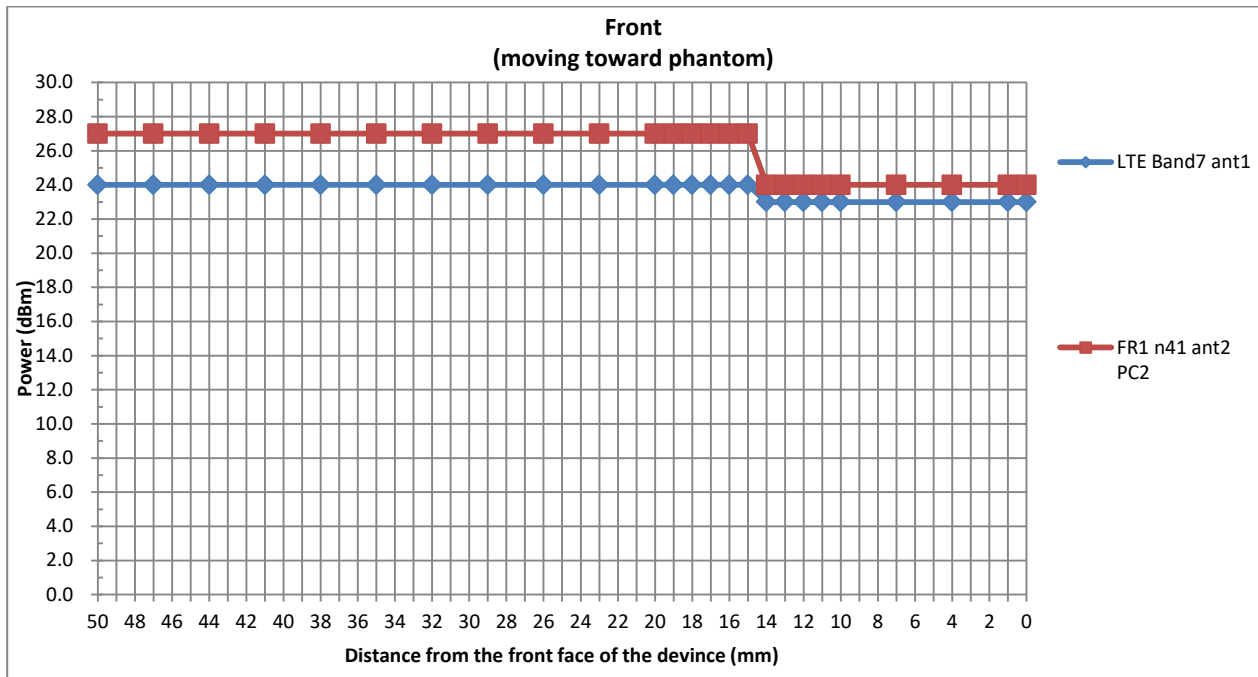
TX. Band	Proximity Sensor Triggering Power (dBm)		
	Full	Reduced	power reduction (dB)
	max. tune up limit (dBm)	max. tune up limit(dBm)	
WLAN2.4GHz Ant 4	21.0	17.0	4.0
WLAN2.4GHz Ant 3	21.0	17.0	4.0
WLAN2.4GHz Ant 3+4	24.0	20.0	4.0
WLAN5.2GHz z Ant 4	20.0	19.0	1.0
WLAN5.2GHz Ant 3	20.0	19.0	1.0
WLAN5.2GHz Ant 3+4	23.0	22.0	1.0
WLAN5.3GHz z Ant 4	20.0	19.0	1.0
WLAN5.3GHz Ant 3	20.0	19.0	1.0
WLAN5.3GHz Ant 3+4	23.0	22.0	1.0
WLAN5.5GHz z Ant 4	20.0	19.0	1.0
WLAN5.5GHz Ant 3	20.0	19.0	1.0
WLAN5.5GHz Ant 3+4	23.0	22.0	1.0
WLAN5.8GHz z Ant 4	21.0	19.0	2.0
WLAN5.8GHz Ant 3	21.0	19.0	2.0
WLAN5.8GHz Ant 3+4	24.0	22.0	2.0

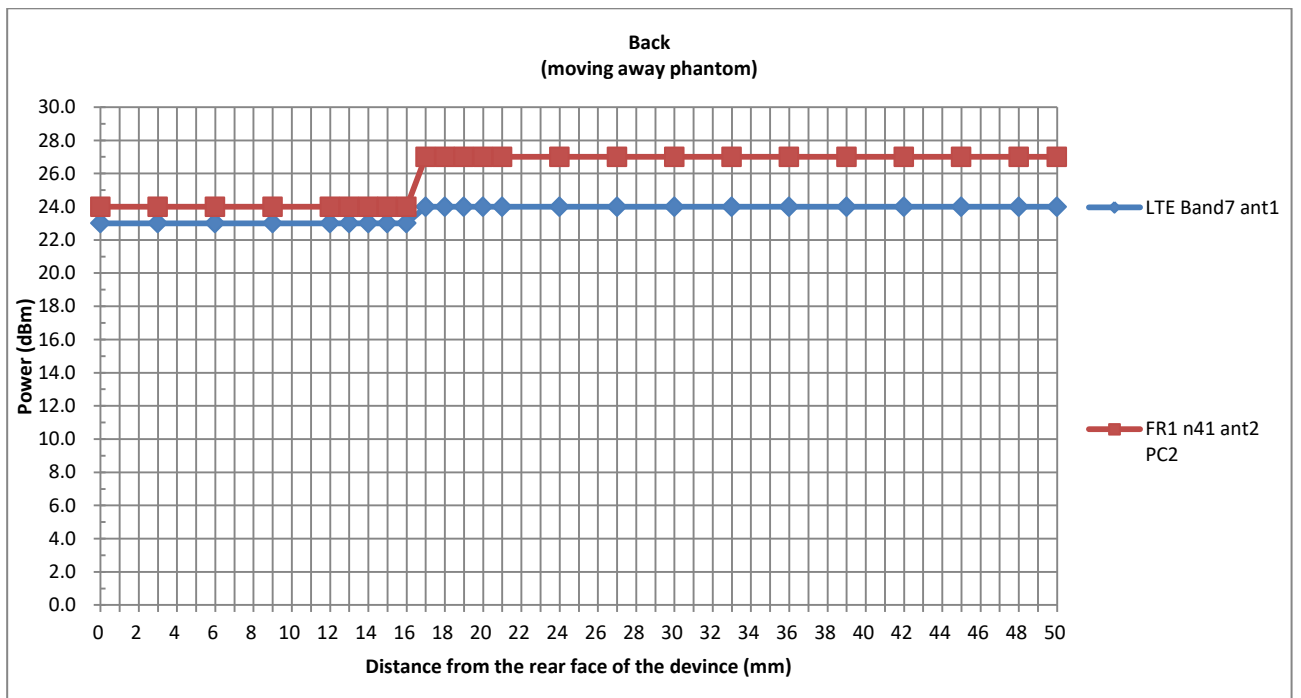
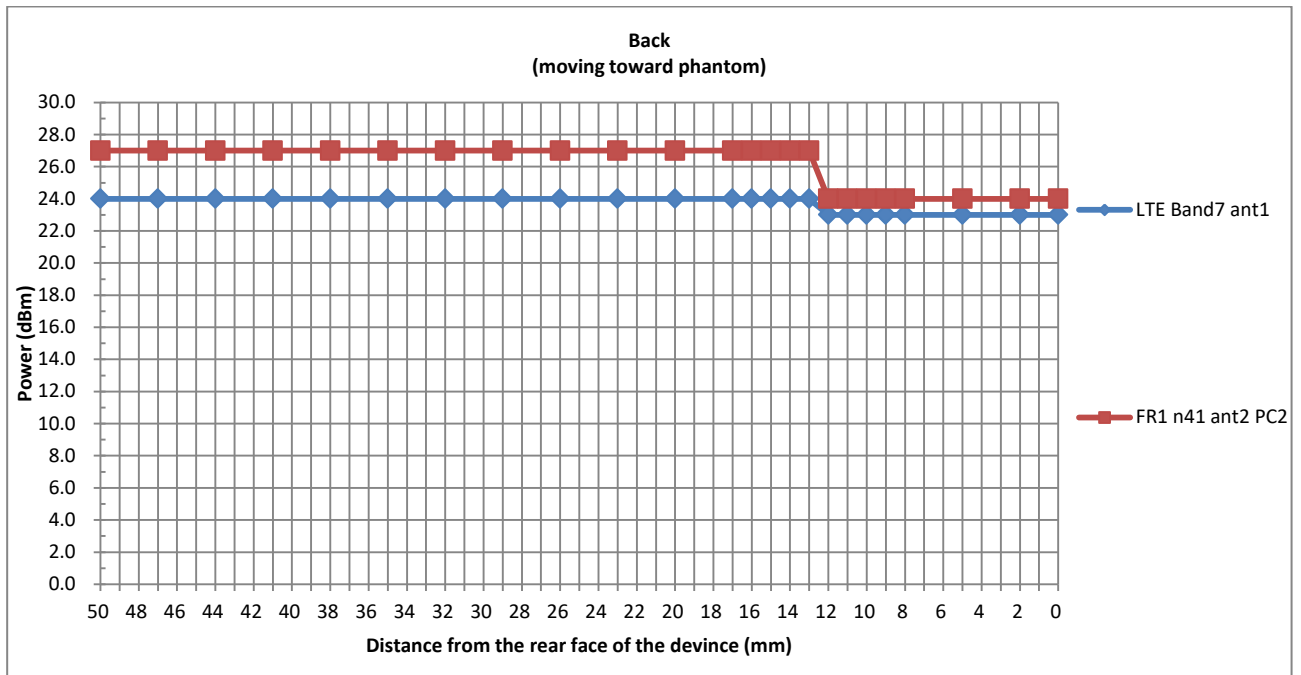


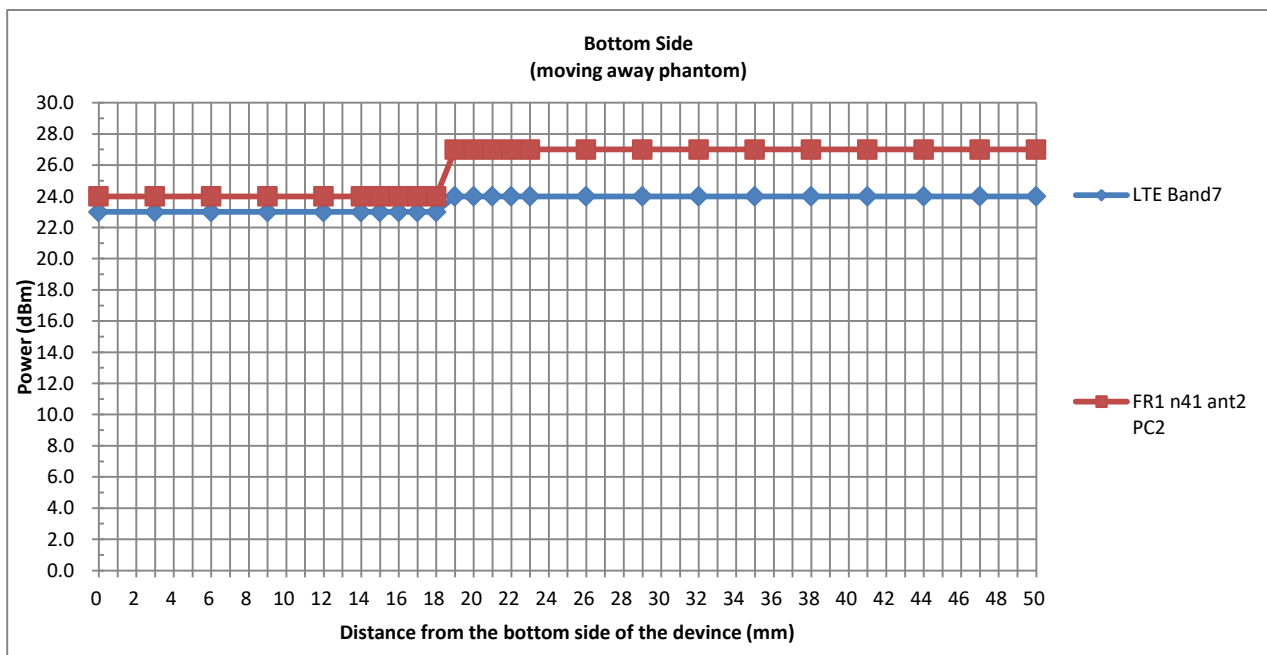
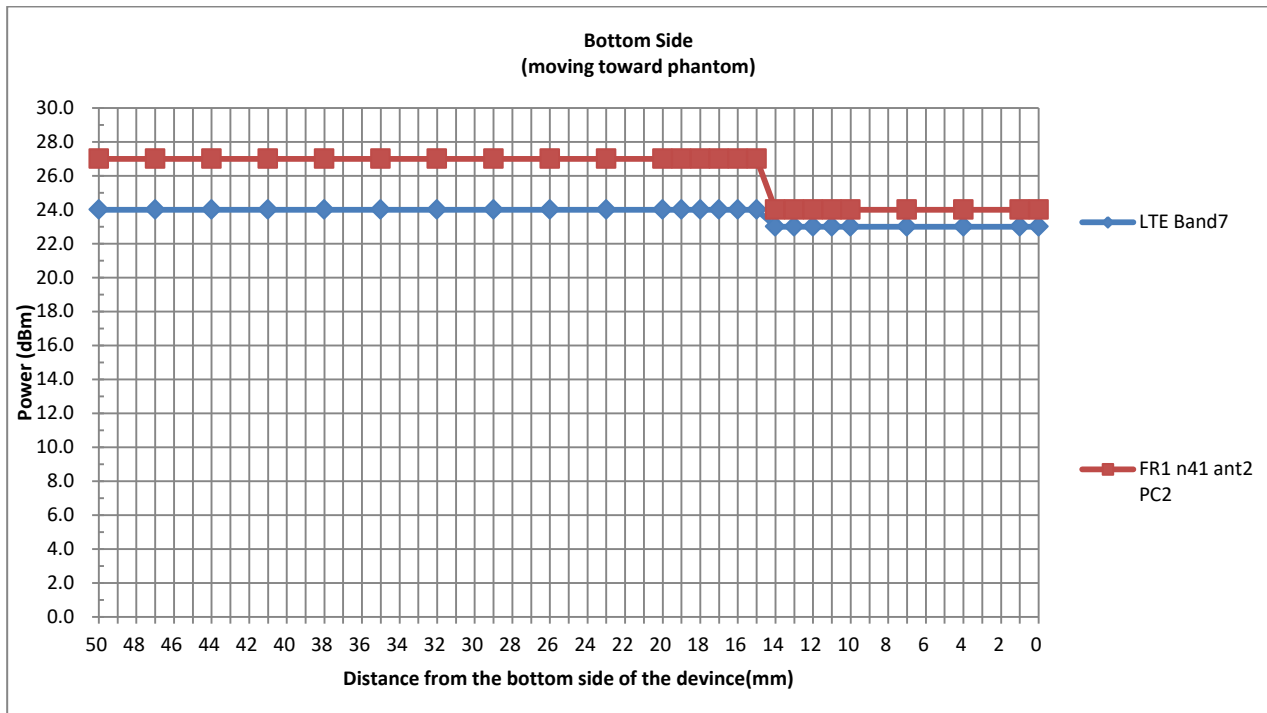
<Handheld- WWAN>

Position	Front		Back		Bottom Side	
	Moving towards	Moving away	Moving towards	Moving away	Moving towards	Moving away
Minimum	14	16	12	16	14	18

TX. Band	Handheld Triggering Power (dBm)		
	Full	Reduced	power reduction (dB)
	max. tune up limit (dBm)	max. tune up limit(dBm)	
LTE Band 7 Ant 1	24.0	23.0	1.0
FR1 n41 PC2	27.0	24.0	3.0







7. RF Exposure Limits

7.1 Uncontrolled Environment

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

7.2 Controlled Environment

Controlled Environments are defined as locations where there is exposure that may be incurred by persons who are aware of the potential for exposure, (i.e. as a result of employment or occupation). In general, occupational/controlled exposure limits are applicable to situations in which persons are exposed as a consequence of their employment, who have been made fully aware of the potential for exposure and can exercise control over their exposure. 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.

8. Specific Absorption Rate (SAR)

8.1 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.

8.2 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:

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

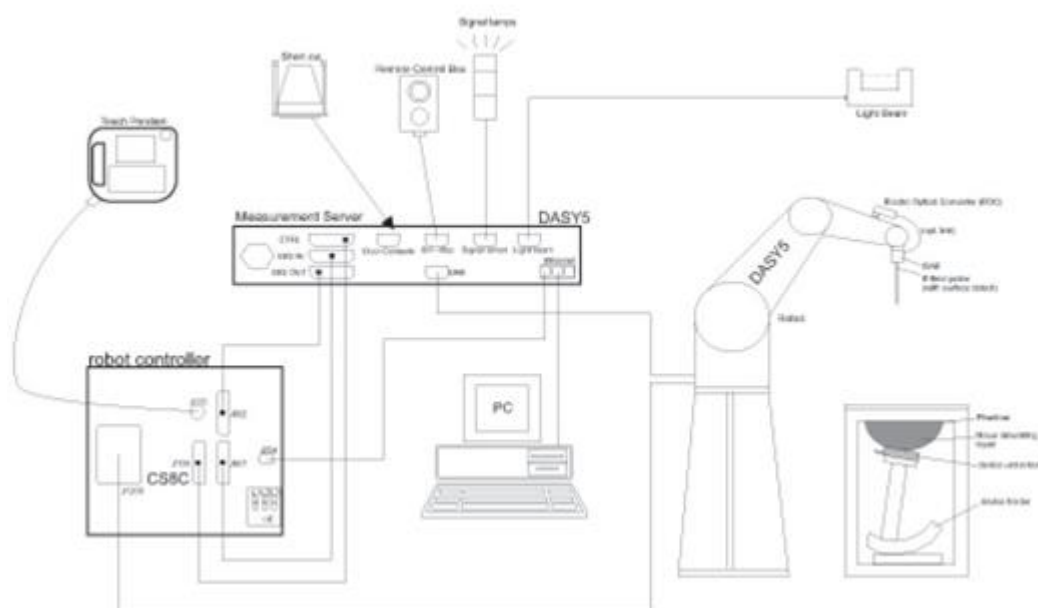
SAR is expressed in units of Watts per kilogram (W/kg)

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

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

9. 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.

9.1 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.

<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 μ W/g – >100 mW/g Linearity: ± 0.2 dB (noise: typically <1 μ W/g)	
Dimensions	Overall length: 337 mm (tip: 20 mm) Tip diameter: 2.5mm (body: 12 mm) Typical distance from probe tip to dipole centers: 1 mm	

9.2 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

9.3 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.

9.4 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

10. 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

10.1 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 from 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

10.2 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.

10.3 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 dB) 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	$\frac{1}{2} \cdot \delta \cdot \ln(2) \pm 0.5$ mm
Maximum probe angle from probe axis to phantom surface normal at the measurement location	$30^\circ \pm 1^\circ$	$20^\circ \pm 1^\circ$
Maximum area scan spatial resolution: $\Delta x_{\text{Area}}, \Delta y_{\text{Area}}$	≤ 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 $\leq$ the corresponding x or y dimension of the test device with at least one measurement point on the test device.	

10.4 Zoom Scan

Zoom scans are used to 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 whose 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: $\Delta x_{\text{Zoom}}, \Delta y_{\text{Zoom}}$			≤ 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: $\Delta z_{\text{Zoom}}(n)$		≤ 5 mm	3 – 4 GHz: ≤ 4 mm 4 – 5 GHz: ≤ 3 mm 5 – 6 GHz: ≤ 2 mm
	graded grid	$\Delta z_{\text{Zoom}}(1)$: between 1 st two points closest to phantom surface	≤ 4 mm	3 – 4 GHz: ≤ 3 mm 4 – 5 GHz: ≤ 2.5 mm 5 – 6 GHz: ≤ 2 mm
		$\Delta z_{\text{Zoom}}(n>1)$: between subsequent points	$\leq 1.5 \cdot \Delta z_{\text{Zoom}}(n-1)$	
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 <u>reported</u> SAR from the <u>area scan based 1-g SAR estimation</u> 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.				

10.5 Volume Scan Procedures

The volume scan is used to 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.

10.6 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.



11. 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	2300MHz System Validation Kit	D2300V2	1055	2018/9/20	2020/9/18
SPEAG	2300MHz System Validation Kit	D2300V2	1055	2020/9/15	2021/9/14
SPEAG	2450MHz System Validation Kit	D2450V2	908	2019/3/25	2022/3/24
SPEAG	2600MHz System Validation Kit	D2600V2	1061	2018/12/7	2020/11/26
SPEAG	2600MHz System Validation Kit	D2600V2	1061	2020/11/26	2021/11/25
SPEAG	3700MHz System Validation Kit	D3700V2	1008	2018/11/27	2021/11/26
SPEAG	5000MHz System Validation Kit	D5GHzV2	1113	2019/9/24	2022/9/23
SPEAG	Data Acquisition Electronics	DAE4	799	2020/2/10	2021/2/9
SPEAG	Data Acquisition Electronics	DAE4	1210	2019/7/23	2020/7/22
SPEAG	Data Acquisition Electronics	DAE4	1338	2020/11/27	2021/11/26
SPEAG	Dosimetric E-Field Probe	EX3DV4	3843	2019/9/26	2020/9/25
SPEAG	Dosimetric E-Field Probe	EX3DV4	3843	2020/9/23	2021/9/22
SPEAG	Dosimetric E-Field Probe	EX3DV4	7592	2020/5/22	2021/5/21
SPEAG	SAM Twin Phantom	QD 000 P40 CB	TP-1697	NCR	NCR
SPEAG	SAM Twin Phantom	QD 000 P40 CB	TP-1503	NCR	NCR
SPEAG	SAM Twin Phantom	QD 000 P40 CB	TP-1753	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
SPEAG	Dielectric Probe Kit	DAK-3.5	1144	2020/12/2	2021/12/1
Anritsu	Vector Signal Generator	MG3710A	6201682672	2020/1/8	2021/1/7
Anritsu	Vector Signal Generator	MG3710A	6201682672	2021/1/8	2022/1/7
Rohde & Schwarz	Power Meter	NRVD	102081	2019/8/15	2020/8/14
Rohde & Schwarz	Power Meter	NRVD	102081	2020/8/13	2021/8/12
Rohde & Schwarz	Power Sensor	NRV-Z5	100538	2019/8/14	2020/8/13
Rohde & Schwarz	Power Sensor	NRV-Z5	100538	2020/8/13	2021/8/12
Rohde & Schwarz	Power Sensor	NRV-Z5	100539	2019/8/14	2020/8/13
Rohde & Schwarz	Power Sensor	NRV-Z5	100539	2020/8/13	2021/8/12
R&S	CBT BLUETOOTH TESTER	CBT	101641	2020/1/8	2021/1/7
R&S	CBT BLUETOOTH TESTER	CBT	101246	2020/4/14	2021/4/13
EXA	Spectrum Analyzer	FSV7	101631	2020/1/8	2021/1/7
EXA	Spectrum Analyzer	FSV7	101631	2021/1/8	2022/1/7
Testo	Hygrometer	608-H1	1241332088	2020/1/8	2021/1/7
Testo	Hygrometer	608-H1	1241332088	2021/1/8	2022/1/7
FLUKE	DIGITAC THERMOMETER	51II	97240029	2019/8/15	2020/8/14
FLUKE	DIGITAC THERMOMETER	51II	97240029	2020/8/14	2021/8/13
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.

12. System Verification

12.1 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.

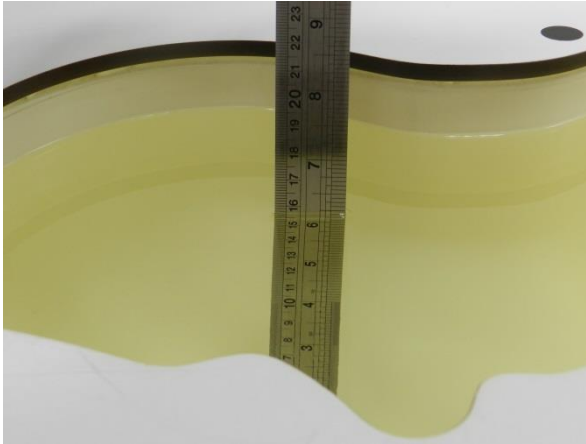


Fig 11.1 Photo of Liquid Height for Head SAR

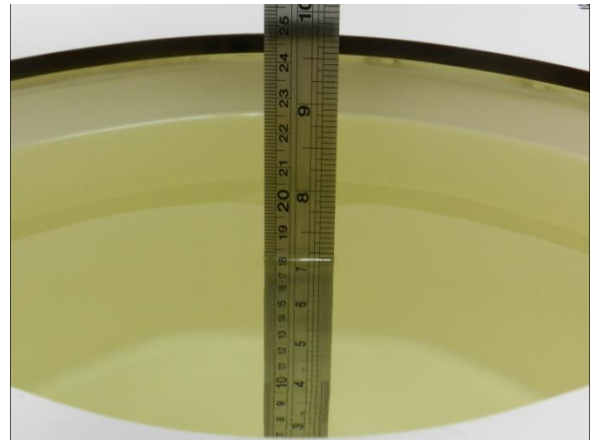


Fig 11.2 Photo of Liquid Height for Body SAR

12.2 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 (ϵ_r)
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. (°C)	Conductivity (σ)	Permittivity (ϵ_r)	Conductivity Target (σ)	Permittivity Target (ϵ_r)	Delta (σ) (%)	Delta (ϵ_r) (%)	Limit (%)	Date
750	Head	22.6	0.894	41.702	0.89	41.9	0.45	-0.47	±5	2020/5/28
835	Head	22.8	0.927	41.441	0.9	41.5	3.00	-0.14	±5	2020/5/31
1750	Head	22.6	1.357	39.061	1.37	40.1	-0.95	-2.59	±5	2020/6/3
1900	Head	22.7	1.397	39.033	1.4	40	-0.21	-2.42	±5	2020/6/7
2300	Head	22.7	1.65	41.063	1.67	39.5	-1.20	3.96	±5	2020/6/19
2450	Head	22.8	1.859	38.521	1.8	39.2	3.28	-1.73	±5	2020/6/10
2600	Head	22.6	2.023	37.784	1.96	39	3.21	-3.12	±5	2020/6/14
3700	Head	22.6	3.077	38.038	3.12	37.7	-1.38	0.90	±5	2020/7/15
5250	Head	22.6	4.53	36.369	4.71	35.9	-3.82	1.31	±5	2020/6/22
5600	Head	22.7	4.861	35.898	5.07	35.5	-4.12	1.12	±6	2020/6/30
5750	Head	22.6	5.007	35.704	5.22	35.4	-4.08	0.86	±5	2020/7/7
750	Head	22.7	0.924	42.065	0.89	41.9	3.82	0.39	±5	2020/5/29
835	Head	22.7	0.902	41.239	0.9	41.5	0.22	-0.63	±5	2020/6/1
1750	Head	22.8	1.351	40.38	1.37	40.1	-1.39	0.70	±5	2020/6/4
1900	Head	22.6	1.464	40.08	1.4	40	4.57	0.20	±5	2020/6/8
2300	Head	22.7	1.65	41.063	1.67	39.5	-1.20	3.96	±5	2020/6/19
2450	Head	22.9	1.762	40.678	1.8	39.2	-2.11	3.77	±5	2020/6/12
2600	Head	22.8	1.978	39.039	1.96	39	0.92	0.10	±5	2020/6/16
5250	Head	22.8	4.595	36.403	4.71	35.9	-2.44	1.40	±5	2020/6/24
5600	Head	22.8	4.985	35.823	5.07	35.5	-1.68	0.91	±5	2020/7/1
5750	Head	22.7	5.16	35.57	5.22	35.4	-1.15	0.48	±5	2020/7/9
750	Head	22.9	0.901	41.934	0.89	41.9	1.24	0.08	±5	2020/5/30
835	Head	22.9	0.917	42.75	0.9	41.5	1.89	3.01	±5	2020/6/2
1750	Head	22.9	1.361	40.169	1.37	40.1	-0.66	0.17	±5	2020/6/5
1900	Head	22.9	1.401	38.694	1.4	40	0.07	-3.26	±5	2020/6/9
2450	Head	22.7	1.793	40.932	1.8	39.2	-0.39	4.42	±5	2020/6/13
2600	Head	22.9	1.96	40.174	1.96	39	0.00	3.01	±5	2020/6/18
5250	Head	22.9	4.899	37.463	4.71	35.9	4.01	4.35	±5	2020/6/26
5600	Head	22.6	5.249	36.935	5.07	35.5	3.53	4.04	±5	2020/7/3
5750	Head	22.9	5.409	36.717	5.22	35.4	3.62	3.72	±5	2020/7/11
750	Head	22.7	0.894	41.679	0.89	41.90	0.45	-0.53	±5	2020/12/26
835	Head	22.6	0.896	41.115	0.90	41.50	-0.44	-0.93	±5	2020/12/28

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1750	Head	22.6	1.353	39.971	1.37	40.10	-1.24	-0.32	±5	2021/1/2
1900	Head	22.8	1.397	39.034	1.40	40.00	-0.21	-2.42	±5	2020/12/30
2300	Head	22.6	1.731	39.157	1.67	39.50	3.65	-0.87	±5	2021/1/3
2450	Head	22.6	1.869	38.392	1.80	39.20	3.83	-2.06	±5	2020/12/26
2600	Head	22.8	2.037	38.062	1.96	39.00	3.93	-2.41	±5	2021/1/8
5250	Head	22.7	4.683	35.318	4.71	35.90	-0.57	-1.62	±5	2020/12/29
5600	Head	22.8	5.029	34.778	5.07	35.50	-0.81	-2.03	±5	2021/1/1
5750	Head	22.9	5.190	34.530	5.22	35.40	-0.57	-2.46	±5	2021/1/4

12.3 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 (%)
2020/5/28	750	Head	250	1087	3843	799	2.04	8.36	8.16	-2.39
2020/5/31	835	Head	250	4d151	3843	799	2.39	9.30	9.56	2.80
2020/6/3	1750	Head	250	1090	3843	799	8.92	36.40	35.68	-1.98
2020/6/7	1900	Head	250	5d170	3843	799	9.86	39.00	39.44	1.13
2020/6/19	2300	Head	250	1055	3843	799	11.4	48.70	45.60	-6.37
2020/6/10	2450	Head	250	908	3843	799	13.9	52.80	55.60	5.30
2020/6/14	2600	Head	250	1061	3843	799	14.7	57.70	58.80	1.91
2020/7/15	3700	Head	100	1008	7592	1210	7.41	67.00	74.10	10.60
2020/6/22	5250	Head	100	1113	3843	799	7.8	80.50	78.00	-3.11
2020/6/30	5600	Head	100	1113	3843	799	7.66	83.40	76.60	-8.15
2020/7/7	5750	Head	100	1113	3843	799	7.68	80.00	76.80	-4.00
2020/5/29	750	Head	250	1087	3843	799	2.11	8.36	8.44	0.96
2020/6/1	835	Head	250	4d151	3843	799	2.33	9.30	9.32	0.22
2020/6/4	1750	Head	250	1090	3843	799	8.88	36.40	35.52	-2.42
2020/6/8	1900	Head	250	5d170	3843	799	10.3	39.00	41.20	5.64
2020/6/19	2300	Head	250	1055	3843	799	11.4	48.70	45.60	-6.37
2020/6/12	2450	Head	250	908	3843	799	13.2	52.80	52.80	0.00
2020/6/16	2600	Head	250	1061	3843	799	14.4	57.70	57.60	-0.17
2020/6/24	5250	Head	100	1113	3843	799	7.92	80.50	79.20	-1.61
2020/7/1	5600	Head	100	1113	3843	799	7.86	83.40	78.60	-5.76
2020/7/9	5750	Head	100	1113	3843	799	7.91	80.00	79.10	-1.13
2020/5/30	750	Head	250	1087	3843	799	2.06	8.36	8.24	-1.44
2020/6/2	835	Head	250	4d151	3843	799	2.37	9.30	9.48	1.94
2020/6/5	1750	Head	250	1090	3843	799	8.94	36.40	35.76	-1.76
2020/6/9	1900	Head	250	5d170	3843	799	9.88	39.00	39.52	1.33
2020/6/13	2450	Head	250	908	3843	799	13.4	52.80	53.60	1.52
2020/6/18	2600	Head	250	1061	3843	799	14.2	57.70	56.80	-1.56
2020/6/26	5250	Head	100	1113	3843	799	8.44	80.50	84.40	4.84
2020/7/3	5600	Head	100	1113	3843	799	8.27	83.40	82.70	-0.84
2020/7/11	5750	Head	100	1113	3843	799	8.3	80.00	83.00	3.75
2020/12/26	750	Head	250	1087	3843	1338	2.18	8.36	8.72	4.31
2020/12/28	835	Head	250	4d151	3843	1338	2.46	9.30	9.84	5.81
2021/1/2	1750	Head	250	1090	3843	1338	9.07	36.40	36.28	-0.33
2020/12/30	1900	Head	250	5d170	3843	1338	9.75	39.00	39	0.00
2021/1/3	2300	Head	250	1055	3843	1338	12.80	47.70	51.2	7.34
2020/12/26	2450	Head	250	908	3843	1338	13.70	52.80	54.8	3.79
2021/1/8	2600	Head	250	1061	3843	1338	14.60	56.60	58.4	3.18
2020/12/29	5250	Head	100	1113	3843	1338	7.93	80.50	79.3	-1.49
2021/1/1	5600	Head	100	1113	3843	1338	8.01	83.40	80.1	-3.96
2021/1/4	5750	Head	100	1113	3843	1338	7.37	80.00	73.7	-7.88

<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 (%) ²
2020/5/28	750	Head	250	1087	3843	799	1.37	5.65	5.48	-3.01
2020/5/31	835	Head	250	4d151	3843	799	1.55	6.16	6.20	0.65
2020/6/3	1750	Head	250	1090	3843	799	4.85	19.20	19.40	1.04
2020/6/7	1900	Head	250	5d170	3843	799	5.23	20.30	20.92	3.05
2022/6/19	2300	Head	250	1055	3843	799	5.35	23.20	21.40	-7.76
2020/6/10	2450	Head	250	908	3843	799	6.63	24.20	26.52	9.59
2020/6/14	2600	Head	250	1061	3843	799	6.77	25.90	27.08	4.56
2020/7/15	3700	Head	100	1008	7592	1210	2.80	24.90	28.00	12.45
2020/6/22	5250	Head	100	1113	3843	799	2.25	23.10	22.50	-2.60
2020/6/30	5600	Head	100	1113	3843	799	2.19	23.80	21.90	-7.98
2020/7/7	5750	Head	100	1113	3843	799	2.23	22.80	22.30	-2.19
2020/5/29	750	Head	250	1087	3843	799	1.42	5.65	5.68	0.53
2020/6/1	835	Head	250	4d151	3843	799	1.52	6.16	6.08	-1.30
2020/6/4	1750	Head	250	1090	3843	799	4.83	19.20	19.32	0.63
2020/6/8	1900	Head	250	5d170	3843	799	5.48	20.30	21.92	7.98
2020/6/19	2300	Head	250	1055	3843	799	5.35	23.20	21.40	-7.76
2020/6/12	2450	Head	250	908	3843	799	6.28	24.20	25.12	3.80
2020/6/16	2600	Head	250	1061	3843	799	6.62	25.90	26.48	2.24
2020/6/24	5250	Head	100	1113	3843	799	2.28	23.10	22.80	-1.30
2020/7/1	5600	Head	100	1113	3843	799	2.25	23.80	22.50	-5.46
2020/7/9	5750	Head	100	1113	3843	799	2.30	22.80	23.00	0.88
2020/5/30	750	Head	250	1087	3843	799	1.38	5.65	5.52	-2.30
2020/6/2	835	Head	250	4d151	3843	799	1.54	6.16	6.16	0.00
2020/6/5	1750	Head	250	1090	3843	799	4.87	19.20	19.48	1.46
2020/6/9	1900	Head	250	5d170	3843	799	5.24	20.30	20.96	3.25
2020/6/13	2450	Head	250	908	3843	799	6.40	24.20	25.60	5.79
2020/6/18	2600	Head	250	1061	3843	799	6.55	25.90	26.20	1.16
2020/6/26	5250	Head	100	1113	3843	799	2.43	23.10	24.30	5.19
2020/7/3	5600	Head	100	1113	3843	799	2.37	23.80	23.70	-0.42
2020/7/11	5750	Head	100	1113	3843	799	2.41	22.80	24.10	5.70
2020/12/26	750	Head	250	1087	3843	1338	1.44	5.65	5.76	1.95
2020/12/28	835	Head	250	4d151	3843	1338	1.60	6.16	6.4	3.90
2021/1/2	1750	Head	250	1090	3843	1338	4.83	19.20	19.32	0.63
2020/12/30	1900	Head	250	5d170	3843	1338	5.03	20.30	20.12	-0.89
2021/1/3	2300	Head	250	1055	3843	1338	6.01	22.90	24.04	4.98
2020/12/26	2450	Head	250	908	3843	1338	6.31	24.20	25.24	4.30
2021/1/8	2600	Head	250	1061	3843	1338	6.66	25.10	26.64	6.14
2020/12/29	5250	Head	100	1113	3843	1338	2.31	23.10	23.1	0.00
2021/1/1	5600	Head	100	1113	3843	1338	2.33	23.80	23.3	-2.10
2021/1/4	5750	Head	100	1113	3843	1338	2.13	22.80	21.3	-6.58

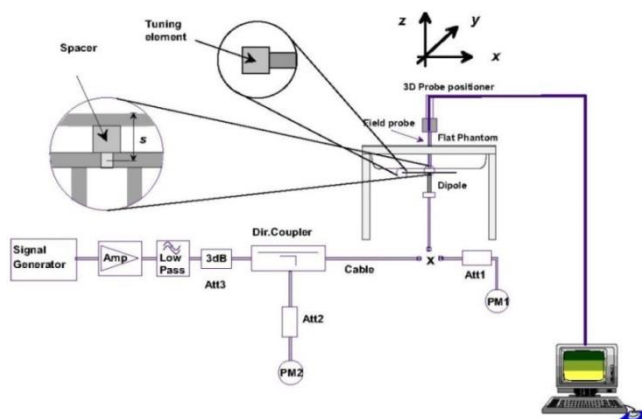


Fig 11.3.1 System Performance Check Setup



Fig 11.3.2 Setup Photo

13. RF Exposure Positions

13.1 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 15mm 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.

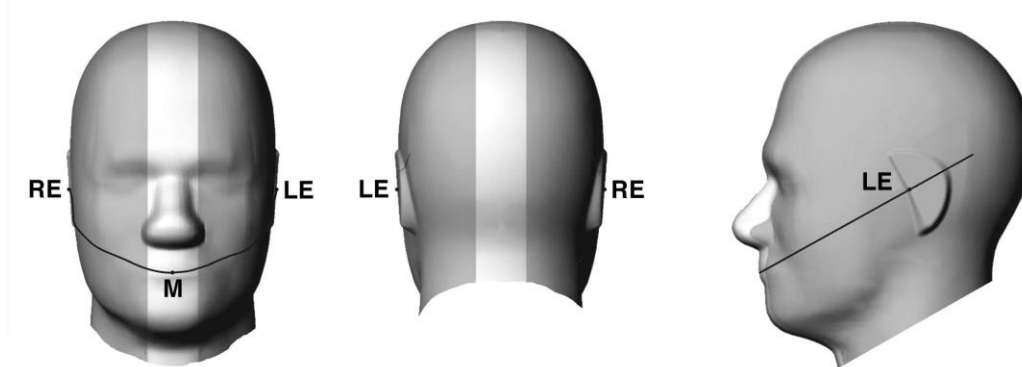


Fig 12.1.1 Front, back, and side views of SAM twin phantom

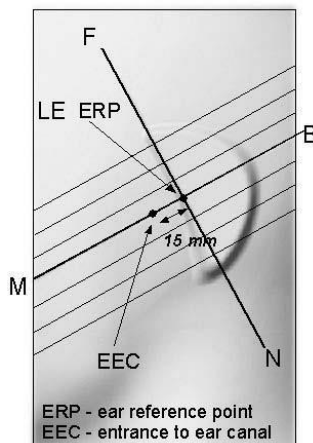


Fig 12.1.2 Close-up side view of phantom showing the ear region.

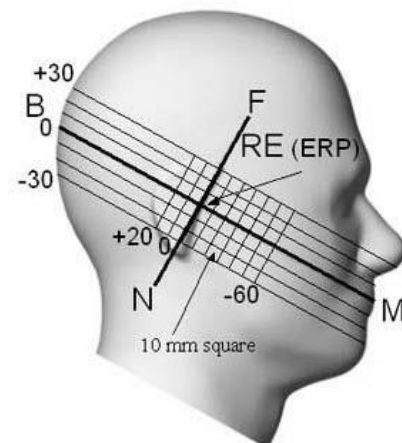


Fig 12.1.3 Side view of the phantom showing relevant markings and seven cross-sectional plane locations

13.2 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 w_t 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 w_b 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 handset. 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.

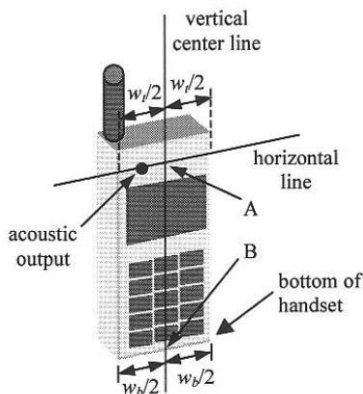


Fig 12.2.1 Handset vertical and horizontal reference lines—"fixed case"

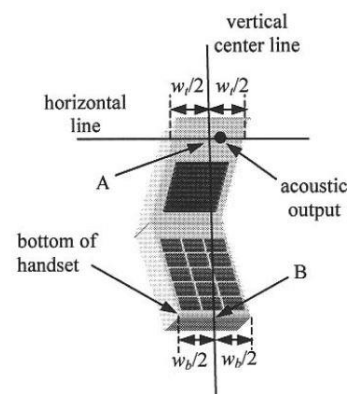


Fig 12.2.2 Handset vertical and horizontal reference lines—"clam-shell case"

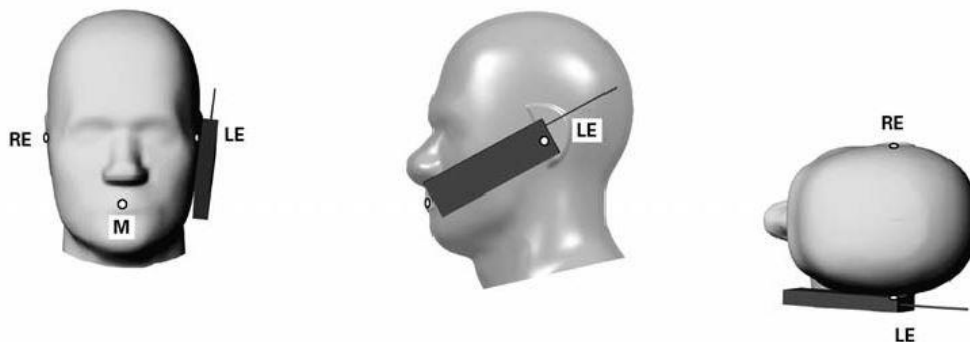


Fig 12.2.3 cheek or touch position. The reference points for the right ear (RE), left ear (LE), and mouth (M), which establish the Reference Plane for handset positioning, are indicated.

13.3 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

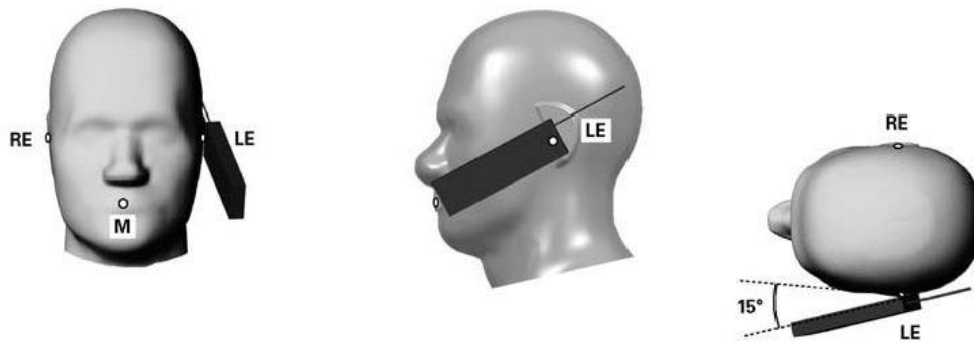


Fig 12.3.1 Tilt position. The reference points for the right ear (RE), left ear (LE), and mouth (M), which define the Reference Plane for handset positioning, are indicated.

13.4 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 $> 1.2 \text{ W/kg}$, 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. 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-clip used with different holsters with no other metallic components) only the accessory that dictates the closest spacing to the body is tested.

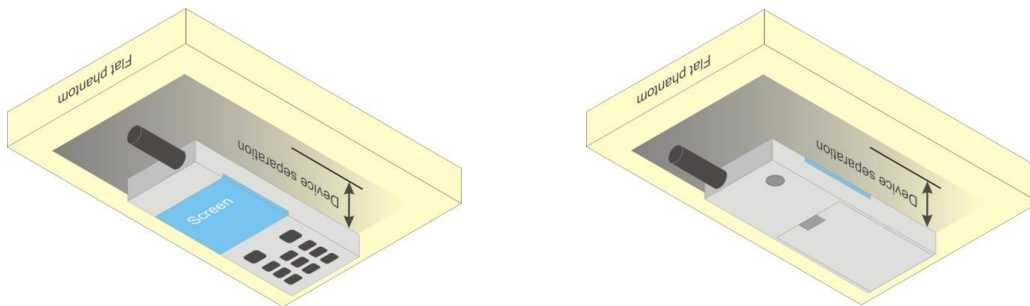


Fig 12.4 Body Worn Position

13.5 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 $\leq 25\text{mm}$ 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 5mm 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.

13.6 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 ($L \times W \geq 9\text{ cm} \times 5\text{ cm}$) 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 from general mixed use conditions for this type of devices. Since the hotspot SAR results may overlap with the body-worn accessory SAR requirements, the more conservative configurations can be considered, thus excluding some body-worn accessory SAR tests.

When the user enables the personal wireless router functions for the handset, actual operations include simultaneous transmission of both the WIFI transmitter and another licensed transmitter. Both transmitters often do not transmit at the same transmitting frequency and thus cannot be evaluated for SAR under actual use conditions due to the limitations of the SAR assessment probes. Therefore, SAR must be evaluated for each frequency transmission and mode separately and spatially summed with the WIFI transmitter according to FCC KDB Publication 447498 D01v06 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.

14. 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 2Tx slots for GSM850 and GPRS 3Tx slots for 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 $\leq \frac{1}{4}$ 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_o/β_d	β_{HS} (Note 1, 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 $\Delta_{CQI} = 30/15$ with $\beta_{HS} = 30/15 * \beta_c$. 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 $\Delta_{NACK} = 30/15$ with $\beta_{HS} = 30/15 * \beta_c$, and $\Delta_{CQI} = 24/15$ with $\beta_{HS} = 24/15 * \beta_c$. Note 3: CM = 1 for $\beta_o/\beta_d = 12/15$, $\beta_{HS}/\beta_c = 24/15$. For all other combinations of DPCCH, 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_o/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 $\beta_c = 11/15$ and $\beta_d = 15/15$.							

Setup Configuration

HSUPA Setup Configuration:

- The EUT was connected to Base Station Agilent E5515C referred to the Setup Configuration.
- The RF path losses were compensated into the measurements.
- A call was established between EUT and Base Station with following setting * :
 - Call Configs = 5.2B, 5.9B, 5.10B, and 5.13.2B with QPSK
 - 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
 - Set Cell Power =86 dBm
 - Set Channel Type = 12.2k + HSPA
 - Set UE Target Power
 - Power Ctrl Mode= Alternating bits
 - Set and observe the E-TFCI
 - Confirm that E-TFCI is equal to the target E-TFCI of 75 for sub-test 1, and other subtest's E-TFCI
- 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} (Note 1)	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	209/25	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	β_{ed1} : 47/15 β_{ed2} : 47/15	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 $\Delta_{CQI} = 30/15$ with $\beta_{hs} = 30/15 * \beta_c$. For sub-test 5, Δ_{ACK} , Δ_{NACK} and $\Delta_{CQI} = 5/15$ with $\beta_{hs} = 5/15 * \beta_c$.

Note 2: CM = 1 for $\beta_c/\beta_d = 12/15$, $\beta_{hs}/\beta_c = 24/15$. 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 $\beta_c = 10/15$ and $\beta_d = 15/15$.

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: $\beta_c/\beta_d=2/15$
 - b). Subtest 2: $\beta_c/\beta_d=12/15$
 - c). Subtest 3: $\beta_c/\beta_d=15/8$
 - d). Subtest 4: $\beta_c/\beta_d=15/4$
 - 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	Processes	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.		

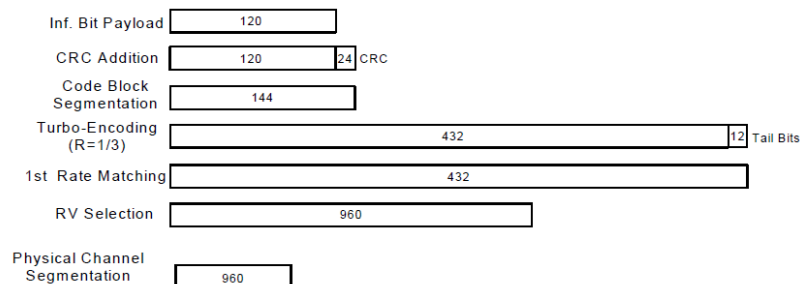


Figure C.8.19: Coding rate for Fixed reference Channel H-Set 12 (QPSK)

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 $\leq \frac{1}{4}$ 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 $\frac{1}{4}$ dB higher than the primary modes; therefore, SAR measurement is not required for HSDPA / HSUPA / DC-HSDPA

<CDMA2000 Conducted Power>

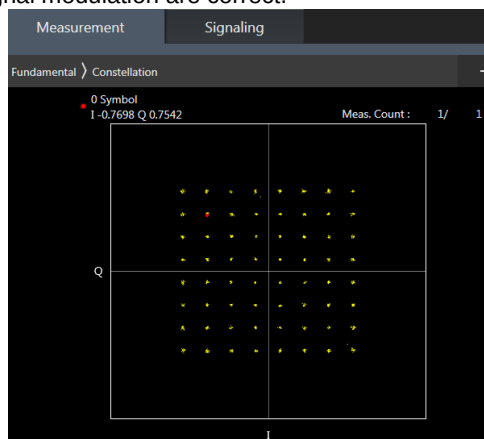
General Note:

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 $\frac{1}{2}$ 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 $\frac{1}{2}$ 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 $\leq$ 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.

- 3GPP TS 36.211 section 4.2 for Type 2 Frame Structure and Table 4.2-2 for uplink-downlink configurations
- “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
- 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.

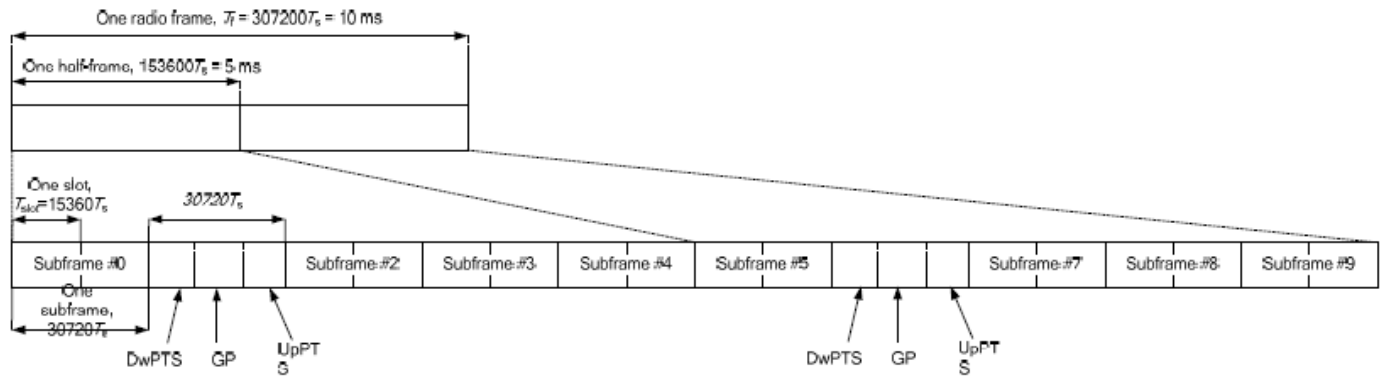


Figure 4.2-1: Frame structure type 2 (for 5 ms switch-point periodicity).

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	$26336 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$	$7680 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$
5	$6592 \cdot T_s$			$20480 \cdot T_s$		
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

- Uplink-downlink configuration: 1. In a half-frame consisted of 5 subframes, uplink operation is in 2 uplink subframes and 1 special subframe.
- special subframe configuration: 5-9 for normal cyclic prefix in downlink, 4-7 for extended cyclic prefix in downlink
- for special subframe with extended cyclic prefix in uplink, the total uplink duty factor in one half-frame is: $(2+0.167)/5 = 43.3\%$
- for special subframe with normal cyclic prefix in uplink, the total uplink duty factor in one half-frame is: $(2+0.143)/5 = 42.9\%$
- 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

- Uplink-downlink configuration: 0. In a half-frame consisted of 5 subframes, uplink operation is in 3 uplink subframes and 1 special subframe.
- special subframe configuration: 5-9 for normal cyclic prefix in downlink, 4-7 for extended cyclic prefix in downlink
- for special subframe with extended cyclic prefix in uplink, the total uplink duty factor in one half-frame is: $(3+0.167)/5 = 63.3\%$
- for special subframe with normal cyclic prefix in uplink, the total uplink duty factor in one half-frame is: $(3+0.143)/5 = 62.9\%$
- 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.
4. All permutations exist. No restrictions on Pcell & Scell combinations. Only LTE Band 29A is limited to Scell.

