

FCC SAR Test Report

APPLICANT : vivo Mobile Communication Co., Ltd.
EQUIPMENT : Mobile Phone
BRAND NAME : vivo
MODEL NAME : V2158
FCC ID : 2AUCY-V2158
STANDARD : FCC 47 CFR PART 2 (2.1093)

We, Sporton International Inc. (Shenzhen), would like to declare that the tested sample has been evaluated in accordance with the test procedures given in 47 CFR Part 2.1093 and FCC KDB and has 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 Inc. (Shenzhen), the test report shall not be reproduced except in full.



Approved by: Si Zhang

Sporton International Inc. (Shenzhen)

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People's Republic of China



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Revision History

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FA260201	Rev. 01	Initial issue of report	Aug. 08, 2022



1. Statement of Compliance

The maximum results of Specific Absorption Rate (SAR) found during testing for **vivo Mobile Communication Co., Ltd., Mobile Phone, V2158**, are as follows.

Highest 1g SAR Summary						
Equipment Class	Frequency Band		Head (Separation 0mm)	Hotspot (Separation 10mm)	Body-worn (Separation 15mm)	Highest Simultaneous Transmission 1g SAR (W/kg)
			1g SAR (W/kg)			
Licensed	GSM	GSM850	0.52	0.68	0.43	1.39
		GSM1900	0.90	0.92	0.41	
	WCDMA	WCDMA II	0.89	0.85	0.52	
		WCDMA IV	0.77	0.73	0.83	
		WCDMA V	0.55	0.69	0.31	
	LTE	LTE Band 2	0.85	0.76	0.44	
		LTE Band 4	0.20	0.39	0.64	
		LTE Band 5	0.70	0.53	0.37	
		LTE Band 7	0.99	0.64	0.60	
		LTE Band 12/17	0.46	0.71	0.27	
		LTE Band 13	0.17	0.24	0.13	
		LTE Band 18	0.74	0.91	0.37	
		LTE Band 26/19/5	0.66	0.76	0.37	
		LTE Band 66/4	0.83	0.63	0.57	
		LTE Band 41/38	0.89	0.83	0.37	
	FR1	n2	0.73	0.54	0.41	
		n5	0.67	0.82	0.29	
		n7	0.99	0.75	0.62	
		n66	0.72	0.64	0.56	
		n41	0.95	0.54	0.37	
n77		0.88	0.74	0.92		
n78		0.91	0.81	0.93		
DTS	WLAN	2.4GHz WLAN	0.23	0.22	0.16	1.39
NII		5GHz WLAN	0.68	0.52	0.37	1.39
DSS	Bluetooth	2.4GHz Bluetooth	0.12	0.18	<0.10	1.36

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	3.14	3.75
		Band IV	2.57	
	LTE	LTE Band 2	2.67	
		LTE Band 5	1.40	
		LTE Band 7	2.86	
		LTE Band 66/4	2.98	
		FR1	FR1 n2	
	FR1 n7		3.17	
	FR1 n77		2.96	
	FR1 n78		3.00	
NII	WLAN	5GHz WLAN	2.77	3.75
Date of Testing:			2022/7/9 ~ 2022/7/31	

Remark:

This device supports LTE B17 / B19 / B38 and B12 / B26 / B41. Since the supported frequency span for LTE B17 / B19 / B38 falls completely within the supports frequency span for B12 / B26 / 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 B12 / B26 / B41.

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 Inc. (Shenzhen) is accredited to ISO/IEC 17025:2017 by American Association for Laboratory Accreditation with Certificate Number 5145.01.

Testing Laboratory			
Test Firm	Sporton International Inc. (Shenzhen)		
Test Site Location	1/F, 2/F, Bldg 5, Shiling Industrial Zone, Xinwei Village, Xili, Nanshan, Shenzhen, 518055 People's Republic of China TEL: +86-755-86379589 FAX: +86-755-86379595		
Test Site No.	Sporton Site No.	FCC Designation No.	FCC Test Firm Registration No.
	SAR04-SZ	CN1256	421272

Applicant	
Company Name	vivo Mobile Communication Co., Ltd.
Address	No.1, vivo Road, Chang'an, Dongguan, Guangdong, China

Manufacturer	
Company Name	vivo Mobile Communication Co., Ltd.
Address	No.1, vivo Road, Chang'an, Dongguan, Guangdong, China

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 648474 D04 SAR Evaluation Considerations for Wireless Handsets v01r03
- FCC KDB 248227 D01 802.11 Wi-Fi SAR v02r02
- 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
- FCC KDB 616217 D04 SAR for laptop and tablets v01r02
- FCC KDB 447498 D04 Interim General RF Exposure Guidance v01



4. Equipment Under Test (EUT) Information

4.1 General Information

Product Feature & Specification	
Equipment Name	Mobile Phone
Brand Name	vivo
Model Name	V2158
FCC ID	2AUCY-V2158
IMEI Code	SIM1: 861185069998554 SIM2: 861185069998547
Wireless Technology and Frequency Range	GSM850: 824 MHz ~ 849 MHz GSM1900: 1850 MHz ~ 1910 MHz WCDMA Band II: 1850 MHz ~ 1910 MHz WCDMA Band IV: 1710 MHz ~ 1755 MHz WCDMA Band V: 824 MHz ~ 849 MHz LTE Band 2: 1850 MHz ~ 1910 MHz LTE Band 4: 1710 MHz ~ 1755 MHz LTE Band 5: 824 MHz ~ 849 MHz LTE Band 7: 2500 MHz ~ 2570 MHz LTE Band 12: 699 MHz ~ 716 MHz LTE Band 13: 777 MHz ~ 787 MHz LTE Band 17: 704 MHz ~ 716 MHz LTE Band 18: 815 MHz ~ 830 MHz LTE Band 19: 830 MHz ~ 845 MHz LTE Band 26: 814 MHz ~ 849 MHz LTE Band 38: 2570 MHz ~ 2620 MHz LTE Band 41: 2496 MHz ~ 2690 MHz LTE Band 66: 1710 MHz ~ 1780 MHz 5G NR n2 : 1850 MHz ~ 1910 MHz 5G NR n5 : 824 MHz ~ 849 MHz 5G NR n7 : 2500 MHz ~ 2570 MHz 5G NR n41 : 2496 MHz ~ 2690 MHz 5G NR n66 : 1710 MHz ~ 1780 MHz 5G NR n77: 3450 MHz ~ 3550 MHz, 3700 MHz ~ 3980 MHz 5G NR n78: 3450 MHz ~ 3550 MHz, 3700 MHz ~ 3800 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 ~ 5720MHz 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 supported) LTE: QPSK/ 16QAM / 64QAM / 256QAM(Downlink Only) 5G NR: DFT-s-OFDM (PI/2 BPSK/ QPSK / 16QAM / 64QAM / 256QAM) CP-OFDM (QPSK / 16QAM / 64QAM / 256QAM) WLAN 2.4GHz 802.11b/g/n/ac VHT20 WLAN 2.4GHz 802.11ax HE20 WLAN 5GHz 802.11a/n/ac HT20/HT40/VHT20/VHT40/VHT80 WLAN 5GHz 802.11ax HE20/HE40/HE80 Bluetooth BR/EDR/LE NFC: ASK
HW Version	MP_0.1
SW Version	PD2204CF_EX_A_12.0.5.2.W30.V000L1
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	Production Unit
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Remark:

- 802.11n-HT40 is not supported in 2.4GHz WLAN.
- This device supports VoIP in GPRS, EGPRS, WCDMA and LTE (e.g. for 3rd-party VoIP), LTE supports VoLTE operation.
- This device does not support DTM operation and support GRPS/EGRPS mode up to multi-slot class 12.
- This device WLAN 2.4GHz supports hotspot operation and Bluetooth support tethering applications.
- 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).
- 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.
- The device implements Proximity sensors/receiver/hotspot detect mechanism trigger reduced power for the power management for SAR compliance at different exposure conditions (head, hotspot, body, and extremity). It uses the receiver to indicate whether the user is making a call in head scenario or not. The selection between head and body power levels is based on the receiver detection mechanism. It can determine proximity to head or body and set the relevant power level for 2G&3G&4G&5G and Wi-Fi antennas accordingly. The device will invoke corresponding work scenarios power level base on frequency bands/antennas, which can refer to appendix E and the detail DSI descriptions of below table.

DSI	Trigger Conditions	Antenna No.	Exposure conditions	
DSI2	Receiver on	all Ant	Head Standalone	Head all Position
DSI3	Receiver on	all Ant	Head Simultaneous	Head all Position
DSI4	Receiver off/Sensor on	Ant 12/13/14	Body-worn/Extremity Standalone	See by section 5
	Receiver off	Ant 11/23/24/31/41/101	Body-worn/Extremity Standalone	Body all Position
DSI5	Receiver off/Sensor on + WLAN	Ant 12/13/14	Body-worn/Extremity Simultaneous	See by section 5
	Receiver off + WLAN	Ant 11/23/24/31/41/101	Body-worn/Extremity Simultaneous	Body all Position
DSI6	Receiver off/Sensor off + WLAN	Ant 12/13/14	Body-worn/Extremity Simultaneous	See by section 5
	Receiver off/hotspot on	all Ant	Hotspot Standalone/ Simultaneous	Body all Position
DSI7	Receiver off/Sensor off	Ant 12/13/14	Sensor Trigger Distance -1mm	See by section 5
			Body-worn/Extremity Standalone	No Sensor Position

- For WLAN transmitter, while the device WWAN is transmitting simultaneously with the WLAN/Bluetooth antenna, the device power will be reduced power at body-worn and extremity conditions.
- For 5G NR test, using FTM (Factory Test Mode) to perform SAR with default 100% transmission.
- 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 DFT-s-OFDM to perform SAR testing.
- 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.
- For 5G NR EN-DC modes, standalone SAR performed for 5G NR band with the maximum power, EN-DC SAR summed 5G NR standalone SAR and LTE standalone SAR, the result of EN-DC SAR is more conservatively.
- For 5G NR FDD/TDD supports SCS15KHz and SCS30KHz, after verification for 30KHz at FDD power level is less than 15KHz at FDD power level, also verification for 15KHz at TDD power level is less than 30KHz at TDD power level, so only show 15KHz at FDD power and 30KHz at TDD power, and chose higher power which is SCS15KHz for FDD bands and SCS30KHz for TDD bands to perform SAR testing.
- This device has NFC function and the NFC SAR report will be separately submitted.
- This device supports 5G NR FR1 bands as following table, including NSA mode and SA mode.



<5G NR>

Mode	Band	Duplex	SCS(KHz)	Bandwidths(BW)
SA	n2	FDD	15	5, 10, 15, 20
			30	10, 15, 20
	n5	FDD	15	5, 10, 15, 20
			30	10, 15, 20
	n7	FDD	15	5, 10, 15, 20, 25, 30, 40, 50
			30	10, 15, 20, 25, 30, 40, 50
	n66	FDD	15	5, 10, 15, 20, 25, 30, 40
			30	10, 15, 20, 25, 30, 40
	n41	TDD	15	10, 15, 20, 30, 40, 50
			30	10, 15, 20, 30, 40, 50, 60, 80, 90, 100
	n77	TDD	15	10, 15, 20, 40, 50
			30	10, 15, 20, 40, 50, 60, 80, 90, 100
n78	TDD	15	10, 15, 20, 30, 40, 50	
		30	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100	
NSA	n7	FDD	15	5, 10, 15, 20, 25, 30, 40, 50
			30	10, 15, 20, 25, 30, 40, 50
	n66	FDD	15	5, 10, 15, 20, 25, 30, 40
			30	10, 15, 20, 25, 30, 40
	n78	TDD	15	10, 15, 20, 30, 40, 50
			30	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100



4.2 General LTE SAR Test and Reporting Considerations

Summarized necessary items addressed in KDB 941225 D05 v02r05																																																															
FCC ID	2AUCY-V2158																																																														
Equipment Name	Mobile Phone																																																														
Operating Frequency Range of each LTE transmission band	LTE Band 2: 1850 MHz ~ 1910 MHz LTE Band 4: 1710 MHz ~ 1755 MHz LTE Band 5: 824 MHz ~ 849 MHz LTE Band 7: 2500 MHz ~ 2570 MHz LTE Band 12: 699 MHz ~ 716 MHz LTE Band 13: 777 MHz ~ 787 MHz LTE Band 17: 704 MHz ~ 716 MHz LTE Band 18: 815 MHz ~ 830 MHz LTE Band 19: 830 MHz ~ 845 MHz LTE Band 26: 814 MHz ~ 849 MHz LTE Band 38: 2570 MHz ~ 2620 MHz LTE Band 41: 2496 MHz ~ 2690 MHz LTE Band 66: 1710 MHz ~ 1780 MHz																																																														
Channel Bandwidth	LTE Band 2: 1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz LTE Band 4: 1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz LTE Band 5: 1.4MHz, 3MHz, 5MHz, 10MHz LTE Band 7: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 12: 1.4MHz, 3MHz, 5MHz, 10MHz LTE Band 13: 5MHz, 10MHz LTE Band 17: 5MHz, 10MHz LTE Band 18: 5MHz, 10MHz, 15MHz LTE Band 19: 5MHz, 10MHz, 15MHz LTE Band 26: 1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz LTE Band 38: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 41: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 66: 1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz																																																														
Uplink Modulations used	QPSK / 16QAM / 64QAM / 256 QAM (Downlink only)																																																														
LTE Voice / Data requirements	Voice and Data																																																														
LTE Release Version	R15, category 18																																																														
CA Support	Yes, Uplink and Downlink																																																														
LTE MPR permanently built-in by design	<p>Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 1, 2 and 3</p> <table border="1"> <thead> <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> </thead> <tbody> <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> </tbody> </table>	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
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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, when operating in Proximity sensors/receiver/hotspot detect mechanism trigger reduction power applied to satisfy SAR compliance the detail please referred to section 13.																																																														
LTE Carrier Aggregation Combinations	Intra-Band and Inter-Band possible combinations and the detail power verification please referred to section 13.																																																														
LTE Carrier Aggregation Additional Information	(1) This device supports LTE Carrier Aggregation (CA) in the uplink for LTE 7C /38C/41C with two component carriers in the uplink. SAR Measurements and conducted powers were evaluated per FCC Guidance. (2) This device supports maximum of 4 carriers in the downlink and 2 carriers in the uplink. Additional following LTE Release features are not supported: Relay, HetNet, Enhanced MIMO, eICl, 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		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	20407	824.7	20415	825.5	20425	826.5	20450	829	20450	829	20450	829
M	20525	836.5	20525	836.5	20525	836.5	20525	836.5	20525	836.5	20525	836.5
H	20643	848.3	20635	847.5	20625	846.5	20600	844	20600	844	20600	844
LTE Band 7												
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 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	20850	2510	20850	2510
M	21100	2535	21100	2535	21100	2535	21100	2535	21100	2535	21100	2535
H	21425	2567.5	21400	2565	21375	2562.5	21350	2560	21350	2560	21350	2560
LTE Band 12												
	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	23017	699.7	23025	700.5	23035	701.5	23060	704	23060	704	23060	704
M	23095	707.5	23095	707.5	23095	707.5	23095	707.5	23095	707.5	23095	707.5
H	23173	715.3	23165	714.5	23155	713.5	23130	711	23130	711	23130	711
LTE Band 13												
	Bandwidth 5 MHz				Bandwidth 10 MHz				Bandwidth 15 MHz			
	Channel #		Freq.(MHz)		Channel #		Freq.(MHz)		Channel #		Freq.(MHz)	
L	23205		779.5		23230		782		23255		784.5	
M	23230		782		23230		782		23255		784.5	
H	23255		784.5		23230		782		23255		784.5	
LTE Band 17												
	Bandwidth 5 MHz				Bandwidth 10 MHz				Bandwidth 15 MHz			
	Channel #		Freq.(MHz)		Channel #		Freq.(MHz)		Channel #		Freq.(MHz)	
L	23755		706.5		23780		709		23790		710	
M	23790		710		23790		710		23790		710	
H	23825		713.5		23800		711		23800		711	
LTE Band 18												
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 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	23875	817.5	23900	820	23925	822.5	23925	822.5	23925	822.5	23925	822.5
M	23925	822.5	23925	822.5	23925	822.5	23925	822.5	23925	822.5	23925	822.5
H	23975	827.5	23950	825	23975	827.5	23975	827.5	23975	827.5	23975	827.5



LTE Band 19												
	Bandwidth 5 MHz			Bandwidth 10 MHz			Bandwidth 15 MHz					
	Ch. #	Freq. (MHz)		Ch. #	Freq. (MHz)		Ch. #	Freq. (MHz)				
L	24025	832.5		24050	835							
M	24075	837.5		24075	837.5		24075	837.5				
H	24125	842.5		24100	840							
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		
M	26865	831.5	26865	831.5	26865	831.5	26865	831.5	26865	831.5		
H	27033	848.3	27025	847.5	27015	846.5	26990	844	26965	841.5		
LTE Band 38												
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz					
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)		
L	37775	2572.5	37800	2575	37825	2577.5	37850	2580				
M	38000	2595	38000	2595	38000	2595	38000	2595				
H	38225	2617.5	38200	2615	38175	2612.5	38150	2610				
LTE Band 41												
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz					
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)		
L	39675	2498.5	39700	2501	39725	2503.5	39750	2506				
LM	40148	2545.8	40160	2547	40173	2548.3	40185	2549.5				
M	40620	2593	40620	2593	40620	2593	40620	2593				
HM	41093	2640.3	41080	2639	41068	2637.8	41055	2636.5				
H	41565	2687.5	41540	2685	41515	2682.5	41490	2680				
LTE Band 66												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	131979	1710.7	131987	1711.5	131997	1712.5	132022	1715	132047	1717.5	132072	1720
M	132322	1745	132322	1745	132322	1745	132322	1745	132322	1745	132322	1745
H	132665	1779.3	132657	1778.5	132647	1777.5	132622	1775	132597	1772.5	132572	1770

4.3 General 5G NR SAR Test and Reporting Considerations

5G NR Information																
Operating Frequency Range of each 5G NR transmission band		5G NR n2 : 1850 MHz ~ 1910 MHz 5G NR n5: 824 MHz ~ 849 MHz 5G NR n7 : 2500 MHz ~ 2570 MHz 5G NR n41 : 2496 MHz ~ 2690 MHz 5G NR n66: 1710 MHz ~ 1780 MHz 5G NR n77: 3450 MHz ~ 3550 MHz, 3700 MHz ~ 3980 MHz 5G NR n78: 3450 MHz ~ 3550 MHz, 3700 MHz ~ 3800 MHz														
Channel Bandwidth		The detail please refers to section 4.1 5GNR FR1 bands table.														
SCS		FDD: SCS15KHz, TDD: SCS30KHz														
uplink modulations used		DFT-s-OFDM: PI/2 BPSK / QPSK / 16QAM / 64QAM / 256QAM CP-OFDM QPSK / 16QAM / 64QAM / 256QAM														
A-MPR (Additional MPR) disabled for SAR Testing?		Yes														
LTE Anchor Bands for n7		LTE B2/66														
LTE Anchor Bands for n66		LTE B2/5/7														
LTE Anchor Bands for n78		LTE B2/4/5/7/38/41/66														
Transmission (H, M, L) channel numbers and frequencies in each 5G NR band																
NR Band 2 for SCS15KHz																
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz									
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	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 2 for SCS30KHz																
	Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz											
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	371000	1855	371500	1857.5	372000	1860										
M	376000	1880	376000	1880	376000	1880										
H	381000	1905	380500	1902.5	380000	1900										
NR Band 5 for SCS15KHz																
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz									
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	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 5 for SCS30KHz																
	Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz											
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	165800	829	166300	831.5	166800	834										
M	167300	836.5	167300	836.5	167300	836.5										
H	168800	844	168300	841.5	167800	839										
NR Band 7 for SCS15KHz																
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 50MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	500500	2502.5	501000	2505	501500	2507.5	502000	2510	502500	2512.5	503000	2515	504000	2520	505000	2525
M	507000	2535	507000	2535	507000	2535	507000	2535	507000	2535	507000	2535	507000	2535	507000	2535
H	513500	2567.5	513000	2565	512500	2562.5	512000	2560	511500	2557.5	511000	2555	510000	2550	509000	2545
NR Band 7 for SCS30KHz																
	Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 50MHz			
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	501000	2505	501500	2507.5	502000	2510	502500	2512.5	503000	2515	504000	2520	505000	2525		
M	507000	2535	507000	2535	507000	2535	507000	2535	507000	2535	507000	2535	507000	2535		
H	513000	2565	512500	2562.5	512000	2560	511500	2557.5	511000	2555	510000	2550	509000	2545		



NR Band 66 for SCS15KHz														
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 40MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	342500	1712.5	343000	1715	343500	1717.5	342000	1710	344500	1722.5	345000	1725	346000	1730
M	349000	1745	349000	1745	349000	1745	349000	1745	349000	1745	349000	1745	349000	1745
H	355500	1777.5	355000	1775	354500	1772.5	356000	1780	353500	1767.5	353000	1765	352000	1760

NR Band 66 for SCS30KHz												
	Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 40MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	343000	1715	343500	1717.5	342000	1710	344500	1722.5	345000	1725	346000	1730
M	349000	1745	349000	1745	349000	1745	349000	1745	349000	1745	349000	1745
H	355000	1775	354500	1772.5	356000	1780	353500	1767.5	353000	1765	352000	1760

NR Band 41 for SCS15KHz												
	Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 50MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	500202	2501.01	500700	2503.5	501204	2506.02	502200	2511	503202	2516.01	504204	2521.02
M	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99
H	537000	2685	536496	2682.48	535998	2679.99	534996	2674.98	534000	2670	532998	2664.99

NR Band 41 for SCS30KHz																				
	Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 30MHz		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)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	500202	2501.01	500700	2503.5	501204	2506.02	502200	2511	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	518598	2592.99	518598	2592.99	518598	2592.99
H	537000	2685	536496	2682.48	535998	2679.99	534996	2674.98	534000	2670	532998	2664.99	531996	2659.98	529998	2649.99	528996	2644.98	528000	2640

NR Band 77 for SCS15KHz										
	Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 40MHz		Bandwidth 50MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	647000	3705	647168	3707.52	647334	3710.01	648000	3720	648334	3725.01
M	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840
H	665000	3975	664832	3972.48	664666	3969.99	664000	3960	663666	3954.99

NR Band 77 for SCS30KHz																		
	Bandwidth 10MHz		Bandwidth 15MHz		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)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	647000	3705	647168	3707.52	647334	3710.01	648000	3720	648334	3725.01	648668	3730.02	649334	3740.01	649668	3745.02	650000	3750
M	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840
H	665000	3975	664832	3972.48	664666	3969.99	664000	3960	663666	3954.99	663332	3949.98	662666	3939.99	662332	3934.98	662000	3930



NR Band 78 for SCS15KHz												
	Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 50MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	647000	3705	647168	3707.52	647334	3710.01	647668	3715.02	648000	3720	648334	3725.01
M	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750
H	653000	3795	652832	3792.48	652666	3789.99	652332	3784.98	652000	3780	651666	3774.99

NR Band 78 for SCS30KHz																						
	Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 50MHz		Bandwidth 60MHz		Bandwidth 70MHz		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)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	647000	3705	647168	3707.52	647334	3710.01	647668	3715.02	648000	3720	648334	3725.01	648668	3730.02	649000	3735	649334	3740.01	649668	3745.02		
M	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750
H	653000	3795	652832	3792.48	652666	3789.99	652332	3784.98	652000	3780	651666	3774.99	651332	3769.98	651000	3765	650666	3759.99	650332	3754.98		

For <3450 MHz ~ 3550 MHz >

NR Band 77 for SCS15KHz											
	Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 40MHz		Bandwidth 50MHz		
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	
L	630334	3455.01	630500	3457.5	630668	3460.02	631334	3470.01	631668	3475.02	
M	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01	
H	636332	3544.98	636166	3542.49	636000	3540	635332	3529.98	635000	3525	

NR Band 77 for SCS30KHz																		
	Bandwidth 10MHz		Bandwidth 15MHz		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)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	630334	3455.01	630500	3457.5	630668	3460.02	631334	3470.01	631668	3475.02	632000	3480	632668	3490.02	633000	3495		
M	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01
H	636332	3544.98	636166	3542.49	636000	3540	635332	3529.98	635000	3525	634666	3519.99	634000	3510	633666	3504.99		

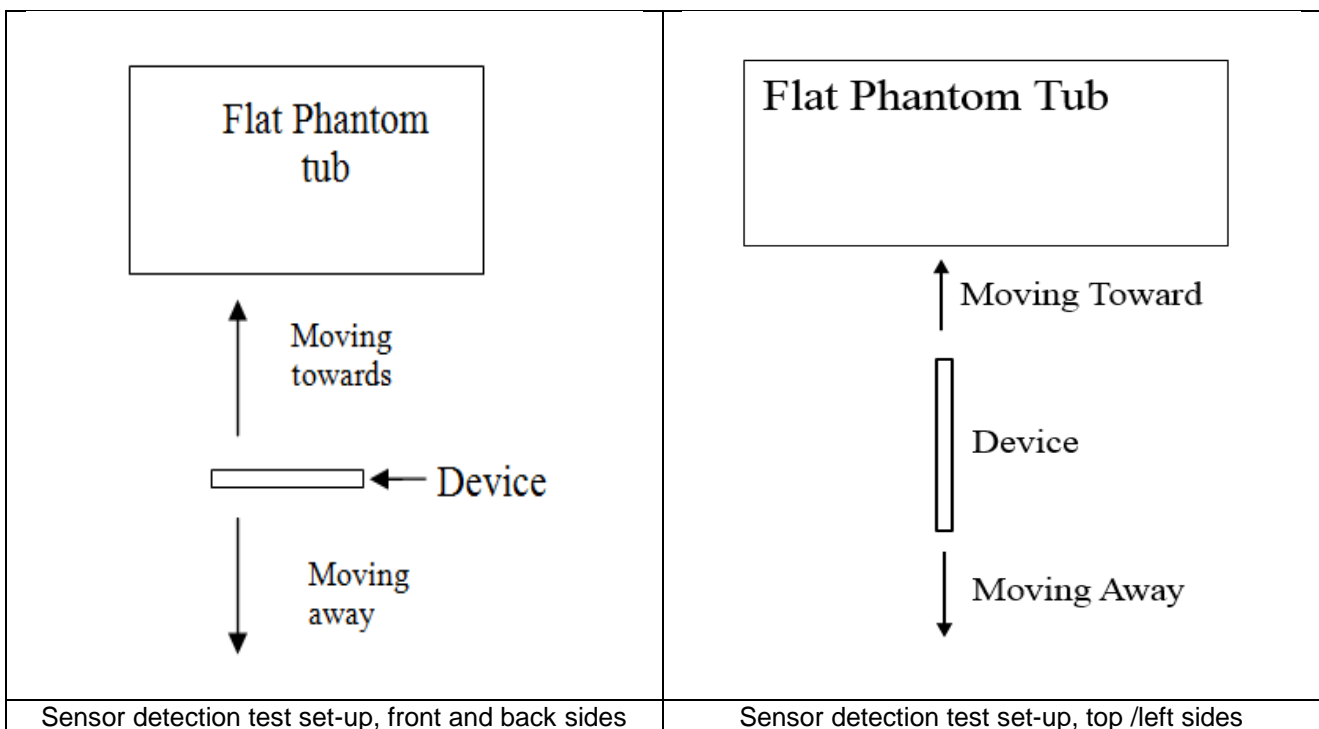
NR Band 78 for SCS15KHz												
	Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 50MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	630334	3455.01	630500	3457.5	630668	3460.02	631000	3465	631334	3470.01	631668	3475.02
M	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01
H	636332	3544.98	636166	3542.49	636000	3540	635666	3534.99	635332	3529.98	635000	3525

NR Band 78 for SCS30KHz																						
	Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 50MHz		Bandwidth 60MHz		Bandwidth 70MHz		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)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	630334	3455.01	630500	3457.5	630668	3460.02	631000	3465	631334	3470.01	631668	3475.02	632000	3480	632334	3485.01	632668	3490.02	633000	3495		
M	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01
H	636332	3544.98	636166	3542.49	636000	3540	635666	3534.99	635332	3529.98	635000	3525	634666	3519.99	634332	3514.98	634000	3510	633666	3504.99		

5. Proximity Sensor Triggering Test

5.1 Proximity sensor triggering distances(Per KDB616217§6.2)

1. Proximity sensor triggering distance testing was performed according to the procedures outlined in KDB 616217 D04 section 6.2, and EUT moving further away from the flat phantom and EUT moving toward the flat phantom were both assessed and the tissue-equivalent medium for highest frequency (3980MHz) and lowest (1750MHz) frequency was used for proximity sensor triggering testing.
2. Capacitive proximity sensors placed coincident with antenna elements at the left and right corners of the top ends of the phone are utilized to determine when the device comes in proximity of the user's body or finger or hand at the front or back or top or left sides of the device. The output power will reduce to body worn power level when top and bottom sensor pad be detected.
3. The device employs proximity sensors that detect the presence of the user's body or handheld states at the front, back, top, left sides of the device. When front, back, top, left sides of body condition or handheld states are detected reduced power will be active. The data shown in the sections below shows the distance(s).
4. For verification of compliance of power reduction scheme, additional SAR testing with EUT transmitting at full RF power at a conservative trigger distance -1mm was performed.



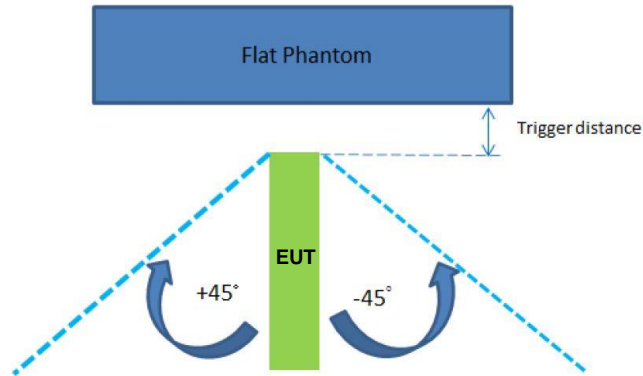
<P-Sensor>

Antenna 12&13 &14:

Proximity Sensor Trigger Distance (mm)								
Position	Front		Back		Left Side		Top Side	
	Moving towards	Moving away	Moving towards	Moving away	Moving towards	Moving away	Moving towards	Moving away
Minimum	8	8	12	12	15	15	11	11

5.2 proximity sensor triggering (KDB 616217 D04 section 6.4):

The influence of Phone tilt angles to proximity sensor triggering was determined by positioning each Phone edge that contains a transmitting antenna, perpendicular to the flat phantom, at above separation distance. Rotating the Phone around the edge next to the phantom in $\leq 10^\circ$ increments until the Phone is $\pm 45^\circ$ from the vertical position at 0° , and the maximum output power remains in the reduced mode.



Antenna 12&13&14:

The Sensor Trigger Distance (mm)		
Position	Left Side	Top Side
Minimum	15	11

6. RF Exposure Limits

6.1 Uncontrolled Environment

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

6.2 Controlled Environment

Controlled Environments are defined as locations where there is exposure that may be incurred by persons who are aware of the potential for exposure, (i.e. as a result of employment or occupation). In general, occupational/controlled exposure limits are applicable to situations in which persons are exposed as a consequence of their employment, who have been made fully aware of the potential for exposure and can exercise control over their exposure. The exposure category is also applicable when the exposure is of a transient nature due to incidental passage through a location where the exposure levels may be higher than the general population/uncontrolled limits, but the exposed person is fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means.

Limits for Occupational/Controlled Exposure (W/kg)

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

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

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

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

7. Specific Absorption Rate (SAR)

7.1 Introduction

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

7.2 SAR Definition

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

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

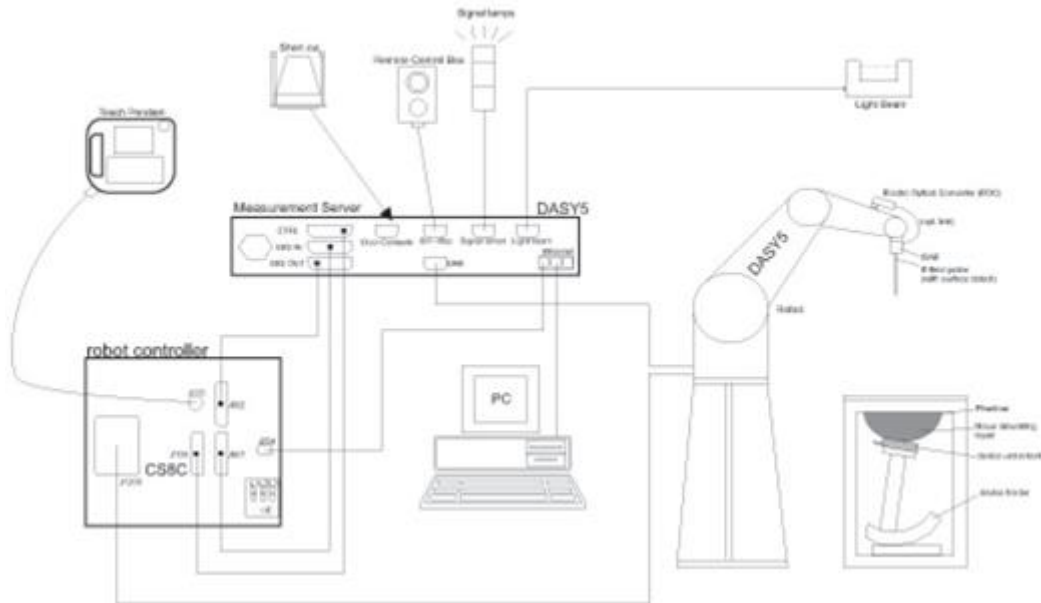
SAR is expressed in units of Watts per kilogram (W/kg)

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

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

8. System Description and Setup

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




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

8.1 E-Field Probe

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

<EX3DV4 Probe>

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

8.2 Data Acquisition Electronics (DAE)

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

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



Photo of DAE

8.3 Phantom

<SAM Twin Phantom>

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



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

<ELI Phantom>

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



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

8.4 Device Holder

<Mounting Device for Hand-Held Transmitter>

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



Mounting Device for Hand-Held Transmitters



Mounting Device Adaptor for Wide-Phones

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

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



Mounting Device for Laptops

9. Measurement Procedures

The measurement procedures are as follows:

<Conducted power measurement>

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

<SAR measurement>

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

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

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

9.1 Spatial Peak SAR Evaluation

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

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

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

- (a) Extraction of the measured data (grid and values) from the Zoom Scan
- (b) Calculation of the SAR value at every measurement point based on all stored data (A/D values and measurement parameters)
- (c) Generation of a high-resolution mesh within the measured volume
- (d) Interpolation of all measured values 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

9.2 Power Reference Measurement

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

9.3 Area Scan

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

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

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

9.4 Zoom Scan

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

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

		≤ 3 GHz	> 3 GHz	
Maximum zoom scan spatial resolution: $\Delta x_{Zoom}, \Delta y_{Zoom}$		≤ 2 GHz: ≤ 8 mm 2 – 3 GHz: ≤ 5 mm*	3 – 4 GHz: ≤ 5 mm* 4 – 6 GHz: ≤ 4 mm*	
Maximum zoom scan spatial resolution, normal to phantom surface	uniform grid: $\Delta z_{Zoom}(n)$	≤ 5 mm	3 – 4 GHz: ≤ 4 mm 4 – 5 GHz: ≤ 3 mm 5 – 6 GHz: ≤ 2 mm	
	graded grid	$\Delta z_{Zoom}(1)$: between 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
		$\Delta z_{Zoom}(n>1)$: between subsequent points	$\leq 1.5 \cdot \Delta z_{Zoom}(n-1)$	
Minimum zoom scan volume	x, y, z	≥ 30 mm	3 – 4 GHz: ≥ 28 mm 4 – 5 GHz: ≥ 25 mm 5 – 6 GHz: ≥ 22 mm	
Note: δ is the penetration depth of a plane-wave at normal incidence to the tissue medium; see draft standard IEEE P1528-2011 for details. * When zoom scan is required and the <i>reported</i> SAR from the <i>area scan based 1-g SAR estimation</i> procedures of KDB 447498 is ≤ 1.4 W/kg, ≤ 8 mm, ≤ 7 mm and ≤ 5 mm zoom scan resolution may be applied, respectively, for 2 GHz to 3 GHz, 3 GHz to 4 GHz and 4 GHz to 6 GHz.				

9.5 Volume Scan Procedures

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

9.6 Power Drift Monitoring

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



10. Test Equipment List

Manufacturer	Name of Equipment	Type/Model	Serial Number	Calibration	
				Last Cal.	Due Date
SPEAG	750MHz System Validation Kit	D750V3	1099	Dec. 15, 2021	Dec. 14, 2022
SPEAG	835MHz System Validation Kit	D835V2	4d162	Dec. 17, 2021	Dec. 16, 2022
SPEAG	1750MHz System Validation Kit	D1750V2	1137	Oct. 19, 2021	Oct. 18, 2022
SPEAG	1900MHz System Validation Kit	D1900V2	5d182	Dec. 20, 2021	Dec. 19, 2022
SPEAG	2450MHz System Validation Kit	D2450V2	924	Sep. 02, 2020	Sep. 01, 2023
SPEAG	2600MHz System Validation Kit	D2600V2	1070	Dec. 20, 2021	Dec. 19, 2022
SPEAG	3500MHz System Validation Kit	D3500V2	1076	May 09, 2022	May 08, 2023
SPEAG	3700MHz System Validation Kit	D3700V2	1037	May 09, 2022	May 08, 2023
SPEAG	3900MHz System Validation Kit	D3900V2	1048	May 14, 2020	May 12, 2023
SPEAG	5000MHz System Validation Kit	D5GHzV2	1341	Dec. 13, 2021	Dec. 12, 2022
SPEAG	Data Acquisition Electronics	DAE4	715	Dec. 29, 2021	Dec. 28, 2022
SPEAG	Dosimetric E-Field Probe	EX3DV4	3819	May 30, 2022	May 29, 2023
SPEAG	SAM Twin Phantom	QD 000 P40 CC	TP-1500	NCR	NCR
SPEAG	Phone Positioner	N/A	N/A	NCR	NCR
Anritsu	Radio communication analyzer	MT8820C	6201300653	Jul. 07, 2022	Jul. 06, 2023
Anritsu	Radio communication analyzer	MT8820C	6201341952	Dec. 28, 2021	Dec. 27, 2022
Anritsu	Radio communication analyzer	MT8820C	6201563813	Dec. 28, 2021	Dec. 27, 2022
Anritsu	Radio communication analyzer	MT8821C	6262314715	Jun. 27, 2022	Jun. 26, 2023
Agilent	Wireless Communication Test Set	E5515C	MY50267224	Jul. 07, 2022	Jul. 06, 2023
Keysight	Network Analyzer	E5071C	MY46523671	Oct. 25, 2021	Oct. 24, 2022
Speag	Dielectric Assessment KIT	DAK-3.5	1071	Jan. 24, 2022	Jan. 23, 2023
Agilent	Signal Generator	N5181A	MY50145381	Dec. 28, 2021	Dec. 27, 2022
Anritsu	Power Sensor	MA2411B	1306099	Sep. 29, 2021	Sep. 28, 2022
Anritsu	Power Meter	ML2495A	1349001	Sep. 29, 2021	Sep. 28, 2022
Anritsu	Power Sensor	MA2411B	1542004	Dec. 28, 2021	Dec. 27, 2022
Anritsu	Power Meter	ML2495A	1339473	Dec. 28, 2021	Dec. 27, 2022
R&S	CBT BLUETOOTH TESTER	CBT	100963	Dec. 28, 2021	Dec. 27, 2022
R&S	Spectrum Analyzer	FSP7	100818	Jul. 07, 2022	Jul. 06, 2023
Anymetre	Thermo-Hygrometer	JR593	2018100802	Oct. 29, 2021	Oct. 28, 2022
Anymetre	Thermo-Hygrometer	JR593	2020062101	Jul. 12, 2022	Jul. 11, 2023
SPEAG	Device Holder	N/A	N/A	N/A	N/A
AR	Amplifier	5S1G4	0333096	Note 1	
mini-circuits	Amplifier	ZVE-3W-83+	599201528	Note 1	
ARRA	Power Divider	A3200-2	N/A	Note 1	
ET Industries	Dual Directional Coupler	C-058-10	N/A	Note 1	
Weinschel	Attenuator 1	3M-10	N/A	Note 1	
Weinschel	Attenuator 2	3M-20	N/A	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 source.
2. The dipole calibration interval can be extended to 3 years with justification according to KDB 865664 D01. The dipoles are also not physically damaged, or repaired during the interval. The justification data in appendix C can be found which the return loss is < -20dB, within 20% of prior calibration, the impedance is within 5 ohm of prior calibration for each dipole.

11. System Verification

11.1 Tissue Simulating Liquids

For the measurement of the field distribution inside the SAM phantom with DASYS, 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. 10.1. 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. 10.2.

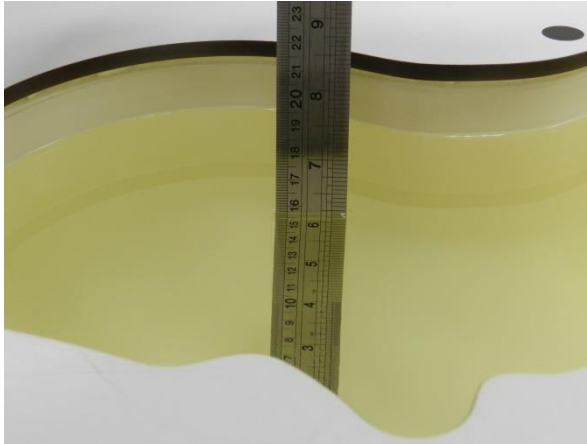


Fig 10.1 Photo of Liquid Height for Head SAR

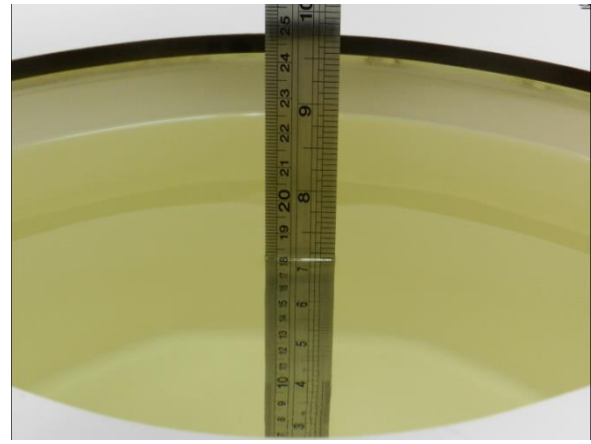


Fig 10.2 Photo of Liquid Height for Body SAR

11.2 Tissue Verification

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

Frequency (MHz)	Water (%)	Sugar (%)	Cellulose (%)	Salt (%)	Preventol (%)	DGBE (%)	Conductivity (σ)	Permittivity (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	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	22.4	0.886	41.534	0.89	41.90	-0.45	-0.87	±5	2022/7/16
750	Head	22.6	0.880	40.752	0.89	41.90	-1.12	-2.74	±5	2022/7/20
835	Head	22.5	0.927	42.674	0.90	41.50	3.00	2.83	±5	2022/7/9
835	Head	22.7	0.904	41.212	0.90	41.50	0.44	-0.69	±5	2022/7/18
1750	Head	22.5	1.373	39.952	1.37	40.10	0.22	-0.37	±5	2022/7/16
1750	Head	22.6	1.378	41.340	1.37	40.10	0.58	3.09	±5	2022/7/21
1900	Head	22.3	1.440	38.599	1.40	40.00	2.86	-3.50	±5	2022/7/12
1900	Head	22.2	1.455	40.068	1.40	40.00	3.93	0.17	±5	2022/7/22
2450	Head	22.3	1.762	40.953	1.80	39.20	-2.11	4.47	±5	2022/7/17
2450	Head	22.3	1.857	37.670	1.80	39.20	3.17	-3.90	±5	2022/7/23
2600	Head	22.4	1.956	37.587	1.96	39.00	-0.20	-3.62	±5	2022/7/15
2600	Head	22.3	1.974	38.204	1.96	39.00	0.71	-2.04	±5	2022/7/24
3500	Head	22.6	2.887	38.374	2.91	37.90	-0.79	1.25	±5	2022/7/18
3500	Head	22.5	2.817	39.027	2.91	37.90	-3.20	2.97	±5	2022/7/25
3700	Head	22.7	3.039	38.133	3.12	37.70	-2.60	1.15	±5	2022/7/20
3700	Head	22.8	3.096	38.784	3.12	37.70	-0.77	2.88	±5	2022/7/26
3900	Head	22.8	3.203	37.933	3.33	37.51	-3.81	1.13	±5	2022/7/19
3900	Head	22.7	3.199	38.142	3.33	37.51	-3.93	1.68	±5	2022/7/27
5250	Head	22.4	4.673	35.938	4.71	35.95	-0.79	-0.03	±5	2022/7/21
5250	Head	22.6	4.591	36.753	4.71	35.95	-2.53	2.23	±5	2022/7/26
5600	Head	22.6	5.080	35.374	5.07	35.50	0.20	-0.35	±5	2022/7/22
5600	Head	22.4	4.986	36.112	5.07	35.50	-1.66	1.72	±5	2022/7/26
5750	Head	22.7	5.250	35.137	5.22	35.35	0.57	-0.60	±5	2022/7/23
5750	Head	22.6	5.152	35.850	5.22	35.35	-1.30	1.41	±5	2022/7/31



11.3 System Performance Check Results

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

<1g>

Table with 11 columns: 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 (%). It contains 30 rows of test data.

<10g>

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 (%)
2022/7/16	750	Head	250	1099	3819	715	1.410	5.650	5.64	-0.18
2022/7/20	750	Head	250	1099	3819	715	1.400	5.650	5.6	-0.88
2022/7/9	835	Head	250	4d162	3819	715	1.660	6.260	6.64	6.07
2022/7/18	835	Head	250	4d162	3819	715	1.620	6.260	6.48	3.51
2022/7/16	1750	Head	250	1137	3819	715	4.740	19.200	18.96	-1.25
2022/7/21	1750	Head	250	1137	3819	715	4.760	19.200	19.04	-0.83
2022/7/12	1900	Head	250	5d182	3819	715	5.290	20.200	21.16	4.75
2022/7/22	1900	Head	250	5d182	3819	715	5.340	20.200	21.36	5.74
2022/7/17	2450	Head	250	924	3819	715	6.010	24.000	24.04	0.17
2022/7/23	2450	Head	250	924	3819	715	6.340	24.000	25.36	5.67
2022/7/15	2600	Head	250	1070	3819	715	6.330	24.600	25.32	2.93
2022/7/24	2600	Head	250	1070	3819	715	6.080	24.600	24.32	-1.14
2022/7/18	3500	Head	100	1076	3819	715	2.500	25.500	25	-1.96
2022/7/25	3500	Head	100	1076	3819	715	2.440	25.500	24.4	-4.31
2022/7/20	3700	Head	100	1037	3819	715	2.380	24.600	23.8	-3.25
2022/7/26	3700	Head	100	1037	3819	715	2.270	24.600	22.7	-7.72
2022/7/19	3900	Head	100	1048	3819	715	2.490	24.400	24.9	2.05
2022/7/27	3900	Head	100	1048	3819	715	2.490	24.400	24.9	2.05
2022/7/21	5250	Head	100	1341	3819	715	2.420	23.100	24.2	4.76
2022/7/26	5250	Head	100	1341	3819	715	2.470	23.100	24.7	6.93
2022/7/22	5600	Head	100	1341	3819	715	2.500	24.000	25	4.17
2022/7/26	5600	Head	100	1341	3819	715	2.450	24.000	24.5	2.08
2022/7/23	5750	Head	100	1341	3819	715	2.370	22.700	23.7	4.41
2022/7/31	5750	Head	100	1341	3819	715	2.440	22.700	24.4	7.49

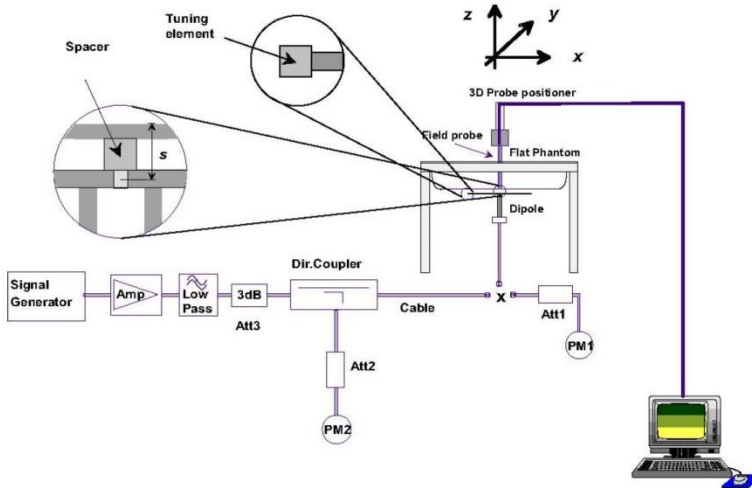


Fig 10.3.1 System Performance Check Setup



Fig 10.3.2 Setup Photo

12. RF Exposure Positions

12.1 Ear and handset reference point

Figure 11.1.1 shows the front, back, and side views of the SAM phantom. The center-of-mouth reference point is labeled “M,” the left ear reference point (ERP) is marked “LE,” and the right ERP is marked “RE.” Each ERP is 15 mm along the B-M (back-mouth) line behind the entrance-to-ear-canal (EEC) point, as shown in Figure 11.1.2 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 11.1.3). 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 11.1.2. The ear truncation is introduced to preclude the ear lobe from interfering with handset tilt, which could lead to unstable positioning at the cheek.

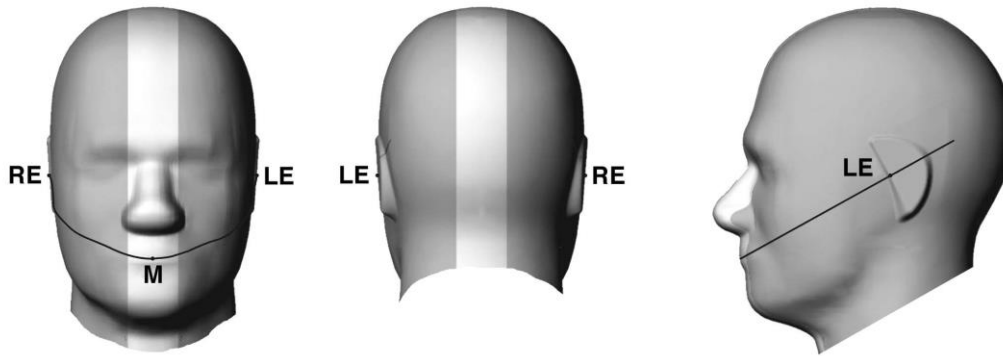


Fig 11.1.1 Front, back, and side views of SAM twin phantom

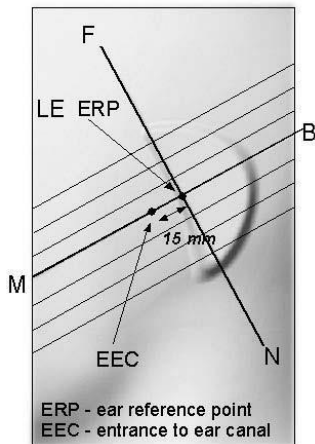


Fig 11.1.2 Close-up side view of phantom showing the ear region.