2CC Downlink Carrier Aggregation			3CC Downlink Carrier Aggregation			4CC Downlink Carrier Aggregation		
Number	Combination	Covered by Measurement Superset	Number	Combination	Covered by Measurement Superset	Number	Combination	Covered by Measurement Superset
1	2C	69	67	2A-2A-4A	181	181	2A-2A-4A-71A	
2	2A-2A	67	68	2A-2A-5A	183	182	2A-2A-5B	
3	2A-4A	67	69	2C-12A		183	2A-2A-5A-30A	
4	2A-5A	68	70	2A-2A-12A	186	184	2A-2A-5A-66A	
5	2A-7A	93	71	2A-2A-13A		185	2A-2A-12A-30A	
6	2A-12A	70	72	2A-2A-14A	187	186	2A-2A-12A-66A	
7	2A-13A	71	73	2A-2A-29A	188 (B29 Rx only)	187	2A-2A-14A-66A	
8	2A-14A	72	74	2A-2A-30A	189	188	2A-2A-29A-30A	(B29 Rx only)
9	2A-29A	73 (B29 Rx only)	75	2A-2A-46A	190(B46 Rx only)	189	2A-2A-30A-66A	
10	2A-30A	74	76	2C-66A	191	190	2A-2A-46C	(B46 Rx only)
11	2A-46A	75(B46 Rx only)	77	2A-2A-66A	192	191	2C-66A-66A	
12	2A-48A	110	78	2A-2A-71A	195	192	2A-2A-66B	
13	2A-66A	77	79	2A-4A-4A	196	193	2A-2A-66C	
14	2A-71A	78	80	2A-4A-5A	197	194	2A-2A-66A-66A	
15	4A-4A	116	81	2A-4A-7A	198	195	2A-2A-66A-71A	
16	4A-5A	116	82	2A-4A-12A	196	196	2A-4A-4A-12A	
17	4A-7A	117	83	2A-4A-13A		197	2A-4A-5B	
18	4A-12A	118	84	2A-4A-29A		198	2A-4A-7C	
19	4A-13A	119	85	2A-4A-30A		199	2A-5B-30A	
20	4A-29A	120(B29 Rx only)	86	2A-4A-71A		200	2A-5B-66A	
21	4A-30A	121	87	2A-5B	199	201	2A-5A-46C	(B46 Rx only)
22	4A-46A	131(B46 Rx only)	88	2A-5A-30A	199	202	2A-5A-48C	
23	4A-48A		89	2A-5A-46A	201(B46 Rx only)	203	2A-5A-66B	
24	4A-71A	122	90	2A-5A-48A	202	204	2A-5A-66C	
25	5B		91	2A-5A-66A	204	205	2A-5A-66A-66A	
26	5A-5A	232	92	2A-7C	198	206	2A-12A-66C	
27	5A-7A		93	2A-7A-7A		207	2A-12A-66A-66A	
28	5A-30A		94	2A-7A-12A		208	2A-13A-46C	(B46 Rx only)
29	5A-38A		95	2A-7A-66A		209	2A-13A-48C	
30	5A-41A		96	2A-12B		210	2A-13A-66B	
31	5A-46A	132(B46 Rx only)	97	2A-12A-30A		211	2A-13A-66C	
32	5A-48A	133	98	2A-12A-66A	206	212	2A-14A-66A-66A	
33	5A-66A	136	99	2A-13A-46A	208(B46 Rx only)	213	2A-30A-66A-66A	
34	7B	140	100	2A-13A-48A	209	214	2A-46D	(B46 Rx only)
35	7C	140	101	2A-13A-66A	210	215	2A-46A-46C	(B46 Rx only)
36	7A-7A	139	102	2A-14A-30A		216	2A-46C-66A	(B46 Rx only)
37	7A-12A	141	103	2A-14A-66A	212	217	2A-48D	
38	7A-46A	139(B46 Rx only)	104	2A-2A-30A	189	218	2A-48A-48C	
39	7A-66A	142	105	2A-29A-66A		219	2A-48C-66A	
40	12B		106	2A-30A-66A	212	220	2A-66C-71A	
41	12A-30A	143	107	2A-46C	216(B46 Rx only)	221	2A-66A-66A-71A	
42	12A-66A	145	108	2A-46A-66A	(B46 Rx only)	222	4A-4A-5B	
43	13A-46A	147(B46 Rx only)	109	2A-48C	219	223	4A-4A-12A-30A	



FCC SAR Test Report

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44	13A-48A	149	110	2A-48A-48A	218	224	4A-46D	(B46 Rx only)
45	13A-66A	150	111	2A-48A-66A	219	225	4A-46A-46C	(B46 Rx only)
46	14A-30A	154	112	2A-66B	220	226	4A-48D	
47	14A-66A	155	113	2A-66C	220	227	5B-30A-66A	
48	25A-25A	156	114	2A-66A-66A	221	228	5B-46C	(B46 Rx only)
49	25A-26A	156	115	2A-66A-71A	220	229	5B-66B	
50	25A-41A	157	116	4A-4A-5A	222	230	5B-66C	
51	25A-46A	B46 Rx only	117	4A-4A-7A		231	5B-66A-66A	
52	26A-41A	158	118	4A-4A-12A	223	232	5A-5A-66B	
53	29A-30A	159(B29 Rx only)	119	4A-4A-13A		233	5A-5A-66C	
54	29A-66A	160(B29 Rx only)	120	4A-4A-29A	(B29 Rx only)	234	5A-30A-66A-66A	
55	30A-66A	161	121	4A-4A-30A		235	5A-46D	(B46 Rx only)
56	38C		122	4A-4A-71A		236	5A-46C-66A	(B46 Rx only)
57	41C	162	123	4A-5B	222	237	5A-48D	
58	41A-41A	164	124	4A-5A-30A		238	5A-48A-48C	
59	46A-66A	168(B46 Rx only)	125	4A-7C		239	5A-48C-66A	
60	48C	169	126	4A-7A-7A		240	7A-7A-46C	(B46 Rx only)
61	48A-48A	170	127	4A-7A-12A		241	7C-66A-66A	
62	48A-66A	171	128	4A-12B		242	12A-30A-66A-66A	
63	66B	172	129	4A-12A-30A		243	7A-46D	(B46 Rx only)
64	66C	175	130	4A-29A-30A	(B29 Rx only)	244	13A-46D	(B46 Rx only)
65	66A-66A	178	131	4A-46C	224(B46 Rx only)	245	13A-46C-66A	(B46 Rx only)
66	66A-71A	180	132	5A-46A-66A	236(B46 Rx only)	246	13A-48D	
			133	5A-48C	235	247	13A-48A-48C	
			134	5A-48A-48A	238	248	13A-48C-66A	
			135	5A-48A-66A	239	249	13A-48A-66B	
			136	5A-66B	232	250	13A-48A-66C	
			137	5A-66C	233	251	14A-30A-66A-66A	
			138	5A-66A-66A	234	252	25A-41D	
			139	7A-7A-46A	240(B46 Rx only)	253	41C-41C	
			140	7C-66A	241	254	41E	
			141	7A-12A-66A		255	41A-41D	
			142	7A-66A-66A	241	256	46D-66A	(B46 Rx only)
			143	12A-30A-66A	242	257	46A-46C-66A	(B46 Rx only)
			144	12A-66C		258	46C-66A-66A	
			145	12A-66A-66A	242	259	48C-48C	
			146	13A-46C	244	260	48E	
			147	13A-46A-66A	245(B46 Rx only)	261	48A-48D	
			148	13A-48C	248	262	48D-66A	
			149	13A-48A-48A	247	263	48A-48C-66A	
			150	13A-48A-66A	249	264	48C-66B	
			151	13A-66B	249	265	48C-66C	
			152	13A-66C	250	266	48C-66A-66A	
			153	13A-66A-66A		267	48A-48A-66B	
			154	14A-30A-66A	251	268	48A-48A-66C	
			155	14A-66A-66A	251			
			156	25A-25A-26A				
			157	25A-41C	252			
			158	26A-41C				
			159	29A-30A-66A	(B29 Rx only)			
			160	29A-66A-66A	(B29 Rx only)			
			161	30A-66A-66A				
			162	41D	254			
			163	41A+41C	255			
			164	41A-41A-41A				
			165	46C-66A	258(B46 Rx only)			

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			166	46A-46A-66A	(B46 Rx only)			
			167	46A-66C	(B46 Rx only)			
			168	46A-66A-66A	(B46 Rx only)			
			169	48D	260			
			170	48A-48C	261			
			171	48C-66A	262			
			172	66B	264			
			173	48A-66C	265			
			174	48A-66A-66A	266			
			175	66D				
			176	66A-66B	177			
			177	66A-66C				
			178	66A-66A-66A				
			179	66C-71A				
			180	66A-66A-71A				

4X4 MIMO	Band
	LTE Band2/4/7/25/30/38/41/48/66

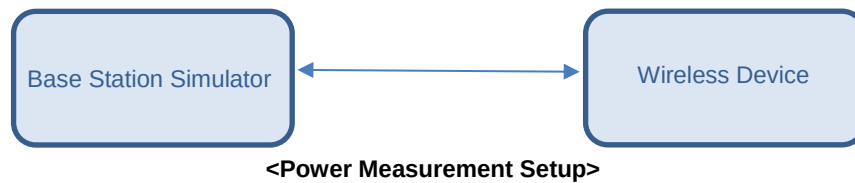
LTE Carrier Aggregation Conducted Power (Downlink)

- 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.

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

LTE Carrier Aggregation Conducted Power (Uplink)

1. This device supports uplink carrier aggregation for LTE CA_5B, CA_41C, CA_66B and CA_66C 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.



5G NR Output Power (Unit: dBm)

General Note:

1. Following 5G NR n2/n5/n25/n66/n71 support SCS 15KHz DFT/CP-OFDM, PI/2 BPSK/QPSK/16QAM/64QAM, Bandwidth 5M/10M/15M/20M.
2. Following 5G NR n41 support SCS 30KHz DFT/CP-OFDM, PI/2 BPSK/QPSK/16QAM/64QAM, Bandwidth 20M/40M/50M/60M/80M/90M/100M.
3. 5G NR n2/n5/n25/n66/n71/n41 support NSA mode and 5GNR n71/n41 also support SA mode.
4. 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. 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
 - c. 50% RB allocation for PI/2 BPSK SAR testing follows 1RB PI/2 BPSK allocation procedure
 - d. 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
 - e. QPSK/16QAM/64QAM 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 SAR testing are not required.
 - f. 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
5. 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.
6. 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 P_{total} 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	$\leq 3.5^1$	$\leq 1.2^1$	$\leq 0.2^1$
		$\leq 0.5^2$	$\leq 0.5^2$	0 ²
	QPSK	≤ 1		0
	16 QAM	≤ 2		≤ 1
	64 QAM	≤ 2.5		
CP-OFDM	256 QAM	≤ 4.5		
	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		

<WLAN Conducted Power>

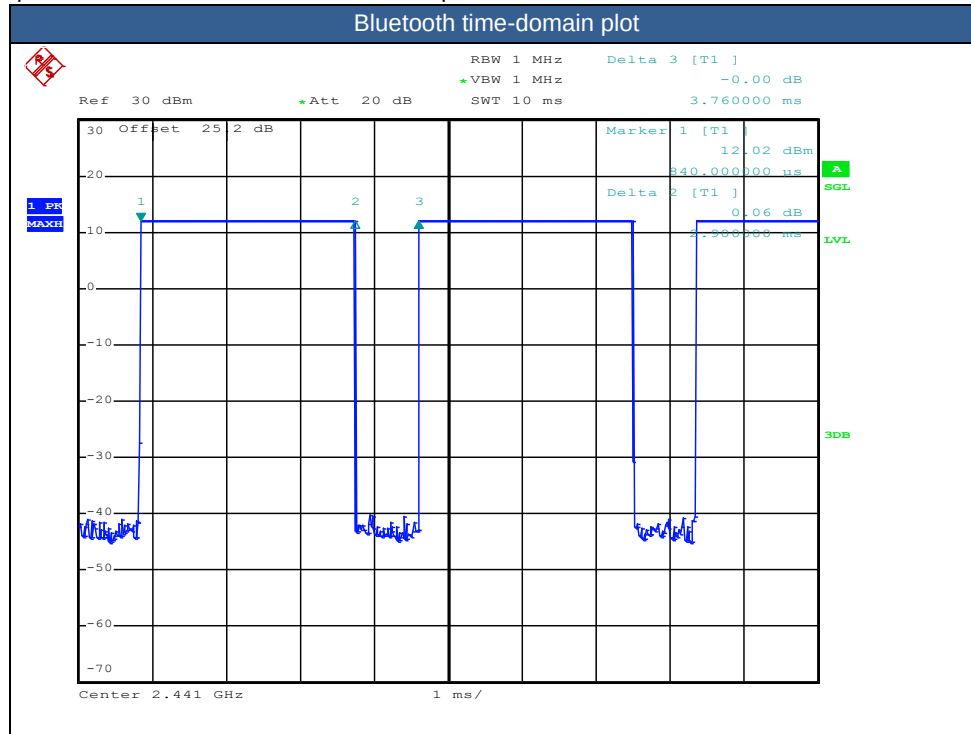
General Note:

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 77.13 % 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





15. Antenna Location

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

16. 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 ≥ 0.8 W/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. Per 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. The device has two work states, flip open and flip close, according to normal using scenario, two states have been performed to SAR testing.
8. 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 WCDMA Band II/IV, LTE Band 2/7/25/30/38/41/48, and 5GNR n41 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.
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 body worn:
WWAN:
Front: [19 mm](#)
Back: [15mm](#)
WLAN:
Back: [15mm](#)

10. 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:
WWAN:
Front: [13 mm](#)
Back: [11mm](#)
Bottom side: [13 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 2Tx slots for GSM850 and GPRS 3Tx slots for 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 $\leq \frac{1}{4}$ 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 $\leq \frac{1}{4}$ 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 $\frac{1}{4}$ 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 $> \text{not } \frac{1}{2}$ 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 $> \text{not } \frac{1}{2}$ 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 B2 / B4 / B5 / B17 / B38 SAR test was covered by LTE B25 / 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 $\leq$ 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.

16.1 Head SAR

<GSM SAR>

Plot No.	Band	Mode	Test Position	Output Power State	Ch.	Freq. (MHz)	EUT Flip State	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 (2 Tx slots)	Right Cheek	DSI 2	128	824.2	Open	30.99	32.50	1.416	-0.14	0.169	0.239
	GSM850	GPRS (2 Tx slots)	Right Tilted	DSI 2	128	824.2	Open	30.99	32.50	1.416	-0.12	0.063	0.089
	GSM850	GPRS (2 Tx slots)	Left Cheek	DSI 2	128	824.2	Open	30.99	32.50	1.416	-0.09	0.137	0.194
	GSM850	GPRS (2 Tx slots)	Left Tilted	DSI 2	128	824.2	Open	30.99	32.50	1.416	0.06	0.114	0.161
	GSM1900	GPRS (3 Tx slots)	Right Cheek	DSI 2	512	1850.2	Open	26.67	28.00	1.358	0.02	0.085	0.115
	GSM1900	GPRS (3 Tx slots)	Right Tilted	DSI 2	512	1850.2	Open	26.67	28.00	1.358	0.03	0.060	0.081
02	GSM1900	GPRS (3 Tx slots)	Left Cheek	DSI 2	512	1850.2	Open	26.67	28.00	1.358	0.02	0.120	0.163
	GSM1900	GPRS (3 Tx slots)	Left Tilted	DSI 2	512	1850.2	Open	26.67	28.00	1.358	0.08	0.069	0.094

<WCDMA SAR>

Plot No.	Band	Mode	Test Position	Output Power State	Ch.	Freq. (MHz)	EUT Flip State	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 II	RMC 12.2Kbps	Right Cheek	DSI 2	9262	1852.4	Open	23.23	24.00	1.194	0.02	0.134	0.160
	WCDMA II	RMC 12.2Kbps	Right Tilted	DSI 2	9262	1852.4	Open	23.23	24.00	1.194	-0.07	0.053	0.063
03	WCDMA II	RMC 12.2Kbps	Left Cheek	DSI 2	9262	1852.4	Open	23.23	24.00	1.194	0.18	0.176	0.210
	WCDMA II	RMC 12.2Kbps	Left Tilted	DSI 2	9262	1852.4	Open	23.23	24.00	1.194	-0.07	0.106	0.127
	WCDMA IV	RMC 12.2Kbps	Right Cheek	DSI 2	1413	1732.6	Open	23.14	24.00	1.219	0.02	0.137	0.167
	WCDMA IV	RMC 12.2Kbps	Right Tilted	DSI 2	1413	1732.6	Open	23.14	24.00	1.219	0.04	0.081	0.099
04	WCDMA IV	RMC 12.2Kbps	Left Cheek	DSI 2	1413	1732.6	Open	23.14	24.00	1.219	0.19	0.190	0.232
	WCDMA IV	RMC 12.2Kbps	Left Tilted	DSI 2	1413	1732.6	Open	23.14	24.00	1.219	0.16	0.123	0.150
05	WCDMA V	RMC 12.2Kbps	Right Cheek	DSI 2	4182	836.4	Open	23.06	24.00	1.242	0.09	0.135	0.168
	WCDMA V	RMC 12.2Kbps	Right Tilted	DSI 2	4182	836.4	Open	23.06	24.00	1.242	0.01	0.071	0.088
	WCDMA V	RMC 12.2Kbps	Left Cheek	DSI 2	4182	836.4	Open	23.06	24.00	1.242	0.03	0.084	0.104
	WCDMA V	RMC 12.2Kbps	Left Tilted	DSI 2	4182	836.4	Open	23.06	24.00	1.242	0.03	0.080	0.099

<CDMA SAR>

Plot No.	Band	Mode	Test Position	Output Power State	Ch.	Freq. (MHz)	EUT Flip State	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
06	CDMA2000 BC0	RC3 SO55	Right Cheek	DSI 2	384	836.5	Open	24.16	25	1.213	0.060	0.167	0.203
	CDMA2000 BC0	RC3 SO55	Right Tilted	DSI 2	384	836.5	Open	24.16	25	1.213	0.012	0.078	0.095
	CDMA2000 BC0	RC3 SO55	Left Cheek	DSI 2	384	836.5	Open	24.16	25	1.213	0.059	0.101	0.123
	CDMA2000 BC0	RC3 SO55	Left Tilted	DSI 2	384	836.5	Open	24.16	25	1.213	0.081	0.077	0.093
	CDMA2000 BC1	RC3 SO55	Right Cheek	DSI 2	600	1880	Open	24	25	1.259	0.14	0.211	0.266
	CDMA2000 BC1	RC3 SO55	Right Tilted	DSI 2	600	1880	Open	24	25	1.259	0.021	0.124	0.156
07	CDMA2000 BC1	RC3 SO55	Left Cheek	DSI 2	600	1880	Open	24	25	1.259	0.010	0.223	0.281
	CDMA2000 BC1	RC3 SO55	Left Tilted	DSI 2	600	1880	Open	24	25	1.259	-0.051	0.108	0.136
	CDMA2000 BC10	RC3 SO55	Right Cheek	DSI 2	580	820.5	Open	23.87	25	1.297	0.15	0.050	0.065
	CDMA2000 BC10	RC3 SO55	Right Tilted	DSI 2	580	820.5	Open	23.87	25	1.297	0.026	0.001	0.001
08	CDMA2000 BC10	RC3 SO55	Left Cheek	DSI 2	580	820.5	Open	23.87	25	1.297	-0.060	0.116	0.150
	CDMA2000 BC10	RC3 SO55	Left Tilted	DSI 2	580	820.5	Open	23.87	25	1.297	0.093	0.001	0.001



<FDD LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Output Power State	Ch.	Freq. (MHz)	EUT Flip State	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_Ant1	20M	QPSK	1	0	Right Cheek	DSI 2	21100	2535	Open	23.22	24.00	1.197	-0.11	0.094	0.112
	LTE Band 7_Ant1	20M	QPSK	50	0	Right Cheek	DSI 2	21100	2535	Open	22.28	23.00	1.180	-0.19	0.077	0.091
	LTE Band 7_Ant1	20M	QPSK	1	0	Right Tilted	DSI 2	21100	2535	Open	23.22	24.00	1.197	-0.05	0.103	0.123
	LTE Band 7_Ant1	20M	QPSK	50	0	Right Tilted	DSI 2	21100	2535	Open	22.28	23.00	1.180	0.04	0.085	0.100
	LTE Band 7_Ant1	20M	QPSK	1	0	Left Cheek	DSI 2	21100	2535	Open	23.22	24.00	1.197	-0.08	0.135	0.162
	LTE Band 7_Ant1	20M	QPSK	50	0	Left Cheek	DSI 2	21100	2535	Open	23.22	24.00	1.197	-0.04	0.131	0.157
	LTE Band 7_Ant1	20M	QPSK	1	0	Left Tilted	DSI 2	21100	2535	Open	23.22	24.00	1.197	0.05	0.053	0.063
	LTE Band 7_Ant1	20M	QPSK	50	0	Left Tilted	DSI 2	21100	2535	Open	22.28	23.00	1.180	0.03	0.046	0.054
09	LTE Band 7_Ant2	20M	QPSK	1	0	Right Cheek	DSI 2	21100	2535	Open	21.17	22.00	1.211	0.01	0.191	0.231
	LTE Band 7_Ant2	20M	QPSK	50	0	Right Cheek	DSI 2	21100	2535	Open	20.21	21.00	1.199	0.08	0.111	0.133
	LTE Band 7_Ant2	20M	QPSK	1	0	Right Tilted	DSI 2	21100	2535	Open	21.17	22.00	1.211	0.09	0.053	0.064
	LTE Band 7_Ant2	20M	QPSK	50	0	Right Tilted	DSI 2	21100	2535	Open	20.21	21.00	1.199	-0.13	0.041	0.049
	LTE Band 7_Ant2	20M	QPSK	1	0	Left Cheek	DSI 2	21100	2535	Open	21.17	22.00	1.211	-0.1	0.073	0.088
	LTE Band 7_Ant2	20M	QPSK	50	0	Left Cheek	DSI 2	21100	2535	Open	20.21	21.00	1.199	-0.07	0.059	0.071
	LTE Band 7_Ant2	20M	QPSK	1	0	Left Tilted	DSI 2	21100	2535	Open	21.17	22.00	1.211	-0.09	0.076	0.092
	LTE Band 7_Ant2	20M	QPSK	50	0	Left Tilted	DSI 2	21100	2535	Open	20.21	21.00	1.199	0.04	0.064	0.077
10	LTE Band 12_Ant1	10M	QPSK	1	0	Right Cheek	DSI 2	23095	707.5	Open	22.73	24.00	1.340	0.1	0.064	0.086
	LTE Band 12_Ant1	10M	QPSK	25	0	Right Cheek	DSI 2	23095	707.5	Open	21.85	23.00	1.303	0.1	0.054	0.070
	LTE Band 12_Ant1	10M	QPSK	1	0	Right Tilted	DSI 2	23095	707.5	Open	22.73	24.00	1.340	0.08	0.038	0.051
	LTE Band 12_Ant1	10M	QPSK	25	0	Right Tilted	DSI 2	23095	707.5	Open	21.85	23.00	1.303	0.06	0.033	0.043
	LTE Band 12_Ant1	10M	QPSK	1	0	Left Cheek	DSI 2	23095	707.5	Open	22.73	24.00	1.340	0.08	0.046	0.062
	LTE Band 12_Ant1	10M	QPSK	25	0	Left Cheek	DSI 2	23095	707.5	Open	21.85	23.00	1.303	0.01	0.061	0.079
	LTE Band 12_Ant1	10M	QPSK	1	0	Left Tilted	DSI 2	23095	707.5	Open	22.73	24.00	1.340	0.05	0.047	0.063
	LTE Band 12_Ant1	10M	QPSK	25	0	Left Tilted	DSI 2	23095	707.5	Open	21.85	23.00	1.303	0.14	0.040	0.052
	LTE Band 12_Ant2	10M	QPSK	1	0	Right Cheek	DSI 2	23095	707.5	Open	22.08	23.00	1.236	-0.04	0.032	0.040
	LTE Band 12_Ant2	10M	QPSK	25	0	Right Cheek	DSI 2	23095	707.5	Open	21.16	22.00	1.213	0.09	0.023	0.028
	LTE Band 12_Ant2	10M	QPSK	1	0	Right Tilted	DSI 2	23095	707.5	Open	22.08	23.00	1.236	0.08	0.020	0.025
	LTE Band 12_Ant2	10M	QPSK	25	0	Right Tilted	DSI 2	23095	707.5	Open	21.16	22.00	1.213	-0.06	0.017	0.021
	LTE Band 12_Ant2	10M	QPSK	1	0	Left Cheek	DSI 2	23095	707.5	Open	22.08	23.00	1.236	0.1	0.033	0.041
	LTE Band 12_Ant2	10M	QPSK	25	0	Left Cheek	DSI 2	23095	707.5	Open	21.16	22.00	1.213	0.06	0.029	0.035
	LTE Band 12_Ant2	10M	QPSK	1	0	Left Tilted	DSI 2	23095	707.5	Open	22.08	23.00	1.236	-0.01	0.018	0.022
	LTE Band 12_Ant2	10M	QPSK	25	0	Left Tilted	DSI 2	23095	707.5	Open	21.16	22.00	1.213	0.05	0.014	0.017
	LTE Band 13_Ant1	10M	QPSK	1	0	Right Cheek	DSI 2	23230	782	Open	22.43	24.00	1.435	0.08	0.083	0.119
	LTE Band 13_Ant1	10M	QPSK	25	0	Right Cheek	DSI 2	23230	782	Open	21.52	23.00	1.406	0.13	0.068	0.096
	LTE Band 13_Ant1	10M	QPSK	1	0	Right Tilted	DSI 2	23230	782	Open	22.43	24.00	1.435	0.02	0.054	0.078
	LTE Band 13_Ant1	10M	QPSK	25	0	Right Tilted	DSI 2	23230	782	Open	21.52	23.00	1.406	0.05	0.043	0.060
11	LTE Band 13_Ant1	10M	QPSK	1	0	Left Cheek	DSI 2	23230	782	Open	22.43	24.00	1.435	0.03	0.090	0.129
	LTE Band 13_Ant1	10M	QPSK	25	0	Left Cheek	DSI 2	23230	782	Open	21.52	23.00	1.406	0.05	0.066	0.093
	LTE Band 13_Ant1	10M	QPSK	1	0	Left Tilted	DSI 2	23230	782	Open	22.43	24.00	1.435	-0.07	0.060	0.086
	LTE Band 13_Ant1	10M	QPSK	25	0	Left Tilted	DSI 2	23230	782	Open	21.52	23.00	1.406	-0.06	0.046	0.065
	LTE Band 13_Ant2	10M	QPSK	1	0	Right Cheek	DSI 2	23230	782	Open	21.66	23.00	1.361	-0.02	0.054	0.074
	LTE Band 13_Ant2	10M	QPSK	25	0	Right Cheek	DSI 2	23230	782	Open	20.84	22.00	1.306	0.13	0.044	0.057
	LTE Band 13_Ant2	10M	QPSK	1	0	Right Tilted	DSI 2	23230	782	Open	21.66	23.00	1.361	0.04	0.038	0.052
	LTE Band 13_Ant2	10M	QPSK	25	0	Right Tilted	DSI 2	23230	782	Open	20.84	22.00	1.306	0.02	0.030	0.039
	LTE Band 13_Ant2	10M	QPSK	1	0	Left Cheek	DSI 2	23230	782	Open	21.66	23.00	1.361	0.05	0.055	0.074
	LTE Band 13_Ant2	10M	QPSK	25	0	Left Cheek	DSI 2	23230	782	Open	20.84	22.00	1.306	0.01	0.046	0.060
	LTE Band 13_Ant2	10M	QPSK	1	0	Left Tilted	DSI 2	23230	782	Open	21.66	23.00	1.361	0.06	0.027	0.037
	LTE Band 13_Ant2	10M	QPSK	25	0	Left Tilted	DSI 2	23230	782	Open	20.84	22.00	1.306	-0.08	0.023	0.030



FCC SAR Test Report

Report No. : FA052803-04

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Output Power State	Ch.	Freq. (MHz)	EUT Flip State	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 14_Ant1	10M	QPSK	1	0	Right Cheek	DSI 2	23330	793	Open	22.44	24.00	1.432	0.05	0.081	0.116
	LTE Band 14_Ant1	10M	QPSK	25	0	Right Cheek	DSI 2	23330	793	Open	21.42	23.00	1.439	-0.02	0.067	0.096
	LTE Band 14_Ant1	10M	QPSK	1	0	Right Tilted	DSI 2	23330	793	Open	22.44	24.00	1.432	-0.15	0.064	0.092
	LTE Band 14_Ant1	10M	QPSK	25	0	Right Tilted	DSI 2	23330	793	Open	21.42	23.00	1.439	-0.18	0.040	0.058
12	LTE Band 14_Ant1	10M	QPSK	1	0	Left Cheek	DSI 2	23330	793	Open	22.44	24.00	1.432	0.02	0.103	0.148
	LTE Band 14_Ant1	10M	QPSK	25	0	Left Cheek	DSI 2	23330	793	Open	21.42	23.00	1.439	0.02	0.060	0.086
	LTE Band 14_Ant1	10M	QPSK	1	0	Left Tilted	DSI 2	23330	793	Open	22.44	24.00	1.432	0.09	0.060	0.086
	LTE Band 14_Ant1	10M	QPSK	25	0	Left Tilted	DSI 2	23330	793	Open	21.42	23.00	1.439	0.08	0.044	0.063
	LTE Band 14_Ant2	10M	QPSK	1	0	Right Cheek	DSI 2	23330	793	Open	21.25	23.00	1.496	-0.03	0.055	0.082
	LTE Band 14_Ant2	10M	QPSK	25	0	Right Cheek	DSI 2	23330	793	Open	20.25	22.00	1.496	-0.06	0.039	0.058
	LTE Band 14_Ant2	10M	QPSK	1	0	Right Tilted	DSI 2	23330	793	Open	21.25	23.00	1.496	-0.06	0.036	0.054
	LTE Band 14_Ant2	10M	QPSK	25	0	Right Tilted	DSI 2	23330	793	Open	20.25	22.00	1.496	-0.06	0.028	0.042
	LTE Band 14_Ant2	10M	QPSK	1	0	Left Cheek	DSI 2	23330	793	Open	21.25	23.00	1.496	0.09	0.054	0.081
	LTE Band 14_Ant2	10M	QPSK	25	0	Left Cheek	DSI 2	23330	793	Open	20.25	22.00	1.496	-0.02	0.041	0.061
	LTE Band 14_Ant2	10M	QPSK	1	0	Left Tilted	DSI 2	23330	793	Open	21.25	23.00	1.496	-0.09	0.026	0.039
	LTE Band 14_Ant2	10M	QPSK	25	0	Left Tilted	DSI 2	23330	793	Open	20.25	22.00	1.496	0.03	0.020	0.030
	LTE Band 25_Ant1	20M	QPSK	1	0	Right Cheek	DSI 2	26340	1880	Open	22.74	24.00	1.337	-0.18	0.109	0.146
	LTE Band 25_Ant1	20M	QPSK	50	0	Right Cheek	DSI 2	26340	1880	Open	21.85	23.00	1.303	0.05	0.087	0.113
	LTE Band 25_Ant1	20M	QPSK	1	0	Right Tilted	DSI 2	26340	1880	Open	22.74	24.00	1.337	0.03	0.066	0.088
	LTE Band 25_Ant1	20M	QPSK	50	0	Right Tilted	DSI 2	26340	1880	Open	21.85	23.00	1.303	-0.08	0.054	0.070
13	LTE Band 25_Ant1	20M	QPSK	1	0	Left Cheek	DSI 2	26340	1880	Open	22.74	24.00	1.337	0.01	0.174	0.233
	LTE Band 25_Ant1	20M	QPSK	50	0	Left Cheek	DSI 2	26340	1880	Open	21.85	23.00	1.303	-0.03	0.147	0.192
	LTE Band 25_Ant1	20M	QPSK	1	0	Left Tilted	DSI 2	26340	1880	Open	22.74	24.00	1.337	0.05	0.058	0.078
	LTE Band 25_Ant1	20M	QPSK	50	0	Left Tilted	DSI 2	26340	1880	Open	21.85	23.00	1.303	-0.12	0.044	0.057
	LTE Band 25_Ant2	20M	QPSK	1	0	Right Cheek	DSI 2	26340	1880	Open	20.70	22.00	1.349	-0.08	0.082	0.111
	LTE Band 25_Ant2	20M	QPSK	50	0	Right Cheek	DSI 2	26340	1880	Open	19.78	21.00	1.324	-0.07	0.056	0.074
	LTE Band 25_Ant2	20M	QPSK	1	0	Right Tilted	DSI 2	26340	1880	Open	20.70	22.00	1.349	0.04	0.051	0.069
	LTE Band 25_Ant2	20M	QPSK	50	0	Right Tilted	DSI 2	26340	1880	Open	19.78	21.00	1.324	0.07	0.031	0.041
	LTE Band 25_Ant2	20M	QPSK	1	0	Left Cheek	DSI 2	26340	1880	Open	20.70	22.00	1.349	0.05	0.057	0.077
	LTE Band 25_Ant2	20M	QPSK	50	0	Left Cheek	DSI 2	26340	1880	Open	19.78	21.00	1.324	-0.13	0.041	0.054
	LTE Band 25_Ant2	20M	QPSK	1	0	Left Tilted	DSI 2	26340	1880	Open	20.70	22.00	1.349	-0.06	0.021	0.028
	LTE Band 25_Ant2	20M	QPSK	50	0	Left Tilted	DSI 2	26340	1880	Open	19.78	21.00	1.324	0.07	0.017	0.023
14	LTE Band 26_Ant1	15M	QPSK	1	0	Right Cheek	DSI 2	26865	831.5	Open	22.65	24.00	1.365	0.01	0.121	0.165
	LTE Band 5B_Ant1	10M+10M	QPSK	1	0	Right Cheek	DSI 2	20575+20476	841.5+831.6	Open	23.81	24.00	1.045	-0.12	0.108	0.113
	LTE Band 26_Ant1	15M	QPSK	36	0	Right Cheek	DSI 2	26865	831.5	Open	21.76	23.00	1.330	0.05	0.096	0.128
	LTE Band 26_Ant1	15M	QPSK	1	0	Right Tilted	DSI 2	26865	831.5	Open	22.65	24.00	1.365	0.03	0.074	0.101
	LTE Band 26_Ant1	15M	QPSK	36	0	Right Tilted	DSI 2	26865	831.5	Open	21.76	23.00	1.330	0.03	0.060	0.080
	LTE Band 26_Ant1	15M	QPSK	1	0	Left Cheek	DSI 2	26865	831.5	Open	22.65	24.00	1.365	0.05	0.100	0.136
	LTE Band 26_Ant1	15M	QPSK	36	0	Left Cheek	DSI 2	26865	831.5	Open	21.76	23.00	1.330	0.02	0.081	0.108
	LTE Band 26_Ant1	15M	QPSK	1	0	Left Tilted	DSI 2	26865	831.5	Open	22.65	24.00	1.365	-0.02	0.065	0.089
	LTE Band 26_Ant1	15M	QPSK	36	0	Left Tilted	DSI 2	26865	831.5	Open	21.76	23.00	1.330	0.05	0.054	0.072
	LTE Band 26_Ant2	15M	QPSK	1	0	Right Cheek	DSI 2	26865	831.5	Open	21.71	23.00	1.346	0.03	0.031	0.042
	LTE Band 26_Ant2	15M	QPSK	36	0	Right Cheek	DSI 2	26865	831.5	Open	20.82	22.00	1.312	0.19	0.025	0.033
	LTE Band 26_Ant2	15M	QPSK	1	0	Right Tilted	DSI 2	26865	831.5	Open	21.71	23.00	1.346	0.07	0.024	0.032
	LTE Band 26_Ant2	15M	QPSK	36	0	Right Tilted	DSI 2	26865	831.5	Open	20.82	22.00	1.312	0.02	0.017	0.022
	LTE Band 26_Ant2	15M	QPSK	1	0	Left Cheek	DSI 2	26865	831.5	Open	21.71	23.00	1.346	-0.05	0.038	0.052
	LTE Band 5B_Ant2	10M+10M	QPSK	1	0	Left Cheek	DSI 2	20575+20476	841.5+831.6	Open	22.49	23.00	1.125	0.03	0.031	0.035
	LTE Band 26_Ant2	15M	QPSK	36	0	Left Cheek	DSI 2	26865	831.5	Open	20.82	22.00	1.312	0.07	0.033	0.043
	LTE Band 26_Ant2	15M	QPSK	1	0	Left Tilted	DSI 2	26865	831.5	Open	21.71	23.00	1.346	-0.02	0.017	0.023
	LTE Band 26_Ant2	15M	QPSK	36	0	Left Tilted	DSI 2	26865	831.5	Open	20.82	22.00	1.312	0.04	0.014	0.018



Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Output Power State	Ch.	Freq. (MHz)	EUT Flip State	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 30_Ant1	10M	QPSK	1	0	Right Cheek	DSI 2	27710	2310	Open	22.65	24.00	1.365	0.01	0.041	0.056
	LTE Band 30_Ant1	10M	QPSK	25	0	Right Cheek	DSI 2	27710	2310	Open	21.66	23.00	1.361	0.05	0.051	0.069
	LTE Band 30_Ant1	10M	QPSK	1	0	Right Tilted	DSI 2	27710	2310	Open	22.65	24.00	1.365	0.06	0.044	0.060
	LTE Band 30_Ant1	10M	QPSK	25	0	Right Tilted	DSI 2	27710	2310	Open	21.66	23.00	1.361	0.05	0.044	0.060
15	LTE Band 30_Ant1	10M	QPSK	1	0	Left Cheek	DSI 2	27710	2310	Open	22.65	24.00	1.365	0.01	0.076	0.104
	LTE Band 30_Ant1	10M	QPSK	25	0	Left Cheek	DSI 2	27710	2310	Open	21.66	23.00	1.361	-0.06	0.069	0.094
	LTE Band 30_Ant1	10M	QPSK	1	0	Left Tilted	DSI 2	27710	2310	Open	22.65	24.00	1.365	-0.08	0.033	0.045
	LTE Band 30_Ant1	10M	QPSK	25	0	Left Tilted	DSI 2	27710	2310	Open	21.66	23.00	1.361	-0.03	0.028	0.038
	LTE Band 30_Ant2	10M	QPSK	1	0	Right Cheek	DSI 2	27710	2310	Open	20.43	22.00	1.435	0.03	0.042	0.061
	LTE Band 30_Ant2	10M	QPSK	25	0	Right Cheek	DSI 2	27710	2310	Open	19.36	21.00	1.459	0.01	0.027	0.039
	LTE Band 30_Ant2	10M	QPSK	1	0	Right Tilted	DSI 2	27710	2310	Open	20.43	22.00	1.435	0.05	0.018	0.026
	LTE Band 30_Ant2	10M	QPSK	25	0	Right Tilted	DSI 2	27710	2310	Open	19.36	21.00	1.459	0.02	0.012	0.018
	LTE Band 30_Ant2	10M	QPSK	1	0	Left Cheek	DSI 2	27710	2310	Open	20.43	22.00	1.435	0.05	0.026	0.037
	LTE Band 30_Ant2	10M	QPSK	25	0	Left Cheek	DSI 2	27710	2310	Open	19.36	21.00	1.459	0.03	0.020	0.029
	LTE Band 30_Ant2	10M	QPSK	1	0	Left Tilted	DSI 2	27710	2310	Open	20.43	22.00	1.435	0.01	0.026	0.037
	LTE Band 30_Ant2	10M	QPSK	25	0	Left Tilted	DSI 2	27710	2310	Open	19.36	21.00	1.459	0.02	0.021	0.031
16	LTE Band 66_Ant1	20M	QPSK	1	0	Right Cheek	DSI 2	132072	1720	Open	22.89	24.00	1.291	0.09	0.148	0.191
	LTE Band 66C_Ant1	20M+20M	QPSK	1	0	Right Cheek	DSI 2	132072+132270	1720+1739.8	Open	23.16	24	1.213	0.01	0.079	0.096
	LTE Band 66B_Ant1	15M+5M	QPSK	1	0	Right Cheek	DSI 2	132047+132140	1717.5+1726.8	Open	22.76	24	1.330	0.02	0.077	0.102
	LTE Band 66_Ant1	20M	QPSK	50	0	Right Cheek	DSI 2	132072	1720	Open	21.99	23.00	1.262	0.04	0.108	0.136
	LTE Band 66_Ant1	20M	QPSK	1	0	Right Tilted	DSI 2	132072	1720	Open	22.89	24.00	1.291	0.07	0.075	0.097
	LTE Band 66_Ant1	20M	QPSK	50	0	Right Tilted	DSI 2	132072	1720	Open	21.99	23.00	1.262	0.01	0.059	0.074
	LTE Band 66_Ant1	20M	QPSK	1	0	Left Cheek	DSI 2	132072	1720	Open	22.89	24.00	1.291	-0.11	0.085	0.109
	LTE Band 66_Ant1	20M	QPSK	50	0	Left Cheek	DSI 2	132072	1720	Open	21.99	23.00	1.262	0.17	0.148	0.187
	LTE Band 66_Ant1	20M	QPSK	1	0	Left Tilted	DSI 2	132072	1720	Open	22.89	24.00	1.291	0.07	0.092	0.119
	LTE Band 66_Ant1	20M	QPSK	50	0	Left Tilted	DSI 2	132072	1720	Open	21.99	23.00	1.262	0.14	0.066	0.083
	LTE Band 66_Ant2	20M	QPSK	1	0	Right Cheek	DSI 2	132072	1720	Open	20.92	22.00	1.282	0.05	0.098	0.126
	LTE Band 66C_Ant2	20M+20M	QPSK	1	0	Right Cheek	DSI 2	132072+132270	1720+1739.8	Open	21.5	22.00	1.122	0.01	0.088	0.099
	LTE Band 66B_Ant2	15M+5M	QPSK	1	0	Right Cheek	DSI 2	132047+132140	1717.5+1726.8	Open	21.41	22.00	1.146	0.02	0.089	0.102
	LTE Band 66_Ant2	20M	QPSK	50	0	Right Cheek	DSI 2	132072	1720	Open	20.06	21.00	1.242	0.09	0.064	0.079
	LTE Band 66_Ant2	20M	QPSK	1	0	Right Tilted	DSI 2	132072	1720	Open	20.92	22.00	1.282	0.05	0.060	0.077
	LTE Band 66_Ant2	20M	QPSK	50	0	Right Tilted	DSI 2	132072	1720	Open	20.06	21.00	1.242	-0.03	0.039	0.048
	LTE Band 66_Ant2	20M	QPSK	1	0	Left Cheek	DSI 2	132072	1720	Open	20.92	22.00	1.282	0.08	0.072	0.092
	LTE Band 66_Ant2	20M	QPSK	50	0	Left Cheek	DSI 2	132072	1720	Open	20.06	21.00	1.242	0.01	0.057	0.071
	LTE Band 66_Ant2	20M	QPSK	1	0	Left Tilted	DSI 2	132072	1720	Open	20.92	22.00	1.282	0.03	0.031	0.040
	LTE Band 66_Ant2	20M	QPSK	50	0	Left Tilted	DSI 2	132072	1720	Open	20.06	21.00	1.242	-0.17	0.020	0.025



Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Output Power State	Ch.	Freq. (MHz)	EUT Flip State	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_Ant1	20M	QPSK	1	0	Right Cheek	DSI 2	133322	683	Open	22.85	24.00	1.303	0.01	0.051	0.066
	LTE Band 71_Ant1	20M	QPSK	50	0	Right Cheek	DSI 2	133322	683	Open	22.36	23.00	1.159	0.08	0.045	0.052
	LTE Band 71_Ant1	20M	QPSK	1	0	Right Tilted	DSI 2	133322	683	Open	22.85	24.00	1.303	0.06	0.033	0.043
	LTE Band 71_Ant1	20M	QPSK	50	0	Right Tilted	DSI 2	133322	683	Open	22.36	23.00	1.159	0.09	0.026	0.030
17	LTE Band 71_Ant1	20M	QPSK	1	0	Left Cheek	DSI 2	133322	683	Open	22.85	24.00	1.303	-0.15	0.056	0.073
	LTE Band 71_Ant1	20M	QPSK	50	0	Left Cheek	DSI 2	133322	683	Open	22.36	23.00	1.159	-0.14	0.051	0.059
	LTE Band 71_Ant1	20M	QPSK	1	0	Left Tilted	DSI 2	133322	683	Open	22.85	24.00	1.303	-0.14	0.039	0.051
	LTE Band 71_Ant1	20M	QPSK	50	0	Left Tilted	DSI 2	133322	683	Open	22.36	23.00	1.159	-0.16	0.032	0.037
	LTE Band 71_Ant2	20M	QPSK	1	0	Right Cheek	DSI 2	133322	683	Open	22.27	24.00	1.489	-0.19	0.024	0.036
	LTE Band 71_Ant2	20M	QPSK	50	0	Right Cheek	DSI 2	133322	683	Open	22.00	23.00	1.259	0.02	0.014	0.018
	LTE Band 71_Ant2	20M	QPSK	1	0	Right Tilted	DSI 2	133322	683	Open	22.27	24.00	1.489	0.09	0.014	0.021
	LTE Band 71_Ant2	20M	QPSK	50	0	Right Tilted	DSI 2	133322	683	Open	22.00	23.00	1.259	-0.12	0.010	0.013
	LTE Band 71_Ant2	20M	QPSK	1	0	Left Cheek	DSI 2	133322	683	Open	22.27	24.00	1.489	0.02	0.020	0.030
	LTE Band 71_Ant2	20M	QPSK	50	0	Left Cheek	DSI 2	133322	683	Open	22.00	23.00	1.259	0.02	0.014	0.018
	LTE Band 71_Ant2	20M	QPSK	1	0	Left Tilted	DSI 2	133322	683	Open	22.27	24.00	1.489	0.03	0.010	0.015
	LTE Band 71_Ant2	20M	QPSK	50	0	Left Tilted	DSI 2	133322	683	Open	22.00	23.00	1.259	0.02	0.006	0.008



<TDD LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Output Power State	Ch.	Freq. (MHz)	EUT Flip State	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_Ant1	20M	QPSK	1	0	Right Cheek	DSI 2	40620	2593	Open	22.99	24.00	1.262	62.9	1.006	0.08	0.050	0.063
	LTE Band 41_Ant1	20M	QPSK	50	0	Right Cheek	DSI 2	40620	2593	Open	22.18	23.00	1.208	62.9	1.006	0.04	0.036	0.044
	LTE Band 41_Ant1	20M	QPSK	1	0	Right Tilted	DSI 2	40620	2593	Open	22.99	24.00	1.262	62.9	1.006	0.05	0.058	0.074
	LTE Band 41_Ant1	20M	QPSK	50	0	Right Tilted	DSI 2	40620	2593	Open	22.18	23.00	1.208	62.9	1.006	0.01	0.040	0.049
	LTE Band 41_Ant1	20M	QPSK	1	0	Left Cheek	DSI 2	40620	2593	Open	22.99	24.00	1.262	62.9	1.006	0.07	0.061	0.077
	LTE Band 41C_Ant1	20M+20M	QPSK	1	0	Left Cheek	DSI 2	40620+40422	2593+2573.2	Open	23.70	24.00	1.072	62.9	1.006	0.09	0.056	0.060
	LTE Band 41 PC2_Ant1	20M	QPSK	1	0	Left Cheek	DSI 2	40620	2593	Open	25.52	27.00	1.406	42.9	1.009	0.02	0.068	0.096
	LTE Band 41_Ant1	20M	QPSK	50	0	Left Cheek	DSI 2	40620	2593	Open	22.18	23.00	1.208	62.9	1.006	0.03	0.053	0.064
	LTE Band 41_Ant1	20M	QPSK	1	0	Left Tilted	DSI 2	40620	2593	Open	22.99	24.00	1.262	62.9	1.006	-0.14	0.033	0.042
	LTE Band 41_Ant1	20M	QPSK	50	0	Left Tilted	DSI 2	40620	2593	Open	22.18	23.00	1.208	62.9	1.006	-0.19	0.028	0.034
	LTE Band 41_Ant2	20M	QPSK	1	0	Right Cheek	DSI 2	39750	2506	Open	22.61	23.50	1.227	62.9	1.006	0.07	0.081	0.099
	LTE Band 41_Ant2	20M	QPSK	50	24	Right Cheek	DSI 2	39750	2506	Open	21.78	22.50	1.180	62.9	1.006	-0.04	0.069	0.082
	LTE Band 41_Ant2	20M	QPSK	1	0	Right Tilted	DSI 2	39750	2506	Open	22.61	23.50	1.227	62.9	1.006	0.03	0.070	0.086
	LTE Band 41_Ant2	20M	QPSK	50	24	Right Tilted	DSI 2	39750	2506	Open	21.78	22.50	1.180	62.9	1.006	0.02	0.056	0.066
	LTE Band 41_Ant2	20M	QPSK	1	0	Left Cheek	DSI 2	39750	2506	Open	22.61	23.50	1.227	62.9	1.006	0.09	0.080	0.099
	LTE Band 41C_Ant2	20M+20M	QPSK	1	0	Left Cheek	DSI 2	39750+39948	2506+2525.8	Open	23.16	23.50	1.081	62.9	1.006	-0.11	0.071	0.077
18	LTE Band 41 PC2_Ant2	20M	QPSK	1	0	Left Cheek	DSI 2	39750	2506	Open	23.94	25.00	1.276	42.9	1.009	0.04	0.081	0.104
	LTE Band 41_Ant2	20M	QPSK	50	24	Left Cheek	DSI 2	39750	2506	Open	21.78	22.50	1.180	62.9	1.006	0.02	0.063	0.075
	LTE Band 41_Ant2	20M	QPSK	1	0	Left Tilted	DSI 2	39750	2506	Open	22.61	23.50	1.227	62.9	1.006	0.03	0.080	0.099
	LTE Band 41_Ant2	20M	QPSK	50	24	Left Tilted	DSI 2	39750	2506	Open	21.78	22.50	1.180	62.9	1.006	0.09	0.064	0.076
	LTE Band 48_Ant1	20M	QPSK	1	0	Right Cheek	DSI 2	55830	3609	Open	23.97	24.00	1.007	62.9	1.006	-0.15	0.067	0.068
19	LTE Band 48_Ant1	20M	QPSK	50	0	Right Cheek	DSI 2	55830	3609	Open	21.51	23.00	1.409	62.9	1.006	-0.07	0.054	0.077
	LTE Band 48_Ant1	20M	QPSK	1	0	Right Tilted	DSI 2	55830	3609	Open	23.97	24.00	1.007	62.9	1.006	0.02	0.049	0.050
	LTE Band 48_Ant1	20M	QPSK	50	0	Right Tilted	DSI 2	55830	3609	Open	21.51	23.00	1.409	62.9	1.006	-0.05	0.047	0.067
	LTE Band 48_Ant1	20M	QPSK	1	0	Left Cheek	DSI 2	55830	3609	Open	23.97	24.00	1.007	62.9	1.006	-0.16	0.056	0.057
	LTE Band 48_Ant1	20M	QPSK	50	0	Left Cheek	DSI 2	55830	3609	Open	21.51	23.00	1.409	62.9	1.006	0.02	0.000	0.000
	LTE Band 48_Ant1	20M	QPSK	1	0	Left Tilted	DSI 2	55830	3609	Open	23.97	24.00	1.007	62.9	1.006	0.02	0.036	0.036
	LTE Band 48_Ant1	20M	QPSK	50	0	Left Tilted	DSI 2	55830	3609	Open	21.51	23.00	1.409	62.9	1.006	0.02	0.031	0.044
	LTE Band 48_Ant2	20M	QPSK	1	0	Right Cheek	DSI 2	55830	3609	Open	20.93	22.00	1.279	62.9	1.006	0.01	0.039	0.050
	LTE Band 48_Ant2	20M	QPSK	50	0	Right Cheek	DSI 2	55830	3609	Open	18.38	21.00	1.828	62.9	1.006	0.05	0.032	0.059
	LTE Band 48_Ant2	20M	QPSK	1	0	Right Tilted	DSI 2	55830	3609	Open	20.93	22.00	1.279	62.9	1.006	0.03	0.000	0.000
	LTE Band 48_Ant2	20M	QPSK	50	0	Right Tilted	DSI 2	55830	3609	Open	18.38	21.00	1.828	62.9	1.006	0.09	0.000	0.000
	LTE Band 48_Ant2	20M	QPSK	1	0	Left Cheek	DSI 2	55830	3609	Open	20.93	22.00	1.279	62.9	1.006	0.09	0.041	0.053
	LTE Band 48_Ant2	20M	QPSK	50	0	Left Cheek	DSI 2	55830	3609	Open	18.38	21.00	1.828	62.9	1.006	0.07	0.000	0.000
	LTE Band 48_Ant2	20M	QPSK	1	0	Left Tilted	DSI 2	55830	3609	Open	20.93	22.00	1.279	62.9	1.006	0.05	0.000	0.000
	LTE Band 48_Ant2	20M	QPSK	50	0	Left Tilted	DSI 2	55830	3609	Open	18.38	21.00	1.828	62.9	1.006	0.02	0.042	0.077