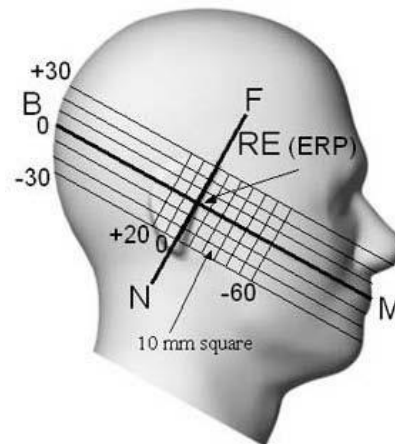


Fig 11.1.3 Side view of the phantom showing relevant markings and seven cross-sectional plane locations

12.2 Definition of the cheek position

1. Ready the handset for talk operation, if necessary. For example, for handsets with a cover piece (flip cover), open the cover. If the handset can transmit with the cover closed, both configurations must be tested.
2. Define two imaginary lines on the handset—the vertical centerline and the horizontal line. The vertical centerline passes through two points on the front side of the handset—the midpoint of the width w_t of the handset at the level of the acoustic output (point A in Figure 11.2.1 and Figure 11.2.2), 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 11.2.1). The two lines intersect at point A. Note that for many handsets, point A coincides with the center of the acoustic output; however, the acoustic output may be located elsewhere on the horizontal line. Also note that the vertical centerline is not necessarily parallel to the front face of the handset (see Figure 11.2.2), 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 11.2.3), 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 11.2.3. The actual rotation angles should be documented in the test report.

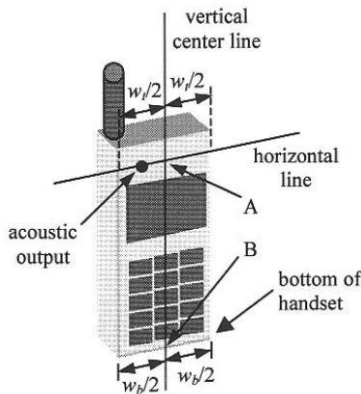


Fig 11.2.1 Handset vertical and horizontal reference lines—"fixed case"

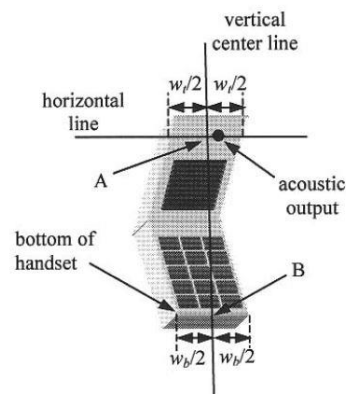


Fig 11.2.2 Handset vertical and horizontal reference lines—"clam-shell case"

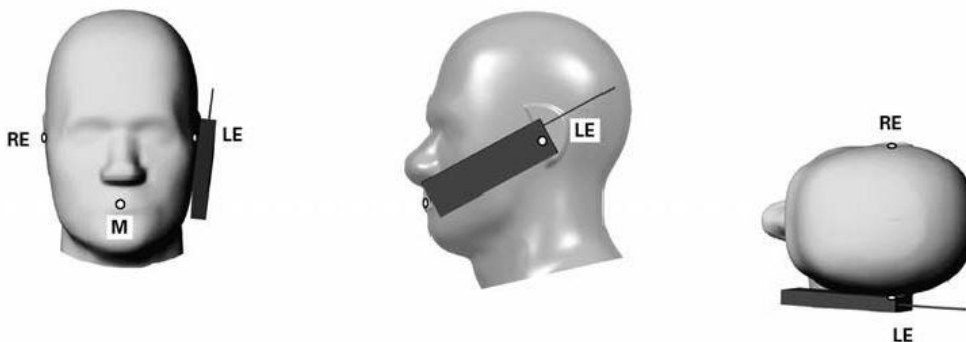


Fig 11.2.3 cheek or touch position. The reference points for the right ear (RE), left ear (LE), and mouth (M), which establish the Reference Plane for handset positioning, are indicated.

12.3 Definition of the tilt position

1. Ready the handset for talk operation, if necessary. For example, for handsets with a cover piece (flip cover), open the cover. If the handset can transmit with the cover closed, both configurations must be tested.
2. While maintaining the orientation of the handset, move the handset away from the pinna along the line passing through RE and LE far enough to allow a rotation of the handset away from the cheek by 15°.
3. Rotate the handset around the horizontal line by 15°.
4. While maintaining the orientation of the handset, move the handset towards the phantom on the line passing through RE and LE until any part of the handset touches the ear. The tilt position is obtained when the contact point is on the pinna. See Figure 11.3.1. 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

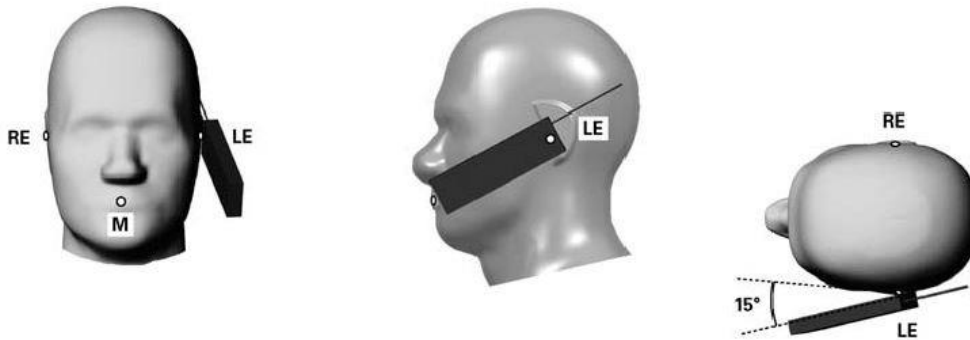


Fig 11.3.1 Tilt position. The reference points for the right ear (RE), left ear (LE), and mouth (M), which define the Reference Plane for handset positioning, are indicated.

12.4 Body Worn Accessory

Body-worn operating configurations are tested with the belt-clips and holsters attached to the device and positioned against a flat phantom in a normal use configuration (see Figure 11.4). 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 D04 should be used to test for body-worn accessory SAR compliance, without a headset connected to it. This enables the test results for such configuration to be compatible with that required for hotspot mode when the body-worn accessory test separation distance is greater than or equal to that required for hotspot mode, when applicable. When the reported SAR for body-worn accessory, measured without a headset connected to the handset is > 1.2 W/kg, the highest reported SAR configuration for that wireless mode and frequency band should be repeated for that body-worn accessory with a headset 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 tested with the device with each accessory. If multiple accessories share an identical metallic component (i.e. the same metallic belt-chip used with different holsters with no other metallic components) only the accessory that dictates the closest spacing to the body is tested.

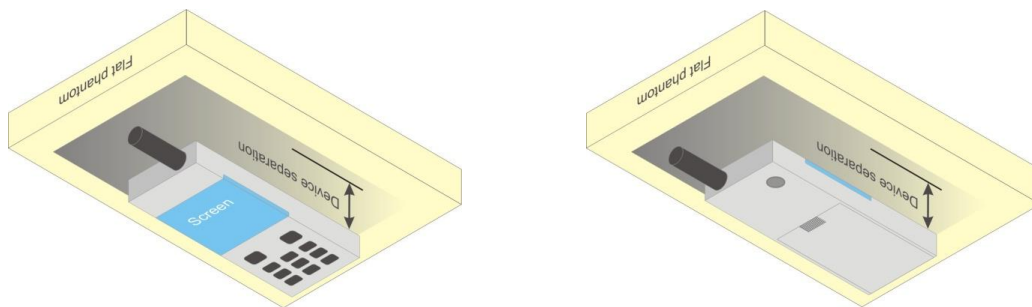


Fig 11.4 Body Worn Position



12.5 Product Specific 10g SAR Exposure

For smart phones with a display diagonal dimension > 15.0 cm or an overall diagonal dimension > 16.0 cm that provide similar mobile web access and multimedia support found in mini-tablets or UMPC mini-tablets that support voice calls next to the ear, According to KDB648474 D04v01r03, the following phablet procedures should be applied to evaluate SAR compliance for each applicable wireless modes and frequency band. Devices marketed as phablets, regardless of form factors and operating characteristics must be tested as a phablet to determine SAR compliance

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

12.6 Wireless Router

Some battery-operated handsets have the capability to transmit and receive user through simultaneous transmission of WIFI simultaneously with a separate licensed transmitter. The FCC has provided guidance in FCC KDB Publication 941225 D06 v02r01 where SAR test considerations for handsets ($L \times W \geq 9 \text{ cm} \times 5 \text{ cm}$) 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 D04 publication procedures. The "Portable Hotspot" feature on the handset was NOT activated during SAR assessments, to ensure the SAR measurements were evaluated for a single transmission frequency RF signal at a time.

13. Conducted RF Output Power (Unit: dBm)

The detailed conducted power table can refer to Appendix E.

<GSM Conducted Power>

General Note:

1. Per KDB 447498 D04, 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.
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 HSPA+ devices supporting 16 QAM in the uplink, power measurements procedure is according to the configurations in Table C.11.1.4 of 3GPP TS 34.121-1.
4. For DC-HSDPA, the device was configured according to the H-Set 12, Fixed Reference Channel (FRC) configuration in Table C.8.1.12 of 3GPP TS 34.121-1, with the primary and the secondary serving HS-DSCH Cell enabled during the power measurement.

A summary of these settings are illustrated below:

HSDPA Setup Configuration:

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

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

Sub-test	β_c	β_d	β_d (SF)	β_c/β_d	β_{HS} (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 $\beta_c/\beta_d = 12/15$, $\beta_{HS}/\beta_c = 24/15$. For all other combinations of DPDCH, DPCCH and HS-DPCCH the MPR is based on the relative CM difference. This is applicable for only UEs that support HSDPA in release 6 and later releases.

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

Setup Configuration

HSUPA Setup Configuration:

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

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

Sub-test	β_c	β_d	β_d (SF)	β_c/β_d	β_{HS} (Note1)	β_{ec}	β_{ed} (Note 4) (Note 5)	β_{ed} (SF)	β_{ed} (Codes)	CM (dB) (Note 2)	MPR (dB) (Note 2) (Note 6)	AG Index (Note 5)	E-TFCl
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	$\beta_{ed1}: 47/15$ $\beta_{ed2}: 47/15$	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 Agilent E5515C 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.		

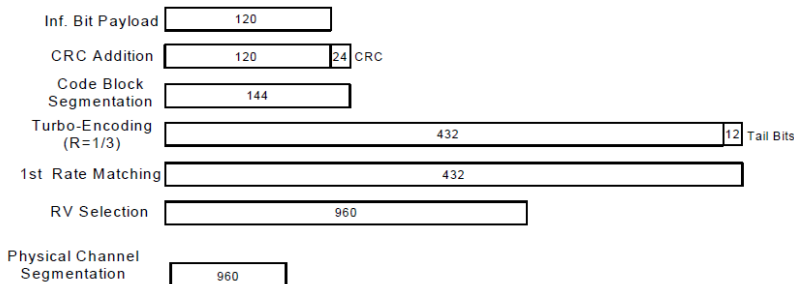


Figure C.8.19: Coding rate for Fixed reference Channel H-Set 12 (QPSK)

Setup Configuration

HSPA+ 3GPP release 7 (uplink category 7) 16QAM, Setup Configuration:

- a. The EUT was connected to Base Station Agilent E5515C referred to the Setup Configuration.
- b. The RF path losses were compensated into the measurements.
- c. A call was established between EUT and Base Station with following setting * :
 - i. Call Configs = 5.2E:HSPA+:UL with 16QAM
 - ii. Set the Gain Factors (β_c and β_d) and parameters (AG Index) were set according to each specific sub-test in the following table, C11.1.4, quoted from the TS 34.121-1 s5.2E
 - iii. Set Channel Parm
 - iv. Set Cell Power = -86 dBm
 - v. Set Channel Type = HSPA
 - vi. Set UE Target Power =21 dBm
 - vii. Power Ctrl Mode= All Up Bits
 - viii. Set Manual Uplink DPCH Bc/Bd = Manual
 - ix. Set Manual Uplink DPCH Bc and Bd=15,15(for 34.121-1 v8.10.0 table C11.1.4 sub-test 1)
 - x. Set HSPA Conn DL Channel Levels
 - xi. Set HS-SCCH Configs
 - xii. Set RB Test Mode Setup
 - xiii. Set Common HSUPA Parameters
 - xiv. Set Serving Grant
 - xv. Confirm that E-TFCI is equal to the target E-TFCI of 105 for sub-test 1, and other subtest's E-TFCI
- d. The transmitted maximum output power was recorded.

Table C.11.1.4: β values for transmitter characteristics tests with HS-DPCCH and E-DCH with 16QAM

Sub-test	β_c (Note 3)	β_d	β_{HS} (Note 1)	β_{ec}	β_{ed} (2xSF2) (Note 4)	β_{ed} (2xSF4) (Note 4)	CM (dB) (Note 2)	MPR (dB) (Note 2)	AG Index (Note 4)	E-TFCI (Note 5)	E-TFCI (boost)
1	1	0	30/15	30/15	β_{ed1} : 30/15 β_{ed2} : 30/15	β_{ed3} : 24/15 β_{ed4} : 24/15	3.5	2.5	14	105	105

Note 1: $\Delta_{ACK}, \Delta_{NACK}$ and $\Delta_{CQI} = 30/15$ with $\beta_{HS} = 30/15 * \beta_c$.

Note 2: CM = 3.5 and the MPR is based on the relative CM difference, MPR = MAX(CM-1,0).

Note 3: DPDCH is not configured, therefore the β_c is set to 1 and $\beta_d = 0$ by default.

Note 4: β_{ed} can not be set directly; it is set by Absolute Grant Value.

Note 5: All the sub-tests require the UE to transmit 2SF2+2SF4 16QAM EDCH and they apply for UE using E-DPDCH category 7. E-DCH TTI is set to 2ms TTI and E-DCH table index = 2. To support these E-DCH configurations DPDCH is not allocated. The UE is signaled to use the extrapolation algorithm.

Setup Configuration

<WCDMA Conducted Power>

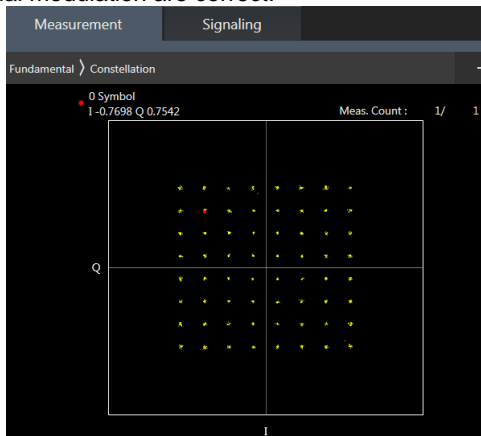
General Note:

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 / HSPA+ is $\leq 1/4$ 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 / HSPA+ to RMC12.2Kbps and the adjusted SAR is ≤ 1.2 W/kg, SAR measurement is not required for HSDPA / HSUPA / DC-HSDPA / HSPA+, and according to the following RF output power, the output power results of the secondary modes (HSDPA / HSUPA / DC-HSDPA / HSPA+) are less than $1/4$ dB higher than the primary modes; therefore, SAR measurement is not required for HSDPA / HSUPA / DC-HSDPA / HSPA+.

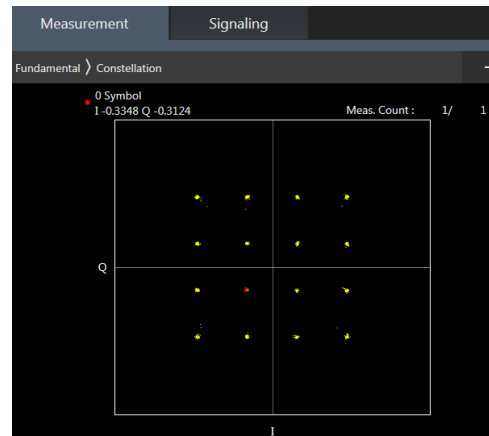
<LTE Conducted Power>

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 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 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 4 / 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.
9. LTE B17 / B19 / B38 SAR test was covered by B12 / B26 / 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 May 2017 TCB workshop, for 64 QAM and 16 QAM should be verified by checking the signal constellation with a call box to avoid incorrect maximum power levels due to MPR and other requirements associated with signal modulation, and the following figure is taken from the "Fundamental Measurement >> Modulation Analysis >> constellation" mode of the device connect to the MT8821C base station, therefore, the device 64QAM and 16QAM signal modulation are correct.



64QAM



16QAM

<TDD LTE SAR Measurement>

TDD LTE configuration setup for SAR measurement

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

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

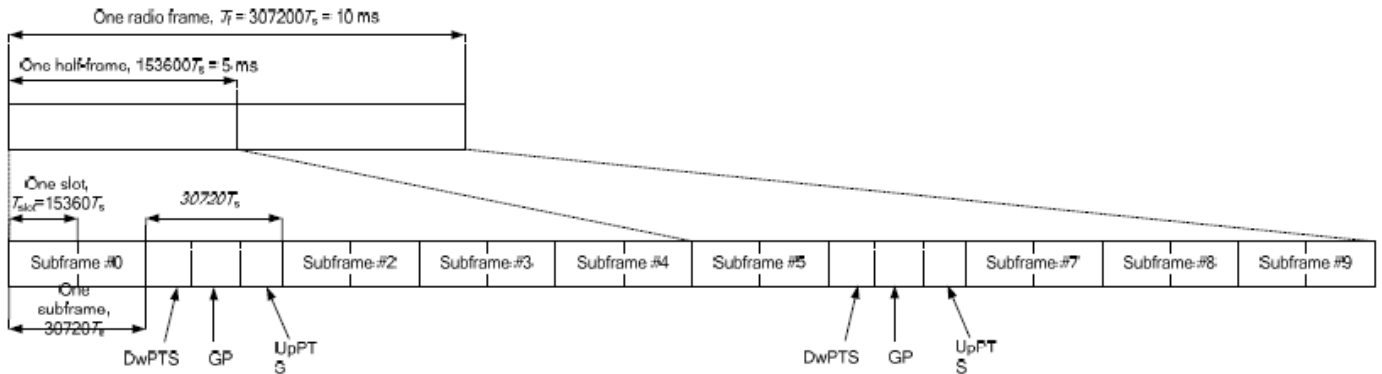


Figure 4.2-1: Frame structure type 2 (for 5 ms switch-point periodicity).

Table 4.2-2: Uplink-downlink configurations.

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

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

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

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:

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



<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. All permutations exist. No restrictions on Pcell & Scell combinations.

2CC Downlink Carrier Aggregation				3CC Downlink Carrier Aggregation				4CC Downlink Carrier Aggregation			
Number	Combination	4X4 MIMO	Covered by Measurement Superset	Number	Combination	4X4 MIMO	Covered by Measurement Superset	Number	Combination	4X4 MIMO	Covered by Measurement Superset
1	CA_12A-66A	66A		1	CA_2A-4A-5A			1	CA_2A-4A-7C		
2	CA_2A-4A		1-3CC	2	CA_2A-4A-7A		1-4CC				
3	CA_2A-5A		1-3CC	3	CA_2A-7A-7A		1-4CC				
4	CA_2A-66A	66A		4	CA_5A-7A-7A	7A-7A					
5	CA_2A-7A		3-3CC	5	CA_7A-66A-66A	7A,66A-66A					
6	CA_41A-41A	41A-41A	10-3CC	6	CA_5A-7A-66A	7A,66A					
7	CA_4A-12A	4A		7	CA_5A-66A-66A	66A-66A					
8	CA_4A-17A	4A		8	CA_12A-66A-66A	66A-66A					
9	CA_4A-5A	4A	11-3CC	9	CA_41A-41A-41A	41A-41A-41A					
10	CA_4A-7A	4A-7A	11-3CC	10	CA_4A-5A-7A	4A-7A					
11	CA_5A-41A	41A		11	CA_2A-7C	7C	1-4CC				
12	CA_5A-7A	7A	6-3CC	12	CA_5A-7C	7C					
13	CA_66A-66A	66A-66A	5-3CC	13	CA_41A-41C	41A-41C					
14	CA_7A-7A		3-3CC	14	CA_4A-7C	4A-7C	1-4CC				
15	CA_2A-12A										
16	CA_2A-17A										
17	CA_7A-26A	7A									
18	CA_7A-66A	7A,66A	5-3CC								
19	CA_5A-66A	66A	7-3CC								
20	CA_2C										
21	CA_7C	7C									
22	CA_38C	38C									
23	CA_41C	41C									
24	CA_66B	66B									
25	CA_66C	66C									

LTE 4x4 MIMO (Downlink)

This device supports downlink 4x4 MIMO operations for LTE Bands 4/7/38/41/66 only. Uplink transmission is limited to a single output stream. Power measurements were performed with downlink 4x4 MIMO active for the configuration with highest measured maximum conducted power with 4x4 downlink MIMO inactive measured among the channel bandwidth, modulation, and RB combinations in each frequency band.

Per FCC Guidance, SAR for downlink 4x4 MIMO was not needed since the maximum average output power in 4x4 downlink MIMO mode was not > 0.25 dB higher than the maximum output power with downlink 4x4 MIMO inactive. When carrier aggregation is applicable, power measurements were performed with the downlink carrier aggregation and 4x4 DL MIMO active for the configuration with highest measured maximum conducted power with downlink carrier aggregation inactive measured among the channel bandwidth, modulation, and RB combinations in each frequency band.

4X4 MIMO	Band
	LTE Band 4/7/38/41/66

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 four 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)

2CC Uplink Carrier Aggregation			
Number	Combination	Antenna	
1	7C	Ant14	Ant31
2	38C	Ant14	Ant31
3	41C	Ant14	Ant31

<Intra-band>

General Note:

- i. The device supports intra-band uplink carrier aggregation for LTE B7/B38/B41 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. 3GPP 36.101 6.2.3A allows for several dB of MPR to be applied when not-contiguous RB allocation is implemented. The conducted power and MPR setting in this device are permanently implemented pre 3GPP requirement.
- ii. The device supports uplink carrier aggregation 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. 3GPP 36.101 6.2.3A allows for several dB of MPR to be applied when not-contiguous RB allocation is implemented. The conducted power and MPR setting in this device are permanently implemented pre the 3GPP requirement.
- iii. According Nov. 2017 TCB workshop, the output power with uplink CA active was measured for the configuration with the highest reported SAR with single carrier for each exposure condition. The power was measured with wideband signal integration over both component carriers.
- iv. Additional SAR measurement for LTE UL CA with other DL CA combinations active were not required since the maximum output power for this configuration was not > 0.25dB higher than the maximum output power for UL CA active

<Inter-band>

LTE Uplink CA	Band&ANT port	Band&ANT port
CA_4A-7A	Band 4: Ant 31	Band 7: Ant 12/14

General Note:

- 1. For Inter-band CA co-located SAR analysis is performed using standalone SAR summed together and they are more conservatively for inter band CA.

5G NR Output Power (Unit: dBm)

General Note:

1. 5G NR n7 / n66 / n78 is NSA mode.
2. 5G NR n2 / n5 / n7 / n66 / n41 / n77 / n78 is SA mode.
3. 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-s PI/2 BPSK and the reported SAR for the DFT-s PI/2 BPSK configuration is ≤ 1.45 W/kg; CP-OFDM testing is not required.
 - b. For DFT-OFDM output power measurement reduction, according to 38.101 maximum power reduction for power class2 and 3, for 16QAM/64QAM/256QAM and smaller bandwidth output power will spot check largest channel bandwidth worst RB configuration to ensure the 16QAM/64QAM/256QAM and smaller bandwidth output power will not ½ dB higher than the same configuration in the largest supported bandwidth.
 - c. SAR testing start with the largest channel bandwidth and measure SAR for PI/2 BPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel
 - d. 50% RB allocation for PI/2 BPSK SAR testing follows 1RB PI/2 BPSK allocation procedure
 - e. PI/2 BPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested
 - f. QPSK/16QAM/64QAM/256QAM output powers according to 3GPP MPR will not ½ dB higher than the same configuration in PI/2 BPSK, also reported SAR for the PI/2 BPSK configuration is less than 1.45 W/kg, QPSK/16QAM/64QAM/256QAM SAR testing are not required.
 - g. Smaller bandwidth output power for each RB allocation configuration for this device will not ½ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg, smaller bandwidth SAR testing is not required for this device
4. For 5G NR test, using FTM (Factory Test Mode) to perform SAR with default 100% transmission.
5. 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.
6. For 5G NR EN-DC modes, standalone SAR performed for 5G NR band with the maximum power, EN-DC SAR summed 5G NR standalone SAR and LTE standalone SAR, the result of EN-DC SAR is more conservatively.

<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	



<EN-DC combination and combine Total Power>

EN-DC configuration	LTE TX		NR TX	
	Band	ANT port	Band	ANT port
DC_2A_n7A	2A	31	n7A	12
				14
DC_66A_n7A	66A	31	n7A	12
				14
DC_2A_n66A	2A	14	n66A	12
		31		
DC_5A_n66A	5A	11	n66A	12
		41		14
DC_7A_n66A	7A	31	n66A	12
				14
DC_2A_n78A	2A	14	n78A	13
				23
				24
				101
DC_4A_n78A	4A	14	n78A	13
				23
				24
				101
DC_5A_n78A	5A	11	n78A	13
				23
				24
				101
DC_7A_n78A	7A	14	n78A	13
				23
				24
				101
DC_38A_n78A	38A	14	n78A	13
				23
				24
				101
DC_41A_n78A	41A	14	n78A	13
				23
				24
				101
DC_66A_n78A	66A	14	n78A	13
				23
				24
				101
		31		13
				23

**<WLAN Conducted Power>****General Note:**

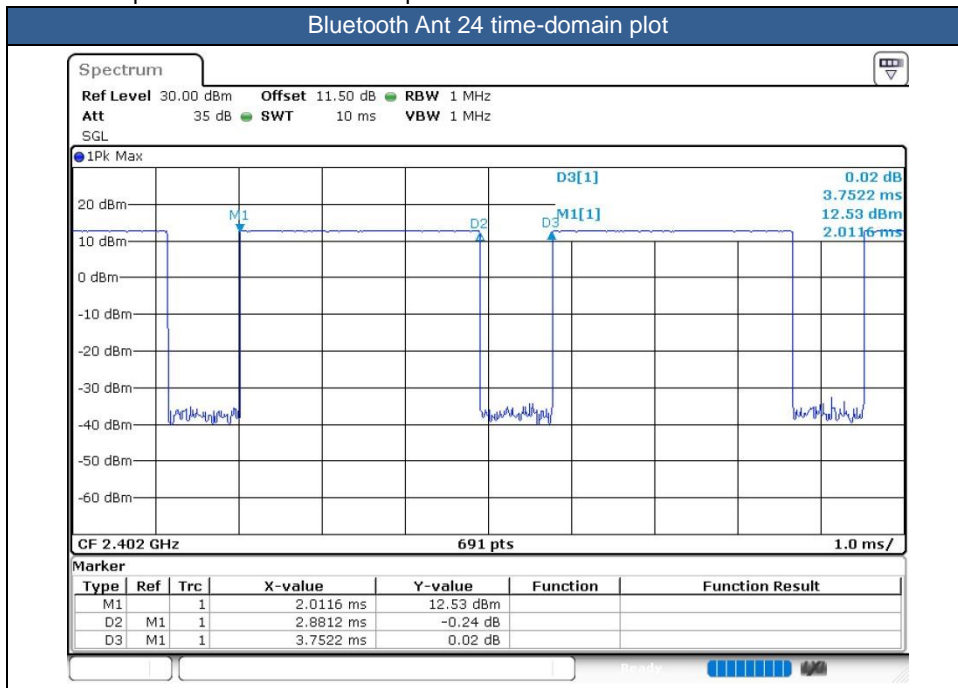
1. For each antenna, transmit power in SISO operation is larger than (or equal to) the power in MIMO operation, RF exposure compliance of MIMO mode can be deduced from the compliance simultaneous transmission of antennas operating in SISO mode.
2. Per KDB 248227 D01v02r02, the simultaneous SAR provisions in KDB publication 447498 should be applied to determine simultaneous transmission SAR test exclusion for WiFi MIMO. If the sum of 1g single transmission chain SAR measurements is $< 1.6\text{W/kg}$ and SAR peak to location ratio ≤ 0.04 , no additional SAR measurements for MIMO.
3. The maximum output power specified for production units are determined for all applicable 802.11 transmission modes in each standalone and aggregated frequency band. Maximum output power is measured for the highest maximum output power configuration(s) in each frequency band according to the default power measurement procedures. For "Not required", SAR Test reduction was applied from KDB 248227 guidance, Sec. 2.1, b), 1) 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 in the initial test configuration, for each frequency band or when MIMO mode was not performed, due to for each antenna, transmit power in SISO operation is larger than (or equal to) the power in MIMO operation, RF exposure compliance of MIMO mode can be deduced from the compliance simultaneous transmission of antennas operating in SISO mode. Additional output power measurements were not necessary.
4. 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.
5. 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).
6. 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.
7. 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 $\leq 0.4\text{ W/kg}$, 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 $> 0.4\text{ W/kg}$, 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 $\leq 0.8\text{ W/kg}$ or all required test position are tested.
 - c. For all positions/configurations, when the reported SAR is $> 0.8\text{ W/kg}$, SAR is measured for these test positions/configurations on the subsequent next highest measured output power channel(s) until the reported SAR is $\leq 1.2\text{ W/kg}$ or all required channels are tested.
8. For modes with the same maximum output power, the guidance from section 5.3.2 a) of FCC KDB Publication 248227 D01 should be applied, with 802.11ax being considered as the highest 802.11 mode for the appropriate frequency bands
9. When SAR testing for 802.11ax is required

- a. If the maximum output power is highest for OFDMA scenarios, choose the tone size with the maximum number of tones and the highest maximum output power
- b. Otherwise, consider the fully allocated channel for SAR testing
- c. When SAR testing is required on RU sizes less than the fully allocated channel, use the RU number closest to the middle of the channel, choosing the higher RU number when two RUs are equidistant to the middle of the channel

<2.4GHz Bluetooth>

General Note:

1. For 2.4GHz Bluetooth SAR testing was selected 1Mbps, due to its highest average power.
2. The Bluetooth duty cycle is 76.79%(Ant 24) see as following figure, according to 2016 Oct. TCB workshop for Bluetooth SAR scaling need further consideration and the maximum duty cycle is 100%, therefore the actual duty cycle will be scaled up to100% for Bluetooth reported SAR calculation.





14. Antenna Location

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

15. SAR Test Results

General Note:

1. Per KDB 447498 D04, 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 WLAN/Bluetooth: 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 (W/kg) = measured SAR (W/kg)* Tune-up Scaling Factor* scaling factor for extended cyclic prefix.
2. Per KDB 447498 D04, 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 only when the measured SAR is ≥ 0.8 W/kg.
4. Per KDB 648474 D04v01r03, when the reported SAR for a body-worn accessory measured without a headset connected to the handset is ≤ 1.2 W/kg, SAR testing with a headset connected to the handset is not required.
5. Per KDB648474 D04v01r03, for smart phones with a display diagonal dimension > 15cm or an overall diagonal dimension > 16cm, when hotspot mode applies, 10-g product specific SAR is required only for the surfaces and edges with hotspot mode 1-g reported SAR > 1.2 W/kg, in this report all the hotspot mode results are < 1.2W/kg.
6. 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 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 2/4/5/7/66, and 5G NR n2/7/77/78, 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.
7. For distance SAR and non-distance SAR, always chose higher SAR to do co-located analysis.

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.
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 $\leq 1/4$ 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 / HSPA+ 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 / HSPA+ to RMC12.2Kbps and the adjusted SAR is ≤ 1.2 W/kg, SAR measurement is not required for HSDPA / HSUPA / DC-HSDPA / HSPA+, and according to the following RF output power, the output power results of the secondary modes (HSDPA / HSUPA / DC-HSDPA / HSPA+) are less than $\frac{1}{4}$ dB higher than the primary modes; therefore, SAR measurement is not required for HSDPA / HSUPA / DC-HSDPA / HSPA+.

LTE Note:

1. Per KDB 941225 D05v02r05, start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel.
2. Per KDB 941225 D05v02r05, 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure.
3. Per KDB 941225 D05v02r05, for QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested.
4. Per KDB 941225 D05v02r05, 16QAM/64QAM output power for each RB allocation configuration is $>$ not $\frac{1}{2}$ 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 $>$ 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. 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.
7. LTE B17 / B19 / B38 SAR test was covered by B12 / B26 / 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

5G NR Note:

For 5G NR test procedure was following step similar FCC KDB 941225 D05:

- a. 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.
- b. 50% RB allocation for PI/2 BPSK SAR testing follows 1RB PI/2 BPSK allocation procedure.
- c. 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.
- d. QPSK/16QAM/64QAM/256QAM output powers according to 3GPP MPR will not $\frac{1}{2}$ dB higher than the same configuration in PI/2 BPSK, also reported SAR for the PI/2 BPSK configuration is less than 1.45 W/kg, QPSK/16QAM /64QAM/256QAM SAR testing are not required.
- e. Smaller bandwidth output power for each RB allocation configuration for this device will 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, smaller bandwidth SAR testing is not required for this device

WLAN/Bluetooth 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.
6. SISO and MIMO all supported by WLAN2.4GHz/WLAN5GHz, for SISO mode power is less than per chain power of MIMO mode.
7. For the conducted power measurement is MIMO chains transmitting simultaneously and measured the separately conducted power for both chains and then based on the conducted power of two antennas respectively to calculate sum of the power for MIMO mode
8. Only chose MIMO power to perform SAR testing.

SRS (Sounding Reference Signal) description:

If one or more receive antennas are used as SRS as dedicated antennas, i.e., the antenna(s) is used for receive and Sound Reference Signal transmission (SRS) only (not traffic transmission), then the SAR measurement at P_{limit} for SAR as dedicated antenna(s) can be performed using FTM mode with CW modulation (as SRS could operate at very low duty cycle in online mode). Reported SAR for SRS dedicated antenna can be calculated by scaling the measured SAR at P_{limit} to a Tx power corresponding to worst-case SRS duty cycle * P_{max}, then reported SAR for SRS = measured SAR @ P_{limit} * $10^{\min\{(\text{reported } P_{\text{max_dBm}} + 10 \cdot \log_{10}(\text{duty_cycle}); \text{reported } P_{\text{limit_dBm}}) - \text{measured } P_{\text{limit_dBm}}\}/10}$. The worst-case SRS duty cycle is 8.5% (Declared by Manufacturer).



15.1 Head SAR

<GSM/WCDMA/LTE SAR>

Table with columns: Plot No., Band, BW (MHz), Modulation, RB Size, RB offset, Mode, Test Position, Gap (mm), Antenna, Power State, Ch., Freq. (MHz), Average Power (dBm), Tune-Up Limit (dBm), Tune-up Scaling Factor, Power Drift (dB), Measured 1g SAR (W/kg), Reported 1g SAR (W/kg). Rows are grouped by frequency bands: 750MHz, 835MHz, and WCDMA V.



	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 11	DSI 3	4182	836.4	21.39	22.50	1.291	-0.07	0.017	0.022
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 11	DSI 3	4182	836.4	21.39	22.50	1.291	-0.05	0.344	0.444
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 11	DSI 3	4182	836.4	21.39	22.50	1.291	-0.17	0.041	0.053
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 41	DSI 2/3	4182	836.4	23.70	25.00	1.349	0.05	0.122	0.165
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 41	DSI 2/3	4182	836.4	23.70	25.00	1.349	0.13	0.059	0.080
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 41	DSI 2/3	4182	836.4	23.70	25.00	1.349	0.08	0.118	0.159
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 41	DSI 2/3	4182	836.4	23.70	25.00	1.349	-0.09	0.070	0.094
	LTE Band 18	15M	QPSK	1	37	-	Right Cheek	0mm	Ant 11	DSI 2	23925	822.5	23.13	24.50	1.371	-0.07	0.222	0.304
	LTE Band 18	15M	QPSK	1	37	-	Right Tilted	0mm	Ant 11	DSI 2	23925	822.5	23.13	24.50	1.371	0.11	0.042	0.058
05	LTE Band 18	15M	QPSK	1	37	-	Left Cheek	0mm	Ant 11	DSI 2	23925	822.5	23.13	24.50	1.371	-0.15	0.539	0.739
	LTE Band 18	15M	QPSK	1	37	-	Left Tilted	0mm	Ant 11	DSI 2	23925	822.5	23.13	24.50	1.371	-0.05	0.060	0.082
	LTE Band 18	15M	QPSK	36	0	-	Right Cheek	0mm	Ant 11	DSI 2	23925	822.5	22.61	24.00	1.377	-0.09	0.177	0.244
	LTE Band 18	15M	QPSK	36	0	-	Right Tilted	0mm	Ant 11	DSI 2	23925	822.5	22.61	24.00	1.377	0.06	0.033	0.045
	LTE Band 18	15M	QPSK	36	0	-	Left Cheek	0mm	Ant 11	DSI 2	23925	822.5	22.61	24.00	1.377	-0.01	0.437	0.602
	LTE Band 18	15M	QPSK	36	0	-	Left Tilted	0mm	Ant 11	DSI 2	23925	822.5	22.61	24.00	1.377	0.08	0.049	0.067
	LTE Band 18	15M	QPSK	1	37	-	Right Cheek	0mm	Ant 11	DSI 3	23925	822.5	22.22	23.50	1.343	-0.04	0.162	0.218
	LTE Band 18	15M	QPSK	1	37	-	Right Tilted	0mm	Ant 11	DSI 3	23925	822.5	22.22	23.50	1.343	0.01	0.034	0.046
	LTE Band 18	15M	QPSK	1	37	-	Left Cheek	0mm	Ant 11	DSI 3	23925	822.5	22.22	23.50	1.343	-0.12	0.365	0.490
	LTE Band 18	15M	QPSK	1	37	-	Left Tilted	0mm	Ant 11	DSI 3	23925	822.5	22.22	23.50	1.343	0.07	0.049	0.066
	LTE Band 18	15M	QPSK	36	0	-	Right Cheek	0mm	Ant 11	DSI 3	23925	822.5	22.10	23.50	1.380	-0.11	0.163	0.225
	LTE Band 18	15M	QPSK	36	0	-	Right Tilted	0mm	Ant 11	DSI 3	23925	822.5	22.10	23.50	1.380	-0.01	0.025	0.035
	LTE Band 18	15M	QPSK	36	0	-	Left Cheek	0mm	Ant 11	DSI 3	23925	822.5	22.10	23.50	1.380	-0.02	0.343	0.473
	LTE Band 18	15M	QPSK	36	0	-	Left Tilted	0mm	Ant 11	DSI 3	23925	822.5	22.10	23.50	1.380	0.06	0.042	0.058
	LTE Band 26	15M	QPSK	1	37	-	Right Cheek	0mm	Ant 11	DSI 2	26865	831.5	22.75	24.00	1.334	0.1	0.191	0.255
	LTE Band 26	15M	QPSK	1	37	-	Right Tilted	0mm	Ant 11	DSI 2	26865	831.5	22.75	24.00	1.334	0.13	0.038	0.051
06	LTE Band 26	15M	QPSK	1	37	-	Left Cheek	0mm	Ant 11	DSI 2	26865	831.5	22.75	24.00	1.334	-0.08	0.495	0.660
	LTE Band 26	15M	QPSK	1	37	-	Left Tilted	0mm	Ant 11	DSI 2	26865	831.5	22.75	24.00	1.334	0.01	0.052	0.069
	LTE Band 26	15M	QPSK	36	0	-	Right Cheek	0mm	Ant 11	DSI 2	26865	831.5	22.55	24.00	1.396	-0.12	0.211	0.295
	LTE Band 26	15M	QPSK	36	0	-	Right Tilted	0mm	Ant 11	DSI 2	26865	831.5	22.55	24.00	1.396	-0.1	0.039	0.054
	LTE Band 26	15M	QPSK	36	0	-	Left Cheek	0mm	Ant 11	DSI 2	26865	831.5	22.55	24.00	1.396	-0.19	0.422	0.589
	LTE Band 26	15M	QPSK	36	0	-	Left Tilted	0mm	Ant 11	DSI 2	26865	831.5	22.55	24.00	1.396	-0.06	0.047	0.066
	LTE Band 26	15M	QPSK	1	37	-	Right Cheek	0mm	Ant 11	DSI 3	26865	831.5	21.64	23.00	1.368	0.14	0.158	0.216
	LTE Band 26	15M	QPSK	1	37	-	Right Tilted	0mm	Ant 11	DSI 3	26865	831.5	21.64	23.00	1.368	0.07	0.030	0.041
	LTE Band 26	15M	QPSK	1	37	-	Left Cheek	0mm	Ant 11	DSI 3	26865	831.5	21.64	23.00	1.368	0.13	0.360	0.492
	LTE Band 26	15M	QPSK	1	37	-	Left Tilted	0mm	Ant 11	DSI 3	26865	831.5	21.64	23.00	1.368	0.16	0.044	0.060
	LTE Band 26	15M	QPSK	36	0	-	Right Cheek	0mm	Ant 11	DSI 3	26865	831.5	21.45	23.00	1.429	0.04	0.159	0.227
	LTE Band 26	15M	QPSK	36	0	-	Right Tilted	0mm	Ant 11	DSI 3	26865	831.5	21.45	23.00	1.429	-0.09	0.027	0.039
	LTE Band 26	15M	QPSK	36	0	-	Left Cheek	0mm	Ant 11	DSI 3	26865	831.5	21.45	23.00	1.429	0.15	0.342	0.489
	LTE Band 26	15M	QPSK	36	0	-	Left Tilted	0mm	Ant 11	DSI 3	26865	831.5	21.45	23.00	1.429	0.07	0.046	0.066
	LTE Band 26	15M	QPSK	1	37	-	Right Cheek	0mm	Ant 41	DSI 2/3	26865	831.5	23.88	25.00	1.294	0.19	0.109	0.141
	LTE Band 26	15M	QPSK	1	37	-	Right Tilted	0mm	Ant 41	DSI 2/3	26865	831.5	23.88	25.00	1.294	0.08	0.057	0.074
	LTE Band 26	15M	QPSK	1	37	-	Left Cheek	0mm	Ant 41	DSI 2/3	26865	831.5	23.88	25.00	1.294	-0.11	0.119	0.154
	LTE Band 26	15M	QPSK	1	37	-	Left Tilted	0mm	Ant 41	DSI 2/3	26865	831.5	23.88	25.00	1.294	-0.03	0.068	0.088
	LTE Band 26	15M	QPSK	36	0	-	Right Cheek	0mm	Ant 41	DSI 2/3	26865	831.5	22.66	24.00	1.361	0.17	0.089	0.121
	LTE Band 26	15M	QPSK	36	0	-	Right Tilted	0mm	Ant 41	DSI 2/3	26865	831.5	22.66	24.00	1.361	0.07	0.011	0.015
	LTE Band 26	15M	QPSK	36	0	-	Left Cheek	0mm	Ant 41	DSI 2/3	26865	831.5	22.66	24.00	1.361	-0.05	0.098	0.133
	LTE Band 26	15M	QPSK	36	0	-	Left Tilted	0mm	Ant 41	DSI 2/3	26865	831.5	22.66	24.00	1.361	0.09	0.055	0.075
1750MHz																		
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 14	DSI 2	1413	1732.6	17.48	18.50	1.265	0.02	0.537	0.679
07	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 14	DSI 2	1413	1732.6	17.48	18.50	1.265	0.17	0.612	0.774
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 14	DSI 2	1413	1732.6	17.48	18.50	1.265	-0.14	0.390	0.493
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 14	DSI 2	1413	1732.6	17.48	18.50	1.265	0.14	0.472	0.597
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 14	DSI 3	1413	1732.6	16.50	17.50	1.259	0.05	0.424	0.534
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 14	DSI 3	1413	1732.6	16.50	17.50	1.259	-0.01	0.439	0.553
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 14	DSI 3	1413	1732.6	16.50	17.50	1.259	0.08	0.312	0.393
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 14	DSI 3	1413	1732.6	16.50	17.50	1.259	0.16	0.372	0.468



	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 31	DSI 2/3	1413	1732.6	24.42	25.50	1.282	-0.08	0.121	0.155
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 31	DSI 2/3	1413	1732.6	24.42	25.50	1.282	-0.05	0.081	0.104
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 31	DSI 2/3	1413	1732.6	24.42	25.50	1.282	0.11	0.127	0.163
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 31	DSI 2/3	1413	1732.6	24.42	25.50	1.282	0.05	0.102	0.131
08	LTE Band 4	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 31	DSI 2/3	20175	1732.5	23.31	24.50	1.315	-0.06	0.152	0.200
	LTE Band 4	20M	QPSK	1	49	-	Right Tilted	0mm	Ant 31	DSI 2/3	20175	1732.5	23.31	24.50	1.315	-0.02	0.073	0.096
	LTE Band 4	20M	QPSK	1	49	-	Left Cheek	0mm	Ant 31	DSI 2/3	20175	1732.5	23.31	24.50	1.315	0.18	0.104	0.137
	LTE Band 4	20M	QPSK	1	49	-	Left Tilted	0mm	Ant 31	DSI 2/3	20175	1732.5	23.31	24.50	1.315	0.14	0.083	0.109
	LTE Band 4	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 31	DSI 2/3	20175	1732.5	22.40	23.50	1.288	0.12	0.097	0.125
	LTE Band 4	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 31	DSI 2/3	20175	1732.5	22.40	23.50	1.288	-0.16	0.057	0.073
	LTE Band 4	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 31	DSI 2/3	20175	1732.5	22.40	23.50	1.288	-0.07	0.081	0.104
	LTE Band 4	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 31	DSI 2/3	20175	1732.5	22.40	23.50	1.288	-0.15	0.065	0.084
	LTE Band 66	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 14	DSI 2	132322	1745	17.37	18.50	1.297	-0.18	0.515	0.668
09	LTE Band 66	20M	QPSK	1	49	-	Right Tilted	0mm	Ant 14	DSI 2	132322	1745	17.37	18.50	1.297	-0.03	0.640	0.830
	LTE Band 66	20M	QPSK	1	49	-	Left Cheek	0mm	Ant 14	DSI 2	132322	1745	17.37	18.50	1.297	0.07	0.369	0.479
	LTE Band 66	20M	QPSK	1	49	-	Left Tilted	0mm	Ant 14	DSI 2	132322	1745	17.37	18.50	1.297	0.19	0.402	0.521
	LTE Band 66	20M	QPSK	1	49	-	Right Tilted	0mm	Ant 14	DSI 2	132072	1720	17.16	18.50	1.361	0.03	0.549	0.747
	LTE Band 66	20M	QPSK	1	49	-	Right Tilted	0mm	Ant 14	DSI 2	132572	1770	17.09	18.50	1.384	0.08	0.520	0.719
	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 14	DSI 2	132322	1745	17.36	18.50	1.300	-0.01	0.510	0.663
	LTE Band 66	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 14	DSI 2	132322	1745	17.36	18.50	1.300	-0.04	0.558	0.725
	LTE Band 66	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 14	DSI 2	132322	1745	17.36	18.50	1.300	-0.05	0.374	0.486
	LTE Band 66	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 14	DSI 2	132322	1745	17.36	18.50	1.300	-0.01	0.410	0.533
	LTE Band 66	20M	QPSK	100	0	-	Right Tilted	0mm	Ant 14	DSI 2	132322	1745	17.24	18.50	1.337	0.05	0.499	0.667
	LTE Band 66	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 14	DSI 3	132322	1745	16.38	17.50	1.294	0.09	0.399	0.516
	LTE Band 66	20M	QPSK	1	49	-	Right Tilted	0mm	Ant 14	DSI 3	132322	1745	16.38	17.50	1.294	0.04	0.413	0.535
	LTE Band 66	20M	QPSK	1	49	-	Left Cheek	0mm	Ant 14	DSI 3	132322	1745	16.38	17.50	1.294	-0.07	0.270	0.349
	LTE Band 66	20M	QPSK	1	49	-	Left Tilted	0mm	Ant 14	DSI 3	132322	1745	16.38	17.50	1.294	-0.07	0.298	0.386
	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 14	DSI 3	132322	1745	16.37	17.50	1.297	0.12	0.387	0.502
	LTE Band 66	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 14	DSI 3	132322	1745	16.37	17.50	1.297	0.05	0.409	0.531
	LTE Band 66	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 14	DSI 3	132322	1745	16.37	17.50	1.297	-0.12	0.261	0.339
	LTE Band 66	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 14	DSI 3	132322	1745	16.37	17.50	1.297	-0.1	0.297	0.385
	LTE Band 66	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 31	DSI 2/3	132322	1745	23.35	24.00	1.161	0.12	0.092	0.107
	LTE Band 66	20M	QPSK	1	49	-	Right Tilted	0mm	Ant 31	DSI 2/3	132322	1745	23.35	24.00	1.161	0.08	0.061	0.071
	LTE Band 66	20M	QPSK	1	49	-	Left Cheek	0mm	Ant 31	DSI 2/3	132322	1745	23.35	24.00	1.161	-0.06	0.091	0.106
	LTE Band 66	20M	QPSK	1	49	-	Left Tilted	0mm	Ant 31	DSI 2/3	132322	1745	23.35	24.00	1.161	-0.17	0.067	0.078
	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 31	DSI 2/3	132322	1745	22.42	23.00	1.143	-0.05	0.071	0.081
	LTE Band 66	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 31	DSI 2/3	132322	1745	22.42	23.00	1.143	-0.09	0.051	0.058
	LTE Band 66	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 31	DSI 2/3	132322	1745	22.42	23.00	1.143	0.17	0.073	0.083
	LTE Band 66	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 31	DSI 2/3	132322	1745	22.42	23.00	1.143	0.1	0.041	0.047
1900MHz																		
10	GSM1900	-	-	-	-	EDGE 2 Tx slots	Right Cheek	0mm	Ant 14	DSI 2	661	1880	23.16	24.00	1.213	-0.06	0.745	0.904
	GSM1900	-	-	-	-	EDGE 2 Tx slots	Right Tilted	0mm	Ant 14	DSI 2	661	1880	23.16	24.00	1.213	-0.05	0.713	0.865
	GSM1900	-	-	-	-	EDGE 2 Tx slots	Left Cheek	0mm	Ant 14	DSI 2	661	1880	23.16	24.00	1.213	-0.11	0.403	0.489
	GSM1900	-	-	-	-	EDGE 2 Tx slots	Left Tilted	0mm	Ant 14	DSI 2	661	1880	23.16	24.00	1.213	-0.14	0.439	0.533
	GSM1900	-	-	-	-	EDGE 2 Tx slots	Right Cheek	0mm	Ant 14	DSI 2	512	1850.2	23.12	24.00	1.225	0.03	0.637	0.780
	GSM1900	-	-	-	-	EDGE 2 Tx slots	Right Cheek	0mm	Ant 14	DSI 2	810	1909.8	23.05	24.00	1.245	0.08	0.643	0.800
	GSM1900	-	-	-	-	EDGE 2 Tx slots	Right Tilted	0mm	Ant 14	DSI 2	512	1850.2	23.12	24.00	1.225	-0.01	0.612	0.749
	GSM1900	-	-	-	-	EDGE 2 Tx slots	Right Tilted	0mm	Ant 14	DSI 2	810	1909.8	23.05	24.00	1.245	-0.18	0.621	0.773
	GSM1900	-	-	-	-	EDGE 2 Tx slots	Right Cheek	0mm	Ant 14	DSI 3	661	1880	22.41	23.00	1.146	0.05	0.592	0.678
	GSM1900	-	-	-	-	EDGE 2 Tx slots	Right Tilted	0mm	Ant 14	DSI 3	661	1880	22.41	23.00	1.146	-0.12	0.566	0.648
	GSM1900	-	-	-	-	EDGE 2 Tx slots	Left Cheek	0mm	Ant 14	DSI 3	661	1880	22.41	23.00	1.146	-0.1	0.320	0.367
	GSM1900	-	-	-	-	EDGE 2 Tx slots	Left Tilted	0mm	Ant 14	DSI 3	661	1880	22.41	23.00	1.146	0.04	0.349	0.400
	GSM1900	-	-	-	-	GPRS 2 Tx slots	Right Cheek	0mm	Ant 31	DSI 2/3	661	1880	27.85	28.30	1.109	0.11	0.040	0.044
	GSM1900	-	-	-	-	GPRS 2 Tx slots	Right Tilted	0mm	Ant 31	DSI 2/3	661	1880	27.85	28.30	1.109	0.01	0.034	0.038
	GSM1900	-	-	-	-	GPRS 2 Tx slots	Left Cheek	0mm	Ant 31	DSI 2/3	661	1880	27.85	28.30	1.109	-0.01	0.054	0.060
	GSM1900	-	-	-	-	GPRS 2 Tx slots	Left Tilted	0mm	Ant 31	DSI 2/3	661	1880	27.85	28.30	1.109	-0.13	0.048	0.053