<5G NR SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Output Power State	Ch.	Freq. (MHz)	EUT Flip State	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_Ant 2	20M	BPSK	1	53	Right Cheek	DSI 2	372000	1860	Open	23.96	24.00	1.009	0.04	0.102	0.103
	FR1 n25_Ant 2	20M	BPSK	50	28	Right Cheek	DSI 2	372000	1860	Open	23.89	24.00	1.026	0.02	0.106	0.109
	FR1 n25_Ant 2	20M	BPSK	1	53	Right Tilted	DSI 2	372000	1860	Open	23.96	24.00	1.009	0.06	0.060	0.061
	FR1 n25_Ant 2	20M	BPSK	50	28	Right Tilted	DSI 2	372000	1860	Open	23.89	24.00	1.026	-0.19	0.062	0.064
	FR1 n25_Ant 2	20M	BPSK	1	53	Left Cheek	DSI 2	372000	1860	Open	23.96	24.00	1.009	-0.01	0.077	0.078
	FR1 n25_Ant 2	20M	BPSK	50	28	Left Cheek	DSI 2	372000	1860	Open	23.89	24.00	1.026	-0.03	0.079	0.081
	FR1 n25_Ant 2	20M	BPSK	1	53	Left Tilted	DSI 2	372000	1860	Open	23.96	24.00	1.009	-0.04	0.050	0.050
	FR1 n25_Ant 2	20M	BPSK	50	28	Left Tilted	DSI 2	372000	1860	Open	23.89	24.00	1.026	-0.05	0.049	0.050
	FR1 n25_Ant 2	20M	BPSK	50	28	Right Cheek	DSI 2	381000	1905	Open	23.72	24.00	1.067	-0.07	0.071	0.076
	FR1 n25_Ant 1	20M	BPSK	1	53	Right Cheek	DSI 2	372000	1860	Open	21.48	22.00	1.127	0.12	0.088	0.099
	FR1 n25_Ant 1	20M	BPSK	50	28	Right Cheek	DSI 2	372000	1860	Open	21.43	22.00	1.140	0.12	0.089	0.101
	FR1 n25_Ant 1	20M	BPSK	1	53	Right Tilted	DSI 2	372000	1860	Open	21.48	22.00	1.127	0.01	0.078	0.088
	FR1 n25_Ant 1	20M	BPSK	50	28	Right Tilted	DSI 2	372000	1860	Open	21.43	22.00	1.140	-0.01	0.074	0.084
	FR1 n25_Ant 1	20M	BPSK	1	53	Left Cheek	DSI 2	372000	1860	Open	21.48	22.00	1.127	0.08	0.095	0.107
20	FR1 n25_Ant 1	20M	BPSK	50	28	Left Cheek	DSI 2	372000	1860	Open	21.43	22.00	1.140	0.01	0.097	0.111
	FR1 n25_Ant 1	20M	BPSK	1	53	Left Tilted	DSI 2	372000	1860	Open	21.48	22.00	1.127	-0.04	0.068	0.077
	FR1 n25_Ant 1	20M	BPSK	50	28	Left Tilted	DSI 2	372000	1860	Open	21.43	22.00	1.140	0.02	0.070	0.080
	FR1 n66_Ant 2	20M	BPSK	1	53	Right Cheek	DSI 2	344000	1720	Open	23.89	24.00	1.026	0.11	0.135	0.138
21	FR1 n66_Ant 2	20M	BPSK	50	28	Right Cheek	DSI 2	344000	1720	Open	23.50	24.00	1.122	-0.11	0.146	0.164
	FR1 n66_Ant 2	20M	BPSK	1	53	Right Tilted	DSI 2	344000	1720	Open	23.89	24.00	1.026	0.07	0.065	0.067
	FR1 n66_Ant 2	20M	BPSK	50	28	Right Tilted	DSI 2	344000	1720	Open	23.50	24.00	1.122	0.13	0.068	0.076
	FR1 n66_Ant 2	20M	BPSK	1	53	Left Cheek	DSI 2	344000	1720	Open	23.89	24.00	1.026	0.01	0.087	0.089
	FR1 n66_Ant 2	20M	BPSK	50	28	Left Cheek	DSI 2	344000	1720	Open	23.50	24.00	1.122	-0.01	0.098	0.110
	FR1 n66_Ant 2	20M	BPSK	1	53	Left Tilted	DSI 2	344000	1720	Open	23.89	24.00	1.026	-0.07	0.069	0.071
	FR1 n66_Ant 2	20M	BPSK	50	28	Left Tilted	DSI 2	344000	1720	Open	23.50	24.00	1.122	-0.03	0.071	0.080
	FR1 n66_Ant 1	20M	BPSK	1	53	Right Cheek	DSI 2	344000	1720	Open	22.90	24.00	1.288	-0.16	0.105	0.135
	FR1 n66_Ant 1	20M	BPSK	50	28	Right Cheek	DSI 2	344000	1720	Open	22.53	24.00	1.403	-0.05	0.088	0.123
	FR1 n66_Ant 1	20M	BPSK	1	53	Right Tilted	DSI 2	344000	1720	Open	22.90	24.00	1.288	-0.04	0.072	0.093
	FR1 n66_Ant 1	20M	BPSK	50	28	Right Tilted	DSI 2	344000	1720	Open	22.53	24.00	1.403	-0.17	0.070	0.098
	FR1 n66_Ant 1	20M	BPSK	1	53	Left Cheek	DSI 2	344000	1720	Open	22.90	24.00	1.288	-0.15	0.112	0.144
	FR1 n66_Ant 1	20M	BPSK	50	28	Left Cheek	DSI 2	344000	1720	Open	22.53	24.00	1.403	-0.1	0.082	0.115
	FR1 n66_Ant 1	20M	BPSK	1	53	Left Tilted	DSI 2	344000	1720	Open	22.90	24.00	1.288	0.01	0.077	0.099
	FR1 n66_Ant 1	20M	BPSK	50	28	Left Tilted	DSI 2	344000	1720	Open	22.53	24.00	1.403	0.03	0.071	0.100



Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Output Power State	Ch.	Freq. (MHz)	EUT Flip State	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
22	FR1 n71_Ant 2	20M	BPSK	1	1	Right Cheek	DSI 2	134600	673	Open	23.95	24.00	1.012	0.03	0.001	0.001
	FR1 n71_Ant 2	20M	BPSK	50	28	Right Cheek	DSI 2	134600	673	Open	23.59	24.00	1.099	0.05	0.001	0.001
	FR1 n71_Ant 2	20M	BPSK	1	1	Right Tilted	DSI 2	134600	673	Open	23.95	24.00	1.012	0.06	0.001	0.001
	FR1 n71_Ant 2	20M	BPSK	50	28	Right Tilted	DSI 2	134600	673	Open	23.59	24.00	1.099	0.01	0.001	0.001
	FR1 n71_Ant 2	20M	BPSK	1	1	Left Cheek	DSI 2	134600	673	Open	23.95	24.00	1.012	0.05	0.001	0.001
	FR1 n71_Ant 2	20M	BPSK	50	28	Left Cheek	DSI 2	134600	673	Open	23.59	24.00	1.099	0.09	0.001	0.001
	FR1 n71_Ant 2	20M	BPSK	1	1	Left Tilted	DSI 2	134600	673	Open	23.95	24.00	1.012	0.08	0.001	0.001
	FR1 n71_Ant 2	20M	BPSK	50	28	Left Tilted	DSI 2	134600	673	Open	23.59	24.00	1.099	0.05	0.001	0.001
	FR1 n71_Ant 1	20M	BPSK	1	1	Right Cheek	DSI 2	134600	673	Open	24.74	25.00	1.062	0.06	0.001	0.001
	FR1 n71_Ant 1	20M	BPSK	50	0	Right Cheek	DSI 2	134600	673	Open	24.45	25.00	1.135	0.01	0.001	0.001
	FR1 n71_Ant 1	20M	BPSK	1	1	Right Tilted	DSI 2	134600	673	Open	24.74	25.00	1.062	0.04	0.001	0.001
	FR1 n71_Ant 1	20M	BPSK	50	0	Right Tilted	DSI 2	134600	673	Open	24.45	25.00	1.135	0.09	0.001	0.001
	FR1 n71_Ant 1	20M	BPSK	1	1	Left Cheek	DSI 2	134600	673	Open	24.74	25.00	1.062	0.08	0.001	0.001
	FR1 n71_Ant 1	20M	BPSK	50	0	Left Cheek	DSI 2	134600	673	Open	24.45	25.00	1.135	0.05	0.001	0.001
	FR1 n71_Ant 1	20M	BPSK	1	1	Left Tilted	DSI 2	134600	673	Open	24.74	25.00	1.062	-0.03	0.001	0.001
	FR1 n71_Ant 1	20M	BPSK	50	0	Left Tilted	DSI 2	134600	673	Open	24.45	25.00	1.135	-0.03	0.001	0.001
	FR1 n5_Ant 2	20M	BPSK	1	1	Right Cheek	DSI 2	167300	836.5	Open	23.92	24.00	1.019	0.05	0.040	0.041
	FR1 n5_Ant 2	20M	BPSK	50	0	Right Cheek	DSI 2	167300	836.5	Open	23.77	24.00	1.054	-0.15	0.040	0.042
	FR1 n5_Ant 2	20M	BPSK	1	1	Right Tilted	DSI 2	167300	836.5	Open	23.92	24.00	1.019	-0.07	0.031	0.031
	FR1 n5_Ant 2	20M	BPSK	50	0	Right Tilted	DSI 2	167300	836.5	Open	23.77	24.00	1.054	0.02	0.026	0.027
	FR1 n5_Ant 2	20M	BPSK	1	1	Left Cheek	DSI 2	167300	836.5	Open	23.92	24.00	1.019	-0.05	0.052	0.053
23	FR1 n5_Ant 2	20M	BPSK	50	0	Left Cheek	DSI 2	167300	836.5	Open	23.77	24.00	1.054	-0.16	0.052	0.054
	FR1 n5_Ant 2	20M	BPSK	1	1	Left Tilted	DSI 2	167300	836.5	Open	23.92	24.00	1.019	0.02	0.027	0.028
	FR1 n5_Ant 2	20M	BPSK	50	0	Left Tilted	DSI 2	167300	836.5	Open	23.77	24.00	1.054	0.02	0.030	0.032
	FR1 n5_Ant 1	20M	BPSK	1	1	Right Cheek	DSI 2	167300	836.5	Open	23.21	24.00	1.199	0.03	0.002	0.002
	FR1 n5_Ant 1	20M	BPSK	50	0	Right Cheek	DSI 2	167300	836.5	Open	23.09	24.00	1.233	0.01	0.002	0.003
	FR1 n5_Ant 1	20M	BPSK	1	1	Right Tilted	DSI 2	167300	836.5	Open	23.21	24.00	1.199	0.05	0.000	0.000
	FR1 n5_Ant 1	20M	BPSK	50	0	Right Tilted	DSI 2	167300	836.5	Open	23.09	24.00	1.233	0.03	0.000	0.000
	FR1 n5_Ant 1	20M	BPSK	1	1	Left Cheek	DSI 2	167300	836.5	Open	23.21	24.00	1.199	0.09	0.002	0.002
	FR1 n5_Ant 1	20M	BPSK	50	0	Left Cheek	DSI 2	167300	836.5	Open	23.09	24.00	1.233	0.09	0.002	0.002
	FR1 n5_Ant 1	20M	BPSK	1	1	Left Tilted	DSI 2	167300	836.5	Open	23.21	24.00	1.199	0.07	0.001	0.001
	FR1 n5_Ant 1	20M	BPSK	50	0	Left Tilted	DSI 2	167300	836.5	Open	23.09	24.00	1.233	0.05	0.002	0.002
24	FR1 n41 PC2_Ant 2	100M	BPSK	1	137	Right Cheek	DSI 2	518598	2592.99	Open	25.64	27.00	1.368	0.05	0.489	0.669
	FR1 n41PC2_Ant 2	100M	BPSK	135	69	Right Cheek	DSI 2	518598	2592.99	Open	25.36	27.00	1.459	-0.07	0.449	0.655
	FR1 n41 PC2_Ant 2	100M	BPSK	1	137	Right Tilted	DSI 2	518598	2592.99	Open	25.64	27.00	1.368	0.01	0.239	0.327
	FR1 n41PC2_Ant 2	100M	BPSK	135	69	Right Tilted	DSI 2	518598	2592.99	Open	25.36	27.00	1.459	-0.16	0.194	0.283
	FR1 n41 PC2_Ant 2	100M	BPSK	1	137	Left Cheek	DSI 2	518598	2592.99	Open	25.64	27.00	1.368	-0.01	0.317	0.434
	FR1 n41PC2_Ant 2	100M	BPSK	135	69	Left Cheek	DSI 2	518598	2592.99	Open	25.36	27.00	1.459	-0.15	0.215	0.314
	FR1 n41 PC2_Ant 2	100M	BPSK	1	137	Left Tilted	DSI 2	518598	2592.99	Open	25.64	27.00	1.368	-0.12	0.353	0.483
	FR1 n41PC2_Ant 2	100M	BPSK	135	69	Left Tilted	DSI 2	518598	2592.99	Open	25.36	27.00	1.459	-0.03	0.353	0.515



<WLAN 2.4GHz SAR>

Plot No.	Band	Mode	Test Position	Antenna	Power Table	Ch.	Freq. (MHz)	EUT Flip State	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	Ant 4	Power Table 3	1	2412	Open	20.70	21.00	1.072	100	1.000	0.01	0.008	0.009
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	Ant 4	Power Table 3	1	2412	Open	20.70	21.00	1.072	100	1.000	0.07	0.120	0.129
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	Ant 4	Power Table 3	1	2412	Open	20.70	21.00	1.072	100	1.000	0.17	0.231	0.248
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	Ant 4	Power Table 3	1	2412	Open	20.70	21.00	1.072	100	1.000	0.02	0.015	0.016
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	Ant 3	Power Table 3	1	2412	Open	20.70	21.00	1.072	100	1.000	0.04	0.005	0.005
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	Ant 3	Power Table 3	1	2412	Open	20.70	21.00	1.072	100	1.000	-0.01	0.006	0.006
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	Ant 3	Power Table 3	1	2412	Open	20.70	21.00	1.072	100	1.000	0.19	0.038	0.041
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	Ant 3	Power Table 3	1	2412	Open	20.70	21.00	1.072	100	1.000	0.02	0.047	0.050
25	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	Open	Power Table 3	6	2437	Open	23.98	24.00	1.005	100	1.000	-0.16	0.111	0.112
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	Open	Power Table 3	6	2437	Open	23.98	24.00	1.005	100	1.000	-0.14	0.035	0.035
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	Open	Power Table 3	6	2437	Open	23.98	24.00	1.005	100	1.000	-0.16	0.020	0.020
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	Open	Power Table 3	6	2437	Open	23.98	24.00	1.005	100	1.000	-0.17	0.020	0.020

<Bluetooth SAR>

Plot No.	Band	Mode	Test Position	Antenna	Power Table	Ch.	Freq. (MHz)	EUT Flip State	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	Ant 4	2	0	2402	Open	7.99	9.00	1.262	77.13	1.080	-0.02	0.001	0.001
	Bluetooth	1Mbps	Right Tilted	Ant 4	2	0	2402	Open	7.99	9.00	1.262	77.13	1.080	-0.09	0.001	0.001
26	Bluetooth	1Mbps	Left Cheek	Ant 4	2	0	2402	Open	7.99	9.00	1.262	77.13	1.080	-0.04	0.001	0.001
	Bluetooth	1Mbps	Left Tilted	Ant 4	2	0	2402	Open	7.99	9.00	1.262	77.13	1.080	-0.14	0.001	0.001
	Bluetooth	1Mbps	Right Cheek	Ant 4	1	78	2480	Open	15.28	15.50	1.052	77.13	1.080	0	0.001	0.001
	Bluetooth	1Mbps	Right Tilted	Ant 4	1	78	2480	Open	15.28	15.50	1.052	77.13	1.080	0	0.001	0.001
	Bluetooth	1Mbps	Left Cheek	Ant 4	1	78	2480	Open	15.28	15.50	1.052	77.13	1.080	0	0.001	0.001
	Bluetooth	1Mbps	Left Tilted	Ant 4	1	78	2480	Open	15.28	15.50	1.052	77.13	1.080	0	0.001	0.001



<WLAN 5GHz SAR>

Plot No.	Band	Mode	Test Position	Antenna	Power Table	Ch.	Freq. (MHz)	EUT Flip State	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	802.11n-HT40 MCS0	Right Cheek	Ant 4	Power Table 3	54	5270	Open	19.20	20.00	1.202	95.88	1.043	-0.05	0.025	0.031
	WLAN5.3GHz	802.11n-HT40 MCS0	Right Tilted	Ant 4	Power Table 3	54	5270	Open	19.20	20.00	1.202	95.88	1.043	-0.03	0.001	0.001
27	WLAN5.3GHz	802.11n-HT40 MCS0	Left Cheek	Ant 4	Power Table 3	54	5270	Open	19.20	20.00	1.202	95.88	1.043	-0.04	0.156	0.196
	WLAN5.3GHz	802.11n-HT40 MCS0	Left Tilted	Ant 4	Power Table 3	54	5270	Open	19.20	20.00	1.202	95.88	1.043	0.05	0.067	0.084
	WLAN5.3GHz	802.11n-HT40 MCS0	Right Cheek	Ant 3	Power Table 3	54	5270	Open	19.20	20.00	1.202	95.85	1.043	0.1	0.062	0.078
	WLAN5.3GHz	802.11n-HT40 MCS0	Right Tilted	Ant 3	Power Table 3	54	5270	Open	19.20	20.00	1.202	95.85	1.043	0.02	0.003	0.004
	WLAN5.3GHz	802.11n-HT40 MCS0	Left Cheek	Ant 3	Power Table 3	54	5270	Open	19.20	20.00	1.202	95.85	1.043	0.04	0.088	0.110
	WLAN5.3GHz	802.11n-HT40 MCS0	Left Tilted	Ant 3	Power Table 3	54	5270	Open	19.20	20.00	1.202	95.85	1.043	0.07	0.056	0.070
	WLAN5.3GHz	802.11n-HT40 MCS0	Right Cheek	Ant 3+4	Power Table 3	54	5270	Open	22.52	23.00	1.117	95.85	1.043	0.02	0.050	0.058
	WLAN5.3GHz	802.11n-HT40 MCS0	Right Tilted	Ant 3+4	Power Table 3	54	5270	Open	22.52	23.00	1.117	95.85	1.043	-0.05	0.001	0.001
	WLAN5.3GHz	802.11n-HT40 MCS0	Left Cheek	Ant 3+4	Power Table 3	54	5270	Open	22.52	23.00	1.117	95.85	1.043	0.11	0.086	0.100
	WLAN5.3GHz	802.11n-HT40 MCS0	Left Tilted	Ant 3+4	Power Table 3	54	5270	Open	22.52	23.00	1.117	95.85	1.043	-0.13	0.016	0.019
	WLAN5.5GHz	802.11n-HT40 MCS0	Right Cheek	Ant 4	Power Table 3	110	5550	Open	19.50	20.00	1.122	95.88	1.043	0.01	0.037	0.043
28	WLAN5.5GHz	802.11n-HT40 MCS0	Right Tilted	Ant 4	Power Table 3	110	5550	Open	19.50	20.00	1.122	95.88	1.043	0.02	0.079	0.092
	WLAN5.5GHz	802.11n-HT40 MCS0	Left Cheek	Ant 4	Power Table 3	110	5550	Open	19.50	20.00	1.122	95.88	1.043	-0.15	0.003	0.004
	WLAN5.5GHz	802.11n-HT40 MCS0	Left Tilted	Ant 4	Power Table 3	110	5550	Open	19.50	20.00	1.122	95.88	1.043	0.03	0.006	0.007
	WLAN5.5GHz	802.11n-HT40 MCS0	Right Cheek	Ant 3	Power Table 3	126	5630	Open	19.63	20.00	1.089	95.85	1.043	0.04	0.006	0.007
	WLAN5.5GHz	802.11n-HT40 MCS0	Right Tilted	Ant 3	Power Table 3	126	5630	Open	19.63	20.00	1.089	95.85	1.043	-0.01	0.041	0.047
	WLAN5.5GHz	802.11n-HT40 MCS0	Left Cheek	Ant 3	Power Table 3	126	5630	Open	19.63	20.00	1.089	95.85	1.043	-0.05	0.011	0.012
	WLAN5.5GHz	802.11n-HT40 MCS0	Left Tilted	Ant 3	Power Table 3	126	5630	Open	19.63	20.00	1.089	95.85	1.043	0.06	0.005	0.006
	WLAN5.5GHz	802.11n-HT40 MCS0	Right Cheek	Ant 3+4	Power Table 3	110	5550	Open	22.57	23.00	1.104	95.85	1.043	0.06	0.006	0.007
	WLAN5.5GHz	802.11n-HT40 MCS0	Right Tilted	Ant 3+4	Power Table 3	110	5550	Open	22.57	23.00	1.104	95.85	1.043	-0.03	0.006	0.007
	WLAN5.5GHz	802.11n-HT40 MCS0	Left Cheek	Ant 3+4	Power Table 3	110	5550	Open	22.57	23.00	1.104	95.85	1.043	0.08	0.014	0.016
	WLAN5.5GHz	802.11n-HT40 MCS0	Left Tilted	Ant 3+4	Power Table 3	110	5550	Open	22.57	23.00	1.104	95.85	1.043	0.01	0.030	0.035
29	WLAN5.8GHz	802.11a 6Mbps	Right Cheek	Ant 4	Power Table 3	149	5745	Open	20.20	21.00	1.202	98.06	1.02	0.04	0.041	0.050
	WLAN5.8GHz	802.11a 6Mbps	Right Tilted	Ant 4	Power Table 3	149	5745	Open	20.20	21.00	1.202	98.06	1.02	0.08	0.001	0.001
	WLAN5.8GHz	802.11a 6Mbps	Left Cheek	Ant 4	Power Table 3	149	5745	Open	20.20	21.00	1.202	98.06	1.02	0.07	0.007	0.009
	WLAN5.8GHz	802.11a 6Mbps	Left Tilted	Ant 4	Power Table 3	149	5745	Open	20.20	21.00	1.202	98.06	1.02	0.03	0.001	0.001
	WLAN5.8GHz	802.11a 6Mbps	Right Cheek	Ant 3	Power Table 3	165	5825	Open	20.50	21.00	1.122	97.09	1.03	0.04	0.001	0.001
	WLAN5.8GHz	802.11a 6Mbps	Right Tilted	Ant 3	Power Table 3	165	5825	Open	20.50	21.00	1.122	97.09	1.03	0.05	0.001	0.001
	WLAN5.8GHz	802.11a 6Mbps	Left Cheek	Ant 3	Power Table 3	165	5825	Open	20.50	21.00	1.122	97.09	1.03	-0.04	0.002	0.002
	WLAN5.8GHz	802.11a 6Mbps	Left Tilted	Ant 3	Power Table 3	165	5825	Open	20.50	21.00	1.122	97.09	1.03	-0.15	0.005	0.006
	WLAN5.8GHz	802.11a 6Mbps	Right Cheek	Ant 3+4	Power Table 3	157	5785	Open	23.38	24.00	1.153	97.35	1.027	0.18	0.002	0.002
	WLAN5.8GHz	802.11a 6Mbps	Right Tilted	Ant 3+4	Power Table 3	157	5785	Open	23.38	24.00	1.153	97.35	1.027	0.08	0.001	0.001
	WLAN5.8GHz	802.11a 6Mbps	Left Cheek	Ant 3+4	Power Table 3	157	5785	Open	23.38	24.00	1.153	97.35	1.027	0.14	0.020	0.024
	WLAN5.8GHz	802.11a 6Mbps	Left Tilted	Ant 3+4	Power Table 3	157	5785	Open	23.38	24.00	1.153	97.35	1.027	-0.04	0.006	0.007

16.2 Hotspot SAR

<GSM SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Output Power State	Ch.	Freq. (MHz)	EUT Flip State	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_Ant 1	GPRS (2 Tx slots)	Front	5 mm	DSI 3	128	824.2	Open	29.39	30.5	1.291	-0.07	0.360	0.465
	GSM850_Ant 1	GPRS (2 Tx slots)	Back	5 mm	DSI 3	128	824.2	Open	29.39	30.5	1.291	0.01	0.346	0.447
	GSM850_Ant 1	GPRS (2 Tx slots)	Left Side	5 mm	DSI 3	128	824.2	Open	29.39	30.5	1.291	0.01	0.081	0.105
	GSM850_Ant 1	GPRS (2 Tx slots)	Right Side	5 mm	DSI 3	128	824.2	Open	29.39	30.5	1.291	0.11	0.225	0.291
	GSM850_Ant 1	GPRS (2 Tx slots)	Bottom Side	5 mm	DSI 3	128	824.2	Open	29.39	30.5	1.291	0.13	0.579	0.748
	GSM850_Ant 1	GPRS (2 Tx slots)	Front	5mm	DSI 5	128	824.2	Close	28.44	29.5	1.276	0.06	0.295	0.377
30	GSM850_Ant 1	GPRS (2 Tx slots)	Back	5mm	DSI 5	128	824.2	Close	28.44	29.5	1.276	0.09	0.606	0.774
	GSM850_Ant 1	GPRS (2 Tx slots)	Left Side	5mm	DSI 5	128	824.2	Close	28.44	29.5	1.276	0.04	0.001	0.001
	GSM850_Ant 1	GPRS (2 Tx slots)	Right Side	5mm	DSI 5	128	824.2	Close	28.44	29.5	1.276	0.05	0.220	0.281
	GSM850_Ant 1	GPRS (2 Tx slots)	Bottom Side	5mm	DSI 5	128	824.2	Close	28.44	29.5	1.276	0.05	0.553	0.706
	GSM1900_Ant 1	GPRS (3 Tx slots)	Front	5 mm	DSI 3	661	1880	Open	26.53	27.20	1.167	0.06	0.309	0.361
	GSM1900_Ant 1	GPRS (3 Tx slots)	Back	5 mm	DSI 3	661	1880	Open	26.53	27.20	1.167	0.09	0.138	0.161
	GSM1900_Ant 1	GPRS (3 Tx slots)	Left Side	5 mm	DSI 3	661	1880	Open	26.53	27.20	1.167	-0.1	0.050	0.058
	GSM1900_Ant 1	GPRS (3 Tx slots)	Right Side	5 mm	DSI 3	661	1880	Open	26.53	27.20	1.167	0.05	0.186	0.217
31	GSM1900_Ant 1	GPRS (3 Tx slots)	Bottom Side	5 mm	DSI 3	661	1880	Open	26.53	27.20	1.167	0.06	0.709	0.827
	GSM1900_Ant 1	GPRS (3 Tx slots)	Bottom Side	5 mm	DSI 3	512	1850.2	Open	26.51	27.20	1.172	0.12	0.698	0.818
	GSM1900_Ant 1	GPRS (3 Tx slots)	Bottom Side	5 mm	DSI 3	810	1909.8	Open	26.32	27.20	1.225	0.06	0.671	0.822
	GSM1900_Ant 1	GPRS (3 Tx slots)	Front	5mm	DSI 5	661	1880	Close	24.27	25.00	1.183	0.06	0.541	0.640
	GSM1900_Ant 1	GPRS (3 Tx slots)	Back	5mm	DSI 5	661	1880	Close	24.27	25.00	1.183	0.07	0.505	0.597
	GSM1900_Ant 1	GPRS (3 Tx slots)	Left Side	5mm	DSI 5	661	1880	Close	24.27	25.00	1.183	0.11	0.202	0.239
	GSM1900_Ant 1	GPRS (3 Tx slots)	Right Side	5mm	DSI 5	661	1880	Close	24.27	25.00	1.183	0.16	0.365	0.432
	GSM1900_Ant 1	GPRS (3 Tx slots)	Bottom Side	5mm	DSI 5	661	1880	Close	24.27	25.00	1.183	0.01	0.624	0.738



<WCDMA SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Output Power State	Ch.	Freq. (MHz)	EUT Flip State	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 II _Ant 1	RMC 12.2Kbps	Front	5 mm	DSI 3	9262	1852.4	Open	20.52	21.60	1.282	0.08	0.364	0.467
	WCDMA II _Ant 1	RMC 12.2Kbps	Back	5 mm	DSI 3	9262	1852.4	Open	20.52	21.60	1.282	0.16	0.657	0.842
	WCDMA II _Ant 1	RMC 12.2Kbps	Back	5 mm	DSI 3	9400	1880	Open	20.51	21.60	1.285	0.07	0.586	0.753
	WCDMA II _Ant 1	RMC 12.2Kbps	Back	5 mm	DSI 3	9538	1907.6	Open	20.51	21.60	1.285	0.02	0.629	0.808
	WCDMA II _Ant 1	RMC 12.2Kbps	Left Side	5 mm	DSI 3	9262	1852.4	Open	20.52	21.60	1.282	0.01	0.255	0.327
	WCDMA II _Ant 1	RMC 12.2Kbps	Bottom Side	5 mm	DSI 3	9262	1852.4	Open	20.52	21.60	1.282	0.03	0.379	0.486
	WCDMA II _Ant 1	RMC 12.2Kbps	Front	5mm	DSI 5	9262	1852.4	Close	21.1	22.00	1.230	0.16	0.342	0.421
	WCDMA II _Ant 1	RMC 12.2Kbps	Back	5mm	DSI 5	9262	1852.4	Close	21.1	22.00	1.230	0.05	0.657	0.808
	WCDMA II _Ant 1	RMC 12.2Kbps	Back	5mm	DSI 5	9400	1880	Close	20.79	22.00	1.321	0.06	0.633	0.836
	WCDMA II _Ant 1	RMC 12.2Kbps	Back	5mm	DSI 5	9538	1907.6	Close	21.06	22.00	1.242	-0.01	0.698	0.867
	WCDMA II _Ant 1	RMC 12.2Kbps	Left Side	5mm	DSI 5	9262	1852.4	Close	21.1	22.00	1.230	0.06	0.434	0.534
	WCDMA II _Ant 1	RMC 12.2Kbps	Bottom Side	5mm	DSI 5	9262	1852.4	Close	21.1	22.00	1.230	-0.07	0.747	0.919
	WCDMA II _Ant 1	RMC 12.2Kbps	Bottom Side	5mm	DSI 5	9400	1880	Close	20.79	22.00	1.321	0.01	0.567	0.749
32	WCDMA II _Ant 1	RMC 12.2Kbps	Bottom Side	5mm	DSI 5	9538	1907.6	Close	21.06	22.00	1.242	-0.07	0.750	0.931
	WCDMA IV _Ant 1	RMC 12.2Kbps	Front	5 mm	DSI 3	1413	1732.6	Open	21.24	22.2	1.247	0.11	0.441	0.550
	WCDMA IV _Ant 1	RMC 12.2Kbps	Back	5 mm	DSI 3	1413	1732.6	Open	21.24	22.2	1.247	0.06	0.422	0.526
	WCDMA IV _Ant 1	RMC 12.2Kbps	Left Side	5 mm	DSI 3	1413	1732.6	Open	21.24	22.2	1.247	0.06	0.225	0.281
	WCDMA IV _Ant 1	RMC 12.2Kbps	Bottom Side	5 mm	DSI 3	1413	1732.6	Open	21.24	22.2	1.247	0.02	0.649	0.810
	WCDMA IV _Ant 1	RMC 12.2Kbps	Bottom Side	5 mm	DSI 3	1312	1712.4	Open	21.24	22.2	1.247	0.06	0.625	0.780
33	WCDMA IV _Ant 1	RMC 12.2Kbps	Bottom Side	5 mm	DSI 3	1513	1752.6	Open	21.23	22.2	1.250	0.14	0.741	0.926
	WCDMA IV _Ant 1	RMC 12.2Kbps	Front	5mm	DSI 5	1413	1732.6	Close	20.66	21.6	1.242	0.09	0.290	0.360
	WCDMA IV _Ant 1	RMC 12.2Kbps	Back	5mm	DSI 5	1413	1732.6	Close	20.66	21.6	1.242	-0.05	0.645	0.801
	WCDMA IV _Ant 1	RMC 12.2Kbps	Back	5mm	DSI 5	1312	1712.4	Close	20.65	21.6	1.245	0.09	0.561	0.698
	WCDMA IV _Ant 1	RMC 12.2Kbps	Back	5mm	DSI 5	1513	1752.6	Close	20.48	21.6	1.294	0.02	0.633	0.819
	WCDMA IV _Ant 1	RMC 12.2Kbps	Left Side	5mm	DSI 5	1413	1732.6	Close	20.66	21.6	1.242	0.14	0.381	0.473
	WCDMA IV _Ant 1	RMC 12.2Kbps	Bottom Side	5mm	DSI 5	1413	1732.6	Close	20.66	21.6	1.242	-0.03	0.652	0.810
	WCDMA IV _Ant 1	RMC 12.2Kbps	Bottom Side	5mm	DSI 5	1312	1712.4	Close	20.65	21.6	1.245	0.06	0.646	0.804
	WCDMA IV _Ant 1	RMC 12.2Kbps	Bottom Side	5mm	DSI 5	1513	1752.6	Close	20.48	21.6	1.294	-0.03	0.643	0.832
	WCDMA V _Ant 1	RMC 12.2Kbps	Front	5 mm	DSI 3	4182	836.4	Open	21.91	22.9	1.256	0.04	0.487	0.612
34	WCDMA V _Ant 1	RMC 12.2Kbps	Back	5 mm	DSI 3	4182	836.4	Open	21.91	22.9	1.256	0.02	0.742	0.932
	WCDMA V _Ant 1	RMC 12.2Kbps	Back	5 mm	DSI 3	4132	826.4	Open	21.81	22.9	1.285	-0.12	0.725	0.932
	WCDMA V _Ant 1	RMC 12.2Kbps	Back	5 mm	DSI 3	4233	846.6	Open	21.88	22.9	1.265	0.01	0.730	0.923
	WCDMA V _Ant 1	RMC 12.2Kbps	Left Side	5 mm	DSI 3	4182	836.4	Open	21.91	22.9	1.256	0.14	0.255	0.320
	WCDMA V _Ant 1	RMC 12.2Kbps	Bottom Side	5 mm	DSI 3	4182	836.4	Open	21.91	22.9	1.256	-0.07	0.598	0.751
	WCDMA V _Ant 1	RMC 12.2Kbps	Front	5mm	DSI 5	4233	846.6	Close	22.56	22.9	1.081	-0.07	0.352	0.381
	WCDMA V _Ant 1	RMC 12.2Kbps	Back	5mm	DSI 5	4233	846.6	Close	22.56	22.9	1.081	-0.07	0.679	0.734
	WCDMA V _Ant 1	RMC 12.2Kbps	Back	5mm	DSI 5	4182	836.4	Close	22.33	22.9	1.140	0.09	0.642	0.732
	WCDMA V _Ant 1	RMC 12.2Kbps	Back	5mm	DSI 5	4132	826.4	Close	22.53	22.9	1.089	0.09	0.692	0.754
	WCDMA V _Ant 1	RMC 12.2Kbps	Left Side	5mm	DSI 5	4233	846.6	Close	22.56	22.9	1.081	0.08	0.326	0.353
	WCDMA V _Ant 1	RMC 12.2Kbps	Bottom Side	5mm	DSI 5	4233	846.6	Close	22.56	22.9	1.081	0.09	0.486	0.526



<CDMA SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Output Power State	Ch.	Freq. (MHz)	EUT Flip State	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 _Ant 1	RTAP 153.6Kbps	Front	5 mm	DSI 3	384	836.52	Open	23.32	24.6	1.343	0.04	0.348	0.467
35	CDMA2000 BC0 _Ant 1	RTAP 153.6Kbps	Back	5 mm	DSI 3	384	836.52	Open	23.32	24.6	1.343	0.05	0.507	0.681
	CDMA2000 BC0 _Ant 1	RTAP 153.6Kbps	Left Side	5 mm	DSI 3	384	836.52	Open	23.32	24.6	1.343	0.02	0.001	0.001
	CDMA2000 BC0 _Ant 1	RTAP 153.6Kbps	Bottom Side	5 mm	DSI 3	384	836.52	Open	23.32	24.6	1.343	0.01	0.461	0.619
	CDMA2000 BC0 _Ant 1	RTAP 153.6Kbps	Front	5mm	DSI 5	384	836.52	Close	22.23	23.4	1.309	0.01	0.237	0.310
	CDMA2000 BC0 _Ant 1	RTAP 153.6Kbps	Back	5mm	DSI 5	384	836.52	Close	22.23	23.4	1.309	0.05	0.520	0.681
	CDMA2000 BC0 _Ant 1	RTAP 153.6Kbps	Left Side	5mm	DSI 5	384	836.52	Close	22.23	23.4	1.309	0.06	0.001	0.001
	CDMA2000 BC0 _Ant 1	RTAP 153.6Kbps	Bottom Side	5mm	DSI 5	384	836.52	Close	22.23	23.4	1.309	0.01	0.451	0.590
	CDMA2000 BC1 _Ant 1	RTAP 153.6Kbps	Front	5 mm	DSI 3	600	1880	Open	19.87	20.9	1.268	0.06	0.510	0.647
36	CDMA2000 BC1 _Ant 1	RTAP 153.6Kbps	Back	5 mm	DSI 3	600	1880	Open	19.87	20.9	1.268	0.11	0.519	0.658
	CDMA2000 BC1 _Ant 1	RTAP 153.6Kbps	Left Side	5 mm	DSI 3	600	1880	Open	19.87	20.9	1.268	-0.03	0.238	0.302
	CDMA2000 BC1 _Ant 1	RTAP 153.6Kbps	Bottom Side	5 mm	DSI 3	600	1880	Open	19.87	20.9	1.268	-0.01	0.432	0.548
	CDMA2000 BC1 _Ant 1	RTAP 153.6Kbps	Front	5mm	DSI 5	25	1851.25	Close	20.17	21.2	1.268	0.03	0.076	0.096
	CDMA2000 BC1 _Ant 1	RTAP 153.6Kbps	Back	5mm	DSI 5	25	1851.25	Close	20.17	21.2	1.268	0.14	0.413	0.524
	CDMA2000 BC1 _Ant 1	RTAP 153.6Kbps	Left Side	5mm	DSI 5	25	1851.25	Close	20.17	21.2	1.268	-0.06	0.073	0.093
	CDMA2000 BC1 _Ant 1	RTAP 153.6Kbps	Bottom Side	5mm	DSI 5	25	1851.25	Close	20.17	21.2	1.268	0.04	0.412	0.522
	CDMA2000 BC10 _Ant 1	RTAP 153.6Kbps	Front	5 mm	DSI 3	580	820.5	Open	22.11	23	1.227	0.08	0.271	0.333
	CDMA2000 BC10 _Ant 1	RTAP 153.6Kbps	Back	5 mm	DSI 3	580	820.5	Open	22.11	23	1.227	0.14	0.356	0.437
	CDMA2000 BC10 _Ant 1	RTAP 153.6Kbps	Left Side	5 mm	DSI 3	580	820.5	Open	22.11	23	1.227	0.03	0.001	0.001
	CDMA2000 BC10 _Ant 1	RTAP 153.6Kbps	Right Side	5 mm	DSI 3	580	820.5	Open	22.11	23	1.227	0.16	0.001	0.001
	CDMA2000 BC10 _Ant 1	RTAP 153.6Kbps	Bottom Side	5 mm	DSI 3	580	820.5	Open	22.11	23	1.227	-0.04	0.144	0.177
	CDMA2000 BC10 _Ant 1	RTAP 153.6Kbps	Front	5mm	DSI 5	580	820.5	Close	22.12	23.2	1.282	0.06	0.156	0.200
37	CDMA2000 BC10 _Ant 1	RTAP 153.6Kbps	Back	5mm	DSI 5	580	820.5	Close	22.12	23.2	1.282	0.07	0.504	0.646
	CDMA2000 BC10 _Ant 1	RTAP 153.6Kbps	Left Side	5mm	DSI 5	580	820.5	Close	22.12	23.2	1.282	0.04	0.225	0.289
	CDMA2000 BC10 _Ant 1	RTAP 153.6Kbps	Right Side	5mm	DSI 5	580	820.5	Close	22.12	23.2	1.282	-0.09	0.001	0.001
	CDMA2000 BC10 _Ant 1	RTAP 153.6Kbps	Bottom Side	5mm	DSI 5	580	820.5	Close	22.12	23.2	1.282	0.13	0.451	0.578



<FDD LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Output Power State	Ch.	Freq. (MHz)	EUT Flip State	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_Ant 1	20M	QPSK	1	0	Front	5 mm	DSI 3	21100	2535	Open	18.28	19.5	1.324	0.04	0.373	0.494
	LTE Band 7_Ant 1	20M	QPSK	50	0	Front	5 mm	DSI 3	21100	2535	Open	18.38	19.5	1.294	0.12	0.353	0.457
	LTE Band 7_Ant 1	20M	QPSK	1	0	Back	5 mm	DSI 3	21100	2535	Open	18.28	19.5	1.324	0.06	0.342	0.453
	LTE Band 7_Ant 1	20M	QPSK	50	0	Back	5 mm	DSI 3	21100	2535	Open	18.38	19.5	1.294	0.08	0.331	0.428
	LTE Band 7_Ant 1	20M	QPSK	1	0	Left Side	5 mm	DSI 3	21100	2535	Open	18.28	19.5	1.324	0.01	0.178	0.236
	LTE Band 7_Ant 1	20M	QPSK	1	0	Left Side	5 mm	DSI 3	21100	2535	Open	18.38	19.5	1.294	-0.06	0.171	0.221
	LTE Band 7_Ant 1	20M	QPSK	1	0	Bottom Side	5 mm	DSI 3	21100	2535	Open	18.28	19.5	1.324	0.02	0.672	0.890
	LTE Band 7_Ant 1	20M	QPSK	1	0	Bottom Side	5 mm	DSI 3	20850	2510	Open	17.86	19.5	1.459	-0.12	0.604	0.881
	LTE Band 7_Ant 1	20M	QPSK	1	0	Bottom Side	5 mm	DSI 3	21350	2560	Open	18.10	19.5	1.380	0.04	0.640	0.883
	LTE Band 7_Ant 1	20M	QPSK	50	0	Bottom Side	5 mm	DSI 3	21100	2535	Open	18.38	19.5	1.294	-0.14	0.623	0.806
	LTE Band 7_Ant 1	20M	QPSK	50	0	Bottom Side	5 mm	DSI 3	20850	2510	Open	17.97	19.5	1.422	-0.12	0.561	0.798
	LTE Band 7_Ant 1	20M	QPSK	50	0	Bottom Side	5 mm	DSI 3	21350	2560	Open	18.27	19.5	1.327	0.02	0.610	0.810
	LTE Band 7_Ant 1	20M	QPSK	100	0	Bottom Side	5 mm	DSI 3	21100	2535	Open	18.32	19.5	1.312	0.06	0.601	0.789
	LTE Band 7_Ant 1	20M	QPSK	1	0	Front	5mm	DSI 5	21100	2535	Close	18.71	19.9	1.315	0.03	0.197	0.259
	LTE Band 7_Ant 1	20M	QPSK	50	0	Front	5mm	DSI 5	21100	2535	Close	18.79	19.9	1.291	0.05	0.194	0.250
	LTE Band 7_Ant 1	20M	QPSK	1	0	Back	5mm	DSI 5	21100	2535	Close	18.71	19.9	1.315	0.01	0.415	0.546
	LTE Band 7_Ant 1	20M	QPSK	50	0	Back	5mm	DSI 5	21100	2535	Close	18.79	19.9	1.291	0.02	0.408	0.527
	LTE Band 7_Ant 1	20M	QPSK	1	0	Left Side	5mm	DSI 5	21100	2535	Close	18.71	19.9	1.315	0.09	0.262	0.345
	LTE Band 7_Ant 1	20M	QPSK	50	0	Left Side	5mm	DSI 5	21100	2535	Close	18.79	19.9	1.291	0.09	0.248	0.320
	LTE Band 7_Ant 1	20M	QPSK	1	0	Bottom Side	5mm	DSI 5	21100	2535	Close	18.71	19.9	1.315	0.04	0.582	0.765
	LTE Band 7_Ant 1	20M	QPSK	50	0	Bottom Side	5mm	DSI 5	21350	2560	Close	18.79	19.9	1.291	0.09	0.553	0.714
	LTE Band 7_Ant 2	20M	QPSK	1	0	Front	5 mm	DSI 3	21100	2535	Open	19.49	21.1	1.449	0.07	0.430	0.623
	LTE Band 7_Ant 2	20M	QPSK	50	0	Front	5 mm	DSI 3	21100	2535	Open	19.45	21.1	1.462	0.04	0.426	0.623
	LTE Band 7_Ant 2	20M	QPSK	1	0	Back	5 mm	DSI 3	21100	2535	Open	19.49	21.1	1.449	0.06	0.266	0.385
	LTE Band 7_Ant 2	20M	QPSK	50	0	Back	5 mm	DSI 3	21100	2535	Open	19.45	21.1	1.462	0.07	0.251	0.367
	LTE Band 7_Ant 2	20M	QPSK	1	0	Right Side	5 mm	DSI 3	21100	2535	Open	19.49	21.1	1.449	0.01	0.255	0.369
	LTE Band 7_Ant 2	20M	QPSK	50	0	Right Side	5 mm	DSI 3	21100	2535	Open	19.45	21.1	1.462	0.03	0.253	0.370
	LTE Band 7_Ant 2	20M	QPSK	1	0	Bottom Side	5 mm	DSI 3	21100	2535	Open	19.49	21.1	1.449	-0.02	0.621	0.900
	LTE Band 7_Ant 2	20M	QPSK	1	0	Bottom Side	5 mm	DSI 3	20850	2510	Open	19.10	21.1	1.585	0.04	0.575	0.911
	LTE Band 7_Ant 2	20M	QPSK	1	0	Bottom Side	5 mm	DSI 3	21350	2560	Open	19.23	21.1	1.538	0.06	0.585	0.900
38	LTE Band 7_Ant 2	20M	QPSK	50	0	Bottom Side	5 mm	DSI 3	21100	2535	Open	19.45	21.1	1.462	0.07	0.635	0.928
	LTE Band 7_Ant 2	20M	QPSK	50	0	Bottom Side	5 mm	DSI 3	20850	2510	Open	19.20	21.1	1.549	0.06	0.581	0.900
	LTE Band 7_Ant 2	20M	QPSK	50	0	Bottom Side	5 mm	DSI 3	21350	2560	Open	19.38	21.1	1.486	0.01	0.567	0.843
	LTE Band 7_Ant 2	20M	QPSK	100	0	Bottom Side	5 mm	DSI 3	21100	2535	Open	19.51	21.1	1.442	0.11	0.565	0.815
	LTE Band 7_Ant 2	20M	QPSK	1	0	Front	5mm	DSI 5	21100	2535	Close	18.45	19.4	1.245	0.12	0.163	0.203
	LTE Band 7_Ant 2	20M	QPSK	50	0	Front	5mm	DSI 5	21100	2535	Close	18.56	19.4	1.213	-0.02	0.162	0.197
	LTE Band 7_Ant 2	20M	QPSK	1	0	Back	5mm	DSI 5	21100	2535	Close	18.45	19.4	1.245	0.11	0.262	0.326
	LTE Band 7_Ant 2	20M	QPSK	50	0	Back	5mm	DSI 5	21100	2535	Close	18.56	19.4	1.213	-0.02	0.249	0.302
	LTE Band 7_Ant 2	20M	QPSK	1	0	Right Side	5mm	DSI 5	21100	2535	Close	18.45	19.4	1.245	0.04	0.224	0.279
	LTE Band 7_Ant 2	20M	QPSK	50	0	Right Side	5mm	DSI 5	21100	2535	Close	18.56	19.4	1.213	0.06	0.201	0.244
	LTE Band 7_Ant 2	20M	QPSK	1	0	Bottom Side	5mm	DSI 5	21100	2535	Close	18.45	19.4	1.245	0.07	0.688	0.856
	LTE Band 7_Ant 2	20M	QPSK	1	0	Bottom Side	5mm	DSI 5	20850	2510	Close	18.06	19.4	1.361	0.06	0.543	0.739
	LTE Band 7_Ant 2	20M	QPSK	1	0	Bottom Side	5mm	DSI 5	21350	2560	Close	18.24	19.4	1.306	-0.01	0.642	0.839
	LTE Band 7_Ant 2	20M	QPSK	50	0	Bottom Side	5mm	DSI 5	21100	2535	Close	18.56	19.4	1.213	0.09	0.668	0.811
	LTE Band 7_Ant 2	20M	QPSK	50	0	Bottom Side	5mm	DSI 5	20850	2510	Close	18.18	19.4	1.324	0.07	0.588	0.779
	LTE Band 7_Ant 2	20M	QPSK	50	0	Bottom Side	5mm	DSI 5	21350	2560	Close	18.35	19.4	1.274	0.11	0.602	0.767
	LTE Band 7_Ant 2	20M	QPSK	100	0	Bottom Side	5mm	DSI 5	21100	2535	Close	18.50	19.4	1.230	0.06	0.611	0.752



Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Output Power State	Ch.	Freq. (MHz)	EUT Flip State	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 12_Ant 1	10M	QPSK	1	0	Front	5 mm	DSI 3	23095	707.5	Open	22.73	24.00	1.340	0.01	0.264	0.354
	LTE Band 12_Ant 1	10M	QPSK	25	0	Front	5 mm	DSI 3	23095	707.5	Open	21.85	23.00	1.303	-0.07	0.184	0.240
	LTE Band 12_Ant 1	10M	QPSK	1	0	Back	5 mm	DSI 3	23095	707.5	Open	22.73	24.00	1.340	0.06	0.272	0.364
	LTE Band 12_Ant 1	10M	QPSK	25	0	Back	5 mm	DSI 3	23095	707.5	Open	21.85	23.00	1.303	0.05	0.253	0.330
	LTE Band 12_Ant 1	10M	QPSK	1	0	Left Side	5 mm	DSI 3	23095	707.5	Open	22.73	24.00	1.340	0.12	0.184	0.247
	LTE Band 12_Ant 1	10M	QPSK	25	0	Left Side	5 mm	DSI 3	23095	707.5	Open	21.85	23.00	1.303	0.03	0.117	0.152
	LTE Band 12_Ant 1	10M	QPSK	1	0	Bottom Side	5 mm	DSI 3	23095	707.5	Open	22.73	24.00	1.340	0.06	0.292	0.391
	LTE Band 12_Ant 1	10M	QPSK	25	0	Bottom Side	5 mm	DSI 3	23095	707.5	Open	21.85	23.00	1.303	0.08	0.222	0.289
	LTE Band 12_Ant 1	10M	QPSK	1	0	Front	5mm	DSI 5	23095	707.5	Close	22.73	24.00	1.340	0.06	0.139	0.186
	LTE Band 12_Ant 1	10M	QPSK	25	0	Front	5mm	DSI 5	23095	707.5	Close	21.85	23.00	1.303	0.09	0.119	0.155
	LTE Band 12_Ant 1	10M	QPSK	1	0	Back	5mm	DSI 5	23095	707.5	Close	22.73	24.00	1.340	0.07	0.374	0.501
	LTE Band 12_Ant 1	10M	QPSK	25	0	Back	5mm	DSI 5	23095	707.5	Close	21.85	23.00	1.303	0.07	0.325	0.424
	LTE Band 12_Ant 1	10M	QPSK	1	0	Left Side	5mm	DSI 5	23095	707.5	Close	22.73	24.00	1.340	0.06	0.148	0.198
	LTE Band 12_Ant 1	10M	QPSK	25	0	Left Side	5mm	DSI 5	23095	707.5	Close	21.85	23.00	1.303	0.04	0.128	0.167
39	LTE Band 12_Ant 1	10M	QPSK	1	0	Bottom Side	5mm	DSI 5	23095	707.5	Close	22.73	24.00	1.340	0.09	0.428	0.573
	LTE Band 12_Ant 1	10M	QPSK	25	0	Bottom Side	5mm	DSI 5	23095	707.5	Close	21.85	23.00	1.303	0.08	0.378	0.493
	LTE Band 12_Ant 2	10M	QPSK	1	0	Front	5 mm	DSI 3	23095	707.5	Open	22.08	24.00	1.556	0.04	0.122	0.190
	LTE Band 12_Ant 2	10M	QPSK	25	0	Front	5 mm	DSI 3	23095	707.5	Open	21.16	23.00	1.528	0.02	0.098	0.150
	LTE Band 12_Ant 2	10M	QPSK	1	0	Back	5 mm	DSI 3	23095	707.5	Open	22.08	24.00	1.556	0.16	0.126	0.196
	LTE Band 12_Ant 2	10M	QPSK	25	0	Back	5 mm	DSI 3	23095	707.5	Open	21.16	23.00	1.528	0.09	0.091	0.139
	LTE Band 12_Ant 2	10M	QPSK	1	0	Right Side	5 mm	DSI 3	23095	707.5	Open	22.08	24.00	1.556	0.14	0.060	0.093
	LTE Band 12_Ant 2	10M	QPSK	25	0	Right Side	5 mm	DSI 3	23095	707.5	Open	21.16	23.00	1.528	0.08	0.051	0.078
	LTE Band 12_Ant 2	10M	QPSK	1	0	Bottom Side	5 mm	DSI 3	23095	707.5	Open	22.08	24.00	1.556	0.08	0.150	0.233
	LTE Band 12_Ant 2	10M	QPSK	25	0	Bottom Side	5 mm	DSI 3	23095	707.5	Open	21.16	23.00	1.528	0.07	0.123	0.188
	LTE Band 12_Ant 2	10M	QPSK	1	0	Front	5mm	DSI 5	23095	707.5	Close	22.08	23.00	1.236	0.09	0.092	0.114
	LTE Band 12_Ant 2	10M	QPSK	25	0	Front	5mm	DSI 5	23095	707.5	Close	21.16	22.00	1.213	0.14	0.078	0.095
	LTE Band 12_Ant 2	10M	QPSK	1	0	Back	5mm	DSI 5	23095	707.5	Close	22.08	23.00	1.236	0.07	0.149	0.184
	LTE Band 12_Ant 2	10M	QPSK	25	0	Back	5mm	DSI 5	23095	707.5	Close	21.16	22.00	1.213	0.01	0.123	0.149
	LTE Band 12_Ant 2	10M	QPSK	1	0	Right Side	5mm	DSI 5	23095	707.5	Close	22.08	23.00	1.236	0.06	0.087	0.108
	LTE Band 12_Ant 2	10M	QPSK	25	0	Right Side	5mm	DSI 5	23095	707.5	Close	21.16	22.00	1.213	0.09	0.072	0.087
	LTE Band 12_Ant 2	10M	QPSK	1	0	Bottom Side	5mm	DSI 5	23095	707.5	Close	22.08	23.00	1.236	0.11	0.199	0.246
	LTE Band 12_Ant 2	10M	QPSK	25	0	Bottom Side	5mm	DSI 5	23095	707.5	Close	21.16	22.00	1.213	0.06	0.158	0.192