11	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 14	DSI 2	9400	1880	16.76	18.00	1.330	-0.04	0.667	0.887
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 14	DSI 2	9400	1880	16.76	18.00	1.330	-0.03	0.548	0.729
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 14	DSI 2	9400	1880	16.76	18.00	1.330	0.16	0.368	0.490
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 14	DSI 2	9400	1880	16.76	18.00	1.330	0.15	0.419	0.557
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 14	DSI 2	9262	1852.4	16.69	18.00	1.352	0.05	0.620	0.838
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 14	DSI 2	9538	1907.6	16.73	18.00	1.340	0.08	0.615	0.824
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 14	DSI 3	9400	1880	15.76	17.00	1.330	-0.16	0.530	0.705
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 14	DSI 3	9400	1880	15.76	17.00	1.330	0.07	0.435	0.579
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 14	DSI 3	9400	1880	15.76	17.00	1.330	-0.08	0.292	0.388
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 14	DSI 3	9400	1880	15.76	17.00	1.330	0.18	0.333	0.443
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 31	DSI 2/3	9400	1880	22.59	24.00	1.384	0.08	0.060	0.083
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 31	DSI 2/3	9400	1880	22.59	24.00	1.384	-0.1	0.043	0.059
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 31	DSI 2/3	9400	1880	22.59	24.00	1.384	0.02	0.085	0.118
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 31	DSI 2/3	9400	1880	22.59	24.00	1.384	0.13	0.059	0.082
12	LTE Band 2	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 14	DSI 2	18900	1880	16.80	18.00	1.318	-0.01	0.644	0.849
	LTE Band 2	20M	QPSK	1	49	-	Right Tilted	0mm	Ant 14	DSI 2	18900	1880	16.80	18.00	1.318	-0.16	0.562	0.741
	LTE Band 2	20M	QPSK	1	49	-	Left Cheek	0mm	Ant 14	DSI 2	18900	1880	16.80	18.00	1.318	0.07	0.356	0.469
	LTE Band 2	20M	QPSK	1	49	-	Left Tilted	0mm	Ant 14	DSI 2	18900	1880	16.80	18.00	1.318	0.16	0.393	0.518
	LTE Band 2	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 14	DSI 2	18700	1860	16.70	18.00	1.349	0.06	0.611	0.824
	LTE Band 2	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 14	DSI 2	19100	1900	16.71	18.00	1.346	0.08	0.600	0.808
	LTE Band 2	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 14	DSI 2	18900	1880	16.77	18.00	1.327	0.09	0.585	0.777
	LTE Band 2	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 14	DSI 2	18900	1880	16.77	18.00	1.327	-0.19	0.500	0.664
	LTE Band 2	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 14	DSI 2	18900	1880	16.77	18.00	1.327	-0.1	0.335	0.445
	LTE Band 2	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 14	DSI 2	18900	1880	16.77	18.00	1.327	-0.18	0.382	0.507
	LTE Band 2	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 14	DSI 2	18900	1880	16.72	18.00	1.343	0.09	0.558	0.749
	LTE Band 2	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 14	DSI 3	18900	1880	15.72	17.00	1.343	0.01	0.512	0.687
	LTE Band 2	20M	QPSK	1	49	-	Right Tilted	0mm	Ant 14	DSI 3	18900	1880	15.72	17.00	1.343	0.11	0.446	0.599
	LTE Band 2	20M	QPSK	1	49	-	Left Cheek	0mm	Ant 14	DSI 3	18900	1880	15.72	17.00	1.343	-0.04	0.283	0.380
	LTE Band 2	20M	QPSK	1	49	-	Left Tilted	0mm	Ant 14	DSI 3	18900	1880	15.72	17.00	1.343	0.15	0.312	0.419
	LTE Band 2	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 14	DSI 3	18900	1880	15.70	17.00	1.349	0.16	0.465	0.627
	LTE Band 2	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 14	DSI 3	18900	1880	15.70	17.00	1.349	0.18	0.397	0.536
	LTE Band 2	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 14	DSI 3	18900	1880	15.70	17.00	1.349	0.03	0.266	0.359
	LTE Band 2	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 14	DSI 3	18900	1880	15.70	17.00	1.349	-0.04	0.303	0.409
	LTE Band 2	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 31	DSI 2/3	18900	1880	22.29	23.50	1.321	-0.04	0.054	0.071
	LTE Band 2	20M	QPSK	1	49	-	Right Tilted	0mm	Ant 31	DSI 2/3	18900	1880	22.29	23.50	1.321	-0.01	0.018	0.024
	LTE Band 2	20M	QPSK	1	49	-	Left Cheek	0mm	Ant 31	DSI 2/3	18900	1880	22.29	23.50	1.321	-0.1	0.079	0.104
	LTE Band 2	20M	QPSK	1	49	-	Left Tilted	0mm	Ant 31	DSI 2/3	18900	1880	22.29	23.50	1.321	0.13	0.053	0.070
	LTE Band 2	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 31	DSI 2/3	18900	1880	21.22	22.50	1.343	0.14	0.043	0.058
	LTE Band 2	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 31	DSI 2/3	18900	1880	21.22	22.50	1.343	0.14	0.015	0.020
	LTE Band 2	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 31	DSI 2/3	18900	1880	21.22	22.50	1.343	-0.01	0.059	0.079
	LTE Band 2	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 31	DSI 2/3	18900	1880	21.22	22.50	1.343	0.02	0.011	0.015



Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
2600MHz																			
13	LTE Band 7	20M	QPSK	1	49	Right Cheek	0mm	Ant 14	DSI 2	21100	2535	15.35	16.50	1.303	-	-	-0.16	0.757	0.986
	LTE Band 7C	20M	QPSK	1	49	Right Cheek	0mm	Ant 14	DSI 2	21100+20902	2535+2515.2	15.11	16.50	1.377	-	-	0.05	0.710	0.978
	LTE Band 7	20M	QPSK	1	49	Right Tilted	0mm	Ant 14	DSI 2	21100	2535	15.35	16.50	1.303	-	-	0.09	0.483	0.629
	LTE Band 7	20M	QPSK	1	49	Left Cheek	0mm	Ant 14	DSI 2	21100	2535	15.35	16.50	1.303	-	-	0.04	0.269	0.351
	LTE Band 7	20M	QPSK	1	49	Left Tilted	0mm	Ant 14	DSI 2	21100	2535	15.35	16.50	1.303	-	-	0.15	0.268	0.349
	LTE Band 7	20M	QPSK	1	49	Right Cheek	0mm	Ant 14	DSI 2	20850	2510	15.23	16.50	1.340	-	-	0.09	0.593	0.794
	LTE Band 7	20M	QPSK	1	49	Right Cheek	0mm	Ant 14	DSI 2	21350	2560	15.29	16.50	1.321	-	-	0.05	0.617	0.815
	LTE Band 7	20M	QPSK	50	0	Right Cheek	0mm	Ant 14	DSI 2	21100	2535	15.27	16.50	1.327	-	-	-0.01	0.700	0.929
	LTE Band 7	20M	QPSK	50	0	Right Tilted	0mm	Ant 14	DSI 2	21100	2535	15.27	16.50	1.327	-	-	0.11	0.480	0.637
	LTE Band 7	20M	QPSK	50	0	Left Cheek	0mm	Ant 14	DSI 2	21100	2535	15.27	16.50	1.327	-	-	0.1	0.253	0.336
	LTE Band 7	20M	QPSK	50	0	Left Tilted	0mm	Ant 14	DSI 2	21100	2535	15.27	16.50	1.327	-	-	-0.03	0.270	0.358
	LTE Band 7	20M	QPSK	50	0	Right Cheek	0mm	Ant 14	DSI 2	20850	2510	15.08	16.50	1.387	-	-	0.07	0.574	0.796
	LTE Band 7	20M	QPSK	50	0	Right Cheek	0mm	Ant 14	DSI 2	21350	2560	15.13	16.50	1.371	-	-	-0.11	0.608	0.833
	LTE Band 7	20M	QPSK	100	0	Right Cheek	0mm	Ant 14	DSI 2	21350	2560	15.18	16.50	1.355	-	-	0.05	0.553	0.749
	LTE Band 7	20M	QPSK	1	49	Right Cheek	0mm	Ant 14	DSI 3	21100	2535	14.38	15.50	1.294	-	-	-0.1	0.601	0.778
	LTE Band 7C	20M	QPSK	1	49	Right Cheek	0mm	Ant 14	DSI 3	21100+20902	2535+2515.2	14.07	15.50	1.390	-	-	0.03	0.525	0.730
	LTE Band 7	20M	QPSK	1	49	Right Tilted	0mm	Ant 14	DSI 3	21100	2535	14.38	15.50	1.294	-	-	0.12	0.377	0.488
	LTE Band 7	20M	QPSK	1	49	Left Cheek	0mm	Ant 14	DSI 3	21100	2535	14.38	15.50	1.294	-	-	0.06	0.214	0.277
	LTE Band 7	20M	QPSK	1	49	Left Tilted	0mm	Ant 14	DSI 3	21100	2535	14.38	15.50	1.294	-	-	-0.03	0.213	0.276
	LTE Band 7	20M	QPSK	50	0	Right Cheek	0mm	Ant 14	DSI 3	21100	2535	14.15	15.50	1.365	-	-	0.03	0.514	0.701
	LTE Band 7	20M	QPSK	50	0	Right Tilted	0mm	Ant 14	DSI 3	21100	2535	14.15	15.50	1.365	-	-	-0.05	0.352	0.480
	LTE Band 7	20M	QPSK	50	0	Left Cheek	0mm	Ant 14	DSI 3	21100	2535	14.15	15.50	1.365	-	-	0.02	0.192	0.262
	LTE Band 7	20M	QPSK	50	0	Left Tilted	0mm	Ant 14	DSI 3	21100	2535	14.15	15.50	1.365	-	-	-0.18	0.210	0.287
	LTE Band 7	20M	QPSK	1	49	Right Cheek	0mm	Ant 31	DSI 2/3	21100	2535	23.61	24.50	1.227	-	-	0.17	0.266	0.326
	LTE Band 7C	20M	QPSK	1	49	Right Cheek	0mm	Ant 31	DSI 2/3	21100+20902	2535+2515.2	23.43	24.50	1.279	-	-	0.07	0.250	0.320
	LTE Band 7	20M	QPSK	1	49	Right Tilted	0mm	Ant 31	DSI 2/3	21100	2535	23.61	24.50	1.227	-	-	-0.1	0.120	0.147
	LTE Band 7	20M	QPSK	1	49	Left Cheek	0mm	Ant 31	DSI 2/3	21100	2535	23.61	24.50	1.227	-	-	0.02	0.140	0.172
	LTE Band 7	20M	QPSK	1	49	Left Tilted	0mm	Ant 31	DSI 2/3	21100	2535	23.61	24.50	1.227	-	-	-0.04	0.083	0.102
	LTE Band 7	20M	QPSK	50	0	Right Cheek	0mm	Ant 31	DSI 2/3	21100	2535	22.57	23.50	1.239	-	-	-0.09	0.206	0.255
	LTE Band 7	20M	QPSK	50	0	Right Tilted	0mm	Ant 31	DSI 2/3	21100	2535	22.57	23.50	1.239	-	-	-0.01	0.092	0.114
	LTE Band 7	20M	QPSK	50	0	Left Cheek	0mm	Ant 31	DSI 2/3	21100	2535	22.57	23.50	1.239	-	-	-0.08	0.109	0.135
	LTE Band 7	20M	QPSK	50	0	Left Tilted	0mm	Ant 31	DSI 2/3	21100	2535	22.57	23.50	1.239	-	-	0.19	0.065	0.081
14	LTE Band 41	20M	QPSK	1	49	Right Cheek	0mm	Ant 14	DSI 2	40620	2535	17.12	18.30	1.312	62.9	1.006	-0.15	0.676	0.892
	LTE Band 41C	20M	QPSK	1	49	Right Cheek	0mm	Ant 14	DSI 2	40620+40422	2535+2573.2	17.00	18.30	1.349	62.9	1.006	0.06	0.526	0.714
	LTE Band 41	20M	QPSK	1	49	Right Tilted	0mm	Ant 14	DSI 2	40620	2535	17.12	18.30	1.312	62.9	1.006	0.08	0.433	0.572
	LTE Band 41	20M	QPSK	1	49	Left Cheek	0mm	Ant 14	DSI 2	40620	2535	17.12	18.30	1.312	62.9	1.006	-0.18	0.228	0.301
	LTE Band 41	20M	QPSK	1	49	Left Tilted	0mm	Ant 14	DSI 2	40620	2535	17.12	18.30	1.312	62.9	1.006	0.11	0.245	0.323
	LTE Band 41	20M	QPSK	1	49	Right Cheek	0mm	Ant 14	DSI 2	39750	2506	16.85	18.30	1.396	62.9	1.006	0.18	0.569	0.799
	LTE Band 41	20M	QPSK	1	49	Right Cheek	0mm	Ant 14	DSI 2	40185	2549.5	17.09	18.30	1.321	62.9	1.006	0.02	0.578	0.768
	LTE Band 41	20M	QPSK	1	49	Right Cheek	0mm	Ant 14	DSI 2	41055	2636.5	16.87	18.30	1.390	62.9	1.006	-0.03	0.563	0.787
	LTE Band 41	20M	QPSK	1	49	Right Cheek	0mm	Ant 14	DSI 2	41490	2680	16.90	18.30	1.380	62.9	1.006	-0.15	0.538	0.747
	LTE Band 41	20M	QPSK	50	0	Right Cheek	0mm	Ant 14	DSI 2	40620	2535	17.11	18.30	1.315	62.9	1.006	0.08	0.643	0.851
	LTE Band 41	20M	QPSK	50	0	Right Tilted	0mm	Ant 14	DSI 2	40620	2535	17.11	18.30	1.315	62.9	1.006	0.05	0.422	0.558
	LTE Band 41	20M	QPSK	50	0	Left Cheek	0mm	Ant 14	DSI 2	40620	2535	17.11	18.30	1.315	62.9	1.006	0.02	0.243	0.322
	LTE Band 41	20M	QPSK	50	0	Left Tilted	0mm	Ant 14	DSI 2	40620	2535	17.11	18.30	1.315	62.9	1.006	0.02	0.258	0.341
	LTE Band 41	20M	QPSK	50	0	Right Cheek	0mm	Ant 14	DSI 2	39750	2506	16.81	18.30	1.409	62.9	1.006	-0.05	0.552	0.783
	LTE Band 41	20M	QPSK	50	0	Right Cheek	0mm	Ant 14	DSI 2	40185	2549.5	17.05	18.30	1.334	62.9	1.006	0.15	0.565	0.758
	LTE Band 41	20M	QPSK	50	0	Right Cheek	0mm	Ant 14	DSI 2	41055	2636.5	16.78	18.30	1.419	62.9	1.006	-0.19	0.558	0.797
	LTE Band 41	20M	QPSK	50	0	Right Cheek	0mm	Ant 14	DSI 2	41490	2680	16.96	18.30	1.361	62.9	1.006	-0.18	0.548	0.751
	LTE Band 41	20M	QPSK	100	0	Right Cheek	0mm	Ant 14	DSI 2	40620	2535	17.06	18.30	1.330	62.9	1.006	0.09	0.579	0.775



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LTE Band 41	20M	QPSK	1	49	Right Cheek	0mm	Ant 14	DSI 3	40620	2535	16.10	17.30	1.318	62.9	1.006	0.02	0.537	0.712
LTE Band 41C	20M	QPSK	1	49	Right Cheek	0mm	Ant 14	DSI 3	40620+40422	2535+2573.2	15.99	17.30	1.352	62.9	1.006	0.06	0.414	0.563
LTE Band 41	20M	QPSK	1	49	Right Tilted	0mm	Ant 14	DSI 3	40620	2535	16.10	17.30	1.318	62.9	1.006	-0.18	0.344	0.456
LTE Band 41	20M	QPSK	1	49	Left Cheek	0mm	Ant 14	DSI 3	40620	2535	16.10	17.30	1.318	62.9	1.006	-0.11	0.181	0.240
LTE Band 41	20M	QPSK	1	49	Left Tilted	0mm	Ant 14	DSI 3	40620	2535	16.10	17.30	1.318	62.9	1.006	0.01	0.195	0.259
LTE Band 41	20M	QPSK	1	49	Right Cheek	0mm	Ant 14	DSI 3	39750	2506	15.89	17.30	1.384	62.9	1.006	0.17	0.452	0.629
LTE Band 41	20M	QPSK	1	49	Right Cheek	0mm	Ant 14	DSI 3	40185	2549.5	15.99	17.30	1.352	62.9	1.006	-0.09	0.459	0.624
LTE Band 41	20M	QPSK	1	49	Right Cheek	0mm	Ant 14	DSI 3	41055	2636.5	15.89	17.30	1.384	62.9	1.006	0.02	0.447	0.622
LTE Band 41	20M	QPSK	1	49	Right Cheek	0mm	Ant 14	DSI 3	41490	2680	16.01	17.30	1.346	62.9	1.006	-0.12	0.427	0.578
LTE Band 41	20M	QPSK	50	0	Right Cheek	0mm	Ant 14	DSI 3	40620	2535	16.02	17.30	1.343	62.9	1.006	-0.07	0.511	0.690
LTE Band 41	20M	QPSK	50	0	Right Tilted	0mm	Ant 14	DSI 3	40620	2535	16.02	17.30	1.343	62.9	1.006	-0.03	0.335	0.453
LTE Band 41	20M	QPSK	50	0	Left Cheek	0mm	Ant 14	DSI 3	40620	2535	16.02	17.30	1.343	62.9	1.006	-0.08	0.193	0.261
LTE Band 41	20M	QPSK	50	0	Left Tilted	0mm	Ant 14	DSI 3	40620	2535	16.02	17.30	1.343	62.9	1.006	0.14	0.205	0.277
LTE Band 41	20M	QPSK	50	0	Right Cheek	0mm	Ant 14	DSI 3	39750	2506	15.79	17.30	1.416	62.9	1.006	0.11	0.438	0.624
LTE Band 41	20M	QPSK	50	0	Right Cheek	0mm	Ant 14	DSI 3	40185	2549.5	16.00	17.30	1.349	62.9	1.006	0.13	0.449	0.609
LTE Band 41	20M	QPSK	50	0	Right Cheek	0mm	Ant 14	DSI 3	41055	2636.5	15.87	17.30	1.390	62.9	1.006	-0.03	0.443	0.619
LTE Band 41	20M	QPSK	50	0	Right Cheek	0mm	Ant 14	DSI 3	41490	2680	15.95	17.30	1.365	62.9	1.006	-0.12	0.435	0.597
LTE Band 41	20M	QPSK	100	0	Right Cheek	0mm	Ant 14	DSI 3	40620	2535	16.00	17.30	1.349	62.9	1.006	0.05	0.460	0.624
LTE Band 41	20M	QPSK	1	49	Right Cheek	0mm	Ant 31	DSI 2/3	40620	2535	23.71	24.80	1.285	62.9	1.006	0.19	0.196	0.253
LTE Band 41C	20M	QPSK	1	49	Right Cheek	0mm	Ant 31	DSI 2/3	40620+40422	2535+2573.2	23.51	24.80	1.346	62.9	1.006	0.05	0.179	0.242
LTE Band 41	20M	QPSK	1	49	Right Tilted	0mm	Ant 31	DSI 2/3	40620	2535	23.71	24.80	1.285	62.9	1.006	0.15	0.070	0.091
LTE Band 41	20M	QPSK	1	49	Left Cheek	0mm	Ant 31	DSI 2/3	40620	2535	23.71	24.80	1.285	62.9	1.006	0.13	0.083	0.107
LTE Band 41	20M	QPSK	1	49	Left Tilted	0mm	Ant 31	DSI 2/3	40620	2535	23.71	24.80	1.285	62.9	1.006	0.03	0.081	0.105
LTE Band 41	20M	QPSK	50	0	Right Cheek	0mm	Ant 31	DSI 2/3	40620	2535	22.66	23.80	1.300	62.9	1.006	0.06	0.157	0.205
LTE Band 41	20M	QPSK	50	0	Right Tilted	0mm	Ant 31	DSI 2/3	40620	2535	22.66	23.80	1.300	62.9	1.006	0.03	0.057	0.075
LTE Band 41	20M	QPSK	50	0	Left Cheek	0mm	Ant 31	DSI 2/3	40620	2535	22.66	23.80	1.300	62.9	1.006	0.11	0.066	0.086
LTE Band 41	20M	QPSK	50	0	Left Tilted	0mm	Ant 31	DSI 2/3	40620	2535	22.66	23.80	1.300	62.9	1.006	-0.03	0.062	0.081



<5G NR SA SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Cap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)	
835MHz																			
	N5	20M	BPSK	1	53	DFT-15	Right Cheek	0mm	Ant 11	DSI 2	167300	836.5	22.35	23.20	1.216	0.04	0.179	0.218	
	N5	20M	BPSK	1	53	DFT-15	Right Tilted	0mm	Ant 11	DSI 2	167300	836.5	22.35	23.20	1.216	0.07	0.021	0.026	
15	N5	20M	BPSK	1	53	DFT-15	Left Cheek	0mm	Ant 11	DSI 2	167300	836.5	22.35	23.20	1.216	0.07	0.553	0.673	
	N5	20M	BPSK	1	53	DFT-15	Left Tilted	0mm	Ant 11	DSI 2	167300	836.5	22.35	23.20	1.216	0.13	0.047	0.057	
	N5	20M	BPSK	50	28	DFT-15	Right Cheek	0mm	Ant 11	DSI 2	167300	836.5	22.32	23.20	1.225	-0.18	0.173	0.212	
	N5	20M	BPSK	50	28	DFT-15	Right Tilted	0mm	Ant 11	DSI 2	167300	836.5	22.32	23.20	1.225	-0.09	0.018	0.022	
	N5	20M	BPSK	50	28	DFT-15	Left Cheek	0mm	Ant 11	DSI 2	167300	836.5	22.32	23.20	1.225	0.13	0.521	0.638	
	N5	20M	BPSK	50	28	DFT-15	Left Tilted	0mm	Ant 11	DSI 2	167300	836.5	22.32	23.20	1.225	-0.18	0.047	0.058	
	N5	20M	BPSK	1	53	DFT-15	Right Cheek	0mm	Ant 11	DSI 3	167300	836.5	21.60	22.20	1.148	-0.18	0.142	0.163	
	N5	20M	BPSK	1	53	DFT-15	Right Tilted	0mm	Ant 11	DSI 3	167300	836.5	21.60	22.20	1.148	-0.16	0.015	0.017	
	N5	20M	BPSK	1	53	DFT-15	Left Cheek	0mm	Ant 11	DSI 3	167300	836.5	21.60	22.20	1.148	0.04	0.410	0.471	
	N5	20M	BPSK	1	53	DFT-15	Left Tilted	0mm	Ant 11	DSI 3	167300	836.5	21.60	22.20	1.148	0.09	0.037	0.042	
	N5	20M	BPSK	50	28	DFT-15	Right Cheek	0mm	Ant 11	DSI 3	167300	836.5	21.55	22.20	1.161	0.02	0.137	0.159	
	N5	20M	BPSK	50	28	DFT-15	Right Tilted	0mm	Ant 11	DSI 3	167300	836.5	21.55	22.20	1.161	-0.06	0.011	0.013	
	N5	20M	BPSK	50	28	DFT-15	Left Cheek	0mm	Ant 11	DSI 3	167300	836.5	21.55	22.20	1.161	-0.03	0.400	0.465	
	N5	20M	BPSK	50	28	DFT-15	Left Tilted	0mm	Ant 11	DSI 3	167300	836.5	21.55	22.20	1.161	0.15	0.037	0.043	
	N5	20M	BPSK	1	53	DFT-15	Right Cheek	0mm	Ant 41	DSI 2/3	167300	836.5	23.75	24.40	1.161	0.01	0.121	0.141	
	N5	20M	BPSK	1	53	DFT-15	Right Tilted	0mm	Ant 41	DSI 2/3	167300	836.5	23.75	24.40	1.161	0.19	0.065	0.075	
	N5	20M	BPSK	1	53	DFT-15	Left Cheek	0mm	Ant 41	DSI 2/3	167300	836.5	23.75	24.40	1.161	-0.15	0.110	0.128	
	N5	20M	BPSK	1	53	DFT-15	Left Tilted	0mm	Ant 41	DSI 2/3	167300	836.5	23.75	24.40	1.161	-0.18	0.066	0.077	
	N5	20M	BPSK	50	28	DFT-15	Right Cheek	0mm	Ant 41	DSI 2/3	167300	836.5	23.74	24.40	1.164	-0.11	0.122	0.142	
	N5	20M	BPSK	50	28	DFT-15	Right Tilted	0mm	Ant 41	DSI 2/3	167300	836.5	23.74	24.40	1.164	-0.12	0.065	0.076	
	N5	20M	BPSK	50	28	DFT-15	Left Cheek	0mm	Ant 41	DSI 2/3	167300	836.5	23.74	24.40	1.164	-0.11	0.113	0.132	
	N5	20M	BPSK	50	28	DFT-15	Left Tilted	0mm	Ant 41	DSI 2/3	167300	836.5	23.74	24.40	1.164	0.17	0.067	0.078	
1750MHz																			
16	N66	40M	BPSK	1	108	DFT-15	Right Cheek	0mm	Ant 14	DSI 2	349000	1745	16.74	17.80	1.276	-0.11	0.560	0.715	
	N66	40M	BPSK	1	108	DFT-15	Right Tilted	0mm	Ant 14	DSI 2	349000	1745	16.74	17.80	1.276	0.16	0.540	0.689	
	N66	40M	BPSK	1	108	DFT-15	Left Cheek	0mm	Ant 14	DSI 2	349000	1745	16.74	17.80	1.276	-0.02	0.322	0.411	
	N66	40M	BPSK	1	108	DFT-15	Left Tilted	0mm	Ant 14	DSI 2	349000	1745	16.74	17.80	1.276	0.16	0.374	0.477	
	N66	40M	BPSK	108	54	DFT-15	Right Cheek	0mm	Ant 14	DSI 2	349000	1745	16.71	17.80	1.285	-0.06	0.540	0.694	
	N66	40M	BPSK	108	54	DFT-15	Right Tilted	0mm	Ant 14	DSI 2	349000	1745	16.71	17.80	1.285	-0.12	0.499	0.641	
	N66	40M	BPSK	108	54	DFT-15	Left Cheek	0mm	Ant 14	DSI 2	349000	1745	16.71	17.80	1.285	-0.17	0.314	0.404	
	N66	40M	BPSK	108	54	DFT-15	Left Tilted	0mm	Ant 14	DSI 2	349000	1745	16.71	17.80	1.285	-0.05	0.384	0.494	
	N66	40M	BPSK	1	108	DFT-15	Right Cheek	0mm	Ant 14	DSI 3	349000	1745	15.76	16.80	1.271	0.08	0.433	0.550	
	N66	40M	BPSK	1	108	DFT-15	Right Tilted	0mm	Ant 14	DSI 3	349000	1745	15.76	16.80	1.271	0.06	0.399	0.507	
	N66	40M	BPSK	1	108	DFT-15	Left Cheek	0mm	Ant 14	DSI 3	349000	1745	15.76	16.80	1.271	-0.1	0.259	0.329	
	N66	40M	BPSK	1	108	DFT-15	Left Tilted	0mm	Ant 14	DSI 3	349000	1745	15.76	16.80	1.271	0.14	0.299	0.380	
	N66	40M	BPSK	108	54	DFT-15	Right Cheek	0mm	Ant 14	DSI 3	349000	1745	15.70	16.80	1.288	-0.17	0.432	0.557	
	N66	40M	BPSK	108	54	DFT-15	Right Tilted	0mm	Ant 14	DSI 3	349000	1745	15.70	16.80	1.288	0.04	0.404	0.520	
	N66	40M	BPSK	108	54	DFT-15	Left Cheek	0mm	Ant 14	DSI 3	349000	1745	15.70	16.80	1.288	0.1	0.255	0.329	
	N66	40M	BPSK	108	54	DFT-15	Left Tilted	0mm	Ant 14	DSI 3	349000	1745	15.70	16.80	1.288	-0.18	0.296	0.381	
	N66	40M	BPSK	1	108	DFT-15	Right Cheek	0mm	Ant 31	DSI 2/3	349000	1745	22.46	23.30	1.213	-0.04	0.086	0.104	
	N66	40M	BPSK	1	108	DFT-15	Right Tilted	0mm	Ant 31	DSI 2/3	349000	1745	22.46	23.30	1.213	0.06	0.055	0.067	
	N66	40M	BPSK	1	108	DFT-15	Left Cheek	0mm	Ant 31	DSI 2/3	349000	1745	22.46	23.30	1.213	0.18	0.079	0.096	
	N66	40M	BPSK	1	108	DFT-15	Left Tilted	0mm	Ant 31	DSI 2/3	349000	1745	22.46	23.30	1.213	0.09	0.065	0.079	
	N66	40M	BPSK	108	54	DFT-15	Right Cheek	0mm	Ant 31	DSI 2/3	349000	1745	22.40	23.30	1.230	0.05	0.088	0.108	
	N66	40M	BPSK	108	54	DFT-15	Right Tilted	0mm	Ant 31	DSI 2/3	349000	1745	22.40	23.30	1.230	0.13	0.054	0.066	
	N66	40M	BPSK	108	54	DFT-15	Left Cheek	0mm	Ant 31	DSI 2/3	349000	1745	22.40	23.30	1.230	0.15	0.079	0.097	
	N66	40M	BPSK	108	54	DFT-15	Left Tilted	0mm	Ant 31	DSI 2/3	349000	1745	22.40	23.30	1.230	0.15	0.065	0.080	
1900MHz																			
17	N2	20M	BPSK	1	53	DFT-15	Right Cheek	0mm	Ant 14	DSI 2	376000	1880	16.57	17.70	1.297	-0.15	0.563	0.730	
	N2	20M	BPSK	1	53	DFT-15	Right Tilted	0mm	Ant 14	DSI 2	376000	1880	16.57	17.70	1.297	-0.16	0.518	0.672	



	N2	20M	BPSK	1	53	DFT-15	Left Cheek	0mm	Ant 14	DSI 2	376000	1880	16.57	17.70	1.297	0.03	0.343	0.445
	N2	20M	BPSK	1	53	DFT-15	Left Tilted	0mm	Ant 14	DSI 2	376000	1880	16.57	17.70	1.297	-0.16	0.365	0.473
	N2	20M	BPSK	50	28	DFT-15	Right Cheek	0mm	Ant 14	DSI 2	376000	1880	16.54	17.70	1.306	0.13	0.527	0.688
	N2	20M	BPSK	50	28	DFT-15	Right Tilted	0mm	Ant 14	DSI 2	376000	1880	16.54	17.70	1.306	0.04	0.514	0.671
	N2	20M	BPSK	50	28	DFT-15	Left Cheek	0mm	Ant 14	DSI 2	376000	1880	16.54	17.70	1.306	0.03	0.338	0.441
	N2	20M	BPSK	50	28	DFT-15	Left Tilted	0mm	Ant 14	DSI 2	376000	1880	16.54	17.70	1.306	-0.05	0.361	0.472
	N2	20M	BPSK	1	53	DFT-15	Right Cheek	0mm	Ant 14	DSI 3	376000	1880	15.45	16.70	1.334	-0.06	0.425	0.567
	N2	20M	BPSK	1	53	DFT-15	Right Tilted	0mm	Ant 14	DSI 3	376000	1880	15.45	16.70	1.334	0.07	0.408	0.544
	N2	20M	BPSK	1	53	DFT-15	Left Cheek	0mm	Ant 14	DSI 3	376000	1880	15.45	16.70	1.334	0.01	0.270	0.360
	N2	20M	BPSK	1	53	DFT-15	Left Tilted	0mm	Ant 14	DSI 3	376000	1880	15.45	16.70	1.334	0.08	0.289	0.385
	N2	20M	BPSK	50	28	DFT-15	Right Cheek	0mm	Ant 14	DSI 3	376000	1880	15.38	16.70	1.355	0.18	0.413	0.560
	N2	20M	BPSK	50	28	DFT-15	Right Tilted	0mm	Ant 14	DSI 3	376000	1880	15.38	16.70	1.355	-0.06	0.402	0.545
	N2	20M	BPSK	50	28	DFT-15	Left Cheek	0mm	Ant 14	DSI 3	376000	1880	15.38	16.70	1.355	0.04	0.268	0.363
	N2	20M	BPSK	50	28	DFT-15	Left Tilted	0mm	Ant 14	DSI 3	376000	1880	15.38	16.70	1.355	-0.13	0.287	0.389
	N2	20M	BPSK	1	53	DFT-15	Right Cheek	0mm	Ant 31	DSI 2/3	376000	1880	22.21	23.00	1.199	-0.09	0.062	0.074
	N2	20M	BPSK	1	53	DFT-15	Right Tilted	0mm	Ant 31	DSI 2/3	376000	1880	22.21	23.00	1.199	-0.18	0.043	0.052
	N2	20M	BPSK	1	53	DFT-15	Left Cheek	0mm	Ant 31	DSI 2/3	376000	1880	22.21	23.00	1.199	0.15	0.083	0.100
	N2	20M	BPSK	1	53	DFT-15	Left Tilted	0mm	Ant 31	DSI 2/3	376000	1880	22.21	23.00	1.199	-0.05	0.054	0.065
	N2	20M	BPSK	50	28	DFT-15	Right Cheek	0mm	Ant 31	DSI 2/3	376000	1880	22.17	23.00	1.211	-0.13	0.062	0.075
	N2	20M	BPSK	50	28	DFT-15	Right Tilted	0mm	Ant 31	DSI 2/3	376000	1880	22.17	23.00	1.211	-0.1	0.042	0.051
	N2	20M	BPSK	50	28	DFT-15	Left Cheek	0mm	Ant 31	DSI 2/3	376000	1880	22.17	23.00	1.211	-0.17	0.079	0.096
	N2	20M	BPSK	50	28	DFT-15	Left Tilted	0mm	Ant 31	DSI 2/3	376000	1880	22.17	23.00	1.211	0.04	0.054	0.065
2600MHz																		
18	N7	50M	BPSK	1	135	DFT-15	Right Cheek	0mm	Ant 14	DSI 2	507000	2535	15.26	16.70	1.393	0.18	0.709	0.988
	N7	50M	BPSK	1	135	DFT-15	Right Tilted	0mm	Ant 14	DSI 2	507000	2535	15.26	16.70	1.393	0.01	0.486	0.677
	N7	50M	BPSK	1	135	DFT-15	Left Cheek	0mm	Ant 14	DSI 2	507000	2535	15.26	16.70	1.393	-0.01	0.244	0.340
	N7	50M	BPSK	1	135	DFT-15	Left Tilted	0mm	Ant 14	DSI 2	507000	2535	15.26	16.70	1.393	-0.04	0.257	0.358
	N7	50M	BPSK	135	68	DFT-15	Right Cheek	0mm	Ant 14	DSI 2	507000	2535	15.22	16.70	1.406	0.1	0.657	0.924
	N7	50M	BPSK	135	68	DFT-15	Right Tilted	0mm	Ant 14	DSI 2	507000	2535	15.22	16.70	1.406	-0.1	0.488	0.686
	N7	50M	BPSK	135	68	DFT-15	Left Cheek	0mm	Ant 14	DSI 2	507000	2535	15.22	16.70	1.406	-0.1	0.243	0.342
	N7	50M	BPSK	135	68	DFT-15	Left Tilted	0mm	Ant 14	DSI 2	507000	2535	15.22	16.70	1.406	-0.19	0.255	0.359
	N7	50M	BPSK	270	0	DFT-15	Right Cheek	0mm	Ant 14	DSI 2	507000	2535	15.15	16.70	1.429	0.09	0.611	0.873
	N7	50M	BPSK	1	135	DFT-15	Right Cheek	0mm	Ant 14	DSI 3	507000	2535	14.29	15.70	1.384	-0.07	0.563	0.779
	N7	50M	BPSK	1	135	DFT-15	Right Tilted	0mm	Ant 14	DSI 3	507000	2535	14.29	15.70	1.384	-0.07	0.386	0.534
	N7	50M	BPSK	1	135	DFT-15	Left Cheek	0mm	Ant 14	DSI 3	507000	2535	14.29	15.70	1.384	-0.09	0.194	0.268
	N7	50M	BPSK	1	135	DFT-15	Left Tilted	0mm	Ant 14	DSI 3	507000	2535	14.29	15.70	1.384	0.08	0.204	0.282
	N7	50M	BPSK	135	68	DFT-15	Right Cheek	0mm	Ant 14	DSI 3	507000	2535	14.26	15.70	1.393	-0.07	0.519	0.723
	N7	50M	BPSK	135	68	DFT-15	Right Tilted	0mm	Ant 14	DSI 3	507000	2535	14.26	15.70	1.393	-0.18	0.388	0.541
	N7	50M	BPSK	135	68	DFT-15	Left Cheek	0mm	Ant 14	DSI 3	507000	2535	14.26	15.70	1.393	-0.08	0.193	0.269
	N7	50M	BPSK	135	68	DFT-15	Left Tilted	0mm	Ant 14	DSI 3	507000	2535	14.26	15.70	1.393	-0.08	0.203	0.283
	N7	50M	BPSK	1	135	DFT-15	Right Cheek	0mm	Ant 31	DSI 2/3	507000	2535	23.42	24.40	1.253	-0.02	0.280	0.351
	N7	50M	BPSK	1	135	DFT-15	Right Tilted	0mm	Ant 31	DSI 2/3	507000	2535	23.42	24.40	1.253	-0.15	0.143	0.179
	N7	50M	BPSK	1	135	DFT-15	Left Cheek	0mm	Ant 31	DSI 2/3	507000	2535	23.42	24.40	1.253	0.19	0.156	0.195
	N7	50M	BPSK	1	135	DFT-15	Left Tilted	0mm	Ant 31	DSI 2/3	507000	2535	23.42	24.40	1.253	0.1	0.075	0.094
	N7	50M	BPSK	135	68	DFT-15	Right Cheek	0mm	Ant 31	DSI 2/3	507000	2535	23.35	24.40	1.274	0.03	0.295	0.376
	N7	50M	BPSK	135	68	DFT-15	Right Tilted	0mm	Ant 31	DSI 2/3	507000	2535	23.35	24.40	1.274	-0.08	0.147	0.187
	N7	50M	BPSK	135	68	DFT-15	Left Cheek	0mm	Ant 31	DSI 2/3	507000	2535	23.35	24.40	1.274	0.11	0.158	0.201
	N7	50M	BPSK	135	68	DFT-15	Left Tilted	0mm	Ant 31	DSI 2/3	507000	2535	23.35	24.40	1.274	-0.04	0.073	0.093
19	N41	100M	BPSK	1	137	DFT-30	Right Cheek	0mm	Ant 12	DSI 2	518598	2592.99	18.60	19.80	1.318	-0.03	0.719	0.948
	N41	100M	BPSK	1	137	DFT-30	Right Tilted	0mm	Ant 12	DSI 2	518598	2592.99	18.60	19.80	1.318	0.16	0.181	0.239
	N41	100M	BPSK	1	137	DFT-30	Left Cheek	0mm	Ant 12	DSI 2	518598	2592.99	18.60	19.80	1.318	-0.01	0.201	0.265
	N41	100M	BPSK	1	137	DFT-30	Left Tilted	0mm	Ant 12	DSI 2	518598	2592.99	18.60	19.80	1.318	0.01	0.083	0.109
	N41	100M	BPSK	135	69	DFT-30	Right Cheek	0mm	Ant 12	DSI 2	518598	2592.99	18.57	19.80	1.327	-0.04	0.679	0.901
	N41	100M	BPSK	135	69	DFT-30	Right Tilted	0mm	Ant 12	DSI 2	518598	2592.99	18.57	19.80	1.327	-0.13	0.180	0.239
	N41	100M	BPSK	135	69	DFT-30	Left Cheek	0mm	Ant 12	DSI 2	518598	2592.99	18.57	19.80	1.327	0.12	0.199	0.264
	N41	100M	BPSK	135	69	DFT-30	Left Tilted	0mm	Ant 12	DSI 2	518598	2592.99	18.57	19.80	1.327	-0.04	0.085	0.113



	N41	100M	BPSK	270	0	DFT-30	Right Cheek	0mm	Ant 12	DSI 2	518598	2592.99	18.49	19.80	1.352	0.05	0.642	0.868
	N41	100M	BPSK	1	137	DFT-30	Right Cheek	0mm	Ant 12	DSI 3	518598	2592.99	17.57	18.80	1.327	0.01	0.571	0.758
	N41	100M	BPSK	1	137	DFT-30	Right Tilted	0mm	Ant 12	DSI 3	518598	2592.99	17.57	18.80	1.327	0.05	0.144	0.191
	N41	100M	BPSK	1	137	DFT-30	Left Cheek	0mm	Ant 12	DSI 3	518598	2592.99	17.57	18.80	1.327	-0.05	0.160	0.212
	N41	100M	BPSK	1	137	DFT-30	Left Tilted	0mm	Ant 12	DSI 3	518598	2592.99	17.57	18.80	1.327	0.04	0.066	0.088
	N41	100M	BPSK	135	69	DFT-30	Right Cheek	0mm	Ant 12	DSI 3	518598	2592.99	17.56	18.80	1.330	0.09	0.539	0.717
	N41	100M	BPSK	135	69	DFT-30	Right Tilted	0mm	Ant 12	DSI 3	518598	2592.99	17.56	18.80	1.330	-0.02	0.143	0.190
	N41	100M	BPSK	135	69	DFT-30	Left Cheek	0mm	Ant 12	DSI 3	518598	2592.99	17.56	18.80	1.330	0.06	0.158	0.210
	N41	100M	BPSK	135	69	DFT-30	Left Tilted	0mm	Ant 12	DSI 3	518598	2592.99	17.56	18.80	1.330	-0.04	0.068	0.090
	N41	100M	BPSK	270	0	DFT-30	Right Cheek	0mm	Ant 12	DSI 3	518598	2592.99	17.44	18.80	1.368	0.01	0.524	0.717
	N41	100M	BPSK	1	137	DFT-30	Right Cheek	0mm	Ant 23	DSI 2	518598	2592.99	17.14	18.20	1.276	-0.07	0.181	0.231
	N41	100M	BPSK	1	137	DFT-30	Right Tilted	0mm	Ant 23	DSI 2	518598	2592.99	17.14	18.20	1.276	0.03	0.081	0.103
	N41	100M	BPSK	1	137	DFT-30	Left Cheek	0mm	Ant 23	DSI 2	518598	2592.99	17.14	18.20	1.276	-0.15	0.576	0.735
	N41	100M	BPSK	1	137	DFT-30	Left Tilted	0mm	Ant 23	DSI 2	518598	2592.99	17.14	18.20	1.276	-0.01	0.190	0.243
	N41	100M	BPSK	135	69	DFT-30	Right Cheek	0mm	Ant 23	DSI 2	518598	2592.99	17.10	18.20	1.288	0.06	0.181	0.233
	N41	100M	BPSK	135	69	DFT-30	Right Tilted	0mm	Ant 23	DSI 2	518598	2592.99	17.10	18.20	1.288	0.05	0.077	0.099
	N41	100M	BPSK	135	69	DFT-30	Left Cheek	0mm	Ant 23	DSI 2	518598	2592.99	17.10	18.20	1.288	0.15	0.525	0.676
	N41	100M	BPSK	135	69	DFT-30	Left Tilted	0mm	Ant 23	DSI 2	518598	2592.99	17.10	18.20	1.288	0.14	0.187	0.241
	N41	100M	BPSK	270	0	DFT-30	Left Cheek	0mm	Ant 23	DSI 2	518598	2592.99	16.96	18.20	1.330	0.05	0.492	0.655
	N41	100M	BPSK	1	137	DFT-30	Right Cheek	0mm	Ant 23	DSI 3	518598	2592.99	16.14	17.20	1.276	0.11	0.144	0.184
	N41	100M	BPSK	1	137	DFT-30	Right Tilted	0mm	Ant 23	DSI 3	518598	2592.99	16.14	17.20	1.276	-0.04	0.064	0.082
	N41	100M	BPSK	1	137	DFT-30	Left Cheek	0mm	Ant 23	DSI 3	518598	2592.99	16.14	17.20	1.276	0.07	0.380	0.485
	N41	100M	BPSK	1	137	DFT-30	Left Tilted	0mm	Ant 23	DSI 3	518598	2592.99	16.14	17.20	1.276	-0.19	0.151	0.193
	N41	100M	BPSK	135	69	DFT-30	Right Cheek	0mm	Ant 23	DSI 3	518598	2592.99	16.09	17.20	1.291	0.18	0.144	0.186
	N41	100M	BPSK	135	69	DFT-30	Right Tilted	0mm	Ant 23	DSI 3	518598	2592.99	16.09	17.20	1.291	-0.16	0.061	0.079
	N41	100M	BPSK	135	69	DFT-30	Left Cheek	0mm	Ant 23	DSI 3	518598	2592.99	16.09	17.20	1.291	-0.16	0.370	0.478
	N41	100M	BPSK	135	69	DFT-30	Left Tilted	0mm	Ant 23	DSI 3	518598	2592.99	16.09	17.20	1.291	0.04	0.149	0.192
3500-3900MHz																		
	N77	100M	BPSK	1	137	DFT-30	Right Cheek	0mm	Ant 13	DSI 2	633334	3500.01	16.15	16.80	1.161	-0.04	0.455	0.528
20	N77	100M	BPSK	1	137	DFT-30	Right Tilted	0mm	Ant 13	DSI 2	633334	3500.01	16.15	16.80	1.161	0.16	0.757	0.879
	N77	100M	BPSK	1	137	DFT-30	Left Cheek	0mm	Ant 13	DSI 2	633334	3500.01	16.15	16.80	1.161	0.09	0.212	0.246
	N77	100M	BPSK	1	137	DFT-30	Left Tilted	0mm	Ant 13	DSI 2	633334	3500.01	16.15	16.80	1.161	-0.07	0.293	0.340
	N77	100M	BPSK	135	69	DFT-30	Right Cheek	0mm	Ant 13	DSI 2	633334	3500.01	16.12	16.80	1.169	0.02	0.447	0.523
	N77	100M	BPSK	135	69	DFT-30	Right Tilted	0mm	Ant 13	DSI 2	633334	3500.01	16.12	16.80	1.169	-0.15	0.680	0.795
	N77	100M	BPSK	135	69	DFT-30	Left Cheek	0mm	Ant 13	DSI 2	633334	3500.01	16.12	16.80	1.169	-0.01	0.214	0.250
	N77	100M	BPSK	135	69	DFT-30	Left Tilted	0mm	Ant 13	DSI 2	633334	3500.01	16.12	16.80	1.169	0.07	0.263	0.308
	N77	100M	BPSK	270	0	DFT-30	Right Tilted	0mm	Ant 13	DSI 2	633334	3500.01	16.01	16.80	1.199	0.09	0.627	0.752
	N77	100M	BPSK	1	137	DFT-30	Right Cheek	0mm	Ant 13	DSI 3	633334	3500.01	15.12	15.80	1.169	-0.05	0.361	0.422
	N77	100M	BPSK	1	137	DFT-30	Right Tilted	0mm	Ant 13	DSI 3	633334	3500.01	15.12	15.80	1.169	0.04	0.601	0.703
	N77	100M	BPSK	1	137	DFT-30	Left Cheek	0mm	Ant 13	DSI 3	633334	3500.01	15.12	15.80	1.169	-0.09	0.168	0.196
	N77	100M	BPSK	1	137	DFT-30	Left Tilted	0mm	Ant 13	DSI 3	633334	3500.01	15.12	15.80	1.169	-0.12	0.233	0.272
	N77	100M	BPSK	135	69	DFT-30	Right Cheek	0mm	Ant 13	DSI 3	633334	3500.01	15.11	15.80	1.172	0.12	0.355	0.416
	N77	100M	BPSK	135	69	DFT-30	Right Tilted	0mm	Ant 13	DSI 3	633334	3500.01	15.11	15.80	1.172	0.05	0.581	0.681
	N77	100M	BPSK	135	69	DFT-30	Left Cheek	0mm	Ant 13	DSI 3	633334	3500.01	15.11	15.80	1.172	0.07	0.170	0.199
	N77	100M	BPSK	135	69	DFT-30	Left Tilted	0mm	Ant 13	DSI 3	633334	3500.01	15.11	15.80	1.172	-0.05	0.209	0.245
	N77	100M	BPSK	270	0	DFT-30	Right Tilted	0mm	Ant 13	DSI 3	633334	3500.01	14.94	15.80	1.219	0.03	0.552	0.673
	N77	100M	BPSK	1	137	DFT-30	Right Cheek	0mm	Ant 13	DSI 2	656000	3840	15.90	16.80	1.230	-0.14	0.334	0.411
	N77	100M	BPSK	1	137	DFT-30	Right Tilted	0mm	Ant 13	DSI 2	656000	3840	15.90	16.80	1.230	0.05	0.147	0.181
	N77	100M	BPSK	1	137	DFT-30	Left Cheek	0mm	Ant 13	DSI 2	656000	3840	15.90	16.80	1.230	-0.03	0.093	0.114
	N77	100M	BPSK	1	137	DFT-30	Left Tilted	0mm	Ant 13	DSI 2	656000	3840	15.90	16.80	1.230	0.05	0.100	0.123
	N77	100M	BPSK	135	69	DFT-30	Right Cheek	0mm	Ant 13	DSI 2	656000	3840	15.91	16.80	1.227	-0.16	0.333	0.409
	N77	100M	BPSK	135	69	DFT-30	Right Tilted	0mm	Ant 13	DSI 2	656000	3840	15.91	16.80	1.227	-0.05	0.142	0.174
	N77	100M	BPSK	135	69	DFT-30	Left Cheek	0mm	Ant 13	DSI 2	656000	3840	15.91	16.80	1.227	-0.06	0.093	0.114
	N77	100M	BPSK	135	69	DFT-30	Left Tilted	0mm	Ant 13	DSI 2	656000	3840	15.91	16.80	1.227	0.16	0.095	0.117
	N77	100M	BPSK	1	137	DFT-30	Right Cheek	0mm	Ant 13	DSI 3	656000	3840	14.96	15.80	1.213	0.04	0.274	0.332
	N77	100M	BPSK	1	137	DFT-30	Right Tilted	0mm	Ant 13	DSI 3	656000	3840	14.96	15.80	1.213	-0.17	0.114	0.138



	N77	100M	BPSK	1	137	DFT-30	Left Cheek	0mm	Ant 13	DSI 3	656000	3840	14.96	15.80	1.213	-0.18	0.078	0.095
	N77	100M	BPSK	1	137	DFT-30	Left Tilted	0mm	Ant 13	DSI 3	656000	3840	14.96	15.80	1.213	0.05	0.077	0.093
	N77	100M	BPSK	135	69	DFT-30	Right Cheek	0mm	Ant 13	DSI 3	656000	3840	14.95	15.80	1.216	-0.16	0.265	0.322
	N77	100M	BPSK	135	69	DFT-30	Right Tilted	0mm	Ant 13	DSI 3	656000	3840	14.95	15.80	1.216	-0.1	0.117	0.142
	N77	100M	BPSK	135	69	DFT-30	Left Cheek	0mm	Ant 13	DSI 3	656000	3840	14.95	15.80	1.216	-0.07	0.075	0.091
	N77	100M	BPSK	135	69	DFT-30	Left Tilted	0mm	Ant 13	DSI 3	656000	3840	14.95	15.80	1.216	-0.11	0.078	0.095
	N77	100M	BPSK	1	137	DFT-30	Right Cheek	0mm	Ant 23	DSI 2	633334	3500.01	15.63	16.90	1.340	0.06	0.070	0.094
	N77	100M	BPSK	1	137	DFT-30	Right Tilted	0mm	Ant 23	DSI 2	633334	3500.01	15.63	16.90	1.340	0.12	0.051	0.068
	N77	100M	BPSK	1	137	DFT-30	Left Cheek	0mm	Ant 23	DSI 2	633334	3500.01	15.63	16.90	1.340	0.02	0.204	0.273
	N77	100M	BPSK	1	137	DFT-30	Left Tilted	0mm	Ant 23	DSI 2	633334	3500.01	15.63	16.90	1.340	0.02	0.131	0.175
	N77	100M	BPSK	135	69	DFT-30	Right Cheek	0mm	Ant 23	DSI 2	633334	3500.01	15.47	16.90	1.390	-0.08	0.072	0.100
	N77	100M	BPSK	135	69	DFT-30	Right Tilted	0mm	Ant 23	DSI 2	633334	3500.01	15.47	16.90	1.390	0.1	0.047	0.065
	N77	100M	BPSK	135	69	DFT-30	Left Cheek	0mm	Ant 23	DSI 2	633334	3500.01	15.47	16.90	1.390	0.17	0.202	0.281
	N77	100M	BPSK	135	69	DFT-30	Left Tilted	0mm	Ant 23	DSI 2	633334	3500.01	15.47	16.90	1.390	-0.02	0.130	0.181
	N77	100M	BPSK	1	137	DFT-30	Right Cheek	0mm	Ant 23	DSI 3	633334	3500.01	14.67	15.90	1.327	0.06	0.056	0.074
	N77	100M	BPSK	1	137	DFT-30	Right Tilted	0mm	Ant 23	DSI 3	633334	3500.01	14.67	15.90	1.327	0.01	0.041	0.054
	N77	100M	BPSK	1	137	DFT-30	Left Cheek	0mm	Ant 23	DSI 3	633334	3500.01	14.67	15.90	1.327	0.13	0.162	0.215
	N77	100M	BPSK	1	137	DFT-30	Left Tilted	0mm	Ant 23	DSI 3	633334	3500.01	14.67	15.90	1.327	0.04	0.104	0.138
	N77	100M	BPSK	135	69	DFT-30	Right Cheek	0mm	Ant 23	DSI 3	633334	3500.01	14.60	15.90	1.349	-0.09	0.057	0.077
	N77	100M	BPSK	135	69	DFT-30	Right Tilted	0mm	Ant 23	DSI 3	633334	3500.01	14.60	15.90	1.349	0.05	0.037	0.050
	N77	100M	BPSK	135	69	DFT-30	Left Cheek	0mm	Ant 23	DSI 3	633334	3500.01	14.60	15.90	1.349	-0.11	0.160	0.216
	N77	100M	BPSK	135	69	DFT-30	Left Tilted	0mm	Ant 23	DSI 3	633334	3500.01	14.60	15.90	1.349	0.16	0.103	0.139
	N77	100M	BPSK	1	137	DFT-30	Right Cheek	0mm	Ant 23	DSI 2	656000	3840	15.80	16.90	1.288	0.08	0.112	0.144
	N77	100M	BPSK	1	137	DFT-30	Right Tilted	0mm	Ant 23	DSI 2	656000	3840	15.80	16.90	1.288	0.18	0.113	0.146
	N77	100M	BPSK	1	137	DFT-30	Left Cheek	0mm	Ant 23	DSI 2	656000	3840	15.80	16.90	1.288	0.06	0.392	0.505
	N77	100M	BPSK	1	137	DFT-30	Left Tilted	0mm	Ant 23	DSI 2	656000	3840	15.80	16.90	1.288	0.12	0.339	0.437
	N77	100M	BPSK	135	69	DFT-30	Right Cheek	0mm	Ant 23	DSI 2	656000	3840	15.75	16.90	1.303	0.19	0.122	0.159
	N77	100M	BPSK	135	69	DFT-30	Right Tilted	0mm	Ant 23	DSI 2	656000	3840	15.75	16.90	1.303	-0.03	0.120	0.156
	N77	100M	BPSK	135	69	DFT-30	Left Cheek	0mm	Ant 23	DSI 2	656000	3840	15.75	16.90	1.303	0.04	0.357	0.465
	N77	100M	BPSK	135	69	DFT-30	Left Tilted	0mm	Ant 23	DSI 2	656000	3840	15.75	16.90	1.303	0.16	0.329	0.429
	N77	100M	BPSK	1	137	DFT-30	Right Cheek	0mm	Ant 23	DSI 3	656000	3840	14.89	15.90	1.262	0.08	0.089	0.112
	N77	100M	BPSK	1	137	DFT-30	Right Tilted	0mm	Ant 23	DSI 3	656000	3840	14.89	15.90	1.262	0.11	0.090	0.114
	N77	100M	BPSK	1	137	DFT-30	Left Cheek	0mm	Ant 23	DSI 3	656000	3840	14.89	15.90	1.262	-0.1	0.311	0.392
	N77	100M	BPSK	1	137	DFT-30	Left Tilted	0mm	Ant 23	DSI 3	656000	3840	14.89	15.90	1.262	-0.02	0.269	0.339
	N77	100M	BPSK	135	69	DFT-30	Right Cheek	0mm	Ant 23	DSI 3	656000	3840	14.81	15.90	1.285	-0.17	0.097	0.125
	N77	100M	BPSK	135	69	DFT-30	Right Tilted	0mm	Ant 23	DSI 3	656000	3840	14.81	15.90	1.285	0.11	0.095	0.122
	N77	100M	BPSK	135	69	DFT-30	Left Cheek	0mm	Ant 23	DSI 3	656000	3840	14.81	15.90	1.285	-0.17	0.284	0.365
	N77	100M	BPSK	135	69	DFT-30	Left Tilted	0mm	Ant 23	DSI 3	656000	3840	14.81	15.90	1.285	-0.01	0.261	0.335
	N78	100M	BPSK	1	137	DFT-30	Right Cheek	0mm	Ant 13	DSI 2	633334	3500.01	16.24	17.00	1.191	-0.03	0.528	0.629
21	N78	100M	BPSK	1	137	DFT-30	Right Tilted	0mm	Ant 13	DSI 2	633334	3500.01	16.24	17.00	1.191	-0.16	0.762	0.908
	N78	100M	BPSK	1	137	DFT-30	Left Cheek	0mm	Ant 13	DSI 2	633334	3500.01	16.24	17.00	1.191	-0.05	0.212	0.253
	N78	100M	BPSK	1	137	DFT-30	Left Tilted	0mm	Ant 13	DSI 2	633334	3500.01	16.24	17.00	1.191	-0.16	0.290	0.345
	N78	100M	BPSK	135	69	DFT-30	Right Cheek	0mm	Ant 13	DSI 2	633334	3500.01	16.17	17.00	1.211	0.14	0.492	0.596
	N78	100M	BPSK	135	69	DFT-30	Right Tilted	0mm	Ant 13	DSI 2	633334	3500.01	16.17	17.00	1.211	-0.15	0.705	0.853
	N78	100M	BPSK	135	69	DFT-30	Left Cheek	0mm	Ant 13	DSI 2	633334	3500.01	16.17	17.00	1.211	0.1	0.202	0.245
	N78	100M	BPSK	135	69	DFT-30	Left Tilted	0mm	Ant 13	DSI 2	633334	3500.01	16.17	17.00	1.211	0.16	0.277	0.335
	N78	100M	BPSK	270	0	DFT-30	Right Cheek	0mm	Ant 13	DSI 2	633334	3500.01	16.04	17.00	1.247	-0.03	0.501	0.625
	N78	100M	BPSK	270	0	DFT-30	Right Tilted	0mm	Ant 13	DSI 2	633334	3500.01	16.04	17.00	1.247	0.09	0.629	0.785
	N78	100M	BPSK	1	137	DFT-30	Right Cheek	0mm	Ant 13	DSI 3	633334	3500.01	15.13	16.00	1.222	-0.12	0.419	0.512
	N78	100M	BPSK	1	137	DFT-30	Right Tilted	0mm	Ant 13	DSI 3	633334	3500.01	15.13	16.00	1.222	-0.07	0.605	0.739
	N78	100M	BPSK	1	137	DFT-30	Left Cheek	0mm	Ant 13	DSI 3	633334	3500.01	15.13	16.00	1.222	-0.02	0.168	0.205
	N78	100M	BPSK	1	137	DFT-30	Left Tilted	0mm	Ant 13	DSI 3	633334	3500.01	15.13	16.00	1.222	-0.09	0.230	0.281
	N78	100M	BPSK	135	69	DFT-30	Right Cheek	0mm	Ant 13	DSI 3	633334	3500.01	15.11	16.00	1.227	0.04	0.391	0.480
	N78	100M	BPSK	135	69	DFT-30	Right Tilted	0mm	Ant 13	DSI 3	633334	3500.01	15.11	16.00	1.227	-0.08	0.560	0.687
	N78	100M	BPSK	135	69	DFT-30	Left Cheek	0mm	Ant 13	DSI 3	633334	3500.01	15.11	16.00	1.227	0.16	0.160	0.196
	N78	100M	BPSK	135	69	DFT-30	Left Tilted	0mm	Ant 13	DSI 3	633334	3500.01	15.11	16.00	1.227	0.08	0.220	0.270



	N78	100M	BPSK	270	0	DFT-30	Right Tilted	0mm	Ant 13	DSI 3	633334	3500.01	14.98	16.00	1.265	0.06	0.505	0.639
	N78	100M	BPSK	1	137	DFT-30	Right Cheek	0mm	Ant 13	DSI 2	650000	3750	15.96	17.00	1.271	0.15	0.583	0.741
	N78	100M	BPSK	1	137	DFT-30	Right Tilted	0mm	Ant 13	DSI 2	650000	3750	15.96	17.00	1.271	0.14	0.189	0.240
	N78	100M	BPSK	1	137	DFT-30	Left Cheek	0mm	Ant 13	DSI 2	650000	3750	15.96	17.00	1.271	-0.15	0.097	0.123
	N78	100M	BPSK	1	137	DFT-30	Left Tilted	0mm	Ant 13	DSI 2	650000	3750	15.96	17.00	1.271	0.11	0.131	0.166
	N78	100M	BPSK	135	69	DFT-30	Right Cheek	0mm	Ant 13	DSI 2	650000	3750	15.93	17.00	1.279	0.13	0.526	0.673
	N78	100M	BPSK	135	69	DFT-30	Right Tilted	0mm	Ant 13	DSI 2	650000	3750	15.93	17.00	1.279	-0.18	0.182	0.233
	N78	100M	BPSK	135	69	DFT-30	Left Cheek	0mm	Ant 13	DSI 2	650000	3750	15.93	17.00	1.279	0.13	0.099	0.127
	N78	100M	BPSK	135	69	DFT-30	Left Tilted	0mm	Ant 13	DSI 2	650000	3750	15.93	17.00	1.279	-0.18	0.134	0.171
	N78	100M	BPSK	270	0	DFT-30	Right Cheek	0mm	Ant 13	DSI 2	650000	3750	15.82	17.00	1.312	0.15	0.512	0.672
	N78	100M	BPSK	1	137	DFT-30	Right Cheek	0mm	Ant 13	DSI 3	650000	3750	15.05	16.00	1.245	-0.05	0.463	0.576
	N78	100M	BPSK	1	137	DFT-30	Right Tilted	0mm	Ant 13	DSI 3	650000	3750	15.05	16.00	1.245	0.09	0.150	0.187
	N78	100M	BPSK	1	137	DFT-30	Left Cheek	0mm	Ant 13	DSI 3	650000	3750	15.05	16.00	1.245	-0.18	0.077	0.096
	N78	100M	BPSK	1	137	DFT-30	Left Tilted	0mm	Ant 13	DSI 3	650000	3750	15.05	16.00	1.245	-0.15	0.104	0.129
	N78	100M	BPSK	135	69	DFT-30	Right Cheek	0mm	Ant 13	DSI 3	650000	3750	14.98	16.00	1.265	0.1	0.418	0.529
	N78	100M	BPSK	135	69	DFT-30	Right Tilted	0mm	Ant 13	DSI 3	650000	3750	14.98	16.00	1.265	0.13	0.145	0.183
	N78	100M	BPSK	135	69	DFT-30	Left Cheek	0mm	Ant 13	DSI 3	650000	3750	14.98	16.00	1.265	0.02	0.079	0.100
	N78	100M	BPSK	135	69	DFT-30	Left Tilted	0mm	Ant 13	DSI 3	650000	3750	14.98	16.00	1.265	-0.16	0.106	0.134



< Uplink CA SAR >

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
1750MHz																	
	LTE Band 4_UL CA	20M	QPSK	1	49	Right Cheek	0mm	Ant 31	DSI 2/3	20175	1732.5	20.59	21.50	1.233	-0.05	0.080	0.099
	LTE Band 4_UL CA	20M	QPSK	1	49	Right Tilted	0mm	Ant 31	DSI 2/3	20175	1732.5	20.59	21.50	1.233	-0.12	0.040	0.049
	LTE Band 4_UL CA	20M	QPSK	1	49	Left Cheek	0mm	Ant 31	DSI 2/3	20175	1732.5	20.59	21.50	1.233	0.09	0.050	0.062
	LTE Band 4_UL CA	20M	QPSK	1	49	Left Tilted	0mm	Ant 31	DSI 2/3	20175	1732.5	20.59	21.50	1.233	0.01	0.033	0.041
	LTE Band 4_UL CA	20M	QPSK	50	0	Right Cheek	0mm	Ant 31	DSI 2/3	20175	1732.5	20.58	21.50	1.236	0.15	0.060	0.074
	LTE Band 4_UL CA	20M	QPSK	50	0	Right Tilted	0mm	Ant 31	DSI 2/3	20175	1732.5	20.58	21.50	1.236	-0.12	0.040	0.049
	LTE Band 4_UL CA	20M	QPSK	50	0	Left Cheek	0mm	Ant 31	DSI 2/3	20175	1732.5	20.58	21.50	1.236	0.05	0.052	0.064
	LTE Band 4_UL CA	20M	QPSK	50	0	Left Tilted	0mm	Ant 31	DSI 2/3	20175	1732.5	20.58	21.50	1.236	-0.14	0.042	0.052
2600MHz																	
	LTE Band 7_UL CA	20M	QPSK	1	49	Right Cheek	0mm	Ant 14	DSI 2	21100	2535	12.47	13.50	1.268	0.03	0.350	0.444
	LTE Band 7_UL CA	20M	QPSK	1	49	Right Tilted	0mm	Ant 14	DSI 2	21100	2535	12.47	13.50	1.268	0.16	0.242	0.307
	LTE Band 7_UL CA	20M	QPSK	1	49	Left Cheek	0mm	Ant 14	DSI 2	21100	2535	12.47	13.50	1.268	0.15	0.120	0.152
	LTE Band 7_UL CA	20M	QPSK	1	49	Left Tilted	0mm	Ant 14	DSI 2	21100	2535	12.47	13.50	1.268	0.01	0.111	0.141
	LTE Band 7_UL CA	20M	QPSK	50	0	Right Cheek	0mm	Ant 14	DSI 2	21100	2535	12.37	13.50	1.297	-0.03	0.333	0.432
	LTE Band 7_UL CA	20M	QPSK	50	0	Right Tilted	0mm	Ant 14	DSI 2	21100	2535	12.37	13.50	1.297	0.14	0.221	0.287
	LTE Band 7_UL CA	20M	QPSK	50	0	Left Cheek	0mm	Ant 14	DSI 2	21100	2535	12.37	13.50	1.297	0.06	0.120	0.156
	LTE Band 7_UL CA	20M	QPSK	50	0	Left Tilted	0mm	Ant 14	DSI 2	21100	2535	12.37	13.50	1.297	-0.11	0.107	0.139
	LTE Band 7_UL CA	20M	QPSK	1	49	Right Cheek	0mm	Ant 14	DSI 3	21100	2535	11.60	12.50	1.230	-0.01	0.288	0.354
	LTE Band 7_UL CA	20M	QPSK	1	49	Right Tilted	0mm	Ant 14	DSI 3	21100	2535	11.60	12.50	1.230	-0.13	0.200	0.246
	LTE Band 7_UL CA	20M	QPSK	1	49	Left Cheek	0mm	Ant 14	DSI 3	21100	2535	11.60	12.50	1.230	0.01	0.114	0.140
	LTE Band 7_UL CA	20M	QPSK	1	49	Left Tilted	0mm	Ant 14	DSI 3	21100	2535	11.60	12.50	1.230	-0.07	0.100	0.123
	LTE Band 7_UL CA	20M	QPSK	50	0	Right Cheek	0mm	Ant 14	DSI 3	21100	2535	11.42	12.50	1.282	0.1	0.270	0.346
	LTE Band 7_UL CA	20M	QPSK	50	0	Right Tilted	0mm	Ant 14	DSI 3	21100	2535	11.42	12.50	1.282	-0.05	0.188	0.241
	LTE Band 7_UL CA	20M	QPSK	50	0	Left Cheek	0mm	Ant 14	DSI 3	21100	2535	11.42	12.50	1.282	-0.07	0.110	0.141
	LTE Band 7_UL CA	20M	QPSK	50	0	Left Tilted	0mm	Ant 14	DSI 3	21100	2535	11.42	12.50	1.282	0.09	0.095	0.122
	LTE Band 7_UL CA	20M	QPSK	1	49	Right Cheek	0mm	Ant 12	DSI 2	21100	2535	17.23	18.00	1.194	-0.02	0.395	0.472
	LTE Band 7_UL CA	20M	QPSK	1	49	Right Tilted	0mm	Ant 12	DSI 2	21100	2535	17.23	18.00	1.194	0.01	0.120	0.143
	LTE Band 7_UL CA	20M	QPSK	1	49	Left Cheek	0mm	Ant 12	DSI 2	21100	2535	17.23	18.00	1.194	0.1	0.114	0.136
	LTE Band 7_UL CA	20M	QPSK	1	49	Left Tilted	0mm	Ant 12	DSI 2	21100	2535	17.23	18.00	1.194	-0.03	0.070	0.084
	LTE Band 7_UL CA	20M	QPSK	50	0	Right Cheek	0mm	Ant 12	DSI 2	21100	2535	17.19	18.00	1.205	-0.01	0.385	0.464
	LTE Band 7_UL CA	20M	QPSK	50	0	Right Tilted	0mm	Ant 12	DSI 2	21100	2535	17.19	18.00	1.205	-0.1	0.114	0.137
	LTE Band 7_UL CA	20M	QPSK	50	0	Left Cheek	0mm	Ant 12	DSI 2	21100	2535	17.19	18.00	1.205	0.12	0.111	0.134
	LTE Band 7_UL CA	20M	QPSK	50	0	Left Tilted	0mm	Ant 12	DSI 2	21100	2535	17.19	18.00	1.205	-0.1	0.072	0.087
	LTE Band 7_UL CA	20M	QPSK	1	49	Right Cheek	0mm	Ant 12	DSI 3	21100	2535	14.29	15.00	1.178	-0.07	0.210	0.247
	LTE Band 7_UL CA	20M	QPSK	1	49	Right Tilted	0mm	Ant 12	DSI 3	21100	2535	14.29	15.00	1.178	0.08	0.070	0.082
	LTE Band 7_UL CA	20M	QPSK	1	49	Left Cheek	0mm	Ant 12	DSI 3	21100	2535	14.29	15.00	1.178	0.01	0.088	0.104
	LTE Band 7_UL CA	20M	QPSK	1	49	Left Tilted	0mm	Ant 12	DSI 3	21100	2535	14.29	15.00	1.178	-0.01	0.036	0.042
	LTE Band 7_UL CA	20M	QPSK	50	0	Right Cheek	0mm	Ant 12	DSI 3	21100	2535	14.25	15.00	1.189	0.03	0.197	0.234
	LTE Band 7_UL CA	20M	QPSK	50	0	Right Tilted	0mm	Ant 12	DSI 3	21100	2535	14.25	15.00	1.189	0.08	0.062	0.074
	LTE Band 7_UL CA	20M	QPSK	50	0	Left Cheek	0mm	Ant 12	DSI 3	21100	2535	14.25	15.00	1.189	-0.03	0.082	0.097
	LTE Band 7_UL CA	20M	QPSK	50	0	Left Tilted	0mm	Ant 12	DSI 3	21100	2535	14.25	15.00	1.189	0.09	0.039	0.046



<ENDC SAR>

Table with columns: Plot No., Band, BW (MHz), Modulation, RB Size, RB offset, Test Position, Gap (mm), Antenna, Power State, Ch., Freq. (MHz), Average Power (dBm), Tune-Up Limit (dBm), Tune-up Scaling Factor, Duty Cycle %, Duty Cycle Scaling Factor, Power Drift (dB), Measured 1g SAR (W/kg), Reported 1g SAR (W/kg). Includes sub-sections for 835MHz and 1750MHz.



LTE Band 66_ENDC	20M	QPSK	1	49	Left Cheek	0mm	Ant 31	DSI 2/3	132322	1745	23.35	24.00	1.161	-	-	0.1	0.095	0.110
LTE Band 66_ENDC	20M	QPSK	1	49	Left Tilted	0mm	Ant 31	DSI 2/3	132322	1745	23.35	24.00	1.161	-	-	0.14	0.069	0.080
LTE Band 66_ENDC	20M	QPSK	50	0	Right Cheek	0mm	Ant 31	DSI 2/3	132322	1745	22.42	23.00	1.143	-	-	0.17	0.077	0.088
LTE Band 66_ENDC	20M	QPSK	50	0	Right Tilted	0mm	Ant 31	DSI 2/3	132322	1745	22.42	23.00	1.143	-	-	0.1	0.049	0.056
LTE Band 66_ENDC	20M	QPSK	50	0	Left Cheek	0mm	Ant 31	DSI 2/3	132322	1745	22.42	23.00	1.143	-	-	0.17	0.075	0.086
LTE Band 66_ENDC	20M	QPSK	50	0	Left Tilted	0mm	Ant 31	DSI 2/3	132322	1745	22.42	23.00	1.143	-	-	0.15	0.066	0.075
1900MHz																		
LTE Band 2_ENDC	20M	QPSK	1	49	Right Cheek	0mm	Ant 14	DSI 2	18900	1880	16.36	17.50	1.300	-	-	0.09	0.553	0.719
LTE Band 2_ENDC	20M	QPSK	1	49	Right Tilted	0mm	Ant 14	DSI 2	18900	1880	16.36	17.50	1.300	-	-	0.05	0.437	0.568
LTE Band 2_ENDC	20M	QPSK	1	49	Left Cheek	0mm	Ant 14	DSI 2	18900	1880	16.36	17.50	1.300	-	-	0.14	0.324	0.421
LTE Band 2_ENDC	20M	QPSK	1	49	Left Tilted	0mm	Ant 14	DSI 2	18900	1880	16.36	17.50	1.300	-	-	0.12	0.351	0.456
LTE Band 2_ENDC	20M	QPSK	50	0	Right Cheek	0mm	Ant 14	DSI 2	18900	1880	16.23	17.50	1.340	-	-	-0.08	0.507	0.679
LTE Band 2_ENDC	20M	QPSK	50	0	Right Tilted	0mm	Ant 14	DSI 2	18900	1880	16.23	17.50	1.340	-	-	0.01	0.416	0.557
LTE Band 2_ENDC	20M	QPSK	50	0	Left Cheek	0mm	Ant 14	DSI 2	18900	1880	16.23	17.50	1.340	-	-	-0.13	0.286	0.383
LTE Band 2_ENDC	20M	QPSK	50	0	Left Tilted	0mm	Ant 14	DSI 2	18900	1880	16.23	17.50	1.340	-	-	0.02	0.292	0.391
LTE Band 2_ENDC	20M	QPSK	1	49	Right Cheek	0mm	Ant 14	DSI 3	18900	1880	13.34	14.50	1.306	-	-	0.19	0.268	0.350
LTE Band 2_ENDC	20M	QPSK	1	49	Right Tilted	0mm	Ant 14	DSI 3	18900	1880	13.34	14.50	1.306	-	-	0.17	0.212	0.277
LTE Band 2_ENDC	20M	QPSK	1	49	Left Cheek	0mm	Ant 14	DSI 3	18900	1880	13.34	14.50	1.306	-	-	-0.09	0.157	0.205
LTE Band 2_ENDC	20M	QPSK	1	49	Left Tilted	0mm	Ant 14	DSI 3	18900	1880	13.34	14.50	1.306	-	-	0.01	0.170	0.222
LTE Band 2_ENDC	20M	QPSK	50	0	Right Cheek	0mm	Ant 14	DSI 3	18900	1880	13.25	14.50	1.334	-	-	0.02	0.245	0.327
LTE Band 2_ENDC	20M	QPSK	50	0	Right Tilted	0mm	Ant 14	DSI 3	18900	1880	13.25	14.50	1.334	-	-	0.03	0.201	0.268
LTE Band 2_ENDC	20M	QPSK	50	0	Left Cheek	0mm	Ant 14	DSI 3	18900	1880	13.25	14.50	1.334	-	-	-0.03	0.138	0.184
LTE Band 2_ENDC	20M	QPSK	50	0	Left Tilted	0mm	Ant 14	DSI 3	18900	1880	13.25	14.50	1.334	-	-	-0.14	0.141	0.188
LTE Band 2_ENDC	20M	QPSK	1	49	Right Cheek	0mm	Ant 31	DSI 2/3	18900	1880	22.29	23.50	1.321	-	-	-0.01	0.060	0.079
LTE Band 2_ENDC	20M	QPSK	1	49	Right Tilted	0mm	Ant 31	DSI 2/3	18900	1880	22.29	23.50	1.321	-	-	0.16	0.042	0.055
LTE Band 2_ENDC	20M	QPSK	1	49	Left Cheek	0mm	Ant 31	DSI 2/3	18900	1880	22.29	23.50	1.321	-	-	0.08	0.079	0.104
LTE Band 2_ENDC	20M	QPSK	1	49	Left Tilted	0mm	Ant 31	DSI 2/3	18900	1880	22.29	23.50	1.321	-	-	0.11	0.059	0.078
LTE Band 2_ENDC	20M	QPSK	50	0	Right Cheek	0mm	Ant 31	DSI 2/3	18900	1880	21.22	22.50	1.343	-	-	-0.04	0.047	0.063
LTE Band 2_ENDC	20M	QPSK	50	0	Right Tilted	0mm	Ant 31	DSI 2/3	18900	1880	21.22	22.50	1.343	-	-	0.17	0.025	0.034
LTE Band 2_ENDC	20M	QPSK	50	0	Left Cheek	0mm	Ant 31	DSI 2/3	18900	1880	21.22	22.50	1.343	-	-	-0.13	0.061	0.082
LTE Band 2_ENDC	20M	QPSK	50	0	Left Tilted	0mm	Ant 31	DSI 2/3	18900	1880	21.22	22.50	1.343	-	-	0.19	0.044	0.059
2600MHz																		
LTE Band 7_ENDC	20M	QPSK	1	49	Right Cheek	0mm	Ant 14	DSI 2	21100	2535	15.12	16.00	1.225	-	-	-0.04	0.588	0.720
LTE Band 7_ENDC	20M	QPSK	1	49	Right Tilted	0mm	Ant 14	DSI 2	21100	2535	15.12	16.00	1.225	-	-	-0.01	0.398	0.487
LTE Band 7_ENDC	20M	QPSK	1	49	Left Cheek	0mm	Ant 14	DSI 2	21100	2535	15.12	16.00	1.225	-	-	0.1	0.220	0.269
LTE Band 7_ENDC	20M	QPSK	1	49	Left Tilted	0mm	Ant 14	DSI 2	21100	2535	15.12	16.00	1.225	-	-	0.15	0.240	0.294
LTE Band 7_ENDC	20M	QPSK	50	0	Right Cheek	0mm	Ant 14	DSI 2	21100	2535	15.03	16.00	1.250	-	-	-0.06	0.527	0.659
LTE Band 7_ENDC	20M	QPSK	50	0	Right Tilted	0mm	Ant 14	DSI 2	21100	2535	15.03	16.00	1.250	-	-	0.04	0.367	0.459
LTE Band 7_ENDC	20M	QPSK	50	0	Left Cheek	0mm	Ant 14	DSI 2	21100	2535	15.03	16.00	1.250	-	-	0.09	0.219	0.274
LTE Band 7_ENDC	20M	QPSK	50	0	Left Tilted	0mm	Ant 14	DSI 2	21100	2535	15.03	16.00	1.250	-	-	0.13	0.239	0.299
LTE Band 7_ENDC	20M	QPSK	1	49	Right Cheek	0mm	Ant 14	DSI 3	21100	2535	12.33	13.00	1.167	-	-	-0.14	0.285	0.333
LTE Band 7_ENDC	20M	QPSK	1	49	Right Tilted	0mm	Ant 14	DSI 3	21100	2535	12.33	13.00	1.167	-	-	0.13	0.193	0.225
LTE Band 7_ENDC	20M	QPSK	1	49	Left Cheek	0mm	Ant 14	DSI 3	21100	2535	12.33	13.00	1.167	-	-	0.02	0.107	0.125
LTE Band 7_ENDC	20M	QPSK	1	49	Left Tilted	0mm	Ant 14	DSI 3	21100	2535	12.33	13.00	1.167	-	-	0.03	0.116	0.135
LTE Band 7_ENDC	20M	QPSK	50	0	Right Cheek	0mm	Ant 14	DSI 3	21100	2535	12.25	13.00	1.189	-	-	0.1	0.255	0.303
LTE Band 7_ENDC	20M	QPSK	50	0	Right Tilted	0mm	Ant 14	DSI 3	21100	2535	12.25	13.00	1.189	-	-	-0.05	0.178	0.212
LTE Band 7_ENDC	20M	QPSK	50	0	Left Cheek	0mm	Ant 14	DSI 3	21100	2535	12.25	13.00	1.189	-	-	-0.05	0.106	0.126
LTE Band 7_ENDC	20M	QPSK	50	0	Left Tilted	0mm	Ant 14	DSI 3	21100	2535	12.25	13.00	1.189	-	-	0.12	0.116	0.138
LTE Band 7_ENDC	20M	QPSK	1	49	Right Cheek	0mm	Ant 31	DSI 2/3	21100	2535	23.61	24.50	1.227	-	-	-0.13	0.244	0.299
LTE Band 7_ENDC	20M	QPSK	1	49	Right Tilted	0mm	Ant 31	DSI 2/3	21100	2535	23.61	24.50	1.227	-	-	0.16	0.119	0.146
LTE Band 7_ENDC	20M	QPSK	1	49	Left Cheek	0mm	Ant 31	DSI 2/3	21100	2535	23.61	24.50	1.227	-	-	0.09	0.147	0.180
LTE Band 7_ENDC	20M	QPSK	1	49	Left Tilted	0mm	Ant 31	DSI 2/3	21100	2535	23.61	24.50	1.227	-	-	-0.15	0.089	0.109
LTE Band 7_ENDC	20M	QPSK	50	0	Right Cheek	0mm	Ant 31	DSI 2/3	21100	2535	22.57	23.50	1.239	-	-	-0.13	0.233	0.289
LTE Band 7_ENDC	20M	QPSK	50	0	Right Tilted	0mm	Ant 31	DSI 2/3	21100	2535	22.57	23.50	1.239	-	-	0.07	0.093	0.115
LTE Band 7_ENDC	20M	QPSK	50	0	Left Cheek	0mm	Ant 31	DSI 2/3	21100	2535	22.57	23.50	1.239	-	-	0.17	0.105	0.130
LTE Band 7_ENDC	20M	QPSK	50	0	Left Tilted	0mm	Ant 31	DSI 2/3	21100	2535	22.57	23.50	1.239	-	-	0.14	0.068	0.084



LTE Band 41_ENDC	20M	QPSK	1	49	Right Cheek	0mm	Ant 14	DSI 2	40620	2535	16.10	17.30	1.318	62.9	1.006	0.02	0.537	0.712
LTE Band 41_ENDC	20M	QPSK	1	49	Right Tilted	0mm	Ant 14	DSI 2	40620	2535	16.10	17.30	1.318	62.9	1.006	-0.18	0.344	0.456
LTE Band 41_ENDC	20M	QPSK	1	49	Left Cheek	0mm	Ant 14	DSI 2	40620	2535	16.10	17.30	1.318	62.9	1.006	-0.11	0.181	0.240
LTE Band 41_ENDC	20M	QPSK	1	49	Left Tilted	0mm	Ant 14	DSI 2	40620	2535	16.10	17.30	1.318	62.9	1.006	0.01	0.195	0.259
LTE Band 41_ENDC	20M	QPSK	1	49	Right Cheek	0mm	Ant 14	DSI 2	39750	2506	15.89	17.30	1.384	62.9	1.006	0.17	0.452	0.629
LTE Band 41_ENDC	20M	QPSK	1	49	Right Cheek	0mm	Ant 14	DSI 2	40185	2549.5	15.99	17.30	1.352	62.9	1.006	-0.09	0.459	0.624
LTE Band 41_ENDC	20M	QPSK	1	49	Right Cheek	0mm	Ant 14	DSI 2	41055	2636.5	15.89	17.30	1.384	62.9	1.006	0.02	0.447	0.622
LTE Band 41_ENDC	20M	QPSK	1	49	Right Cheek	0mm	Ant 14	DSI 2	41490	2680	16.01	17.30	1.346	62.9	1.006	-0.12	0.427	0.578
LTE Band 41_ENDC	20M	QPSK	50	0	Right Cheek	0mm	Ant 14	DSI 2	40620	2535	16.02	17.30	1.343	62.9	1.006	-0.07	0.511	0.690
LTE Band 41_ENDC	20M	QPSK	50	0	Right Tilted	0mm	Ant 14	DSI 2	40620	2535	16.02	17.30	1.343	62.9	1.006	-0.03	0.335	0.453
LTE Band 41_ENDC	20M	QPSK	50	0	Left Cheek	0mm	Ant 14	DSI 2	40620	2535	16.02	17.30	1.343	62.9	1.006	-0.08	0.193	0.261
LTE Band 41_ENDC	20M	QPSK	50	0	Left Tilted	0mm	Ant 14	DSI 2	40620	2535	16.02	17.30	1.343	62.9	1.006	0.14	0.205	0.277
LTE Band 41_ENDC	20M	QPSK	50	0	Right Cheek	0mm	Ant 14	DSI 2	39750	2506	15.79	17.30	1.416	62.9	1.006	0.11	0.438	0.624
LTE Band 41_ENDC	20M	QPSK	50	0	Right Cheek	0mm	Ant 14	DSI 2	40185	2549.5	16.00	17.30	1.349	62.9	1.006	0.13	0.449	0.609
LTE Band 41_ENDC	20M	QPSK	50	0	Right Cheek	0mm	Ant 14	DSI 2	41055	2636.5	15.87	17.30	1.390	62.9	1.006	-0.03	0.443	0.619
LTE Band 41_ENDC	20M	QPSK	50	0	Right Cheek	0mm	Ant 14	DSI 2	41490	2680	15.95	17.30	1.365	62.9	1.006	-0.12	0.435	0.597
LTE Band 41_ENDC	20M	QPSK	100	0	Right Cheek	0mm	Ant 14	DSI 2	40620	2535	16.00	17.30	1.349	62.9	1.006	0.05	0.460	0.624
LTE Band 41_ENDC	20M	QPSK	1	49	Right Cheek	0mm	Ant 14	DSI 3	40620	2535	14.35	15.30	1.245	62.9	1.006	0.06	0.260	0.326
LTE Band 41_ENDC	20M	QPSK	1	49	Right Tilted	0mm	Ant 14	DSI 3	40620	2535	14.35	15.30	1.245	62.9	1.006	0.09	0.157	0.197
LTE Band 41_ENDC	20M	QPSK	1	49	Left Cheek	0mm	Ant 14	DSI 3	40620	2535	14.35	15.30	1.245	62.9	1.006	-0.13	0.101	0.126
LTE Band 41_ENDC	20M	QPSK	1	49	Left Tilted	0mm	Ant 14	DSI 3	40620	2535	14.35	15.30	1.245	62.9	1.006	-0.07	0.096	0.120
LTE Band 41_ENDC	20M	QPSK	50	0	Right Cheek	0mm	Ant 14	DSI 3	40620	2535	14.22	15.30	1.282	62.9	1.006	0.06	0.251	0.324
LTE Band 41_ENDC	20M	QPSK	50	0	Right Tilted	0mm	Ant 14	DSI 3	40620	2535	14.22	15.30	1.282	62.9	1.006	-0.11	0.150	0.194
LTE Band 41_ENDC	20M	QPSK	50	0	Left Cheek	0mm	Ant 14	DSI 3	40620	2535	14.22	15.30	1.282	62.9	1.006	0.09	0.092	0.119
LTE Band 41_ENDC	20M	QPSK	50	0	Left Tilted	0mm	Ant 14	DSI 3	40620	2535	14.22	15.30	1.282	62.9	1.006	0.07	0.093	0.120
LTE Band 41_ENDC	20M	QPSK	1	49	Right Cheek	0mm	Ant 31	DSI 2/3	40620	2535	23.71	24.80	1.285	62.9	1.006	0.19	0.196	0.253
LTE Band 41_ENDC	20M	QPSK	1	49	Right Tilted	0mm	Ant 31	DSI 2/3	40620	2535	23.71	24.80	1.285	62.9	1.006	0.15	0.070	0.091
LTE Band 41_ENDC	20M	QPSK	1	49	Left Cheek	0mm	Ant 31	DSI 2/3	40620	2535	23.71	24.80	1.285	62.9	1.006	0.13	0.083	0.107
LTE Band 41_ENDC	20M	QPSK	1	49	Left Tilted	0mm	Ant 31	DSI 2/3	40620	2535	23.71	24.80	1.285	62.9	1.006	0.03	0.081	0.105
LTE Band 41_ENDC	20M	QPSK	50	0	Right Cheek	0mm	Ant 31	DSI 2/3	40620	2535	22.66	23.80	1.300	62.9	1.006	0.06	0.157	0.205
LTE Band 41_ENDC	20M	QPSK	50	0	Right Tilted	0mm	Ant 31	DSI 2/3	40620	2535	22.66	23.80	1.300	62.9	1.006	0.03	0.057	0.075
LTE Band 41_ENDC	20M	QPSK	50	0	Left Cheek	0mm	Ant 31	DSI 2/3	40620	2535	22.66	23.80	1.300	62.9	1.006	0.11	0.066	0.086
LTE Band 41_ENDC	20M	QPSK	50	0	Left Tilted	0mm	Ant 31	DSI 2/3	40620	2535	22.66	23.80	1.300	62.9	1.006	-0.03	0.062	0.081



<5GNR NSA SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)	
1750MHz																			
	N66_ENDC	40M	BPSK	1	108	DFT-15	Right Cheek	0mm	Ant 14	DSI 2	349000	1745	16.25	17.50	1.334	0.14	0.477	0.636	
	N66_ENDC	40M	BPSK	1	108	DFT-15	Right Tilted	0mm	Ant 14	DSI 2	349000	1745	16.25	17.50	1.334	-0.16	0.409	0.545	
	N66_ENDC	40M	BPSK	1	108	DFT-15	Left Cheek	0mm	Ant 14	DSI 2	349000	1745	16.25	17.50	1.334	0.02	0.254	0.339	
	N66_ENDC	40M	BPSK	1	108	DFT-15	Left Tilted	0mm	Ant 14	DSI 2	349000	1745	16.25	17.50	1.334	0.01	0.304	0.405	
	N66_ENDC	40M	BPSK	108	54	DFT-15	Right Cheek	0mm	Ant 14	DSI 2	349000	1745	16.24	17.50	1.337	0.1	0.462	0.618	
	N66_ENDC	40M	BPSK	108	54	DFT-15	Right Tilted	0mm	Ant 14	DSI 2	349000	1745	16.24	17.50	1.337	0.11	0.441	0.589	
	N66_ENDC	40M	BPSK	108	54	DFT-15	Left Cheek	0mm	Ant 14	DSI 2	349000	1745	16.24	17.50	1.337	0.14	0.253	0.338	
	N66_ENDC	40M	BPSK	108	54	DFT-15	Left Tilted	0mm	Ant 14	DSI 2	349000	1745	16.24	17.50	1.337	0.04	0.310	0.414	
	N66_ENDC	40M	BPSK	1	108	DFT-15	Right Cheek	0mm	Ant 14	DSI 3	349000	1745	13.39	14.50	1.291	-0.01	0.215	0.278	
	N66_ENDC	40M	BPSK	1	108	DFT-15	Right Tilted	0mm	Ant 14	DSI 3	349000	1745	13.39	14.50	1.291	-0.09	0.211	0.272	
	N66_ENDC	40M	BPSK	1	108	DFT-15	Left Cheek	0mm	Ant 14	DSI 3	349000	1745	13.39	14.50	1.291	-0.09	0.139	0.179	
	N66_ENDC	40M	BPSK	1	108	DFT-15	Left Tilted	0mm	Ant 14	DSI 3	349000	1745	13.39	14.50	1.291	-0.16	0.160	0.207	
	N66_ENDC	40M	BPSK	108	54	DFT-15	Right Cheek	0mm	Ant 14	DSI 3	349000	1745	13.33	14.50	1.309	-0.1	0.222	0.291	
	N66_ENDC	40M	BPSK	108	54	DFT-15	Right Tilted	0mm	Ant 14	DSI 3	349000	1745	13.33	14.50	1.309	0.11	0.221	0.289	
	N66_ENDC	40M	BPSK	108	54	DFT-15	Left Cheek	0mm	Ant 14	DSI 3	349000	1745	13.33	14.50	1.309	-0.08	0.133	0.174	
	N66_ENDC	40M	BPSK	108	54	DFT-15	Left Tilted	0mm	Ant 14	DSI 3	349000	1745	13.33	14.50	1.309	0.01	0.159	0.208	
	N66_ENDC	40M	BPSK	1	108	DFT-15	Right Cheek	0mm	Ant 12	DSI 2	349000	1745	17.29	18.30	1.262	0.06	0.333	0.420	
	N66_ENDC	40M	BPSK	1	108	DFT-15	Right Tilted	0mm	Ant 12	DSI 2	349000	1745	17.29	18.30	1.262	-0.1	0.088	0.111	
	N66_ENDC	40M	BPSK	1	108	DFT-15	Left Cheek	0mm	Ant 12	DSI 2	349000	1745	17.29	18.30	1.262	0.11	0.109	0.138	
	N66_ENDC	40M	BPSK	1	108	DFT-15	Left Tilted	0mm	Ant 12	DSI 2	349000	1745	17.29	18.30	1.262	-0.08	0.043	0.054	
	N66_ENDC	40M	BPSK	108	54	DFT-15	Right Cheek	0mm	Ant 12	DSI 2	349000	1745	17.28	18.30	1.265	0.11	0.323	0.409	
	N66_ENDC	40M	BPSK	108	54	DFT-15	Right Tilted	0mm	Ant 12	DSI 2	349000	1745	17.28	18.30	1.265	-0.1	0.092	0.116	
	N66_ENDC	40M	BPSK	108	54	DFT-15	Left Cheek	0mm	Ant 12	DSI 2	349000	1745	17.28	18.30	1.265	0.09	0.110	0.139	
	N66_ENDC	40M	BPSK	108	54	DFT-15	Left Tilted	0mm	Ant 12	DSI 2	349000	1745	17.28	18.30	1.265	-0.18	0.042	0.053	
	N66_ENDC	40M	BPSK	1	108	DFT-15	Right Cheek	0mm	Ant 12	DSI 3	349000	1745	14.45	15.30	1.216	-0.01	0.175	0.213	
	N66_ENDC	40M	BPSK	1	108	DFT-15	Right Tilted	0mm	Ant 12	DSI 3	349000	1745	14.45	15.30	1.216	-0.12	0.053	0.064	
	N66_ENDC	40M	BPSK	1	108	DFT-15	Left Cheek	0mm	Ant 12	DSI 3	349000	1745	14.45	15.30	1.216	-0.13	0.075	0.091	
	N66_ENDC	40M	BPSK	1	108	DFT-15	Left Tilted	0mm	Ant 12	DSI 3	349000	1745	14.45	15.30	1.216	0.09	0.041	0.050	
	N66_ENDC	40M	BPSK	108	54	DFT-15	Right Cheek	0mm	Ant 12	DSI 3	349000	1745	14.40	15.30	1.230	0.11	0.169	0.208	
	N66_ENDC	40M	BPSK	108	54	DFT-15	Right Tilted	0mm	Ant 12	DSI 3	349000	1745	14.40	15.30	1.230	0.13	0.047	0.058	
	N66_ENDC	40M	BPSK	108	54	DFT-15	Left Cheek	0mm	Ant 12	DSI 3	349000	1745	14.40	15.30	1.230	0.09	0.066	0.081	
	N66_ENDC	40M	BPSK	108	54	DFT-15	Left Tilted	0mm	Ant 12	DSI 3	349000	1745	14.40	15.30	1.230	-0.04	0.037	0.046	
2600MHz																			
	N7_ENDC	50M	BPSK	1	135	DFT-15	Right Cheek	0mm	Ant 14	DSI 2	507000	2535	13.77	15.20	1.390	0.15	0.505	0.702	
	N7_ENDC	50M	BPSK	1	135	DFT-15	Right Tilted	0mm	Ant 14	DSI 2	507000	2535	13.77	15.20	1.390	-0.01	0.354	0.492	
	N7_ENDC	50M	BPSK	1	135	DFT-15	Left Cheek	0mm	Ant 14	DSI 2	507000	2535	13.77	15.20	1.390	0.11	0.145	0.202	
	N7_ENDC	50M	BPSK	1	135	DFT-15	Left Tilted	0mm	Ant 14	DSI 2	507000	2535	13.77	15.20	1.390	-0.15	0.169	0.235	
	N7_ENDC	50M	BPSK	135	68	DFT-15	Right Cheek	0mm	Ant 14	DSI 2	507000	2535	13.69	15.20	1.416	0.02	0.493	0.698	
	N7_ENDC	50M	BPSK	135	68	DFT-15	Right Tilted	0mm	Ant 14	DSI 2	507000	2535	13.69	15.20	1.416	0.13	0.351	0.497	
	N7_ENDC	50M	BPSK	135	68	DFT-15	Left Cheek	0mm	Ant 14	DSI 2	507000	2535	13.69	15.20	1.416	0.08	0.151	0.214	
	N7_ENDC	50M	BPSK	135	68	DFT-15	Left Tilted	0mm	Ant 14	DSI 2	507000	2535	13.69	15.20	1.416	0.02	0.171	0.242	
	N7_ENDC	50M	BPSK	1	135	DFT-15	Right Cheek	0mm	Ant 14	DSI 3	507000	2535	10.95	12.20	1.334	0.13	0.226	0.301	
	N7_ENDC	50M	BPSK	1	135	DFT-15	Right Tilted	0mm	Ant 14	DSI 3	507000	2535	10.95	12.20	1.334	-0.02	0.158	0.211	
	N7_ENDC	50M	BPSK	1	135	DFT-15	Left Cheek	0mm	Ant 14	DSI 3	507000	2535	10.95	12.20	1.334	0.17	0.065	0.087	
	N7_ENDC	50M	BPSK	1	135	DFT-15	Left Tilted	0mm	Ant 14	DSI 3	507000	2535	10.95	12.20	1.334	0.16	0.075	0.100	
	N7_ENDC	50M	BPSK	135	68	DFT-15	Right Cheek	0mm	Ant 14	DSI 3	507000	2535	10.80	12.20	1.380	0.16	0.220	0.304	
	N7_ENDC	50M	BPSK	135	68	DFT-15	Right Tilted	0mm	Ant 14	DSI 3	507000	2535	10.80	12.20	1.380	0.14	0.157	0.217	
	N7_ENDC	50M	BPSK	135	68	DFT-15	Left Cheek	0mm	Ant 14	DSI 3	507000	2535	10.80	12.20	1.380	-0.04	0.067	0.092	
	N7_ENDC	50M	BPSK	135	68	DFT-15	Left Tilted	0mm	Ant 14	DSI 3	507000	2535	10.80	12.20	1.380	0.09	0.076	0.105	
	N7_ENDC	50M	BPSK	1	135	DFT-15	Right Cheek	0mm	Ant 12	DSI 2	507000	2535	19.74	20.70	1.247	-0.02	0.634	0.791	
	N7_ENDC	50M	BPSK	1	135	DFT-15	Right Tilted	0mm	Ant 12	DSI 2	507000	2535	19.74	20.70	1.247	0.16	0.169	0.211	
	N7_ENDC	50M	BPSK	1	135	DFT-15	Left Cheek	0mm	Ant 12	DSI 2	507000	2535	19.74	20.70	1.247	0.12	0.170	0.212	