FCC SAR Test Report

Report No. : FA052803-04

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Output Power State	Ch.	Freq. (MHz)	EUT Flip State	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 13_Ant 1	10M	QPSK	1	0	Front	5 mm	DSI 3	23230	782	Open	22.43	24.00	1.435	0.14	0.301	0.432
	LTE Band 13_Ant 1	10M	QPSK	25	0	Front	5 mm	DSI 3	23230	782	Open	21.52	23.00	1.406	0.03	0.225	0.316
	LTE Band 13_Ant 1	10M	QPSK	1	0	Back	5 mm	DSI 3	23230	782	Open	22.43	24.00	1.435	0.03	0.342	0.491
	LTE Band 13_Ant 1	10M	QPSK	25	0	Back	5 mm	DSI 3	23230	782	Open	21.52	23.00	1.406	0.06	0.248	0.349
	LTE Band 13_Ant 1	10M	QPSK	1	0	Left Side	5 mm	DSI 3	23230	782	Open	22.43	24.00	1.435	0.09	0.160	0.230
	LTE Band 13_Ant 1	10M	QPSK	25	0	Left Side	5 mm	DSI 3	23230	782	Open	21.52	23.00	1.406	-0.07	0.102	0.143
	LTE Band 13_Ant 1	10M	QPSK	1	0	Bottom Side	5 mm	DSI 3	23230	782	Open	22.43	24.00	1.435	-0.07	0.261	0.375
	LTE Band 13_Ant 1	10M	QPSK	25	0	Bottom Side	5 mm	DSI 3	23230	782	Open	21.52	23.00	1.406	0.14	0.188	0.264
	LTE Band 13_Ant 1	10M	QPSK	1	0	Front	5mm	DSI 5	23230	782	Close	22.43	24.00	1.435	0.06	0.185	0.266
	LTE Band 13_Ant 1	10M	QPSK	25	0	Front	5mm	DSI 5	23230	782	Close	21.52	23.00	1.406	-0.04	0.159	0.224
40	LTE Band 13_Ant 1	10M	QPSK	1	0	Back	5mm	DSI 5	23230	782	Close	22.43	24.00	1.435	0.06	0.432	0.620
	LTE Band 13_Ant 1	10M	QPSK	25	0	Back	5mm	DSI 5	23230	782	Close	21.52	23.00	1.406	0.01	0.388	0.546
	LTE Band 13_Ant 1	10M	QPSK	1	0	Left Side	5mm	DSI 5	23230	782	Close	22.43	24.00	1.435	0.07	0.207	0.297
	LTE Band 13_Ant 1	10M	QPSK	25	0	Left Side	5mm	DSI 5	23230	782	Close	21.52	23.00	1.406	0.06	0.187	0.263
	LTE Band 13_Ant 1	10M	QPSK	1	0	Bottom Side	5mm	DSI 5	23230	782	Close	22.43	24.00	1.435	-0.11	0.383	0.550
	LTE Band 13_Ant 1	10M	QPSK	25	0	Bottom Side	5mm	DSI 5	23230	782	Close	21.52	23.00	1.406	-0.11	0.323	0.454
	LTE Band 13_Ant 2	10M	QPSK	1	0	Front	5 mm	DSI 3	23230	782	Open	21.66	23.00	1.361	0.06	0.262	0.357
	LTE Band 13_Ant 2	10M	QPSK	25	0	Front	5 mm	DSI 3	23230	782	Open	20.84	22.00	1.306	0.06	0.212	0.277
	LTE Band 13_Ant 2	10M	QPSK	1	0	Back	5 mm	DSI 3	23230	782	Open	21.66	23.00	1.361	0.06	0.287	0.391
	LTE Band 13_Ant 2	10M	QPSK	25	0	Back	5 mm	DSI 3	23230	782	Open	20.84	22.00	1.306	0.07	0.231	0.302
	LTE Band 13_Ant 2	10M	QPSK	1	0	Right Side	5 mm	DSI 3	23230	782	Open	21.66	23.00	1.361	0.06	0.102	0.139
	LTE Band 13_Ant 2	10M	QPSK	25	0	Right Side	5 mm	DSI 3	23230	782	Open	20.84	22.00	1.306	-0.03	0.085	0.111
	LTE Band 13_Ant 2	10M	QPSK	1	0	Bottom Side	5 mm	DSI 3	23230	782	Open	21.66	23.00	1.361	-0.03	0.366	0.498
	LTE Band 13_Ant 2	10M	QPSK	25	0	Bottom Side	5 mm	DSI 3	23230	782	Open	20.84	22.00	1.306	0.04	0.305	0.398
	LTE Band 13_Ant 2	10M	QPSK	1	0	Front	5mm	DSI 5	23230	782	Close	21.66	23.00	1.361	0.11	0.221	0.301
	LTE Band 13_Ant 2	10M	QPSK	25	0	Front	5mm	DSI 5	23230	782	Close	20.84	22.00	1.306	-0.12	0.182	0.238
	LTE Band 13_Ant 2	10M	QPSK	1	0	Back	5mm	DSI 5	23230	782	Close	21.66	23.00	1.361	0.06	0.361	0.491
	LTE Band 13_Ant 2	10M	QPSK	25	0	Back	5mm	DSI 5	23230	782	Close	20.84	22.00	1.306	0.02	0.289	0.377
	LTE Band 13_Ant 2	10M	QPSK	1	0	Right Side	5mm	DSI 5	23230	782	Close	21.66	23.00	1.361	0.12	0.183	0.249
	LTE Band 13_Ant 2	10M	QPSK	25	0	Right Side	5mm	DSI 5	23230	782	Close	20.84	22.00	1.306	0.13	0.165	0.216
	LTE Band 13_Ant 2	10M	QPSK	1	0	Bottom Side	5mm	DSI 5	23230	782	Close	21.66	23.00	1.361	0.05	0.286	0.389
	LTE Band 13_Ant 2	10M	QPSK	25	0	Bottom Side	5mm	DSI 5	23230	782	Close	20.84	22.00	1.306	0.06	0.238	0.311



FCC SAR Test Report

Report No. : FA052803-04

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Output Power State	Ch.	Freq. (MHz)	EUT Flip State	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 14_Ant 1	10M	QPSK	1	0	Front	5 mm	DSI 3	23330	793	Open	22.44	24.00	1.432	0.08	0.317	0.454
	LTE Band 14_Ant 1	10M	QPSK	25	0	Front	5 mm	DSI 3	23330	793	Open	21.42	23.00	1.439	-0.09	0.281	0.404
	LTE Band 14_Ant 1	10M	QPSK	1	0	Back	5 mm	DSI 3	23330	793	Open	22.44	24.00	1.432	0.09	0.429	0.614
	LTE Band 14_Ant 1	10M	QPSK	25	0	Back	5 mm	DSI 3	23330	793	Open	21.42	23.00	1.439	0.07	0.389	0.560
	LTE Band 14_Ant 1	10M	QPSK	1	0	Left Side	5 mm	DSI 3	23330	793	Open	22.44	24.00	1.432	0.08	0.181	0.259
	LTE Band 14_Ant 1	10M	QPSK	25	0	Left Side	5 mm	DSI 3	23330	793	Open	21.42	23.00	1.439	-0.05	0.158	0.227
	LTE Band 14_Ant 1	10M	QPSK	1	0	Right Side	5 mm	DSI 3	23330	793	Open	22.44	24.00	1.432	0.06	0.116	0.166
	LTE Band 14_Ant 1	10M	QPSK	25	0	Right Side	5 mm	DSI 3	23330	793	Open	21.42	23.00	1.439	0.04	0.085	0.122
	LTE Band 14_Ant 1	10M	QPSK	1	0	Bottom Side	5 mm	DSI 3	23330	793	Open	22.44	24.00	1.432	0.08	0.363	0.520
	LTE Band 14_Ant 1	10M	QPSK	25	0	Bottom Side	5 mm	DSI 3	23330	793	Open	21.42	23.00	1.439	-0.01	0.284	0.409
	LTE Band 14_Ant 1	10M	QPSK	1	0	Front	5mm	DSI 5	23330	793	Close	22.44	24.00	1.432	0.02	0.386	0.553
	LTE Band 14_Ant 1	10M	QPSK	25	0	Front	5mm	DSI 5	23330	793	Close	21.42	23.00	1.439	0.02	0.312	0.449
	LTE Band 14_Ant 1	10M	QPSK	1	0	Back	5mm	DSI 5	23330	793	Close	22.44	24.00	1.432	0.06	0.565	0.809
	LTE Band 14_Ant 1	10M	QPSK	25	0	Back	5mm	DSI 5	23330	793	Close	21.42	23.00	1.439	0.07	0.485	0.698
	LTE Band 14_Ant 1	10M	QPSK	50	0	Back	5mm	DSI 5	23330	793	Close	21.42	23.00	1.439	0.06	0.473	0.681
	LTE Band 14_Ant 1	10M	QPSK	1	0	Left Side	5mm	DSI 5	23330	793	Close	22.44	24.00	1.432	0.08	0.346	0.496
	LTE Band 14_Ant 1	10M	QPSK	25	0	Left Side	5mm	DSI 5	23330	793	Close	21.42	23.00	1.439	0.05	0.298	0.429
	LTE Band 14_Ant 1	10M	QPSK	1	0	Right Side	5mm	DSI 5	23330	793	Close	22.44	24.00	1.432	0.06	0.152	0.218
	LTE Band 14_Ant 1	10M	QPSK	25	0	Right Side	5mm	DSI 5	23330	793	Close	21.42	23.00	1.439	0.06	0.113	0.163
	LTE Band 14_Ant 1	10M	QPSK	1	0	Bottom Side	5mm	DSI 5	23330	793	Close	22.44	24.00	1.432	0.07	0.475	0.680
	LTE Band 14_Ant 1	10M	QPSK	25	0	Bottom Side	5mm	DSI 5	23330	793	Close	21.42	23.00	1.439	0.06	0.365	0.525
41	LTE Band 14_Ant 2	10M	QPSK	1	0	Front	5 mm	DIS 3	23330	793	Open	19.91	21.20	1.346	0.08	0.618	0.832
	LTE Band 14_Ant 2	10M	QPSK	25	0	Front	5 mm	DIS 3	23330	793	Open	19.51	21.20	1.476	0.05	0.559	0.825
	LTE Band 14_Ant 2	10M	QPSK	50	0	Front	5 mm	DIS 3	23330	793	Open	19.48	21.20	1.486	-0.01	0.558	0.829
	LTE Band 14_Ant 2	10M	QPSK	1	0	Back	5 mm	DIS 3	23330	793	Open	19.91	21.20	1.346	-0.09	0.296	0.398
	LTE Band 14_Ant 2	10M	QPSK	25	0	Back	5 mm	DIS 3	23330	793	Open	19.51	21.20	1.476	0.06	0.285	0.421
	LTE Band 14_Ant 2	10M	QPSK	1	0	Left Side	5 mm	DIS 3	23330	793	Open	19.91	21.20	1.346	0.07	0.068	0.092
	LTE Band 14_Ant 2	10M	QPSK	25	0	Left Side	5 mm	DIS 3	23330	793	Open	19.51	21.20	1.476	0.08	0.056	0.083
	LTE Band 14_Ant 2	10M	QPSK	1	0	Right Side	5 mm	DIS 3	23330	793	Open	19.91	21.20	1.346	0.09	0.191	0.257
	LTE Band 14_Ant 2	10M	QPSK	25	0	Right Side	5 mm	DIS 3	23330	793	Open	19.51	21.20	1.476	0.11	0.182	0.269
	LTE Band 14_Ant 2	10M	QPSK	1	0	Bottom Side	5 mm	DIS 3	23330	793	Open	19.91	21.20	1.346	0.12	0.268	0.361
	LTE Band 14_Ant 2	10M	QPSK	25	0	Bottom Side	5 mm	DIS 3	23330	793	Open	19.51	21.20	1.476	0.16	0.261	0.385
	LTE Band 14_Ant 2	10M	QPSK	1	0	Front	5mm	DIS 5	23330	793	Close	21.25	23.00	1.496	0.02	0.232	0.347
	LTE Band 14_Ant 2	10M	QPSK	25	12	Front	5mm	DIS 5	23330	793	Close	20.25	22.00	1.496	0.09	0.198	0.296
	LTE Band 14_Ant 2	10M	QPSK	1	0	Back	5mm	DIS 5	23330	793	Close	21.25	23.00	1.496	0.05	0.339	0.507
	LTE Band 14_Ant 2	10M	QPSK	25	12	Back	5mm	DIS 5	23330	793	Close	20.25	22.00	1.496	0.06	0.245	0.367
	LTE Band 14_Ant 2	10M	QPSK	1	0	Left Side	5mm	DIS 5	23330	793	Close	21.25	23.00	1.496	0.06	0.111	0.166
	LTE Band 14_Ant 2	10M	QPSK	25	12	Left Side	5mm	DIS 5	23330	793	Close	20.25	22.00	1.496	0.07	0.089	0.133
	LTE Band 14_Ant 2	10M	QPSK	1	0	Right Side	5mm	DIS 5	23330	793	Close	21.25	23.00	1.496	0.06	0.285	0.426
	LTE Band 14_Ant 2	10M	QPSK	25	12	Right Side	5mm	DIS 5	23330	793	Close	20.25	22.00	1.496	0.07	0.216	0.323
	LTE Band 14_Ant 2	10M	QPSK	1	0	Bottom Side	5mm	DIS 5	23330	793	Close	21.25	23.00	1.496	0.08	0.317	0.474
	LTE Band 14_Ant 2	10M	QPSK	25	12	Bottom Side	5mm	DIS 5	23330	793	Close	20.25	22.00	1.496	0.05	0.265	0.397



Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Output Power State	Ch.	Freq. (MHz)	EUT Flip State	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_Ant 1	20M	QPSK	1	0	Front	5 mm	DSI 3	26140	1860	Open	20.59	21.30	1.178	0.08	0.476	0.561
	LTE Band 25_Ant 1	20M	QPSK	50	0	Front	5 mm	DSI 3	26140	1860	Open	20.75	21.30	1.135	0.12	0.410	0.465
42	LTE Band 25_Ant 1	20M	QPSK	1	0	Back	5 mm	DSI 3	26140	1860	Open	20.59	21.30	1.178	0.11	0.630	0.742
	LTE Band 25_Ant 1	20M	QPSK	50	0	Back	5 mm	DSI 3	26140	1860	Open	20.75	21.30	1.135	0.02	0.585	0.664
	LTE Band 25_Ant 1	20M	QPSK	1	0	Left Side	5 mm	DSI 3	26140	1860	Open	20.59	21.30	1.178	0.16	0.271	0.319
	LTE Band 25_Ant 1	20M	QPSK	50	0	Left Side	5 mm	DSI 3	26140	1860	Open	20.75	21.30	1.135	0.05	0.252	0.286
	LTE Band 25_Ant 1	20M	QPSK	1	0	Right Side	5 mm	DSI 3	26140	1860	Open	20.59	21.30	1.178	0.16	0.093	0.110
	LTE Band 25_Ant 1	20M	QPSK	50	0	Right Side	5 mm	DSI 3	26140	1860	Open	20.75	21.30	1.135	0.07	0.090	0.102
	LTE Band 25_Ant 1	20M	QPSK	1	0	Bottom Side	5 mm	DSI 3	26140	1860	Open	20.59	21.30	1.178	0.09	0.585	0.689
	LTE Band 25_Ant 1	20M	QPSK	50	0	Bottom Side	5 mm	DSI 3	26140	1860	Open	20.75	21.30	1.135	0.11	0.541	0.614
	LTE Band 25_Ant 1	20M	QPSK	1	0	Front	5mm	DSI 5	26140	1860	Close	20.67	21.00	1.079	0.01	0.349	0.377
	LTE Band 25_Ant 1	20M	QPSK	50	0	Front	5mm	DSI 5	26140	1860	Close	20.86	21.00	1.033	0.01	0.312	0.322
	LTE Band 25_Ant 1	20M	QPSK	1	0	Back	5mm	DSI 5	26340	1880	Close	20.67	21.00	1.079	0.02	0.590	0.637
	LTE Band 25_Ant 1	20M	QPSK	50	0	Back	5mm	DSI 5	26340	1880	Close	20.86	21.00	1.033	0.06	0.540	0.558
	LTE Band 25_Ant 1	20M	QPSK	1	0	Left Side	5mm	DSI 5	26140	1860	Close	20.67	21.00	1.079	-0.19	0.350	0.378
	LTE Band 25_Ant 1	20M	QPSK	50	0	Left Side	5mm	DSI 5	26140	1860	Close	20.86	21.00	1.033	0.06	0.332	0.343
	LTE Band 25_Ant 1	20M	QPSK	1	0	Right Side	5mm	DSI 5	26140	1860	Close	20.67	21.00	1.079	0.07	0.052	0.056
	LTE Band 25_Ant 1	20M	QPSK	50	0	Right Side	5mm	DSI 5	26140	1860	Close	20.86	21.00	1.033	0.08	0.048	0.050
	LTE Band 25_Ant 1	20M	QPSK	1	0	Bottom Side	5mm	DSI 5	26140	1860	Close	20.67	21.00	1.079	0.05	0.380	0.410
	LTE Band 25_Ant 1	20M	QPSK	50	0	Bottom Side	5mm	DSI 5	26140	1860	Close	20.86	21.00	1.033	0.06	0.360	0.372
	LTE Band 25_Ant 2	20M	QPSK	1	0	Front	5 mm	DSI 3	26140	1860	Open	20.70	22.00	1.349	0.05	0.438	0.591
	LTE Band 25_Ant 2	20M	QPSK	50	0	Front	5 mm	DSI 3	26140	1860	Open	19.78	21.00	1.324	-0.01	0.401	0.531
	LTE Band 25_Ant 2	20M	QPSK	1	0	Back	5 mm	DSI 3	26140	1860	Open	20.70	22.00	1.349	0.01	0.312	0.421
	LTE Band 25_Ant 2	20M	QPSK	50	0	Back	5 mm	DSI 3	26140	1860	Open	19.78	21.00	1.324	0.06	0.285	0.377
	LTE Band 25_Ant 2	20M	QPSK	1	0	Left Side	5 mm	DSI 3	26140	1860	Open	20.70	22.00	1.349	0.07	0.056	0.076
	LTE Band 25_Ant 2	20M	QPSK	50	0	Left Side	5 mm	DSI 3	26140	1860	Open	19.78	21.00	1.324	0.08	0.041	0.054
	LTE Band 25_Ant 2	20M	QPSK	1	0	Right Side	5 mm	DSI 3	26140	1860	Open	20.70	22.00	1.349	0.09	0.187	0.252
	LTE Band 25_Ant 2	20M	QPSK	50	0	Right Side	5 mm	DSI 3	26140	1860	Open	19.78	21.00	1.324	0.01	0.168	0.222
	LTE Band 25_Ant 2	20M	QPSK	1	0	Bottom Side	5 mm	DSI 3	26140	1860	Open	20.70	22.00	1.349	0.09	0.256	0.345
	LTE Band 25_Ant 2	20M	QPSK	50	0	Bottom Side	5 mm	DSI 3	26140	1860	Open	19.78	21.00	1.324	0.08	0.212	0.281
	LTE Band 25_Ant 2	20M	QPSK	1	0	Front	5mm	DSI 5	26340	1880	Open	20.70	22.00	1.349	0.09	0.526	0.710
	LTE Band 25_Ant 2	20M	QPSK	50	0	Front	5mm	DSI 5	26340	1880	Close	19.78	21.00	1.324	0.04	0.456	0.604
	LTE Band 25_Ant 2	20M	QPSK	1	0	Back	5mm	DSI 5	26340	1880	Close	20.70	22.00	1.349	0.06	0.333	0.449
	LTE Band 25_Ant 2	20M	QPSK	50	0	Back	5mm	DSI 5	26340	1880	Close	19.78	21.00	1.324	0.06	0.275	0.364
	LTE Band 25_Ant 2	20M	QPSK	1	0	Left Side	5mm	DSI 5	26340	1880	Close	20.70	22.00	1.349	0.08	0.080	0.108
	LTE Band 25_Ant 2	20M	QPSK	50	0	Left Side	5mm	DSI 5	26340	1880	Close	19.78	21.00	1.324	0.09	0.068	0.090
	LTE Band 25_Ant 2	20M	QPSK	1	0	Right Side	5mm	DSI 5	26340	1880	Close	20.70	22.00	1.349	0.04	0.180	0.243
	LTE Band 25_Ant 2	20M	QPSK	50	0	Right Side	5mm	DSI 5	26340	1880	Close	19.78	21.00	1.324	-0.02	0.126	0.167
	LTE Band 25_Ant 2	20M	QPSK	1	0	Bottom Side	5mm	DSI 5	26340	1880	Close	20.70	22.00	1.349	-0.04	0.400	0.540
	LTE Band 25_Ant 2	20M	QPSK	50	0	Bottom Side	5mm	DSI 5	26340	1880	Close	19.78	21.00	1.324	0.08	0.326	0.432



FCC SAR Test Report

Report No. : FA052803-04

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Output Power State	Ch.	Freq. (MHz)	EUT Flip State	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_Ant 1	15M	QPSK	1	0	Front	5 mm	DSI 3	26865	831.5	Open	22.65	24.00	1.365	0.06	0.274	0.374
	LTE Band 26_Ant 1	15M	QPSK	50	0	Front	5 mm	DSI 3	26865	831.5	Open	21.76	23.00	1.330	0.05	0.235	0.313
43	LTE Band 26_Ant 1	15M	QPSK	1	0	Back	5 mm	DSI 3	26865	831.5	Open	22.65	24.00	1.365	0.09	0.670	0.914
	LTE Band 5B_Ant 1	10M+10M	QPSK	1	0	Back	5 mm	DSI 3	20575+20476	841.5+831.6	Open	22.75	24.00	1.334	0.04	0.595	0.793
	LTE Band 26_Ant 1	15M	QPSK	50	0	Back	5 mm	DSI 3	26865	831.5	Open	21.76	23.00	1.330	0.11	0.512	0.681
	LTE Band 26_Ant 1	15M	QPSK	1	0	Left Side	5 mm	DSI 3	26865	831.5	Open	22.65	24.00	1.365	0.09	0.112	0.153
	LTE Band 26_Ant 1	15M	QPSK	50	0	Left Side	5 mm	DSI 3	26865	831.5	Open	21.76	23.00	1.330	-0.03	0.085	0.113
	LTE Band 26_Ant 1	15M	QPSK	1	0	Bottom Side	5 mm	DSI 3	26865	831.5	Open	22.65	24.00	1.365	0.01	0.413	0.564
	LTE Band 26_Ant 1	15M	QPSK	50	0	Bottom Side	5 mm	DSI 3	26865	831.5	Open	21.76	23.00	1.330	-0.05	0.385	0.512
	LTE Band 26_Ant 1	15M	QPSK	1	0	Front	5mm	DSI 5	26865	831.5	Close	22.65	24.00	1.365	-0.05	0.358	0.489
	LTE Band 26_Ant 1	15M	QPSK	50	0	Front	5mm	DSI 5	26865	831.5	Close	21.76	23.00	1.330	-0.1	0.260	0.346
	LTE Band 26_Ant 1	15M	QPSK	1	0	Back	5mm	DSI 5	26865	831.5	Close	22.65	24.00	1.365	0.11	0.605	0.826
	LTE Band 5B_Ant 1	10M+10M	QPSK	1	0	Back	5mm	DSI 5	20575+20476	841.5+831.6	Close	22.65	24.00	1.365	0.16	0.585	0.798
	LTE Band 26_Ant 1	15M	QPSK	50	0	Back	5mm	DSI 5	26865	831.5	Close	21.76	23.00	1.330	0.04	0.512	0.681
	LTE Band 26_Ant 1	15M	QPSK	1	0	Left Side	5mm	DSI 5	26865	831.5	Close	22.65	24.00	1.365	0.04	0.254	0.347
	LTE Band 26_Ant 1	15M	QPSK	50	0	Left Side	5mm	DSI 5	26865	831.5	Close	21.76	23.00	1.330	0.04	0.273	0.363
	LTE Band 26_Ant 1	15M	QPSK	1	0	Bottom Side	5mm	DSI 5	26865	831.5	Close	22.65	24.00	1.365	0.09	0.453	0.618
	LTE Band 26_Ant 1	15M	QPSK	50	0	Bottom Side	5mm	DSI 5	26865	831.5	Close	21.76	23.00	1.330	0.11	0.356	0.474
	LTE Band 26_Ant 2	15M	QPSK	1	0	Front	5 mm	DSI 3	26865	831.5	Open	21.71	23.00	1.346	-0.03	0.250	0.336
	LTE Band 26_Ant 2	15M	QPSK	50	0	Front	5 mm	DSI 3	26865	831.5	Open	20.90	22.00	1.288	0.04	0.195	0.251
	LTE Band 26_Ant 2	15M	QPSK	1	0	Back	5 mm	DSI 3	26865	831.5	Open	21.71	23.00	1.346	0.06	0.288	0.388
	LTE Band 26_Ant 2	15M	QPSK	50	0	Back	5 mm	DSI 3	26865	831.5	Open	20.90	22.00	1.288	0.04	0.243	0.313
	LTE Band 26_Ant 2	15M	QPSK	1	0	Right Side	5 mm	DSI 3	26865	831.5	Open	21.71	23.00	1.346	0.09	0.064	0.086
	LTE Band 26_Ant 2	15M	QPSK	50	0	Right Side	5 mm	DSI 3	26865	831.5	Open	20.90	22.00	1.288	-0.11	0.051	0.066
	LTE Band 26_Ant 2	15M	QPSK	1	0	Bottom Side	5 mm	DSI 3	26865	831.5	Open	21.71	23.00	1.346	0.04	0.314	0.423
	LTE Band 5B_Ant 1	10M+10M	QPSK	1	0	Bottom Side	5 mm	DSI 3	20575+20476	841.5+831.6	Open	21.5	23.00	1.413	0.02	0.305	0.431
	LTE Band 26_Ant 2	15M	QPSK	50	0	Bottom Side	5 mm	DSI 3	26865	831.5	Open	20.90	22.00	1.288	0.06	0.288	0.371
	LTE Band 26_Ant 2	15M	QPSK	1	0	Front	5mm	DSI 5	26865	831.5	Close	21.71	23.00	1.346	0.07	0.188	0.253
	LTE Band 26_Ant 2	15M	QPSK	50	0	Front	5mm	DSI 5	26865	831.5	Close	20.90	22.00	1.288	0.08	0.132	0.170
	LTE Band 26_Ant 2	15M	QPSK	1	0	Back	5mm	DSI 5	26865	831.5	Close	21.71	23.00	1.346	0.05	0.326	0.439
	LTE Band 5B_Ant 2	10M+10M	QPSK	1	0	Back	5mm	DSI 5	20575+20476	841.5+831.6	Close	21.51	23.00	1.409	0.06	0.301	0.424
	LTE Band 26_Ant 2	15M	QPSK	50	0	Back	5mm	DSI 5	26865	831.5	Close	20.90	22.00	1.288	0.06	0.265	0.341
	LTE Band 26_Ant 2	15M	QPSK	1	0	Right Side	5mm	DSI 5	26865	831.5	Close	21.71	23.00	1.346	0.07	0.169	0.227
	LTE Band 26_Ant 2	15M	QPSK	50	0	Right Side	5mm	DSI 5	26865	831.5	Close	20.90	22.00	1.288	0.06	0.126	0.162
	LTE Band 26_Ant 2	15M	QPSK	1	0	Bottom Side	5mm	DSI 5	26865	831.5	Close	21.71	23.00	1.346	0.07	0.288	0.388
	LTE Band 26_Ant 2	15M	QPSK	50	0	Bottom Side	5mm	DSI 5	26865	831.5	Close	20.90	22.00	1.288	0.08	0.212	0.273



Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Output Power State	Ch.	Freq. (MHz)	EUT Flip State	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 30_Ant 1	10M	QPSK	1	0	Front	5 mm	DSI 3	27710	2310	Open	19.51	20.7	1.315	-0.01	0.393	0.517
	LTE Band 30_Ant 1	10M	QPSK	25	0	Front	5 mm	DSI 3	27710	2310	Open	19.67	20.7	1.268	0.01	0.381	0.483
	LTE Band 30_Ant 1	10M	QPSK	1	0	Back	5 mm	DSI 3	27710	2310	Open	19.51	20.7	1.315	0.06	0.280	0.368
	LTE Band 30_Ant 1	10M	QPSK	25	0	Back	5 mm	DSI 3	27710	2310	Open	19.67	20.7	1.268	0.07	0.265	0.336
	LTE Band 30_Ant 1	10M	QPSK	1	0	Left Side	5 mm	DSI 3	27710	2310	Open	19.51	20.7	1.315	0.08	0.162	0.213
	LTE Band 30_Ant 1	10M	QPSK	25	0	Left Side	5 mm	DSI 3	27710	2310	Open	19.67	20.7	1.268	0.09	0.161	0.204
	LTE Band 30_Ant 1	10M	QPSK	1	0	Right Side	5 mm	DSI 3	27710	2310	Open	19.51	20.7	1.315	0.11	0.024	0.032
	LTE Band 30_Ant 1	10M	QPSK	25	0	Right Side	5 mm	DSI 3	27710	2310	Open	19.67	20.7	1.268	0.01	0.021	0.027
	LTE Band 30_Ant 1	10M	QPSK	1	0	Bottom Side	5 mm	DSI 3	27710	2310	Open	19.51	20.7	1.315	0.16	0.615	0.809
	LTE Band 30_Ant 1	10M	QPSK	25	0	Bottom Side	5 mm	DSI 3	27710	2310	Open	19.67	20.7	1.268	0.13	0.598	0.758
	LTE Band 30_Ant 1	10M	QPSK	50	0	Bottom Side	5 mm	DSI 3	27710	2310	Open	19.66	20.7	1.271	0.05	0.608	0.773
	LTE Band 30_Ant 1	10M	QPSK	1	0	Front	5mm	DSI 5	27710	2310	Close	18.91	20.0	1.285	0.06	0.187	0.240
	LTE Band 30_Ant 1	10M	QPSK	25	0	Front	5mm	DSI 5	27710	2310	Close	18.92	20.0	1.282	0.07	0.165	0.212
44	LTE Band 30_Ant 1	10M	QPSK	1	0	Back	5mm	DSI 5	27710	2310	Close	18.91	20.0	1.285	0.08	0.713	0.916
	LTE Band 30_Ant 1	10M	QPSK	25	0	Back	5mm	DSI 5	27710	2310	Close	18.92	20.0	1.282	-0.01	0.702	0.900
	LTE Band 30_Ant 1	10M	QPSK	50	0	Back	5mm	DSI 5	27710	2310	Close	19.03	20.0	1.250	0.09	0.688	0.860
	LTE Band 30_Ant 1	10M	QPSK	1	0	Left Side	5mm	DSI 5	27710	2310	Close	18.91	20.0	1.285	0.07	0.188	0.242
	LTE Band 30_Ant 1	10M	QPSK	25	0	Left Side	5mm	DSI 5	27710	2310	Close	18.92	20.0	1.282	0.08	0.191	0.245
	LTE Band 30_Ant 1	10M	QPSK	1	0	Right Side	5mm	DSI 5	27710	2310	Close	18.91	20.0	1.285	-0.05	0.063	0.081
	LTE Band 30_Ant 1	10M	QPSK	25	0	Right Side	5mm	DSI 5	27710	2310	Close	18.92	20.0	1.282	0.06	0.058	0.074
	LTE Band 30_Ant 1	10M	QPSK	1	0	Bottom Side	5mm	DSI 5	27710	2310	Close	18.91	20.0	1.285	0.04	0.627	0.806
	LTE Band 30_Ant 1	10M	QPSK	25	0	Bottom Side	5mm	DSI 5	27710	2310	Close	18.92	20.0	1.282	-0.09	0.603	0.773
	LTE Band 30_Ant 1	10M	QPSK	50	0	Bottom Side	5mm	DSI 5	27710	2310	Close	19.03	20.0	1.250	-0.09	0.590	0.738
	LTE Band 30_Ant 2	10M	QPSK	1	0	Front	5 mm	DSI 3	27710	2310	Open	20.43	22.0	1.435	0.07	0.483	0.693
	LTE Band 30_Ant 2	10M	QPSK	25	0	Front	5 mm	DSI 3	27710	2310	Open	19.36	21.0	1.459	0.05	0.385	0.562
	LTE Band 30_Ant 2	10M	QPSK	1	0	Back	5 mm	DSI 3	27710	2310	Open	20.43	22.0	1.435	-0.03	0.250	0.359
	LTE Band 30_Ant 2	10M	QPSK	25	0	Back	5 mm	DSI 3	27710	2310	Open	19.36	21.0	1.459	-0.03	0.185	0.270
	LTE Band 30_Ant 2	10M	QPSK	1	0	Left Side	5 mm	DSI 3	27710	2310	Open	20.43	22.0	1.435	-0.03	0.065	0.093
	LTE Band 30_Ant 2	10M	QPSK	25	0	Left Side	5 mm	DSI 3	27710	2310	Open	19.36	21.0	1.459	0.02	0.056	0.082
	LTE Band 30_Ant 2	10M	QPSK	1	0	Right Side	5 mm	DSI 3	27710	2310	Open	20.43	22.0	1.435	0.02	0.168	0.241
	LTE Band 30_Ant 2	10M	QPSK	25	0	Right Side	5 mm	DSI 3	27710	2310	Open	19.36	21.0	1.459	0.06	0.121	0.177
	LTE Band 30_Ant 2	10M	QPSK	1	0	Bottom Side	5 mm	DSI 3	27710	2310	Open	20.43	22.0	1.435	-0.12	0.494	0.709
	LTE Band 30_Ant 2	10M	QPSK	25	0	Bottom Side	5 mm	DSI 3	27710	2310	Open	19.36	21.0	1.459	0.01	0.405	0.591
	LTE Band 30_Ant 2	10M	QPSK	1	0	Front	5mm	DSI 5	27710	2310	Close	20.43	22.0	1.435	0.08	0.251	0.360
	LTE Band 30_Ant 2	10M	QPSK	25	0	Front	5mm	DSI 5	27710	2310	Close	19.36	21.0	1.459	0.01	0.198	0.289
	LTE Band 30_Ant 2	10M	QPSK	1	0	Back	5mm	DSI 5	27710	2310	Close	20.43	22.0	1.435	-0.07	0.274	0.393
	LTE Band 30_Ant 2	10M	QPSK	25	0	Back	5mm	DSI 5	27710	2310	Close	19.36	21.0	1.459	0.06	0.212	0.309
	LTE Band 30_Ant 2	10M	QPSK	1	0	Left Side	5mm	DSI 5	27710	2310	Close	20.43	22.0	1.435	0.05	0.001	0.001
	LTE Band 30_Ant 2	10M	QPSK	25	0	Left Side	5mm	DSI 5	27710	2310	Close	19.36	21.0	1.459	0.12	0.001	0.001
	LTE Band 30_Ant 2	10M	QPSK	1	0	Right Side	5mm	DSI 5	27710	2310	Close	20.43	22.0	1.435	0.03	0.160	0.230
	LTE Band 30_Ant 2	10M	QPSK	25	0	Right Side	5mm	DSI 5	27710	2310	Close	19.36	21.0	1.459	0.06	0.098	0.143
	LTE Band 30_Ant 2	10M	QPSK	1	0	Bottom Side	5mm	DSI 5	27710	2310	Close	20.43	22.0	1.435	0.08	0.618	0.887
	LTE Band 30_Ant 2	10M	QPSK	25	0	Bottom Side	5mm	DSI 5	27710	2310	Close	19.36	21.0	1.459	0.06	0.602	0.878
	LTE Band 30_Ant 2	10M	QPSK	50	0	Bottom Side	5mm	DSI 5	27710	2310	Close	19.51	21.0	1.409	-0.09	0.608	0.857



Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Output Power State	Ch.	Freq. (MHz)	EUT Flip State	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_Ant 1	20M	QPSK	1	0	Front	5 mm	DSI 3	132072	1720	Open	21.14	22.00	1.219	0.08	0.146	0.178
	LTE Band 66_Ant 1	20M	QPSK	50	0	Front	5 mm	DSI 3	132072	1720	Open	21.15	22.00	1.216	0.09	0.146	0.178
	LTE Band 66_Ant 1	20M	QPSK	1	0	Back	5 mm	DSI 3	132322	1745	Open	21.14	22.00	1.219	-0.01	0.550	0.670
	LTE Band 66_Ant 1	20M	QPSK	50	0	Back	5 mm	DSI 3	132322	1745	Open	21.15	22.00	1.216	-0.08	0.550	0.669
	LTE Band 66_Ant 1	20M	QPSK	1	0	Left Side	5 mm	DSI 3	132072	1720	Open	21.14	22.00	1.219	-0.08	0.091	0.111
	LTE Band 66_Ant 1	20M	QPSK	50	0	Left Side	5 mm	DSI 3	132072	1720	Open	21.15	22.00	1.216	0.02	0.091	0.111
	LTE Band 66_Ant 1	20M	QPSK	1	0	Bottom Side	5 mm	DSI 3	132072	1720	Open	21.14	22.00	1.219	0.01	0.614	0.748
	LTE Band 66C_Ant 1	20M	QPSK	1	0	Bottom Side	5 mm	DSI 3	132072+132270	1720+1739.8	Open	20.67	22.00	1.358	0.02	0.535	0.727
	LTE Band 66B_Ant 1	20M	QPSK	1	0	Bottom Side	5 mm	DSI 3	132047+132140	1717.5+1726.8	Open	20.64	22.00	1.368	0.04	0.521	0.713
	LTE Band 66_Ant 1	20M	QPSK	50	0	Bottom Side	5 mm	DSI 3	132072	1720	Open	21.15	22.00	1.216	0.05	0.605	0.736
	LTE Band 66_Ant 1	20M	QPSK	1	0	Front	5mm	DSI 5	132072	1720	Close	19.43	20.60	1.309	0.06	0.286	0.374
	LTE Band 66_Ant 1	20M	QPSK	50	0	Front	5mm	DSI 5	132072	1720	Close	19.48	20.60	1.294	0.08	0.266	0.344
	LTE Band 66_Ant 1	20M	QPSK	1	0	Back	5mm	DSI 5	132072	1720	Close	19.43	20.60	1.309	0.09	0.610	0.799
	LTE Band 66C_Ant 1	20M+20M	QPSK	1	0	Back	5mm	DSI 5	132072+132270	1720+1739.8	Close	18.92	20.60	1.472	0.09	0.434	0.639
	LTE Band 66B_Ant 1	15M+5M	QPSK	1	0	Back	5mm	DSI 5	132047+132140	1720+1729.3	Close	18.91	20.60	1.476	-0.03	0.455	0.671
	LTE Band 66_Ant 1	20M	QPSK	50	0	Back	5mm	DSI 5	132072	1720	Close	19.48	20.60	1.294	0.07	0.601	0.778
	LTE Band 66_Ant 1	20M	QPSK	1	0	Left Side	5mm	DSI 5	132072	1720	Close	19.43	20.60	1.309	0.09	0.423	0.554
	LTE Band 66_Ant 1	20M	QPSK	50	0	Left Side	5mm	DSI 5	132072	1720	Close	19.48	20.60	1.294	0.06	0.423	0.547
	LTE Band 66_Ant 1	20M	QPSK	1	0	Bottom Side	5mm	DSI 5	132072	1720	Close	19.43	20.60	1.309	0.04	0.638	0.835
	LTE Band 66_Ant 1	20M	QPSK	1	0	Bottom Side	5mm	DSI 5	132322	1745	Close	19.38	20.60	1.324	0.02	0.622	0.824
45	LTE Band 66_Ant 1	20M	QPSK	1	0	Bottom Side	5mm	DSI 5	132572	1770	Close	19.32	20.60	1.343	-0.03	0.645	0.866
	LTE Band 66C_Ant 1	20M+20M	QPSK	1	0	Bottom Side	5mm	DSI 5	132572+132374	1770+1750.2	Close	18.95	20.60	1.462	0.06	0.582	0.851
	LTE Band 66B_Ant 1	15M+5M	QPSK	1	0	Bottom Side	5mm	DSI 5	132047+132140	1720+1729.3	Close	18.81	20.60	1.510	0.01	0.573	0.865
	LTE Band 66_Ant 1	20M	QPSK	50	0	Bottom Side	5mm	DSI 5	132072	1720	Close	19.48	20.60	1.294	-0.02	0.615	0.796
	LTE Band 66_Ant 1	20M	QPSK	50	0	Bottom Side	5mm	DSI 5	132322	1745	Close	19.38	20.60	1.324	-0.01	0.608	0.805
	LTE Band 66_Ant 1	20M	QPSK	50	0	Bottom Side	5mm	DSI 5	132572	1770	Close	19.29	20.60	1.352	0.08	0.621	0.840
	LTE Band 66_Ant 1	20M	QPSK	100	0	Bottom Side	5mm	DSI 5	132072	1720	Close	19.45	20.60	1.303	0.15	0.612	0.798
	LTE Band 66_Ant 2	20M	QPSK	1	0	Front	5 mm	DSI 3	132072	1720	Open	20.92	22.00	1.282	0.06	0.399	0.512
	LTE Band 66C_Ant 2	20M+20M	QPSK	1	0	Front	5mm	DSI 3	132072+132270	1720+1739.8	Open	20.50	22.00	1.413	0.08	0.325	0.459
	LTE Band 66B_Ant 2	15M+5M	QPSK	1	0	Front	5mm	DSI 3	132047+132140	1720+1729.3	Open	20.42	22.00	1.439	0.07	0.318	0.458
	LTE Band 66_Ant 2	20M	QPSK	50	0	Front	5 mm	DSI 3	132072	1720	Open	20.06	21.00	1.242	0.08	0.305	0.379
	LTE Band 66_Ant 2	20M	QPSK	1	0	Back	5 mm	DSI 3	132072	1720	Open	20.92	22.00	1.282	0.07	0.326	0.418
	LTE Band 66_Ant 2	20M	QPSK	50	0	Back	5 mm	DSI 3	132072	1720	Open	20.06	21.00	1.242	0.09	0.261	0.324
	LTE Band 66_Ant 2	20M	QPSK	1	0	Right Side	5 mm	DSI 3	132072	1720	Open	20.92	22.00	1.282	0.06	0.193	0.247
	LTE Band 66_Ant 2	20M	QPSK	50	0	Right Side	5 mm	DSI 3	132072	1720	Open	20.06	21.00	1.242	0.09	0.162	0.201
	LTE Band 66_Ant 2	20M	QPSK	1	0	Bottom Side	5 mm	DSI 3	132072	1720	Open	20.92	22.00	1.282	-0.01	0.388	0.498
	LTE Band 66_Ant 2	20M	QPSK	50	0	Bottom Side	5 mm	DSI 3	132072	1720	Open	20.06	21.00	1.242	0.01	0.309	0.384
	LTE Band 66_Ant 2	20M	QPSK	1	0	Front	5mm	DSI 5	132072	1720	Close	20.92	22.00	1.282	0.11	0.344	0.441
	LTE Band 66_Ant 2	20M	QPSK	50	0	Front	5mm	DSI 5	132072	1720	Close	20.06	21.00	1.242	0.01	0.288	0.358
	LTE Band 66_Ant 2	20M	QPSK	1	0	Back	5mm	DSI 5	132072	1720	Close	20.92	22.00	1.282	0.09	0.368	0.472
	LTE Band 66C_Ant 2	20M+20M	QPSK	1	0	Back	5mm	DSI 5	132072+132270	1720+1739.8	Close	20.54	22.00	1.400	0.08	0.325	0.455
	LTE Band 66B_Ant 2	15M+5M	QPSK	1	0	Back	5mm	DSI 5	132047+132140	1720+1729.3	Close	20.40	22.00	1.445	0.07	0.318	0.460
	LTE Band 66_Ant 2	20M	QPSK	50	0	Back	5mm	DSI 5	132072	1720	Close	20.06	21.00	1.242	0.01	0.301	0.374
	LTE Band 66_Ant 2	20M	QPSK	1	0	Right Side	5mm	DSI 5	132072	1720	Close	20.92	22.00	1.282	0.06	0.057	0.073
	LTE Band 66_Ant 2	20M	QPSK	50	0	Right Side	5mm	DSI 5	132072	1720	Close	20.06	21.00	1.242	0.06	0.045	0.056
	LTE Band 66_Ant 2	20M	QPSK	1	0	Bottom Side	5mm	DSI 5	132072	1720	Close	20.92	22.00	1.282	0.08	0.406	0.521
	LTE Band 66C_Ant 2	20M+20M	QPSK	1	0	Bottom Side	5mm	DSI 5	132072+132270	1720+1739.8	Close	20.54	22.00	1.400	-0.11	0.388	0.543
	LTE Band 66B_Ant 2	15M+5M	QPSK	1	0	Bottom Side	5mm	DSI 5	132047+132140	1720+1729.3	Close	20.40	22.00	1.445	0.06	0.391	0.565
	LTE Band 66_Ant 2	20M	QPSK	50	0	Bottom Side	5mm	DSI 5	132072	1720	Close	20.06	21.00	1.242	0.16	0.326	0.405



Plot No.	Band	BW (MHz)	Modulation	RB Size	RB Offset	Test Position	Gap (mm)	Output Power State	Ch.	Freq. (MHz)	EUT Flip State	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_Ant 1	20M	QPSK	1	0	Front	5 mm	DSI 3	133222	673	Open	22.85	24.00	1.303	0.06	0.158	0.206
	LTE Band 71_Ant 1	20M	QPSK	50	0	Front	5 mm	DSI 3	133222	673	Open	22.36	23.00	1.159	0.07	0.158	0.183
46	LTE Band 71_Ant 1	20M	QPSK	1	0	Back	5 mm	DSI 3	133222	673	Open	22.85	24.00	1.303	-0.03	0.479	0.624
	LTE Band 71_Ant 1	20M	QPSK	50	0	Back	5 mm	DSI 3	133222	673	Open	22.36	23.00	1.159	-0.08	0.479	0.555
	LTE Band 71_Ant 1	20M	QPSK	1	0	Left Side	5 mm	DSI 3	133222	673	Open	22.85	24.00	1.303	0.02	0.110	0.143
	LTE Band 71_Ant 1	20M	QPSK	50	0	Left Side	5 mm	DSI 3	133222	673	Open	22.36	23.00	1.159	0.01	0.110	0.127
	LTE Band 71_Ant 1	20M	QPSK	1	0	Right Side	5 mm	DSI 3	133222	673	Open	22.85	24.00	1.303	0.08	0.133	0.173
	LTE Band 71_Ant 1	20M	QPSK	50	0	Right Side	5 mm	DSI 3	133222	673	Open	22.36	23.00	1.159	-0.06	0.133	0.154
	LTE Band 71_Ant 1	20M	QPSK	1	0	Bottom Side	5 mm	DSI 3	133222	673	Open	22.85	24.00	1.303	0.08	0.254	0.331
	LTE Band 71_Ant 1	20M	QPSK	50	0	Bottom Side	5 mm	DSI 3	133222	673	Open	22.36	23.00	1.159	0.04	0.254	0.294
	LTE Band 71_Ant 1	20M	QPSK	1	0	Front	5mm	DSI 5	133222	673	Close	22.85	24.00	1.303	0.07	0.105	0.137
	LTE Band 71_Ant 1	20M	QPSK	50	0	Front	5mm	DSI 5	133222	673	Close	22.36	23.00	1.159	0.06	0.105	0.122
	LTE Band 71_Ant 1	20M	QPSK	1	0	Back	5mm	DSI 5	133222	673	Close	22.85	24.00	1.303	-0.05	0.144	0.188
	LTE Band 71_Ant 1	20M	QPSK	50	0	Back	5mm	DSI 5	133222	673	Close	22.36	23.00	1.159	0.02	0.144	0.167
	LTE Band 71_Ant 1	20M	QPSK	1	0	Left Side	5mm	DSI 5	133222	673	Close	22.85	24.00	1.303	0.06	0.108	0.141
	LTE Band 71_Ant 1	20M	QPSK	50	0	Left Side	5mm	DSI 5	133222	673	Close	22.36	23.00	1.159	0.09	0.108	0.125
	LTE Band 71_Ant 1	20M	QPSK	1	0	Right Side	5mm	DSI 5	133222	673	Close	22.85	24.00	1.303	-0.08	0.076	0.099
	LTE Band 71_Ant 1	20M	QPSK	50	0	Right Side	5mm	DSI 5	133222	673	Close	22.36	23.00	1.159	-0.08	0.076	0.088
	LTE Band 71_Ant 1	20M	QPSK	1	0	Bottom Side	5mm	DSI 5	133222	673	Close	22.85	24.00	1.303	0.05	0.293	0.382
	LTE Band 71_Ant 1	20M	QPSK	50	0	Bottom Side	5mm	DSI 5	133222	673	Close	22.36	23.00	1.159	0.07	0.293	0.340
	LTE Band 71_Ant 2	20M	QPSK	1	0	Front	5 mm	DSI 3	133222	673	Open	22.27	23.00	1.183	0.05	0.077	0.091
	LTE Band 71_Ant 2	20M	QPSK	50	0	Front	5 mm	DSI 3	133222	673	Open	22.00	22.00	1.000	0.09	0.068	0.068
	LTE Band 71_Ant 2	20M	QPSK	1	0	Back	5 mm	DSI 3	133222	673	Open	22.27	23.00	1.183	-0.06	0.042	0.050
	LTE Band 71_Ant 2	20M	QPSK	50	0	Back	5 mm	DSI 3	133222	673	Open	22.00	22.00	1.000	0.07	0.035	0.035
	LTE Band 71_Ant 2	20M	QPSK	1	0	Left Side	5 mm	DSI 3	133222	673	Open	22.27	23.00	1.183	0.09	0.001	0.001
	LTE Band 71_Ant 2	20M	QPSK	50	0	Left Side	5 mm	DSI 3	133222	673	Open	22.00	22.00	1.000	-0.05	0.001	0.001
	LTE Band 71_Ant 2	20M	QPSK	1	0	Right Side	5 mm	DSI 3	133222	673	Open	22.27	23.00	1.183	-0.08	0.037	0.044
	LTE Band 71_Ant 2	20M	QPSK	50	0	Right Side	5 mm	DSI 3	133222	673	Open	22.00	22.00	1.000	0.05	0.028	0.028
	LTE Band 71_Ant 2	20M	QPSK	1	0	Bottom Side	5 mm	DSI 3	133222	673	Open	22.27	23.00	1.183	-0.05	0.102	0.121
	LTE Band 71_Ant 2	20M	QPSK	50	0	Bottom Side	5 mm	DSI 3	133222	673	Open	22.00	22.00	1.000	0.06	0.087	0.087
	LTE Band 71_Ant 2	20M	QPSK	1	0	Front	5mm	DSI 5	133222	673	Close	22.27	23.00	1.183	0.04	0.068	0.080
	LTE Band 71_Ant 2	20M	QPSK	50	0	Front	5mm	DSI 5	133222	673	Close	22.00	22.00	1.000	0.03	0.056	0.056
	LTE Band 71_Ant 2	20M	QPSK	1	0	Back	5mm	DSI 5	133222	673	Close	22.27	23.00	1.183	0.01	0.100	0.118
	LTE Band 71_Ant 2	20M	QPSK	50	0	Back	5mm	DSI 5	133222	673	Close	22.00	22.00	1.000	0.02	0.082	0.082
	LTE Band 71_Ant 2	20M	QPSK	1	0	Left Side	5mm	DSI 5	133222	673	Close	22.27	23.00	1.183	-0.05	0.001	0.001
	LTE Band 71_Ant 2	20M	QPSK	50	0	Left Side	5mm	DSI 5	133222	673	Close	22.00	22.00	1.000	-0.05	0.001	0.001
	LTE Band 71_Ant 2	20M	QPSK	1	0	Right Side	5mm	DSI 5	133222	673	Close	22.27	23.00	1.183	0.09	0.059	0.070
	LTE Band 71_Ant 2	20M	QPSK	50	0	Right Side	5mm	DSI 5	133222	673	Close	22.00	22.00	1.000	0.01	0.048	0.048
	LTE Band 71_Ant 2	20M	QPSK	1	0	Bottom Side	5mm	DSI 5	133222	673	Close	22.27	23.00	1.183	-0.06	0.188	0.222
	LTE Band 71_Ant 2	20M	QPSK	50	0	Bottom Side	5mm	DSI 5	133222	673	Close	22.00	22.00	1.000	0.04	0.135	0.135