N7_ENDC	50M	BPSK	1	135	DFT-15	Left Tilted	0mm	Ant 12	DSI 2	507000	2535	19.74	20.70	1.247	0.06	0.084	0.105
N7_ENDC	50M	BPSK	135	68	DFT-15	Right Cheek	0mm	Ant 12	DSI 2	507000	2535	19.70	20.70	1.259	0.02	0.605	0.762
N7_ENDC	50M	BPSK	135	68	DFT-15	Right Tilted	0mm	Ant 12	DSI 2	507000	2535	19.70	20.70	1.259	0.13	0.137	0.172
N7_ENDC	50M	BPSK	135	68	DFT-15	Left Cheek	0mm	Ant 12	DSI 2	507000	2535	19.70	20.70	1.259	-0.11	0.142	0.179
N7_ENDC	50M	BPSK	135	68	DFT-15	Left Tilted	0mm	Ant 12	DSI 2	507000	2535	19.70	20.70	1.259	0.05	0.080	0.101
N7_ENDC	50M	BPSK	1	135	DFT-15	Right Cheek	0mm	Ant 12	DSI 3	507000	2535	16.90	17.70	1.202	-0.12	0.307	0.369
N7_ENDC	50M	BPSK	1	135	DFT-15	Right Tilted	0mm	Ant 12	DSI 3	507000	2535	16.90	17.70	1.202	-0.07	0.082	0.099
N7_ENDC	50M	BPSK	1	135	DFT-15	Left Cheek	0mm	Ant 12	DSI 3	507000	2535	16.90	17.70	1.202	0.05	0.082	0.099
N7_ENDC	50M	BPSK	1	135	DFT-15	Left Tilted	0mm	Ant 12	DSI 3	507000	2535	16.90	17.70	1.202	0.07	0.041	0.049
N7_ENDC	50M	BPSK	135	68	DFT-15	Right Cheek	0mm	Ant 12	DSI 3	507000	2535	16.89	17.70	1.205	-0.03	0.293	0.353
N7_ENDC	50M	BPSK	135	68	DFT-15	Right Tilted	0mm	Ant 12	DSI 3	507000	2535	16.89	17.70	1.205	-0.03	0.066	0.080
N7_ENDC	50M	BPSK	135	68	DFT-15	Left Cheek	0mm	Ant 12	DSI 3	507000	2535	16.89	17.70	1.205	0.09	0.069	0.083
N7_ENDC	50M	BPSK	135	68	DFT-15	Left Tilted	0mm	Ant 12	DSI 3	507000	2535	16.89	17.70	1.205	0.02	0.039	0.047

3500-3900MHz

N78_ENDC	100M	BPSK	1	137	DFT-30	Right Cheek	0mm	Ant 13	DSI 2	633334	3500.01	15.59	16.50	1.233	0.16	0.352	0.434
N78_ENDC	100M	BPSK	1	137	DFT-30	Right Tilted	0mm	Ant 13	DSI 2	633334	3500.01	15.59	16.50	1.233	0.02	0.605	0.746
N78_ENDC	100M	BPSK	1	137	DFT-30	Left Cheek	0mm	Ant 13	DSI 2	633334	3500.01	15.59	16.50	1.233	-0.14	0.169	0.208
N78_ENDC	100M	BPSK	1	137	DFT-30	Left Tilted	0mm	Ant 13	DSI 2	633334	3500.01	15.59	16.50	1.233	0.06	0.241	0.297
N78_ENDC	100M	BPSK	135	69	DFT-30	Right Cheek	0mm	Ant 13	DSI 2	633334	3500.01	15.52	16.50	1.253	0.1	0.352	0.441
N78_ENDC	100M	BPSK	135	69	DFT-30	Right Tilted	0mm	Ant 13	DSI 2	633334	3500.01	15.52	16.50	1.253	0.05	0.595	0.746
N78_ENDC	100M	BPSK	135	69	DFT-30	Left Cheek	0mm	Ant 13	DSI 2	633334	3500.01	15.52	16.50	1.253	0.01	0.170	0.213
N78_ENDC	100M	BPSK	135	69	DFT-30	Left Tilted	0mm	Ant 13	DSI 2	633334	3500.01	15.52	16.50	1.253	0.17	0.246	0.308
N78_ENDC	100M	BPSK	270	0	DFT-30	Right Tilted	0mm	Ant 13	DSI 2	633334	3500.01	15.37	16.50	1.297	0.05	0.571	0.741
N78_ENDC	100M	BPSK	1	137	DFT-30	Right Cheek	0mm	Ant 13	DSI 3	633334	3500.01	12.64	13.50	1.219	0.05	0.170	0.207
N78_ENDC	100M	BPSK	1	137	DFT-30	Right Tilted	0mm	Ant 13	DSI 3	633334	3500.01	12.64	13.50	1.219	0.03	0.298	0.363
N78_ENDC	100M	BPSK	1	137	DFT-30	Left Cheek	0mm	Ant 13	DSI 3	633334	3500.01	12.64	13.50	1.219	0.15	0.082	0.100
N78_ENDC	100M	BPSK	1	137	DFT-30	Left Tilted	0mm	Ant 13	DSI 3	633334	3500.01	12.64	13.50	1.219	-0.15	0.117	0.143
N78_ENDC	100M	BPSK	135	69	DFT-30	Right Cheek	0mm	Ant 13	DSI 3	633334	3500.01	12.62	13.50	1.225	0.11	0.170	0.208
N78_ENDC	100M	BPSK	135	69	DFT-30	Right Tilted	0mm	Ant 13	DSI 3	633334	3500.01	12.62	13.50	1.225	0.03	0.288	0.353
N78_ENDC	100M	BPSK	135	69	DFT-30	Left Cheek	0mm	Ant 13	DSI 3	633334	3500.01	12.62	13.50	1.225	-0.14	0.082	0.100
N78_ENDC	100M	BPSK	135	69	DFT-30	Left Tilted	0mm	Ant 13	DSI 3	633334	3500.01	12.62	13.50	1.225	-0.1	0.119	0.146
N78_ENDC	100M	BPSK	1	137	DFT-30	Right Cheek	0mm	Ant 13	DSI 2	650000	3750	15.27	16.50	1.327	0.09	0.317	0.421
N78_ENDC	100M	BPSK	1	137	DFT-30	Right Tilted	0mm	Ant 13	DSI 2	650000	3750	15.27	16.50	1.327	0.11	0.174	0.231
N78_ENDC	100M	BPSK	1	137	DFT-30	Left Cheek	0mm	Ant 13	DSI 2	650000	3750	15.27	16.50	1.327	-0.1	0.081	0.108
N78_ENDC	100M	BPSK	1	137	DFT-30	Left Tilted	0mm	Ant 13	DSI 2	650000	3750	15.27	16.50	1.327	0.07	0.105	0.139
N78_ENDC	100M	BPSK	135	69	DFT-30	Right Cheek	0mm	Ant 13	DSI 2	650000	3750	15.25	16.50	1.334	0.17	0.308	0.411
N78_ENDC	100M	BPSK	135	69	DFT-30	Right Tilted	0mm	Ant 13	DSI 2	650000	3750	15.25	16.50	1.334	-0.08	0.165	0.220
N78_ENDC	100M	BPSK	135	69	DFT-30	Left Cheek	0mm	Ant 13	DSI 2	650000	3750	15.25	16.50	1.334	0.01	0.083	0.111
N78_ENDC	100M	BPSK	135	69	DFT-30	Left Tilted	0mm	Ant 13	DSI 2	650000	3750	15.25	16.50	1.334	-0.16	0.103	0.137
N78_ENDC	100M	BPSK	1	137	DFT-30	Right Cheek	0mm	Ant 13	DSI 3	650000	3750	12.34	13.50	1.306	-0.01	0.151	0.197
N78_ENDC	100M	BPSK	1	137	DFT-30	Right Tilted	0mm	Ant 13	DSI 3	650000	3750	12.34	13.50	1.306	0.05	0.087	0.114
N78_ENDC	100M	BPSK	1	137	DFT-30	Left Cheek	0mm	Ant 13	DSI 3	650000	3750	12.34	13.50	1.306	-0.14	0.033	0.043
N78_ENDC	100M	BPSK	1	137	DFT-30	Left Tilted	0mm	Ant 13	DSI 3	650000	3750	12.34	13.50	1.306	0.09	0.052	0.068
N78_ENDC	100M	BPSK	135	69	DFT-30	Right Cheek	0mm	Ant 13	DSI 3	650000	3750	12.29	13.50	1.321	0.03	0.164	0.217
N78_ENDC	100M	BPSK	135	69	DFT-30	Right Tilted	0mm	Ant 13	DSI 3	650000	3750	12.29	13.50	1.321	0.06	0.094	0.124
N78_ENDC	100M	BPSK	135	69	DFT-30	Left Cheek	0mm	Ant 13	DSI 3	650000	3750	12.29	13.50	1.321	0.02	0.060	0.079
N78_ENDC	100M	BPSK	135	69	DFT-30	Left Tilted	0mm	Ant 13	DSI 3	650000	3750	12.29	13.50	1.321	0.1	0.061	0.081
N78_ENDC	100M	BPSK	1	137	DFT-30	Right Cheek	0mm	Ant 23	DSI 2	633334	3500.01	15.38	16.90	1.419	0.14	0.045	0.064
N78_ENDC	100M	BPSK	1	137	DFT-30	Right Tilted	0mm	Ant 23	DSI 2	633334	3500.01	15.38	16.90	1.419	-0.17	0.047	0.067
N78_ENDC	100M	BPSK	1	137	DFT-30	Left Cheek	0mm	Ant 23	DSI 2	633334	3500.01	15.38	16.90	1.419	0.07	0.172	0.244
N78_ENDC	100M	BPSK	1	137	DFT-30	Left Tilted	0mm	Ant 23	DSI 2	633334	3500.01	15.38	16.90	1.419	0.11	0.121	0.172
N78_ENDC	100M	BPSK	135	69	DFT-30	Right Cheek	0mm	Ant 23	DSI 2	633334	3500.01	15.22	16.90	1.472	-0.03	0.048	0.071
N78_ENDC	100M	BPSK	135	69	DFT-30	Right Tilted	0mm	Ant 23	DSI 2	633334	3500.01	15.22	16.90	1.472	0.04	0.046	0.068
N78_ENDC	100M	BPSK	135	69	DFT-30	Left Cheek	0mm	Ant 23	DSI 2	633334	3500.01	15.22	16.90	1.472	-0.17	0.174	0.256
N78_ENDC	100M	BPSK	135	69	DFT-30	Left Tilted	0mm	Ant 23	DSI 2	633334	3500.01	15.22	16.90	1.472	0.02	0.107	0.158
N78_ENDC	100M	BPSK	1	137	DFT-30	Right Cheek	0mm	Ant 23	DSI 3	633334	3500.01	12.33	13.90	1.435	-0.09	0.022	0.032



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N78_ENDC	100M	BPSK	1	137	DFT-30	Right Tilted	0mm	Ant 23	DSI 3	633334	3500.01	12.33	13.90	1.435	0.18	0.023	0.033
N78_ENDC	100M	BPSK	1	137	DFT-30	Left Cheek	0mm	Ant 23	DSI 3	633334	3500.01	12.33	13.90	1.435	0.14	0.083	0.119
N78_ENDC	100M	BPSK	1	137	DFT-30	Left Tilted	0mm	Ant 23	DSI 3	633334	3500.01	12.33	13.90	1.435	0.09	0.059	0.085
N78_ENDC	100M	BPSK	135	69	DFT-30	Right Cheek	0mm	Ant 23	DSI 3	633334	3500.01	12.23	13.90	1.469	0.18	0.023	0.034
N78_ENDC	100M	BPSK	135	69	DFT-30	Right Tilted	0mm	Ant 23	DSI 3	633334	3500.01	12.23	13.90	1.469	-0.07	0.022	0.032
N78_ENDC	100M	BPSK	135	69	DFT-30	Left Cheek	0mm	Ant 23	DSI 3	633334	3500.01	12.23	13.90	1.469	0.06	0.084	0.123
N78_ENDC	100M	BPSK	135	69	DFT-30	Left Tilted	0mm	Ant 23	DSI 3	633334	3500.01	12.23	13.90	1.469	-0.15	0.052	0.076
N78_ENDC	100M	BPSK	1	137	DFT-30	Right Cheek	0mm	Ant 23	DSI 2	650000	3750	15.64	16.90	1.337	0.08	0.108	0.144
N78_ENDC	100M	BPSK	1	137	DFT-30	Right Tilted	0mm	Ant 23	DSI 2	650000	3750	15.64	16.90	1.337	0.08	0.109	0.146
N78_ENDC	100M	BPSK	1	137	DFT-30	Left Cheek	0mm	Ant 23	DSI 2	650000	3750	15.64	16.90	1.337	0.07	0.250	0.334
N78_ENDC	100M	BPSK	1	137	DFT-30	Left Tilted	0mm	Ant 23	DSI 2	650000	3750	15.64	16.90	1.337	0.01	0.200	0.267
N78_ENDC	100M	BPSK	135	69	DFT-30	Right Cheek	0mm	Ant 23	DSI 2	650000	3750	15.60	16.90	1.349	0.17	0.109	0.147
N78_ENDC	100M	BPSK	135	69	DFT-30	Right Tilted	0mm	Ant 23	DSI 2	650000	3750	15.60	16.90	1.349	-0.11	0.117	0.158
N78_ENDC	100M	BPSK	135	69	DFT-30	Left Cheek	0mm	Ant 23	DSI 2	650000	3750	15.60	16.90	1.349	0.09	0.260	0.351
N78_ENDC	100M	BPSK	135	69	DFT-30	Left Tilted	0mm	Ant 23	DSI 2	650000	3750	15.60	16.90	1.349	-0.17	0.201	0.271
N78_ENDC	100M	BPSK	1	137	DFT-30	Right Cheek	0mm	Ant 23	DSI 3	650000	3750	12.69	13.90	1.321	-0.07	0.052	0.069
N78_ENDC	100M	BPSK	1	137	DFT-30	Right Tilted	0mm	Ant 23	DSI 3	650000	3750	12.69	13.90	1.321	0.13	0.053	0.070
N78_ENDC	100M	BPSK	1	137	DFT-30	Left Cheek	0mm	Ant 23	DSI 3	650000	3750	12.69	13.90	1.321	0.17	0.121	0.160
N78_ENDC	100M	BPSK	1	137	DFT-30	Left Tilted	0mm	Ant 23	DSI 3	650000	3750	12.69	13.90	1.321	0.05	0.097	0.128
N78_ENDC	100M	BPSK	135	69	DFT-30	Right Cheek	0mm	Ant 23	DSI 3	650000	3750	12.67	13.90	1.327	0.01	0.053	0.070
N78_ENDC	100M	BPSK	135	69	DFT-30	Right Tilted	0mm	Ant 23	DSI 3	650000	3750	12.67	13.90	1.327	0.01	0.057	0.076
N78_ENDC	100M	BPSK	135	69	DFT-30	Left Cheek	0mm	Ant 23	DSI 3	650000	3750	12.67	13.90	1.327	-0.18	0.126	0.167
N78_ENDC	100M	BPSK	135	69	DFT-30	Left Tilted	0mm	Ant 23	DSI 3	650000	3750	12.67	13.90	1.327	0.05	0.097	0.129



<SRS SA SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Measured Plimit (dBm)	Reported Plimit (dBm)	Reported Pmax (dBm)	Duty Cycle %	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
N78	100M	BPSK	1	137	DFT-30	Right Cheek	0mm	Ant 24	DSI 2	633334	3500.01	20.28	21.70	22.2	8.5	0.12	0.075	0.010	
N78	100M	BPSK	1	137	DFT-30	Right Tilted	0mm	Ant 24	DSI 2	633334	3500.01	20.28	21.70	22.2	8.5	0.05	0.041	0.005	
N78	100M	BPSK	1	137	DFT-30	Left Cheek	0mm	Ant 24	DSI 2	633334	3500.01	20.28	21.70	22.2	8.5	0.07	0.181	0.024	
N78	100M	BPSK	1	137	DFT-30	Left Tilted	0mm	Ant 24	DSI 2	633334	3500.01	20.28	21.70	22.2	8.5	-0.01	0.008	0.001	
N78	100M	BPSK	135	69	DFT-30	Right Cheek	0mm	Ant 24	DSI 2	633334	3500.01	20.22	21.70	22.2	8.5	0.09	0.078	0.010	
N78	100M	BPSK	135	69	DFT-30	Right Tilted	0mm	Ant 24	DSI 2	633334	3500.01	20.22	21.70	22.2	8.5	-0.01	0.020	0.003	
N78	100M	BPSK	135	69	DFT-30	Left Cheek	0mm	Ant 24	DSI 2	633334	3500.01	20.22	21.70	22.2	8.5	0.02	0.200	0.027	
N78	100M	BPSK	135	69	DFT-30	Left Tilted	0mm	Ant 24	DSI 2	633334	3500.01	20.22	21.70	22.2	8.5	0.06	0.011	0.001	
N78	100M	BPSK	1	137	DFT-30	Right Cheek	0mm	Ant 24	DSI 3	633334	3500.01	17.99	19.20	22.2	8.5	0.03	0.050	0.011	
N78	100M	BPSK	1	137	DFT-30	Right Tilted	0mm	Ant 24	DSI 3	633334	3500.01	17.99	19.20	22.2	8.5	-0.07	0.012	0.003	
N78	100M	BPSK	1	137	DFT-30	Left Cheek	0mm	Ant 24	DSI 3	633334	3500.01	17.99	19.20	22.2	8.5	0.02	0.120	0.027	
N78	100M	BPSK	1	137	DFT-30	Left Tilted	0mm	Ant 24	DSI 3	633334	3500.01	17.99	19.20	22.2	8.5	-0.15	0.007	0.002	
N78	100M	BPSK	135	69	DFT-30	Right Cheek	0mm	Ant 24	DSI 3	633334	3500.01	17.76	19.20	22.2	8.5	0.11	0.043	0.010	
N78	100M	BPSK	135	69	DFT-30	Right Tilted	0mm	Ant 24	DSI 3	633334	3500.01	17.76	19.20	22.2	8.5	0.08	0.010	0.002	
N78	100M	BPSK	135	69	DFT-30	Left Cheek	0mm	Ant 24	DSI 3	633334	3500.01	17.76	19.20	22.2	8.5	-0.02	0.112	0.026	
N78	100M	BPSK	135	69	DFT-30	Left Tilted	0mm	Ant 24	DSI 3	633334	3500.01	17.76	19.20	22.2	8.5	0.01	0.009	0.002	
N78	100M	BPSK	1	137	DFT-30	Right Cheek	0mm	Ant 24	DSI 2	650000	3750	20.20	21.70	22.2	8.5	0.02	0.176	0.024	
N78	100M	BPSK	1	137	DFT-30	Right Tilted	0mm	Ant 24	DSI 2	650000	3750	20.20	21.70	22.2	8.5	-0.05	0.073	0.010	
N78	100M	BPSK	1	137	DFT-30	Left Cheek	0mm	Ant 24	DSI 2	650000	3750	20.20	21.70	22.2	8.5	0.07	0.680	0.092	
N78	100M	BPSK	1	137	DFT-30	Left Tilted	0mm	Ant 24	DSI 2	650000	3750	20.20	21.70	22.2	8.5	-0.12	0.209	0.028	
N78	100M	BPSK	135	69	DFT-30	Right Cheek	0mm	Ant 24	DSI 2	650000	3750	20.16	21.70	22.2	8.5	0.11	0.225	0.031	
N78	100M	BPSK	135	69	DFT-30	Right Tilted	0mm	Ant 24	DSI 2	650000	3750	20.16	21.70	22.2	8.5	0.06	0.086	0.012	
N78	100M	BPSK	135	69	DFT-30	Left Cheek	0mm	Ant 24	DSI 2	650000	3750	20.16	21.70	22.2	8.5	0.08	0.635	0.086	
N78	100M	BPSK	135	69	DFT-30	Left Tilted	0mm	Ant 24	DSI 2	650000	3750	20.16	21.70	22.2	8.5	0.01	0.204	0.028	
N78	100M	BPSK	270	0	DFT-30	Left Cheek	0mm	Ant 24	DSI 2	650000	3750	19.99	21.70	22.2	8.5	0.07	0.611	0.086	
N78	100M	BPSK	1	137	DFT-30	Right Cheek	0mm	Ant 24	DSI 3	650000	3750	17.88	19.20	22.2	8.5	-0.11	0.101	0.023	
N78	100M	BPSK	1	137	DFT-30	Right Tilted	0mm	Ant 24	DSI 3	650000	3750	17.88	19.20	22.2	8.5	0.06	0.043	0.010	
N78	100M	BPSK	1	137	DFT-30	Left Cheek	0mm	Ant 24	DSI 3	650000	3750	17.88	19.20	22.2	8.5	0.08	0.360	0.083	
N78	100M	BPSK	1	137	DFT-30	Left Tilted	0mm	Ant 24	DSI 3	650000	3750	17.88	19.20	22.2	8.5	-0.05	0.109	0.025	
N78	100M	BPSK	135	69	DFT-30	Right Cheek	0mm	Ant 24	DSI 3	650000	3750	17.85	19.20	22.2	8.5	-0.02	0.080	0.019	
N78	100M	BPSK	135	69	DFT-30	Right Tilted	0mm	Ant 24	DSI 3	650000	3750	17.85	19.20	22.2	8.5	0.06	0.043	0.010	
N78	100M	BPSK	135	69	DFT-30	Left Cheek	0mm	Ant 24	DSI 3	650000	3750	17.85	19.20	22.2	8.5	0.07	0.322	0.075	
N78	100M	BPSK	135	69	DFT-30	Left Tilted	0mm	Ant 24	DSI 3	650000	3750	17.85	19.20	22.2	8.5	0.13	0.108	0.025	
N78	100M	BPSK	1	137	DFT-30	Right Cheek	0mm	Ant 101	DSI 2	633334	3500.01	21.19	22.50	25.0	8.5	0.06	0.408	0.083	
N78	100M	BPSK	1	137	DFT-30	Right Tilted	0mm	Ant 101	DSI 2	633334	3500.01	21.19	22.50	25.0	8.5	-0.15	0.167	0.034	
N78	100M	BPSK	1	137	DFT-30	Left Cheek	0mm	Ant 101	DSI 2	633334	3500.01	21.19	22.50	25.0	8.5	0.01	0.139	0.028	
N78	100M	BPSK	1	137	DFT-30	Left Tilted	0mm	Ant 101	DSI 2	633334	3500.01	21.19	22.50	25.0	8.5	-0.06	0.069	0.014	
N78	100M	BPSK	135	69	DFT-30	Right Cheek	0mm	Ant 101	DSI 2	633334	3500.01	21.14	22.50	25.0	8.5	0.18	0.378	0.078	
N78	100M	BPSK	135	69	DFT-30	Right Tilted	0mm	Ant 101	DSI 2	633334	3500.01	21.14	22.50	25.0	8.5	0.08	0.165	0.034	
N78	100M	BPSK	135	69	DFT-30	Left Cheek	0mm	Ant 101	DSI 2	633334	3500.01	21.14	22.50	25.0	8.5	0.15	0.141	0.029	
N78	100M	BPSK	135	69	DFT-30	Left Tilted	0mm	Ant 101	DSI 2	633334	3500.01	21.14	22.50	25.0	8.5	0.06	0.069	0.014	
N78	100M	BPSK	1	137	DFT-30	Right Cheek	0mm	Ant 101	DSI 3	633334	3500.01	20.14	21.50	25.0	8.5	-0.06	0.313	0.081	
N78	100M	BPSK	1	137	DFT-30	Right Tilted	0mm	Ant 101	DSI 3	633334	3500.01	20.14	21.50	25.0	8.5	0.02	0.128	0.033	
N78	100M	BPSK	1	137	DFT-30	Left Cheek	0mm	Ant 101	DSI 3	633334	3500.01	20.14	21.50	25.0	8.5	0.11	0.107	0.028	
N78	100M	BPSK	1	137	DFT-30	Left Tilted	0mm	Ant 101	DSI 3	633334	3500.01	20.14	21.50	25.0	8.5	-0.1	0.053	0.014	
N78	100M	BPSK	135	69	DFT-30	Right Cheek	0mm	Ant 101	DSI 3	633334	3500.01	20.13	21.50	25.0	8.5	-0.09	0.290	0.076	
N78	100M	BPSK	135	69	DFT-30	Right Tilted	0mm	Ant 101	DSI 3	633334	3500.01	20.13	21.50	25.0	8.5	-0.05	0.127	0.033	
N78	100M	BPSK	135	69	DFT-30	Left Cheek	0mm	Ant 101	DSI 3	633334	3500.01	20.13	21.50	25.0	8.5	0.11	0.108	0.028	
N78	100M	BPSK	135	69	DFT-30	Left Tilted	0mm	Ant 101	DSI 3	633334	3500.01	20.13	21.50	25.0	8.5	0.15	0.053	0.014	
N78	100M	BPSK	1	137	DFT-30	Right Cheek	0mm	Ant 101	DSI 2	650000	3750	20.94	22.50	25.0	8.5	-0.11	0.594	0.129	
N78	100M	BPSK	1	137	DFT-30	Right Tilted	0mm	Ant 101	DSI 2	650000	3750	20.94	22.50	25.0	8.5	-0.04	0.199	0.043	
N78	100M	BPSK	1	137	DFT-30	Left Cheek	0mm	Ant 101	DSI 2	650000	3750	20.94	22.50	25.0	8.5	-0.1	0.226	0.049	
N78	100M	BPSK	1	137	DFT-30	Left Tilted	0mm	Ant 101	DSI 2	650000	3750	20.94	22.50	25.0	8.5	-0.16	0.089	0.019	



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N78	100M	BPSK	135	69	DFT-30	Right Cheek	0mm	Ant 101	DSI 2	650000	3750	20.92	22.50	25.0	8.5	0.19	0.557	0.121
N78	100M	BPSK	135	69	DFT-30	Right Tilted	0mm	Ant 101	DSI 2	650000	3750	20.92	22.50	25.0	8.5	-0.11	0.206	0.045
N78	100M	BPSK	135	69	DFT-30	Left Cheek	0mm	Ant 101	DSI 2	650000	3750	20.92	22.50	25.0	8.5	-0.12	0.219	0.048
N78	100M	BPSK	135	69	DFT-30	Left Tilted	0mm	Ant 101	DSI 2	650000	3750	20.92	22.50	25.0	8.5	-0.15	0.086	0.019
N78	100M	BPSK	270	0	DFT-30	Right Cheek	0mm	Ant 101	DSI 2	650000	3750	20.81	22.50	25.0	8.5	0.06	0.541	0.121
N78	100M	BPSK	1	137	DFT-30	Right Cheek	0mm	Ant 101	DSI 3	650000	3750	19.91	21.50	25.0	8.5	-0.09	0.456	0.125
N78	100M	BPSK	1	137	DFT-30	Right Tilted	0mm	Ant 101	DSI 3	650000	3750	19.91	21.50	25.0	8.5	0.13	0.153	0.042
N78	100M	BPSK	1	137	DFT-30	Left Cheek	0mm	Ant 101	DSI 3	650000	3750	19.91	21.50	25.0	8.5	0.01	0.173	0.047
N78	100M	BPSK	1	137	DFT-30	Left Tilted	0mm	Ant 101	DSI 3	650000	3750	19.91	21.50	25.0	8.5	-0.05	0.068	0.019
N78	100M	BPSK	135	69	DFT-30	Right Cheek	0mm	Ant 101	DSI 3	650000	3750	19.90	21.50	25.0	8.5	-0.04	0.427	0.117
N78	100M	BPSK	135	69	DFT-30	Right Tilted	0mm	Ant 101	DSI 3	650000	3750	19.90	21.50	25.0	8.5	0.02	0.158	0.043
N78	100M	BPSK	135	69	DFT-30	Left Cheek	0mm	Ant 101	DSI 3	650000	3750	19.90	21.50	25.0	8.5	0.02	0.168	0.046
N78	100M	BPSK	135	69	DFT-30	Left Tilted	0mm	Ant 101	DSI 3	650000	3750	19.90	21.50	25.0	8.5	-0.11	0.066	0.018
N78	100M	BPSK	270	0	DFT-30	Right Cheek	0mm	Ant 101	DSI 3	650000	3750	19.76	21.50	25.0	8.5	0.06	0.411	0.117



<SRS NSA SAR>

Table with columns: Plot No., Band, BW (MHz), Modulation, RB Size, RB offset, Mode, Test Position, Gap (mm), Antenna, Power State, Ch., Freq. (MHz), Measured Plimit (dBm), Reported Plimit (dBm), Reported Pmax (dBm), Duty Cycle %, Power Drift (dB), Measured 1g SAR (W/kg), Reported 1g SAR (W/kg)



N78_ENDC	100M	BPSK	135	69	DFT-30	Right Cheek	0mm	Ant 101	DSI 2	650000	3750	20.22	22.00	25.0	8.5	-0.04	0.374	0.096
N78_ENDC	100M	BPSK	135	69	DFT-30	Right Tilted	0mm	Ant 101	DSI 2	650000	3750	20.22	22.00	25.0	8.5	0.12	0.135	0.034
N78_ENDC	100M	BPSK	135	69	DFT-30	Left Cheek	0mm	Ant 101	DSI 2	650000	3750	20.22	22.00	25.0	8.5	-0.03	0.168	0.043
N78_ENDC	100M	BPSK	135	69	DFT-30	Left Tilted	0mm	Ant 101	DSI 2	650000	3750	20.22	22.00	25.0	8.5	-0.19	0.071	0.018
N78_ENDC	100M	BPSK	1	137	DFT-30	Right Cheek	0mm	Ant 101	DSI 3	650000	3750	17.36	19.00	25.0	8.5	0.17	0.186	0.092
N78_ENDC	100M	BPSK	1	137	DFT-30	Right Tilted	0mm	Ant 101	DSI 3	650000	3750	17.36	19.00	25.0	8.5	0.12	0.071	0.035
N78_ENDC	100M	BPSK	1	137	DFT-30	Left Cheek	0mm	Ant 101	DSI 3	650000	3750	17.36	19.00	25.0	8.5	0.07	0.074	0.037
N78_ENDC	100M	BPSK	1	137	DFT-30	Left Tilted	0mm	Ant 101	DSI 3	650000	3750	17.36	19.00	25.0	8.5	0.18	0.018	0.009
N78_ENDC	100M	BPSK	135	69	DFT-30	Right Cheek	0mm	Ant 101	DSI 3	650000	3750	17.30	19.00	25.0	8.5	-0.1	0.193	0.097
N78_ENDC	100M	BPSK	135	69	DFT-30	Right Tilted	0mm	Ant 101	DSI 3	650000	3750	17.30	19.00	25.0	8.5	0.06	0.068	0.034
N78_ENDC	100M	BPSK	135	69	DFT-30	Left Cheek	0mm	Ant 101	DSI 3	650000	3750	17.30	19.00	25.0	8.5	-0.04	0.082	0.041
N78_ENDC	100M	BPSK	135	69	DFT-30	Left Tilted	0mm	Ant 101	DSI 3	650000	3750	17.30	19.00	25.0	8.5	-0.19	0.020	0.010

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
WIFI/BT																
	Bluetooth	DH5 1Mbps	Right Cheek	0mm	Ant 24	Full	39	2441	13.40	15.00	1.445	76.79	1.302	0.05	0.044	0.082
	Bluetooth	DH5 1Mbps	Right Tilted	0mm	Ant 24	Full	39	2441	13.40	15.00	1.445	76.79	1.302	-0.07	0.007	0.013
23	Bluetooth	DH5 1Mbps	Left Cheek	0mm	Ant 24	Full	39	2441	13.40	15.00	1.445	76.79	1.302	0.07	0.066	0.124
	Bluetooth	DH5 1Mbps	Left Tilted	0mm	Ant 24	Full	39	2441	13.40	15.00	1.445	76.79	1.302	0.01	0.013	0.025
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 24+22	Receiver on	6	2437	14.00	15.50	1.413	99.14	1.009	0.09	0.070	0.100
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 24+22	Receiver on	6	2437	14.00	15.50	1.413	99.14	1.009	-0.07	0.085	0.121
24	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 24+22	Receiver on	6	2437	14.00	15.50	1.413	99.14	1.009	-0.12	0.159	0.227
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 24+22	Receiver on	6	2437	14.00	15.50	1.413	99.14	1.009	0.13	0.108	0.154
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 22+24	Receiver on	58	5290	13.59	15.00	1.384	88.19	1.134	-0.13	0.183	0.287
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 22+24	Receiver on	58	5290	13.59	15.00	1.384	88.19	1.134	-0.1	0.185	0.290
25	WLAN5.3GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 22+24	Receiver on	58	5290	13.59	15.00	1.384	88.19	1.134	-0.03	0.430	0.675
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 22+24	Receiver on	58	5290	13.59	15.00	1.384	88.19	1.134	0.16	0.341	0.535
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 22+24	Receiver on	106	5530	13.31	15.00	1.476	88.19	1.134	0.02	0.131	0.219
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 22+24	Receiver on	106	5530	13.31	15.00	1.476	88.19	1.134	-0.15	0.128	0.214
26	WLAN5.5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 22+24	Receiver on	106	5530	13.31	15.00	1.476	88.19	1.134	-0.09	0.358	0.599
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 22+24	Receiver on	106	5530	13.31	15.00	1.476	88.19	1.134	0.12	0.254	0.425
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 22+24	Receiver on	155	5775	13.35	15.00	1.462	88.19	1.134	-0.1	0.128	0.212
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 22+24	Receiver on	155	5775	13.35	15.00	1.462	88.19	1.134	0.04	0.119	0.197
27	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 22+24	Receiver on	155	5775	13.35	15.00	1.462	88.19	1.134	0.16	0.358	0.594
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 22+24	Receiver on	155	5775	13.35	15.00	1.462	88.19	1.134	0.18	0.276	0.458



15.2 Hotspot SAR

<GSM/WCDMA/LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)	
750MHz																			
	LTE Band 13	10M	QPSK	1	25	-	Front	10mm	Ant 11	DSI 6	23230	782	22.95	24.20	1.334	0.15	0.060	0.080	
	LTE Band 13	10M	QPSK	1	25	-	Back	10mm	Ant 11	DSI 6	23230	782	22.95	24.20	1.334	0.19	0.084	0.112	
28	LTE Band 13	10M	QPSK	1	25	-	Left Side	10mm	Ant 11	DSI 6	23230	782	22.95	24.20	1.334	0.02	0.177	0.236	
	LTE Band 13	10M	QPSK	1	25	-	Right Side	10mm	Ant 11	DSI 6	23230	782	22.95	24.20	1.334	-0.01	0.007	0.009	
	LTE Band 13	10M	QPSK	1	25	-	Top Side	10mm	Ant 11	DSI 6	23230	782	22.95	24.20	1.334	0.02	0.011	0.015	
	LTE Band 13	10M	QPSK	25	0	-	Front	10mm	Ant 11	DSI 6	23230	782	21.81	23.20	1.377	0.19	0.051	0.070	
	LTE Band 13	10M	QPSK	25	0	-	Back	10mm	Ant 11	DSI 6	23230	782	21.81	23.20	1.377	-0.11	0.071	0.098	
	LTE Band 13	10M	QPSK	25	0	-	Left Side	10mm	Ant 11	DSI 6	23230	782	21.81	23.20	1.377	-0.04	0.125	0.172	
	LTE Band 13	10M	QPSK	25	0	-	Right Side	10mm	Ant 11	DSI 6	23230	782	21.81	23.20	1.377	0.01	0.005	0.007	
	LTE Band 13	10M	QPSK	25	0	-	Top Side	10mm	Ant 11	DSI 6	23230	782	21.81	23.20	1.377	0.03	0.008	0.011	
	LTE Band 13	10M	QPSK	1	25	-	Front	10mm	Ant 41	DSI 6	23230	782	23.06	24.20	1.300	-0.16	0.090	0.117	
	LTE Band 13	10M	QPSK	1	25	-	Back	10mm	Ant 41	DSI 6	23230	782	23.06	24.20	1.300	-0.13	0.147	0.191	
	LTE Band 13	10M	QPSK	1	25	-	Left Side	10mm	Ant 41	DSI 6	23230	782	23.06	24.20	1.300	0.03	0.082	0.107	
	LTE Band 13	10M	QPSK	1	25	-	Right Side	10mm	Ant 41	DSI 6	23230	782	23.06	24.20	1.300	0.01	0.071	0.092	
	LTE Band 13	10M	QPSK	1	25	-	Bottom Side	10mm	Ant 41	DSI 6	23230	782	23.06	24.20	1.300	0.08	0.057	0.074	
	LTE Band 13	10M	QPSK	25	0	-	Front	10mm	Ant 41	DSI 6	23230	782	21.92	23.20	1.343	0.11	0.068	0.091	
	LTE Band 13	10M	QPSK	25	0	-	Back	10mm	Ant 41	DSI 6	23230	782	21.92	23.20	1.343	-0.16	0.105	0.141	
	LTE Band 13	10M	QPSK	25	0	-	Left Side	10mm	Ant 41	DSI 6	23230	782	21.92	23.20	1.343	-0.07	0.065	0.087	
	LTE Band 13	10M	QPSK	25	0	-	Right Side	10mm	Ant 41	DSI 6	23230	782	21.92	23.20	1.343	-0.14	0.054	0.073	
	LTE Band 13	10M	QPSK	25	0	-	Bottom Side	10mm	Ant 41	DSI 6	23230	782	21.92	23.20	1.343	0.04	0.040	0.054	
	LTE Band 12	10M	QPSK	1	25	-	Front	10mm	Ant 11	DSI 6	23095	707.5	23.86	25.00	1.300	-0.11	0.203	0.264	
	LTE Band 12	10M	QPSK	1	25	-	Back	10mm	Ant 11	DSI 6	23095	707.5	23.86	25.00	1.300	-0.15	0.285	0.371	
29	LTE Band 12	10M	QPSK	1	25	-	Left Side	10mm	Ant 11	DSI 6	23095	707.5	23.86	25.00	1.300	-0.15	0.543	0.706	
	LTE Band 12	10M	QPSK	1	25	-	Right Side	10mm	Ant 11	DSI 6	23095	707.5	23.86	25.00	1.300	0.17	0.034	0.044	
	LTE Band 12	10M	QPSK	1	25	-	Top Side	10mm	Ant 11	DSI 6	23095	707.5	23.86	25.00	1.300	0.02	0.013	0.017	
	LTE Band 12	10M	QPSK	25	0	-	Front	10mm	Ant 11	DSI 6	23095	707.5	22.74	24.00	1.337	-0.17	0.146	0.195	
	LTE Band 12	10M	QPSK	25	0	-	Back	10mm	Ant 11	DSI 6	23095	707.5	22.74	24.00	1.337	-0.16	0.206	0.275	
	LTE Band 12	10M	QPSK	25	0	-	Left Side	10mm	Ant 11	DSI 6	23095	707.5	22.74	24.00	1.337	0.09	0.383	0.512	
	LTE Band 12	10M	QPSK	25	0	-	Right Side	10mm	Ant 11	DSI 6	23095	707.5	22.74	24.00	1.337	0.012	0.024	0.032	
	LTE Band 12	10M	QPSK	25	0	-	Top Side	10mm	Ant 11	DSI 6	23095	707.5	22.74	24.00	1.337	-0.02	0.011	0.015	
	LTE Band 12	10M	QPSK	1	25	-	Front	10mm	Ant 41	DSI 6	23095	707.5	23.89	25.00	1.291	0.08	0.174	0.225	
	LTE Band 12	10M	QPSK	1	25	-	Back	10mm	Ant 41	DSI 6	23095	707.5	23.89	25.00	1.291	-0.08	0.275	0.355	
	LTE Band 12	10M	QPSK	1	25	-	Left Side	10mm	Ant 41	DSI 6	23095	707.5	23.89	25.00	1.291	-0.11	0.167	0.216	
	LTE Band 12	10M	QPSK	1	25	-	Right Side	10mm	Ant 41	DSI 6	23095	707.5	23.89	25.00	1.291	-0.08	0.136	0.176	
	LTE Band 12	10M	QPSK	1	25	-	Bottom Side	10mm	Ant 41	DSI 6	23095	707.5	23.89	25.00	1.291	-0.06	0.112	0.145	
	LTE Band 12	10M	QPSK	25	0	-	Front	10mm	Ant 41	DSI 6	23095	707.5	22.75	24.00	1.334	0.15	0.136	0.181	
	LTE Band 12	10M	QPSK	25	0	-	Back	10mm	Ant 41	DSI 6	23095	707.5	22.75	24.00	1.334	-0.14	0.208	0.277	
	LTE Band 12	10M	QPSK	25	0	-	Left Side	10mm	Ant 41	DSI 6	23095	707.5	22.75	24.00	1.334	0.18	0.125	0.167	
	LTE Band 12	10M	QPSK	25	0	-	Right Side	10mm	Ant 41	DSI 6	23095	707.5	22.75	24.00	1.334	0.06	0.108	0.144	
	LTE Band 12	10M	QPSK	25	0	-	Bottom Side	10mm	Ant 41	DSI 6	23095	707.5	22.75	24.00	1.334	0.02	0.092	0.123	
835MHz																			
	GSM850	-	-	-	-	GPRS 2 Tx slots	Front	10mm	Ant 11	DSI 6	189	836.4	27.96	29.50	1.426	0.1	0.175	0.249	
	GSM850	-	-	-	-	GPRS 2 Tx slots	Back	10mm	Ant 11	DSI 6	189	836.4	27.96	29.50	1.426	0.07	0.249	0.355	
30	GSM850	-	-	-	-	GPRS 2 Tx slots	Left Side	10mm	Ant 11	DSI 6	189	836.4	27.96	29.50	1.426	0.02	0.480	0.684	
	GSM850	-	-	-	-	GPRS 2 Tx slots	Right Side	10mm	Ant 11	DSI 6	189	836.4	27.96	29.50	1.426	0.08	0.017	0.024	
	GSM850	-	-	-	-	GPRS 2 Tx slots	Top Side	10mm	Ant 11	DSI 6	189	836.4	27.96	29.50	1.426	0.02	0.015	0.021	
	GSM850	-	-	-	-	GPRS 2 Tx slots	Front	10mm	Ant 41	DSI 6	189	836.4	30.34	31.50	1.306	0.08	0.202	0.264	
	GSM850	-	-	-	-	GPRS 2 Tx slots	Back	10mm	Ant 41	DSI 6	189	836.4	30.34	31.50	1.306	-0.17	0.370	0.483	
	GSM850	-	-	-	-	GPRS 2 Tx slots	Left Side	10mm	Ant 41	DSI 6	189	836.4	30.34	31.50	1.306	-0.12	0.128	0.167	
	GSM850	-	-	-	-	GPRS 2 Tx slots	Right Side	10mm	Ant 41	DSI 6	189	836.4	30.34	31.50	1.306	0.03	0.143	0.187	



	GSM850	-	-	-	-	GPRS 2 Tx slots	Bottom Side	10mm	Ant 41	DSI 6	189	836.4	30.34	31.50	1.306	0.05	0.179	0.234	
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 11	DSI 6	4182	836.4	22.44	23.50	1.276	0.08	0.209	0.267	
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 11	DSI 6	4182	836.4	22.44	23.50	1.276	-0.19	0.297	0.379	
31	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 11	DSI 6	4182	836.4	22.44	23.50	1.276	-0.04	0.541	0.691	
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Side	10mm	Ant 11	DSI 6	4182	836.4	22.44	23.50	1.276	0.09	0.012	0.015	
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Top Side	10mm	Ant 11	DSI 6	4182	836.4	22.44	23.50	1.276	0.06	0.016	0.020	
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 41	DSI 6	4182	836.4	23.70	25.00	1.349	0.01	0.212	0.286	
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 41	DSI 6	4182	836.4	23.70	25.00	1.349	-0.08	0.369	0.498	
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 41	DSI 6	4182	836.4	23.70	25.00	1.349	0.03	0.156	0.210	
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Side	10mm	Ant 41	DSI 6	4182	836.4	23.70	25.00	1.349	-0.01	0.093	0.125	
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Bottom Side	10mm	Ant 41	DSI 6	4182	836.4	23.70	25.00	1.349	0.13	0.160	0.216	
	LTE Band 18	15M	QPSK	1	37	-	Front	10mm	Ant 11	DSI 6	23925	822.5	22.96	24.50	1.426	0.19	0.230	0.328	
	LTE Band 18	15M	QPSK	1	37	-	Back	10mm	Ant 11	DSI 6	23925	822.5	22.96	24.50	1.426	0.17	0.299	0.426	
32	LTE Band 18	15M	QPSK	1	37	-	Left Side	10mm	Ant 11	DSI 6	23925	822.5	22.96	24.50	1.426	-0.11	0.639	0.911	
	LTE Band 18	15M	QPSK	1	37	-	Right Side	10mm	Ant 11	DSI 6	23925	822.5	22.96	24.50	1.426	0.1	0.021	0.030	
	LTE Band 18	15M	QPSK	1	37	-	Top Side	10mm	Ant 11	DSI 6	23925	822.5	22.96	24.50	1.426	-0.01	0.012	0.017	
	LTE Band 18	15M	QPSK	36	0	-	Front	10mm	Ant 11	DSI 6	23925	822.5	22.50	24.00	1.413	0.07	0.187	0.264	
	LTE Band 18	15M	QPSK	36	0	-	Back	10mm	Ant 11	DSI 6	23925	822.5	22.50	24.00	1.413	-0.07	0.245	0.346	
	LTE Band 18	15M	QPSK	36	0	-	Left Side	10mm	Ant 11	DSI 6	23925	822.5	22.50	24.00	1.413	-0.1	0.580	0.819	
	LTE Band 18	15M	QPSK	36	0	-	Right Side	10mm	Ant 11	DSI 6	23925	822.5	22.50	24.00	1.413	0.09	0.018	0.025	
	LTE Band 18	15M	QPSK	36	0	-	Top Side	10mm	Ant 11	DSI 6	23925	822.5	22.50	24.00	1.413	0.05	0.009	0.013	
	LTE Band 18	15M	QPSK	75	0	-	Left Side	10mm	Ant 11	DSI 6	23925	822.5	22.45	24.00	1.429	0.11	0.570	0.814	
	LTE Band 26	15M	QPSK	1	37	-	Front	10mm	Ant 11	DSI 6	26865	831.5	22.75	24.00	1.334	0.06	0.215	0.287	
	LTE Band 26	15M	QPSK	1	37	-	Back	10mm	Ant 11	DSI 6	26865	831.5	22.75	24.00	1.334	-0.02	0.276	0.368	
33	LTE Band 26	15M	QPSK	1	37	-	Left Side	10mm	Ant 11	DSI 6	26865	831.5	22.75	24.00	1.334	-0.1	0.570	0.760	
	LTE Band 26	15M	QPSK	1	37	-	Right Side	10mm	Ant 11	DSI 6	26865	831.5	22.75	24.00	1.334	0.09	0.019	0.025	
	LTE Band 26	15M	QPSK	1	37	-	Top Side	10mm	Ant 11	DSI 6	26865	831.5	22.75	24.00	1.334	0.03	0.008	0.011	
	LTE Band 26	15M	QPSK	36	0	-	Front	10mm	Ant 11	DSI 6	26865	831.5	22.55	24.00	1.396	0.07	0.217	0.303	
	LTE Band 26	15M	QPSK	36	0	-	Back	10mm	Ant 11	DSI 6	26865	831.5	22.55	24.00	1.396	-0.18	0.280	0.391	
	LTE Band 26	15M	QPSK	36	0	-	Left Side	10mm	Ant 11	DSI 6	26865	831.5	22.55	24.00	1.396	-0.19	0.451	0.630	
	LTE Band 26	15M	QPSK	36	0	-	Right Side	10mm	Ant 11	DSI 6	26865	831.5	22.55	24.00	1.396	0.09	0.019	0.027	
	LTE Band 26	15M	QPSK	36	0	-	Top Side	10mm	Ant 11	DSI 6	26865	831.5	22.55	24.00	1.396	-0.01	0.009	0.013	
	LTE Band 26	15M	QPSK	1	37	-	Front	10mm	Ant 41	DSI 6	26865	831.5	23.88	25.00	1.294	-0.1	0.201	0.260	
	LTE Band 26	15M	QPSK	1	37	-	Back	10mm	Ant 41	DSI 6	26865	831.5	23.88	25.00	1.294	-0.16	0.331	0.428	
	LTE Band 26	15M	QPSK	1	37	-	Left Side	10mm	Ant 41	DSI 6	26865	831.5	23.88	25.00	1.294	-0.08	0.149	0.193	
	LTE Band 26	15M	QPSK	1	37	-	Right Side	10mm	Ant 41	DSI 6	26865	831.5	23.88	25.00	1.294	-0.19	0.084	0.109	
	LTE Band 26	15M	QPSK	1	37	-	Bottom Side	10mm	Ant 41	DSI 6	26865	831.5	23.88	25.00	1.294	-0.06	0.154	0.199	
	LTE Band 26	15M	QPSK	36	0	-	Front	10mm	Ant 41	DSI 6	26865	831.5	22.66	24.00	1.361	0.09	0.157	0.214	
	LTE Band 26	15M	QPSK	36	0	-	Back	10mm	Ant 41	DSI 6	26865	831.5	22.66	24.00	1.361	0.16	0.300	0.408	
	LTE Band 26	15M	QPSK	36	0	-	Left Side	10mm	Ant 41	DSI 6	26865	831.5	22.66	24.00	1.361	-0.13	0.113	0.154	
	LTE Band 26	15M	QPSK	36	0	-	Right Side	10mm	Ant 41	DSI 6	26865	831.5	22.66	24.00	1.361	-0.17	0.068	0.093	
	LTE Band 26	15M	QPSK	36	0	-	Bottom Side	10mm	Ant 41	DSI 6	26865	831.5	22.66	24.00	1.361	-0.15	0.121	0.165	
1750MHz																			
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 14	DSI 6	1413	1732.6	19.54	20.50	1.247	-0.13	0.183	0.228	
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 14	DSI 6	1413	1732.6	19.54	20.50	1.247	-0.18	0.269	0.336	
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 14	DSI 6	1413	1732.6	19.54	20.50	1.247	0.19	0.099	0.123	
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Side	10mm	Ant 14	DSI 6	1413	1732.6	19.54	20.50	1.247	-0.12	0.048	0.060	
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Top Side	10mm	Ant 14	DSI 6	1413	1732.6	19.54	20.50	1.247	0.03	0.505	0.630	
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 31	DSI 6	1413	1732.6	19.02	20.00	1.253	-0.18	0.274	0.343	
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 31	DSI 6	1413	1732.6	19.02	20.00	1.253	0.17	0.320	0.401	
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 31	DSI 6	1413	1732.6	19.02	20.00	1.253	0.13	0.027	0.034	
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Side	10mm	Ant 31	DSI 6	1413	1732.6	19.02	20.00	1.253	-0.09	0.062	0.078	
34	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Bottom Side	10mm	Ant 31	DSI 6	1413	1732.6	19.02	20.00	1.253	-0.16	0.581	0.728	
	LTE Band 66	20M	QPSK	1	49	-	Front	10mm	Ant 14	DSI 6	132322	1745	19.40	20.50	1.288	-0.11	0.190	0.245	
	LTE Band 66	20M	QPSK	1	49	-	Back	10mm	Ant 14	DSI 6	132322	1745	19.40	20.50	1.288	0.05	0.216	0.278	
	LTE Band 66	20M	QPSK	1	49	-	Left Side	10mm	Ant 14	DSI 6	132322	1745	19.40	20.50	1.288	0.16	0.098	0.126	



	LTE Band 66	20M	QPSK	1	49	-	Right Side	10mm	Ant 14	DSI 6	132322	1745	19.40	20.50	1.288	0.05	0.055	0.071
35	LTE Band 66	20M	QPSK	1	49	-	Top Side	10mm	Ant 14	DSI 6	132322	1745	19.40	20.50	1.288	-0.05	0.489	0.630
	LTE Band 66	20M	QPSK	50	0	-	Front	10mm	Ant 14	DSI 6	132322	1745	19.18	20.50	1.355	0.11	0.189	0.256
	LTE Band 66	20M	QPSK	50	0	-	Back	10mm	Ant 14	DSI 6	132322	1745	19.18	20.50	1.355	0.18	0.212	0.287
	LTE Band 66	20M	QPSK	50	0	-	Left Side	10mm	Ant 14	DSI 6	132322	1745	19.18	20.50	1.355	0.03	0.104	0.141
	LTE Band 66	20M	QPSK	50	0	-	Right Side	10mm	Ant 14	DSI 6	132322	1745	19.18	20.50	1.355	0.17	0.057	0.077
	LTE Band 66	20M	QPSK	50	0	-	Top Side	10mm	Ant 14	DSI 6	132322	1745	19.18	20.50	1.355	-0.11	0.414	0.561
	LTE Band 66	20M	QPSK	1	49	-	Front	10mm	Ant 31	DSI 6	132322	1745	19.22	20.00	1.197	0.17	0.303	0.363
	LTE Band 66	20M	QPSK	1	49	-	Back	10mm	Ant 31	DSI 6	132322	1745	19.22	20.00	1.197	-0.01	0.350	0.419
	LTE Band 66	20M	QPSK	1	49	-	Left Side	10mm	Ant 31	DSI 6	132322	1745	19.22	20.00	1.197	0.08	0.028	0.034
	LTE Band 66	20M	QPSK	1	49	-	Right Side	10mm	Ant 31	DSI 6	132322	1745	19.22	20.00	1.197	0.16	0.066	0.079
	LTE Band 66	20M	QPSK	1	49	-	Bottom Side	10mm	Ant 31	DSI 6	132322	1745	19.22	20.00	1.197	-0.19	0.501	0.600
	LTE Band 66	20M	QPSK	50	0	-	Front	10mm	Ant 31	DSI 6	132322	1745	19.00	20.00	1.259	0.11	0.305	0.384
	LTE Band 66	20M	QPSK	50	0	-	Back	10mm	Ant 31	DSI 6	132322	1745	19.00	20.00	1.259	0.06	0.347	0.437
	LTE Band 66	20M	QPSK	50	0	-	Left Side	10mm	Ant 31	DSI 6	132322	1745	19.00	20.00	1.259	0.14	0.028	0.035
	LTE Band 66	20M	QPSK	50	0	-	Right Side	10mm	Ant 31	DSI 6	132322	1745	19.00	20.00	1.259	-0.06	0.066	0.083
	LTE Band 66	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 31	DSI 6	132322	1745	19.00	20.00	1.259	0.1	0.466	0.587
1900MHz																		
	GSM1900	-	-	-	-	GPRS 2 Tx slots	Front	10mm	Ant 14	DSI 6	661	1880	25.60	26.30	1.175	0.08	0.166	0.195
	GSM1900	-	-	-	-	GPRS 2 Tx slots	Back	10mm	Ant 14	DSI 6	661	1880	25.60	26.30	1.175	0.14	0.223	0.262
	GSM1900	-	-	-	-	GPRS 2 Tx slots	Left Side	10mm	Ant 14	DSI 6	661	1880	25.60	26.30	1.175	-0.05	0.086	0.101
	GSM1900	-	-	-	-	GPRS 2 Tx slots	Right Side	10mm	Ant 14	DSI 6	661	1880	25.60	26.30	1.175	-0.03	0.047	0.055
	GSM1900	-	-	-	-	GPRS 2 Tx slots	Top Side	10mm	Ant 14	DSI 6	661	1880	25.60	26.30	1.175	-0.04	0.570	0.670
	GSM1900	-	-	-	-	GPRS 2 Tx slots	Front	10mm	Ant 31	DSI 6	661	1880	24.96	26.30	1.361	0.15	0.275	0.374
	GSM1900	-	-	-	-	GPRS 2 Tx slots	Back	10mm	Ant 31	DSI 6	661	1880	24.96	26.30	1.361	0.07	0.329	0.448
	GSM1900	-	-	-	-	GPRS 2 Tx slots	Left Side	10mm	Ant 31	DSI 6	661	1880	24.96	26.30	1.361	0.1	0.041	0.056
	GSM1900	-	-	-	-	GPRS 2 Tx slots	Right Side	10mm	Ant 31	DSI 6	661	1880	24.96	26.30	1.361	-0.07	0.064	0.087
	GSM1900	-	-	-	-	GPRS 2 Tx slots	Bottom Side	10mm	Ant 31	DSI 6	661	1880	24.96	26.30	1.361	0.15	0.610	0.830
36	GSM1900	-	-	-	-	GPRS 2 Tx slots	Bottom Side	10mm	Ant 31	DSI 6	512	1850.2	24.89	26.30	1.384	0.04	0.662	0.916
	GSM1900	-	-	-	-	GPRS 2 Tx slots	Bottom Side	10mm	Ant 31	DSI 6	810	1909.8	24.90	26.30	1.380	0.01	0.582	0.803
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 14	DSI 6	9400	1880	19.25	20.50	1.334	0.05	0.195	0.260
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 14	DSI 6	9400	1880	19.25	20.50	1.334	0.02	0.257	0.343
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 14	DSI 6	9400	1880	19.25	20.50	1.334	0.12	0.099	0.132
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Side	10mm	Ant 14	DSI 6	9400	1880	19.25	20.50	1.334	-0.08	0.055	0.073
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Top Side	10mm	Ant 14	DSI 6	9400	1880	19.25	20.50	1.334	-0.12	0.508	0.677
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 31	DSI 6	9400	1880	18.75	20.00	1.334	0.08	0.244	0.325
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 31	DSI 6	9400	1880	18.75	20.00	1.334	0.03	0.420	0.560
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 31	DSI 6	9400	1880	18.75	20.00	1.334	-0.19	0.039	0.052
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Side	10mm	Ant 31	DSI 6	9400	1880	18.75	20.00	1.334	0.09	0.061	0.081
37	WCDMA II	-	-	-	-	RMC 12.2Kbps	Bottom Side	10mm	Ant 31	DSI 6	9400	1880	18.75	20.00	1.334	-0.07	0.634	0.845
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Bottom Side	10mm	Ant 31	DSI 6	9262	1852.4	18.68	20.00	1.355	0.09	0.509	0.690
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Bottom Side	10mm	Ant 31	DSI 6	9538	1907.6	18.64	20.00	1.368	0.07	0.547	0.748
	LTE Band 2	20M	QPSK	1	49	-	Front	10mm	Ant 14	DSI 6	18900	1880	19.30	20.50	1.318	-0.1	0.193	0.254
	LTE Band 2	20M	QPSK	1	49	-	Back	10mm	Ant 14	DSI 6	18900	1880	19.30	20.50	1.318	0.05	0.211	0.278
	LTE Band 2	20M	QPSK	1	49	-	Left Side	10mm	Ant 14	DSI 6	18900	1880	19.30	20.50	1.318	-0.17	0.100	0.132
	LTE Band 2	20M	QPSK	1	49	-	Right Side	10mm	Ant 14	DSI 6	18900	1880	19.30	20.50	1.318	0.13	0.053	0.070
	LTE Band 2	20M	QPSK	1	49	-	Top Side	10mm	Ant 14	DSI 6	18900	1880	19.30	20.50	1.318	0.16	0.519	0.684
	LTE Band 2	20M	QPSK	50	0	-	Front	10mm	Ant 14	DSI 6	18900	1880	19.23	20.50	1.340	0.03	0.191	0.256
	LTE Band 2	20M	QPSK	50	0	-	Back	10mm	Ant 14	DSI 6	18900	1880	19.23	20.50	1.340	-0.19	0.207	0.277
	LTE Band 2	20M	QPSK	50	0	-	Left Side	10mm	Ant 14	DSI 6	18900	1880	19.23	20.50	1.340	-0.1	0.098	0.131
	LTE Band 2	20M	QPSK	50	0	-	Right Side	10mm	Ant 14	DSI 6	18900	1880	19.23	20.50	1.340	-0.04	0.055	0.074
	LTE Band 2	20M	QPSK	50	0	-	Top Side	10mm	Ant 14	DSI 6	18900	1880	19.23	20.50	1.340	0.15	0.501	0.671
	LTE Band 2	20M	QPSK	1	49	-	Front	10mm	Ant 31	DSI 6	18900	1880	18.03	19.50	1.403	-0.17	0.229	0.321
	LTE Band 2	20M	QPSK	1	49	-	Back	10mm	Ant 31	DSI 6	18900	1880	18.03	19.50	1.403	-0.11	0.276	0.387
	LTE Band 2	20M	QPSK	1	49	-	Left Side	10mm	Ant 31	DSI 6	18900	1880	18.03	19.50	1.403	0.16	0.032	0.045
	LTE Band 2	20M	QPSK	1	49	-	Right Side	10mm	Ant 31	DSI 6	18900	1880	18.03	19.50	1.403	-0.09	0.055	0.077



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38	LTE Band 2	20M	QPSK	1	49	-	Bottom Side	10mm	Ant 31	DSI 6	18900	1880	18.03	19.50	1.403	-0.17	0.539	0.756
	LTE Band 2	20M	QPSK	50	0	-	Front	10mm	Ant 31	DSI 6	18900	1880	17.93	19.50	1.435	0.01	0.226	0.324
	LTE Band 2	20M	QPSK	50	0	-	Back	10mm	Ant 31	DSI 6	18900	1880	17.93	19.50	1.435	-0.14	0.277	0.398
	LTE Band 2	20M	QPSK	50	0	-	Left Side	10mm	Ant 31	DSI 6	18900	1880	17.93	19.50	1.435	0.05	0.031	0.045
	LTE Band 2	20M	QPSK	50	0	-	Right Side	10mm	Ant 31	DSI 6	18900	1880	17.93	19.50	1.435	-0.14	0.054	0.078
	LTE Band 2	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 31	DSI 6	18900	1880	17.93	19.50	1.435	0.07	0.504	0.723

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
2600MHz																				
	LTE Band 7	20M	QPSK	1	49	-	Front	10mm	Ant 14	DSI 6	21100	2535	19.35	20.50	1.303	-	-	0.06	0.231	0.301
	LTE Band 7	20M	QPSK	1	49	-	Back	10mm	Ant 14	DSI 6	21100	2535	19.35	20.50	1.303	-	-	0.1	0.220	0.287
	LTE Band 7	20M	QPSK	1	49	-	Left Side	10mm	Ant 14	DSI 6	21100	2535	19.35	20.50	1.303	-	-	-0.18	0.193	0.252
	LTE Band 7	20M	QPSK	1	49	-	Right Side	10mm	Ant 14	DSI 6	21100	2535	19.35	20.50	1.303	-	-	0.15	0.031	0.040
39	LTE Band 7	20M	QPSK	1	49	-	Top Side	10mm	Ant 14	DSI 6	21100	2535	19.35	20.50	1.303	-	-	0.03	0.487	0.635
	LTE Band 7C	20M	QPSK	1	49	-	Top Side	10mm	Ant 14	DSI 6	21100+20902	2535+2515.2	19.23	20.50	1.340	-	-	0.08	0.427	0.572
	LTE Band 7	20M	QPSK	50	0	-	Front	10mm	Ant 14	DSI 6	21100	2535	19.29	20.50	1.321	-	-	-0.02	0.232	0.307
	LTE Band 7	20M	QPSK	50	0	-	Back	10mm	Ant 14	DSI 6	21100	2535	19.29	20.50	1.321	-	-	0.14	0.226	0.299
	LTE Band 7	20M	QPSK	50	0	-	Left Side	10mm	Ant 14	DSI 6	21100	2535	19.29	20.50	1.321	-	-	-0.03	0.200	0.264
	LTE Band 7	20M	QPSK	50	0	-	Right Side	10mm	Ant 14	DSI 6	21100	2535	19.29	20.50	1.321	-	-	0.14	0.029	0.038
	LTE Band 7	20M	QPSK	50	0	-	Top Side	10mm	Ant 14	DSI 6	21100	2535	19.29	20.50	1.321	-	-	-0.02	0.434	0.573
	LTE Band 7	20M	QPSK	1	49	-	Front	10mm	Ant 31	DSI 6	21100	2535	19.99	21.00	1.262	-	-	-0.06	0.168	0.212
	LTE Band 7	20M	QPSK	1	49	-	Back	10mm	Ant 31	DSI 6	21100	2535	19.99	21.00	1.262	-	-	-0.18	0.467	0.589
	LTE Band 7C	20M	QPSK	1	49	-	Back	10mm	Ant 31	DSI 6	21100+20902	2535+2515.2	19.65	21.00	1.365	-	-	0.02	0.400	0.546
	LTE Band 7	20M	QPSK	1	49	-	Left Side	10mm	Ant 31	DSI 6	21100	2535	19.99	21.00	1.262	-	-	-0.16	0.046	0.058
	LTE Band 7	20M	QPSK	1	49	-	Right Side	10mm	Ant 31	DSI 6	21100	2535	19.99	21.00	1.262	-	-	-0.08	0.120	0.151
	LTE Band 7	20M	QPSK	1	49	-	Bottom Side	10mm	Ant 31	DSI 6	21100	2535	19.99	21.00	1.262	-	-	0.08	0.184	0.232
	LTE Band 7	20M	QPSK	50	0	-	Front	10mm	Ant 31	DSI 6	21100	2535	19.78	21.00	1.324	-	-	0.16	0.174	0.230
	LTE Band 7	20M	QPSK	50	0	-	Back	10mm	Ant 31	DSI 6	21100	2535	19.78	21.00	1.324	-	-	0.09	0.421	0.558
	LTE Band 7	20M	QPSK	50	0	-	Left Side	10mm	Ant 31	DSI 6	21100	2535	19.78	21.00	1.324	-	-	0.05	0.047	0.062
	LTE Band 7	20M	QPSK	50	0	-	Right Side	10mm	Ant 31	DSI 6	21100	2535	19.78	21.00	1.324	-	-	0.07	0.116	0.154
	LTE Band 7	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 31	DSI 6	21100	2535	19.78	21.00	1.324	-	-	0.02	0.185	0.245
	LTE Band 41	20M	QPSK	1	49	-	Front	10mm	Ant 14	DSI 6	40620	2593	21.90	23.30	1.380	62.9	1.006	-0.04	0.313	0.435
	LTE Band 41	20M	QPSK	1	49	-	Back	10mm	Ant 14	DSI 6	40620	2593	21.90	23.30	1.380	62.9	1.006	-0.17	0.345	0.479
	LTE Band 41	20M	QPSK	1	49	-	Left Side	10mm	Ant 14	DSI 6	40620	2593	21.90	23.30	1.380	62.9	1.006	-0.15	0.260	0.361
	LTE Band 41	20M	QPSK	1	49	-	Right Side	10mm	Ant 14	DSI 6	40620	2593	21.90	23.30	1.380	62.9	1.006	0.1	0.021	0.029
40	LTE Band 41	20M	QPSK	1	49	-	Top Side	10mm	Ant 14	DSI 6	40620	2593	21.90	23.30	1.380	62.9	1.006	-0.15	0.594	0.825
	LTE Band 41C	20M	QPSK	1	49	-	Top Side	10mm	Ant 14	DSI 6	40620+40422	2535+2573.2	21.79	23.30	1.416	62.9	1.006	0.02	0.450	0.641
	LTE Band 41	20M	QPSK	1	49	-	Top Side	10mm	Ant 14	DSI 6	39750	2506	21.78	23.30	1.419	62.9	1.006	-0.03	0.491	0.701
	LTE Band 41	20M	QPSK	1	49	-	Top Side	10mm	Ant 14	DSI 6	40185	2549.5	21.88	23.30	1.387	62.9	1.006	0.11	0.481	0.671
	LTE Band 41	20M	QPSK	1	49	-	Top Side	10mm	Ant 14	DSI 6	41055	2636.5	21.66	23.30	1.459	62.9	1.006	0.17	0.494	0.725
	LTE Band 41	20M	QPSK	1	49	-	Top Side	10mm	Ant 14	DSI 6	41490	2680	21.85	23.30	1.396	62.9	1.006	-0.08	0.486	0.683
	LTE Band 41	20M	QPSK	50	0	-	Front	10mm	Ant 14	DSI 6	40620	2593	21.80	23.30	1.413	62.9	1.006	0.09	0.308	0.438
	LTE Band 41	20M	QPSK	50	0	-	Back	10mm	Ant 14	DSI 6	40620	2593	21.80	23.30	1.413	62.9	1.006	0.14	0.345	0.490
	LTE Band 41	20M	QPSK	50	0	-	Left Side	10mm	Ant 14	DSI 6	40620	2593	21.80	23.30	1.413	62.9	1.006	0.03	0.261	0.371
	LTE Band 41	20M	QPSK	50	0	-	Right Side	10mm	Ant 14	DSI 6	40620	2593	21.80	23.30	1.413	62.9	1.006	0.07	0.021	0.030
	LTE Band 41	20M	QPSK	50	0	-	Top Side	10mm	Ant 14	DSI 6	40620	2593	21.80	23.30	1.413	62.9	1.006	-0.17	0.446	0.634
	LTE Band 41	20M	QPSK	50	0	-	Top Side	10mm	Ant 14	DSI 6	39750	2506	21.53	23.30	1.503	62.9	1.006	-0.04	0.458	0.693
	LTE Band 41	20M	QPSK	50	0	-	Top Side	10mm	Ant 14	DSI 6	40185	2549.5	21.75	23.30	1.429	62.9	1.006	0.1	0.452	0.650
	LTE Band 41	20M	QPSK	50	0	-	Top Side	10mm	Ant 14	DSI 6	41055	2636.5	21.63	23.30	1.469	62.9	1.006	0.17	0.449	0.664
	LTE Band 41	20M	QPSK	50	0	-	Top Side	10mm	Ant 14	DSI 6	41490	2680	21.72	23.30	1.439	62.9	1.006	0.04	0.450	0.651
	LTE Band 41	20M	QPSK	100	0	-	Top Side	10mm	Ant 14	DSI 6	40620	2593	21.75	23.30	1.429	62.9	1.006	0.08	0.419	0.602
	LTE Band 41	20M	QPSK	1	49	-	Front	10mm	Ant 31	DSI 6	40620	2593	22.71	23.80	1.285	62.9	1.006	0.11	0.196	0.253
	LTE Band 41	20M	QPSK	1	49	-	Back	10mm	Ant 31	DSI 6	40620	2593	22.71	23.80	1.285	62.9	1.006	-0.17	0.501	0.648



LTE Band 41C	20M	QPSK	1	49	-	Back	10mm	Ant 31	DSI 6	40620+40422	2535+2573.2	22.54	23.80	1.337	62.9	1.006	0.04	0.465	0.625
LTE Band 41	20M	QPSK	1	49	-	Left Side	10mm	Ant 31	DSI 6	40620	2593	22.71	23.80	1.285	62.9	1.006	0.18	0.045	0.058
LTE Band 41	20M	QPSK	1	49	-	Right Side	10mm	Ant 31	DSI 6	40620	2593	22.71	23.80	1.285	62.9	1.006	-0.06	0.132	0.171
LTE Band 41	20M	QPSK	1	49	-	Bottom Side	10mm	Ant 31	DSI 6	40620	2593	22.71	23.80	1.285	62.9	1.006	-0.03	0.196	0.253
LTE Band 41	20M	QPSK	1	49	-	Back	10mm	Ant 31	DSI 6	39750	2506	22.58	23.80	1.324	62.9	1.006	-0.08	0.424	0.565
LTE Band 41	20M	QPSK	1	49	-	Back	10mm	Ant 31	DSI 6	40185	2549.5	22.59	23.80	1.321	62.9	1.006	0.02	0.433	0.576
LTE Band 41	20M	QPSK	1	49	-	Back	10mm	Ant 31	DSI 6	41055	2636.5	22.62	23.80	1.312	62.9	1.006	-0.03	0.438	0.578
LTE Band 41	20M	QPSK	1	49	-	Back	10mm	Ant 31	DSI 6	41490	2680	22.63	23.80	1.309	62.9	1.006	-0.19	0.463	0.610
LTE Band 41	20M	QPSK	50	0	-	Front	10mm	Ant 31	DSI 6	40620	2593	22.66	23.80	1.300	62.9	1.006	-0.1	0.194	0.254
LTE Band 41	20M	QPSK	50	0	-	Back	10mm	Ant 31	DSI 6	40620	2593	22.66	23.80	1.300	62.9	1.006	0.07	0.446	0.583
LTE Band 41	20M	QPSK	50	0	-	Left Side	10mm	Ant 31	DSI 6	40620	2593	22.66	23.80	1.300	62.9	1.006	-0.04	0.044	0.058
LTE Band 41	20M	QPSK	50	0	-	Right Side	10mm	Ant 31	DSI 6	40620	2593	22.66	23.80	1.300	62.9	1.006	-0.17	0.132	0.173
LTE Band 41	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 31	DSI 6	40620	2593	22.66	23.80	1.300	62.9	1.006	0.05	0.195	0.255
LTE Band 41	20M	QPSK	100	0	-	Back	10mm	Ant 31	DSI 6	40620	2593	22.60	23.80	1.318	62.9	1.006	0.03	0.444	0.589



<5G NR SA SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
835MHz																		
	N5	20M	BPSK	1	53	DFT-15	Front	10mm	Ant 11	DSI 6	167300	836.5	23.28	24.20	1.236	0.11	0.215	0.266
	N5	20M	BPSK	1	53	DFT-15	Back	10mm	Ant 11	DSI 6	167300	836.5	23.28	24.20	1.236	0.03	0.319	0.394
41	N5	20M	BPSK	1	53	DFT-15	Left Side	10mm	Ant 11	DSI 6	167300	836.5	23.28	24.20	1.236	-0.02	0.667	0.824
	N5	20M	BPSK	1	53	DFT-15	Right Side	10mm	Ant 11	DSI 6	167300	836.5	23.28	24.20	1.236	0.09	0.021	0.026
	N5	20M	BPSK	1	53	DFT-15	Top Side	10mm	Ant 11	DSI 6	167300	836.5	23.28	24.20	1.236	-0.05	0.011	0.014
	N5	20M	BPSK	50	28	DFT-15	Front	10mm	Ant 11	DSI 6	167300	836.5	23.26	24.20	1.242	-0.17	0.213	0.264
	N5	20M	BPSK	50	28	DFT-15	Back	10mm	Ant 11	DSI 6	167300	836.5	23.26	24.20	1.242	-0.11	0.316	0.392
	N5	20M	BPSK	50	28	DFT-15	Left Side	10mm	Ant 11	DSI 6	167300	836.5	23.26	24.20	1.242	0.06	0.622	0.772
	N5	20M	BPSK	50	28	DFT-15	Right Side	10mm	Ant 11	DSI 6	167300	836.5	23.26	24.20	1.242	0.04	0.020	0.025
	N5	20M	BPSK	50	28	DFT-15	Top Side	10mm	Ant 11	DSI 6	167300	836.5	23.26	24.20	1.242	0.03	0.008	0.010
	N5	20M	BPSK	100	0	DFT-15	Left Side	10mm	Ant 11	DSI 6	167300	836.5	23.20	24.20	1.259	0.03	0.614	0.773
	N5	20M	BPSK	1	53	DFT-15	Front	10mm	Ant 41	DSI 6	167300	836.5	23.75	24.40	1.161	-0.19	0.193	0.224
	N5	20M	BPSK	1	53	DFT-15	Back	10mm	Ant 41	DSI 6	167300	836.5	23.75	24.40	1.161	0.04	0.266	0.309
	N5	20M	BPSK	1	53	DFT-15	Left Side	10mm	Ant 41	DSI 6	167300	836.5	23.75	24.40	1.161	-0.15	0.128	0.149
	N5	20M	BPSK	1	53	DFT-15	Right Side	10mm	Ant 41	DSI 6	167300	836.5	23.75	24.40	1.161	-0.1	0.092	0.107
	N5	20M	BPSK	1	53	DFT-15	Bottom Side	10mm	Ant 41	DSI 6	167300	836.5	23.75	24.40	1.161	-0.03	0.139	0.161
	N5	20M	BPSK	50	28	DFT-15	Front	10mm	Ant 41	DSI 6	167300	836.5	23.74	24.40	1.164	-0.16	0.195	0.227
	N5	20M	BPSK	50	28	DFT-15	Back	10mm	Ant 41	DSI 6	167300	836.5	23.74	24.40	1.164	-0.18	0.273	0.318
	N5	20M	BPSK	50	28	DFT-15	Left Side	10mm	Ant 41	DSI 6	167300	836.5	23.74	24.40	1.164	-0.16	0.128	0.149
	N5	20M	BPSK	50	28	DFT-15	Right Side	10mm	Ant 41	DSI 6	167300	836.5	23.74	24.40	1.164	0.02	0.095	0.111
	N5	20M	BPSK	50	28	DFT-15	Bottom Side	10mm	Ant 41	DSI 6	167300	836.5	23.74	24.40	1.164	0.05	0.143	0.166
1750MHz																		
	N66	40M	BPSK	1	108	DFT-15	Front	10mm	Ant 14	DSI 6	349000	1745	18.30	19.30	1.259	0.05	0.135	0.170
	N66	40M	BPSK	1	108	DFT-15	Back	10mm	Ant 14	DSI 6	349000	1745	18.30	19.30	1.259	0.04	0.194	0.244
	N66	40M	BPSK	1	108	DFT-15	Left Side	10mm	Ant 14	DSI 6	349000	1745	18.30	19.30	1.259	0.1	0.071	0.089
	N66	40M	BPSK	1	108	DFT-15	Right Side	10mm	Ant 14	DSI 6	349000	1745	18.30	19.30	1.259	0.08	0.041	0.052
	N66	40M	BPSK	1	108	DFT-15	Top Side	10mm	Ant 14	DSI 6	349000	1745	18.30	19.30	1.259	0.11	0.360	0.453
	N66	40M	BPSK	108	54	DFT-15	Front	10mm	Ant 14	DSI 6	349000	1745	18.28	19.30	1.265	-0.15	0.135	0.171
	N66	40M	BPSK	108	54	DFT-15	Back	10mm	Ant 14	DSI 6	349000	1745	18.28	19.30	1.265	-0.08	0.192	0.243
	N66	40M	BPSK	108	54	DFT-15	Left Side	10mm	Ant 14	DSI 6	349000	1745	18.28	19.30	1.265	-0.09	0.071	0.090
	N66	40M	BPSK	108	54	DFT-15	Right Side	10mm	Ant 14	DSI 6	349000	1745	18.28	19.30	1.265	0.01	0.039	0.049
	N66	40M	BPSK	108	54	DFT-15	Top Side	10mm	Ant 14	DSI 6	349000	1745	18.28	19.30	1.265	-0.06	0.307	0.388
	N66	40M	BPSK	1	108	DFT-15	Front	10mm	Ant 31	DSI 6	349000	1745	18.96	19.80	1.213	-0.09	0.287	0.348
	N66	40M	BPSK	1	108	DFT-15	Back	10mm	Ant 31	DSI 6	349000	1745	18.96	19.80	1.213	-0.03	0.325	0.394
	N66	40M	BPSK	1	108	DFT-15	Left Side	10mm	Ant 31	DSI 6	349000	1745	18.96	19.80	1.213	0.07	0.031	0.038
	N66	40M	BPSK	1	108	DFT-15	Right Side	10mm	Ant 31	DSI 6	349000	1745	18.96	19.80	1.213	0.1	0.059	0.072
42	N66	40M	BPSK	1	108	DFT-15	Bottom Side	10mm	Ant 31	DSI 6	349000	1745	18.96	19.80	1.213	0.07	0.529	0.642
	N66	40M	BPSK	108	54	DFT-15	Front	10mm	Ant 31	DSI 6	349000	1745	18.91	19.80	1.227	-0.02	0.291	0.357
	N66	40M	BPSK	108	54	DFT-15	Back	10mm	Ant 31	DSI 6	349000	1745	18.91	19.80	1.227	0.09	0.333	0.409
	N66	40M	BPSK	108	54	DFT-15	Left Side	10mm	Ant 31	DSI 6	349000	1745	18.91	19.80	1.227	0.08	0.034	0.042
	N66	40M	BPSK	108	54	DFT-15	Right Side	10mm	Ant 31	DSI 6	349000	1745	18.91	19.80	1.227	-0.11	0.061	0.075
	N66	40M	BPSK	108	54	DFT-15	Bottom Side	10mm	Ant 31	DSI 6	349000	1745	18.91	19.80	1.227	0.05	0.455	0.558
1900MHz																		
	N2	20M	BPSK	1	53	DFT-15	Front	10mm	Ant 14	DSI 6	376000	1880	18.01	19.20	1.315	0.19	0.147	0.193
	N2	20M	BPSK	1	53	DFT-15	Back	10mm	Ant 14	DSI 6	376000	1880	18.01	19.20	1.315	0.11	0.200	0.263
	N2	20M	BPSK	1	53	DFT-15	Left Side	10mm	Ant 14	DSI 6	376000	1880	18.01	19.20	1.315	-0.14	0.077	0.101
	N2	20M	BPSK	1	53	DFT-15	Right Side	10mm	Ant 14	DSI 6	376000	1880	18.01	19.20	1.315	0.19	0.051	0.067
	N2	20M	BPSK	1	53	DFT-15	Top Side	10mm	Ant 14	DSI 6	376000	1880	18.01	19.20	1.315	0.18	0.346	0.455
	N2	20M	BPSK	50	28	DFT-15	Front	10mm	Ant 14	DSI 6	376000	1880	18.00	19.20	1.318	0.05	0.145	0.191
	N2	20M	BPSK	50	28	DFT-15	Back	10mm	Ant 14	DSI 6	376000	1880	18.00	19.20	1.318	0.1	0.201	0.265
	N2	20M	BPSK	50	28	DFT-15	Left Side	10mm	Ant 14	DSI 6	376000	1880	18.00	19.20	1.318	-0.06	0.073	0.096
	N2	20M	BPSK	50	28	DFT-15	Right Side	10mm	Ant 14	DSI 6	376000	1880	18.00	19.20	1.318	0.04	0.050	0.066



	N2	20M	BPSK	50	28	DFT-15	Top Side	10mm	Ant 14	DSI 6	376000	1880	18.00	19.20	1.318	-0.11	0.388	0.511
	N2	20M	BPSK	1	53	DFT-15	Front	10mm	Ant 31	DSI 6	376000	1880	17.65	18.50	1.216	-0.1	0.208	0.253
	N2	20M	BPSK	1	53	DFT-15	Back	10mm	Ant 31	DSI 6	376000	1880	17.65	18.50	1.216	-0.1	0.241	0.293
	N2	20M	BPSK	1	53	DFT-15	Left Side	10mm	Ant 31	DSI 6	376000	1880	17.65	18.50	1.216	0.09	0.037	0.045
	N2	20M	BPSK	1	53	DFT-15	Right Side	10mm	Ant 31	DSI 6	376000	1880	17.65	18.50	1.216	-0.02	0.045	0.055
43	N2	20M	BPSK	1	53	DFT-15	Bottom Side	10mm	Ant 31	DSI 6	376000	1880	17.65	18.50	1.216	-0.06	0.447	0.544
	N2	20M	BPSK	50	28	DFT-15	Front	10mm	Ant 31	DSI 6	376000	1880	17.64	18.50	1.219	-0.01	0.206	0.251
	N2	20M	BPSK	50	28	DFT-15	Back	10mm	Ant 31	DSI 6	376000	1880	17.64	18.50	1.219	-0.04	0.240	0.293
	N2	20M	BPSK	50	28	DFT-15	Left Side	10mm	Ant 31	DSI 6	376000	1880	17.64	18.50	1.219	0.13	0.037	0.045
	N2	20M	BPSK	50	28	DFT-15	Right Side	10mm	Ant 31	DSI 6	376000	1880	17.64	18.50	1.219	0.15	0.045	0.055
	N2	20M	BPSK	50	28	DFT-15	Bottom Side	10mm	Ant 31	DSI 6	376000	1880	17.64	18.50	1.219	-0.13	0.396	0.483
2600MHz																		
	N7	50M	BPSK	1	135	DFT-15	Front	10mm	Ant 14	DSI 6	507000	2535	19.78	21.20	1.387	-0.01	0.304	0.422
	N7	50M	BPSK	1	135	DFT-15	Back	10mm	Ant 14	DSI 6	507000	2535	19.78	21.20	1.387	0.09	0.323	0.448
	N7	50M	BPSK	1	135	DFT-15	Left Side	10mm	Ant 14	DSI 6	507000	2535	19.78	21.20	1.387	-0.01	0.245	0.340
	N7	50M	BPSK	1	135	DFT-15	Right Side	10mm	Ant 14	DSI 6	507000	2535	19.78	21.20	1.387	0.08	0.041	0.057
44	N7	50M	BPSK	1	135	DFT-15	Top Side	10mm	Ant 14	DSI 6	507000	2535	19.78	21.20	1.387	0.14	0.539	0.747
	N7	50M	BPSK	135	68	DFT-15	Front	10mm	Ant 14	DSI 6	507000	2535	19.72	21.20	1.406	0.03	0.308	0.433
	N7	50M	BPSK	135	68	DFT-15	Back	10mm	Ant 14	DSI 6	507000	2535	19.72	21.20	1.406	-0.03	0.337	0.474
	N7	50M	BPSK	135	68	DFT-15	Left Side	10mm	Ant 14	DSI 6	507000	2535	19.72	21.20	1.406	-0.12	0.241	0.339
	N7	50M	BPSK	135	68	DFT-15	Right Side	10mm	Ant 14	DSI 6	507000	2535	19.72	21.20	1.406	0.14	0.041	0.058
	N7	50M	BPSK	135	68	DFT-15	Top Side	10mm	Ant 14	DSI 6	507000	2535	19.72	21.20	1.406	0.05	0.520	0.731
	N7	50M	BPSK	1	135	DFT-15	Front	10mm	Ant 31	DSI 6	507000	2535	19.95	20.90	1.245	0.15	0.189	0.235
	N7	50M	BPSK	1	135	DFT-15	Back	10mm	Ant 31	DSI 6	507000	2535	19.95	20.90	1.245	0.06	0.463	0.576
	N7	50M	BPSK	1	135	DFT-15	Left Side	10mm	Ant 31	DSI 6	507000	2535	19.95	20.90	1.245	-0.06	0.061	0.076
	N7	50M	BPSK	1	135	DFT-15	Right Side	10mm	Ant 31	DSI 6	507000	2535	19.95	20.90	1.245	0.04	0.117	0.146
	N7	50M	BPSK	1	135	DFT-15	Bottom Side	10mm	Ant 31	DSI 6	507000	2535	19.95	20.90	1.245	-0.16	0.199	0.248
	N7	50M	BPSK	135	68	DFT-15	Front	10mm	Ant 31	DSI 6	507000	2535	19.92	20.90	1.253	0.07	0.193	0.242
	N7	50M	BPSK	135	68	DFT-15	Back	10mm	Ant 31	DSI 6	507000	2535	19.92	20.90	1.253	0.05	0.428	0.536
	N7	50M	BPSK	135	68	DFT-15	Left Side	10mm	Ant 31	DSI 6	507000	2535	19.92	20.90	1.253	-0.03	0.065	0.081
	N7	50M	BPSK	135	68	DFT-15	Right Side	10mm	Ant 31	DSI 6	507000	2535	19.92	20.90	1.253	0.02	0.121	0.152
	N7	50M	BPSK	135	68	DFT-15	Bottom Side	10mm	Ant 31	DSI 6	507000	2535	19.92	20.90	1.253	0.11	0.220	0.276
	N41	100M	BPSK	1	137	DFT-30	Front	10mm	Ant 12	DSI 6	518598	2592.99	20.54	21.80	1.337	0.17	0.186	0.249
	N41	100M	BPSK	1	137	DFT-30	Back	10mm	Ant 12	DSI 6	518598	2592.99	20.54	21.80	1.337	0.02	0.318	0.425
	N41	100M	BPSK	1	137	DFT-30	Left Side	10mm	Ant 12	DSI 6	518598	2592.99	20.54	21.80	1.337	0.02	0.206	0.275
	N41	100M	BPSK	1	137	DFT-30	Right Side	10mm	Ant 12	DSI 6	518598	2592.99	20.54	21.80	1.337	0.06	0.009	0.012
	N41	100M	BPSK	1	137	DFT-30	Top Side	10mm	Ant 12	DSI 6	518598	2592.99	20.54	21.80	1.337	0.18	0.060	0.080
	N41	100M	BPSK	135	69	DFT-30	Front	10mm	Ant 12	DSI 6	518598	2592.99	20.48	21.80	1.355	-0.17	0.188	0.255
	N41	100M	BPSK	135	69	DFT-30	Back	10mm	Ant 12	DSI 6	518598	2592.99	20.48	21.80	1.355	0.07	0.289	0.392
	N41	100M	BPSK	135	69	DFT-30	Left Side	10mm	Ant 12	DSI 6	518598	2592.99	20.48	21.80	1.355	-0.02	0.208	0.282
	N41	100M	BPSK	135	69	DFT-30	Right Side	10mm	Ant 12	DSI 6	518598	2592.99	20.48	21.80	1.355	0.09	0.007	0.009
	N41	100M	BPSK	135	69	DFT-30	Top Side	10mm	Ant 12	DSI 6	518598	2592.99	20.48	21.80	1.355	-0.09	0.062	0.084
	N41	100M	BPSK	1	137	DFT-30	Front	10mm	Ant 23	DSI 6	518598	2592.99	19.18	20.20	1.265	-0.11	0.170	0.215
	N41	100M	BPSK	1	137	DFT-30	Back	10mm	Ant 23	DSI 6	518598	2592.99	19.18	20.20	1.265	0.13	0.290	0.367
	N41	100M	BPSK	1	137	DFT-30	Left Side	10mm	Ant 23	DSI 6	518598	2592.99	19.18	20.20	1.265	0.09	0.007	0.009
45	N41	100M	BPSK	1	137	DFT-30	Right Side	10mm	Ant 23	DSI 6	518598	2592.99	19.18	20.20	1.265	0.06	0.425	0.538
	N41	100M	BPSK	1	137	DFT-30	Top Side	10mm	Ant 23	DSI 6	518598	2592.99	19.18	20.20	1.265	-0.17	0.134	0.169
	N41	100M	BPSK	135	69	DFT-30	Front	10mm	Ant 23	DSI 6	518598	2592.99	19.15	20.20	1.274	0.08	0.152	0.194
	N41	100M	BPSK	135	69	DFT-30	Back	10mm	Ant 23	DSI 6	518598	2592.99	19.15	20.20	1.274	0.13	0.268	0.341
	N41	100M	BPSK	135	69	DFT-30	Left Side	10mm	Ant 23	DSI 6	518598	2592.99	19.15	20.20	1.274	0.04	0.006	0.008
	N41	100M	BPSK	135	69	DFT-30	Right Side	10mm	Ant 23	DSI 6	518598	2592.99	19.15	20.20	1.274	-0.02	0.399	0.508
	N41	100M	BPSK	135	69	DFT-30	Top Side	10mm	Ant 23	DSI 6	518598	2592.99	19.15	20.20	1.274	0.06	0.135	0.172
3500-3900MHz																		
	N77	100M	BPSK	1	137	DFT-30	Front	10mm	Ant 13	DSI 6	633334	3500.01	17.19	17.80	1.151	-0.09	0.110	0.127
	N77	100M	BPSK	1	137	DFT-30	Back	10mm	Ant 13	DSI 6	633334	3500.01	17.19	17.80	1.151	0.06	0.273	0.314
46	N77	100M	BPSK	1	137	DFT-30	Left Side	10mm	Ant 13	DSI 6	633334	3500.01	17.19	17.80	1.151	0.04	0.642	0.739



N77	100M	BPSK	1	137	DFT-30	Right Side	10mm	Ant 13	DSI 6	633334	3500.01	17.19	17.80	1.151	0.08	0.011	0.013
N77	100M	BPSK	1	137	DFT-30	Top Side	10mm	Ant 13	DSI 6	633334	3500.01	17.19	17.80	1.151	-0.09	0.538	0.619
N77	100M	BPSK	135	69	DFT-30	Front	10mm	Ant 13	DSI 6	633334	3500.01	17.16	17.80	1.159	-0.12	0.106	0.123
N77	100M	BPSK	135	69	DFT-30	Back	10mm	Ant 13	DSI 6	633334	3500.01	17.16	17.80	1.159	0.06	0.291	0.337
N77	100M	BPSK	135	69	DFT-30	Left Side	10mm	Ant 13	DSI 6	633334	3500.01	17.16	17.80	1.159	0.05	0.592	0.686
N77	100M	BPSK	135	69	DFT-30	Right Side	10mm	Ant 13	DSI 6	633334	3500.01	17.16	17.80	1.159	-0.09	0.010	0.012
N77	100M	BPSK	135	69	DFT-30	Top Side	10mm	Ant 13	DSI 6	633334	3500.01	17.16	17.80	1.159	-0.07	0.438	0.508
N77	100M	BPSK	270	0	DFT-30	Left Side	10mm	Ant 13	DSI 6	633334	3500.01	16.99	17.80	1.205	-0.16	0.580	0.699
N77	100M	BPSK	270	0	DFT-30	Top Side	10mm	Ant 13	DSI 6	633334	3500.01	16.99	17.80	1.205	-0.14	0.425	0.512
N77	100M	BPSK	1	137	DFT-30	Front	10mm	Ant 13	DSI 6	656000	3840	16.95	17.80	1.216	0.13	0.102	0.124
N77	100M	BPSK	1	137	DFT-30	Back	10mm	Ant 13	DSI 6	656000	3840	16.95	17.80	1.216	0.11	0.326	0.396
N77	100M	BPSK	1	137	DFT-30	Left Side	10mm	Ant 13	DSI 6	656000	3840	16.95	17.80	1.216	0.07	0.542	0.659
N77	100M	BPSK	1	137	DFT-30	Right Side	10mm	Ant 13	DSI 6	656000	3840	16.95	17.80	1.216	0.06	0.082	0.100
N77	100M	BPSK	1	137	DFT-30	Top Side	10mm	Ant 13	DSI 6	656000	3840	16.95	17.80	1.216	-0.04	0.110	0.134
N77	100M	BPSK	135	69	DFT-30	Front	10mm	Ant 13	DSI 6	656000	3840	16.94	17.80	1.219	-0.04	0.095	0.116
N77	100M	BPSK	135	69	DFT-30	Back	10mm	Ant 13	DSI 6	656000	3840	16.94	17.80	1.219	-0.1	0.321	0.391
N77	100M	BPSK	135	69	DFT-30	Left Side	10mm	Ant 13	DSI 6	656000	3840	16.94	17.80	1.219	0.16	0.463	0.564
N77	100M	BPSK	135	69	DFT-30	Right Side	10mm	Ant 13	DSI 6	656000	3840	16.94	17.80	1.219	0.02	0.050	0.061
N77	100M	BPSK	135	69	DFT-30	Top Side	10mm	Ant 13	DSI 6	656000	3840	16.94	17.80	1.219	0.14	0.097	0.118
N77	100M	BPSK	270	0	DFT-30	Left Side	10mm	Ant 13	DSI 6	656000	3840	16.79	17.80	1.262	0.02	0.449	0.567
N77	100M	BPSK	1	137	DFT-30	Front	10mm	Ant 23	DSI 6	633334	3500.01	17.64	18.90	1.337	0.08	0.044	0.059
N77	100M	BPSK	1	137	DFT-30	Back	10mm	Ant 23	DSI 6	633334	3500.01	17.64	18.90	1.337	0.09	0.088	0.118
N77	100M	BPSK	1	137	DFT-30	Left Side	10mm	Ant 23	DSI 6	633334	3500.01	17.64	18.90	1.337	0.01	0.006	0.008
N77	100M	BPSK	1	137	DFT-30	Right Side	10mm	Ant 23	DSI 6	633334	3500.01	17.64	18.90	1.337	-0.03	0.374	0.500
N77	100M	BPSK	1	137	DFT-30	Top Side	10mm	Ant 23	DSI 6	633334	3500.01	17.64	18.90	1.337	-0.09	0.055	0.074
N77	100M	BPSK	135	69	DFT-30	Front	10mm	Ant 23	DSI 6	633334	3500.01	17.52	18.90	1.374	0.04	0.048	0.066
N77	100M	BPSK	135	69	DFT-30	Back	10mm	Ant 23	DSI 6	633334	3500.01	17.52	18.90	1.374	-0.1	0.088	0.121
N77	100M	BPSK	135	69	DFT-30	Left Side	10mm	Ant 23	DSI 6	633334	3500.01	17.52	18.90	1.374	0.06	0.007	0.010
N77	100M	BPSK	135	69	DFT-30	Right Side	10mm	Ant 23	DSI 6	633334	3500.01	17.52	18.90	1.374	0.15	0.301	0.414
N77	100M	BPSK	135	69	DFT-30	Top Side	10mm	Ant 23	DSI 6	633334	3500.01	17.52	18.90	1.374	-0.1	0.060	0.082
N77	100M	BPSK	1	137	DFT-30	Front	10mm	Ant 23	DSI 6	656000	3840	17.80	18.90	1.288	0.01	0.148	0.191
N77	100M	BPSK	1	137	DFT-30	Back	10mm	Ant 23	DSI 6	656000	3840	17.80	18.90	1.288	-0.17	0.339	0.437
N77	100M	BPSK	1	137	DFT-30	Left Side	10mm	Ant 23	DSI 6	656000	3840	17.80	18.90	1.288	0.05	0.016	0.021
N77	100M	BPSK	1	137	DFT-30	Right Side	10mm	Ant 23	DSI 6	656000	3840	17.80	18.90	1.288	0.07	0.388	0.500
N77	100M	BPSK	1	137	DFT-30	Top Side	10mm	Ant 23	DSI 6	656000	3840	17.80	18.90	1.288	0.09	0.125	0.161
N77	100M	BPSK	135	69	DFT-30	Front	10mm	Ant 23	DSI 6	656000	3840	17.75	18.90	1.303	-0.18	0.147	0.192
N77	100M	BPSK	135	69	DFT-30	Back	10mm	Ant 23	DSI 6	656000	3840	17.75	18.90	1.303	0.18	0.322	0.420
N77	100M	BPSK	135	69	DFT-30	Left Side	10mm	Ant 23	DSI 6	656000	3840	17.75	18.90	1.303	0.09	0.014	0.018
N77	100M	BPSK	135	69	DFT-30	Right Side	10mm	Ant 23	DSI 6	656000	3840	17.75	18.90	1.303	0.06	0.349	0.455
N77	100M	BPSK	135	69	DFT-30	Top Side	10mm	Ant 23	DSI 6	656000	3840	17.75	18.90	1.303	0.14	0.132	0.172
N78	100M	BPSK	1	137	DFT-30	Front	10mm	Ant 13	DSI 6	633334	3500.01	17.18	18.00	1.208	0.09	0.112	0.135
N78	100M	BPSK	1	137	DFT-30	Back	10mm	Ant 13	DSI 6	633334	3500.01	17.18	18.00	1.208	0.13	0.283	0.342
N78	100M	BPSK	1	137	DFT-30	Left Side	10mm	Ant 13	DSI 6	633334	3500.01	17.18	18.00	1.208	0.1	0.636	0.768
N78	100M	BPSK	1	137	DFT-30	Right Side	10mm	Ant 13	DSI 6	633334	3500.01	17.18	18.00	1.208	0.09	0.026	0.031
N78	100M	BPSK	1	137	DFT-30	Top Side	10mm	Ant 13	DSI 6	633334	3500.01	17.18	18.00	1.208	0.02	0.411	0.496
N78	100M	BPSK	135	69	DFT-30	Front	10mm	Ant 13	DSI 6	633334	3500.01	17.16	18.00	1.213	-0.11	0.100	0.121
N78	100M	BPSK	135	69	DFT-30	Back	10mm	Ant 13	DSI 6	633334	3500.01	17.16	18.00	1.213	0.02	0.277	0.336
N78	100M	BPSK	135	69	DFT-30	Left Side	10mm	Ant 13	DSI 6	633334	3500.01	17.16	18.00	1.213	-0.04	0.562	0.682
N78	100M	BPSK	135	69	DFT-30	Right Side	10mm	Ant 13	DSI 6	633334	3500.01	17.16	18.00	1.213	0.07	0.023	0.028
N78	100M	BPSK	135	69	DFT-30	Top Side	10mm	Ant 13	DSI 6	633334	3500.01	17.16	18.00	1.213	-0.16	0.399	0.484
N78	100M	BPSK	270	0	DFT-30	Left Side	10mm	Ant 13	DSI 6	633334	3500.01	16.98	18.00	1.265	0.02	0.495	0.626
N78	100M	BPSK	1	137	DFT-30	Front	10mm	Ant 13	DSI 6	650000	3750	16.95	18.00	1.274	0.11	0.081	0.103
N78	100M	BPSK	1	137	DFT-30	Back	10mm	Ant 13	DSI 6	650000	3750	16.95	18.00	1.274	-0.18	0.322	0.410
N78	100M	BPSK	1	137	DFT-30	Left Side	10mm	Ant 13	DSI 6	650000	3750	16.95	18.00	1.274	0.06	0.592	0.754
N78	100M	BPSK	1	137	DFT-30	Right Side	10mm	Ant 13	DSI 6	650000	3750	16.95	18.00	1.274	-0.03	0.019	0.024
N78	100M	BPSK	1	137	DFT-30	Top Side	10mm	Ant 13	DSI 6	650000	3750	16.95	18.00	1.274	-0.12	0.146	0.186