<TDD LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Output Power State	Ch.	Freq. (MHz)	EUT Flip State	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_Ant 1	20M	QPSK	1	0	Front	5 mm	DSI 3	40620	2593	Open	20.44	21.1	1.164	62.9	1.006	-0.11	0.301	0.353
	LTE Band 41_Ant 1	20M	QPSK	50	0	Front	5 mm	DSI 3	40620	2593	Open	20.54	21.1	1.138	62.9	1.006	0.06	0.319	0.365
	LTE Band 41_Ant 1	20M	QPSK	1	0	Back	5 mm	DSI 3	40620	2593	Open	20.44	21.1	1.164	62.9	1.006	0.03	0.378	0.443
	LTE Band 41_Ant 1	20M	QPSK	50	0	Back	5 mm	DSI 3	40620	2593	Open	20.54	21.1	1.138	62.9	1.006	0.01	0.330	0.378
	LTE Band 41_Ant 1	20M	QPSK	1	0	Left Side	5 mm	DSI 3	40620	2593	Open	20.44	21.1	1.164	62.9	1.006	0.08	0.149	0.174
	LTE Band 41_Ant 1	20M	QPSK	50	0	Left Side	5 mm	DSI 3	40620	2593	Open	20.54	21.1	1.138	62.9	1.006	0.06	0.144	0.165
	LTE Band 41_Ant 1	20M	QPSK	1	0	Bottom Side	5 mm	DSI 3	40620	2593	Open	20.44	21.1	1.164	62.9	1.006	0.04	0.728	0.853
	LTE Band 41C_Ant 1	20M+20M	QPSK	1	0	Bottom Side	5 mm	DSI 3	40620+40422	2593+2573.2	Open	20.8	21.1	1.072	62.9	1.006	-0.08	0.705	0.760
	LTE Band 41_Ant 1	20M	QPSK	1	0	Bottom Side	5 mm	DSI 3	39750	2506	Open	20.32	21.1	1.197	62.9	1.006	0.06	0.517	0.622
	LTE Band 41_Ant 1	20M	QPSK	1	0	Bottom Side	5 mm	DSI 3	40185	2549.5	Open	20.41	21.1	1.172	62.9	1.006	-0.03	0.620	0.731
	LTE Band 41_Ant 1	20M	QPSK	1	0	Bottom Side	5 mm	DSI 3	41055	2636.5	Open	20.38	21.1	1.180	62.9	1.006	0.16	0.728	0.864
	LTE Band 41 PC2_Ant 1	20M	QPSK	1	0	Bottom Side	5 mm	DSI 3	41055	2636.5	Open	20.38	21.1	1.180	42.9	1.009	0.03	0.510	0.607
	LTE Band 41_Ant 1	20M	QPSK	1	0	Bottom Side	5 mm	DSI 3	41490	2680	Open	20.32	21.1	1.197	62.9	1.006	0.18	0.607	0.731
	LTE Band 41_Ant 1	20M	QPSK	50	0	Bottom Side	5 mm	DSI 3	40620	2593	Open	20.54	21.1	1.138	62.9	1.006	-0.12	0.705	0.807
	LTE Band 41_Ant 1	20M	QPSK	50	0	Bottom Side	5 mm	DSI 3	39750	2506	Open	20.38	21.1	1.180	62.9	1.006	-0.04	0.616	0.731
	LTE Band 41_Ant 1	20M	QPSK	50	0	Bottom Side	5 mm	DSI 3	40185	2549.5	Open	20.47	21.1	1.156	62.9	1.006	-0.12	0.650	0.756
	LTE Band 41_Ant 1	20M	QPSK	50	0	Bottom Side	5 mm	DSI 3	41055	2636.5	Open	20.4	21.1	1.175	62.9	1.006	0.09	0.701	0.829
	LTE Band 41_Ant 1	20M	QPSK	50	0	Bottom Side	5 mm	DSI 3	41490	2680	Open	20.42	21.1	1.169	62.9	1.006	0.04	0.661	0.778
	LTE Band 41_Ant 1	20M	QPSK	100	0	Bottom Side	5 mm	DSI 3	40620	2593	Open	20.56	21.1	1.132	62.9	1.006	0.07	0.698	0.795
	LTE Band 41_Ant 1	20M	QPSK	1	0	Front	5mm	DSI 5	40620	2593	Close	18.37	19.1	1.183	62.9	1.006	-0.11	0.224	0.267
	LTE Band 41_Ant 1	20M	QPSK	50	0	Front	5mm	DSI 5	40620	2593	Close	18.47	19.1	1.156	62.9	1.006	0.05	0.224	0.261
	LTE Band 41_Ant 1	20M	QPSK	1	0	Back	5mm	DSI 5	40620	2593	Close	18.37	19.1	1.183	62.9	1.006	0.06	0.568	0.676
	LTE Band 41C_Ant 1	20M+20M	QPSK	1	0	Back	5mm	DSI 5	40620+40422	2593+2573.2	Close	18.92	19.1	1.042	62.9	1.006	0.08	0.526	0.552
	LTE Band 41 PC2_Ant 1	20M	QPSK	1	0	Back	5mm	DSI 5	40620	2593	Close	18.37	19.1	1.183	42.9	1.009	0.03	0.359	0.429
	LTE Band 41_Ant 1	20M	QPSK	1	0	Back	5mm	DSI 5	39750	2506	Close	17.95	19.1	1.303	62.9	1.006	0.06	0.378	0.496
	LTE Band 41_Ant 1	20M	QPSK	1	0	Back	5mm	DSI 5	40185	2549.5	Close	18.08	19.1	1.265	62.9	1.006	0.03	0.490	0.623
	LTE Band 41_Ant 1	20M	QPSK	1	0	Back	5mm	DSI 5	41055	2636.5	Close	18.1	19.1	1.259	62.9	1.006	0.05	0.528	0.669
	LTE Band 41_Ant 1	20M	QPSK	1	0	Back	5mm	DSI 5	41490	2680	Close	18.2	19.1	1.230	62.9	1.006	-0.11	0.421	0.521
	LTE Band 41_Ant 1	20M	QPSK	50	0	Back	5mm	DSI 5	40620	2593	Close	18.47	19.1	1.156	62.9	1.006	0.06	0.568	0.661
	LTE Band 41_Ant 1	20M	QPSK	50	0	Back	5mm	DSI 5	39750	2506	Close	18.03	19.1	1.279	62.9	1.006	0.07	0.378	0.487
	LTE Band 41_Ant 1	20M	QPSK	50	0	Back	5mm	DSI 5	40185	2549.5	Close	18.2	19.1	1.230	62.9	1.006	-0.11	0.490	0.606
	LTE Band 41_Ant 1	20M	QPSK	50	0	Back	5mm	DSI 5	41055	2636.5	Close	18.2	19.1	1.230	62.9	1.006	-0.05	0.528	0.653
	LTE Band 41_Ant 1	20M	QPSK	50	0	Back	5mm	DSI 5	41490	2680	Close	18.2	19.1	1.230	62.9	1.006	0.06	0.421	0.521
	LTE Band 41_Ant 1	20M	QPSK	100	0	Back	5mm	DSI 5	40620	2593	Close	18.42	19.1	1.169	62.9	1.006	0.11	0.224	0.264
	LTE Band 41_Ant 1	20M	QPSK	1	0	Left Side	5mm	DSI 5	40620	2593	Close	18.37	19.1	1.183	62.9	1.006	-0.09	0.336	0.400
	LTE Band 41_Ant 1	20M	QPSK	50	0	Left Side	5mm	DSI 5	40620	2593	Close	18.47	19.1	1.156	62.9	1.006	0.06	0.336	0.391
47	LTE Band 41_Ant 1	20M	QPSK	1	0	Bottom Side	5mm	DSI 5	40620	2593	Close	18.37	19.1	1.183	62.9	1.006	0.04	0.772	0.919
	LTE Band 41C_Ant 1	20M+20M	QPSK	1	0	Bottom Side	5mm	DSI 5	40620+40422	2593+2573.2	Close	18.92	19.1	1.042	62.9	1.006	-0.11	0.751	0.787
	LTE Band 41_Ant 1	20M	QPSK	1	0	Bottom Side	5mm	DSI 5	39750	2506	Close	17.95	19.1	1.303	62.9	1.006	0.04	0.521	0.683
	LTE Band 41_Ant 1	20M	QPSK	1	0	Bottom Side	5mm	DSI 5	40185	2549.5	Close	18.08	19.1	1.265	62.9	1.006	0.06	0.686	0.873
	LTE Band 41_Ant 1	20M	QPSK	1	0	Bottom Side	5mm	DSI 5	41055	2636.5	Close	18.1	19.1	1.259	62.9	1.006	0.08	0.703	0.890
	LTE Band 41_Ant 1	20M	QPSK	1	0	Bottom Side	5mm	DSI 5	41490	2680	Close	18.2	19.1	1.230	62.9	1.006	-0.18	0.606	0.750
	LTE Band 41_Ant 1	20M	QPSK	50	0	Bottom Side	5mm	DSI 5	40620	2593	Close	18.47	19.1	1.156	62.9	1.006	0.13	0.731	0.850
	LTE Band 41_Ant 1	20M	QPSK	50	0	Bottom Side	5mm	DSI 5	39750	2506	Close	18.03	19.1	1.279	62.9	1.006	0.11	0.535	0.689
	LTE Band 41_Ant 1	20M	QPSK	50	0	Bottom Side	5mm	DSI 5	40185	2549.5	Close	18.2	19.1	1.230	62.9	1.006	0.01	0.668	0.827
	LTE Band 41_Ant 1	20M	QPSK	50	0	Bottom Side	5mm	DSI 5	41055	2636.5	Close	18.2	19.1	1.230	62.9	1.006	0.05	0.712	0.881
	LTE Band 41_Ant 1	20M	QPSK	50	0	Bottom Side	5mm	DSI 5	41490	2680	Close	18.2	19.1	1.230	62.9	1.006	0.07	0.616	0.762
	LTE Band 41_Ant 1	20M	QPSK	100	0	Bottom Side	5mm	DSI 5	40620	2593	Close	18.42	19.1	1.169	62.9	1.006	-0.06	0.688	0.809
	LTE Band 41 PC2_Ant 1	20M	QPSK	1	0	Bottom Side	5mm	DSI 5	40620	2593	Close	18.37	19.1	1.183	42.9	1.009	-0.18	0.536	0.640
	LTE Band 41 PC2_Ant 1	20M	QPSK	1	0	Bottom Side	5mm	DSI 5	39750	2506	Close	17.95	19.1	1.303	42.9	1.009	0.04	0.509	0.669
	LTE Band 41 PC2_Ant 1	20M	QPSK	1	0	Bottom Side	5mm	DSI 5	40185	2549.5	Close	18.08	19.1	1.265	42.9	1.009	0.09	0.531	0.678
	LTE Band 41 PC2_Ant 1	20M	QPSK	1	0	Bottom Side	5mm	DSI 5	41055	2636.5	Close	18.1	19.1	1.259	42.9	1.009	0.06	0.536	0.681
	LTE Band 41 PC2_Ant 1	20M	QPSK	1	0	Bottom Side	5mm	DSI 5	41490	2680	Close	18.2	19.1	1.230	42.9	1.009	0.06	0.506	0.628



Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Output Power State	Ch.	Freq. (MHz)	EUT Flip State	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_Ant 2	20M	QPSK	1	0	Front	5 mm	DSI 3	39750	2506	Open	18.03	19.8	1.503	62.9	1.006	0.03	0.187	0.283
	LTE Band 41_Ant 2	20M	QPSK	50	0	Front	5 mm	DSI 3	39750	2506	Open	18.01	19.8	1.510	62.9	1.006	0.07	0.189	0.287
	LTE Band 41_Ant 2	20M	QPSK	1	0	Back	5 mm	DSI 3	39750	2506	Open	18.03	19.8	1.503	62.9	1.006	-0.05	0.163	0.246
	LTE Band 41_Ant 2	20M	QPSK	50	0	Back	5 mm	DSI 3	39750	2506	Open	18.01	19.8	1.510	62.9	1.006	0.01	0.167	0.254
	LTE Band 41_Ant 2	20M	QPSK	1	0	Left Side	5 mm	DSI 3	39750	2506	Open	18.03	19.8	1.503	62.9	1.006	0.04	0.088	0.133
	LTE Band 41_Ant 2	20M	QPSK	50	0	Left Side	5 mm	DSI 3	39750	2506	Open	18.01	19.8	1.510	62.9	1.006	0.03	0.085	0.129
	LTE Band 41_Ant 2	20M	QPSK	1	0	Bottom Side	5 mm	DSI 3	39750	2506	Open	18.03	19.8	1.503	62.9	1.006	0.04	0.405	0.612
	LTE Band 41_Ant 2	20M	QPSK	1	0	Bottom Side	5 mm	DSI 3	40620	2593	Open	18.01	19.8	1.510	62.9	1.006	0.04	0.365	0.554
	LTE Band 41_Ant 2	20M	QPSK	1	0	Bottom Side	5 mm	DSI 3	40185	2549.5	Open	17.97	19.8	1.524	62.9	1.006	0.09	0.454	0.696
	LTE Band 41_Ant 2	20M	QPSK	1	0	Bottom Side	5 mm	DSI 3	41055	2636.5	Open	17.97	19.8	1.524	62.9	1.006	0.06	0.514	0.788
	LTE Band 41C_Ant 2	20M+20M	QPSK	1	0	Bottom Side	5 mm	DSI 3	41055+40857	2636.5+2616.7	Open	18.77	19.8	1.268	62.9	1.006	0.01	0.501	0.639
	LTE Band 41_Ant 2	20M	QPSK	1	0	Bottom Side	5 mm	DSI 3	41490	2680	Open	17.99	19.8	1.517	62.9	1.006	0.04	0.416	0.635
	LTE Band 41_Ant 2	20M	QPSK	50	0	Bottom Side	5 mm	DSI 3	39750	2506	Open	18.01	19.8	1.510	62.9	1.006	0.04	0.445	0.676
	LTE Band 41_Ant 2	20M	QPSK	50	0	Bottom Side	5 mm	DSI 3	40620	2593	Open	18.01	19.8	1.510	62.9	1.006	0.07	0.365	0.554
	LTE Band 41_Ant 2	20M	QPSK	50	0	Bottom Side	5 mm	DSI 3	40185	2549.5	Open	17.97	19.8	1.524	62.9	1.006	0.07	0.454	0.696
	LTE Band 41_Ant 2	20M	QPSK	50	0	Bottom Side	5 mm	DSI 3	41055	2636.5	Open	17.98	19.8	1.521	62.9	1.006	0.09	0.514	0.786
	LTE Band 41_Ant 2	20M	QPSK	50	0	Bottom Side	5 mm	DSI 3	41490	2680	Open	17.96	19.8	1.528	62.9	1.006	0.15	0.423	0.650
	LTE Band 41_Ant 2	20M	QPSK	100	0	Bottom Side	5 mm	DSI 3	39750	2506	Open	17.97	19.8	1.524	62.9	1.006	-0.09	0.416	0.638
	LTE Band 41 PC2_Ant 2	20M	QPSK	1	0	Bottom Side	5 mm	DSI 3	41055	2636.5	Open	17.97	19.8	1.524	42.9	1.009	0.09	0.344	0.529
	LTE Band 41_Ant 2	20M	QPSK	1	0	Front	5mm	DSI 5	39750	2506	Close	19.26	21.0	1.493	62.9	1.006	0.09	0.120	0.180
	LTE Band 41_Ant 2	20M	QPSK	50	0	Front	5mm	DSI 5	39750	2506	Close	19.47	21.0	1.422	62.9	1.006	0.04	0.118	0.169
	LTE Band 41_Ant 2	20M	QPSK	1	0	Back	5mm	DSI 5	39750	2506	Close	19.26	21.0	1.493	62.9	1.006	0.06	0.376	0.565
	LTE Band 41C_Ant 2	20M+20M	QPSK	1	0	Back	5mm	DSI 5	39750+39948	2680+2525.8	Close	20.68	21.0	1.076	62.9	1.006	0.03	0.376	0.407
	LTE Band 41_Ant 2	20M	QPSK	50	0	Back	5mm	DSI 5	39750	2506	Close	19.47	21.0	1.422	62.9	1.006	-0.08	0.367	0.525
	LTE Band 41 PC2_Ant 2	20M	QPSK	1	0	Back	5mm	DSI 5	39750	2506	Close	19.26	21.0	1.493	42.9	1.009	0.19	0.256	0.386
	LTE Band 41_Ant 2	20M	QPSK	1	0	Left Side	5mm	DSI 5	39750	2506	Close	19.26	21.0	1.493	62.9	1.006	0.06	0.162	0.243
	LTE Band 41_Ant 2	20M	QPSK	50	0	Left Side	5mm	DSI 5	39750	2506	Close	19.47	21.0	1.422	62.9	1.006	0.04	0.158	0.226
	LTE Band 41_Ant 2	20M	QPSK	1	0	Bottom Side	5mm	DSI 5	39750	2506	Close	19.26	21.0	1.493	62.9	1.006	-0.12	0.433	0.650
	LTE Band 41_Ant 2	20M	QPSK	1	0	Bottom Side	5mm	DSI 5	40620	2593	Close	19.22	21.0	1.507	62.9	1.006	-0.09	0.596	0.903
	LTE Band 41_Ant 2	20M	QPSK	1	0	Bottom Side	5mm	DSI 5	40185	2549.5	Close	19.14	21.0	1.535	62.9	1.006	0.04	0.539	0.832
	LTE Band 41_Ant 2	20M	QPSK	1	0	Bottom Side	5mm	DSI 5	41055	2636.5	Close	19.02	21.0	1.578	62.9	1.006	0.01	0.552	0.876
	LTE Band 41_Ant 2	20M	QPSK	1	0	Bottom Side	5mm	DSI 5	41490	2680	Close	19.01	21.0	1.581	62.9	1.006	-0.01	0.502	0.799
	LTE Band 41_Ant 2	20M	QPSK	50	0	Bottom Side	5mm	DSI 5	39750	2506	Close	19.47	21.0	1.422	62.9	1.006	0.06	0.448	0.641
	LTE Band 41_Ant 2	20M	QPSK	50	0	Bottom Side	5mm	DSI 5	40185	2549.5	Close	19.08	21.0	1.556	62.9	1.006	0.08	0.552	0.864
	LTE Band 41_Ant 2	20M	QPSK	50	0	Bottom Side	5mm	DSI 5	40620	2593	Close	19.09	21.0	1.552	62.9	1.006	0.01	0.582	0.909
	LTE Band 41_Ant 2	20M	QPSK	50	0	Bottom Side	5mm	DSI 5	41055	2636.5	Close	19.24	21.0	1.500	62.9	1.006	0.01	0.608	0.917
	LTE Band 41C_Ant 2	20M+20M	QPSK	50	0	Bottom Side	5mm	DSI 5	41055+40857	2636.5+2616.7	Close	20.25	21.0	1.189	62.9	1.006	-0.09	0.545	0.652
	LTE Band 41_Ant 2	20M	QPSK	50	0	Bottom Side	5mm	DSI 5	41490	2680	Close	19.07	21.0	1.560	62.9	1.006	0.09	0.512	0.803
	LTE Band 41_Ant 2	20M	QPSK	100	0	Bottom Side	5mm	DSI 5	39750	2506	Close	19.20	21.0	1.514	62.9	1.006	0.04	0.552	0.840
	LTE Band 41 PC2_Ant 2	20M	QPSK	1	0	Bottom Side	5mm	DSI 5	39750	2506	Close	19.26	21.0	1.493	42.9	1.009	-0.04	0.401	0.604
	LTE Band 41 PC2_Ant 2	20M	QPSK	1	0	Bottom Side	5mm	DSI 5	40620	2593	Close	19.22	21.0	1.507	42.9	1.009	0.07	0.237	0.360
	LTE Band 41 PC2_Ant 2	20M	QPSK	1	0	Bottom Side	5mm	DSI 5	40185	2549.5	Close	19.14	21.0	1.535	42.9	1.009	-0.01	0.313	0.485
	LTE Band 41 PC2_Ant 2	20M	QPSK	1	0	Bottom Side	5mm	DSI 5	41055	2636.5	Close	19.02	21.0	1.578	42.9	1.009	0.09	0.380	0.605
	LTE Band 41 PC2_Ant 2	20M	QPSK	1	0	Bottom Side	5mm	DSI 5	41490	2680	Close	19.01	21.0	1.581	42.9	1.009	0.04	0.257	0.410



FCC SAR Test Report

Report No. : FA052803-04

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Output Power State	Ch.	Freq. (MHz)	EUT Flip State	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 48_Ant 1	20M	QPSK	1	0	Front	5 mm	DSI 3	55830	3609	Open	21.49	22.5	1.262	62.9	1.006	0.09	0.413	0.524
	LTE Band 48_Ant 1	20M	QPSK	1	0	Front	5 mm	DSI 3	55340	3560	Open	21.46	22.5	1.271	62.9	1.006	0.09	0.328	0.419
	LTE Band 48_Ant 1	20M	QPSK	1	0	Front	5 mm	DSI 3	56150	3641	Open	21.40	22.5	1.288	62.9	1.006	0.02	0.269	0.349
	LTE Band 48_Ant 1	20M	QPSK	1	0	Front	5 mm	DSI 3	56640	3690	Open	21.38	22.5	1.294	62.9	1.006	-0.03	0.289	0.376
	LTE Band 48_Ant 1	20M	QPSK	50	0	Front	5 mm	DSI 3	55830	3609	Open	18.96	20.5	1.426	62.9	1.006	0.01	0.358	0.513
	LTE Band 48_Ant 1	20M	QPSK	50	0	Front	5 mm	DSI 3	55340	3560	Open	18.95	20.5	1.429	62.9	1.006	0.01	0.345	0.496
	LTE Band 48_Ant 1	20M	QPSK	50	0	Front	5 mm	DSI 3	56150	3641	Open	18.89	20.5	1.449	62.9	1.006	0.05	0.368	0.536
	LTE Band 48_Ant 1	20M	QPSK	50	0	Front	5 mm	DSI 3	56640	3690	Open	18.84	20.5	1.466	62.9	1.006	-0.08	0.381	0.562
	LTE Band 48_Ant 1	20M	QPSK	100	0	Front	5 mm	DSI 3	55830	3609	Open	18.98	20.5	1.419	62.9	1.006	0.05	0.289	0.413
	LTE Band 48_Ant 1	20M	QPSK	1	0	Back	5 mm	DSI 3	55830	3609	Open	21.49	22.5	1.262	62.9	1.006	0.04	0.240	0.305
	LTE Band 48_Ant 1	20M	QPSK	50	0	Back	5 mm	DSI 3	55830	3609	Open	18.96	20.5	1.426	62.9	1.006	0.04	0.184	0.264
	LTE Band 48_Ant 1	20M	QPSK	1	0	Right Side	5 mm	DSI 3	55830	3609	Open	21.49	22.5	1.262	62.9	1.006	-0.03	0.098	0.124
	LTE Band 48_Ant 1	20M	QPSK	50	0	Right Side	5 mm	DSI 3	55830	3609	Open	18.96	20.5	1.426	62.9	1.006	0.02	0.097	0.139
	LTE Band 48_Ant 1	20M	QPSK	1	0	Bottom Side	5 mm	DSI 3	55830	3609	Open	21.49	22.5	1.262	62.9	1.006	-0.07	0.729	0.925
	LTE Band 48_Ant 1	20M	QPSK	1	0	Bottom Side	5 mm	DSI 3	55340	3560	Open	21.46	22.5	1.271	62.9	1.006	-0.02	0.628	0.803
	LTE Band 48_Ant 1	20M	QPSK	1	0	Bottom Side	5 mm	DSI 3	56150	3641	Open	21.40	22.5	1.288	62.9	1.006	0.01	0.671	0.870
	LTE Band 48_Ant 1	20M	QPSK	1	0	Bottom Side	5 mm	DSI 3	56640	3690	Open	21.38	22.5	1.294	62.9	1.006	0.04	0.701	0.913
	LTE Band 48_Ant 1	20M	QPSK	50	0	Bottom Side	5 mm	DSI 3	55830	3609	Open	18.96	20.5	1.426	62.9	1.006	0.03	0.410	0.588
	LTE Band 48_Ant 1	20M	QPSK	50	0	Bottom Side	5 mm	DSI 3	55340	3560	Open	18.95	20.5	1.429	62.9	1.006	0.03	0.320	0.460
	LTE Band 48_Ant 1	20M	QPSK	50	0	Bottom Side	5 mm	DSI 3	56150	3641	Open	18.89	20.5	1.449	62.9	1.006	-0.09	0.331	0.482
	LTE Band 48_Ant 1	20M	QPSK	50	0	Bottom Side	5 mm	DSI 3	56640	3690	Open	18.84	20.5	1.466	62.9	1.006	-0.01	0.351	0.517
	LTE Band 48_Ant 1	20M	QPSK	100	0	Bottom Side	5 mm	DSI 3	55830	3609	Open	18.98	20.5	1.419	62.9	1.006	0.03	0.400	0.571
	LTE Band 48_Ant 1	20M	QPSK	1	0	Front	5mm	DSI 5	55830	3609	Close	21.68	22.5	1.208	62.9	1.006	0.04	0.286	0.348
	LTE Band 48_Ant 1	20M	QPSK	50	0	Front	5mm	DSI 5	55830	3609	Close	19.06	20.5	1.393	62.9	1.006	-0.06	0.203	0.285
	LTE Band 48_Ant 1	20M	QPSK	1	0	Back	5mm	DSI 5	55830	3609	Close	21.68	22.5	1.208	62.9	1.006	-0.01	0.320	0.389
	LTE Band 48_Ant 1	20M	QPSK	50	0	Back	5mm	DSI 5	55830	3609	Close	19.06	20.5	1.393	62.9	1.006	0.04	0.208	0.292
	LTE Band 48_Ant 1	20M	QPSK	1	0	Right Side	5mm	DSI 5	55830	3609	Close	21.68	22.5	1.208	62.9	1.006	0.09	0.174	0.211
	LTE Band 48_Ant 1	20M	QPSK	50	0	Right Side	5mm	DSI 5	55830	3609	Close	19.06	20.5	1.393	62.9	1.006	0.08	0.154	0.216
48	LTE Band 48_Ant 1	20M	QPSK	1	0	Bottom Side	5mm	DSI 5	55830	3609	Close	21.68	22.5	1.208	62.9	1.006	-0.07	0.767	0.932
	LTE Band 48_Ant 1	20M	QPSK	1	0	Bottom Side	5mm	DSI 5	55340	3560	Close	21.68	22.5	1.208	62.9	1.006	-0.03	0.628	0.763
	LTE Band 48_Ant 1	20M	QPSK	1	0	Bottom Side	5mm	DSI 5	56150	3641	Close	21.68	22.5	1.208	62.9	1.006	0.08	0.662	0.804
	LTE Band 48_Ant 1	20M	QPSK	1	0	Bottom Side	5mm	DSI 5	56640	3690	Close	21.62	22.5	1.225	62.9	1.006	0.01	0.610	0.751
	LTE Band 48_Ant 1	20M	QPSK	50	0	Bottom Side	5mm	DSI 5	55830	3609	Close	19.06	20.5	1.393	62.9	1.006	0.06	0.463	0.649
	LTE Band 48_Ant 1	20M	QPSK	50	0	Bottom Side	5mm	DSI 5	55340	3560	Close	19.03	20.5	1.403	62.9	1.006	0.02	0.421	0.594
	LTE Band 48_Ant 1	20M	QPSK	50	0	Bottom Side	5mm	DSI 5	56150	3641	Close	19.04	20.5	1.400	62.9	1.006	0.03	0.435	0.612
	LTE Band 48_Ant 1	20M	QPSK	50	0	Bottom Side	5mm	DSI 5	56640	3690	Close	18.93	20.5	1.435	62.9	1.006	0.01	0.421	0.608
	LTE Band 48_Ant 1	20M	QPSK	100	0	Bottom Side	5mm	DSI 5	55830	3609	Close	18.99	20.5	1.416	62.9	1.006	0.07	0.423	0.602



FCC SAR Test Report

Report No. : FA052803-04

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Output Power State	Ch.	Freq. (MHz)	EUT Flip State	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 48_Ant 2	20M	QPSK	1	0	Front	5 mm	DSI 3	55830	3609	Open	20.93	22.0	1.279	62.9	1.006	0.01	0.244	0.314
	LTE Band 48_Ant 2	20M	QPSK	50	0	Front	5 mm	DSI 3	55830	3609	Open	18.38	21.0	1.828	62.9	1.006	0.04	0.202	0.371
	LTE Band 48_Ant 2	20M	QPSK	1	0	Back	5 mm	DSI 3	55830	3609	Open	20.93	22.0	1.279	62.9	1.006	0.09	0.300	0.386
	LTE Band 48_Ant 2	20M	QPSK	50	0	Back	5 mm	DSI 3	55830	3609	Open	18.38	21.0	1.828	62.9	1.006	-0.02	0.203	0.373
	LTE Band 48_Ant 2	20M	QPSK	1	0	Left Side	5 mm	DSI 3	55830	3609	Open	20.93	22.0	1.279	62.9	1.006	0.04	0.098	0.126
	LTE Band 48_Ant 2	20M	QPSK	50	0	Left Side	5 mm	DSI 3	55830	3609	Open	18.38	21.0	1.828	62.9	1.006	0.09	0.074	0.136
	LTE Band 48_Ant 2	20M	QPSK	1	0	Bottom Side	5 mm	DSI 3	55830	3609	Open	20.93	22.0	1.279	62.9	1.006	0.06	0.592	0.762
	LTE Band 48_Ant 2	20M	QPSK	1	0	Bottom Side	5mm	DSI 3	55340	3560	Open	20.93	22.0	1.279	62.9	1.006	0.01	0.438	0.564
	LTE Band 48_Ant 2	20M	QPSK	1	0	Bottom Side	5mm	DSI 3	56150	3641	Open	20.9	22.0	1.288	62.9	1.006	0.09	0.492	0.638
	LTE Band 48_Ant 2	20M	QPSK	1	0	Bottom Side	5mm	DSI 3	56640	3690	Open	20.89	22.0	1.291	62.9	1.006	-0.03	0.461	0.599
	LTE Band 48_Ant 2	20M	QPSK	50	0	Bottom Side	5 mm	DSI 3	55830	3609	Open	18.38	21.0	1.828	62.9	1.006	-0.11	0.472	0.868
	LTE Band 48_Ant 2	20M	QPSK	50	0	Bottom Side	5mm	DSI 3	55340	3560	Open	18.36	21.0	1.837	62.9	1.006	0.05	0.405	0.748
	LTE Band 48_Ant 2	20M	QPSK	50	0	Bottom Side	5mm	DSI 3	56150	3641	Open	18.34	21.0	1.845	62.9	1.006	0.01	0.404	0.750
	LTE Band 48_Ant 2	20M	QPSK	50	0	Bottom Side	5mm	DSI 3	56640	3690	Open	18.32	21.0	1.854	62.9	1.006	0.08	0.409	0.763
	LTE Band 48_Ant 2	20M	QPSK	100	0	Bottom Side	5mm	DSI 3	55830	3609	Open	18.29	21.0	1.866	62.9	1.006	-0.03	0.412	0.774
	LTE Band 48_Ant 2	20M	QPSK	1	0	Front	5mm	DSI 5	55830	3609	Close	20.93	22.0	1.279	62.9	1.006	0.13	0.129	0.166
	LTE Band 48_Ant 2	20M	QPSK	50	0	Front	5mm	DSI 5	55830	3609	Close	18.38	21.0	1.828	62.9	1.006	0.05	0.102	0.188
	LTE Band 48_Ant 2	20M	QPSK	1	0	Back	5mm	DSI 5	55830	3609	Close	20.93	22.0	1.279	62.9	1.006	-0.06	0.294	0.378
	LTE Band 48_Ant 2	20M	QPSK	50	0	Back	5mm	DSI 5	55830	3609	Close	18.38	21.0	1.828	62.9	1.006	0.14	0.201	0.370
	LTE Band 48_Ant 2	20M	QPSK	1	0	Left Side	5mm	DSI 5	55830	3609	Close	20.93	22.0	1.279	62.9	1.006	0.03	0.112	0.144
	LTE Band 48_Ant 2	20M	QPSK	50	0	Left Side	5mm	DSI 5	55830	3609	Close	18.38	21.0	1.828	62.9	1.006	0.05	0.085	0.156
	LTE Band 48_Ant 2	20M	QPSK	1	0	Bottom Side	5mm	DSI 5	55830	3609	Close	20.93	22.0	1.279	62.9	1.006	0.01	0.555	0.714
	LTE Band 48_Ant 2	20M	QPSK	1	0	Bottom Side	5mm	DSI 5	55340	3560	Close	20.93	22.0	1.279	62.9	1.006	0.09	0.456	0.587
	LTE Band 48_Ant 2	20M	QPSK	1	0	Bottom Side	5mm	DSI 5	56150	3641	Close	20.9	22.0	1.288	62.9	1.006	-0.03	0.443	0.574
	LTE Band 48_Ant 2	20M	QPSK	1	0	Bottom Side	5mm	DSI 5	56640	3690	Close	20.89	22.0	1.291	62.9	1.006	0.02	0.451	0.586
	LTE Band 48_Ant 2	20M	QPSK	50	0	Bottom Side	5mm	DSI 5	55830	3609	Close	18.38	21.0	1.828	62.9	1.006	0.04	0.481	0.885
	LTE Band 48_Ant 2	20M	QPSK	50	0	Bottom Side	5mm	DSI 5	55340	3560	Close	18.36	21.0	1.837	62.9	1.006	-0.09	0.469	0.867
	LTE Band 48_Ant 2	20M	QPSK	50	0	Bottom Side	5mm	DSI 5	56150	3641	Close	18.34	21.0	1.845	62.9	1.006	0.02	0.411	0.763
	LTE Band 48_Ant 2	20M	QPSK	50	0	Bottom Side	5mm	DSI 5	56640	3690	Close	18.32	21.0	1.854	62.9	1.006	0.06	0.458	0.854
	LTE Band 48_Ant 2	20M	QPSK	100	0	Bottom Side	5mm	DSI 5	55830	3609	Close	18.29	21.0	1.866	62.9	1.006	0.01	0.432	0.811



<5G NR SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Output Power State	Ch.	Freq. (MHz)	EUT Flip State	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
49	FR1 n25_Ant 2	20M	BPSK	1	53	Front	5 mm	DSI 3	372000	1860	Open	23.96	24.00	1.009	0.07	0.646	0.652
	FR1 n25_Ant 2	20M	BPSK	50	28	Front	5 mm	DSI 3	372000	1860	Open	23.89	24.00	1.026	0.03	0.706	0.724
	FR1 n25_Ant 2	20M	BPSK	1	53	Back	5 mm	DSI 3	372000	1860	Open	23.96	24.00	1.009	0.04	0.420	0.424
	FR1 n25_Ant 2	20M	BPSK	50	28	Back	5 mm	DSI 3	372000	1860	Open	23.89	24.00	1.026	-0.06	0.416	0.427
	FR1 n25_Ant 2	20M	BPSK	1	53	Left Side	5 mm	DSI 3	372000	1860	Open	23.96	24.00	1.009	0.01	0.008	0.008
	FR1 n25_Ant 2	20M	BPSK	50	28	Left Side	5 mm	DSI 3	372000	1860	Open	23.89	24.00	1.026	0.07	0.008	0.008
	FR1 n25_Ant 2	20M	BPSK	1	53	Right Side	5 mm	DSI 3	372000	1860	Open	23.96	24.00	1.009	0.18	0.219	0.221
	FR1 n25_Ant 2	20M	BPSK	50	28	Right Side	5 mm	DSI 3	372000	1860	Open	23.89	24.00	1.026	0.16	0.234	0.240
	FR1 n25_Ant 2	20M	BPSK	1	53	Bottom Side	5 mm	DSI 3	372000	1860	Open	23.96	24.00	1.009	0.05	0.406	0.410
	FR1 n25_Ant 2	20M	BPSK	50	28	Bottom Side	5 mm	DSI 3	372000	1860	Open	23.89	24.00	1.026	0.08	0.404	0.414
	FR1 n25_Ant 2	20M	BPSK	1	53	Front	5mm	DSI 5	372000	1860	Close	23.96	24.00	1.009	-0.09	0.535	0.540
	FR1 n25_Ant 2	20M	BPSK	50	28	Front	5mm	DSI 5	372000	1860	Close	23.89	24.00	1.026	-0.13	0.558	0.572
	FR1 n25_Ant 2	20M	BPSK	1	53	Back	5mm	DSI 5	372000	1860	Close	23.96	24.00	1.009	0.09	0.666	0.672
	FR1 n25_Ant 2	20M	BPSK	50	28	Back	5mm	DSI 5	372000	1860	Close	23.89	24.00	1.026	0.08	0.684	0.702
	FR1 n25_Ant 2	20M	BPSK	1	53	Left Side	5mm	DSI 5	372000	1860	Close	23.96	24.00	1.009	0.08	0.166	0.168
	FR1 n25_Ant 2	20M	BPSK	50	28	Left Side	5mm	DSI 5	372000	1860	Close	23.89	24.00	1.026	0.09	0.138	0.142
	FR1 n25_Ant 2	20M	BPSK	1	53	Right Side	5mm	DSI 5	372000	1860	Close	23.96	24.00	1.009	0.08	0.377	0.380
	FR1 n25_Ant 2	20M	BPSK	50	28	Right Side	5mm	DSI 5	372000	1860	Close	23.89	24.00	1.026	-0.16	0.389	0.399
	FR1 n25_Ant 2	20M	BPSK	1	53	Bottom Side	5mm	DSI 5	372000	1860	Close	23.96	24.00	1.009	0.06	0.530	0.535
	FR1 n25_Ant 2	20M	BPSK	50	28	Bottom Side	5mm	DSI 5	372000	1860	Close	23.89	24.00	1.026	0.08	0.568	0.583
	FR1 n25_Ant 1	20M	BPSK	1	53	Front	5 mm	DSI 3	372000	1860	Open	21.48	22.00	1.127	0.09	0.251	0.283
	FR1 n25_Ant 1	20M	BPSK	50	28	Front	5 mm	DSI 3	372000	1860	Open	21.43	22.00	1.140	0.08	0.313	0.357
	FR1 n25_Ant 1	20M	BPSK	1	53	Back	5 mm	DSI 3	372000	1860	Open	21.48	22.00	1.127	0.07	0.344	0.388
	FR1 n25_Ant 1	20M	BPSK	50	28	Back	5 mm	DSI 3	372000	1860	Open	21.43	22.00	1.140	0.02	0.411	0.469
	FR1 n25_Ant 1	20M	BPSK	50	28	Back	5 mm	DSI 3	376000	1880	Open	21.41	22.00	1.146	0.06	0.383	0.439
	FR1 n25_Ant 1	20M	BPSK	50	28	Back	5 mm	DSI 3	381000	1905	Open	21.30	22.00	1.175	0.09	0.559	0.657
	FR1 n25_Ant 1	20M	BPSK	1	53	Left Side	5 mm	DSI 3	372000	1860	Open	21.48	22.00	1.127	0.07	0.162	0.183
	FR1 n25_Ant 1	20M	BPSK	50	28	Left Side	5 mm	DSI 3	372000	1860	Open	21.43	22.00	1.140	0.04	0.216	0.246
	FR1 n25_Ant 1	20M	BPSK	1	53	Right Side	5 mm	DSI 3	372000	1860	Open	21.48	22.00	1.127	-0.06	0.047	0.053
	FR1 n25_Ant 1	20M	BPSK	50	28	Right Side	5 mm	DSI 3	372000	1860	Open	21.43	22.00	1.140	0.01	0.062	0.071
	FR1 n25_Ant 1	20M	BPSK	1	53	Bottom Side	5 mm	DSI 3	372000	1860	Open	21.48	22.00	1.127	0.07	0.266	0.300
	FR1 n25_Ant 1	20M	BPSK	50	28	Bottom Side	5 mm	DSI 3	372000	1860	Open	21.43	22.00	1.140	0.18	0.322	0.367
	FR1 n25_Ant 1	20M	BPSK	1	53	Front	5mm	DSI 5	372000	1860	Close	21.48	22.00	1.127	0.05	0.198	0.223
	FR1 n25_Ant 1	20M	BPSK	50	28	Front	5mm	DSI 5	372000	1860	Close	21.43	22.00	1.140	0.06	0.266	0.303
	FR1 n25_Ant 1	20M	BPSK	1	53	Back	5mm	DSI 5	372000	1860	Close	21.48	22.00	1.127	0.07	0.368	0.415
	FR1 n25_Ant 1	20M	BPSK	50	28	Back	5mm	DSI 5	372000	1860	Close	21.43	22.00	1.140	0.03	0.399	0.455
	FR1 n25_Ant 1	20M	BPSK	50	28	Back	5mm	DSI 5	376000	1880	Close	21.41	22.00	1.146	0.09	0.387	0.443
	FR1 n25_Ant 1	20M	BPSK	50	28	Back	5mm	DSI 5	381000	1905	Close	21.30	22.00	1.175	-0.02	0.394	0.463
	FR1 n25_Ant 1	20M	BPSK	1	53	Left Side	5mm	DSI 5	372000	1860	Close	21.48	22.00	1.127	0.04	0.188	0.212
	FR1 n25_Ant 1	20M	BPSK	50	28	Left Side	5mm	DSI 5	372000	1860	Close	21.43	22.00	1.140	0.09	0.247	0.282
	FR1 n25_Ant 1	20M	BPSK	1	53	Right Side	5mm	DSI 5	372000	1860	Close	21.48	22.00	1.127	0.06	0.036	0.041
	FR1 n25_Ant 1	20M	BPSK	50	28	Right Side	5mm	DSI 5	372000	1860	Close	21.43	22.00	1.140	0.04	0.053	0.060
	FR1 n25_Ant 1	20M	BPSK	1	53	Bottom Side	5mm	DSI 5	372000	1860	Close	21.48	22.00	1.127	-0.11	0.262	0.295
	FR1 n25_Ant 1	20M	BPSK	50	28	Bottom Side	5mm	DSI 5	372000	1860	Close	21.43	22.00	1.140	0.13	0.292	0.333



FCC SAR Test Report

Report No. : FA052803-04

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Output Power State	Ch.	Freq. (MHz)	EUT Flip State	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 n66_Ant 2	20M	BPSK	1	53	Front	5 mm	DSI 3	344000	1720	Open	23.89	24.00	1.026	0.04	0.658	0.675
	FR1 n66_Ant 2	20M	BPSK	50	28	Front	5 mm	DSI 3	344000	1720	Open	23.50	24.00	1.122	0.09	0.665	0.746
	FR1 n66_Ant 2	20M	BPSK	1	53	Back	5 mm	DSI 3	344000	1720	Open	23.89	24.00	1.026	0.06	0.583	0.598
	FR1 n66_Ant 2	20M	BPSK	50	28	Back	5 mm	DSI 3	344000	1720	Open	23.50	24.00	1.122	0.04	0.558	0.626
	FR1 n66_Ant 2	20M	BPSK	1	53	Left Side	5 mm	DSI 3	344000	1720	Open	23.89	24.00	1.026	-0.11	0.084	0.086
	FR1 n66_Ant 2	20M	BPSK	50	28	Left Side	5 mm	DSI 3	344000	1720	Open	23.50	24.00	1.122	0.13	0.070	0.079
	FR1 n66_Ant 2	20M	BPSK	1	53	Right Side	5 mm	DSI 3	344000	1720	Open	23.89	24.00	1.026	0.16	0.355	0.364
	FR1 n66_Ant 2	20M	BPSK	50	28	Right Side	5 mm	DSI 3	344000	1720	Open	23.50	24.00	1.122	0.09	0.358	0.402
	FR1 n66_Ant 2	20M	BPSK	1	53	Bottom Side	5 mm	DSI 3	344000	1720	Open	23.89	24.00	1.026	0.04	0.422	0.433
	FR1 n66_Ant 2	20M	BPSK	50	28	Bottom Side	5 mm	DSI 3	344000	1720	Open	23.50	24.00	1.122	0.08	0.446	0.500
	FR1 n66_Ant 2	20M	BPSK	1	53	Front	5mm	DSI 5	344000	1720	Close	23.89	24.00	1.026	0.04	0.451	0.463
	FR1 n66_Ant 2	20M	BPSK	50	28	Front	5mm	DSI 5	344000	1720	Close	23.50	24.00	1.122	0.02	0.482	0.541
	FR1 n66_Ant 2	20M	BPSK	1	53	Back	5mm	DSI 5	344000	1720	Close	23.89	24.00	1.026	0.06	0.566	0.581
	FR1 n66_Ant 2	20M	BPSK	50	28	Back	5mm	DSI 5	344000	1720	Close	23.50	24.00	1.122	0.04	0.614	0.689
	FR1 n66_Ant 2	20M	BPSK	1	53	Left Side	5mm	DSI 5	344000	1720	Close	23.89	24.00	1.026	0.04	0.124	0.127
	FR1 n66_Ant 2	20M	BPSK	50	28	Left Side	5mm	DSI 5	344000	1720	Close	23.50	24.00	1.122	0.09	0.128	0.144
	FR1 n66_Ant 2	20M	BPSK	1	53	Right Side	5mm	DSI 5	344000	1720	Close	23.89	24.00	1.026	0.01	0.393	0.403
	FR1 n66_Ant 2	20M	BPSK	50	28	Right Side	5mm	DSI 5	344000	1720	Close	23.50	24.00	1.122	0.01	0.450	0.505
	FR1 n66_Ant 2	20M	BPSK	1	53	Bottom Side	5mm	DSI 5	344000	1720	Close	23.89	24.00	1.026	0.03	0.493	0.506
	FR1 n66_Ant 2	20M	BPSK	50	28	Bottom Side	5mm	DSI 5	344000	1720	Close	23.50	24.00	1.122	0.04	0.493	0.553
	FR1 n66_Ant 1	20M	BPSK	1	53	Front	5 mm	DSI 3	344000	1720	Open	22.90	24.00	1.288	0.01	0.387	0.499
	FR1 n66_Ant 1	20M	BPSK	50	28	Front	5 mm	DSI 3	344000	1720	Open	22.53	24.00	1.403	0.07	0.370	0.519
	FR1 n66_Ant 1	20M	BPSK	1	53	Back	5 mm	DSI 3	344000	1720	Open	22.90	24.00	1.288	0.18	0.546	0.703
	FR1 n66_Ant 1	20M	BPSK	50	28	Back	5 mm	DSI 3	344000	1720	Open	22.53	24.00	1.403	0.02	0.532	0.746
	FR1 n66_Ant 1	20M	BPSK	1	53	Left Side	5 mm	DSI 3	344000	1720	Open	22.90	24.00	1.288	0.05	0.301	0.388
	FR1 n66_Ant 1	20M	BPSK	50	28	Left Side	5 mm	DSI 3	344000	1720	Open	22.53	24.00	1.403	0.08	0.267	0.375
	FR1 n66_Ant 1	20M	BPSK	1	53	Right Side	5 mm	DSI 3	344000	1720	Open	22.90	24.00	1.288	-0.13	0.077	0.099
	FR1 n66_Ant 1	20M	BPSK	50	28	Right Side	5 mm	DSI 3	344000	1720	Open	22.53	24.00	1.403	0.06	0.078	0.109
	FR1 n66_Ant 1	20M	BPSK	1	53	Bottom Side	5 mm	DSI 3	344000	1720	Open	22.90	24.00	1.288	0.09	0.471	0.607
	FR1 n66_Ant 1	20M	BPSK	50	28	Bottom Side	5 mm	DSI 3	344000	1720	Open	22.53	24.00	1.403	0.01	0.424	0.595
	FR1 n66_Ant 1	20M	BPSK	1	53	Front	5mm	DSI 5	344000	1720	Close	22.90	24.00	1.288	0.07	0.297	0.383
	FR1 n66_Ant 1	20M	BPSK	50	28	Front	5mm	DSI 5	344000	1720	Close	22.53	24.00	1.403	0.09	0.273	0.383
	FR1 n66_Ant 1	20M	BPSK	1	53	Back	5mm	DSI 5	344000	1720	Close	22.90	24.00	1.288	0.08	0.579	0.746
	FR1 n66_Ant 1	20M	BPSK	50	28	Back	5mm	DSI 5	344000	1720	Close	22.53	24.00	1.403	0.04	0.576	0.808
	FR1 n66_Ant 1	20M	BPSK	50	28	Back	5mm	DSI 5	349000	1745	Close	22.48	24.00	1.419	0.06	0.603	0.856
50	FR1 n66_Ant 1	20M	BPSK	50	28	Back	5mm	DSI 5	354000	1770	Close	22.45	24.00	1.429	0.02	0.640	0.914
	FR1 n66_Ant 1	20M	BPSK	100	0	Back	5mm	DSI 5	349000	1745	Close	21.95	23.50	1.429	0.09	0.610	0.872
	FR1 n66_Ant 1	20M	BPSK	1	53	Left Side	5mm	DSI 5	344000	1720	Close	22.90	24.00	1.288	0.08	0.379	0.488
	FR1 n66_Ant 1	20M	BPSK	50	28	Left Side	5mm	DSI 5	344000	1720	Close	22.53	24.00	1.403	0.07	0.381	0.534
	FR1 n66_Ant 1	20M	BPSK	1	53	Right Side	5mm	DSI 5	344000	1720	Close	22.90	24.00	1.288	0.06	0.085	0.110
	FR1 n66_Ant 1	20M	BPSK	50	28	Right Side	5mm	DSI 5	344000	1720	Close	22.53	24.00	1.403	0.04	0.078	0.109
	FR1 n66_Ant 1	20M	BPSK	1	53	Bottom Side	5mm	DSI 5	344000	1720	Close	22.90	24.00	1.288	0.07	0.509	0.656
	FR1 n66_Ant 1	20M	BPSK	50	28	Bottom Side	5mm	DSI 5	344000	1720	Close	22.53	24.00	1.403	0.06	0.486	0.682



FCC SAR Test Report

Report No. : FA052803-04

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Output Power State	Ch.	Freq. (MHz)	EUT Flip State	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 n71_Ant 2	20M	BPSK	1	1	Front	5 mm	DSI 3	134600	673	Open	23.95	24.00	1.012	0.06	0.158	0.160
	FR1 n71_Ant 2	20M	BPSK	50	28	Front	5 mm	DSI 3	134600	673	Open	23.59	24.00	1.099	0.08	0.135	0.148
	FR1 n71_Ant 2	20M	BPSK	1	1	Back	5 mm	DSI 3	134600	673	Open	23.95	24.00	1.012	0.04	0.182	0.184
	FR1 n71_Ant 2	20M	BPSK	50	28	Back	5 mm	DSI 3	134600	673	Open	23.59	24.00	1.099	0.03	0.139	0.153
	FR1 n71_Ant 2	20M	BPSK	1	1	Left Side	5 mm	DSI 3	134600	673	Open	23.95	24.00	1.012	0.01	0.002	0.002
	FR1 n71_Ant 2	20M	BPSK	50	28	Left Side	5 mm	DSI 3	134600	673	Open	23.59	24.00	1.099	0.09	0.002	0.002
	FR1 n71_Ant 2	20M	BPSK	1	1	Right Side	5 mm	DSI 3	134600	673	Open	23.95	24.00	1.012	0.04	0.103	0.104
	FR1 n71_Ant 2	20M	BPSK	50	28	Right Side	5 mm	DSI 3	134600	673	Open	23.59	24.00	1.099	0.01	0.130	0.143
	FR1 n71_Ant 2	20M	BPSK	1	1	Bottom Side	5 mm	DSI 3	134600	673	Open	23.95	24.00	1.012	0.07	0.302	0.305
	FR1 n71_Ant 2	20M	BPSK	50	28	Bottom Side	5 mm	DSI 3	134600	673	Open	23.59	24.00	1.099	0.06	0.315	0.346
	FR1 n71_Ant 2	20M	BPSK	1	1	Front	5mm	DSI 5	134600	673	Close	23.95	24.00	1.012	0.08	0.208	0.210
	FR1 n71_Ant 2	20M	BPSK	50	28	Front	5mm	DSI 5	134600	673	Close	23.59	24.00	1.099	0.06	0.184	0.202
	FR1 n71_Ant 2	20M	BPSK	1	1	Back	5mm	DSI 5	134600	673	Close	23.95	24.00	1.012	0.04	0.311	0.315
	FR1 n71_Ant 2	20M	BPSK	50	28	Back	5mm	DSI 5	134600	673	Close	23.59	24.00	1.099	0.03	0.284	0.312
	FR1 n71_Ant 2	20M	BPSK	1	1	Left Side	5mm	DSI 5	134600	673	Close	23.95	24.00	1.012	0.01	0.003	0.003
	FR1 n71_Ant 2	20M	BPSK	50	28	Left Side	5mm	DSI 5	134600	673	Close	23.59	24.00	1.099	0.01	0.003	0.003
	FR1 n71_Ant 2	20M	BPSK	1	1	Right Side	5mm	DSI 5	134600	673	Close	23.95	24.00	1.012	0.02	0.239	0.242
	FR1 n71_Ant 2	20M	BPSK	50	28	Right Side	5mm	DSI 5	134600	673	Close	23.59	24.00	1.099	0.09	0.205	0.225
	FR1 n71_Ant 2	20M	BPSK	1	1	Bottom Side	5mm	DSI 5	134600	673	Close	23.95	24.00	1.012	0.01	0.377	0.381
51	FR1 n71_Ant 2	20M	BPSK	50	28	Bottom Side	5mm	DSI 5	134600	673	Close	23.59	24.00	1.099	0.07	0.406	0.446
	FR1 n71_Ant 1	20M	BPSK	1	1	Front	5 mm	DSI 3	134600	673	Open	24.74	25.00	1.062	0.02	0.001	0.001
	FR1 n71_Ant 1	20M	BPSK	50	0	Front	5 mm	DSI 3	134600	673	Open	24.45	25.00	1.135	0.04	0.001	0.001
	FR1 n71_Ant 1	20M	BPSK	1	1	Back	5 mm	DSI 3	134600	673	Open	24.74	25.00	1.062	-0.17	0.001	0.001
	FR1 n71_Ant 1	20M	BPSK	50	0	Back	5 mm	DSI 3	134600	673	Open	24.45	25.00	1.135	0.09	0.001	0.001
	FR1 n71_Ant 1	20M	BPSK	1	1	Left Side	5 mm	DSI 3	134600	673	Open	24.74	25.00	1.062	0.01	0.001	0.001
	FR1 n71_Ant 1	20M	BPSK	50	0	Left Side	5 mm	DSI 3	134600	673	Open	24.45	25.00	1.135	0.05	0.001	0.001
	FR1 n71_Ant 1	20M	BPSK	1	1	Right Side	5 mm	DSI 3	134600	673	Open	24.74	25.00	1.062	0.06	0.001	0.001
	FR1 n71_Ant 1	20M	BPSK	50	0	Right Side	5 mm	DSI 3	134600	673	Open	24.45	25.00	1.135	0.19	0.001	0.001
	FR1 n71_Ant 1	20M	BPSK	1	1	Bottom Side	5 mm	DSI 3	134600	673	Open	24.74	25.00	1.062	0.07	0.001	0.001
	FR1 n71_Ant 1	20M	BPSK	50	0	Bottom Side	5 mm	DSI 3	134600	673	Open	24.45	25.00	1.135	0.01	0.002	0.002
	FR1 n71_Ant 1	20M	BPSK	1	1	Front	5mm	DSI 5	134600	673	Close	24.74	25.00	1.062	0.04	0.011	0.012
	FR1 n71_Ant 1	20M	BPSK	50	0	Front	5mm	DSI 5	134600	673	Close	24.45	25.00	1.135	0.01	0.013	0.015
	FR1 n71_Ant 1	20M	BPSK	1	1	Back	5mm	DSI 5	134600	673	Close	24.74	25.00	1.062	0.03	0.029	0.031
	FR1 n71_Ant 1	20M	BPSK	50	0	Back	5mm	DSI 5	134600	673	Close	24.45	25.00	1.135	0.05	0.030	0.034
	FR1 n71_Ant 1	20M	BPSK	1	1	Left Side	5mm	DSI 5	134600	673	Close	24.74	25.00	1.062	0.01	0.013	0.014
	FR1 n71_Ant 1	20M	BPSK	50	0	Left Side	5mm	DSI 5	134600	673	Close	24.45	25.00	1.135	-0.09	0.013	0.015
	FR1 n71_Ant 1	20M	BPSK	1	1	Right Side	5mm	DSI 5	134600	673	Close	24.74	25.00	1.062	0.04	0.001	0.001
	FR1 n71_Ant 1	20M	BPSK	50	0	Right Side	5mm	DSI 5	134600	673	Close	24.45	25.00	1.135	0.04	0.001	0.001
	FR1 n71_Ant 1	20M	BPSK	1	1	Bottom Side	5mm	DSI 5	134600	673	Close	24.74	25.00	1.062	0.01	0.031	0.033
	FR1 n71_Ant 1	20M	BPSK	50	0	Bottom Side	5mm	DSI 5	134600	673	Close	24.45	25.00	1.135	0.03	0.031	0.035