	N78	100M	BPSK	135	69	DFT-30	Front	10mm	Ant 13	DSI 6	650000	3750	16.92	18.00	1.282	-0.11	0.091	0.117
	N78	100M	BPSK	135	69	DFT-30	Back	10mm	Ant 13	DSI 6	650000	3750	16.92	18.00	1.282	0.06	0.319	0.409
47	N78	100M	BPSK	135	69	DFT-30	Left Side	10mm	Ant 13	DSI 6	650000	3750	16.92	18.00	1.282	0.07	0.629	0.807
	N78	100M	BPSK	135	69	DFT-30	Right Side	10mm	Ant 13	DSI 6	650000	3750	16.92	18.00	1.282	0.07	0.020	0.026
	N78	100M	BPSK	135	69	DFT-30	Top Side	10mm	Ant 13	DSI 6	650000	3750	16.92	18.00	1.282	0.11	0.149	0.191
	N78	100M	BPSK	270	0	DFT-30	Left Side	10mm	Ant 13	DSI 6	650000	3750	16.82	18.00	1.312	0.03	0.582	0.764

< Uplink CA SAR >

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
1750MHz																				
	LTE Band 4_UL CA	20M	QPSK	1	49	-	Front	10mm	Ant 31	DSI 6	20175	1732.5	16.24	17.00	1.191	-	-	-0.06	0.188	0.224
	LTE Band 4_UL CA	20M	QPSK	1	49	-	Back	10mm	Ant 31	DSI 6	20175	1732.5	16.24	17.00	1.191	-	-	-0.02	0.222	0.264
	LTE Band 4_UL CA	20M	QPSK	1	49	-	Left Side	10mm	Ant 31	DSI 6	20175	1732.5	16.24	17.00	1.191	-	-	-0.1	0.015	0.018
	LTE Band 4_UL CA	20M	QPSK	1	49	-	Right Side	10mm	Ant 31	DSI 6	20175	1732.5	16.24	17.00	1.191	-	-	0.14	0.052	0.062
48	LTE Band 4_UL CA	20M	QPSK	1	49	-	Bottom Side	10mm	Ant 31	DSI 6	20175	1732.5	16.24	17.00	1.191	-	-	0.04	0.330	0.393
	LTE Band 4_UL CA	20M	QPSK	50	0	-	Front	10mm	Ant 31	DSI 6	20175	1732.5	16.13	17.00	1.222	-	-	0.05	0.180	0.220
	LTE Band 4_UL CA	20M	QPSK	50	0	-	Back	10mm	Ant 31	DSI 6	20175	1732.5	16.13	17.00	1.222	-	-	0.06	0.215	0.263
	LTE Band 4_UL CA	20M	QPSK	50	0	-	Left Side	10mm	Ant 31	DSI 6	20175	1732.5	16.13	17.00	1.222	-	-	0.02	0.012	0.015
	LTE Band 4_UL CA	20M	QPSK	50	0	-	Right Side	10mm	Ant 31	DSI 6	20175	1732.5	16.13	17.00	1.222	-	-	-0.11	0.048	0.059
	LTE Band 4_UL CA	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 31	DSI 6	20175	1732.5	16.13	17.00	1.222	-	-	0.01	0.320	0.391
2600MHz																				
	LTE Band 7_UL CA	20M	QPSK	1	49	-	Front	10mm	Ant 14	DSI 6	21100	2535	16.35	17.50	1.303	-	-	0.08	0.120	0.156
	LTE Band 7_UL CA	20M	QPSK	1	49	-	Back	10mm	Ant 14	DSI 6	21100	2535	16.35	17.50	1.303	-	-	0.01	0.108	0.141
	LTE Band 7_UL CA	20M	QPSK	1	49	-	Left Side	10mm	Ant 14	DSI 6	21100	2535	16.35	17.50	1.303	-	-	0.06	0.100	0.130
	LTE Band 7_UL CA	20M	QPSK	1	49	-	Right Side	10mm	Ant 14	DSI 6	21100	2535	16.35	17.50	1.303	-	-	-0.06	0.050	0.065
	LTE Band 7_UL CA	20M	QPSK	1	49	-	Top Side	10mm	Ant 14	DSI 6	21100	2535	16.35	17.50	1.303	-	-	0.12	0.240	0.313
	LTE Band 7_UL CA	20M	QPSK	50	0	-	Front	10mm	Ant 14	DSI 6	21100	2535	16.29	17.50	1.321	-	-	0.17	0.115	0.152
	LTE Band 7_UL CA	20M	QPSK	50	0	-	Back	10mm	Ant 14	DSI 6	21100	2535	16.29	17.50	1.321	-	-	-0.11	0.095	0.126
	LTE Band 7_UL CA	20M	QPSK	50	0	-	Left Side	10mm	Ant 14	DSI 6	21100	2535	16.29	17.50	1.321	-	-	0.04	0.090	0.119
	LTE Band 7_UL CA	20M	QPSK	50	0	-	Right Side	10mm	Ant 14	DSI 6	21100	2535	16.29	17.50	1.321	-	-	0.08	0.052	0.069
	LTE Band 7_UL CA	20M	QPSK	50	0	-	Top Side	10mm	Ant 14	DSI 6	21100	2535	16.29	17.50	1.321	-	-	-0.06	0.227	0.300
	LTE Band 7_UL CA	20M	QPSK	1	49	-	Front	10mm	Ant 12	DSI 6	21100	2535	18.29	19.00	1.178	-	-	-0.08	0.069	0.081
	LTE Band 7_UL CA	20M	QPSK	1	49	-	Back	10mm	Ant 12	DSI 6	21100	2535	18.29	19.00	1.178	-	-	0.02	0.149	0.175
	LTE Band 7_UL CA	20M	QPSK	1	49	-	Left Side	10mm	Ant 12	DSI 6	21100	2535	18.29	19.00	1.178	-	-	-0.07	0.100	0.118
	LTE Band 7_UL CA	20M	QPSK	1	49	-	Right Side	10mm	Ant 12	DSI 6	21100	2535	18.29	19.00	1.178	-	-	0.02	0.010	0.012
	LTE Band 7_UL CA	20M	QPSK	1	49	-	Top Side	10mm	Ant 12	DSI 6	21100	2535	18.29	19.00	1.178	-	-	0.05	0.039	0.046
	LTE Band 7_UL CA	20M	QPSK	50	0	-	Front	10mm	Ant 12	DSI 6	21100	2535	18.23	19.00	1.194	-	-	0.05	0.062	0.074
	LTE Band 7_UL CA	20M	QPSK	50	0	-	Back	10mm	Ant 12	DSI 6	21100	2535	18.23	19.00	1.194	-	-	0.02	0.135	0.161
	LTE Band 7_UL CA	20M	QPSK	50	0	-	Left Side	10mm	Ant 12	DSI 6	21100	2535	18.23	19.00	1.194	-	-	0.11	0.095	0.113
	LTE Band 7_UL CA	20M	QPSK	50	0	-	Right Side	10mm	Ant 12	DSI 6	21100	2535	18.23	19.00	1.194	-	-	-0.13	0.015	0.018
	LTE Band 7_UL CA	20M	QPSK	50	0	-	Top Side	10mm	Ant 12	DSI 6	21100	2535	18.23	19.00	1.194	-	-	0.07	0.042	0.050



<ENDC SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
850MHz																				
49	LTE Band 5_ENDC	10M	QPSK	1	25	-	Front	10mm	Ant 11	DSI 6	20525	836.5	19.62	20.80	1.312	-	-	-0.14	0.128	0.168
	LTE Band 5_ENDC	10M	QPSK	1	25	-	Back	10mm	Ant 11	DSI 6	20525	836.5	19.62	20.80	1.312	-	-	-0.17	0.170	0.223
	LTE Band 5_ENDC	10M	QPSK	1	25	-	Left Side	10mm	Ant 11	DSI 6	20525	836.5	19.62	20.80	1.312	-	-	0.02	0.407	0.534
	LTE Band 5_ENDC	10M	QPSK	1	25	-	Right Side	10mm	Ant 11	DSI 6	20525	836.5	19.62	20.80	1.312	-	-	0.04	0.012	0.016
	LTE Band 5_ENDC	10M	QPSK	1	25	-	Top Side	10mm	Ant 11	DSI 6	20525	836.5	19.62	20.80	1.312	-	-	0.01	0.015	0.020
	LTE Band 5_ENDC	10M	QPSK	25	0	-	Front	10mm	Ant 11	DSI 6	20525	836.5	19.54	20.80	1.337	-	-	-0.1	0.125	0.167
	LTE Band 5_ENDC	10M	QPSK	25	0	-	Back	10mm	Ant 11	DSI 6	20525	836.5	19.54	20.80	1.337	-	-	0.03	0.168	0.225
	LTE Band 5_ENDC	10M	QPSK	25	0	-	Left Side	10mm	Ant 11	DSI 6	20525	836.5	19.54	20.80	1.337	-	-	-0.06	0.379	0.507
	LTE Band 5_ENDC	10M	QPSK	25	0	-	Right Side	10mm	Ant 11	DSI 6	20525	836.5	19.54	20.80	1.337	-	-	0.05	0.010	0.013
	LTE Band 5_ENDC	10M	QPSK	25	0	-	Top Side	10mm	Ant 11	DSI 6	20525	836.5	19.54	20.80	1.337	-	-	0.03	0.010	0.013
	LTE Band 5_ENDC	10M	QPSK	1	25	-	Front	10mm	Ant 41	DSI 6	20525	836.5	20.72	21.80	1.282	-	-	0.1	0.103	0.132
	LTE Band 5_ENDC	10M	QPSK	1	25	-	Back	10mm	Ant 41	DSI 6	20525	836.5	20.72	21.80	1.282	-	-	-0.06	0.150	0.192
	LTE Band 5_ENDC	10M	QPSK	1	25	-	Left Side	10mm	Ant 41	DSI 6	20525	836.5	20.72	21.80	1.282	-	-	0.05	0.063	0.081
	LTE Band 5_ENDC	10M	QPSK	1	25	-	Right Side	10mm	Ant 41	DSI 6	20525	836.5	20.72	21.80	1.282	-	-	0.13	0.050	0.064
	LTE Band 5_ENDC	10M	QPSK	1	25	-	Bottom Side	10mm	Ant 41	DSI 6	20525	836.5	20.72	21.80	1.282	-	-	-0.11	0.100	0.128
	LTE Band 5_ENDC	10M	QPSK	25	0	-	Front	10mm	Ant 41	DSI 6	20525	836.5	20.69	21.80	1.291	-	-	0.08	0.101	0.130
	LTE Band 5_ENDC	10M	QPSK	25	0	-	Back	10mm	Ant 41	DSI 6	20525	836.5	20.69	21.80	1.291	-	-	-0.08	0.145	0.187
	LTE Band 5_ENDC	10M	QPSK	25	0	-	Left Side	10mm	Ant 41	DSI 6	20525	836.5	20.69	21.80	1.291	-	-	-0.11	0.059	0.076
	LTE Band 5_ENDC	10M	QPSK	25	0	-	Right Side	10mm	Ant 41	DSI 6	20525	836.5	20.69	21.80	1.291	-	-	-0.03	0.048	0.062
	LTE Band 5_ENDC	10M	QPSK	25	0	-	Bottom Side	10mm	Ant 41	DSI 6	20525	836.5	20.69	21.80	1.291	-	-	0.08	0.092	0.119
1750MHz																				
	LTE Band 66_ENDC	20M	QPSK	1	49	-	Front	10mm	Ant 14	DSI 6	132322	1745	16.65	17.50	1.216	-	-	0.18	0.094	0.114
	LTE Band 66_ENDC	20M	QPSK	1	49	-	Back	10mm	Ant 14	DSI 6	132322	1745	16.65	17.50	1.216	-	-	-0.04	0.126	0.153
	LTE Band 66_ENDC	20M	QPSK	1	49	-	Left Side	10mm	Ant 14	DSI 6	132322	1745	16.65	17.50	1.216	-	-	0.04	0.050	0.061
	LTE Band 66_ENDC	20M	QPSK	1	49	-	Right Side	10mm	Ant 14	DSI 6	132322	1745	16.65	17.50	1.216	-	-	-0.08	0.028	0.034
	LTE Band 66_ENDC	20M	QPSK	1	49	-	Top Side	10mm	Ant 14	DSI 6	132322	1745	16.65	17.50	1.216	-	-	0.07	0.265	0.322
	LTE Band 66_ENDC	20M	QPSK	50	0	-	Front	10mm	Ant 14	DSI 6	132322	1745	16.59	17.50	1.233	-	-	-0.09	0.093	0.115
	LTE Band 66_ENDC	20M	QPSK	50	0	-	Back	10mm	Ant 14	DSI 6	132322	1745	16.59	17.50	1.233	-	-	-0.02	0.123	0.152
	LTE Band 66_ENDC	20M	QPSK	50	0	-	Left Side	10mm	Ant 14	DSI 6	132322	1745	16.59	17.50	1.233	-	-	0.16	0.046	0.057
	LTE Band 66_ENDC	20M	QPSK	50	0	-	Right Side	10mm	Ant 14	DSI 6	132322	1745	16.59	17.50	1.233	-	-	0.05	0.025	0.031
	LTE Band 66_ENDC	20M	QPSK	50	0	-	Top Side	10mm	Ant 14	DSI 6	132322	1745	16.59	17.50	1.233	-	-	-0.11	0.253	0.312
	LTE Band 66_ENDC	20M	QPSK	1	49	-	Front	10mm	Ant 31	DSI 6	132322	1745	16.18	17.00	1.208	-	-	0.1	0.146	0.176
	LTE Band 66_ENDC	20M	QPSK	1	49	-	Back	10mm	Ant 31	DSI 6	132322	1745	16.18	17.00	1.208	-	-	-0.06	0.167	0.202
	LTE Band 66_ENDC	20M	QPSK	1	49	-	Left Side	10mm	Ant 31	DSI 6	132322	1745	16.18	17.00	1.208	-	-	0.07	0.014	0.017
	LTE Band 66_ENDC	20M	QPSK	1	49	-	Right Side	10mm	Ant 31	DSI 6	132322	1745	16.18	17.00	1.208	-	-	0.17	0.034	0.041
	LTE Band 66_ENDC	20M	QPSK	1	49	-	Bottom Side	10mm	Ant 31	DSI 6	132322	1745	16.18	17.00	1.208	-	-	-0.19	0.253	0.306
	LTE Band 66_ENDC	20M	QPSK	50	0	-	Front	10mm	Ant 31	DSI 6	132322	1745	16.12	17.00	1.225	-	-	0.17	0.139	0.170
	LTE Band 66_ENDC	20M	QPSK	50	0	-	Back	10mm	Ant 31	DSI 6	132322	1745	16.12	17.00	1.225	-	-	-0.07	0.162	0.198
	LTE Band 66_ENDC	20M	QPSK	50	0	-	Left Side	10mm	Ant 31	DSI 6	132322	1745	16.12	17.00	1.225	-	-	0.06	0.012	0.015
	LTE Band 66_ENDC	20M	QPSK	50	0	-	Right Side	10mm	Ant 31	DSI 6	132322	1745	16.12	17.00	1.225	-	-	0.15	0.031	0.038
	LTE Band 66_ENDC	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 31	DSI 6	132322	1745	16.12	17.00	1.225	-	-	0.1	0.243	0.298
1900MHz																				
	LTE Band 2_ENDC	20M	QPSK	1	49	-	Front	10mm	Ant 14	DSI 6	18900	1880	16.36	17.50	1.300	-	-	0.06	0.095	0.124
	LTE Band 2_ENDC	20M	QPSK	1	49	-	Back	10mm	Ant 14	DSI 6	18900	1880	16.36	17.50	1.300	-	-	0.03	0.117	0.152
	LTE Band 2_ENDC	20M	QPSK	1	49	-	Left Side	10mm	Ant 14	DSI 6	18900	1880	16.36	17.50	1.300	-	-	-0.01	0.046	0.060
	LTE Band 2_ENDC	20M	QPSK	1	49	-	Right Side	10mm	Ant 14	DSI 6	18900	1880	16.36	17.50	1.300	-	-	0.14	0.028	0.036
	LTE Band 2_ENDC	20M	QPSK	1	49	-	Top Side	10mm	Ant 14	DSI 6	18900	1880	16.36	17.50	1.300	-	-	-0.04	0.260	0.338
	LTE Band 2_ENDC	20M	QPSK	50	0	-	Front	10mm	Ant 14	DSI 6	18900	1880	16.23	17.50	1.340	-	-	0.12	0.093	0.125
	LTE Band 2_ENDC	20M	QPSK	50	0	-	Back	10mm	Ant 14	DSI 6	18900	1880	16.23	17.50	1.340	-	-	-0.09	0.109	0.146
	LTE Band 2_ENDC	20M	QPSK	50	0	-	Left Side	10mm	Ant 14	DSI 6	18900	1880	16.23	17.50	1.340	-	-	-0.01	0.042	0.056
LTE Band 2_ENDC	20M	QPSK	50	0	-	Right Side	10mm	Ant 14	DSI 6	18900	1880	16.23	17.50	1.340	-	-	0.12	0.025	0.033	



LTE Band 2_ENDC	20M	QPSK	50	0	-	Top Side	10mm	Ant 14	DSI 6	18900	1880	16.23	17.50	1.340	-	-	-0.19	0.208	0.279
LTE Band 2_ENDC	20M	QPSK	1	49	-	Front	10mm	Ant 31	DSI 6	18900	1880	15.62	16.50	1.225	-	-	-0.16	0.117	0.143
LTE Band 2_ENDC	20M	QPSK	1	49	-	Back	10mm	Ant 31	DSI 6	18900	1880	15.62	16.50	1.225	-	-	0.18	0.137	0.168
LTE Band 2_ENDC	20M	QPSK	1	49	-	Left Side	10mm	Ant 31	DSI 6	18900	1880	15.62	16.50	1.225	-	-	0.08	0.016	0.020
LTE Band 2_ENDC	20M	QPSK	1	49	-	Right Side	10mm	Ant 31	DSI 6	18900	1880	15.62	16.50	1.225	-	-	0.11	0.022	0.027
LTE Band 2_ENDC	20M	QPSK	1	49	-	Bottom Side	10mm	Ant 31	DSI 6	18900	1880	15.62	16.50	1.225	-	-	0.14	0.203	0.249
LTE Band 2_ENDC	20M	QPSK	50	0	-	Front	10mm	Ant 31	DSI 6	18900	1880	15.53	16.50	1.250	-	-	0.07	0.112	0.140
LTE Band 2_ENDC	20M	QPSK	50	0	-	Back	10mm	Ant 31	DSI 6	18900	1880	15.53	16.50	1.250	-	-	-0.07	0.134	0.168
LTE Band 2_ENDC	20M	QPSK	50	0	-	Left Side	10mm	Ant 31	DSI 6	18900	1880	15.53	16.50	1.250	-	-	-0.07	0.014	0.018
LTE Band 2_ENDC	20M	QPSK	50	0	-	Right Side	10mm	Ant 31	DSI 6	18900	1880	15.53	16.50	1.250	-	-	0.09	0.019	0.024
LTE Band 2_ENDC	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 31	DSI 6	18900	1880	15.53	16.50	1.250	-	-	-0.17	0.198	0.248
2600MHz																			
LTE Band 7_ENDC	20M	QPSK	1	49	-	Front	10mm	Ant 14	DSI 6	21100	2535	16.07	17.00	1.239	-	-	-0.18	0.101	0.125
LTE Band 7_ENDC	20M	QPSK	1	49	-	Back	10mm	Ant 14	DSI 6	21100	2535	16.07	17.00	1.239	-	-	0.19	0.117	0.145
LTE Band 7_ENDC	20M	QPSK	1	49	-	Left Side	10mm	Ant 14	DSI 6	21100	2535	16.07	17.00	1.239	-	-	-0.19	0.088	0.109
LTE Band 7_ENDC	20M	QPSK	1	49	-	Right Side	10mm	Ant 14	DSI 6	21100	2535	16.07	17.00	1.239	-	-	-0.05	0.011	0.014
LTE Band 7_ENDC	20M	QPSK	1	49	-	Top Side	10mm	Ant 14	DSI 6	21100	2535	16.07	17.00	1.239	-	-	0.06	0.194	0.240
LTE Band 7_ENDC	20M	QPSK	50	0	-	Front	10mm	Ant 14	DSI 6	21100	2535	16.01	17.00	1.256	-	-	-0.06	0.095	0.119
LTE Band 7_ENDC	20M	QPSK	50	0	-	Back	10mm	Ant 14	DSI 6	21100	2535	16.01	17.00	1.256	-	-	0.04	0.112	0.141
LTE Band 7_ENDC	20M	QPSK	50	0	-	Left Side	10mm	Ant 14	DSI 6	21100	2535	16.01	17.00	1.256	-	-	-0.14	0.083	0.104
LTE Band 7_ENDC	20M	QPSK	50	0	-	Right Side	10mm	Ant 14	DSI 6	21100	2535	16.01	17.00	1.256	-	-	0.15	0.010	0.013
LTE Band 7_ENDC	20M	QPSK	50	0	-	Top Side	10mm	Ant 14	DSI 6	21100	2535	16.01	17.00	1.256	-	-	0.07	0.176	0.221
LTE Band 7_ENDC	20M	QPSK	1	49	-	Front	10mm	Ant 31	DSI 6	21100	2535	16.71	17.50	1.199	-	-	-0.03	0.090	0.108
LTE Band 7_ENDC	20M	QPSK	1	49	-	Back	10mm	Ant 31	DSI 6	21100	2535	16.71	17.50	1.199	-	-	0.16	0.183	0.220
LTE Band 7_ENDC	20M	QPSK	1	49	-	Left Side	10mm	Ant 31	DSI 6	21100	2535	16.71	17.50	1.199	-	-	0.09	0.018	0.022
LTE Band 7_ENDC	20M	QPSK	1	49	-	Right Side	10mm	Ant 31	DSI 6	21100	2535	16.71	17.50	1.199	-	-	-0.15	0.063	0.076
LTE Band 7_ENDC	20M	QPSK	1	49	-	Bottom Side	10mm	Ant 31	DSI 6	21100	2535	16.71	17.50	1.199	-	-	0.09	0.111	0.133
LTE Band 7_ENDC	20M	QPSK	50	0	-	Front	10mm	Ant 31	DSI 6	21100	2535	16.68	17.50	1.208	-	-	0.19	0.088	0.106
LTE Band 7_ENDC	20M	QPSK	50	0	-	Back	10mm	Ant 31	DSI 6	21100	2535	16.68	17.50	1.208	-	-	0.03	0.156	0.188
LTE Band 7_ENDC	20M	QPSK	50	0	-	Left Side	10mm	Ant 31	DSI 6	21100	2535	16.68	17.50	1.208	-	-	0.07	0.015	0.018
LTE Band 7_ENDC	20M	QPSK	50	0	-	Right Side	10mm	Ant 31	DSI 6	21100	2535	16.68	17.50	1.208	-	-	0.15	0.061	0.074
LTE Band 7_ENDC	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 31	DSI 6	21100	2535	16.68	17.50	1.208	-	-	-0.18	0.107	0.129
LTE Band 41_ENDC	20M	QPSK	1	49	-	Front	10mm	Ant 14	DSI 6	40620	2535	19.35	20.30	1.245	62.9	1.006	0.18	0.152	0.190
LTE Band 41_ENDC	20M	QPSK	1	49	-	Back	10mm	Ant 14	DSI 6	40620	2535	19.35	20.30	1.245	62.9	1.006	-0.13	0.166	0.208
LTE Band 41_ENDC	20M	QPSK	1	49	-	Left Side	10mm	Ant 14	DSI 6	40620	2535	19.35	20.30	1.245	62.9	1.006	0.06	0.118	0.148
LTE Band 41_ENDC	20M	QPSK	1	49	-	Right Side	10mm	Ant 14	DSI 6	40620	2535	19.35	20.30	1.245	62.9	1.006	0.06	0.031	0.039
LTE Band 41_ENDC	20M	QPSK	1	49	-	Top Side	10mm	Ant 14	DSI 6	40620	2535	19.35	20.30	1.245	62.9	1.006	-0.15	0.309	0.387
LTE Band 41_ENDC	20M	QPSK	50	0	-	Front	10mm	Ant 14	DSI 6	40620	2535	19.31	20.30	1.256	62.9	1.006	0.1	0.152	0.192
LTE Band 41_ENDC	20M	QPSK	50	0	-	Back	10mm	Ant 14	DSI 6	40620	2535	19.31	20.30	1.256	62.9	1.006	0.11	0.165	0.208
LTE Band 41_ENDC	20M	QPSK	50	0	-	Left Side	10mm	Ant 14	DSI 6	40620	2535	19.31	20.30	1.256	62.9	1.006	0.17	0.133	0.168
LTE Band 41_ENDC	20M	QPSK	50	0	-	Right Side	10mm	Ant 14	DSI 6	40620	2535	19.31	20.30	1.256	62.9	1.006	0.09	0.022	0.028
LTE Band 41_ENDC	20M	QPSK	50	0	-	Top Side	10mm	Ant 14	DSI 6	40620	2535	19.31	20.30	1.256	62.9	1.006	0.08	0.288	0.364
LTE Band 41_ENDC	20M	QPSK	1	49	-	Front	10mm	Ant 31	DSI 6	40620	2535	20.12	20.80	1.169	62.9	1.006	-0.12	0.118	0.139
LTE Band 41_ENDC	20M	QPSK	1	49	-	Back	10mm	Ant 31	DSI 6	40620	2535	20.12	20.80	1.169	62.9	1.006	0.16	0.168	0.198
LTE Band 41_ENDC	20M	QPSK	1	49	-	Left Side	10mm	Ant 31	DSI 6	40620	2535	20.12	20.80	1.169	62.9	1.006	0.13	0.018	0.021
LTE Band 41_ENDC	20M	QPSK	1	49	-	Right Side	10mm	Ant 31	DSI 6	40620	2535	20.12	20.80	1.169	62.9	1.006	-0.03	0.067	0.079
LTE Band 41_ENDC	20M	QPSK	1	49	-	Bottom Side	10mm	Ant 31	DSI 6	40620	2535	20.12	20.80	1.169	62.9	1.006	0.17	0.106	0.125
LTE Band 41_ENDC	20M	QPSK	50	0	-	Front	10mm	Ant 31	DSI 6	40620	2535	20.04	20.80	1.191	62.9	1.006	-0.03	0.110	0.132
LTE Band 41_ENDC	20M	QPSK	50	0	-	Back	10mm	Ant 31	DSI 6	40620	2535	20.04	20.80	1.191	62.9	1.006	0.18	0.182	0.218
LTE Band 41_ENDC	20M	QPSK	50	0	-	Left Side	10mm	Ant 31	DSI 6	40620	2535	20.04	20.80	1.191	62.9	1.006	0.06	0.011	0.013
LTE Band 41_ENDC	20M	QPSK	50	0	-	Right Side	10mm	Ant 31	DSI 6	40620	2535	20.04	20.80	1.191	62.9	1.006	-0.08	0.075	0.090
LTE Band 41_ENDC	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 31	DSI 6	40620	2535	20.04	20.80	1.191	62.9	1.006	-0.14	0.109	0.131



< 5GNR NSA SAR >

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
1750MHz																		
	N66_ENDC	40M	BPSK	1	108	DFT-15	Front	10mm	Ant 14	DSI 6	349000	1745	14.31	15.50	1.315	0.1	0.057	0.075
	N66_ENDC	40M	BPSK	1	108	DFT-15	Back	10mm	Ant 14	DSI 6	349000	1745	14.31	15.50	1.315	-0.15	0.073	0.096
	N66_ENDC	40M	BPSK	1	108	DFT-15	Left Side	10mm	Ant 14	DSI 6	349000	1745	14.31	15.50	1.315	0.11	0.055	0.072
	N66_ENDC	40M	BPSK	1	108	DFT-15	Right Side	10mm	Ant 14	DSI 6	349000	1745	14.31	15.50	1.315	0.09	0.011	0.014
	N66_ENDC	40M	BPSK	1	108	DFT-15	Top Side	10mm	Ant 14	DSI 6	349000	1745	14.31	15.50	1.315	-0.19	0.131	0.172
	N66_ENDC	40M	BPSK	108	54	DFT-15	Front	10mm	Ant 14	DSI 6	349000	1745	14.28	15.50	1.324	0.16	0.053	0.070
	N66_ENDC	40M	BPSK	108	54	DFT-15	Back	10mm	Ant 14	DSI 6	349000	1745	14.28	15.50	1.324	-0.03	0.066	0.087
	N66_ENDC	40M	BPSK	108	54	DFT-15	Left Side	10mm	Ant 14	DSI 6	349000	1745	14.28	15.50	1.324	0.03	0.048	0.064
	N66_ENDC	40M	BPSK	108	54	DFT-15	Right Side	10mm	Ant 14	DSI 6	349000	1745	14.28	15.50	1.324	0.02	0.020	0.026
	N66_ENDC	40M	BPSK	108	54	DFT-15	Top Side	10mm	Ant 14	DSI 6	349000	1745	14.28	15.50	1.324	0.19	0.128	0.170
	N66_ENDC	40M	BPSK	1	108	DFT-15	Front	10mm	Ant 12	DSI 6	349000	1745	18.47	19.30	1.211	0.04	0.089	0.108
	N66_ENDC	40M	BPSK	1	108	DFT-15	Back	10mm	Ant 12	DSI 6	349000	1745	18.47	19.30	1.211	-0.16	0.180	0.218
	N66_ENDC	40M	BPSK	1	108	DFT-15	Left Side	10mm	Ant 12	DSI 6	349000	1745	18.47	19.30	1.211	-0.02	0.306	0.370
	N66_ENDC	40M	BPSK	1	108	DFT-15	Right Side	10mm	Ant 12	DSI 6	349000	1745	18.47	19.30	1.211	0.09	0.043	0.052
	N66_ENDC	40M	BPSK	1	108	DFT-15	Top Side	10mm	Ant 12	DSI 6	349000	1745	18.47	19.30	1.211	0.01	0.080	0.097
	N66_ENDC	40M	BPSK	108	54	DFT-15	Front	10mm	Ant 12	DSI 6	349000	1745	18.39	19.30	1.233	-0.18	0.087	0.107
	N66_ENDC	40M	BPSK	108	54	DFT-15	Back	10mm	Ant 12	DSI 6	349000	1745	18.39	19.30	1.233	-0.12	0.175	0.216
	N66_ENDC	40M	BPSK	108	54	DFT-15	Left Side	10mm	Ant 12	DSI 6	349000	1745	18.39	19.30	1.233	0.19	0.284	0.350
	N66_ENDC	40M	BPSK	108	54	DFT-15	Right Side	10mm	Ant 12	DSI 6	349000	1745	18.39	19.30	1.233	0.13	0.033	0.041
	N66_ENDC	40M	BPSK	108	54	DFT-15	Top Side	10mm	Ant 12	DSI 6	349000	1745	18.39	19.30	1.233	0.03	0.075	0.092
2600MHz																		
	N7_ENDC	50M	BPSK	1	135	DFT-15	Front	10mm	Ant 14	DSI 6	507000	2535	13.77	15.20	1.390	-0.02	0.060	0.083
	N7_ENDC	50M	BPSK	1	135	DFT-15	Back	10mm	Ant 14	DSI 6	507000	2535	13.77	15.20	1.390	0.03	0.067	0.093
	N7_ENDC	50M	BPSK	1	135	DFT-15	Left Side	10mm	Ant 14	DSI 6	507000	2535	13.77	15.20	1.390	0.06	0.041	0.057
	N7_ENDC	50M	BPSK	1	135	DFT-15	Right Side	10mm	Ant 14	DSI 6	507000	2535	13.77	15.20	1.390	0.07	0.044	0.061
	N7_ENDC	50M	BPSK	1	135	DFT-15	Top Side	10mm	Ant 14	DSI 6	507000	2535	13.77	15.20	1.390	-0.18	0.106	0.147
	N7_ENDC	50M	BPSK	135	68	DFT-15	Front	10mm	Ant 14	DSI 6	507000	2535	13.69	15.20	1.416	-0.15	0.057	0.081
	N7_ENDC	50M	BPSK	135	68	DFT-15	Back	10mm	Ant 14	DSI 6	507000	2535	13.69	15.20	1.416	0.16	0.063	0.089
	N7_ENDC	50M	BPSK	135	68	DFT-15	Left Side	10mm	Ant 14	DSI 6	507000	2535	13.69	15.20	1.416	-0.15	0.037	0.052
	N7_ENDC	50M	BPSK	135	68	DFT-15	Right Side	10mm	Ant 14	DSI 6	507000	2535	13.69	15.20	1.416	0.03	0.031	0.044
	N7_ENDC	50M	BPSK	135	68	DFT-15	Top Side	10mm	Ant 14	DSI 6	507000	2535	13.69	15.20	1.416	-0.18	0.090	0.127
	N7_ENDC	50M	BPSK	1	135	DFT-15	Front	10mm	Ant 12	DSI 6	507000	2535	20.89	21.70	1.205	0.09	0.129	0.155
	N7_ENDC	50M	BPSK	1	135	DFT-15	Back	10mm	Ant 12	DSI 6	507000	2535	20.89	21.70	1.205	-0.02	0.257	0.310
	N7_ENDC	50M	BPSK	1	135	DFT-15	Left Side	10mm	Ant 12	DSI 6	507000	2535	20.89	21.70	1.205	0.07	0.173	0.208
	N7_ENDC	50M	BPSK	1	135	DFT-15	Right Side	10mm	Ant 12	DSI 6	507000	2535	20.89	21.70	1.205	0.09	0.036	0.043
	N7_ENDC	50M	BPSK	1	135	DFT-15	Top Side	10mm	Ant 12	DSI 6	507000	2535	20.89	21.70	1.205	0.02	0.077	0.093
	N7_ENDC	50M	BPSK	135	68	DFT-15	Front	10mm	Ant 12	DSI 6	507000	2535	20.86	21.70	1.213	0.19	0.123	0.149
	N7_ENDC	50M	BPSK	135	68	DFT-15	Back	10mm	Ant 12	DSI 6	507000	2535	20.86	21.70	1.213	-0.04	0.218	0.265
	N7_ENDC	50M	BPSK	135	68	DFT-15	Left Side	10mm	Ant 12	DSI 6	507000	2535	20.86	21.70	1.213	0.09	0.169	0.205
	N7_ENDC	50M	BPSK	135	68	DFT-15	Right Side	10mm	Ant 12	DSI 6	507000	2535	20.86	21.70	1.213	0.01	0.032	0.039
	N7_ENDC	50M	BPSK	135	68	DFT-15	Top Side	10mm	Ant 12	DSI 6	507000	2535	20.86	21.70	1.213	0.09	0.082	0.099
3500-3900MHz																		
	N78_ENDC	100M	BPSK	1	137	DFT-30	Front	10mm	Ant 13	DSI 6	633334	3500.01	11.66	12.50	1.213	0.03	0.022	0.027
	N78_ENDC	100M	BPSK	1	137	DFT-30	Back	10mm	Ant 13	DSI 6	633334	3500.01	11.66	12.50	1.213	0.03	0.067	0.081
	N78_ENDC	100M	BPSK	1	137	DFT-30	Left Side	10mm	Ant 13	DSI 6	633334	3500.01	11.66	12.50	1.213	0.07	0.133	0.161
	N78_ENDC	100M	BPSK	1	137	DFT-30	Right Side	10mm	Ant 13	DSI 6	633334	3500.01	11.66	12.50	1.213	0.13	0.017	0.021
	N78_ENDC	100M	BPSK	1	137	DFT-30	Top Side	10mm	Ant 13	DSI 6	633334	3500.01	11.66	12.50	1.213	0.1	0.095	0.115
	N78_ENDC	100M	BPSK	135	69	DFT-30	Front	10mm	Ant 13	DSI 6	633334	3500.01	11.65	12.50	1.216	0.14	0.018	0.022
	N78_ENDC	100M	BPSK	135	69	DFT-30	Back	10mm	Ant 13	DSI 6	633334	3500.01	11.65	12.50	1.216	-0.12	0.063	0.077
	N78_ENDC	100M	BPSK	135	69	DFT-30	Left Side	10mm	Ant 13	DSI 6	633334	3500.01	11.65	12.50	1.216	-0.07	0.106	0.129
	N78_ENDC	100M	BPSK	135	69	DFT-30	Right Side	10mm	Ant 13	DSI 6	633334	3500.01	11.65	12.50	1.216	0.13	0.011	0.013
	N78_ENDC	100M	BPSK	135	69	DFT-30	Top Side	10mm	Ant 13	DSI 6	633334	3500.01	11.65	12.50	1.216	-0.13	0.095	0.116



	N78_ENDC	100M	BPSK	1	137	DFT-30	Front	10mm	Ant 13	DSI 6	650000	3750	11.46	12.50	1.271	0.16	0.050	0.064
	N78_ENDC	100M	BPSK	1	137	DFT-30	Back	10mm	Ant 13	DSI 6	650000	3750	11.46	12.50	1.271	0.07	0.070	0.089
	N78_ENDC	100M	BPSK	1	137	DFT-30	Left Side	10mm	Ant 13	DSI 6	650000	3750	11.46	12.50	1.271	-0.05	0.147	0.187
	N78_ENDC	100M	BPSK	1	137	DFT-30	Right Side	10mm	Ant 13	DSI 6	650000	3750	11.46	12.50	1.271	0.06	0.038	0.048
	N78_ENDC	100M	BPSK	1	137	DFT-30	Top Side	10mm	Ant 13	DSI 6	650000	3750	11.46	12.50	1.271	0.01	0.046	0.058
	N78_ENDC	100M	BPSK	135	69	DFT-30	Front	10mm	Ant 13	DSI 6	650000	3750	11.38	12.50	1.294	-0.03	0.045	0.058
	N78_ENDC	100M	BPSK	135	69	DFT-30	Back	10mm	Ant 13	DSI 6	650000	3750	11.38	12.50	1.294	0.02	0.068	0.088
	N78_ENDC	100M	BPSK	135	69	DFT-30	Left Side	10mm	Ant 13	DSI 6	650000	3750	11.38	12.50	1.294	0.03	0.143	0.185
	N78_ENDC	100M	BPSK	135	69	DFT-30	Right Side	10mm	Ant 13	DSI 6	650000	3750	11.38	12.50	1.294	0.03	0.033	0.043
	N78_ENDC	100M	BPSK	135	69	DFT-30	Top Side	10mm	Ant 13	DSI 6	650000	3750	11.38	12.50	1.294	-0.17	0.037	0.048
	N78_ENDC	100M	BPSK	1	137	DFT-30	Front	10mm	Ant 23	DSI 6	633334	3500.01	13.38	14.90	1.419	0.02	0.011	0.016
	N78_ENDC	100M	BPSK	1	137	DFT-30	Back	10mm	Ant 23	DSI 6	633334	3500.01	13.38	14.90	1.419	0.18	0.044	0.062
	N78_ENDC	100M	BPSK	1	137	DFT-30	Left Side	10mm	Ant 23	DSI 6	633334	3500.01	13.38	14.90	1.419	0.13	0.019	0.027
	N78_ENDC	100M	BPSK	1	137	DFT-30	Right Side	10mm	Ant 23	DSI 6	633334	3500.01	13.38	14.90	1.419	0.09	0.115	0.163
	N78_ENDC	100M	BPSK	1	137	DFT-30	Top Side	10mm	Ant 23	DSI 6	633334	3500.01	13.38	14.90	1.419	0.08	0.037	0.053
	N78_ENDC	100M	BPSK	135	69	DFT-30	Front	10mm	Ant 23	DSI 6	633334	3500.01	13.29	14.90	1.449	0.04	0.008	0.012
	N78_ENDC	100M	BPSK	135	69	DFT-30	Back	10mm	Ant 23	DSI 6	633334	3500.01	13.29	14.90	1.449	-0.14	0.042	0.061
	N78_ENDC	100M	BPSK	135	69	DFT-30	Left Side	10mm	Ant 23	DSI 6	633334	3500.01	13.29	14.90	1.449	0.09	0.013	0.019
	N78_ENDC	100M	BPSK	135	69	DFT-30	Right Side	10mm	Ant 23	DSI 6	633334	3500.01	13.29	14.90	1.449	0.18	0.110	0.159
	N78_ENDC	100M	BPSK	135	69	DFT-30	Top Side	10mm	Ant 23	DSI 6	633334	3500.01	13.29	14.90	1.449	0.14	0.035	0.051
	N78_ENDC	100M	BPSK	1	137	DFT-30	Front	10mm	Ant 23	DSI 6	650000	3750	13.65	14.90	1.334	-0.1	0.014	0.019
	N78_ENDC	100M	BPSK	1	137	DFT-30	Back	10mm	Ant 23	DSI 6	650000	3750	13.65	14.90	1.334	-0.06	0.051	0.068
	N78_ENDC	100M	BPSK	1	137	DFT-30	Left Side	10mm	Ant 23	DSI 6	650000	3750	13.65	14.90	1.334	0.08	0.016	0.021
	N78_ENDC	100M	BPSK	1	137	DFT-30	Right Side	10mm	Ant 23	DSI 6	650000	3750	13.65	14.90	1.334	-0.19	0.142	0.189
	N78_ENDC	100M	BPSK	1	137	DFT-30	Top Side	10mm	Ant 23	DSI 6	650000	3750	13.65	14.90	1.334	0.02	0.027	0.036
	N78_ENDC	100M	BPSK	135	69	DFT-30	Front	10mm	Ant 23	DSI 6	650000	3750	13.60	14.90	1.349	0.01	0.015	0.020
	N78_ENDC	100M	BPSK	135	69	DFT-30	Back	10mm	Ant 23	DSI 6	650000	3750	13.60	14.90	1.349	0.16	0.048	0.065
	N78_ENDC	100M	BPSK	135	69	DFT-30	Left Side	10mm	Ant 23	DSI 6	650000	3750	13.60	14.90	1.349	0.09	0.013	0.018
	N78_ENDC	100M	BPSK	135	69	DFT-30	Right Side	10mm	Ant 23	DSI 6	650000	3750	13.60	14.90	1.349	-0.06	0.108	0.146
	N78_ENDC	100M	BPSK	135	69	DFT-30	Top Side	10mm	Ant 23	DSI 6	650000	3750	13.60	14.90	1.349	-0.02	0.010	0.013



<SRS SA SAR>

Plot	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Measured Plimit (dBm)	Reported Plimit (dBm)	Reported Pmax (dBm)	Duty Cycle %	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	N78	100M	BPSK	1	137	DFT-30	Front	10mm	Ant 24	DSI 6	633334	3500.01	20.79	22.20	22.2	8.5	0.17	0.042	0.005
	N78	100M	BPSK	1	137	DFT-30	Back	10mm	Ant 24	DSI 6	633334	3500.01	20.79	22.20	22.2	8.5	0.13	0.068	0.008
	N78	100M	BPSK	1	137	DFT-30	Left Side	10mm	Ant 24	DSI 6	633334	3500.01	20.79	22.20	22.2	8.5	0.02	0.007	0.001
	N78	100M	BPSK	1	137	DFT-30	Right Side	10mm	Ant 24	DSI 6	633334	3500.01	20.79	22.20	22.2	8.5	0.11	0.082	0.010
	N78	100M	BPSK	1	137	DFT-30	Top Side	10mm	Ant 24	DSI 6	633334	3500.01	20.79	22.20	22.2	8.5	0.03	0.009	0.001
	N78	100M	BPSK	135	69	DFT-30	Front	10mm	Ant 24	DSI 6	633334	3500.01	20.75	22.20	22.2	8.5	0.19	0.040	0.005
	N78	100M	BPSK	135	69	DFT-30	Back	10mm	Ant 24	DSI 6	633334	3500.01	20.75	22.20	22.2	8.5	-0.18	0.071	0.008
	N78	100M	BPSK	135	69	DFT-30	Left Side	10mm	Ant 24	DSI 6	633334	3500.01	20.75	22.20	22.2	8.5	0.05	0.009	0.001
	N78	100M	BPSK	135	69	DFT-30	Right Side	10mm	Ant 24	DSI 6	633334	3500.01	20.75	22.20	22.2	8.5	-0.19	0.081	0.010
	N78	100M	BPSK	135	69	DFT-30	Top Side	10mm	Ant 24	DSI 6	633334	3500.01	20.75	22.20	22.2	8.5	0.04	0.012	0.001
	N78	100M	BPSK	1	137	DFT-30	Front	10mm	Ant 24	DSI 6	650000	3750	20.75	22.20	22.2	8.5	0.16	0.146	0.017
	N78	100M	BPSK	1	137	DFT-30	Back	10mm	Ant 24	DSI 6	650000	3750	20.75	22.20	22.2	8.5	-0.18	0.155	0.018
	N78	100M	BPSK	1	137	DFT-30	Left Side	10mm	Ant 24	DSI 6	650000	3750	20.75	22.20	22.2	8.5	-0.1	0.014	0.002
	N78	100M	BPSK	1	137	DFT-30	Right Side	10mm	Ant 24	DSI 6	650000	3750	20.75	22.20	22.2	8.5	0.01	0.253	0.030
	N78	100M	BPSK	1	137	DFT-30	Top Side	10mm	Ant 24	DSI 6	650000	3750	20.75	22.20	22.2	8.5	0.03	0.050	0.006
	N78	100M	BPSK	135	69	DFT-30	Front	10mm	Ant 24	DSI 6	650000	3750	20.72	22.20	22.2	8.5	-0.05	0.125	0.015
	N78	100M	BPSK	135	69	DFT-30	Back	10mm	Ant 24	DSI 6	650000	3750	20.72	22.20	22.2	8.5	0.02	0.155	0.019
	N78	100M	BPSK	135	69	DFT-30	Left Side	10mm	Ant 24	DSI 6	650000	3750	20.72	22.20	22.2	8.5	0.04	0.012	0.001
	N78	100M	BPSK	135	69	DFT-30	Right Side	10mm	Ant 24	DSI 6	650000	3750	20.72	22.20	22.2	8.5	-0.15	0.245	0.029
	N78	100M	BPSK	135	69	DFT-30	Top Side	10mm	Ant 24	DSI 6	650000	3750	20.72	22.20	22.2	8.5	0.05	0.048	0.006
	N78	100M	BPSK	1	137	DFT-30	Front	10mm	Ant 101	DSI 6	633334	3500.01	20.14	21.50	25.0	8.5	-0.15	0.071	0.018
	N78	100M	BPSK	1	137	DFT-30	Back	10mm	Ant 101	DSI 6	633334	3500.01	20.14	21.50	25.0	8.5	-0.07	0.382	0.099
	N78	100M	BPSK	1	137	DFT-30	Left Side	10mm	Ant 101	DSI 6	633334	3500.01	20.14	21.50	25.0	8.5	0.02	0.167	0.043
	N78	100M	BPSK	1	137	DFT-30	Right Side	10mm	Ant 101	DSI 6	633334	3500.01	20.14	21.50	25.0	8.5	0.14	0.013	0.003
	N78	100M	BPSK	1	137	DFT-30	Top Side	10mm	Ant 101	DSI 6	633334	3500.01	20.14	21.50	25.0	8.5	0.04	0.079	0.021
	N78	100M	BPSK	135	69	DFT-30	Front	10mm	Ant 101	DSI 6	633334	3500.01	20.13	21.50	25.0	8.5	0.06	0.072	0.019
	N78	100M	BPSK	135	69	DFT-30	Back	10mm	Ant 101	DSI 6	633334	3500.01	20.13	21.50	25.0	8.5	-0.09	0.239	0.062
	N78	100M	BPSK	135	69	DFT-30	Left Side	10mm	Ant 101	DSI 6	633334	3500.01	20.13	21.50	25.0	8.5	-0.08	0.155	0.040
	N78	100M	BPSK	135	69	DFT-30	Right Side	10mm	Ant 101	DSI 6	633334	3500.01	20.13	21.50	25.0	8.5	0.02	0.010	0.003
	N78	100M	BPSK	135	69	DFT-30	Top Side	10mm	Ant 101	DSI 6	633334	3500.01	20.13	21.50	25.0	8.5	0.11	0.069	0.018
	N78	100M	BPSK	1	137	DFT-30	Front	10mm	Ant 101	DSI 6	650000	3750	19.91	21.50	25.0	8.5	-0.17	0.062	0.017
	N78	100M	BPSK	1	137	DFT-30	Back	10mm	Ant 101	DSI 6	650000	3750	19.91	21.50	25.0	8.5	-0.03	0.376	0.103
	N78	100M	BPSK	1	137	DFT-30	Left Side	10mm	Ant 101	DSI 6	650000	3750	19.91	21.50	25.0	8.5	-0.17	0.133	0.036
	N78	100M	BPSK	1	137	DFT-30	Right Side	10mm	Ant 101	DSI 6	650000	3750	19.91	21.50	25.0	8.5	0.05	0.011	0.003
	N78	100M	BPSK	1	137	DFT-30	Top Side	10mm	Ant 101	DSI 6	650000	3750	19.91	21.50	25.0	8.5	0.09	0.064	0.018
	N78	100M	BPSK	135	69	DFT-30	Front	10mm	Ant 101	DSI 6	650000	3750	19.90	21.50	25.0	8.5	0.03	0.063	0.017
	N78	100M	BPSK	135	69	DFT-30	Back	10mm	Ant 101	DSI 6	650000	3750	19.90	21.50	25.0	8.5	0.18	0.378	0.104
	N78	100M	BPSK	135	69	DFT-30	Left Side	10mm	Ant 101	DSI 6	650000	3750	19.90	21.50	25.0	8.5	0.03	0.134	0.037
	N78	100M	BPSK	135	69	DFT-30	Right Side	10mm	Ant 101	DSI 6	650000	3750	19.90	21.50	25.0	8.5	-0.02	0.009	0.002
	N78	100M	BPSK	135	69	DFT-30	Top Side	10mm	Ant 101	DSI 6	650000	3750	19.90	21.50	25.0	8.5	0.06	0.079	0.022