FCC SAR Test Report

Report No. : FA052803-04

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Output Power State	Ch.	Freq. (MHz)	EUT Flip State	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_Ant 2	20M	BPSK	1	1	Front	5 mm	DSI 3	167300	836.5	Open	23.92	24.00	1.019	0.1	0.242	0.246
	FR1 n5_Ant 2	20M	BPSK	50	0	Front	5 mm	DSI 3	167300	836.5	Open	23.77	24.00	1.054	0.03	0.204	0.215
	FR1 n5_Ant 2	20M	BPSK	1	1	Back	5 mm	DSI 3	167300	836.5	Open	23.92	24.00	1.019	-0.05	0.308	0.314
	FR1 n5_Ant 2	20M	BPSK	50	0	Back	5 mm	DSI 3	167300	836.5	Open	23.77	24.00	1.054	0.02	0.241	0.254
	FR1 n5_Ant 2	20M	BPSK	1	1	Left Side	5 mm	DSI 3	167300	836.5	Open	23.92	24.00	1.019	0.03	0.065	0.067
	FR1 n5_Ant 2	20M	BPSK	50	0	Left Side	5 mm	DSI 3	167300	836.5	Open	23.77	24.00	1.054	0.05	0.065	0.069
	FR1 n5_Ant 2	20M	BPSK	1	1	Right Side	5 mm	DSI 3	167300	836.5	Open	23.92	24.00	1.019	0.09	0.102	0.104
	FR1 n5_Ant 2	20M	BPSK	50	0	Right Side	5 mm	DSI 3	167300	836.5	Open	23.77	24.00	1.054	0.01	0.100	0.105
52	FR1 n5_Ant 2	20M	BPSK	1	1	Bottom Side	5 mm	DSI 3	167300	836.5	Open	23.92	24.00	1.019	-0.05	0.359	0.366
	FR1 n5_Ant 2	20M	BPSK	50	0	Bottom Side	5 mm	DSI 3	167300	836.5	Open	23.77	24.00	1.054	-0.07	0.226	0.238
	FR1 n5_Ant 2	20M	BPSK	1	1	Front	5mm	DSI 5	167300	836.5	Close	23.92	24.00	1.019	0.06	0.215	0.219
	FR1 n5_Ant 2	20M	BPSK	50	0	Front	5mm	DSI 5	167300	836.5	Close	23.77	24.00	1.054	-0.06	0.192	0.202
	FR1 n5_Ant 2	20M	BPSK	1	1	Back	5mm	DSI 5	167300	836.5	Close	23.92	24.00	1.019	-0.01	0.336	0.342
	FR1 n5_Ant 2	20M	BPSK	50	0	Back	5mm	DSI 5	167300	836.5	Close	23.77	24.00	1.054	-0.08	0.314	0.331
	FR1 n5_Ant 2	20M	BPSK	1	1	Left Side	5mm	DSI 5	167300	836.5	Close	23.92	24.00	1.019	0.01	0.197	0.201
	FR1 n5_Ant 2	20M	BPSK	50	0	Left Side	5mm	DSI 5	167300	836.5	Close	23.77	24.00	1.054	-0.09	0.194	0.205
	FR1 n5_Ant 2	20M	BPSK	1	1	Right Side	5mm	DSI 5	167300	836.5	Close	23.92	24.00	1.019	0.13	0.029	0.030
	FR1 n5_Ant 2	20M	BPSK	50	0	Right Side	5mm	DSI 5	167300	836.5	Close	23.77	24.00	1.054	0.01	0.029	0.031
	FR1 n5_Ant 2	20M	BPSK	1	1	Bottom Side	5mm	DSI 5	167300	836.5	Close	23.92	24.00	1.019	-0.01	0.308	0.314
	FR1 n5_Ant 2	20M	BPSK	50	0	Bottom Side	5mm	DSI 5	167300	836.5	Close	23.77	24.00	1.054	-0.04	0.243	0.256
	FR1 n5_Ant 1	20M	BPSK	1	1	Front	5 mm	DSI 3	167300	836.5	Open	23.21	24.00	1.199	0.06	0.008	0.010
	FR1 n5_Ant 1	20M	BPSK	50	0	Front	5 mm	DSI 3	167300	836.5	Open	23.09	24.00	1.233	-0.02	0.008	0.010
	FR1 n5_Ant 1	20M	BPSK	1	1	Back	5 mm	DSI 3	167300	836.5	Open	23.21	24.00	1.199	0.04	0.015	0.017
	FR1 n5_Ant 1	20M	BPSK	50	0	Back	5 mm	DSI 3	167300	836.5	Open	23.09	24.00	1.233	-0.02	0.015	0.019
	FR1 n5_Ant 1	20M	BPSK	1	1	Left Side	5 mm	DSI 3	167300	836.5	Open	23.21	24.00	1.199	0.03	0.004	0.005
	FR1 n5_Ant 1	20M	BPSK	50	0	Left Side	5 mm	DSI 3	167300	836.5	Open	23.09	24.00	1.233	0.08	0.004	0.005
	FR1 n5_Ant 1	20M	BPSK	1	1	Right Side	5 mm	DSI 3	167300	836.5	Open	23.21	24.00	1.199	0.12	0.004	0.004
	FR1 n5_Ant 1	20M	BPSK	50	0	Right Side	5 mm	DSI 3	167300	836.5	Open	23.09	24.00	1.233	0.01	0.003	0.004
	FR1 n5_Ant 1	20M	BPSK	1	1	Bottom Side	5 mm	DSI 3	167300	836.5	Open	23.21	24.00	1.199	0.03	0.016	0.020
	FR1 n5_Ant 1	20M	BPSK	50	0	Bottom Side	5 mm	DSI 3	167300	836.5	Open	23.09	24.00	1.233	0.01	0.017	0.021
	FR1 n5_Ant 1	20M	BPSK	1	1	Front	5mm	DSI 5	167300	836.5	Close	23.21	24.00	1.199	-0.03	0.007	0.008
	FR1 n5_Ant 1	20M	BPSK	50	0	Front	5mm	DSI 5	167300	836.5	Close	23.09	24.00	1.233	0.07	0.007	0.009
	FR1 n5_Ant 1	20M	BPSK	1	1	Back	5mm	DSI 5	167300	836.5	Close	23.21	24.00	1.199	0.11	0.020	0.023
	FR1 n5_Ant 1	20M	BPSK	50	0	Back	5mm	DSI 5	167300	836.5	Close	23.09	24.00	1.233	0.11	0.021	0.025
	FR1 n5_Ant 1	20M	BPSK	1	1	Left Side	5mm	DSI 5	167300	836.5	Close	23.21	24.00	1.199	0.04	0.002	0.002
	FR1 n5_Ant 1	20M	BPSK	50	0	Left Side	5mm	DSI 5	167300	836.5	Close	23.09	24.00	1.233	0.05	0.002	0.002
	FR1 n5_Ant 1	20M	BPSK	1	1	Right Side	5mm	DSI 5	167300	836.5	Close	23.21	24.00	1.199	0.03	0.008	0.010
	FR1 n5_Ant 1	20M	BPSK	50	0	Right Side	5mm	DSI 5	167300	836.5	Close	23.09	24.00	1.233	0.03	0.009	0.011
	FR1 n5_Ant 1	20M	BPSK	1	1	Bottom Side	5mm	DSI 5	167300	836.5	Close	23.21	24.00	1.199	0.01	0.016	0.019
	FR1 n5_Ant 1	20M	BPSK	50	0	Bottom Side	5mm	DSI 5	167300	836.5	Close	23.09	24.00	1.233	-0.11	0.017	0.021
	FR1 n41 PC2/3_Ant 2	100M	BPSK	1	1	Front	5 mm	DSI 3	518598	2592.99	Open	18.37	18.70	1.079	0.03	0.356	0.384
	FR1 n41 PC2/3_Ant 2	100M	BPSK	135	0	Front	5 mm	DSI 3	518598	2592.99	Open	18.32	18.70	1.091	0.06	0.386	0.421
	FR1 n41 PC2/3_Ant 2	100M	BPSK	1	1	Back	5 mm	DSI 3	518598	2592.99	Open	18.37	18.70	1.079	0.02	0.196	0.211
	FR1 n41 PC2/3_Ant 2	100M	BPSK	135	0	Back	5 mm	DSI 3	518598	2592.99	Open	18.32	18.70	1.091	0.06	0.189	0.206
	FR1 n41 PC2/3_Ant 2	100M	BPSK	1	1	Right Side	5 mm	DSI 3	518598	2592.99	Open	18.37	18.70	1.079	-0.01	0.191	0.206
	FR1 n41 PC2/3_Ant 2	100M	BPSK	135	0	Right Side	5 mm	DSI 3	518598	2592.99	Open	18.32	18.70	1.091	0.09	0.314	0.343
	FR1 n41 PC2/3_Ant 2	100M	BPSK	1	1	Bottom Side	5 mm	DSI 3	518598	2592.99	Open	18.37	18.70	1.079	-0.01	0.640	0.691
	FR1 n41 PC2/3_Ant 2	100M	BPSK	135	0	Bottom Side	5 mm	DSI 3	518598	2592.99	Open	18.32	18.70	1.091	0.07	0.621	0.678
	FR1 n41 PC2/3_Ant 2	100M	BPSK	1	1	Front	5mm	DSI 5	518598	2592.99	Close	18.37	18.70	1.079	0.03	0.178	0.192
	FR1 n41 PC2/3_Ant 2	100M	BPSK	135	0	Front	5mm	DSI 5	518598	2592.99	Close	18.32	18.70	1.091	0.11	0.174	0.190
	FR1 n41 PC2/3_Ant 2	100M	BPSK	1	1	Back	5mm	DSI 5	518598	2592.99	Close	18.37	18.70	1.079	0.04	0.200	0.216
	FR1 n41 PC2/3_Ant 2	100M	BPSK	135	0	Back	5mm	DSI 5	518598	2592.99	Close	18.32	18.70	1.091	-0.04	0.201	0.219
	FR1 n41 PC2/3_Ant 2	100M	BPSK	1	1	RightSide	5mm	DSI 5	518598	2592.99	Close	18.37	18.70	1.079	0.06	0.185	0.200
	FR1 n41 PC2/3_Ant 2	100M	BPSK	135	0	RightSide	5mm	DSI 5	518598	2592.99	Close	18.32	18.70	1.091	0.01	0.200	0.218
53	FR1 n41 PC2/3_Ant 2	100M	BPSK	1	1	Bottom Side	5mm	DSI 5	518598	2592.99	Close	18.37	18.70	1.079	0.10	0.656	0.708
	FR1 n41 PC2/3_Ant 2	100M	BPSK	135	0	Bottom Side	5mm	DSI 5	518598	2592.99	Close	18.32	18.70	1.091	0.03	0.622	0.679
	FR1 n41 PC2/3_Ant 2	100M	BPSK	270	0	Bottom Side	5mm	DSI 5	518598	2592.99	Close	18.35	18.70	1.084	-0.05	0.599	0.649

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<WLAN2.4G SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power Table	Ch.	Freq. (MHz)	EUT Flip State	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	5mm	Ant 4	Power Table 2	1	2412	Open	14.38	15.00	1.153	100	1.000	0	0.000	0.000
	WLAN2.4GHz	802.11b 1Mbps	Back	5mm	Ant 4	Power Table 2	1	2412	Open	14.38	15.00	1.153	100	1.000	0.03	0.223	0.257
	WLAN2.4GHz	802.11b 1Mbps	Right Side	5mm	Ant 4	Power Table 2	1	2412	Open	14.38	15.00	1.153	100	1.000	0.01	0.135	0.156
	WLAN2.4GHz	802.11b 1Mbps	Bottom Side	5mm	Ant 4	Power Table 2	1	2412	Open	14.38	15.00	1.153	100	1.000	0	0.000	0.000
	WLAN2.4GHz	802.11b 1Mbps	Front	5mm	Ant 4	Power Table 2	1	2412	Close	14.38	15.00	1.153	100	1.000	0.1	0.001	0.001
	WLAN2.4GHz	802.11b 1Mbps	Back	5mm	Ant 4	Power Table 2	1	2412	Close	14.38	15.00	1.153	100	1.000	0.13	0.343	0.396
	WLAN2.4GHz	802.11b 1Mbps	Right Side	5mm	Ant 4	Power Table 2	1	2412	Close	14.38	15.00	1.153	100	1.000	0.09	0.133	0.153
	WLAN2.4GHz	802.11b 1Mbps	Bottom Side	5mm	Ant 4	Power Table 2	1	2412	Close	14.38	15.00	1.153	100	1.000	0.02	0.001	0.001
	WLAN2.4GHz	802.11b 1Mbps	Front	5mm	Ant 3	Power Table 2	1	2412	Open	14.75	15.00	1.059	100	1.000	0.01	0.000	0.000
	WLAN2.4GHz	802.11b 1Mbps	Back	5mm	Ant 3	Power Table 2	1	2412	Open	14.75	15.00	1.059	100	1.000	0.07	0.217	0.230
	WLAN2.4GHz	802.11b 1Mbps	Left Side	5mm	Ant 3	Power Table 2	1	2412	Open	14.75	15.00	1.059	100	1.000	-0.03	0.000	0.000
	WLAN2.4GHz	802.11b 1Mbps	Bottom Side	5mm	Ant 3	Power Table 2	1	2412	Open	14.75	15.00	1.059	100	1.000	0.02	0.000	0.000
	WLAN2.4GHz	802.11b 1Mbps	Front	5mm	Ant 3	Power Table 2	1	2412	Close	14.75	15.00	1.059	100	1.000	0.03	0.001	0.001
	WLAN2.4GHz	802.11b 1Mbps	Back	5mm	Ant 3	Power Table 2	1	2412	Close	14.75	15.00	1.059	100	1.000	-0.01	0.406	0.430
	WLAN2.4GHz	802.11b 1Mbps	Left Side	5mm	Ant 3	Power Table 2	1	2412	Close	14.75	15.00	1.059	100	1.000	0.01	0.013	0.014
	WLAN2.4GHz	802.11b 1Mbps	Bottom Side	5mm	Ant 3	Power Table 2	1	2412	Close	14.75	15.00	1.059	100	1.000	0.08	0.041	0.043
	WLAN2.4GHz	802.11b 1Mbps	Front	5mm	Ant 3+4	Power Table 2	11	2462	Open	17.23	18.00	1.194	100	1.000	0.02	0.000	0.000
54	WLAN2.4GHz	802.11b 1Mbps	Back	5mm	Ant 3+4	Power Table 2	11	2462	Open	17.23	18.00	1.194	100	1.000	-0.07	0.365	0.436
	WLAN2.4GHz	802.11b 1Mbps	Left Side	5mm	Ant 3+4	Power Table 2	11	2462	Open	17.23	18.00	1.194	100	1.000	0.05	0.015	0.018
	WLAN2.4GHz	802.11b 1Mbps	Right Side	5mm	Ant 3+4	Power Table 2	11	2462	Open	17.23	18.00	1.194	100	1.000	0.02	0.161	0.192
	WLAN2.4GHz	802.11b 1Mbps	Bottom Side	5mm	Ant 3+4	Power Table 2	11	2462	Open	17.23	18.00	1.194	100	1.000	0.07	0.000	0.000
	WLAN2.4GHz	802.11b 1Mbps	Front	5mm	Ant 3+4	Power Table 2	11	2462	Close	17.23	18.00	1.194	100	1.000	0.01	0.001	0.001
	WLAN2.4GHz	802.11b 1Mbps	Back	5mm	Ant 3+4	Power Table 2	11	2462	Close	17.23	18.00	1.194	100	1.000	0.02	0.317	0.378
	WLAN2.4GHz	802.11b 1Mbps	Left Side	5mm	Ant 3+4	Power Table 2	11	2462	Close	17.23	18.00	1.194	100	1.000	0.03	0.001	0.001
	WLAN2.4GHz	802.11b 1Mbps	Right Side	5mm	Ant 3+4	Power Table 2	11	2462	Close	17.23	18.00	1.194	100	1.000	0.01	0.192	0.229
	WLAN2.4GHz	802.11b 1Mbps	Bottom Side	5mm	Ant 3+4	Power Table 2	11	2462	Close	17.23	18.00	1.194	100	1.000	0.09	0.015	0.018

<Bluetooth SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power Table	Ch.	Freq. (MHz)	EUT Flip State	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	DH5 1Mbps	Front	5 mm	Ant 4	Power Table 2	0	2402	Open	7.99	9.00	1.262	77.13	1.080	0.03	0.012	0.016
	Bluetooth	DH5 1Mbps	Back	5 mm	Ant 4	Power Table 2	0	2402	Open	7.99	9.00	1.262	77.13	1.080	0.05	0.109	0.149
	Bluetooth	DH5 1Mbps	Right Side	5 mm	Ant 4	Power Table 2	0	2402	Open	7.99	9.00	1.262	77.13	1.080	0.09	0.039	0.053
	Bluetooth	DH5 1Mbps	Bottom Side	5 mm	Ant 4	Power Table 2	0	2402	Open	7.99	9.00	1.262	77.13	1.080	0.01	0.001	0.001
	Bluetooth	DH5 1Mbps	Front	5mm	Ant 4	Power Table 2	0	2402	Close	7.99	9.00	1.262	77.13	1.080	-0.05	0.021	0.029
	Bluetooth	DH5 1Mbps	Back	5mm	Ant 4	Power Table 2	0	2402	Close	7.99	9.00	1.262	77.13	1.080	-0.07	0.106	0.144
	Bluetooth	DH5 1Mbps	Right Side	5mm	Ant 4	Power Table 2	0	2402	Close	7.99	9.00	1.262	77.13	1.080	0.01	0.048	0.065
	Bluetooth	DH5 1Mbps	Bottom Side	5mm	Ant 4	Power Table 2	0	2402	Close	7.99	9.00	1.262	77.13	1.080	0.06	0.001	0.001
	Bluetooth	DH5 1Mbps	Front	5 mm	Ant 4	Power Table 1	78	2480	Open	15.28	15.50	1.052	77.13	1.080	0.03	0.031	0.035
	Bluetooth	DH5 1Mbps	Back	5 mm	Ant 4	Power Table 1	78	2480	Open	15.28	15.50	1.052	77.13	1.080	0.01	0.742	0.843
	Bluetooth	DH5 1Mbps	Back	5 mm	Ant 4	Power Table 1	0	2402	Open	14.69	15.50	1.205	77.13	1.080	-0.02	0.462	0.601
	Bluetooth	DH5 1Mbps	Back	5 mm	Ant 4	Power Table 1	39	2441	Open	15.23	15.50	1.064	77.13	1.080	0.04	0.730	0.839
	Bluetooth	DH5 1Mbps	Right Side	5 mm	Ant 4	Power Table 1	78	2480	Open	15.28	15.50	1.052	77.13	1.080	0.01	0.441	0.501
	Bluetooth	DH5 1Mbps	Bottom Side	5 mm	Ant 4	Power Table 1	78	2480	Open	15.28	15.50	1.052	77.13	1.080	0.07	0.011	0.012
	Bluetooth	DH5 1Mbps	Front	5mm	Ant 4	Power Table 1	78	2480	Close	15.28	15.50	1.052	77.13	1.080	0.01	0.031	0.035
55	Bluetooth	DH5 1Mbps	Back	5mm	Ant 4	Power Table 1	78	2480	Close	15.28	15.50	1.052	77.13	1.080	0.09	0.780	0.886
	Bluetooth	DH5 1Mbps	Back	5mm	Ant 4	Power Table 1	0	2402	Close	14.69	15.50	1.205	77.13	1.080	0.01	0.441	0.574
	Bluetooth	DH5 1Mbps	Back	5mm	Ant 4	Power Table 1	39	2441	Close	15.23	15.50	1.064	77.13	1.080	0.01	0.698	0.802
	Bluetooth	DH5 1Mbps	Right Side	5mm	Ant 4	Power Table 1	78	2480	Close	15.28	15.50	1.052	77.13	1.080	0.09	0.321	0.365
	Bluetooth	DH5 1Mbps	Bottom Side	5mm	Ant 4	Power Table 1	78	2480	Close	15.28	15.50	1.052	77.13	1.080	0.01	0.021	0.024



<WLAN5G SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power Table	Ch.	Freq. (MHz)	EUT Flip State	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	802.11ac-VHT80 MCS0	Front	5mm	Ant 4	Power Table 2	42	5210	Open	15.13	15.50	1.089	91.84	1.089	0.01	0.072	0.085
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Back	5mm	Ant 4	Power Table 2	42	5210	Open	15.13	15.50	1.089	91.84	1.089	0.07	0.245	0.291
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Right Side	5mm	Ant 4	Power Table 2	42	5210	Open	15.13	15.50	1.089	91.84	1.089	0.08	0.159	0.189
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Bottom Side	5mm	Ant 4	Power Table 2	42	5210	Open	15.13	15.50	1.089	91.84	1.089	0.06	0.048	0.057
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Front	5mm	Ant 4	Power Table 2	42	5210	Close	15.13	15.50	1.089	91.84	1.089	-0.04	0.072	0.085
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Back	5mm	Ant 4	Power Table 2	42	5210	Close	15.13	15.50	1.089	91.84	1.089	0.14	0.241	0.286
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Right Side	5mm	Ant 4	Power Table 2	42	5210	Close	15.13	15.50	1.089	91.84	1.089	0.03	0.184	0.218
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Bottom Side	5mm	Ant 4	Power Table 2	42	5210	Close	15.13	15.50	1.089	91.84	1.089	0.07	0.069	0.082
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Front	5mm	Ant 3	Power Table 2	42	5210	Open	14.89	15.50	1.151	92	1.087	0.05	0.040	0.050
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Back	5mm	Ant 3	Power Table 2	42	5210	Open	14.89	15.50	1.151	92	1.087	0.03	0.299	0.374
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Left Side	5mm	Ant 3	Power Table 2	42	5210	Open	14.89	15.50	1.151	92	1.087	0.01	0.081	0.101
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Bottom Side	5mm	Ant 3	Power Table 2	42	5210	Open	14.89	15.50	1.151	92	1.087	-0.02	0.064	0.080
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Front	5mm	Ant 3	Power Table 2	42	5210	Close	14.89	15.50	1.151	92	1.087	0.02	0.054	0.068
56	WLAN5.2GHz	802.11ac-VHT80 MCS0	Back	5mm	Ant 3	Power Table 2	42	5210	Close	14.89	15.50	1.151	92	1.087	-0.06	0.403	0.504
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Left Side	5mm	Ant 3	Power Table 2	42	5210	Close	14.89	15.50	1.151	92	1.087	0.02	0.068	0.085
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Bottom Side	5mm	Ant 3	Power Table 2	42	5210	Close	14.89	15.50	1.151	92	1.087	0.09	0.066	0.083
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Front	5mm	Ant 3+4	Power Table 2	42	5210	Open	17.87	18.50	1.156	91.84	1.089	0.09	0.048	0.060
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Back	5mm	Ant 3+4	Power Table 2	42	5210	Open	17.87	18.50	1.156	91.84	1.089	0.03	0.323	0.407
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Left Side	5mm	Ant 3+4	Power Table 2	42	5210	Open	17.87	18.50	1.156	91.84	1.089	-0.02	0.070	0.088
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Right Side	5mm	Ant 3+4	Power Table 2	42	5210	Open	17.87	18.50	1.156	91.84	1.089	0.03	0.218	0.274
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Bottom Side	5mm	Ant 3+4	Power Table 2	42	5210	Open	17.87	18.50	1.156	91.84	1.089	0.01	0.085	0.107
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Front	5mm	Ant 3+4	Power Table 2	42	5210	Close	17.87	18.50	1.156	91.84	1.089	0.06	0.077	0.097
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Back	5mm	Ant 3+4	Power Table 2	42	5210	Close	17.87	18.50	1.156	91.84	1.089	0.02	0.353	0.444
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Left Side	5mm	Ant 3+4	Power Table 2	42	5210	Close	17.87	18.50	1.156	91.84	1.089	-0.02	0.065	0.082
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Right Side	5mm	Ant 3+4	Power Table 2	42	5210	Close	17.87	18.50	1.156	91.84	1.089	0.08	0.235	0.296
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Bottom Side	5mm	Ant 3+4	Power Table 2	42	5210	Close	17.87	18.50	1.156	91.84	1.089	0.03	0.051	0.064
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Front	5mm	Ant 4	Power Table 2	155	5775	Open	14.68	15.00	1.076	91.84	1.089	0.07	0.055	0.064
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Back	5mm	Ant 4	Power Table 2	155	5775	Open	14.68	15.00	1.076	91.84	1.089	-0.02	0.473	0.554
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Side	5mm	Ant 4	Power Table 2	155	5775	Open	14.68	15.00	1.076	91.84	1.089	0.04	0.163	0.191
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Bottom Side	5mm	Ant 4	Power Table 2	155	5775	Open	14.68	15.00	1.076	91.84	1.089	0.08	0.042	0.049
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Front	5mm	Ant 4	Power Table 2	155	5775	Close	14.68	15.00	1.076	91.84	1.089	0.17	0.069	0.081
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Back	5mm	Ant 4	Power Table 2	155	5775	Close	14.68	15.00	1.076	91.84	1.089	0.05	0.382	0.448
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Side	5mm	Ant 4	Power Table 2	155	5775	Close	14.68	15.00	1.076	91.84	1.089	0.09	0.222	0.260
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Bottom Side	5mm	Ant 4	Power Table 2	155	5775	Close	14.68	15.00	1.076	91.84	1.089	0.01	0.058	0.068
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Front	5 mm	Ant 3	Power Table 2	155	5775	Open	14.98	15.00	1.005	92	1.087	0.01	0.063	0.069
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Back	5 mm	Ant 3	Power Table 2	155	5775	Open	14.98	15.00	1.005	92	1.087	0.06	0.397	0.434
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Side	5 mm	Ant 3	Power Table 2	155	5775	Open	14.98	15.00	1.005	92	1.087	0.01	0.120	0.131
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Bottom Side	5 mm	Ant 3	Power Table 2	155	5775	Open	14.98	15.00	1.005	92	1.087	0.09	0.089	0.097
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Front	5mm	Ant 3	Power Table 2	155	5775	Close	14.98	15.00	1.005	92	1.087	0.14	0.081	0.088
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Back	5mm	Ant 3	Power Table 2	155	5775	Close	14.98	15.00	1.005	92	1.087	0.11	0.646	0.705
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Side	5mm	Ant 3	Power Table 2	155	5775	Close	14.98	15.00	1.005	92	1.087	-0.03	0.133	0.145
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Bottom Side	5mm	Ant 3	Power Table 2	155	5775	Close	14.98	15.00	1.005	92	1.087	0.03	0.095	0.104
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Front	5mm	Ant 3+4	Power Table 2	155	5775	Open	17.38	18.00	1.153	91.84	1.089	0.01	0.084	0.106
57	WLAN5.8GHz	802.11ac-VHT80 MCS0	Back	5mm	Ant 3+4	Power Table 2	155	5775	Open	17.38	18.00	1.153	91.84	1.089	-0.05	0.575	0.722
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Side	5mm	Ant 3+4	Power Table 2	155	5775	Open	17.38	18.00	1.153	91.84	1.089	0.05	0.093	0.117
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Side	5mm	Ant 3+4	Power Table 2	155	5775	Open	17.38	18.00	1.153	91.84	1.089	0.03	0.279	0.350
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Bottom Side	5mm	Ant 3+4	Power Table 2	155	5775	Open	17.38	18.00	1.153	91.84	1.089	0.01	0.094	0.118
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Front	5mm	Ant 3+4	Power Table 2	155	5775	Close	17.38	18.00	1.153	91.84	1.089	0.04	0.064	0.080
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Back	5mm	Ant 3+4	Power Table 2	155	5775	Close	17.38	18.00	1.153	91.84	1.089	0.07	0.500	0.628
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Side	5mm	Ant 3+4	Power Table 2	155	5775	Close	17.38	18.00	1.153	91.84	1.089	0.09	0.073	0.092
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Side	5mm	Ant 3+4	Power Table 2	155	5775	Close	17.38	18.00	1.153	91.84	1.089	0.08	0.227	0.285
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Bottom Side	5mm	Ant 3+4	Power Table 2	155	5775	Close	17.38	18.00	1.153	91.84	1.089	-0.07	0.106	0.133

16.3 Body Worn Accessory SAR

<GSM SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Output Power State	Ch.	Freq. (MHz)	EUT Flip State	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_Ant 1	GPRS (2 Tx slots)	Front	5mm	DSI 5	128	824.2	Close	28.44	29.50	1.276	0.06	0.295	0.377
58	GSM850_Ant 1	GPRS (2 Tx slots)	Back	5mm	DSI 5	128	824.2	Close	28.44	29.50	1.276	0.09	0.606	0.774
	GSM850_Ant 1	GPRS (2 Tx slots)	Front	19mm	DSI 4	128	824.2	Close	30.99	32.50	1.416	0.04	0.177	0.251
	GSM850_Ant 1	GPRS (2 Tx slots)	Back	15mm	DSI 4	128	824.2	Close	30.99	32.50	1.416	0.05	0.445	0.630
59	GSM1900_Ant 1	GPRS (3 Tx slots)	Front	5mm	DSI 5	661	1880	Close	24.27	25.00	1.183	0.06	0.541	0.640
	GSM1900_Ant 1	GPRS (3 Tx slots)	Back	5mm	DSI 5	661	1880	Close	24.27	25.00	1.183	0.07	0.505	0.597
	GSM1900_Ant 1	GPRS (3 Tx slots)	Front	19mm	DSI 4	661	1880	Close	26.67	28.00	1.358	0.11	0.105	0.143
	GSM1900_Ant 1	GPRS (3 Tx slots)	Back	15mm	DSI 4	661	1880	Close	26.67	28.00	1.358	0.16	0.199	0.270

<WCDMA SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Output Power State	Ch.	Freq. (MHz)	EUT Flip State	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 II_Ant 1	RMC 12.2Kbps	Front	5mm	DSI 5	9262	1852.4	Close	21.1	22.00	1.230	0.16	0.342	0.421
	WCDMA II_Ant 1	RMC 12.2Kbps	Back	5mm	DSI 5	9262	1852.4	Close	21.1	22.00	1.230	0.05	0.657	0.808
	WCDMA II_Ant 1	RMC 12.2Kbps	Back	5mm	DSI 5	9400	1880	Close	20.79	22.00	1.321	0.06	0.633	0.836
60	WCDMA II_Ant 1	RMC 12.2Kbps	Back	5mm	DSI 5	9538	1907.6	Close	21.06	22.00	1.242	-0.01	0.698	0.867
	WCDMA II_Ant 1	RMC 12.2Kbps	Front	19mm	DSI 4	9262	1852.4	Close	23.23	24.00	1.194	0.06	0.192	0.229
	WCDMA II_Ant 1	RMC 12.2Kbps	Back	15mm	DSI 4	9262	1852.4	Close	23.23	24.00	1.194	-0.07	0.320	0.382
	WCDMA IV_Ant 1	RMC 12.2Kbps	Front	5mm	DSI 5	1413	1732.6	Close	20.66	21.60	1.242	0.09	0.290	0.360
	WCDMA IV_Ant 1	RMC 12.2Kbps	Back	5mm	DSI 5	1413	1732.6	Close	20.66	21.60	1.242	-0.05	0.645	0.801
	WCDMA IV_Ant 1	RMC 12.2Kbps	Back	5mm	DSI 5	1312	1712.4	Close	20.65	21.60	1.245	0.09	0.561	0.698
61	WCDMA IV_Ant 1	RMC 12.2Kbps	Back	5mm	DSI 5	1513	1752.6	Close	20.48	21.60	1.294	0.02	0.633	0.819
	WCDMA IV_Ant 1	RMC 12.2Kbps	Front	19mm	DSI 4	1413	1732.6	Close	23.14	24.00	1.219	0.14	0.203	0.247
	WCDMA IV_Ant 1	RMC 12.2Kbps	Back	15mm	DSI 4	1413	1732.6	Close	23.14	24.00	1.219	0.01	0.245	0.299
	WCDMA V_Ant 1	RMC 12.2Kbps	Front	5mm	DSI 5	4233	846.6	Close	22.56	22.90	1.081	-0.07	0.352	0.381
	WCDMA V_Ant 1	RMC 12.2Kbps	Back	5mm	DSI 5	4233	846.6	Close	22.56	22.90	1.081	-0.07	0.679	0.734
	WCDMA V_Ant 1	RMC 12.2Kbps	Back	5mm	DSI 5	4182	836.4	Close	22.33	22.90	1.140	-0.07	0.642	0.732
62	WCDMA V_Ant 1	RMC 12.2Kbps	Back	5mm	DSI 5	4132	826.4	Close	22.53	22.90	1.089	0.09	0.692	0.754
	WCDMA V_Ant 1	RMC 12.2Kbps	Front	19mm	DSI 4	4182	836.4	Close	23.06	24.00	1.242	0.02	0.231	0.287
	WCDMA V_Ant 1	RMC 12.2Kbps	Back	15mm	DSI 4	4182	836.4	Close	23.06	24.00	1.242	0.08	0.551	0.684

<CDMA SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Output Power State	Ch.	Freq. (MHz)	EUT Flip State	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	CDMA BC0_Ant 1	RC3 SO32(+F-SCH)	Front	5mm	DSI 5	384	836.5	Close	22.39	23.4	1.262	-0.1	0.248	0.313
63	CDMA BC0_Ant 1	RC3 SO32(+F-SCH)	Back	5mm	DSI 5	384	836.52	Close	22.39	23.4	1.262	-0.12	0.527	0.665
	CDMA BC0_Ant 1	RC3 SO32(+F-SCH)	Front	19mm	DSI 4	384	836.5	Close	24.14	25.0	1.219	-0.1	0.150	0.183
	CDMA BC0_Ant 1	RC3 SO32(+F-SCH)	Back	15mm	DSI 4	384	836.52	Close	24.14	25.0	1.219	-0.12	0.324	0.395
	CDMA BC1_Ant 1	RC3 SO32(+F-SCH)	Front	5mm	DSI 5	600	1880	Close	20.25	21.2	1.245	-0.1	0.329	0.409
64	CDMA BC1_Ant 1	RC3 SO32(+F-SCH)	Back	5mm	DSI 5	600	1880	Close	20.25	21.2	1.245	-0.1	0.579	0.721
	CDMA BC1_Ant 1	RC3 SO32(+F-SCH)	Front	19mm	DSI 4	600	1880	Close	24.00	25.0	1.259	-0.1	0.203	0.256
	CDMA BC1_Ant 1	RC3 SO32(+F-SCH)	Back	15mm	DSI 4	600	1880	Close	24.00	25.0	1.259	-0.1	0.393	0.495
	CDMA BC10_Ant 1	RC3 SO32(+F-SCH)	Front	5mm	DSI 5	580	820.5	Close	22.29	23.2	1.233	-0.079	0.257	0.317
65	CDMA BC10_Ant 1	RC3 SO32(+F-SCH)	Back	5mm	DSI 5	580	820.5	Close	22.29	23.2	1.233	-0.16	0.557	0.687
	CDMA BC10_Ant 1	RC3 SO32(+F-SCH)	Front	19mm	DSI 4	580	820.5	Close	23.87	25.0	1.297	-0.079	0.167	0.217
	CDMA BC10_Ant 1	RC3 SO32(+F-SCH)	Back	15mm	DSI 4	580	820.5	Close	23.87	25.0	1.297	-0.16	0.185	0.240



Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Output Power State	Ch.	Freq. (MHz)	EUT Flip State	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_Ant 1	20M	QPSK	1	0	Front	5mm	DSI 5	21100	2535	Close	18.71	19.90	1.315	0.03	0.197	0.259
	LTE Band 7_Ant 1	20M	QPSK	50	0	Front	5mm	DSI 5	21100	2535	Close	18.79	19.90	1.291	0.05	0.194	0.250
66	LTE Band 7_Ant 1	20M	QPSK	1	0	Back	5mm	DSI 5	21100	2535	Close	18.71	19.90	1.315	0.01	0.415	0.546
	LTE Band 7_Ant 1	20M	QPSK	50	0	Back	5mm	DSI 5	21100	2535	Close	18.79	19.90	1.291	0.02	0.408	0.527
	LTE Band 7_Ant 1	20M	QPSK	1	0	Front	19mm	DSI 4	21350	2560	Close	22.66	24	1.36	0.09	0.120	0.163
	LTE Band 7_Ant 1	20M	QPSK	50	0	Front	19mm	DSI 4	21350	2560	Close	21.81	23	1.32	0.09	0.097	0.128
	LTE Band 7_Ant 1	20M	QPSK	1	0	Back	15mm	DSI 4	21350	2560	Close	22.66	24	1.36	0.04	0.391	0.532
	LTE Band 7_Ant 1	20M	QPSK	50	0	Back	15mm	DSI 4	21350	2560	Close	21.81	23	1.32	0.09	0.322	0.424
	LTE Band 7_Ant 2	20M	QPSK	1	0	Front	5mm	DSI 5	21100	2535	Close	18.45	19.40	1.245	0.12	0.163	0.203
	LTE Band 7_Ant 2	20M	QPSK	50	0	Front	5mm	DSI 5	21100	2535	Close	18.56	19.40	1.213	-0.02	0.162	0.197
	LTE Band 7_Ant 2	20M	QPSK	1	0	Back	5mm	DSI 5	21100	2535	Close	18.45	19.40	1.245	0.11	0.262	0.326
	LTE Band 7_Ant 2	20M	QPSK	50	0	Back	5mm	DSI 5	21100	2535	Close	18.56	19.40	1.213	-0.02	0.249	0.302
	LTE Band 7_Ant 2	20M	QPSK	1	0	Front	19mm	DSI 4	21100	2535	Close	21.17	22	1.211	0.04	0.074	0.090
	LTE Band 7_Ant 2	20M	QPSK	50	0	Front	19mm	DSI 4	21100	2535	Close	20.21	21	1.199	0.06	0.065	0.078
	LTE Band 7_Ant 2	20M	QPSK	1	0	Back	15mm	DSI 4	21100	2535	Close	21.17	22	1.211	0.07	0.190	0.230
	LTE Band 7_Ant 2	20M	QPSK	50	0	Back	15mm	DSI 4	21100	2535	Close	20.21	21	1.199	0.02	0.158	0.190
	LTE Band 12_Ant 1	10M	QPSK	1	0	Front	5mm	DSI 5	23095	707.5	Close	22.73	24.00	1.340	0.06	0.139	0.186
	LTE Band 12_Ant 1	10M	QPSK	25	0	Front	5mm	DSI 5	23095	707.5	Close	21.85	23.00	1.303	0.09	0.119	0.155
67	LTE Band 12_Ant 1	10M	QPSK	1	0	Back	5mm	DSI 5	23095	707.5	Close	22.73	24.00	1.340	0.07	0.374	0.501
	LTE Band 12_Ant 1	10M	QPSK	25	0	Back	5mm	DSI 5	23095	707.5	Close	21.85	23.00	1.303	0.07	0.325	0.424
	LTE Band 12_Ant 2	10M	QPSK	1	0	Front	5mm	DSI 5	23095	707.5	Close	22.08	23.00	1.236	0.09	0.092	0.114
	LTE Band 12_Ant 2	10M	QPSK	25	0	Front	5mm	DSI 5	23095	707.5	Close	21.16	22.00	1.213	0.14	0.078	0.095
	LTE Band 12_Ant 2	10M	QPSK	1	0	Back	5mm	DSI 5	23095	707.5	Close	22.08	23.00	1.236	0.07	0.149	0.184
	LTE Band 12_Ant 2	10M	QPSK	25	0	Back	5mm	DSI 5	23095	707.5	Close	21.16	22.00	1.213	0.01	0.123	0.149
	LTE Band 13_Ant 1	10M	QPSK	1	0	Front	5mm	DSI 5	23230	782	Close	22.43	24.00	1.435	0.06	0.185	0.266
	LTE Band 13_Ant 1	10M	QPSK	25	0	Front	5mm	DSI 5	23230	782	Close	21.52	23.00	1.406	-0.04	0.159	0.224
68	LTE Band 13_Ant 1	10M	QPSK	1	0	Back	5mm	DSI 5	23230	782	Close	22.43	24.00	1.435	0.06	0.432	0.620
	LTE Band 13_Ant 1	10M	QPSK	25	0	Back	5mm	DSI 5	23230	782	Close	21.52	23.00	1.406	0.01	0.388	0.546
	LTE Band 13_Ant 2	10M	QPSK	1	0	Front	5mm	DSI 5	23230	782	Close	21.66	23.00	1.361	0.11	0.221	0.301
	LTE Band 13_Ant 2	10M	QPSK	25	0	Front	5mm	DSI 5	23230	782	Close	20.84	22.00	1.306	-0.12	0.182	0.238
	LTE Band 13_Ant 2	10M	QPSK	1	0	Back	5mm	DSI 5	23230	782	Close	21.66	23.00	1.361	0.06	0.361	0.491
	LTE Band 13_Ant 2	10M	QPSK	25	0	Back	5mm	DSI 5	23230	782	Close	20.84	22.00	1.306	0.02	0.289	0.377
	LTE Band 14_Ant 1	10M	QPSK	1	0	Front	5mm	DSI 5	23330	793	Close	22.44	24.00	1.432	0.02	0.386	0.553
	LTE Band 14_Ant 1	10M	QPSK	25	0	Front	5mm	DSI 5	23330	793	Close	21.42	23.00	1.439	0.02	0.312	0.449
69	LTE Band 14_Ant 1	10M	QPSK	1	0	Back	5mm	DSI 5	23330	793	Close	22.44	24.00	1.432	0.06	0.565	0.809
	LTE Band 14_Ant 1	10M	QPSK	25	0	Back	5mm	DSI 5	23330	793	Close	21.42	23.00	1.439	0.07	0.485	0.698
	LTE Band 14_Ant 2	10M	QPSK	1	0	Front	5mm	DSI 5	23330	793	Close	21.25	23.00	1.496	0.02	0.232	0.347
	LTE Band 14_Ant 2	10M	QPSK	25	12	Front	5mm	DSI 5	23330	793	Close	20.25	22.00	1.496	0.09	0.198	0.296
	LTE Band 14_Ant 2	10M	QPSK	1	0	Back	5mm	DSI 5	23330	793	Close	21.25	23.00	1.496	0.05	0.339	0.507
	LTE Band 14_Ant 2	10M	QPSK	25	12	Back	5mm	DSI 5	23330	793	Close	20.25	22.00	1.496	0.06	0.245	0.367
	LTE Band 14_Ant 2	10M	QPSK	1	0	Front	19mm	DIS 4	23330	793	Close	21.25	23.00	1.496	0.06	0.036	0.054
	LTE Band 14_Ant 2	10M	QPSK	25	0	Front	19mm	DIS 4	23330	793	Close	20.25	22.00	1.496	0.07	0.028	0.042
	LTE Band 14_Ant 2	10M	QPSK	1	0	Back	15mm	DIS 4	23330	793	Close	21.25	23.00	1.496	0.06	0.085	0.127
	LTE Band 14_Ant 2	10M	QPSK	25	0	Back	15mm	DIS 4	23330	793	Close	20.25	22.00	1.496	0.02	0.069	0.103
	LTE Band 25_Ant 1	20M	QPSK	1	0	Front	5mm	DSI 5	26140	1860	Close	20.67	21.00	1.079	0.01	0.349	0.377
	LTE Band 25_Ant 1	20M	QPSK	50	0	Front	5mm	DSI 5	26140	1860	Close	20.86	21.00	1.033	0.01	0.312	0.322
	LTE Band 25_Ant 1	20M	QPSK	1	0	Back	5mm	DSI 5	26340	1880	Close	20.67	21.00	1.079	0.02	0.590	0.637
	LTE Band 25_Ant 1	20M	QPSK	50	0	Back	5mm	DSI 5	26590	1905	Close	20.86	21.00	1.033	0.06	0.540	0.558
	LTE Band 25_Ant 1	20M	QPSK	1	0	Front	19mm	DSI 4	26340	1880	Close	22.74	24.00	1.337	-0.19	0.128	0.171
	LTE Band 25_Ant 1	20M	QPSK	50	0	Front	19mm	DSI 4	26340	1880	Close	21.85	23.00	1.303	0.06	0.113	0.147
	LTE Band 25_Ant 1	20M	QPSK	1	0	Back	15mm	DSI 4	26340	1880	Close	22.74	24.00	1.337	0.07	0.291	0.389
	LTE Band 25_Ant 1	20M	QPSK	50	0	Back	15mm	DSI 4	26340	1880	Close	21.85	23.00	1.303	0.08	0.234	0.305
70	LTE Band 25_Ant 2	20M	QPSK	1	0	Front	5mm	DSI 5	26340	1880	Close	20.7	22.00	1.349	0.09	0.526	0.710
	LTE Band 25_Ant 2	20M	QPSK	1	0	Front	5mm	DSI 5	26590	1905	Close	19.78	21.00	1.324	0.04	0.456	0.604
	LTE Band 25_Ant 2	20M	QPSK	1	0	Back	5mm	DSI 5	26140	1860	Close	20.7	22.00	1.349	0.06	0.333	0.449
	LTE Band 25_Ant 2	20M	QPSK	50	0	Back	5mm	DSI 5	26340	1880	Close	19.78	21.00	1.324	0.06	0.275	0.364
	LTE Band 26_Ant 1	15M	QPSK	1	0	Front	5mm	DSI 5	26865	831.5	Close	22.65	24.00	1.365	-0.05	0.358	0.489
	LTE Band 26_Ant 1	15M	QPSK	50	0	Front	5mm	DSI 5	26865	831.5	Close	21.76	23.00	1.330	-0.1	0.260	0.346



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71	LTE Band 26_Ant 1	15M	QPSK	1	0	Back	5mm	DSI 5	26865	831.5	Close	22.65	24.00	1.365	0.11	0.605	0.826
	LTE Band 5B_Ant 1	10M+10M	QPSK	1	0	Back	5mm	DSI 5	20575+20476	841.5-9.8+831.7	Close	22.65	24.00	1.365	0.16	0.585	0.798
	LTE Band 26_Ant 1	15M	QPSK	50	0	Back	5mm	DSI 5	26865	831.5	Close	21.76	23.00	1.330	0.04	0.512	0.681
	LTE Band 26_Ant 2	15M	QPSK	1	0	Front	5mm	DSI 5	26865	831.5	Close	21.71	23.00	1.346	0.07	0.188	0.253
	LTE Band 26_Ant 2	15M	QPSK	50	0	Front	5mm	DSI 5	26865	831.5	Close	20.90	22.00	1.288	0.08	0.132	0.170
	LTE Band 26_Ant 2	15M	QPSK	1	0	Back	5mm	DSI 5	26865	831.5	Close	21.71	23.00	1.346	0.05	0.326	0.439
	LTE Band 5B_Ant 2	10M+10M	QPSK	1	0	Back	5mm	DSI 5	20575+20476	841.5-9.8+831.7	Close	21.51	23.00	1.409	0.06	0.301	0.424
	LTE Band 26_Ant 2	15M	QPSK	50	0	Back	5mm	DSI 5	26865	831.5	Close	20.90	22.00	1.288	0.06	0.265	0.341

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Output Power State	Ch.	Freq. (MHz)	EUT Flip State	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 30_Ant 1	10M	QPSK	1	0	Front	5mm	DSI 5	27710	2310	Close	18.91	20.00	1.285	0.06	0.187	0.240
	LTE Band 30_Ant 1	10M	QPSK	25	0	Front	5mm	DSI 5	27710	2310	Close	18.92	20.00	1.282	0.07	0.165	0.212
72	LTE Band 30_Ant 1	10M	QPSK	1	0	Back	5mm	DSI 5	27710	2310	Close	18.91	20.00	1.285	0.08	0.713	0.916
	LTE Band 30_Ant 1	10M	QPSK	25	0	Back	5mm	DSI 5	27710	2310	Close	18.92	20.00	1.282	-0.01	0.702	0.900
	LTE Band 30_Ant 1	10M	QPSK	50	0	Back	5mm	DSI 5	27710	2310	Close	19.03	20.00	1.250	0.09	0.688	0.860
	LTE Band 30_Ant 1	10M	QPSK	1	0	Front	19mm	DSI 4	27710	2310	Close	22.65	24.00	1.365	0.07	0.092	0.126
	LTE Band 30_Ant 1	10M	QPSK	25	0	Front	19mm	DSI 4	27710	2310	Close	21.66	23.00	1.361	0.08	0.072	0.098
	LTE Band 30_Ant 1	10M	QPSK	1	0	Back	15mm	DSI 4	27710	2310	Close	22.65	24.00	1.365	-0.05	0.182	0.248
	LTE Band 30_Ant 1	10M	QPSK	25	0	Back	15mm	DSI 4	27710	2310	Close	21.66	23.00	1.361	0.02	0.146	0.199
	LTE Band 30_Ant 2	10M	QPSK	1	0	Front	5mm	DSI 5	27710	2310	Close	20.43	22.00	1.435	0.08	0.251	0.360
	LTE Band 30_Ant 2	10M	QPSK	25	0	Front	5mm	DSI 5	27710	2310	Close	19.36	21.00	1.459	0.01	0.198	0.289
	LTE Band 30_Ant 2	10M	QPSK	1	0	Back	5mm	DSI 5	27710	2310	Close	20.43	22.00	1.435	-0.07	0.274	0.393
	LTE Band 30_Ant 2	10M	QPSK	25	0	Back	5mm	DSI 5	27710	2310	Close	19.36	21.00	1.459	0.06	0.212	0.309
	LTE Band 66_Ant 1	20M	QPSK	1	0	Front	5mm	DSI 5	132072	1720	Close	19.43	20.60	1.309	0.06	0.286	0.374
	LTE Band 66_Ant 1	20M	QPSK	50	0	Front	5mm	DSI 5	132072	1720	Close	19.48	20.60	1.294	0.08	0.266	0.344
73	LTE Band 66_Ant 1	20M	QPSK	1	0	Back	5mm	DSI 5	132072	1720	Close	19.43	20.60	1.309	0.09	0.610	0.799
	LTE Band 66C_Ant 1	20M+20M	QPSK	1	0	Back	5mm	DSI 5	132072+132270	1720+1739.8	Close	18.92	20.60	1.472	0.09	0.434	0.639
	LTE Band 66B_Ant 1	15M+5M	QPSK	1	0	Back	5mm	DSI 5	132047+132140	1717.5+1726.8	Close	18.91	20.60	1.476	-0.03	0.455	0.671
	LTE Band 66_Ant 1	20M	QPSK	50	0	Back	5mm	DSI 5	132072	1720	Close	19.48	20.60	1.294	0.07	0.601	0.778
	LTE Band 66_Ant 1	20M	QPSK	1	0	Front	19mm	DSI 4	132072	1720	Close	22.89	24.00	1.291	0.09	0.138	0.178
	LTE Band 66_Ant 1	20M	QPSK	50	0	Front	19mm	DSI 4	132072	1720	Close	21.99	23.00	1.262	0.06	0.107	0.135
	LTE Band 66_Ant 1	20M	QPSK	1	0	Back	15mm	DSI 4	132072	1720	Close	22.89	24.00	1.291	0.04	0.245	0.316
	LTE Band 66_Ant 1	20M	QPSK	50	0	Back	15mm	DSI 4	132072	1720	Close	21.99	23.00	1.262	0.02	0.193	0.244
	LTE Band 66_Ant 2	20M	QPSK	1	0	Front	5mm	DSI 5	132072	1720	Close	20.92	22.00	1.282	0.11	0.344	0.441
	LTE Band 66_Ant 2	20M	QPSK	50	0	Front	5mm	DSI 5	132072	1720	Close	20.06	21.00	1.242	0.01	0.288	0.358
	LTE Band 66_Ant 2	20M	QPSK	1	0	Back	5mm	DSI 5	132072	1720	Close	20.92	22.00	1.282	0.09	0.368	0.472
	LTE Band 66C_Ant 2	20M+20M	QPSK	1	0	Back	5mm	DSI 5	132072+132270	1720+1739.8	Close	20.54	22.00	1.400	0.08	0.325	0.455
	LTE Band 66B_Ant 2	15M+5M	QPSK	1	0	Back	5mm	DSI 5	132047+132140	1717.5+1726.8	Close	20.40	22.00	1.445	0.07	0.318	0.460
	LTE Band 66_Ant 2	20M	QPSK	50	0	Back	5mm	DSI 5	132072	1720	Close	20.06	21.00	1.242	0.01	0.301	0.374
	LTE Band 71_Ant 1	20M	QPSK	1	0	Front	5mm	DSI 5	133222	673	Close	22.85	24.00	1.303	0.07	0.105	0.137
	LTE Band 71_Ant 1	20M	QPSK	50	0	Front	5mm	DSI 5	133222	673	Close	22.36	23.00	1.159	0.06	0.105	0.122
74	LTE Band 71_Ant 1	20M	QPSK	1	0	Back	5mm	DSI 5	133222	673	Close	22.85	24.00	1.303	-0.05	0.144	0.188
	LTE Band 71_Ant 1	20M	QPSK	50	0	Back	5mm	DSI 5	133222	673	Close	22.36	23.00	1.159	0.02	0.144	0.167
	LTE Band 71_Ant 2	20M	QPSK	1	0	Front	5mm	DSI 5	133222	673	Close	22.27	23.00	1.183	0.04	0.068	0.080
	LTE Band 71_Ant 2	20M	QPSK	50	0	Front	5mm	DSI 5	133222	673	Close	22.00	22.00	1.000	0.03	0.056	0.056
	LTE Band 71_Ant 2	20M	QPSK	1	0	Back	5mm	DSI 5	133222	673	Close	22.27	23.00	1.183	0.01	0.100	0.118
	LTE Band 71_Ant 2	20M	QPSK	50	0	Back	5mm	DSI 5	133222	673	Close	22.00	22.00	1.000	0.02	0.082	0.082



<TDD LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Output Power State	Ch.	Freq. (MHz)	EUT Flip State	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_Ant 1	20M	QPSK	1	0	Front	5mm	DSI 5	40620	2593	Close	18.37	19.1	1.183	62.9	1.006	-0.11	0.224	0.267
	LTE Band 41_Ant 1	20M	QPSK	50	0	Front	5mm	DSI 5	40620	2593	Close	18.47	19.1	1.156	62.9	1.006	0.05	0.224	0.261
75	LTE Band 41_Ant 1	20M	QPSK	1	0	Back	5mm	DSI 5	40620	2593	Close	18.37	19.1	1.183	62.9	1.006	0.06	0.568	0.676
	LTE Band 41C_Ant 1	20M+20M	QPSK	1	0	Back	5mm	DSI 5	40620+40422	2593+2573.2	Close	18.92	19.1	1.042	62.9	1.006	0.08	0.526	0.552
	LTE Band 41_Ant 1	20M	QPSK	1	0	Back	5mm	DSI 5	39750	2506	Close	17.95	19.1	1.303	62.9	1.006	0.06	0.378	0.496
	LTE Band 41_Ant 1	20M	QPSK	1	0	Back	5mm	DSI 5	40185	2549.5	Close	18.08	19.1	1.265	62.9	1.006	0.03	0.490	0.623
	LTE Band 41_Ant 1	20M	QPSK	1	0	Back	5mm	DSI 5	41055	2636.5	Close	18.1	19.1	1.259	62.9	1.006	0.05	0.528	0.669
	LTE Band 41_Ant 1	20M	QPSK	1	0	Back	5mm	DSI 5	41490	2680	Close	18.2	19.1	1.230	62.9	1.006	-0.11	0.421	0.521
	LTE Band 41_Ant 1	20M	QPSK	50	0	Back	5mm	DSI 5	40620	2593	Close	18.47	19.1	1.156	62.9	1.006	0.06	0.568	0.661
	LTE Band 41_Ant 1	20M	QPSK	50	0	Back	5mm	DSI 5	39750	2506	Close	18.03	19.1	1.279	62.9	1.006	0.07	0.378	0.487
	LTE Band 41_Ant 1	20M	QPSK	50	0	Back	5mm	DSI 5	40185	2549.5	Close	18.20	19.1	1.230	62.9	1.006	-0.11	0.490	0.606
	LTE Band 41_Ant 1	20M	QPSK	50	0	Back	5mm	DSI 5	41055	2636.5	Close	18.20	19.1	1.230	62.9	1.006	-0.05	0.528	0.653
	LTE Band 41_Ant 1	20M	QPSK	50	0	Back	5mm	DSI 5	41490	2680	Close	18.20	19.1	1.230	62.9	1.006	0.06	0.421	0.521
	LTE Band 41_Ant 1	20M	QPSK	100	0	Back	5mm	DSI 5	40620	2593	Close	18.42	19.1	1.169	62.9	1.006	0.11	0.224	0.264
	LTE Band 41 PC2_Ant 1	20M	QPSK	1	0	Back	5mm	DSI 5	40620	2593	Close	18.37	19.1	1.183	42.9	1.009	0.03	0.359	0.429
	LTE Band 41_Ant 1	20M	QPSK	1	0	Front	19mm	DSI 4	40620	2593	Close	22.99	24.00	1.262	62.9	1.006	0.06	0.076	0.096
	LTE Band 41_Ant 1	20M	QPSK	50	0	Front	19mm	DSI 4	40620	2593	Close	22.18	23.00	1.208	62.9	1.006	0.07	0.059	0.072
	LTE Band 41_Ant 1	20M	QPSK	1	0	Back	15mm	DSI 4	40620	2593	Close	22.99	24.00	1.262	62.9	1.006	-0.11	0.230	0.292
	LTE Band 41_Ant 1	20M	QPSK	50	0	Back	15mm	DSI 4	40620	2593	Close	22.18	23.00	1.208	62.9	1.006	-0.05	0.179	0.217
	LTE Band 41 PC2_Ant 1	20M	QPSK	1	0	Back	15mm	DSI 4	40620	2593	Close	25.34	27.00	1.466	42.9	1.009	0.06	0.260	0.384
	LTE Band 41_Ant 2	20M	QPSK	1	0	Front	5mm	DSI 5	39750	2506	Close	19.26	21.0	1.493	62.9	1.006	0.09	0.120	0.180
	LTE Band 41_Ant 2	20M	QPSK	50	0	Front	5mm	DSI 5	39750	2506	Close	19.47	21.0	1.422	62.9	1.006	0.04	0.118	0.169
	LTE Band 41_Ant 2	20M	QPSK	1	0	Back	5mm	DSI 5	39750	2506	Close	19.26	21.0	1.493	62.9	1.006	0.06	0.376	0.565
	LTE Band 41C_Ant 2	20M+20M	QPSK	1	0	Back	5mm	DSI 5	39750+39948	2680+2525.8	Close	20.68	21.0	1.076	62.9	1.006	0.03	0.376	0.407
	LTE Band 41_Ant 2	20M	QPSK	50	0	Back	5mm	DSI 5	39750	2506	Close	19.47	21.0	1.422	62.9	1.006	-0.08	0.367	0.525
	LTE Band 41 PC2_Ant 2	20M	QPSK	1	0	Back	5mm	DSI 5	39750	2506	Close	19.26	21.0	1.493	42.9	1.009	0.19	0.256	0.386
	LTE Band 41_Ant 2	20M	QPSK	1	0	Front	19mm	DSI 4	39750	2506	Close	22.61	23.5	1.227	62.9	1.006	0.06	0.040	0.049
	LTE Band 41_Ant 2	20M	QPSK	50	0	Front	19mm	DSI 4	39750	2506	Close	21.78	22.5	1.180	62.9	1.006	0.04	0.000	0.000
	LTE Band 41_Ant 2	20M	QPSK	1	0	Back	15mm	DSI 4	39750	2506	Close	22.61	23.5	1.227	62.9	1.006	-0.12	0.084	0.104
	LTE Band 41_Ant 2	20M	QPSK	50	0	Back	15mm	DSI 4	39750	2506	Close	21.78	22.5	1.180	62.9	1.006	-0.09	0.074	0.088
	LTE Band 41 PC2_Ant 2	20M	QPSK	1	0	Back	15mm	DSI 4	39750	2506	Close	23.94	25	1.276	42.9	1.009	0.04	0.088	0.113
	LTE Band 48_Ant 1	20M	QPSK	1	0	Front	5mm	DSI 5	55830	3609	Close	21.68	22.5	1.208	62.9	1.006	0.04	0.286	0.348
	LTE Band 48_Ant 1	20M	QPSK	50	0	Front	5mm	DSI 5	55830	3609	Close	19.06	20.5	1.393	62.9	1.006	-0.06	0.203	0.285
76	LTE Band 48_Ant 1	20M	QPSK	1	0	Back	5mm	DSI 5	55830	3609	Close	21.68	22.5	1.208	62.9	1.006	-0.01	0.320	0.389
	LTE Band 48_Ant 1	20M	QPSK	50	0	Back	5mm	DSI 5	55830	3609	Close	19.06	20.5	1.393	62.9	1.006	0.04	0.208	0.292
	LTE Band 48_Ant 1	20M	QPSK	1	0	Front	19mm	DSI 4	55830	3609	Close	23.97	24.0	1.007	62.9	1.006	0.04	0.023	0.023
	LTE Band 48_Ant 1	20M	QPSK	50	0	Front	19mm	DSI 4	55830	3609	Close	21.51	23.0	1.409	62.9	1.006	-0.01	0.018	0.026
	LTE Band 48_Ant 1	20M	QPSK	1	0	Back	15mm	DSI 4	55830	3609	Close	23.97	24.0	1.007	62.9	1.006	0.09	0.087	0.088
	LTE Band 48_Ant 1	20M	QPSK	50	0	Back	15mm	DSI 4	55830	3609	Close	21.51	23.0	1.409	62.9	1.006	0.02	0.071	0.101
	LTE Band 48_Ant 2	20M	QPSK	1	0	Front	5mm	DSI 5	55830	3609	Close	20.93	22.00	1.279	62.9	1.006	0.13	0.129	0.166
	LTE Band 48_Ant 2	20M	QPSK	50	0	Front	5mm	DSI 5	55830	3609	Close	18.38	21.00	1.828	62.9	1.006	0.05	0.102	0.188
	LTE Band 48_Ant 2	20M	QPSK	1	0	Back	5mm	DSI 5	55830	3609	Close	20.93	22.00	1.279	62.9	1.006	-0.06	0.294	0.378
	LTE Band 48_Ant 2	20M	QPSK	50	0	Back	5mm	DSI 5	55830	3609	Close	18.38	21.00	1.828	62.9	1.006	0.14	0.201	0.370



<5G NR SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Output Power State	Ch.	Freq. (MHz)	EUT Flip State	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_Ant 2	20M	BPSK	1	53	Front	5mm	DSI 5	372000	1860	Close	23.96	24.00	1.009	-0.09	0.535	0.540
	FR1 n25_Ant 2	20M	BPSK	50	28	Front	5mm	DSI 5	372000	1860	Close	23.89	24.00	1.026	-0.13	0.558	0.572
	FR1 n25_Ant 2	20M	BPSK	1	53	Back	5mm	DSI 5	372000	1860	Close	23.96	24.00	1.009	0.09	0.666	0.672
77	FR1 n25_Ant 2	20M	BPSK	50	28	Back	5mm	DSI 5	372000	1860	Close	23.89	24.00	1.026	0.08	0.684	0.702
	FR1 n25_Ant 1	20M	BPSK	1	53	Front	5mm	DSI 5	372000	1860	Close	21.48	22.00	1.127	0.05	0.198	0.223
	FR1 n25_Ant 1	20M	BPSK	50	28	Front	5mm	DSI 5	372000	1860	Close	21.43	22.00	1.140	0.06	0.266	0.303
	FR1 n25_Ant 1	20M	BPSK	1	53	Back	5mm	DSI 5	372000	1860	Close	21.48	22.00	1.127	0.07	0.368	0.415
	FR1 n25_Ant 1	20M	BPSK	50	28	Back	5mm	DSI 5	372000	1860	Close	21.43	22.00	1.140	0.03	0.399	0.455
	FR1 n66_Ant 2	20M	BPSK	1	53	Front	5mm	DSI 5	344000	1720	Close	23.89	24.00	1.026	0.04	0.451	0.463
	FR1 n66_Ant 2	20M	BPSK	50	28	Front	5mm	DSI 5	344000	1720	Close	23.50	24.00	1.122	0.02	0.482	0.541
	FR1 n66_Ant 2	20M	BPSK	1	53	Back	5mm	DSI 5	344000	1720	Close	23.89	24.00	1.026	0.06	0.566	0.581
	FR1 n66_Ant 2	20M	BPSK	50	28	Back	5mm	DSI 5	344000	1720	Close	23.50	24.00	1.122	0.04	0.614	0.689
	FR1 n66_Ant 2	20M	BPSK	50	28	Back	5mm	DSI 5	349000	1745	Close	23.33	24.00	1.167	0.04	0.666	0.777
	FR1 n66_Ant 2	20M	BPSK	50	28	Back	5mm	DSI 5	354000	1770	Close	23.20	24.00	1.202	0.09	0.687	0.826
	FR1 n66_Ant 1	20M	BPSK	1	53	Front	5mm	DSI 5	344000	1720	Close	22.90	24.00	1.288	0.07	0.297	0.383
	FR1 n66_Ant 1	20M	BPSK	50	28	Front	5mm	DSI 5	344000	1720	Close	22.53	24.00	1.403	0.09	0.273	0.383
	FR1 n66_Ant 1	20M	BPSK	1	53	Back	5mm	DSI 5	344000	1720	Close	22.90	24.00	1.288	0.08	0.579	0.746
	FR1 n66_Ant 1	20M	BPSK	50	28	Back	5mm	DSI 5	344000	1720	Close	22.53	24.00	1.403	0.04	0.576	0.808
	FR1 n66_Ant 1	20M	BPSK	50	28	Back	5mm	DSI 5	349000	1745	Close	22.48	24.00	1.419	0.06	0.603	0.856
78	FR1 n66_Ant 1	20M	BPSK	50	28	Back	5mm	DSI 5	354000	1770	Close	22.45	24.00	1.429	0.02	0.640	0.914
	FR1 n66_Ant 1	20M	BPSK	100	0	Back	5mm	DSI 5	349000	1745	Close	21.95	23.5	1.429	0.09	0.610	0.872
	FR1 n71_Ant 2	20M	BPSK	1	1	Front	5mm	DSI 5	134600	673	Close	23.95	24.00	1.012	0.08	0.208	0.210
	FR1 n71_Ant 2	20M	BPSK	50	28	Front	5mm	DSI 5	134600	673	Close	23.59	24.00	1.099	0.06	0.184	0.202
	FR1 n71_Ant 2	20M	BPSK	1	1	Back	5mm	DSI 5	134600	673	Close	23.95	24.00	1.012	0.04	0.311	0.315
	FR1 n71_Ant 2	20M	BPSK	50	28	Back	5mm	DSI 5	134600	673	Close	23.59	24.00	1.099	0.03	0.284	0.312
79	FR1 n71_Ant 2	20M	BPSK	1	1	Back	5mm	DSI 5	136100	680.5	Close	23.80	24.00	1.047	0.01	0.302	0.316
	FR1 n71_Ant 2	20M	BPSK	1	1	Back	5mm	DSI 5	137600	688	Close	23.72	24.00	1.067	0.01	0.278	0.297
	FR1 n71_Ant 1	20M	BPSK	1	1	Front	5mm	DSI 5	134600	673	Close	24.74	25.00	1.062	0.04	0.011	0.012
	FR1 n71_Ant 1	20M	BPSK	50	0	Front	5mm	DSI 5	134600	673	Close	24.45	25.00	1.135	0.01	0.013	0.015
	FR1 n71_Ant 1	20M	BPSK	1	1	Back	5mm	DSI 5	134600	673	Close	24.74	25.00	1.062	0.03	0.029	0.031
	FR1 n71_Ant 1	20M	BPSK	50	0	Back	5mm	DSI 5	134600	673	Close	24.45	25.00	1.135	0.05	0.030	0.034
	FR1 n71_Ant 1	20M	BPSK	50	0	Back	5mm	DSI 5	136100	680.5	Close	24.39	25.00	1.151	0.01	0.033	0.038
	FR1 n71_Ant 1	20M	BPSK	50	0	Back	5mm	DSI 5	137600	688	Close	24.22	25.00	1.197	-0.09	0.035	0.042
	FR1 n5_Ant 2	20M	BPSK	1	1	Front	5mm	DSI 5	167300	836.5	Close	23.92	24.00	1.019	0.06	0.215	0.219
	FR1 n5_Ant 2	20M	BPSK	50	0	Front	5mm	DSI 5	167300	836.5	Close	23.77	24.00	1.054	-0.06	0.192	0.202
80	FR1 n5_Ant 2	20M	BPSK	1	1	Back	5mm	DSI 5	167300	836.5	Close	23.92	24.00	1.019	-0.01	0.336	0.342
	FR1 n5_Ant 2	20M	BPSK	50	0	Back	5mm	DSI 5	167300	836.5	Close	23.77	24.00	1.054	-0.08	0.314	0.331
	FR1 n5_Ant 1	20M	BPSK	1	1	Front	5mm	DSI 5	167300	836.5	Close	23.21	24.00	1.199	-0.03	0.007	0.008
	FR1 n5_Ant 1	20M	BPSK	50	0	Front	5mm	DSI 5	167300	836.5	Close	23.09	24.00	1.233	0.07	0.007	0.009
	FR1 n5_Ant 1	20M	BPSK	1	1	Back	5mm	DSI 5	167300	836.5	Close	23.21	24.00	1.199	0.11	0.020	0.023
	FR1 n5_Ant 1	20M	BPSK	50	0	Back	5mm	DSI 5	167300	836.5	Close	23.09	24.00	1.233	0.11	0.021	0.025
	FR1 n41 PC2/3_Ant 2	100M	BPSK	1	1	Front	5mm	DSI 5	518598	2592.99	Close	18.37	18.70	1.079	0.03	0.178	0.192
	FR1 n41 PC2/3_Ant 2	100M	BPSK	135	0	Front	5mm	DSI 5	518598	2592.99	Close	18.32	18.70	1.091	0.11	0.174	0.190
	FR1 n41 PC2/3_Ant 2	100M	BPSK	1	1	Back	5mm	DSI 5	518598	2592.99	Close	18.37	18.70	1.079	0.04	0.200	0.216
	FR1 n41 PC2/3_Ant 2	100M	BPSK	135	0	Back	5mm	DSI 5	518598	2592.99	Close	18.32	18.70	1.091	-0.04	0.201	0.219
	FR1 n41 PC2_Ant 2	100M	BPSK	1	137	Front	19mm	DSI 4	518598	2592.99	Close	25.64	27	1.368	0.06	0.086	0.118
	FR1 n41 PC2_Ant 2	100M	BPSK	135	69	Front	19mm	DSI 4	518598	2592.99	Close	25.36	27	1.459	0.01	0.096	0.140
	FR1 n41 PC2_Ant 2	100M	BPSK	1	137	Back	15mm	DSI 4	518598	2592.99	Close	25.64	27	1.368	0.1	0.206	0.282
81	FR1 n41 PC2_Ant 2	100M	BPSK	135	69	Back	15mm	DSI 4	518598	2592.99	Close	25.36	27	1.459	0.02	0.250	0.365



<WLAN2.4G SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power Table	Ch.	Freq. (MHz)	EUT Flip State	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	5mm	Ant 4	Power Table 7	1	2412	Close	14.38	15.00	1.153	100	1.000	0.1	0.001	0.001
	WLAN2.4GHz	802.11b 1Mbps	Back	5mm	Ant 4	Power Table 7	1	2412	Close	14.38	15.00	1.153	100	1.000	0.13	0.343	0.396
	WLAN2.4GHz-	802.11b 1Mbps	Front	5mm	Ant 4	Power Table 6	1	2412	Close	16.26	17.00	1.186	100	1.000	0.01	0.009	0.011
	WLAN2.4GHz-	802.11b 1Mbps	Back	5mm	Ant 4	Power Table 6	1	2412	Close	16.26	17.00	1.186	100	1.000	0.06	0.830	0.984
	WLAN2.4GHz-	802.11b 1Mbps	Back	5mm	Ant 4	Power Table 6	6	2437	Close	16.17	17.00	1.211	100	1.000	0.01	0.808	0.978
	WLAN2.4GHz	802.11b 1Mbps	Back	15mm	Ant 4	Power Table 3	1	2412	Close	20.70	21.00	1.072	100	1.000	0.04	0.179	0.192
	WLAN2.4GHz	802.11b 1Mbps	Front	5mm	Ant 3	Power Table 7	1	2412	Close	14.75	15.00	1.059	100	1.000	0.03	0.001	0.001
	WLAN2.4GHz	802.11b 1Mbps	Back	5mm	Ant 3	Power Table 7	1	2412	Close	14.75	15.00	1.059	100	1.000	-0.01	0.406	0.430
	WLAN2.4GHz-	802.11b 1Mbps	Front	5mm	Ant 3	Power Table 6	1	2412	Close	16.32	17.00	1.169	100	1.000	-0.09	0.017	0.020
	WLAN2.4GHz-	802.11b 1Mbps	Back	5mm	Ant 3	Power Table 6	1	2412	Close	16.32	17.00	1.169	100	1.000	-0.05	0.687	0.803
	WLAN2.4GHz-	802.11b 1Mbps	Back	5mm	Ant 3	Power Table 6	6	2437	Close	16.22	17.00	1.197	100	1.000	0.09	0.861	1.030
	WLAN2.4GHz	802.11b 1Mbps	Back	15mm	Ant 3	Power Table 3	1	2412	Close	20.70	21.00	1.072	100	1.000	0.09	0.191	0.205
	WLAN2.4GHz	802.11b 1Mbps	Front	5 mm	Ant 3+4	Power Table 7	11	2462	Close	17.23	18.00	1.194	100	1.000	0.01	0.001	0.001
	WLAN2.4GHz	802.11b 1Mbps	Back	5 mm	Ant 3+4	Power Table 7	11	2462	Close	17.23	18.00	1.194	100	1.000	0.02	0.317	0.378
	WLAN2.4GHz-	802.11b 1Mbps	Front	5 mm	Ant 3+4	Power Table 6	11	2462	Close	19.72	20.00	1.067	100	1.000	-0.02	0.022	0.023
82	WLAN2.4GHz-	802.11b 1Mbps	Back	5 mm	Ant 3+4	Power Table 6	11	2462	Close	19.72	20.00	1.067	100	1.000	0.02	0.970	1.035
	WLAN2.4GHz-	802.11b 1Mbps	Back	5 mm	Ant 3+4	Power Table 6	6	2437	Close	19.64	20.00	1.086	100	1.000	0.03	0.832	0.904
	WLAN2.4GHz-	802.11b 1Mbps	Back	15 mm	Ant 3+4	Power Table 3	6	2437	Close	23.98	24.00	1.005	100	1.000	-0.05	0.213	0.214

<Bluetooth SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power Table	Ch.	Freq. (MHz)	EUT Flip State	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	DH5 1Mbps	Front	5mm	Ant 4	2	0	2402	Close	7.99	9.00	1.262	77.13	1.080	-0.05	0.021	0.029
	Bluetooth	DH5 1Mbps	Back	5mm	Ant 4	2	0	2402	Close	7.99	9.00	1.262	77.13	1.080	-0.07	0.106	0.144
	Bluetooth	DH5 1Mbps	Front	5mm	Ant 4	1	78	2480	Close	15.28	15.50	1.052	77.13	1.080	0.01	0.031	0.035
83	Bluetooth	DH5 1Mbps	Back	5mm	Ant 4	1	78	2480	Close	15.28	15.50	1.052	77.13	1.080	0.09	0.780	0.886
	Bluetooth	DH5 1Mbps	Back	5mm	Ant 4	1	0	2402	Close	15.23	15.50	1.064	77.13	1.080	0.01	0.441	0.507
	Bluetooth	DH5 1Mbps	Back	5mm	Ant 4	1	39	2441	Close	15.28	15.50	1.052	77.13	1.080	0.01	0.698	0.793



<WLAN5G SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power Table	Ch.	Freq. (MHz)	EUT Flip State	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	802.11ac-VHT80 MCS0	Front	5mm	Ant 4	Power Table 7	58	5290	Close	15.13	15.50	1.089	91.84	1.089	-0.04	0.072	0.085
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Back	5mm	Ant 4	Power Table 7	58	5290	Close	15.13	15.50	1.089	91.84	1.089	0.14	0.241	0.286
	WLAN5.3GHz	802.11n-HT40 MCS0	Front	5mm	Ant 4	Power Table 6	54	5270	Close	18.48	19.00	1.127	95.88	1.043	0.1	0.018	0.021
84	WLAN5.3GHz	802.11n-HT40 MCS0	Back	5mm	Ant 4	Power Table 6	54	5270	Close	18.48	19.00	1.127	95.88	1.043	0.06	0.886	1.042
	WLAN5.3GHz	802.11n-HT40 MCS0	Back	5mm	Ant 4	Power Table 6	62	5310	Close	14.80	15.50	1.175	95.88	1.043	-0.08	0.412	0.505
	WLAN5.3GHz	802.11n-HT40 MCS0	Back	15mm	Ant 4	Power Table 3	54	5270	Close	19.20	20.00	1.202	95.88	1.043	0.04	0.266	0.334
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Front	5mm	Ant 3	Power Table 7	58	5290	Close	14.89	15.50	1.151	92	1.087	0.02	0.035	0.044
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Back	5mm	Ant 3	Power Table 7	58	5290	Close	14.89	15.50	1.151	92	1.087	0.07	0.258	0.323
	WLAN5.3GHz	802.11n-HT40 MCS0	Front	5mm	Ant 3	Power Table 6	54	5270	Close	18.12	18.50	1.091	95.85	1.043	0.05	0.022	0.025
	WLAN5.3GHz	802.11n-HT40 MCS0	Back	5mm	Ant 3	Power Table 6	54	5270	Close	18.12	18.50	1.091	95.85	1.043	0.04	0.506	0.576
	WLAN5.3GHz	802.11n-HT40 MCS0	Back	15mm	Ant 3	Power Table 3	54	5270	Close	19.20	20.00	1.202	95.85	1.043	0.06	0.189	0.237
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Front	5mm	Ant 3+4	Power Table 7	58	5290	Close	17.87	18.50	1.156	91.84	1.089	0.06	0.059	0.074
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Back	5mm	Ant 3+4	Power Table 7	58	5290	Close	17.87	18.50	1.156	91.84	1.089	0.02	0.269	0.339
	WLAN5.3GHz	802.11n-HT40 MCS0	Front	5mm	Ant 3+4	Power Table 6	54	5270	Close	20.91	22.00	1.285	95.85	1.043	0.05	0.060	0.080
	WLAN5.3GHz	802.11n-HT40 MCS0	Back	5mm	Ant 3+4	Power Table 6	54	5270	Close	20.91	22.00	1.285	95.85	1.043	-0.02	0.598	0.802
	WLAN5.3GHz	802.11n-HT40 MCS0	Back	5mm	Ant 3+4	Power Table 6	62	5310	Close	17.91	18.50	1.146	95.85	1.043	0.02	0.388	0.464
	WLAN5.3GHz	802.11n-HT40 MCS0	Back	15mm	Ant 3+4	Power Table 3	54	5270	Close	22.52	23.00	1.117	95.85	1.043	-0.04	0.151	0.176
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Front	5mm	Ant 4	Power Table 7	106	5530	Close	14.93	15.00	1.016	91.84	1.089	0.04	0.024	0.027
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Back	5mm	Ant 4	Power Table 7	106	5530	Close	14.93	15.00	1.016	91.84	1.089	-0.09	0.307	0.340
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Front	5mm	Ant 4	Power Table 6	138	5690	Close	17.87	18.00	1.030	91.84	1.089	0.03	0.044	0.049
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Back	5mm	Ant 4	Power Table 6	138	5690	Close	17.87	18.00	1.030	91.84	1.089	-0.09	0.679	0.762
	WLAN5.5GHz	802.11n-HT40 MCS0	Back	15mm	Ant 4	Power Table 3	110	5550	Close	19.50	20.00	1.122	95.88	1.043	0.08	0.136	0.159
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Front	5mm	Ant 3	Power Table 7	138	5690	Close	14.52	15.00	1.117	92	1.087	0.02	0.080	0.097
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Back	5mm	Ant 3	Power Table 7	138	5690	Close	14.52	15.00	1.117	92	1.087	0.02	0.336	0.408
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Front	5mm	Ant 3	Power Table 6	138	5690	Close	17.66	18.00	1.081	92	1.087	0.01	0.046	0.054
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Back	5mm	Ant 3	Power Table 6	138	5690	Close	17.66	18.00	1.081	92	1.087	0.16	0.658	0.773
	WLAN5.5GHz	802.11n-HT40 MCS0	Back	15mm	Ant 3	Power Table 3	126	5630	Close	19.63	20.00	1.089	95.85	1.043	0.04	0.601	0.683
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Front	5mm	Ant 3+4	Power Table 7	138	5690	Close	17.76	18.00	1.057	91.84	1.089	0.15	0.075	0.086
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Back	5mm	Ant 3+4	Power Table 7	138	5690	Close	17.76	18.00	1.057	91.84	1.089	0.14	0.433	0.498
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Front	5mm	Ant 3+4	Power Table 6	138	5690	Close	20.96	21.00	1.009	91.84	1.089	0.01	0.044	0.048
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Back	5mm	Ant 3+4	Power Table 6	138	5690	Close	20.96	21.00	1.009	91.84	1.089	0.04	0.838	0.921
85	WLAN5.5GHz	802.11ac-VHT80 MCS0	Back	5mm	Ant 3+4	Power Table 6	122	5610	Close	20.93	21.00	1.016	91.84	1.089	0.02	1.040	1.151
	WLAN5.5GHz	802.11n-HT40 MCS0	Back	15mm	Ant 3+4	Power Table 3	110	5550	Close	22.57	23.00	1.104	95.85	1.043	0.09	0.586	0.675
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Front	5mm	Ant 4	Power Table 7	155	5775	Close	14.68	15.00	1.076	91.84	1.089	0.17	0.069	0.081
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Back	5mm	Ant 4	Power Table 7	155	5775	Close	14.68	15.00	1.076	91.84	1.089	0.05	0.382	0.448
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Front	5mm	Ant 4	Power Table 6	155	5775	Close	18.42	19.00	1.143	91.84	1.089	0.17	0.069	0.086
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Back	5mm	Ant 4	Power Table 6	155	5775	Close	18.42	19.00	1.143	91.84	1.089	-0.08	0.946	1.177
	WLAN5.8GHz	802.11a 6Mbps	Back	15mm	Ant 4	Power Table 3	149	5745	Close	20.20	21.00	1.202	98.06	1.020	0.14	0.401	0.492
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Front	5mm	Ant 3	Power Table 7	155	5775	Close	14.98	15.00	1.005	92	1.087	0.14	0.081	0.088
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Back	5mm	Ant 3	Power Table 7	155	5775	Close	14.98	15.00	1.005	92	1.087	0.11	0.646	0.705
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Front	5mm	Ant 3	Power Table 6	155	5775	Close	18.93	19.00	1.016	92	1.087	0.02	0.165	0.182
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Back	5mm	Ant 3	Power Table 6	155	5775	Close	18.93	19.00	1.016	92	1.087	-0.09	1.050	1.160
	WLAN5.8GHz	802.11a 6Mbps	Back	15mm	Ant 3	Power Table 3	165	5825	Close	20.50	21.00	1.122	97.09	1.030	0.05	0.490	0.566
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Front	5mm	Ant 3+4	Power Table 7	155	5775	Close	17.38	18.00	1.153	91.84	1.089	0.04	0.064	0.080
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Back	5mm	Ant 3+4	Power Table 7	155	5775	Close	17.38	18.00	1.153	91.84	1.089	0.07	0.500	0.628
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Front	5mm	Ant 3+4	Power Table 6	155	5775	Close	21.68	22.00	1.076	91.84	1.089	0.01	0.115	0.135
86	WLAN5.8GHz	802.11ac-VHT80 MCS0	Back	5mm	Ant 3+4	Power Table 6	155	5775	Close	21.68	22.00	1.076	91.84	1.089	0.03	1.010	1.184
	WLAN5.8GHz	802.11a 6Mbps	Back	15mm	Ant 3+4	Power Table 3	157	5785	Close	23.38	24.00	1.153	97.35	1.027	0.06	0.555	0.657



16.4 Product Specific SAR

<WCDMA SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Output Power State	Ch.	Freq. (MHz)	EUT Flip State	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)
	WCDMA II_Ant 1	RMC 12.2Kbps	Back	0mm	DSI 6	9262	1852.4	Open	23.23	24.0	1.194	0.06	1.680	2.006
	WCDMA II_Ant 1	RMC 12.2Kbps	Back	0mm	DSI 6	9400	1880	Open	22.93	24.0	1.279	0.19	1.530	1.957
87	WCDMA II_Ant 1	RMC 12.2Kbps	Back	0mm	DSI 6	9538	1907.6	Open	22.83	24.0	1.309	0.04	1.550	2.029
88	WCDMA IV_Ant 1	RMC 12.2Kbps	Bottom Side	0mm	DSI 6	1413	1732.6	Open	23.14	24.0	1.219	0.08	0.862	1.051

<CDMA SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Output Power State	Ch.	Freq. (MHz)	EUT Flip State	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 BC1	RTAP 153.6Kbps	Front	0mm	DSI 6	600	1880	Open	24.15	25.0	1.216	0.06	1.440	1.751
	CDMA2000 BC1	RTAP 153.6Kbps	Back	0mm	DSI 6	600	1880	Open	24.15	25.0	1.216	0.11	1.780	2.165
90	CDMA2000 BC1	RTAP 153.6Kbps	Back	0mm	DSI 6	25	1851.25	Open	24.06	25.0	1.242	-0.03	2.180	2.707
	CDMA2000 BC1	RTAP 153.6Kbps	Back	0mm	DSI 6	1175	1908.8	Open	24.13	25.0	1.222	-0.01	2.130	2.602

<FDD LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Output Power State	Ch.	Freq. (MHz)	EUT Flip State	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_Ant 1	20M	QPSK	1	99	Front	0mm	DSI 6	21100	2535	Open	22.25	23.0	1.189	0.04	0.828	0.984
	LTE Band 7_Ant 1	20M	QPSK	50	50	Front	0mm	DSI 6	21100	2535	Open	22.28	23.0	1.180	0.06	0.661	0.780
	LTE Band 7_Ant 1	20M	QPSK	1	99	Back	0mm	DSI 6	21100	2535	Open	22.25	23.0	1.189	0.03	0.764	0.908
	LTE Band 7_Ant 1	20M	QPSK	50	50	Back	0mm	DSI 6	21100	2535	Open	22.28	23.0	1.180	0.08	0.593	0.700
	LTE Band 7_Ant 1	20M	QPSK	1	99	Bottom Side	0mm	DSI 6	21100	2535	Open	22.25	23.0	1.189	0.04	0.891	1.059
	LTE Band 7_Ant 1	20M	QPSK	50	50	Bottom Side	0mm	DSI 6	21100	2535	Open	22.28	23.0	1.180	0.06	0.669	0.790
	LTE Band 7_Ant 1	20M	QPSK	1	0	Front	13mm	DSI 4	21100	2535	Open	23.22	24.0	1.197	-0.05	0.157	0.188
	LTE Band 7_Ant 1	20M	QPSK	50	0	Front	13mm	DSI 4	21100	2535	Open	22.28	23.0	1.180	0.04	0.126	0.149
	LTE Band 7_Ant 1	20M	QPSK	1	0	Back	11mm	DSI 4	21100	2535	Open	23.22	24.0	1.197	0.11	0.260	0.311
	LTE Band 7_Ant 1	20M	QPSK	50	0	Back	11mm	DSI 4	21100	2535	Open	22.28	23.0	1.180	0.16	0.211	0.249
	LTE Band 7_Ant 1	20M	QPSK	1	0	Bottom Side	13mm	DSI 4	21100	2535	Open	23.22	24.0	1.197	-0.02	0.349	0.418
	LTE Band 7_Ant 1	20M	QPSK	50	0	Bottom Side	13mm	DSI 4	21100	2535	Open	22.28	23.0	1.180	0.06	0.283	0.334
	LTE Band 7_Ant 2	20M	QPSK	1	0	Front	0mm	DSI 6	21100	2535	Open	21.17	22.0	1.211	0.02	1.11	1.344
	LTE Band 7_Ant 2	20M	QPSK	50	0	Front	0mm	DSI 6	21100	2535	Open	20.21	21.0	1.199	0.06	0.91	1.092
92	LTE Band 7_Ant 2	20M	QPSK	1	0	Bottom Side	0mm	DSI 6	21100	2535	Open	21.17	22.0	1.211	-0.12	1.220	1.477
	LTE Band 7_Ant 2	20M	QPSK	50	0	Bottom Side	0mm	DSI 6	21100	2535	Open	20.21	21.0	1.199	0.01	0.98	1.176
93	LTE Band 25_Ant 1	20M	QPSK	1	0	Back	0mm	DSI 6	26140	1860	Open	22.74	24.0	1.337	0.06	1.460	1.951
	LTE Band 25_Ant 1	20M	QPSK	50	0	Back	0mm	DSI 6	26140	1860	Open	21.85	23.0	1.303	0.07	1.360	1.772
	LTE Band 25_Ant 1	20M	QPSK	1	0	Bottom Side	0mm	DSI 6	26140	1860	Open	22.74	24.0	1.337	0.06	0.853	1.140
	LTE Band 25_Ant 1	20M	QPSK	50	0	Bottom Side	0mm	DSI 6	26140	1860	Open	21.85	23.0	1.303	0.07	0.656	0.855
94	LTE Band 30_Ant 1	10M	QPSK	1	0	Bottom Side	0mm	DSI 6	27710	2310	Open	22.65	24.0	1.365	-0.09	1.05	1.433
	LTE Band 30_Ant 1	10M	QPSK	25	0	Bottom Side	0mm	DSI 6	27710	2310	Open	21.66	23.0	1.361	0.09	0.874	1.190



<TDD LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Output Power State	Ch.	Freq. (MHz)	EUT Flip State	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_Ant 1	20M	QPSK	1	0	Bottom Side	0mm	DSI 6	40620	2593	Open	22.99	24.0	1.262	62.9	1.006	0.08	1.03	1.307
	LTE Band 41_Ant 1	20M	QPSK	1	0	Bottom Side	0mm	DSI 6	39750	2506	Open	22.28	24.0	1.486	62.9	1.006	-0.18	1.08	1.614
	LTE Band 41_Ant 1	20M	QPSK	1	0	Bottom Side	0mm	DSI 6	40185	2549.5	Open	22.3	24.0	1.479	62.9	1.006	0.13	1.15	1.711
	LTE Band 41_Ant 1	20M	QPSK	1	0	Bottom Side	0mm	DSI 6	41055	2636.5	Open	22.41	24.0	1.442	62.9	1.006	0.11	1.23	1.784
	LTE Band 41_Ant 1	20M	QPSK	1	0	Bottom Side	0mm	DSI 6	41490	2680	Open	22.71	24.0	1.346	62.9	1.006	0.01	1.21	1.638
	LTE Band 41_Ant 1	20M	QPSK	50	0	Bottom Side	0mm	DSI 6	40620	2593	Open	22.18	23.0	1.208	62.9	1.006	0.05	1.08	1.312
	LTE Band 41_Ant 1	20M	QPSK	100	0	Bottom Side	0mm	DSI 6	40620	2593	Open	22.26	23.0	1.186	62.9	1.006	0.07	1.15	1.372
	LTE Band 41_PC2_Ant 1	20M	QPSK	1	0	Bottom Side	0mm	DSI 6	40620	2593	Open	25.52	27.0	1.406	42.9	1.009	-0.06	1.21	1.717
	LTE Band 41_PC2_Ant 1	20M	QPSK	1	0	Bottom Side	0mm	DSI 6	39750	2506	Open	25.34	27.0	1.466	42.9	1.009	-0.18	1.35	1.996
	LTE Band 41_PC2_Ant 1	20M	QPSK	1	0	Bottom Side	0mm	DSI 6	40185	2549.5	Open	25.06	27.0	1.563	42.9	1.009	0.04	1.28	2.019
95	LTE Band 41_PC2_Ant 1	20M	QPSK	1	0	Bottom Side	0mm	DSI 6	41055	2636.5	Open	25.57	27	1.390	42.9	1.009	0.09	1.630	2.286
	LTE Band 41_PC2_Ant 1	20M	QPSK	1	0	Bottom Side	0mm	DSI 6	41490	2680	Open	25.72	27.0	1.343	42.9	1.009	0.01	1.39	1.883
	LTE Band 41_Ant 2	20M	QPSK	1	0	Bottom Side	0mm	DSI 6	39750	2506	Open	22.61	23.5	1.227	62.9	1.006	0.06	1.25	1.544
	LTE Band 41_Ant 2	20M	QPSK	1	0	Bottom Side	0mm	DSI 6	40620	2593	Open	22.03	23.5	1.403	62.9	1.006	0.03	1.21	1.708
	LTE Band 41_Ant 2	20M	QPSK	1	0	Bottom Side	0mm	DSI 6	40185	2549.5	Open	22.15	23.5	1.365	62.9	1.006	-0.08	1.08	1.483
	LTE Band 41_Ant 2	20M	QPSK	1	0	Bottom Side	0mm	DSI 6	41055	2636.5	Open	22.02	23.5	1.406	62.9	1.006	-0.06	1.27	1.796
	LTE Band 41_Ant 2	20M	QPSK	1	0	Bottom Side	0mm	DSI 6	41490	2680	Open	22.06	23.5	1.393	62.9	1.006	0.06	1.05	1.472
	LTE Band 41_Ant 2	20M	QPSK	50	0	Bottom Side	0mm	DSI 6	39750	2506	Open	21.78	22.5	1.180	62.9	1.006	0.04	0.91	1.081
	LTE Band 41_Ant 2	20M	QPSK	100	0	Bottom Side	0mm	DSI 6	39750	2506	Open	21.77	22.5	1.183	62.9	1.006	-0.12	0.951	1.132
	LTE Band 41_PC2_Ant 2	20M	QPSK	1	0	Bottom Side	0mm	DSI 6	41055	2636.5	Open	23.34	23.5	1.038	42.9	1.009	-0.01	1.06	1.110
	LTE Band 48_Ant 1	20M	QPSK	1	0	Front	0mm	DSI 6	55830	3609	Open	23.97	24.0	1.007	62.9	1.006	-0.06	1.190	1.205
	LTE Band 48_Ant 1	20M	QPSK	1	0	Front	0mm	DSI 6	55340	3560	Close	23.93	24.0	1.016	62.9	1.006	-0.03	0.985	1.007
	LTE Band 48_Ant 1	20M	QPSK	1	0	Front	0mm	DSI 6	56150	3641	Close	23.91	24.0	1.021	62.9	1.006	0.08	0.991	1.018
	LTE Band 48_Ant 1	20M	QPSK	1	0	Front	0mm	DSI 6	56640	3690	Close	23.89	24.0	1.026	62.9	1.006	0.01	0.928	0.958
	LTE Band 48_Ant 1	20M	QPSK	50	0	Front	0mm	DSI 6	55830	3609	Open	21.51	23.0	1.409	62.9	1.006	-0.01	1.080	1.531
	LTE Band 48_Ant 1	20M	QPSK	50	0	Front	0mm	DSI 6	55340	3560	Close	21.48	23.0	1.419	62.9	1.006	0.02	1.010	1.442
	LTE Band 48_Ant 1	20M	QPSK	50	0	Front	0mm	DSI 6	56150	3641	Close	21.44	23.0	1.432	62.9	1.006	0.03	0.998	1.438
	LTE Band 48_Ant 1	20M	QPSK	50	0	Front	0mm	DSI 6	56640	3690	Close	21.41	23.0	1.442	62.9	1.006	0.01	0.951	1.380
	LTE Band 48_Ant 1	20M	QPSK	100	0	Front	0mm	DSI 6	55830	3609	Close	21.44	23.0	1.432	62.9	1.006	0.07	0.945	1.362
	LTE Band 48_Ant 1	20M	QPSK	1	0	Back	0mm	DSI 6	55830	3609	Open	23.97	24.0	1.007	62.9	1.006	0.07	0.624	0.632
	LTE Band 48_Ant 1	20M	QPSK	50	0	Back	0mm	DSI 6	55830	3609	Open	21.51	23.0	1.409	62.9	1.006	0.04	0.542	0.768
	LTE Band 48_Ant 1	20M	QPSK	1	0	Right Side	0mm	DSI 6	55830	3609	Open	23.97	24.0	1.007	62.9	1.006	0.09	0.308	0.312
	LTE Band 48_Ant 1	20M	QPSK	50	0	Right Side	0mm	DSI 6	55830	3609	Open	21.51	23.0	1.409	62.9	1.006	0.08	0.256	0.363
	LTE Band 48_Ant 1	20M	QPSK	1	0	Bottom Side	0mm	DSI 6	55830	3609	Open	23.97	24.0	1.007	62.9	1.006	0.07	1.570	1.590
	LTE Band 48_Ant 1	20M	QPSK	1	0	Bottom Side	0mm	DSI 6	55340	3560	Close	23.93	24.0	1.016	62.9	1.006	-0.03	1.120	1.145
	LTE Band 48_Ant 1	20M	QPSK	1	0	Bottom Side	0mm	DSI 6	56150	3641	Close	23.91	24.0	1.021	62.9	1.006	0.08	1.300	1.335
	LTE Band 48_Ant 1	20M	QPSK	1	0	Bottom Side	0mm	DSI 6	56640	3690	Close	23.89	24.0	1.026	62.9	1.006	0.01	1.280	1.321
96	LTE Band 48_Ant 1	20M	QPSK	50	0	Bottom Side	0mm	DSI 6	55830	3609	Open	21.51	23.0	1.409	62.9	1.006	-0.07	1.410	1.999
	LTE Band 48_Ant 1	20M	QPSK	50	0	Bottom Side	0mm	DSI 6	55340	3560	Close	21.48	23.0	1.419	62.9	1.006	0.02	1.180	1.685
	LTE Band 48_Ant 1	20M	QPSK	50	0	Bottom Side	0mm	DSI 6	56150	3641	Close	21.44	23.0	1.432	62.9	1.006	0.03	1.150	1.657
	LTE Band 48_Ant 1	20M	QPSK	50	0	Bottom Side	0mm	DSI 6	56640	3690	Close	21.41	23.0	1.442	62.9	1.006	0.01	1.230	1.784
	LTE Band 48_Ant 1	20M	QPSK	100	0	Bottom Side	0mm	DSI 6	55830	3609	Close	21.44	23.0	1.432	62.9	1.006	0.07	1.080	1.556



<5G NR SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Output Power State	Ch.	Freq. (MHz)	EUT Flip State	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 n41 PC2/3 _Ant 2	100M	BPSK	1	1	Back	0 mm	DSI 6	518598	2592.99	Open	23.80	24.00	1.047	0.04	0.807	0.845
	FR1 n41 PC2/3 _Ant 2	100M	BPSK	135	69	Back	0 mm	DSI 6	518598	2592.99	Open	23.73	24.00	1.064	0.01	0.681	0.725
97	FR1 n41 PC2/3 _Ant 2	100M	BPSK	1	1	Bottom Side	0 mm	DSI 6	518598	2592.99	Open	23.80	24.00	1.047	0.03	1.470	1.539
	FR1 n41 PC2/3 _Ant 2	100M	BPSK	135	69	Bottom Side	0 mm	DSI 6	518598	2592.99	Open	23.73	24.00	1.064	0.04	1.210	1.288
	FR1 n41 PC2 _Ant 2	20M	QPSK	1	137	Front	13mm	DSI 4	518598	2592.99	Open	25.64	27.00	1.37	-0.06	0.097	0.133
	FR1 n41 PC2 _Ant 2	20M	QPSK	135	69	Front	13mm	DSI 4	518598	2592.99	Open	25.36	27.00	1.46	0.01	0.114	0.166
	FR1 n41 PC2 _Ant 2	20M	QPSK	1	137	Back	11mm	DSI 4	518598	2592.99	Open	25.64	27.00	1.37	0.07	0.148	0.202
	FR1 n41 PC2 _Ant 2	20M	QPSK	135	69	Back	11mm	DSI 4	518598	2592.99	Open	25.36	27.00	1.46	0.09	0.168	0.245
	FR1 n41 PC2 _Ant 2	20M	QPSK	1	137	Bottom Side	13mm	DSI 4	518598	2592.99	Open	25.64	27.00	1.37	0.04	0.182	0.249
	FR1 n41 PC2 _Ant 2	20M	QPSK	135	69	Bottom Side	13mm	DSI 4	518598	2592.99	Open	25.36	27.00	1.46	0.06	0.304	0.443

<WLAN2.4G SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power Table	Ch.	Freq. (MHz)	EUT Flip State	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	Back	0mm	Ant 3+4	Power Table 8	6	2437	Open	20.44	21.00	1.138	100	1.000	0.01	1.220	1.388
98	WLAN2.4GHz-	802.11b 1Mbps	Back	0mm	Ant 3+4	Power Table 9	6	2437	Open	23.98	24.00	1.005	100	1.000	-0.14	3.100	3.114
	WLAN2.4GHz-	802.11b 1Mbps	Back	0mm	Ant 3+4	Power Table 9	1	2412	Open	23.78	24.00	1.051	100	1.000	-0.02	2.880	3.027



<WLAN5G SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power Table	Ch.	Freq. (MHz)	EUT Flip State	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)
99	WLAN5.2GHz	802.11n-HT40 MCS0	Back	0mm	Ant 3+4	Power Table 8	46	5230	Open	20.98	21.50	1.127	95.85	1.043	0.04	0.729	0.857
	WLAN5.2GHz	802.11n-HT40 MCS0	Back	0mm	Ant 3+4	Power Table 9	46	5230	Open	22.56	23.00	1.107	95.85	1.043	0.01	0.939	1.084
	WLAN5.3GHz	802.11n-HT40 MCS0	Front	0mm	Ant 4	Power Table 8	54	5270	Open	16.98	18.00	1.265	95.88	1.043	-0.09	0.032	0.042
	WLAN5.3GHz	802.11n-HT40 MCS0	Back	0mm	Ant 4	Power Table 8	54	5270	Open	16.98	18.00	1.265	95.88	1.043	0.08	1.130	1.491
	WLAN5.3GHz	802.11n-HT40 MCS0	Right Side	0mm	Ant 4	Power Table 8	54	5270	Open	16.98	18.00	1.265	95.88	1.043	0.05	0.632	0.834
	WLAN5.3GHz	802.11n-HT40 MCS0	Bottom Side	0mm	Ant 4	Power Table 8	54	5270	Open	16.98	18.00	1.265	95.88	1.043	-0.11	0.052	0.069
	WLAN5.3GHz	802.11n-HT40 MCS0	Front	0mm	Ant 4	Power Table 9	54	5270	Open	19.20	20.00	1.202	95.88	1.043	0.01	0.031	0.039
	WLAN5.3GHz	802.11n-HT40 MCS0	Back	0mm	Ant 4	Power Table 9	54	5270	Open	19.20	20.00	1.202	95.88	1.043	0.03	1.240	1.555
	WLAN5.3GHz	802.11n-HT40 MCS0	Right Side	0mm	Ant 4	Power Table 9	54	5270	Open	19.20	20.00	1.202	95.88	1.043	-0.03	0.320	0.401
	WLAN5.3GHz	802.11n-HT40 MCS0	Bottom Side	0mm	Ant 4	Power Table 9	54	5270	Open	19.20	20.00	1.202	95.88	1.043	0.03	0.037	0.046
	WLAN5.3GHz	802.11n-HT40 MCS0	Front	0mm	Ant 3	Power Table 8	54	5270	Open	17.12	18.00	1.225	95.85	1.043	0.01	0.040	0.051
	WLAN5.3GHz	802.11n-HT40 MCS0	Back	0mm	Ant 3	Power Table 8	54	5270	Open	17.12	18.00	1.225	95.85	1.043	-0.01	1.090	1.392
	WLAN5.3GHz	802.11n-HT40 MCS0	Left Side	0mm	Ant 3	Power Table 8	54	5270	Open	17.12	18.00	1.225	95.85	1.043	0.09	0.082	0.105
	WLAN5.3GHz	802.11n-HT40 MCS0	Bottom Side	0mm	Ant 3	Power Table 8	54	5270	Open	17.12	18.00	1.225	95.85	1.043	-0.02	0.074	0.095
	WLAN5.3GHz	802.11n-HT40 MCS0	Front	0mm	Ant 3	Power Table 9	54	5270	Open	19.20	20.00	1.202	95.85	1.043	-0.06	0.020	0.025
100	WLAN5.3GHz	802.11n-HT40 MCS0	Back	0mm	Ant 3	Power Table 9	54	5270	Open	19.20	20.00	1.202	95.85	1.043	-0.09	2.250	2.821
	WLAN5.3GHz	802.11n-HT40 MCS0	Back	0mm	Ant 3	Power Table 9	62	5310	Open	14.80	15.50	1.175	95.85	1.043	0.01	1.080	1.323
	WLAN5.3GHz	802.11n-HT40 MCS0	Left Side	0mm	Ant 3	Power Table 9	54	5270	Open	19.20	20.00	1.202	95.85	1.043	0.08	0.291	0.365
	WLAN5.3GHz	802.11n-HT40 MCS0	Bottom Side	0mm	Ant 3	Power Table 9	54	5270	Open	19.20	20.00	1.202	95.85	1.043	0.06	0.128	0.161
	WLAN5.3GHz	802.11n-HT40 MCS0	Front	0mm	Ant 3+4	Power Table 8	54	5270	Open	19.91	21.00	1.285	95.85	1.043	0.02	0.065	0.087
	WLAN5.3GHz	802.11n-HT40 MCS0	Back	0mm	Ant 3+4	Power Table 8	54	5270	Open	19.91	21.00	1.285	95.85	1.043	-0.02	0.869	1.165
	WLAN5.3GHz	802.11n-HT40 MCS0	Left Side	0mm	Ant 3+4	Power Table 8	54	5270	Open	19.91	21.00	1.285	95.85	1.043	-0.03	0.053	0.071
	WLAN5.3GHz	802.11n-HT40 MCS0	Right Side	0mm	Ant 3+4	Power Table 8	54	5270	Open	19.91	21.00	1.285	95.85	1.043	0.09	0.413	0.554
	WLAN5.3GHz	802.11n-HT40 MCS0	Bottom Side	0mm	Ant 3+4	Power Table 8	54	5270	Open	19.91	21.00	1.285	95.85	1.043	0.01	0.089	0.119
	WLAN5.3GHz	802.11n-HT40 MCS0	Front	0mm	Ant 3+4	Power Table 9	54	5270	Open	22.52	23.00	1.117	95.85	1.043	-0.08	0.031	0.036
	WLAN5.3GHz	802.11n-HT40 MCS0	Back	0mm	Ant 3+4	Power Table 9	54	5270	Open	22.52	23.00	1.117	95.85	1.043	-0.02	1.070	1.246
	WLAN5.3GHz	802.11n-HT40 MCS0	Left Side	0mm	Ant 3+4	Power Table 9	54	5270	Open	22.52	23.00	1.117	95.85	1.043	0.06	0.412	0.480
	WLAN5.3GHz	802.11n-HT40 MCS0	Right Side	0mm	Ant 3+4	Power Table 9	54	5270	Open	22.52	23.00	1.117	95.85	1.043	0.04	0.666	0.776
	WLAN5.3GHz	802.11n-HT40 MCS0	Bottom Side	0mm	Ant 3+4	Power Table 9	54	5270	Open	22.52	23.00	1.117	95.85	1.043	0.02	0.161	0.188
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Front	0mm	Ant 4	Power Table 8	122	5610	Open	17.88	18.00	1.028	91.84	1.089	0.01	0.033	0.037
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Back	0mm	Ant 4	Power Table 8	122	5610	Open	17.88	18.00	1.028	91.84	1.089	-0.02	1.620	1.814
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Right Side	0mm	Ant 4	Power Table 8	122	5610	Open	17.88	18.00	1.028	91.84	1.089	0.03	0.559	0.626
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Bottom Side	0mm	Ant 4	Power Table 8	122	5610	Open	17.88	18.00	1.028	91.84	1.089	-0.08	0.044	0.049
	WLAN5.5GHz	802.11n-HT40 MCS0	Front	0mm	Ant 4	Power Table 9	110	5550	Open	19.50	20.00	1.122	95.88	1.043	0.01	0.024	0.028
	WLAN5.5GHz	802.11n-HT40 MCS0	Back	0mm	Ant 4	Power Table 9	110	5550	Open	19.50	20.00	1.122	95.88	1.043	-0.01	2.000	2.341
	WLAN5.5GHz	802.11n-HT40 MCS0	Back	0mm	Ant 4	Power Table 9	142	5710	Open	19.20	20.00	1.202	95.88	1.043	0.09	2.550	3.198
	WLAN5.5GHz	802.11n-HT40 MCS0	Right Side	0mm	Ant 4	Power Table 9	110	5550	Open	19.50	20.00	1.122	95.88	1.043	0.03	0.030	0.035
	WLAN5.5GHz	802.11n-HT40 MCS0	Bottom Side	0mm	Ant 4	Power Table 9	110	5550	Open	19.50	20.00	1.122	95.88	1.043	0.01	0.066	0.077
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Front	0mm	Ant 3	Power Table 8	138	5690	Open	17.66	18.00	1.081	92	1.087	0.02	0.057	0.067
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Back	0mm	Ant 3	Power Table 8	138	5690	Open	17.66	18.00	1.081	92	1.087	-0.03	1.840	2.163
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Back	0mm	Ant 3	Power Table 8	122	5610	Open	17.55	18.00	1.109	92	1.087	0.09	1.460	1.760
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Left Side	0mm	Ant 3	Power Table 8	138	5690	Open	17.66	18.00	1.081	92	1.087	0.01	0.162	0.190
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Bottom Side	0mm	Ant 3	Power Table 8	138	5690	Open	17.66	18.00	1.081	92	1.087	0.09	0.092	0.108
	WLAN5.5GHz	802.11n-HT40 MCS0	Front	0mm	Ant 3	Power Table 9	126	5630	Open	19.63	20.00	1.089	95.85	1.043	0.02	0.075	0.085
	WLAN5.5GHz	802.11n-HT40 MCS0	Back	0mm	Ant 3	Power Table 9	126	5630	Open	19.63	20.00	1.089	95.85	1.043	-0.03	2.290	2.601
	WLAN5.5GHz	802.11n-HT40 MCS0	Back	0mm	Ant 3	Power Table 9	110	5550	Open	19.50	20.00	1.122	95.85	1.043	0.01	1.680	1.966
	WLAN5.5GHz	802.11n-HT40 MCS0	Left Side	0mm	Ant 3	Power Table 9	126	5630	Open	19.63	20.00	1.089	95.85	1.043	0.05	0.472	0.536
	WLAN5.5GHz	802.11n-HT40 MCS0	Bottom Side	0mm	Ant 3	Power Table 9	126	5630	Open	19.63	20.00	1.089	95.85	1.043	0.09	0.352	0.400



Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power Table	Ch.	Freq. (MHz)	EUT Flip State	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	802.11ac-VHT80 MCS0	Front	0mm	Ant 3+4	Power Table 8	138	5690	Open	20.25	21.00	1.189	91.84	1.089	-0.03	0.074	0.096
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Back	0mm	Ant 3+4	Power Table 8	138	5690	Open	20.25	21.00	1.189	91.84	1.089	0.01	2.190	2.834
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Back	0mm	Ant 3+4	Power Table 8	122	5610	Open	20.22	21.00	1.197	91.84	1.089	0.04	1.760	2.294
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Left Side	0mm	Ant 3+4	Power Table 8	138	5690	Open	20.25	21.00	1.189	91.84	1.089	0.09	0.197	0.255
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Right Side	0mm	Ant 3+4	Power Table 8	138	5690	Open	20.25	21.00	1.189	91.84	1.089	-0.02	1.044	1.351
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Bottom Side	0mm	Ant 3+4	Power Table 8	138	5690	Open	20.25	21.00	1.189	91.84	1.089	0.08	0.079	0.102
	WLAN5.5GHz	802.11n-HT40 MCS0	Front	0mm	Ant 3+4	Power Table 9	110	5550	Open	22.57	23.00	1.104	95.85	1.043	0.11	1.264	1.456
	WLAN5.5GHz	802.11n-HT40 MCS0	Back	0mm	Ant 3+4	Power Table 9	110	5550	Open	22.57	23.00	1.104	95.85	1.043	0.01	2.700	3.109
101	WLAN5.5GHz	802.11n-HT40 MCS0	Back	0mm	Ant 3+4	Power Table 9	134	5670	Open	22.57	23.00	1.104	95.85	1.043	-0.02	2.810	3.236
	WLAN5.5GHz	802.11n-HT40 MCS0	Left Side	0mm	Ant 3+4	Power Table 9	110	5550	Open	22.57	23.00	1.104	95.85	1.043	0.15	0.479	0.552
	WLAN5.5GHz	802.11n-HT40 MCS0	Right Side	0mm	Ant 3+4	Power Table 9	110	5550	Open	22.57	23.00	1.104	95.85	1.043	0.08	1.787	2.058
	WLAN5.5GHz	802.11n-HT40 MCS0	Right Side	0mm	Ant 3+4	Power Table 9	134	5670	Open	22.57	23.00	1.104	95.85	1.043	0.08	1.380	1.589
	WLAN5.5GHz	802.11n-HT40 MCS0	Bottom Side	0mm	Ant 3+4	Power Table 9	110	5550	Open	22.57	23.00	1.104	95.85	1.043	0.19	0.373	0.430
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Back	0mm	Ant 4	Power Table 8	155	5775	Open	17.30	17.50	1.047	91.84	1.089	-0.06	1.190	1.357
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Side	0mm	Ant 4	Power Table 8	155	5775	Open	17.30	17.50	1.047	91.84	1.089	0.02	0.573	0.653
	WLAN5.8GHz	802.11a 6Mbps	Back	0mm	Ant 4	Power Table 9	149	5745	Open	20.20	21.00	1.202	98.06	1.020	-0.06	2.280	2.796
102	WLAN5.8GHz	802.11a 6Mbps	Back	0mm	Ant 4	Power Table 9	157	5785	Open	20.20	21.00	1.202	98.06	1.020	0.08	2.630	3.225
	WLAN5.8GHz	802.11a 6Mbps	Right Side	0mm	Ant 4	Power Table 9	149	5745	Open	20.20	21.00	1.202	98.06	1.020	-0.11	1.620	1.987
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Back	0mm	Ant 3	Power Table 8	155	5775	Open	17.43	17.50	1.016	92	1.087	0.01	0.938	1.036
	WLAN5.8GHz	802.11a 6Mbps	Back	0mm	Ant 3	Power Table 9	165	5825	Open	20.50	21.00	1.122	97.09	1.030	0.01	2.420	2.797
	WLAN5.8GHz	802.11a 6Mbps	Back	0mm	Ant 3	Power Table 9	157	5785	Open	20.30	21.00	1.175	97.09	1.030	0.07	1.650	1.997
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Back	0mm	Ant 3+4	Power Table 8	155	5785	Open	19.98	20.50	1.127	91.84	1.089	0.01	1.120	1.375
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Side	0mm	Ant 3+4	Power Table 8	155	5785	Open	19.98	20.50	1.127	91.84	1.089	0.02	0.558	0.685
	WLAN5.8GHz	802.11a 6Mbps	Back	0mm	Ant 3+4	Power Table 9	157	5785	Open	23.38	24.00	1.153	97.35	1.027	0.01	1.500	1.777
	WLAN5.8GHz	802.11a 6Mbps	Right Side	0mm	Ant 3+4	Power Table 9	157	5785	Open	23.38	24.00	1.153	97.35	1.027	0.01	1.520	1.801



16.5 Repeated SAR Measurement

<1g>

No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power Table	Ch.	Freq. (MHz)	EUT Flip State	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	Back	5 mm	Ant 3+4	Power Table 6	11	2462	Close	19.72	20.00	1.067	100	1.000	0.07	0.970	1	1.035
2nd	WLAN2.4GHz-	802.11b 1Mbps	Back	5 mm	Ant 3+4	Power Table 6	11	2462	Close	19.72	20.00	1.067	100	1.000	0.01	0.960	1.010	1.024
1st	WLAN5GHz-	802.11n-HT40 MCS0	Back	5mm	Ant 4	Power Table 6	54	5270	Close	18.48	19.00	1.127	95.88	1.043	0.06	0.886	1	1.042
2nd	WLAN5GHz-	802.11n-HT40 MCS0	Back	5mm	Ant 4	Power Table 6	54	5270	Close	18.48	19.00	1.127	95.88	1.043	0.01	0.883	1.003	1.038
1st	WLAN5GHz-	802.11ac-VHT80 MCS0	Back	5mm	Ant 3+4	Power Table 6	122	5610	Close	20.93	21.00	1.016	91.84	1.089	0.02	1.040	1	1.151
2nd	WLAN5GHz-	802.11ac-VHT80 MCS0	Back	5mm	Ant 3+4	Power Table 6	122	5610	Close	20.93	21.00	1.016	91.84	1.089	0.09	1.010	1.030	1.118
1st	WLAN5GHz-	802.11ac-VHT80 MCS0	Back	5mm	Ant 3	Power Table 6	155	5775	Close	18.93	19.00	1.016	92	1.087	-0.09	1.050	1	1.160
2nd	WLAN5GHz-	802.11ac-VHT80 MCS0	Back	5mm	Ant 3	Power Table 6	155	5775	Close	18.93	19.00	1.016	92	1.087	0.01	1.030	1.019	1.138

<10g>

No.	Band	Mode	Test Position	Gap (mm)	Antenna	Output Power State/ Power Table	Ch.	Freq. (MHz)	EUT Flip State	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	CDMA2000 BC1	RTAP 153.6Kbps	Back	0mm	-	DSI 6	25	1851.25	Open	24.06	25.0	1.242	-	-	-0.03	2.180	1	2.707
2nd	CDMA2000 BC1	RTAP 153.6Kbps	Back	0mm	-	DSI 6	25	1851.25	Open	24.06	25.0	1.242	-	-	0.01	2.160	1.009	2.682
1st	WLAN2.4GHz-	802.11b 1Mbps	Back	0mm	Ant 3+4	Power Table 9	6	2437	Open	23.98	24.00	1.005	100	1.000	-0.14	3.100	1	3.114
2nd	WLAN2.4GHz-	802.11b 1Mbps	Back	0mm	Ant 3+4	Power Table 9	6	2437	Open	23.98	24.00	1.005	100	1.000	-0.14	3.080	1.006	3.094
1st	WLAN5.3GHz	802.11n-HT40 MCS0	Back	0mm	Ant 3	Power Table 9	54	5270	Open	19.20	20.00	1.202	95.85	1.043	0.01	2.250	1	2.821
2nd	WLAN5.3GHz	802.11n-HT40 MCS0	Back	0mm	Ant 3	Power Table 9	54	5270	Open	19.20	20.00	1.202	95.85	1.043	0.03	2.210	1.018	2.771
1st	WLAN5.5GHz	802.11n-HT40 MCS0	Back	0mm	Ant 3+4	Power Table 9	134	5670	Open	22.57	23.00	1.104	95.85	1.043	-0.02	2.810	1	3.236
2nd	WLAN5.5GHz	802.11n-HT40 MCS0	Back	0mm	Ant 3+4	Power Table 9	134	5670	Open	22.57	23.00	1.104	95.85	1.043	0.09	2.790	1.007	3.213
1st	WLAN5.8GHz	802.11a 6Mbps	Back	0mm	Ant 4	Power Table 9	157	5785	Open	20.20	21.00	1.202	98.06	1.020	0.08	2.630	1	3.225
2nd	WLAN5.8GHz	802.11a 6Mbps	Back	0mm	Ant 4	Power Table 9	157	5785	Open	20.20	21.00	1.202	98.06	1.020	0.01	2.600	1.012	3.188

General Note:

1. Per KDB 865664 D01v01r04, for each frequency band, repeated SAR measurement is required only when the measured SAR is ≥ 0.8 W/kg.
2. Per KDB 865664 D01v01r04, if the ratio among the repeated measurement is ≤ 1.2 and the measured SAR < 1.45 W/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.

16.6 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 Head-Ant1			LTE Band 41(HPUE)-Linearity Data for Head-Ant2		
	LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)		LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	24.00	27.00	Maximum Tune up Power (dBm)	23.50	25.50
Reported 1g SAR (W/kg)	0.077	0.096	Reported 1g SAR (W/kg)	0.099	0.104
Duty Cycle	63.30%	43.30%	Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	159.00	217.01	Frame Averaged (mW)	141.71	153.63
Linearity SAR (W/kg)	0.105		Linearity SAR (W/kg)	0.107	
% deviation from expected linearity		-8.65%	% deviation from expected linearity		-3.10%
LTE Band 41(HPUE)-Linearity Data for Hotspot Open-Ant1			LTE Band 41(HPUE)-Linearity Data for Hotspo Open-Ant2		
	LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)		LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	21.10	21.10	Maximum Tune up Power (dBm)	19.80	19.80
Reported 1g SAR (W/kg)	0.864	0.607	Reported 1g SAR (W/kg)	0.788	0.529
Duty Cycle	63.30%	43.30%	Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	81.55	55.78	Frame Averaged (mW)	60.45	41.35
Linearity SAR (W/kg)	0.591		Linearity SAR (W/kg)	0.539	
% deviation from expected linearity		2.70%	% deviation from expected linearity		-1.86%
LTE Band 41(HPUE)-Linearity Data for Hotspot Close-Ant1			LTE Band 41(HPUE)-Linearity Data for Hotspo Close-Ant2		
	LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)		LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	19.10	19.10	Maximum Tune up Power (dBm)	21.00	21.00
Reported 1g SAR (W/kg)	0.919	0.681	Reported 1g SAR (W/kg)	0.917	0.605
Duty Cycle	63.30%	43.30%	Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	51.45	35.20	Frame Averaged (mW)	79.69	54.51
Linearity SAR (W/kg)	0.629		Linearity SAR (W/kg)	0.627	
% deviation from expected linearity		8.33%	% deviation from expected linearity		-3.55%
LTE Band 41(HPUE)-Linearity Data for Body-worn-Ant1			LTE Band 41(HPUE)-Linearity Data for Body-worn-Ant2		
	LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)		LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	19.10	19.10	Maximum Tune up Power (dBm)	21.00	21.00
Reported 1g SAR (W/kg)	0.676	0.429	Reported 1g SAR (W/kg)	0.565	0.386
Duty Cycle	63.30%	43.30%	Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	51.45	35.20	Frame Averaged (mW)	79.69	54.51
Linearity SAR (W/kg)	0.462		Linearity SAR (W/kg)	0.386	
% deviation from expected linearity		-7.23%	% deviation from expected linearity		-0.13%
LTE Band 41(HPUE)-Linearity Data for Handheld-Ant1			LTE Band 41(HPUE)-Linearity Data for Handheld-Ant2		
	LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)		LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	24.00	27.00	Maximum Tune up Power (dBm)	23.50	23.50
Reported 10g SAR (W/kg)	1.784	2.286	Reported 10g SAR (W/kg)	1.796	1.110
Duty Cycle	63.30%	43.30%	Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	159.00	217.01	Frame Averaged (mW)	141.71	96.94
Linearity SAR (W/kg)	2.435		Linearity SAR (W/kg)	1.229	
% deviation from expected linearity		-6.11%	% deviation from expected linearity		-9.65%

17. Simultaneous Transmission Analysis

No.	Simultaneous Transmission Configurations	Portable Handset			
		Head	Body-worn	Hotspot	Product specific 10g SAR
1.	WWAN+ WLAN2.4GHz Ant 3	Yes	Yes	Yes	Yes
2.	5G NR + WLAN2.4GHz Ant 3	Yes	Yes	Yes	Yes
3.	WWAN + WLAN2.4GHz Ant 4	Yes	Yes	Yes	Yes
4.	5G NR + WLAN2.4GHz Ant 4	Yes	Yes	Yes	Yes
5.	WWAN + WLAN2.4GHz Ant 3+4	Yes	Yes	Yes	Yes
6.	5G NR + WLAN2.4GHz Ant 3+4	Yes	Yes	Yes	Yes
7.	WWAN + WLAN5.3/5.5GHz Ant 3	Yes	Yes		Yes
8.	5G NR + WLAN5.3/5.5GHz Ant 3	Yes	Yes		Yes
9.	WWAN + WLAN5.3/5.5GHz Ant 4	Yes	Yes		Yes
10.	5G NR + WLAN5.3/5.5GHz Ant 4	Yes	Yes		Yes
11.	WWAN + WLAN5.3/5.5GHz Ant 3+4	Yes	Yes		Yes
12.	5G NR + WLAN5.3/5.5GHz Ant 3+4	Yes	Yes		Yes
13.	WWAN + WLAN5.2/5.8GHz Ant 3	Yes	Yes	Yes	Yes
14.	5G NR + WLAN5.2/5.8GHz Ant 3	Yes	Yes	Yes	Yes
15.	WWAN + WLAN5.2/5.8GHz Ant 4	Yes	Yes	Yes	Yes
16.	5G NR + WLAN5.2/5.8GHz Ant 4	Yes	Yes	Yes	Yes
17.	WWAN + WLAN5.2/5.8GHz Ant 3+4	Yes	Yes	Yes	Yes
18.	5G NR + WLAN5.2/5.8GHz Ant 3+4	Yes	Yes	Yes	Yes
19.	WWAN + Bluetooth Ant 4	Yes	Yes	Yes	Yes
20.	5G NR + Bluetooth Ant 4	Yes	Yes	Yes	Yes
21.	WWAN+ WLAN2.4GHz Ant 3+ Bluetooth Ant 4	Yes	Yes	Yes	Yes
22.	5G NR + WLAN2.4GHz Ant 3+ Bluetooth Ant 4	Yes	Yes	Yes	Yes
23.	WWAN + WLAN5.3/5.5GHz Ant 3+ Bluetooth Ant 4	Yes	Yes		Yes
24.	5G NR + WLAN5.3/5.5GHz Ant 3+ Bluetooth Ant 4	Yes	Yes		Yes
25.	WWAN + WLAN5.2/5.8GHz Ant 3+ Bluetooth Ant 4	Yes	Yes	Yes	Yes
26.	5G NR + WLAN5.2/5.8GHz Ant 3+ Bluetooth Ant 4	Yes	Yes	Yes	Yes
27.	WWAN + WLAN5.3/5.5GHz Ant 4+ Bluetooth Ant 4	Yes	Yes		Yes
28.	5G NR + WLAN5.3/5.5GHz Ant 4+ Bluetooth Ant 4	Yes	Yes		Yes
29.	WWAN + WLAN5.2/5.8GHz Ant 4+ Bluetooth Ant 4	Yes	Yes	Yes	Yes
30.	5G NR + WLAN5.2/5.8GHz Ant 4+ Bluetooth Ant 4	Yes	Yes	Yes	Yes
31.	WWAN + WLAN5.3/5.5GHz Ant 3+4 + Bluetooth Ant 4	Yes	Yes		Yes
32.	5G NR + WLAN5.3/5.5GHz Ant 3+4 + Bluetooth Ant 4	Yes	Yes		Yes
33.	WWAN + WLAN5.2/5.8GHz Ant 3+4 + Bluetooth Ant 4	Yes	Yes	Yes	Yes
34.	5G NR + WLAN5.2/5.8GHz Ant 3+4 + Bluetooth Ant 4	Yes	Yes	Yes	Yes
35.	WWAN + WLAN2.4GHz Ant 4+ WLAN5.3/5.5GHz Ant 3	Yes	Yes		Yes
36.	5G NR + WLAN2.4GHz Ant 4+ WLAN5.3/5.5GHz Ant 3	Yes	Yes		Yes
37.	WWAN + WLAN2.4GHz Ant 4+ WLAN5.2/5.8GHz Ant 3	Yes	Yes	Yes	Yes
38.	5G NR + WLAN2.4GHz Ant 4+ WLAN5.2/5.8GHz Ant 3	Yes	Yes	Yes	Yes
39.	WWAN + WLAN2.4GHz Ant 3+ WLAN5.3/5.5GHz Ant 4	Yes	Yes		Yes
40.	5G NR + WLAN2.4GHz Ant 3+ WLAN5.3/5.5GHz Ant 4	Yes	Yes		Yes
41.	WWAN + WLAN2.4GHz Ant 3+ WLAN5.2/5.8GHz Ant 4	Yes	Yes	Yes	Yes
42.	5G NR + WLAN2.4GHz Ant 3+ WLAN5.2/5.8GHz Ant 4	Yes	Yes	Yes	Yes
43.	WLAN2.4GHz Ant 4+ WLAN5.3/5.5GHz Ant 3	Yes	Yes		Yes
44.	WLAN2.4GHz Ant 4+ WLAN5.2/5.8GHz Ant 3	Yes	Yes	Yes	Yes



45.	WLAN2.4GHz Ant 3+ WLAN5.3/5.5GHz Ant 4	Yes	Yes		Yes
46.	WLAN2.4GHz Ant 3+ WLAN5.2/5.8GHz Ant 4	Yes	Yes	Yes	Yes
47.	WLAN2.4GHz Ant 3+ Bluetooth Ant 4	Yes	Yes	Yes	Yes
48.	WLAN5.3/5.5GHz Ant 3+ Bluetooth Ant 4	Yes	Yes		Yes
49.	WLAN5.2/5.8GHz Ant 3+ Bluetooth Ant 4	Yes	Yes	Yes	Yes
50.	WLAN5.3/5.5GHz Ant 4+ Bluetooth Ant 4	Yes	Yes		Yes
51.	WLAN5.2/5.8GHz Ant 4+ Bluetooth Ant 4	Yes	Yes	Yes	Yes
52.	WLAN5.3/5.5GHz Ant 3+4+ Bluetooth Ant 4	Yes	Yes		Yes
53.	WLAN5.2/5.8GHz Ant 3+4+ Bluetooth Ant 4	Yes	Yes	Yes	Yes
54.	WWAN + WLAN2.4GHz Ant 3 + WLAN5.3/5.5GHz Ant 4 + Bluetooth Ant 4	Yes	Yes		Yes
55.	5GNR + WLAN2.4GHz Ant 3 + WLAN5.3/5.5GHz Ant 4+ Bluetooth Ant 4	Yes	Yes		Yes
56.	WWAN + WLAN2.4GHz Ant 3 + WLAN5.2/5.8GHz Ant 4 + Bluetooth Ant 4	Yes	Yes	Yes	Yes
57.	5GNR + WLAN2.4GHz Ant 3 + WLAN5.2/5.8GHz Ant 4+ Bluetooth Ant 4	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 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. According to the EUT character, WLAN 5GHz and Bluetooth can transmit simultaneously.
7. According to the EUT character, WLAN 2.4GHz Ant3 and Bluetooth Ant4 can transmit simultaneously.
8. According to the EUT character, WLAN 2.4GHz Ant4 or WLAN 2.4GHz Ant3+4 and Bluetooth Ant4 cannot transmit simultaneously.
9. According to the EUT character, WLAN 2.4GHz Ant4 and WLAN 5GHz Ant3 can transmit simultaneously.
10. According to the EUT character, WLAN 2.4GHz Ant3 and WLAN 5GHz Ant4 can transmit simultaneously.
11. According to the EUT character, WLAN 2.4GHz Ant3 and WLAN 5GHz Ant3/Ant3+4 cannot transmit simultaneously.
12. According to the EUT character, WLAN 2.4GHz Ant4 and WLAN 5GHz Ant4/Ant3+4 cannot transmit simultaneously.
13. For simultaneously analysis, since the SAR summation of 3 transmitters can cover others combination of 2 transmitters, therefore in this section did not additional to evaluate 2TX combination of simultaneously transmission.
14. For simultaneously analysis, since the SAR summation of 4 transmitters can cover others combination of 3 transmitters, therefore in this section did not additional to evaluate 3TX combination of simultaneously transmission.
15. Chose the worst zoom scan SAR of WLAN correspondingly for co-located with WWAN analysis.
16. The reported SAR summation is calculated based on the same configuration and test position.
17. 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) $SPLSR = (SAR1 + SAR2)^{1.5} / (\min. \text{ separation distance, mm})$, 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 $SPLSR \leq 0.04$ for 1g SAR and $SPLSR \leq 0.10$ 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 17.7.
 - vi) If $SPLSR > 0.04$, volume scan measurement is required, volume scan measured SAR please refer to 17.8.

17.1 5G NR + LTE + WLAN + BT Sim-Tx analysis

In 5G NR + LTE + WLAN + BT simultaneous transmission, 5G NR and LTE transmission are managed and controlled by Qualcomm® Smart Transmit, while the RF exposure from WLAN and BT radios is managed using legacy approach, i.e., through a fixed power back-off if needed.

Since WLAN and BT do not employ time-averaging, 1gSAR and 10gSAR measurement for WLAN and BT need to be conducted at their corresponding rated power following current FCC test procedures to determine reported SAR values.

Smart Transmit current implementation assumes hotspots from 5G NR and LTE are collocated. Therefore, for a total of 100% exposure margin, if LTE uses x%, then the exposure margin left for 5G NR is capped to (100-x)%. Thus, the compliance equation for LTE + 5G NR is

$$x\% * A + (100-x)\% * B \leq 1.0,$$

Where, A is normalized reported time-averaged SAR exposure ratio from LTE, and $A \leq 1.0$; B is normalized reported time-averaged exposure ratio from 5G NR (i.e., PD exposure for 5G FR2 or SAR exposure for 5G FR1), and $B \leq 1.0$.

Let C = normalized reported SAR exposure ratio from WLAN+BT, then for compliance,

$$x\% * A + (100-x)\% * B + C \leq 1.0 \quad (1)$$

$$x\% * A + (100-x)\% * B \leq x\% * \max(A, B) + (100-x)\% * \max(A, B) \leq \max(A, B)$$

$$x\% * A + (100-x)\% * B + C \leq \max(A, B) + C \leq 1.0 \quad (2)$$

if $A + C \leq 1.0$ and $B + C \leq 1.0$ can be proven, then " $x\% * A + (100-x)\% * B + C \leq 1.0$ ". Therefore simultaneous transmission analysis for 5G NR + LTE + WLAN + BT can be performed in two steps

Step 1: Prove total exposure ratio (TER) of LTE + WLAN + BT < 1

Step 2: Prove total exposure ratio (TER) of 5G NR + WLAN + BT < 1

17.2 SPLSR and Volume SAR description

1. Per KDB 447498 D01v06, simultaneous transmission SAR is compliant if,
 - vii) 1g Scalar SAR summation < 1.6W/kg and 10g Scalar SAR summation < 4.0W/kg.
 - viii) $SPLSR = (SAR1 + SAR2)^{1.5} / (\text{min. separation distance, mm})$, 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.
 - ix) If $SPLSR \leq 0.04$ for 1g SAR and $SPLSR \leq 0.10$ for 10g SAR, simultaneously transmission SAR measurement is not necessary.
 - x) Simultaneously transmission SAR measurement, and the reported multi-band 1g SAR < 1.6W/kg and 10g SAR < 4.0W/kg.
 - xi) The SPLSR calculated results please refer to section 17.7.
 - xii) If $SPLSR > 0.04$, volume scan measurement is required, volume scan measured SAR please refer to 17.8.
2. Section 17.7 SPLSR results are complied with $SPLSR \leq 0.04$ for 1g SAR.
3. Section 17.8 Volume SAR test results are complied 1g SAR < 1.6W/kg and 10g SAR < 4.0W/kg.
4. Volume scan procedure followed with KDB865664D01, the detail volume SAR plots can refer to Appendix B.
5. The following table shading with light green color means the co-locate SAR need to perform SPLSR analysis and can refer the case number for detail traced to section 17.7.
6. The following table shading with yellow color means the co-locate SAR need to perform Volume scan and can refer the case number for detail traced to section 17.8.



17.3 Head Exposure Conditions

<Flip open>

WWAN Band	Exposure Position	1	2	3	4	5	6	7	8	1+2+6 Summed 1g SAR (W/kg)	1+3+5+8 Summed 1g SAR (W/kg)	1+4 Summed 1g SAR (W/kg)	1+7+8 Summed 1g SAR (W/kg)	1+6+8 Summed 1g SAR (W/kg)
		WWAN	2.4GHz WLAN Ant 4	2.4GHz WLAN Ant 3	2.4GHz WLAN Ant 3+4	5GHz WLAN Ant 4	5GHz WLAN Ant 3	5GHz WLAN Ant 3+4	Bluetooth Ant 4					
		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)	1g SAR (W/kg)					
GSM850	Right Cheek	0.239	0.009	0.005	0.112	0.050	0.078	0.058	0.001	0.33	0.30	0.35	0.30	0.32
	Right Tilted	0.089	0.129	0.006	0.035	0.092	0.047	0.007	0.001	0.27	0.19	0.12	0.10	0.14
	Left Cheek	0.194	0.248	0.041	0.020	0.196	0.110	0.100	0.001	0.55	0.43	0.21	0.30	0.31
	Left Tilted	0.161	0.016	0.050	0.020	0.084	0.070	0.035	0.001	0.25	0.30	0.18	0.20	0.23
GSM1900	Right Cheek	0.115	0.009	0.005	0.112	0.050	0.078	0.058	0.001	0.20	0.17	0.23	0.17	0.19
	Right Tilted	0.081	0.129	0.129	0.035	0.092	0.047	0.007	0.001	0.26	0.30	0.12	0.09	0.13
	Left Cheek	0.163	0.248	0.041	0.020	0.196	0.110	0.100	0.001	0.52	0.40	0.18	0.26	0.27
	Left Tilted	0.094	0.016	0.050	0.020	0.084	0.070	0.035	0.001	0.18	0.23	0.11	0.13	0.17
WCDMA II	Right Cheek	0.160	0.009	0.005	0.112	0.050	0.078	0.058	0.001	0.25	0.22	0.27	0.22	0.24
	Right Tilted	0.063	0.129	0.006	0.035	0.092	0.047	0.007	0.001	0.24	0.16	0.10	0.07	0.11
	Left Cheek	0.210	0.248	0.041	0.020	0.196	0.110	0.100	0.001	0.57	0.45	0.23	0.31	0.32
	Left Tilted	0.127	0.016	0.050	0.020	0.084	0.070	0.035	0.001	0.21	0.26	0.15	0.16	0.20
WCDMA IV	Right Cheek	0.167	0.009	0.005	0.112	0.050	0.078	0.058	0.001	0.25	0.22	0.28	0.23	0.25
	Right Tilted	0.099	0.129	0.006	0.035	0.092	0.047	0.007	0.001	0.28	0.20	0.13	0.11	0.15
	Left Cheek	0.232	0.248	0.041	0.020	0.196	0.110	0.100	0.001	0.59	0.47	0.25	0.33	0.34
	Left Tilted	0.150	0.016	0.050	0.020	0.084	0.070	0.035	0.001	0.24	0.29	0.17	0.19	0.22
WCDMA V	Right Cheek	0.168	0.009	0.005	0.112	0.050	0.078	0.058	0.001	0.26	0.22	0.28	0.23	0.25
	Right Tilted	0.088	0.129	0.006	0.035	0.092	0.047	0.007	0.001	0.26	0.19	0.12	0.10	0.14
	Left Cheek	0.104	0.248	0.041	0.020	0.196	0.110	0.100	0.001	0.46	0.34	0.12	0.21	0.22
	Left Tilted	0.099	0.016	0.050	0.020	0.084	0.070	0.035	0.001	0.19	0.23	0.12	0.14	0.17
CDMA2000 BC0	Right Cheek	0.203	0.009	0.005	0.112	0.050	0.078	0.058	0.001	0.29	0.26	0.32	0.26	0.28
	Right Tilted	0.112	0.129	0.006	0.035	0.092	0.047	0.007	0.001	0.29	0.21	0.15	0.12	0.16
	Left Cheek	0.153	0.248	0.041	0.020	0.196	0.110	0.100	0.001	0.51	0.39	0.17	0.25	0.26
	Left Tilted	0.124	0.016	0.050	0.020	0.084	0.070	0.035	0.001	0.21	0.26	0.14	0.16	0.20
CDMA2000 BC1	Right Cheek	0.266	0.009	0.005	0.112	0.050	0.078	0.058	0.001	0.35	0.32	0.38	0.33	0.35
	Right Tilted	0.156	0.129	0.006	0.035	0.092	0.047	0.007	0.001	0.33	0.26	0.19	0.16	0.20
	Left Cheek	0.281	0.248	0.041	0.020	0.196	0.110	0.100	0.001	0.64	0.52	0.30	0.38	0.39
	Left Tilted	0.159	0.016	0.050	0.020	0.084	0.070	0.035	0.001	0.25	0.29	0.18	0.20	0.23
CDMA2000 BC10	Right Cheek	0.187	0.009	0.005	0.112	0.050	0.078	0.058	0.001	0.27	0.24	0.30	0.25	0.27
	Right Tilted	0.114	0.129	0.006	0.035	0.092	0.047	0.007	0.001	0.29	0.21	0.15	0.12	0.16
	Left Cheek	0.162	0.248	0.041	0.020	0.196	0.110	0.100	0.001	0.52	0.40	0.18	0.26	0.27
	Left Tilted	0.131	0.016	0.050	0.020	0.084	0.070	0.035	0.001	0.22	0.27	0.15	0.17	0.20
LTE Band 25_Ant 1	Right Cheek	0.146	0.009	0.005	0.112	0.050	0.078	0.058	0.001	0.23	0.20	0.26	0.21	0.23
	Right Tilted	0.088	0.129	0.006	0.035	0.092	0.047	0.007	0.001	0.26	0.19	0.12	0.10	0.14
	Left Cheek	0.233	0.248	0.041	0.020	0.196	0.110	0.100	0.001	0.59	0.47	0.25	0.33	0.34
	Left Tilted	0.078	0.016	0.050	0.020	0.084	0.070	0.035	0.001	0.16	0.21	0.10	0.11	0.15



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LTE Band 25_Ant 2	Right Cheek	0.111	0.009	0.005	0.112	0.050	0.078	0.058	0.001	0.20	0.17	0.22	0.17	0.19
	Right Tilted	0.069	0.129	0.006	0.035	0.092	0.047	0.007	0.001	0.25	0.17	0.10	0.08	0.12
	Left Cheek	0.077	0.248	0.041	0.020	0.196	0.110	0.100	0.001	0.44	0.32	0.10	0.18	0.19
	Left Tilted	0.028	0.016	0.050	0.020	0.084	0.070	0.035	0.001	0.11	0.16	0.05	0.06	0.10
LTE Band 26_Ant 1	Right Cheek	0.165	0.009	0.005	0.112	0.050	0.078	0.058	0.001	0.25	0.22	0.28	0.22	0.24
	Right Tilted	0.101	0.129	0.006	0.035	0.092	0.047	0.007	0.001	0.28	0.20	0.14	0.11	0.15
	Left Cheek	0.136	0.248	0.041	0.020	0.196	0.110	0.100	0.001	0.49	0.37	0.16	0.24	0.25
	Left Tilted	0.089	0.016	0.050	0.020	0.084	0.070	0.035	0.001	0.18	0.22	0.11	0.13	0.16
LTE Band 26_Ant 2	Right Cheek	0.042	0.009	0.005	0.112	0.050	0.078	0.058	0.001	0.13	0.10	0.15	0.10	0.12
	Right Tilted	0.032	0.129	0.006	0.035	0.092	0.047	0.007	0.001	0.21	0.13	0.07	0.04	0.08
	Left Cheek	0.052	0.248	0.041	0.020	0.196	0.110	0.100	0.001	0.41	0.29	0.07	0.15	0.16
	Left Tilted	0.023	0.016	0.050	0.020	0.084	0.070	0.035	0.001	0.11	0.16	0.04	0.06	0.09
LTE Band 7_Ant 1	Right Cheek	0.112	0.009	0.005	0.112	0.050	0.078	0.058	0.001	0.20	0.17	0.22	0.17	0.19
	Right Tilted	0.123	0.129	0.006	0.035	0.092	0.047	0.007	0.001	0.30	0.22	0.16	0.13	0.17
	Left Cheek	0.162	0.248	0.041	0.020	0.196	0.110	0.100	0.001	0.52	0.40	0.18	0.26	0.27
	Left Tilted	0.063	0.016	0.050	0.020	0.084	0.070	0.035	0.001	0.15	0.20	0.08	0.10	0.13
LTE Band 7_Ant 2	Right Cheek	0.231	0.009	0.005	0.112	0.050	0.078	0.058	0.001	0.32	0.29	0.34	0.29	0.31
	Right Tilted	0.064	0.129	0.006	0.035	0.092	0.047	0.007	0.001	0.24	0.16	0.10	0.07	0.11
	Left Cheek	0.088	0.248	0.041	0.020	0.196	0.110	0.100	0.001	0.45	0.33	0.11	0.19	0.20
	Left Tilted	0.092	0.016	0.050	0.020	0.084	0.070	0.035	0.001	0.18	0.23	0.11	0.13	0.16
LTE Band 12_Ant 1	Right Cheek	0.086	0.009	0.005	0.112	0.050	0.078	0.058	0.001	0.17	0.14	0.20	0.15	0.17
	Right Tilted	0.051	0.129	0.006	0.035	0.092	0.047	0.007	0.001	0.23	0.15	0.09	0.06	0.10
	Left Cheek	0.079	0.248	0.041	0.020	0.196	0.110	0.100	0.001	0.44	0.32	0.10	0.18	0.19
	Left Tilted	0.063	0.016	0.050	0.020	0.084	0.070	0.035	0.001	0.15	0.20	0.08	0.10	0.13
LTE Band 12_Ant 2	Right Cheek	0.040	0.009	0.005	0.112	0.050	0.078	0.058	0.001	0.13	0.10	0.15	0.10	0.12
	Right Tilted	0.025	0.129	0.006	0.035	0.092	0.047	0.007	0.001	0.20	0.12	0.06	0.03	0.07
	Left Cheek	0.041	0.248	0.041	0.020	0.196	0.110	0.100	0.001	0.40	0.28	0.06	0.14	0.15
	Left Tilted	0.022	0.016	0.050	0.020	0.084	0.070	0.035	0.001	0.11	0.16	0.04	0.06	0.09
LTE Band 13_Ant 1	Right Cheek	0.119	0.009	0.005	0.112	0.050	0.078	0.058	0.001	0.21	0.18	0.23	0.18	0.20
	Right Tilted	0.078	0.129	0.006	0.035	0.092	0.047	0.007	0.001	0.25	0.18	0.11	0.09	0.13
	Left Cheek	0.129	0.248	0.041	0.020	0.196	0.110	0.100	0.001	0.49	0.37	0.15	0.23	0.24
	Left Tilted	0.086	0.016	0.050	0.020	0.084	0.070	0.035	0.001	0.17	0.22	0.11	0.12	0.16
LTE Band 13_Ant 2	Right Cheek	0.074	0.009	0.005	0.112	0.050	0.078	0.058	0.001	0.16	0.13	0.19	0.13	0.15
	Right Tilted	0.052	0.129	0.006	0.035	0.092	0.047	0.007	0.001	0.23	0.15	0.09	0.06	0.10
	Left Cheek	0.074	0.248	0.041	0.020	0.196	0.110	0.100	0.001	0.43	0.31	0.09	0.18	0.19
	Left Tilted	0.037	0.016	0.050	0.020	0.084	0.070	0.035	0.001	0.12	0.17	0.06	0.07	0.11
LTE Band 14_Ant 1	Right Cheek	0.116	0.009	0.005	0.112	0.050	0.078	0.058	0.001	0.20	0.17	0.23	0.18	0.20
	Right Tilted	0.092	0.129	0.006	0.035	0.092	0.047	0.007	0.001	0.27	0.19	0.13	0.10	0.14
	Left Cheek	0.148	0.248	0.041	0.020	0.196	0.110	0.100	0.001	0.51	0.39	0.17	0.25	0.26
	Left Tilted	0.086	0.016	0.050	0.020	0.084	0.070	0.035	0.001	0.17	0.22	0.11	0.12	0.16
LTE Band 14_Ant 2	Right Cheek	0.082	0.009	0.005	0.112	0.050	0.078	0.058	0.001	0.17	0.14	0.19	0.14	0.16
	Right Tilted	0.054	0.129	0.006	0.035	0.092	0.047	0.007	0.001	0.23	0.15	0.09	0.06	0.10
	Left Cheek	0.081	0.248	0.041	0.020	0.196	0.110	0.100	0.001	0.44	0.32	0.10	0.18	0.19

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	Left Tilted	0.039	0.016	0.050	0.020	0.084	0.070	0.035	0.001	0.13	0.17	0.06	0.08	0.11
LTE Band 30_Ant 1	Right Cheek	0.069	0.009	0.005	0.112	0.050	0.078	0.058	0.001	0.16	0.13	0.18	0.13	0.15
	Right Tilted	0.060	0.129	0.006	0.035	0.092	0.047	0.007	0.001	0.24	0.16	0.10	0.07	0.11
	Left Cheek	0.104	0.248	0.041	0.020	0.196	0.110	0.100	0.001	0.46	0.34	0.12	0.21	0.22
	Left Tilted	0.045	0.016	0.050	0.020	0.084	0.070	0.035	0.001	0.13	0.18	0.07	0.08	0.12
LTE Band 30_Ant 2	Right Cheek	0.061	0.009	0.005	0.112	0.050	0.078	0.058	0.001	0.15	0.12	0.17	0.12	0.14
	Right Tilted	0.026	0.129	0.006	0.035	0.092	0.047	0.007	0.001	0.20	0.13	0.06	0.03	0.07
	Left Cheek	0.037	0.248	0.041	0.020	0.196	0.110	0.100	0.001	0.40	0.28	0.06	0.14	0.15
	Left Tilted	0.037	0.016	0.050	0.020	0.084	0.070	0.035	0.001	0.12	0.17	0.06	0.07	0.11



WWAN Band	Exposure Position	1	2	3	4	5	6	7	8	1+2+6	1+3+5+8	1+4	1+7+8	1+6+8
		WWAN	2.4GHz WLAN Ant 4	2.4GHz WLAN Ant 3	2.4GHz WLAN Ant 3+4	5GHz WLAN Ant 4	5GHz WLAN Ant 3	5GHz WLAN Ant 3+4	Bluetooth Ant 4	Summed	Summed	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)	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 Band 66_Ant 1	Right Cheek	0.191	0.009	0.005	0.112	0.050	0.078	0.058	0.001	0.28	0.25	0.30	0.25	0.27
	Right Tilted	0.097	0.129	0.006	0.035	0.092	0.047	0.007	0.001	0.27	0.20	0.13	0.11	0.15
	Left Cheek	0.187	0.248	0.041	0.020	0.196	0.110	0.100	0.001	0.55	0.43	0.21	0.29	0.30
	Left Tilted	0.119	0.016	0.050	0.020	0.084	0.070	0.035	0.001	0.21	0.25	0.14	0.16	0.19
LTE Band 66_Ant 2	Right Cheek	0.126	0.009	0.005	0.112	0.050	0.078	0.058	0.001	0.21	0.18	0.24	0.19	0.21
	Right Tilted	0.077	0.129	0.129	0.035	0.092	0.047	0.007	0.001	0.25	0.30	0.11	0.09	0.13
	Left Cheek	0.092	0.248	0.041	0.020	0.196	0.110	0.100	0.001	0.45	0.33	0.11	0.19	0.20
	Left Tilted	0.040	0.016	0.050	0.020	0.084	0.070	0.035	0.001	0.13	0.18	0.06	0.08	0.11
LTE Band 71_Ant 1	Right Cheek	0.066	0.009	0.005	0.112	0.050	0.078	0.058	0.001	0.15	0.12	0.18	0.13	0.15
	Right Tilted	0.043	0.129	0.006	0.035	0.092	0.047	0.007	0.001	0.22	0.14	0.08	0.05	0.09
	Left Cheek	0.073	0.248	0.041	0.020	0.196	0.110	0.100	0.001	0.43	0.31	0.09	0.17	0.18
	Left Tilted	0.051	0.016	0.050	0.020	0.084	0.070	0.035	0.001	0.14	0.19	0.07	0.09	0.12
LTE Band 71_Ant 2	Right Cheek	0.036	0.009	0.005	0.112	0.050	0.078	0.058	0.001	0.12	0.09	0.15	0.10	0.12
	Right Tilted	0.021	0.129	0.006	0.035	0.092	0.047	0.007	0.001	0.20	0.12	0.06	0.03	0.07
	Left Cheek	0.030	0.248	0.041	0.020	0.196	0.110	0.100	0.001	0.39	0.27	0.05	0.13	0.14
	Left Tilted	0.015	0.016	0.050	0.020	0.084	0.070	0.035	0.001	0.10	0.15	0.04	0.05	0.09
LTE Band 41_Ant 1	Right Cheek	0.063	0.009	0.005	0.112	0.050	0.078	0.058	0.001	0.15	0.12	0.18	0.12	0.14
	Right Tilted	0.074	0.129	0.006	0.035	0.092	0.047	0.007	0.001	0.25	0.17	0.11	0.08	0.12
	Left Cheek	0.096	0.248	0.041	0.020	0.196	0.110	0.100	0.001	0.45	0.33	0.12	0.20	0.21
	Left Tilted	0.042	0.016	0.050	0.020	0.084	0.070	0.035	0.001	0.13	0.18	0.06	0.08	0.11
LTE Band 41_Ant 2	Right Cheek	0.099	0.009	0.005	0.112	0.050	0.078	0.058	0.001	0.19	0.16	0.21	0.16	0.18
	Right Tilted	0.086	0.129	0.006	0.035	0.092	0.047	0.007	0.001	0.26	0.19	0.12	0.09	0.13
	Left Cheek	0.104	0.248	0.041	0.020	0.196	0.110	0.100	0.001	0.46	0.34	0.12	0.21	0.22
	Left Tilted	0.099	0.016	0.050	0.020	0.084	0.070	0.035	0.001	0.19	0.23	0.12	0.14	0.17
LTE Band 48_Ant 1	Right Cheek	0.077	0.009	0.005	0.112	0.050	0.078	0.058	0.001	0.16	0.13	0.19	0.14	0.16
	Right Tilted	0.067	0.129	0.006	0.035	0.092	0.047	0.007	0.001	0.24	0.17	0.10	0.08	0.12
	Left Cheek	0.057	0.248	0.041	0.020	0.196	0.110	0.100	0.001	0.42	0.30	0.08	0.16	0.17
	Left Tilted	0.044	0.016	0.050	0.020	0.084	0.070	0.035	0.001	0.13	0.18	0.06	0.08	0.12
LTE Band 48_Ant 2	Right Cheek	0.059	0.009	0.005	0.112	0.050	0.078	0.058	0.001	0.15	0.12	0.17	0.12	0.14
	Right Tilted	0.000	0.129	0.006	0.035	0.092	0.047	0.007	0.001	0.18	0.10	0.04	0.01	0.05
	Left Cheek	0.053	0.248	0.041	0.020	0.196	0.110	0.100	0.001	0.41	0.29	0.07	0.15	0.16
	Left Tilted	0.077	0.016	0.050	0.020	0.084	0.070	0.035	0.001	0.16	0.21	0.10	0.11	0.15
FR1 n5_Ant 2	Right Cheek	0.042	0.009	0.005	0.112	0.050	0.078	0.058	0.001	0.13	0.10	0.15	0.10	0.12
	Right Tilted	0.031	0.129	0.006	0.035	0.092	0.047	0.007	0.001	0.21	0.13	0.07	0.04	0.08
	Left Cheek	0.054	0.248	0.041	0.020	0.196	0.110	0.100	0.001	0.41	0.29	0.07	0.16	0.17
	Left Tilted	0.032	0.016	0.050	0.020	0.084	0.070	0.035	0.001	0.12	0.17	0.05	0.07	0.10
FR1 n5_Ant 1	Right Cheek	0.003	0.009	0.005	0.112	0.050	0.078	0.058	0.001	0.09	0.06	0.12	0.06	0.08
	Right Tilted	0.000	0.129	0.006	0.035	0.092	0.047	0.007	0.001	0.18	0.10	0.04	0.01	0.05
	Left Cheek	0.002	0.248	0.041	0.020	0.196	0.110	0.100	0.001	0.36	0.24	0.02	0.10	0.11
	Left Tilted	0.002	0.016	0.050	0.020	0.084	0.070	0.035	0.001	0.09	0.14	0.02	0.04	0.07
FR1 n25_Ant 2	Right Cheek	0.109	0.009	0.005	0.112	0.050	0.078	0.058	0.001	0.20	0.17	0.22	0.17	0.19
	Right Tilted	0.064	0.129	0.006	0.035	0.092	0.047	0.007	0.001	0.24	0.16	0.10	0.07	0.11
	Left Cheek	0.081	0.248	0.041	0.020	0.196	0.110	0.100	0.001	0.44	0.32	0.10	0.18	0.19
	Left Tilted	0.050	0.016	0.050	0.020	0.084	0.070	0.035	0.001	0.14	0.19	0.07	0.09	0.12
FR1 n25_Ant 1	Right Cheek	0.101	0.009	0.005	0.112	0.050	0.078	0.058	0.001	0.19	0.16	0.21	0.16	0.18
	Right Tilted	0.088	0.129	0.006	0.035	0.092	0.047	0.007	0.001	0.26	0.19	0.12	0.10	0.14
	Left Cheek	0.111	0.248	0.041	0.020	0.196	0.110	0.100	0.001	0.47	0.35	0.13	0.21	0.22
	Left Tilted	0.080	0.016	0.050	0.020	0.084	0.070	0.035	0.001	0.17	0.22	0.10	0.12	0.15
FR1 n66_Ant 2	Right Cheek	0.164	0.009	0.005	0.112	0.050	0.078	0.058	0.001	0.25	0.22	0.28	0.22	0.24
	Right Tilted	0.076	0.129	0.006	0.035	0.092	0.047	0.007	0.001	0.25	0.18	0.11	0.08	0.12



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	Left Cheek	0.110	0.248	0.041	0.020	0.196	0.110	0.100	0.001	0.47	0.35	0.13	0.21	0.22
	Left Tilted	0.080	0.016	0.050	0.020	0.084	0.070	0.035	0.001	0.17	0.22	0.10	0.12	0.15
FR1 n66_Ant 1	Right Cheek	0.135	0.009	0.005	0.112	0.050	0.078	0.058	0.001	0.22	0.19	0.25	0.19	0.21
	Right Tilted	0.098	0.129	0.006	0.035	0.092	0.047	0.007	0.001	0.27	0.20	0.13	0.11	0.15
	Left Cheek	0.144	0.248	0.041	0.020	0.196	0.110	0.100	0.001	0.50	0.38	0.16	0.25	0.26
	Left Tilted	0.100	0.016	0.050	0.020	0.084	0.070	0.035	0.001	0.19	0.24	0.12	0.14	0.17
FR1 n71_Ant 2	Right Cheek	0.001	0.009	0.005	0.112	0.050	0.078	0.058	0.001	0.09	0.06	0.11	0.06	0.08
	Right Tilted	0.001	0.129	0.006	0.035	0.092	0.047	0.007	0.001	0.18	0.10	0.04	0.01	0.05
	Left Cheek	0.001	0.248	0.041	0.020	0.196	0.110	0.100	0.001	0.36	0.24	0.02	0.10	0.11
	Left Tilted	0.001	0.016	0.050	0.020	0.084	0.070	0.035	0.001	0.09	0.14	0.02	0.04	0.07
FR1 n71_Ant 1	Right Cheek	0.001	0.009	0.005	0.112	0.050	0.078	0.058	0.001	0.09	0.06	0.11	0.06	0.08
	Right Tilted	0.001	0.129	0.006	0.035	0.092	0.047	0.007	0.001	0.18	0.10	0.04	0.01	0.05
	Left Cheek	0.001	0.248	0.041	0.020	0.196	0.110	0.100	0.001	0.36	0.24	0.02	0.10	0.11
	Left Tilted	0.001	0.016	0.050	0.020	0.084	0.070	0.035	0.001	0.09	0.14	0.02	0.04	0.07
FR1 n41_Ant 2	Right Cheek	0.669	0.009	0.005	0.112	0.050	0.078	0.058	0.001	0.76	0.73	0.78	0.73	0.75
	Right Tilted	0.327	0.129	0.006	0.035	0.092	0.047	0.007	0.001	0.50	0.43	0.36	0.34	0.38
	Left Cheek	0.434	0.248	0.041	0.020	0.196	0.110	0.100	0.001	0.79	0.67	0.45	0.54	0.55
	Left Tilted	0.515	0.016	0.050	0.020	0.084	0.070	0.035	0.001	0.60	0.65	0.54	0.55	0.59



17.4 Hotspot Exposure Conditions

<Flip open>

WWAN Band	Exposure Position	1 WWAN 1g SAR (W/kg)	2 2.4GHz WLAN Ant 4 1g SAR (W/kg)	3 2.4GHz WLAN Ant 3 1g SAR (W/kg)	4 2.4GHz WLAN Ant 3+4 1g SAR (W/kg)	5 5GHz WLAN Ant 4 1g SAR (W/kg)	6 5GHz WLAN Ant 3 1g SAR (W/kg)	7 5GHz WLAN Ant 3+4 1g SAR (W/kg)	8 Bluetooth Ant 4 1g SAR (W/kg)	1+2+6 Summed 1g SAR (W/kg)	Case No	1+3+5+8 Summed 1g SAR (W/kg)	Case No	1+4 Summed 1g SAR (W/kg)	1+7+8 Summed 1g SAR (W/kg)	Case No	1+6+8 Summed 1g SAR (W/kg)
GSM850	Front	0.465				0.085	0.069	0.106	0.016	0.53		0.57		0.47	0.59		0.55
	Back	0.447	0.257	0.23	0.436	0.554	0.434	0.722	0.149	1.14		1.38		0.88	1.32		1.03
	Left side	0.105			0.018		0.131	0.117		0.24		0.11		0.12	0.22		0.24
	Right side	0.291	0.156		0.192	0.191		0.35	0.053	0.45		0.54		0.48	0.69		0.34
	Top side									0.00		0.00		0.00	0.00		0.00
	Bottom side	0.748				0.057	0.097	0.118	0.001	0.85		0.81		0.75	0.87		0.85
GSM1900	Front	0.361				0.085	0.069	0.106	0.016	0.43		0.46		0.36	0.48		0.45
	Back	0.161	0.257	0.23	0.436	0.554	0.434	0.722	0.149	0.85		1.09		0.60	1.03		0.74
	Left side	0.058			0.018		0.131	0.117		0.19		0.06		0.08	0.18		0.19
	Right side	0.217	0.156		0.192	0.191		0.35	0.053	0.37		0.46		0.41	0.62		0.27
	Top side									0.00		0.00		0.00	0.00		0.00
	Bottom side	0.827				0.057	0.097	0.118	0.001	0.92		0.89		0.83	0.95		0.93
WCDMA II	Front	0.467				0.085	0.069	0.106	0.016	0.54		0.57		0.47	0.59		0.55
	Back	0.842	0.257	0.23	0.436	0.554	0.434	0.722	0.149	1.53		1.78	#57	1.28	1.71	#58	1.43
	Left side	0.327			0.018		0.131	0.117		0.46		0.33		0.35	0.44		0.46
	Right side		0.156		0.192	0.191		0.35	0.053	0.16		0.24		0.19	0.40		0.05
	Top side									0.00		0.00		0.00	0.00		0.00
	Bottom side	0.486				0.057	0.097	0.118	0.001	0.58		0.54		0.49	0.61		0.58
WCDMA IV	Front	0.55				0.085	0.069	0.106	0.016	0.62		0.65		0.55	0.67		0.64
	Back	0.526	0.257	0.23	0.436	0.554	0.434	0.722	0.149	1.22		1.46		0.96	1.40		1.11
	Left side	0.281			0.018		0.131	0.117		0.41		0.28		0.30	0.40		0.41
	Right side		0.156		0.192	0.191		0.35	0.053	0.16		0.24		0.19	0.40		0.05
	Top side									0.00		0.00		0.00	0.00		0.00
	Bottom side	0.926				0.057	0.097	0.118	0.001	1.02		0.98		0.93	1.05		1.02
WCDMA V	Front	0.612				0.085	0.069	0.106	0.016	0.68		0.71		0.61	0.73		0.70
	Back	0.932	0.257	0.23	0.436	0.554	0.434	0.722	0.149	1.62	#59	1.87	#60	1.37	1.80	#61	1.52
	Left side	0.32			0.018		0.131	0.117		0.45		0.32		0.34	0.44		0.45
	Right side		0.156		0.192	0.191		0.35	0.053	0.16		0.24		0.19	0.40		0.05
	Top side									0.00		0.00		0.00	0.00		0.00
	Bottom side	0.751				0.057	0.097	0.118	0.001	0.85		0.81		0.75	0.87		0.85
CDMA2000 BC0	Front	0.467				0.085	0.069	0.106	0.016	0.54		0.57		0.47	0.59		0.55
	Back	0.681	0.257	0.23	0.436	0.554	0.434	0.722	0.149	1.37		1.61	#62	1.12	1.55		1.26
	Left side	0.001			0.018		0.131	0.117		0.13		0.00		0.02	0.12		0.13
	Right side		0.156		0.192	0.191		0.35	0.053	0.16		0.24		0.19	0.40		0.05
	Top side									0.00		0.00		0.00	0.00		0.00
	Bottom side	0.619				0.057	0.097	0.118	0.001	0.72		0.68		0.62	0.74		0.72
CDMA2000 BC1	Front	0.647				0.085	0.069	0.106	0.016	0.72		0.75		0.65	0.77		0.73
	Back	0.658	0.257	0.23	0.436	0.554	0.434	0.722	0.149	1.35		1.59		1.09	1.53		1.24
	Left side	0.302			0.018		0.131	0.117		0.43		0.30		0.32	0.42		0.43
	Right side		0.156		0.192	0.191		0.35	0.053	0.16		0.24		0.19	0.40		0.05
	Top side									0.00		0.00		0.00	0.00		0.00
	Bottom side	0.548				0.057	0.097	0.118	0.001	0.65		0.61		0.55	0.67		0.65
CDMA2000 BC10	Front	0.333				0.085	0.069	0.106	0.016	0.40		0.43		0.33	0.46		0.42
	Back	0.437	0.257	0.23	0.436	0.554	0.434	0.722	0.149	1.13		1.37		0.87	1.31		1.02
	Left side	0.001			0.018		0.131	0.117		0.13		0.00		0.02	0.12		0.13
	Right side	0.001	0.156		0.192	0.191		0.35	0.053	0.16		0.25		0.19	0.40		0.05