<SRS NSA SAR>

Plot	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Measured Plimit (dBm)	Reported Plimit (dBm)	Reported Pmax (dBm)	Duty Cycle %	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	N78_ENDC	100M	BPSK	1	137	DFT-30	Front	10mm	Ant 24	DSI 6	633334	3500.01	20.79	22.20	22.2	8.5	0.17	0.042	0.005
	N78_ENDC	100M	BPSK	1	137	DFT-30	Back	10mm	Ant 24	DSI 6	633334	3500.01	20.79	22.20	22.2	8.5	0.13	0.068	0.008
	N78_ENDC	100M	BPSK	1	137	DFT-30	Left Side	10mm	Ant 24	DSI 6	633334	3500.01	20.79	22.20	22.2	8.5	0.02	0.007	0.001
	N78_ENDC	100M	BPSK	1	137	DFT-30	Right Side	10mm	Ant 24	DSI 6	633334	3500.01	20.79	22.20	22.2	8.5	0.11	0.082	0.010
	N78_ENDC	100M	BPSK	1	137	DFT-30	Top Side	10mm	Ant 24	DSI 6	633334	3500.01	20.79	22.20	22.2	8.5	0.03	0.009	0.001
	N78_ENDC	100M	BPSK	135	69	DFT-30	Front	10mm	Ant 24	DSI 6	633334	3500.01	20.75	22.20	22.2	8.5	0.19	0.040	0.005
	N78_ENDC	100M	BPSK	135	69	DFT-30	Back	10mm	Ant 24	DSI 6	633334	3500.01	20.75	22.20	22.2	8.5	-0.18	0.071	0.008
	N78_ENDC	100M	BPSK	135	69	DFT-30	Left Side	10mm	Ant 24	DSI 6	633334	3500.01	20.75	22.20	22.2	8.5	0.05	0.009	0.001
	N78_ENDC	100M	BPSK	135	69	DFT-30	Right Side	10mm	Ant 24	DSI 6	633334	3500.01	20.75	22.20	22.2	8.5	-0.19	0.081	0.010
	N78_ENDC	100M	BPSK	135	69	DFT-30	Top Side	10mm	Ant 24	DSI 6	633334	3500.01	20.75	22.20	22.2	8.5	0.04	0.012	0.001
	N78_ENDC	100M	BPSK	1	137	DFT-30	Front	10mm	Ant 24	DSI 6	650000	3750	20.75	22.20	22.2	8.5	0.16	0.146	0.017
	N78_ENDC	100M	BPSK	1	137	DFT-30	Back	10mm	Ant 24	DSI 6	650000	3750	20.75	22.20	22.2	8.5	-0.18	0.155	0.018
	N78_ENDC	100M	BPSK	1	137	DFT-30	Left Side	10mm	Ant 24	DSI 6	650000	3750	20.75	22.20	22.2	8.5	-0.1	0.014	0.002
	N78_ENDC	100M	BPSK	1	137	DFT-30	Right Side	10mm	Ant 24	DSI 6	650000	3750	20.75	22.20	22.2	8.5	0.01	0.253	0.030
	N78_ENDC	100M	BPSK	1	137	DFT-30	Top Side	10mm	Ant 24	DSI 6	650000	3750	20.75	22.20	22.2	8.5	0.03	0.050	0.006
	N78_ENDC	100M	BPSK	135	69	DFT-30	Front	10mm	Ant 24	DSI 6	650000	3750	20.72	22.20	22.2	8.5	-0.05	0.125	0.015
	N78_ENDC	100M	BPSK	135	69	DFT-30	Back	10mm	Ant 24	DSI 6	650000	3750	20.72	22.20	22.2	8.5	0.02	0.155	0.019
	N78_ENDC	100M	BPSK	135	69	DFT-30	Left Side	10mm	Ant 24	DSI 6	650000	3750	20.72	22.20	22.2	8.5	0.04	0.012	0.001
	N78_ENDC	100M	BPSK	135	69	DFT-30	Right Side	10mm	Ant 24	DSI 6	650000	3750	20.72	22.20	22.2	8.5	-0.15	0.245	0.029
	N78_ENDC	100M	BPSK	135	69	DFT-30	Top Side	10mm	Ant 24	DSI 6	650000	3750	20.72	22.20	22.2	8.5	0.05	0.048	0.006
	N78_ENDC	100M	BPSK	1	137	DFT-30	Front	10mm	Ant 101	DSI 6	633334	3500.01	17.20	18.50	25.0	8.5	-0.13	0.036	0.018
	N78_ENDC	100M	BPSK	1	137	DFT-30	Back	10mm	Ant 101	DSI 6	633334	3500.01	17.20	18.50	25.0	8.5	-0.06	0.191	0.098
	N78_ENDC	100M	BPSK	1	137	DFT-30	Left Side	10mm	Ant 101	DSI 6	633334	3500.01	17.20	18.50	25.0	8.5	-0.12	0.084	0.043
	N78_ENDC	100M	BPSK	1	137	DFT-30	Right Side	10mm	Ant 101	DSI 6	633334	3500.01	17.20	18.50	25.0	8.5	0.06	0.019	0.010
	N78_ENDC	100M	BPSK	1	137	DFT-30	Top Side	10mm	Ant 101	DSI 6	633334	3500.01	17.20	18.50	25.0	8.5	-0.01	0.040	0.020
	N78_ENDC	100M	BPSK	135	69	DFT-30	Front	10mm	Ant 101	DSI 6	633334	3500.01	17.16	18.50	25.0	8.5	-0.09	0.036	0.019
	N78_ENDC	100M	BPSK	135	69	DFT-30	Back	10mm	Ant 101	DSI 6	633334	3500.01	17.16	18.50	25.0	8.5	0.13	0.120	0.062
	N78_ENDC	100M	BPSK	135	69	DFT-30	Left Side	10mm	Ant 101	DSI 6	633334	3500.01	17.16	18.50	25.0	8.5	-0.1	0.078	0.040
	N78_ENDC	100M	BPSK	135	69	DFT-30	Right Side	10mm	Ant 101	DSI 6	633334	3500.01	17.16	18.50	25.0	8.5	0.11	0.015	0.008
	N78_ENDC	100M	BPSK	135	69	DFT-30	Top Side	10mm	Ant 101	DSI 6	633334	3500.01	17.16	18.50	25.0	8.5	0.04	0.035	0.018
	N78_ENDC	100M	BPSK	1	137	DFT-30	Front	10mm	Ant 101	DSI 6	650000	3750	16.95	18.50	25.0	8.5	-0.17	0.031	0.017
	N78_ENDC	100M	BPSK	1	137	DFT-30	Back	10mm	Ant 101	DSI 6	650000	3750	16.95	18.50	25.0	8.5	0.02	0.188	0.102
	N78_ENDC	100M	BPSK	1	137	DFT-30	Left Side	10mm	Ant 101	DSI 6	650000	3750	16.95	18.50	25.0	8.5	0.14	0.067	0.036
	N78_ENDC	100M	BPSK	1	137	DFT-30	Right Side	10mm	Ant 101	DSI 6	650000	3750	16.95	18.50	25.0	8.5	0.16	0.018	0.010
	N78_ENDC	100M	BPSK	1	137	DFT-30	Top Side	10mm	Ant 101	DSI 6	650000	3750	16.95	18.50	25.0	8.5	-0.06	0.032	0.017
	N78_ENDC	100M	BPSK	135	69	DFT-30	Front	10mm	Ant 101	DSI 6	650000	3750	16.88	18.50	25.0	8.5	-0.15	0.032	0.018
	N78_ENDC	100M	BPSK	135	69	DFT-30	Back	10mm	Ant 101	DSI 6	650000	3750	16.88	18.50	25.0	8.5	-0.13	0.189	0.104
	N78_ENDC	100M	BPSK	135	69	DFT-30	Left Side	10mm	Ant 101	DSI 6	650000	3750	16.88	18.50	25.0	8.5	-0.06	0.067	0.037
	N78_ENDC	100M	BPSK	135	69	DFT-30	Right Side	10mm	Ant 101	DSI 6	650000	3750	16.88	18.50	25.0	8.5	0.09	0.015	0.008
	N78_ENDC	100M	BPSK	135	69	DFT-30	Top Side	10mm	Ant 101	DSI 6	650000	3750	16.88	18.50	25.0	8.5	-0.01	0.040	0.022

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
WIFI/BT																
	Bluetooth	DH5 1Mbps	Front	10mm	Ant 24	Full	39	2441	13.40	15.00	1.445	76.79	1.302	0.19	0.039	0.073
	Bluetooth	DH5 1Mbps	Back	10mm	Ant 24	Full	39	2441	13.40	15.00	1.445	76.79	1.302	0.08	0.081	0.151
	Bluetooth	DH5 1Mbps	Left Side	10mm	Ant 24	Full	39	2441	13.40	15.00	1.445	76.79	1.302	0.02	0.003	0.006
50	Bluetooth	DH5 1Mbps	Right Side	10mm	Ant 24	Full	39	2441	13.40	15.00	1.445	76.79	1.302	-0.11	0.097	0.183
	Bluetooth	DH5 1Mbps	Top Side	10mm	Ant 24	Full	39	2441	13.40	15.00	1.445	76.79	1.302	0.12	0.005	0.010
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 24+22	Reduced	6	2437	17.96	19.00	1.271	99.14	1.009	0.01	0.062	0.079
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 24+22	Reduced	6	2437	17.96	19.00	1.271	99.14	1.009	-0.19	0.110	0.141
	WLAN2.4GHz	802.11b 1Mbps	Left Side	10mm	Ant 24+22	Reduced	6	2437	17.96	19.00	1.271	99.14	1.009	0.05	0.010	0.013
51	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	Ant 24+22	Reduced	6	2437	17.96	19.00	1.271	99.14	1.009	-0.12	0.174	0.223
	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	Ant 24+22	Reduced	6	2437	17.96	19.00	1.271	99.14	1.009	-0.09	0.015	0.019
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Front	10mm	Ant 22+24	Reduced	42	5210	16.59	18.00	1.384	88.19	1.134	-0.11	0.176	0.276
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 22+24	Reduced	42	5210	16.59	18.00	1.384	88.19	1.134	-0.02	0.130	0.204
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Left Side	10mm	Ant 22+24	Reduced	42	5210	16.59	18.00	1.384	88.19	1.134	-0.15	0.061	0.096
52	WLAN5.2GHz	802.11ac-VHT80 MCS0	Right Side	10mm	Ant 22+24	Reduced	42	5210	16.59	18.00	1.384	88.19	1.134	-0.02	0.257	0.403
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Top Side	10mm	Ant 22+24	Reduced	42	5210	16.59	18.00	1.384	88.19	1.134	0.1	0.220	0.345
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Front	10mm	Ant 22+24	Reduced	155	5775	16.41	18.00	1.442	88.19	1.134	-0.1	0.135	0.221
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 22+24	Reduced	155	5775	16.41	18.00	1.442	88.19	1.134	-0.17	0.110	0.180
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Side	10mm	Ant 22+24	Reduced	155	5775	16.41	18.00	1.442	88.19	1.134	0.11	0.013	0.021
53	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Side	10mm	Ant 22+24	Reduced	155	5775	16.41	18.00	1.442	88.19	1.134	-0.03	0.319	0.522
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Top Side	10mm	Ant 22+24	Reduced	155	5775	16.41	18.00	1.442	88.19	1.134	0.08	0.127	0.208



15.3 Body Worn Accessory SAR

<GSM/WCDMA/LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
750MHz																				
	LTE Band 13	10M	QPSK	1	25	-	Front	15mm	Ant 11	DSI 4	23230	782	22.95	24.20	1.334	-	-	0.03	0.038	0.051
	LTE Band 13	10M	QPSK	1	25	-	Back	15mm	Ant 11	DSI 4	23230	782	22.95	24.20	1.334	-	-	-0.1	0.061	0.081
	LTE Band 13	10M	QPSK	25	0	-	Front	15mm	Ant 11	DSI 4	23230	782	21.81	23.20	1.377	-	-	0.05	0.030	0.041
	LTE Band 13	10M	QPSK	25	0	-	Back	15mm	Ant 11	DSI 4	23230	782	21.81	23.20	1.377	-	-	0.06	0.040	0.055
	LTE Band 13	10M	QPSK	1	25	-	Front	15mm	Ant 41	DSI 4	23230	782	23.06	24.20	1.300	-	-	0.14	0.059	0.077
54	LTE Band 13	10M	QPSK	1	25	-	Back	15mm	Ant 41	DSI 4	23230	782	23.06	24.20	1.300	-	-	-0.1	0.102	0.133
	LTE Band 13	10M	QPSK	25	0	-	Front	15mm	Ant 41	DSI 4	23230	782	21.92	23.20	1.343	-	-	0.15	0.045	0.060
	LTE Band 13	10M	QPSK	25	0	-	Back	15mm	Ant 41	DSI 4	23230	782	21.92	23.20	1.343	-	-	0.09	0.060	0.081
	LTE Band 12	10M	QPSK	1	25	-	Front	15mm	Ant 11	DSI 4	23095	707.5	23.86	25.00	1.300	-	-	0.1	0.117	0.152
	LTE Band 12	10M	QPSK	1	25	-	Back	15mm	Ant 11	DSI 4	23095	707.5	23.86	25.00	1.300	-	-	-0.1	0.174	0.226
	LTE Band 12	10M	QPSK	25	0	-	Front	15mm	Ant 11	DSI 4	23095	707.5	22.74	24.00	1.337	-	-	0.07	0.083	0.111
	LTE Band 12	10M	QPSK	25	0	-	Back	15mm	Ant 11	DSI 4	23095	707.5	22.74	24.00	1.337	-	-	-0.09	0.115	0.154
	LTE Band 12	10M	QPSK	1	25	-	Front	15mm	Ant 41	DSI 4	23095	707.5	23.89	25.00	1.291	-	-	0.12	0.162	0.209
55	LTE Band 12	10M	QPSK	1	25	-	Back	15mm	Ant 41	DSI 4	23095	707.5	23.89	25.00	1.291	-	-	0.19	0.209	0.270
	LTE Band 12	10M	QPSK	25	0	-	Front	15mm	Ant 41	DSI 4	23095	707.5	22.75	24.00	1.334	-	-	-0.19	0.129	0.172
	LTE Band 12	10M	QPSK	25	0	-	Back	15mm	Ant 41	DSI 4	23095	707.5	22.75	24.00	1.334	-	-	-0.1	0.162	0.216
835MHz																				
	GSM850	-	-	-	-	GPRS 2 Tx slots	Front	15mm	Ant 11	DSI 4	189	836.4	30.27	31.50	1.327	-	-	0.14	0.162	0.215
56	GSM850	-	-	-	-	GPRS 2 Tx slots	Back	15mm	Ant 11	DSI 4	189	836.4	30.27	31.50	1.327	-	-	-0.17	0.320	0.425
	GSM850	-	-	-	-	GPRS 2 Tx slots	Front	15mm	Ant 41	DSI 4	189	836.4	30.34	31.50	1.306	-	-	0.11	0.122	0.159
	GSM850	-	-	-	-	GPRS 2 Tx slots	Back	15mm	Ant 41	DSI 4	189	836.4	30.34	31.50	1.306	-	-	-0.09	0.206	0.269
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 11	DSI 4	4182	836.4	23.72	25.00	1.343	-	-	-0.04	0.156	0.209
57	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 11	DSI 4	4182	836.4	23.72	25.00	1.343	-	-	0.01	0.227	0.305
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 41	DSI 4	4182	836.4	23.70	25.00	1.349	-	-	0.11	0.126	0.170
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 41	DSI 4	4182	836.4	23.70	25.00	1.349	-	-	-0.17	0.210	0.283
	LTE Band 26	15M	QPSK	1	37	-	Front	15mm	Ant 11	DSI 4	26865	831.5	23.63	25.00	1.371	-	-	-0.16	0.156	0.214
58	LTE Band 26	15M	QPSK	1	37	-	Back	15mm	Ant 11	DSI 4	26865	831.5	23.63	25.00	1.371	-	-	-0.1	0.266	0.365
	LTE Band 26	15M	QPSK	36	0	-	Front	15mm	Ant 11	DSI 4	26865	831.5	22.55	24.00	1.396	-	-	0.07	0.124	0.173
	LTE Band 26	15M	QPSK	36	0	-	Back	15mm	Ant 11	DSI 4	26865	831.5	22.55	24.00	1.396	-	-	0.1	0.173	0.242
	LTE Band 26	15M	QPSK	1	37	-	Front	15mm	ANT 41	DSI 4	26865	831.5	23.88	25.00	1.294	-	-	-0.16	0.122	0.158
	LTE Band 26	15M	QPSK	1	37	-	Back	15mm	ANT 41	DSI 4	26865	831.5	23.88	25.00	1.294	-	-	0.1	0.192	0.248
	LTE Band 26	15M	QPSK	36	0	-	Front	15mm	Ant 41	DSI 4	26865	831.5	22.66	24.00	1.361	-	-	0.15	0.093	0.127
	LTE Band 26	15M	QPSK	36	0	-	Back	15mm	Ant 41	DSI 4	26865	831.5	22.66	24.00	1.361	-	-	0.11	0.123	0.167
1750MHz																				
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 14	DSI 7	1413	1732.6	24.33	25.50	1.309	-	-	-0.18	0.346	0.453
59	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 14	DSI 7	1413	1732.6	24.33	25.50	1.309	-	-	0.17	0.634	0.830
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 14	DSI 7	1312	1712.4	24.28	25.50	1.324	-	-	0.02	0.500	0.662
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 14	DSI 7	1513	1752.6	24.30	25.50	1.318	-	-	0.03	0.520	0.685
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 31	DSI 4	1413	1732.6	20.11	21.00	1.227	-	-	0.09	0.175	0.215
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 31	DSI 4	1413	1732.6	20.11	21.00	1.227	-	-	0.15	0.240	0.295
	LTE Band 4	20M	QPSK	1	49	-	Front	15mm	Ant 14	DSI 7	20175	1732.5	23.00	24.50	1.413	-	-	0.06	0.268	0.379
60	LTE Band 4	20M	QPSK	1	49	-	Back	15mm	Ant 14	DSI 7	20175	1732.5	23.00	24.50	1.413	-	-	0.13	0.456	0.644
	LTE Band 4	20M	QPSK	50	0	-	Front	15mm	Ant 14	DSI 7	20175	1732.5	21.95	23.50	1.429	-	-	0.05	0.240	0.343
	LTE Band 4	20M	QPSK	50	0	-	Back	15mm	Ant 14	DSI 7	20175	1732.5	21.95	23.50	1.429	-	-	0.09	0.321	0.459
	LTE Band 4	20M	QPSK	1	49	-	Front	15mm	Ant 31	DSI 4	20175	1732.5	20.20	21.50	1.349	-	-	-0.13	0.205	0.277
	LTE Band 4	20M	QPSK	1	49	-	Back	15mm	Ant 31	DSI 4	20175	1732.5	20.20	21.50	1.349	-	-	0.15	0.239	0.322
	LTE Band 4	20M	QPSK	50	0	-	Front	15mm	Ant 31	DSI 4	20175	1732.5	20.11	21.50	1.377	-	-	0.08	0.195	0.269
	LTE Band 4	20M	QPSK	50	0	-	Back	15mm	Ant 31	DSI 4	20175	1732.5	20.11	21.50	1.377	-	-	-0.12	0.236	0.325
	LTE Band 66	20M	QPSK	1	49	-	Front	15mm	Ant 14	DSI 7	132322	1745	23.01	24.00	1.256	-	-	-0.11	0.237	0.298



61	LTE Band 66	20M	QPSK	1	49	-	Back	15mm	Ant 14	DSI 7	132322	1745	23.01	24.00	1.256	-	-	0.12	0.455	0.571
	LTE Band 66	20M	QPSK	50	0	-	Front	15mm	Ant 14	DSI 7	132322	1745	22.03	23.00	1.250	-	-	0.08	0.186	0.233
	LTE Band 66	20M	QPSK	50	0	-	Back	15mm	Ant 14	DSI 7	132322	1745	22.03	23.00	1.250	-	-	0.03	0.239	0.299
	LTE Band 66	20M	QPSK	1	49	-	Front	15mm	Ant 31	DSI 4	132322	1745	20.25	21.00	1.189	-	-	0.16	0.205	0.244
	LTE Band 66	20M	QPSK	1	49	-	Back	15mm	Ant 31	DSI 4	132322	1745	20.25	21.00	1.189	-	-	0.09	0.262	0.311
	LTE Band 66	20M	QPSK	50	0	-	Front	15mm	Ant 31	DSI 4	132322	1745	20.15	21.00	1.216	-	-	0.06	0.204	0.248
	LTE Band 66	20M	QPSK	50	0	-	Back	15mm	Ant 31	DSI 4	132322	1745	20.15	21.00	1.216	-	-	-0.1	0.233	0.283
1900MHz																				
	GSM1900	-	-	-	-	GPRS 2 Tx slots	Front	15mm	Ant 14	DSI 7	661	1880	27.60	28.30	1.175	-	-	0.13	0.140	0.164
	GSM1900	-	-	-	-	GPRS 2 Tx slots	Back	15mm	Ant 14	DSI 7	661	1880	27.60	28.30	1.175	-	-	0.12	0.279	0.328
	GSM1900	-	-	-	-	GPRS 2 Tx slots	Front	15mm	Ant 31	DSI 4	661	1880	26.03	27.30	1.340	-	-	0.16	0.169	0.226
62	GSM1900	-	-	-	-	GPRS 2 Tx slots	Back	15mm	Ant 31	DSI 4	661	1880	26.03	27.30	1.340	-	-	-0.02	0.302	0.405
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 14	DSI 7	9400	1880	22.55	24.00	1.396	-	-	0.04	0.219	0.306
63	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 14	DSI 7	9400	1880	22.55	24.00	1.396	-	-	0.13	0.371	0.518
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 31	DSI 4	9400	1880	19.71	21.00	1.346	-	-	0.19	0.158	0.213
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 31	DSI 4	9400	1880	19.71	21.00	1.346	-	-	0.04	0.250	0.336
	LTE Band 2	20M	QPSK	1	49	-	Front	15mm	Ant 14	DSI 7	18900	1880	22.20	23.50	1.349	-	-	0.14	0.201	0.271
64	LTE Band 2	20M	QPSK	1	49	-	Back	15mm	Ant 14	DSI 7	18900	1880	22.20	23.50	1.349	-	-	0.15	0.327	0.441
	LTE Band 2	20M	QPSK	50	0	-	Front	15mm	Ant 14	DSI 7	18900	1880	21.15	22.50	1.365	-	-	-0.18	0.154	0.210
	LTE Band 2	20M	QPSK	50	0	-	Back	15mm	Ant 14	DSI 7	18900	1880	21.15	22.50	1.365	-	-	-0.09	0.188	0.257
	LTE Band 2	20M	QPSK	1	49	-	Front	15mm	Ant 31	DSI 4	18900	1880	19.45	21.00	1.429	-	-	-0.08	0.170	0.243
	LTE Band 2	20M	QPSK	1	49	-	Back	15mm	Ant 31	DSI 4	18900	1880	19.45	21.00	1.429	-	-	0.04	0.252	0.360
	LTE Band 2	20M	QPSK	50	0	-	Front	15mm	Ant 31	DSI 4	18900	1880	19.41	21.00	1.442	-	-	-0.09	0.163	0.235
	LTE Band 2	20M	QPSK	50	0	-	Back	15mm	Ant 31	DSI 4	18900	1880	19.41	21.00	1.442	-	-	-0.15	0.202	0.291
2600MHz																				
	LTE Band 7	20M	QPSK	1	49	-	Front	15mm	Ant 14	DSI 7	21100	2535	23.20	24.50	1.349	-	-	0.17	0.262	0.353
65	LTE Band 7	20M	QPSK	1	49	-	Back	15mm	Ant 14	DSI 7	21100	2535	23.20	24.50	1.349	-	-	0.07	0.445	0.600
	LTE Band 7C	20M	QPSK	1	49	-	Back	15mm	Ant 14	DSI 7	21100+20902	2535+2515.2	23.14	24.50	1.368	-	-	0.01	0.430	0.588
	LTE Band 7	20M	QPSK	50	0	-	Front	15mm	Ant 14	DSI 7	21100	2535	22.18	23.50	1.355	-	-	-0.12	0.210	0.285
	LTE Band 7	20M	QPSK	50	0	-	Back	15mm	Ant 14	DSI 7	21100	2535	22.18	23.50	1.355	-	-	-0.15	0.400	0.542
	LTE Band 7	20M	QPSK	1	49	-	Front	15mm	Ant 31	DSI 4	21100	2535	20.66	21.50	1.213	-	-	0.12	0.124	0.150
	LTE Band 7	20M	QPSK	1	49	-	Back	15mm	Ant 31	DSI 4	21100	2535	20.66	21.50	1.213	-	-	-0.19	0.311	0.377
	LTE Band 7C	20M	QPSK	1	49	-	Back	15mm	Ant 31	DSI 4	21100+20902	2535+2515.2	20.57	21.50	1.239	-	-	0.03	0.245	0.304
	LTE Band 7	20M	QPSK	50	0	-	Front	15mm	Ant 31	DSI 4	21100	2535	20.50	21.50	1.259	-	-	-0.08	0.130	0.164
	LTE Band 7	20M	QPSK	50	0	-	Back	15mm	Ant 31	DSI 4	21100	2535	20.50	21.50	1.259	-	-	0.18	0.221	0.278
	LTE Band 41	20M	QPSK	1	49	-	Front	15mm	Ant 14	DSI 7	40620	2593	23.63	24.80	1.309	62.9	1.006	0.06	0.250	0.329
66	LTE Band 41	20M	QPSK	1	49	-	Back	15mm	Ant 14	DSI 7	40620	2593	23.63	24.80	1.309	62.9	1.006	-0.06	0.279	0.367
	LTE Band 41C	20M	QPSK	1	49	-	Back	15mm	Ant 14	DSI 7	40620+40422	2593+2573.2	23.25	24.80	1.429	62.9	1.006	0.12	0.243	0.349
	LTE Band 41	20M	QPSK	50	0	-	Front	15mm	Ant 14	DSI 7	40620	2593	22.55	23.80	1.334	62.9	1.006	0.11	0.166	0.223
	LTE Band 41	20M	QPSK	50	0	-	Back	15mm	Ant 14	DSI 7	40620	2593	22.55	23.80	1.334	62.9	1.006	-0.19	0.149	0.200
	LTE Band 41	20M	QPSK	1	49	-	Front	15mm	Ant 31	DSI 4	40620	2593	23.71	24.80	1.285	62.9	1.006	0.14	0.130	0.168
	LTE Band 41	20M	QPSK	1	49	-	Back	15mm	Ant 31	DSI 4	40620	2593	23.71	24.80	1.285	62.9	1.006	0.05	0.279	0.361
	LTE Band 41C	20M	QPSK	1	49	-	Back	15mm	Ant 31	DSI 4	40620+40422	2593+2573.2	23.51	24.80	1.346	62.9	1.006	-0.07	0.178	0.241
	LTE Band 41	20M	QPSK	50	0	-	Front	15mm	Ant 31	DSI 4	40620	2593	22.66	23.80	1.300	62.9	1.006	0.04	0.103	0.135
	LTE Band 41	20M	QPSK	50	0	-	Back	15mm	Ant 31	DSI 4	40620	2593	22.66	23.80	1.300	62.9	1.006	0.05	0.168	0.220



<5G NR SA SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
835MHz																		
	N5	20M	BPSK	1	53	DFT-15	Front	15mm	Ant 11	DSI 4	167300	836.5	23.77	24.70	1.239	0.09	0.138	0.171
	N5	20M	BPSK	1	53	DFT-15	Back	15mm	Ant 11	DSI 4	167300	836.5	23.77	24.70	1.239	-0.04	0.200	0.248
	N5	20M	BPSK	50	28	DFT-15	Front	15mm	Ant 11	DSI 4	167300	836.5	23.74	24.70	1.247	-0.03	0.138	0.172
67	N5	20M	BPSK	50	28	DFT-15	Back	15mm	Ant 11	DSI 4	167300	836.5	23.74	24.70	1.247	-0.01	0.231	0.288
	N5	20M	BPSK	1	53	DFT-15	Front	15mm	Ant 41	DSI 4	167300	836.5	23.75	24.40	1.161	-0.13	0.118	0.137
	N5	20M	BPSK	1	53	DFT-15	Back	15mm	Ant 41	DSI 4	167300	836.5	23.75	24.40	1.161	-0.06	0.170	0.197
	N5	20M	BPSK	50	28	DFT-15	Front	15mm	Ant 41	DSI 4	167300	836.5	23.74	24.40	1.164	0.07	0.117	0.136
	N5	20M	BPSK	50	28	DFT-15	Back	15mm	Ant 41	DSI 4	167300	836.5	23.74	24.40	1.164	0.15	0.153	0.178
1750MHz																		
	N66	40M	BPSK	1	108	DFT-15	Front	15mm	Ant 14	DSI 7	349000	1745	20.28	21.30	1.265	0.05	0.126	0.159
	N66	40M	BPSK	1	108	DFT-15	Back	15mm	Ant 14	DSI 7	349000	1745	20.28	21.30	1.265	0.19	0.262	0.331
	N66	40M	BPSK	108	54	DFT-15	Front	15mm	Ant 14	DSI 7	349000	1745	20.20	21.30	1.288	-0.16	0.128	0.165
	N66	40M	BPSK	108	54	DFT-15	Back	15mm	Ant 14	DSI 7	349000	1745	20.20	21.30	1.288	0.04	0.276	0.356
	N66	40M	BPSK	1	108	DFT-15	Front	15mm	Ant 31	DSI 4	349000	1745	19.96	20.80	1.213	-0.12	0.191	0.232
	N66	40M	BPSK	1	108	DFT-15	Back	15mm	Ant 31	DSI 4	349000	1745	19.96	20.80	1.213	-0.11	0.223	0.271
	N66	40M	BPSK	108	54	DFT-15	Front	15mm	Ant 31	DSI 4	349000	1745	19.90	20.80	1.230	0.01	0.192	0.236
	N66	40M	BPSK	108	54	DFT-15	Back	15mm	Ant 31	DSI 4	349000	1745	19.90	20.80	1.230	0.05	0.213	0.262
1900MHz																		
	N2	20M	BPSK	1	53	DFT-15	Front	15mm	Ant 14	DSI 7	376000	1880	22.12	23.20	1.282	-0.17	0.199	0.255
	N2	20M	BPSK	1	53	DFT-15	Back	15mm	Ant 14	DSI 7	376000	1880	22.12	23.20	1.282	-0.04	0.259	0.332
	N2	20M	BPSK	50	28	DFT-15	Front	15mm	Ant 14	DSI 7	376000	1880	21.94	23.20	1.337	0.06	0.201	0.269
68	N2	20M	BPSK	50	28	DFT-15	Back	15mm	Ant 14	DSI 7	376000	1880	21.94	23.20	1.337	-0.15	0.306	0.409
	N2	20M	BPSK	1	53	DFT-15	Front	15mm	Ant 31	DSI 4	376000	1880	19.15	20.00	1.216	-0.11	0.148	0.180
	N2	20M	BPSK	1	53	DFT-15	Back	15mm	Ant 31	DSI 4	376000	1880	19.15	20.00	1.216	-0.08	0.180	0.219
	N2	20M	BPSK	50	28	DFT-15	Front	15mm	Ant 31	DSI 4	376000	1880	19.07	20.00	1.239	-0.19	0.146	0.181
	N2	20M	BPSK	50	28	DFT-15	Back	15mm	Ant 31	DSI 4	376000	1880	19.07	20.00	1.239	-0.13	0.180	0.223
2600MHz																		
	N7	50M	BPSK	1	135	DFT-15	Front	15mm	Ant 14	DSI 7	507000	2535	23.35	24.70	1.365	-0.08	0.335	0.457
69	N7	50M	BPSK	1	135	DFT-15	Back	15mm	Ant 14	DSI 7	507000	2535	23.35	24.70	1.365	0.09	0.452	0.617
	N7	50M	BPSK	135	68	DFT-15	Front	15mm	Ant 14	DSI 7	507000	2535	23.22	24.70	1.406	0.01	0.330	0.464
	N7	50M	BPSK	135	68	DFT-15	Back	15mm	Ant 14	DSI 7	507000	2535	23.22	24.70	1.406	-0.19	0.436	0.613
	N7	50M	BPSK	1	135	DFT-15	Front	15mm	Ant 31	DSI 4	507000	2535	20.45	21.40	1.245	0.09	0.102	0.127
	N7	50M	BPSK	1	135	DFT-15	Back	15mm	Ant 31	DSI 4	507000	2535	20.45	21.40	1.245	-0.11	0.206	0.256
	N7	50M	BPSK	135	68	DFT-15	Front	15mm	Ant 31	DSI 4	507000	2535	20.41	21.40	1.256	-0.16	0.103	0.129
	N7	50M	BPSK	135	68	DFT-15	Back	15mm	Ant 31	DSI 4	507000	2535	20.41	21.40	1.256	-0.01	0.206	0.259
	N41	100M	BPSK	1	137	DFT-30	Front	15mm	Ant 12	DSI 7	518598	2592.99	23.18	24.30	1.294	0.12	0.175	0.226
70	N41	100M	BPSK	1	137	DFT-30	Back	15mm	Ant 12	DSI 7	518598	2592.99	23.18	24.30	1.294	0.18	0.288	0.373
	N41	100M	BPSK	135	69	DFT-30	Front	15mm	Ant 12	DSI 7	518598	2592.99	23.15	24.30	1.303	0.17	0.176	0.229
	N41	100M	BPSK	135	69	DFT-30	Back	15mm	Ant 12	DSI 7	518598	2592.99	23.15	24.30	1.303	-0.18	0.269	0.351
	N41	100M	BPSK	1	137	DFT-30	Front	15mm	Ant 23	DSI 4	518598	2592.99	21.16	22.20	1.271	0.04	0.119	0.151
	N41	100M	BPSK	1	137	DFT-30	Back	15mm	Ant 23	DSI 4	518598	2592.99	21.16	22.20	1.271	0.19	0.195	0.248
	N41	100M	BPSK	135	69	DFT-30	Front	15mm	Ant 23	DSI 4	518598	2592.99	21.11	22.20	1.285	-0.12	0.127	0.163
	N41	100M	BPSK	135	69	DFT-30	Back	15mm	Ant 23	DSI 4	518598	2592.99	21.11	22.20	1.285	0.1	0.202	0.260
3500-3900MHz																		
	N77	100M	BPSK	1	137	DFT-30	Front	15mm	Ant 13	DSI 7	633334	3500.01	21.78	22.30	1.127	0.04	0.144	0.162
	N77	100M	BPSK	1	137	DFT-30	Back	15mm	Ant 13	DSI 7	633334	3500.01	21.78	22.30	1.127	-0.11	0.362	0.408
	N77	100M	BPSK	135	69	DFT-30	Front	15mm	Ant 13	DSI 7	633334	3500.01	21.70	22.30	1.148	-0.07	0.146	0.168
	N77	100M	BPSK	135	69	DFT-30	Back	15mm	Ant 13	DSI 7	633334	3500.01	21.70	22.30	1.148	0.18	0.360	0.413
	N77	100M	BPSK	1	137	DFT-30	Front	15mm	Ant 13	DSI 7	656000	3840	21.52	22.30	1.197	-0.17	0.130	0.156
71	N77	100M	BPSK	1	137	DFT-30	Back	15mm	Ant 13	DSI 7	656000	3840	21.52	22.30	1.197	-0.09	0.766	0.917
	N77	100M	BPSK	135	69	DFT-30	Front	15mm	Ant 13	DSI 7	656000	3840	21.51	22.30	1.199	-0.17	0.122	0.146
	N77	100M	BPSK	135	69	DFT-30	Back	15mm	Ant 13	DSI 7	656000	3840	21.51	22.30	1.199	0.08	0.698	0.837



	N77	100M	BPSK	270	0	DFT-30	Back	15mm	Ant 13	DSI 7	656000	3840	21.32	22.30	1.253	0.05	0.680	0.852
	N77	100M	BPSK	1	137	DFT-30	Front	15mm	Ant 23	DSI 4	633334	3500.01	19.04	20.40	1.368	0.04	0.080	0.109
	N77	100M	BPSK	1	137	DFT-30	Back	15mm	Ant 23	DSI 4	633334	3500.01	19.04	20.40	1.368	0.15	0.098	0.134
	N77	100M	BPSK	135	69	DFT-30	Front	15mm	Ant 23	DSI 4	633334	3500.01	18.90	20.40	1.413	0.07	0.081	0.114
	N77	100M	BPSK	135	69	DFT-30	Back	15mm	Ant 23	DSI 4	633334	3500.01	18.90	20.40	1.413	0.09	0.101	0.143
	N77	100M	BPSK	1	137	DFT-30	Front	15mm	Ant 23	DSI 4	656000	3840	19.22	20.40	1.312	0.13	0.110	0.144
	N77	100M	BPSK	1	137	DFT-30	Back	15mm	Ant 23	DSI 4	656000	3840	19.22	20.40	1.312	0.03	0.265	0.348
	N77	100M	BPSK	135	69	DFT-30	Front	15mm	Ant 23	DSI 4	656000	3840	19.00	20.40	1.380	-0.16	0.107	0.148
	N77	100M	BPSK	135	69	DFT-30	Back	15mm	Ant 23	DSI 4	656000	3840	19.00	20.40	1.380	0.02	0.242	0.334
	N78	100M	BPSK	1	137	DFT-30	Front	15mm	Ant 13	DSI 7	633334	3500.01	21.73	22.50	1.194	-0.15	0.142	0.170
	N78	100M	BPSK	1	137	DFT-30	Back	15mm	Ant 13	DSI 7	633334	3500.01	21.73	22.50	1.194	0.05	0.373	0.445
	N78	100M	BPSK	135	69	DFT-30	Front	15mm	Ant 13	DSI 7	633334	3500.01	21.72	22.50	1.197	-0.07	0.143	0.171
	N78	100M	BPSK	135	69	DFT-30	Back	15mm	Ant 13	DSI 7	633334	3500.01	21.72	22.50	1.197	0.05	0.350	0.419
	N78	100M	BPSK	1	137	DFT-30	Front	15mm	Ant 13	DSI 7	650000	3750	21.45	22.50	1.274	0.09	0.112	0.143
72	N78	100M	BPSK	1	137	DFT-30	Back	15mm	Ant 13	DSI 7	650000	3750	21.45	22.50	1.274	0.07	0.730	0.930
	N78	100M	BPSK	135	69	DFT-30	Front	15mm	Ant 13	DSI 7	650000	3750	21.42	22.50	1.282	-0.19	0.111	0.142
	N78	100M	BPSK	135	69	DFT-30	Back	15mm	Ant 13	DSI 7	650000	3750	21.42	22.50	1.282	0.02	0.699	0.896
	N78	100M	BPSK	270	0	DFT-30	Back	15mm	Ant 13	DSI 7	650000	3750	21.29	22.50	1.321	0.01	0.683	0.902

< Uplink CA SAR >

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)	
1750MHz																		
	LTE Band 4_UL CA	20M	QPSK	1	49	Front	15mm	Ant 31	DSI 4	20175	1732.5	17.67	18.50	1.211	0.05	0.098	0.119	
	LTE Band 4_UL CA	20M	QPSK	1	49	Back	15mm	Ant 31	DSI 4	20175	1732.5	17.67	18.50	1.211	0.09	0.125	0.151	
	LTE Band 4_UL CA	20M	QPSK	50	0	Front	15mm	Ant 31	DSI 4	20175	1732.5	17.57	18.50	1.239	0.03	0.094	0.116	
	LTE Band 4_UL CA	20M	QPSK	50	0	Back	15mm	Ant 31	DSI 4	20175	1732.5	17.57	18.50	1.239	0.08	0.130	0.161	
2600MHz																		
	LTE Band 7_UL CA	20M	QPSK	1	49	Front	15mm	Ant 12	DSI 7	21100	2535	20.71	21.50	1.199	0.09	0.057	0.068	
	LTE Band 7_UL CA	20M	QPSK	1	49	Back	15mm	Ant 12	DSI 7	21100	2535	20.71	21.50	1.199	-0.11	0.145	0.174	
	LTE Band 7_UL CA	20M	QPSK	50	0	Front	15mm	Ant 12	DSI 7	21100	2535	20.67	21.50	1.211	0.08	0.047	0.057	
	LTE Band 7_UL CA	20M	QPSK	50	0	Back	15mm	Ant 12	DSI 7	21100	2535	20.67	21.50	1.211	0.09	0.125	0.151	
	LTE Band 7_UL CA	20M	QPSK	1	49	Front	15mm	Ant 14	DSI 7	21100	2535	20.69	21.50	1.205	0.17	0.131	0.158	
	LTE Band 7_UL CA	20M	QPSK	1	49	Back	15mm	Ant 14	DSI 7	21100	2535	20.69	21.50	1.205	0.07	0.250	0.301	
	LTE Band 7_UL CA	20M	QPSK	50	0	Front	15mm	Ant 14	DSI 7	21100	2535	20.68	21.50	1.208	-0.12	0.105	0.127	
	LTE Band 7_UL CA	20M	QPSK	50	0	Back	15mm	Ant 14	DSI 7	21100	2535	20.68	21.50	1.208	-0.15	0.270	0.326	



<ENDC SAR>

Table with columns: Plot No., Band, BW (MHz), Modulation, RB Size, RB offset, Test Position, Gap (mm), Antenna, Power State, Ch., Freq. (MHz), Average Power (dBm), Tune-Up Limit (dBm), Tune-up Scaling Factor, Duty Cycle %, Duty Cycle Scaling Factor, Power Drift (dB), Measured 1g SAR (W/kg), Reported 1g SAR (W/kg). Rows are grouped by frequency bands: 835MHz, 1750MHz, 1900MHz, and 2600MHz.



<5GNR NSA SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)	
1750MHz																			
	N66_ENDC	40M	BPSK	1	108	DFT-15	Front	15mm	Ant 14	DSI 7	349000	1745	22.31	23.50	1.315	-0.06	0.219	0.288	
74	N66_ENDC	40M	BPSK	1	108	DFT-15	Back	15mm	Ant 14	DSI 7	349000	1745	22.31	23.50	1.315	-0.1	0.425	0.559	
	N66_ENDC	40M	BPSK	108	54	DFT-15	Front	15mm	Ant 14	DSI 7	349000	1745	22.29	23.50	1.321	0.06	0.214	0.283	
	N66_ENDC	40M	BPSK	108	54	DFT-15	Back	15mm	Ant 14	DSI 7	349000	1745	22.29	23.50	1.321	-0.14	0.411	0.543	
	N66_ENDC	40M	BPSK	1	108	DFT-15	Front	15mm	Ant 12	DSI 7	349000	1745	22.39	23.30	1.233	-0.18	0.101	0.125	
	N66_ENDC	40M	BPSK	1	108	DFT-15	Back	15mm	Ant 12	DSI 7	349000	1745	22.39	23.30	1.233	-0.14	0.191	0.236	
	N66_ENDC	40M	BPSK	108	54	DFT-15	Front	15mm	Ant 12	DSI 7	349000	1745	22.31	23.30	1.256	0.03	0.095	0.119	
	N66_ENDC	40M	BPSK	108	54	DFT-15	Back	15mm	Ant 12	DSI 7	349000	1745	22.31	23.30	1.256	-0.08	0.186	0.234	
2600MHz																			
	N7_ENDC	50M	BPSK	1	135	DFT-15	Front	15mm	Ant 14	DSI 7	507000	2535	21.88	23.20	1.355	-0.06	0.185	0.251	
	N7_ENDC	50M	BPSK	1	135	DFT-15	Back	15mm	Ant 14	DSI 7	507000	2535	21.88	23.20	1.355	-0.16	0.195	0.264	
	N7_ENDC	50M	BPSK	135	68	DFT-15	Front	15mm	Ant 14	DSI 7	507000	2535	21.79	23.20	1.384	-0.07	0.175	0.242	
	N7_ENDC	50M	BPSK	135	68	DFT-15	Back	15mm	Ant 14	DSI 7	507000	2535	21.79	23.20	1.384	-0.16	0.184	0.255	
	N7_ENDC	50M	BPSK	1	135	DFT-15	Front	15mm	Ant 12	DSI 7	507000	2535	23.36	24.20	1.213	-0.16	0.108	0.131	
	N7_ENDC	50M	BPSK	1	135	DFT-15	Back	15mm	Ant 12	DSI 7	507000	2535	23.36	24.20	1.213	-0.03	0.169	0.205	
	N7_ENDC	50M	BPSK	135	68	DFT-15	Front	15mm	Ant 12	DSI 7	507000	2535	23.25	24.20	1.245	0.02	0.112	0.139	
	N7_ENDC	50M	BPSK	135	68	DFT-15	Back	15mm	Ant 12	DSI 7	507000	2535	23.25	24.20	1.245	-0.08	0.164	0.204	
3500-3900MHz																			
	N78_ENDC	100M	BPSK	1	137	DFT-30	Front	15mm	Ant 13	DSI 7	633334	3500.01	20.70	21.50	1.202	0.11	0.136	0.164	
	N78_ENDC	100M	BPSK	1	137	DFT-30	Back	15mm	Ant 13	DSI 7	633334	3500.01	20.70	21.50	1.202	-0.15	0.450	0.541	
	N78_ENDC	100M	BPSK	135	69	DFT-30	Front	15mm	Ant 13	DSI 7	633334	3500.01	20.68	21.50	1.208	-0.13	0.138	0.167	
	N78_ENDC	100M	BPSK	135	69	DFT-30	Back	15mm	Ant 13	DSI 7	633334	3500.01	20.68	21.50	1.208	0.08	0.420	0.507	
	N78_ENDC	100M	BPSK	1	137	DFT-30	Front	15mm	Ant 13	DSI 7	650000	3750	20.36	21.50	1.300	-0.02	0.080	0.104	
	N78_ENDC	100M	BPSK	1	137	DFT-30	Back	15mm	Ant 13	DSI 7	650000	3750	20.36	21.50	1.300	0.09	0.343	0.446	
	N78_ENDC	100M	BPSK	135	69	DFT-30	Front	15mm	Ant 13	DSI 7	650000	3750	20.32	21.50	1.312	-0.01	0.082	0.108	
	N78_ENDC	100M	BPSK	135	69	DFT-30	Back	15mm	Ant 13	DSI 7	650000	3750	20.32	21.50	1.312	0.1	0.333	0.437	
	N78_ENDC	100M	BPSK	1	137	DFT-30	Front	15mm	Ant 23	DSI 4	633334	3500.01	16.37	17.90	1.422	-0.09	0.010	0.014	
	N78_ENDC	100M	BPSK	1	137	DFT-30	Back	15mm	Ant 23	DSI 4	633334	3500.01	16.37	17.90	1.422	0.04	0.035	0.050	
	N78_ENDC	100M	BPSK	135	69	DFT-30	Front	15mm	Ant 23	DSI 4	633334	3500.01	16.21	17.90	1.476	-0.01	0.008	0.012	
	N78_ENDC	100M	BPSK	135	69	DFT-30	Back	15mm	Ant 23	DSI 4	633334	3500.01	16.21	17.90	1.476	-0.06	0.030	0.044	
	N78_ENDC	100M	BPSK	1	137	DFT-30	Front	15mm	Ant 23	DSI 4	650000	3750	16.65	17.90	1.334	0.1	0.025	0.033	
	N78_ENDC	100M	BPSK	1	137	DFT-30	Back	15mm	Ant 23	DSI 4	650000	3750	16.65	17.90	1.334	-0.11	0.138	0.184	
	N78_ENDC	100M	BPSK	135	69	DFT-30	Front	15mm	Ant 23	DSI 4	650000	3750	16.63	17.90	1.340	0.19	0.020	0.027	
	N78_ENDC	100M	BPSK	135	69	DFT-30	Back	15mm	Ant 23	DSI 4	650000	3750	16.63	17.90	1.340	0.1	0.120	0.161	



<SRS SA SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Measured Plimit (dBm)	Reported Plimit (dBm)	Reported Pmax (dBm)	Duty Cycle %	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	N78	100M	BPSK	1	137	DFT-30	Front	15mm	Ant 24	DSI 4	633334	3500.01	20.79	22.20	22.2	8.5	0.05	0.024	0.003
	N78	100M	BPSK	1	137	DFT-30	Back	15mm	Ant 24	DSI 4	633334	3500.01	20.79	22.20	22.2	8.5	0.06	0.042	0.005
	N78	100M	BPSK	135	69	DFT-30	Front	15mm	Ant 24	DSI 4	633334	3500.01	20.75	22.20	22.2	8.5	0.09	0.027	0.003
	N78	100M	BPSK	135	69	DFT-30	Back	15mm	Ant 24	DSI 4	633334	3500.01	20.75	22.20	22.2	8.5	0.01	0.049	0.006
	N78	100M	BPSK	1	137	DFT-30	Front	15mm	Ant 24	DSI 4	650000	3750	20.75	22.20	22.2	8.5	-0.17	0.071	0.008
	N78	100M	BPSK	1	137	DFT-30	Back	15mm	Ant 24	DSI 4	650000	3750	20.75	22.20	22.2	8.5	0.05	0.098	0.012
	N78	100M	BPSK	135	69	DFT-30	Front	15mm	Ant 24	DSI 4	650000	3750	20.72	22.20	22.2	8.5	0.07	0.076	0.009
	N78	100M	BPSK	135	69	DFT-30	Back	15mm	Ant 24	DSI 4	650000	3750	20.72	22.20	22.2	8.5	-0.18	0.085	0.010
	N78	100M	BPSK	1	137	DFT-30	Front	15mm	Ant 101	DSI 4	633334	3500.01	21.78	23.00	25.0	8.5	-0.02	0.058	0.010
	N78	100M	BPSK	1	137	DFT-30	Back	15mm	Ant 101	DSI 4	633334	3500.01	21.78	23.00	25.0	8.5	0.04	0.196	0.035
	N78	100M	BPSK	135	69	DFT-30	Front	15mm	Ant 101	DSI 4	633334	3500.01	21.72	23.00	25.0	8.5	0.12	0.059	0.011
	N78	100M	BPSK	135	69	DFT-30	Back	15mm	Ant 101	DSI 4	633334	3500.01	21.72	23.00	25.0	8.5	-0.03	0.196	0.035
	N78	100M	BPSK	1	137	DFT-30	Front	15mm	Ant 101	DSI 4	650000	3750	21.55	23.00	25.0	8.5	0.1	0.049	0.009
	N78	100M	BPSK	1	137	DFT-30	Back	15mm	Ant 101	DSI 4	650000	3750	21.55	23.00	25.0	8.5	-0.05	0.300	0.056
	N78	100M	BPSK	135	69	DFT-30	Front	15mm	Ant 101	DSI 4	650000	3750	21.48	23.00	25.0	8.5	0.11	0.043	0.008
	N78	100M	BPSK	135	69	DFT-30	Back	15mm	Ant 101	DSI 4	650000	3750	21.48	23.00	25.0	8.5	-0.15	0.261	0.050

<SRS NSA SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Measured Plimit (dBm)	Reported Plimit (dBm)	Reported Pmax (dBm)	Duty Cycle %	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	N78_ENDC	100M	BPSK	1	137	DFT-30	Front	15mm	Ant 24	DSI 4	633334	3500.01	20.79	22.20	22.2	8.5	0.05	0.024	0.003
	N78_ENDC	100M	BPSK	1	137	DFT-30	Back	15mm	Ant 24	DSI 4	633334	3500.01	20.79	22.20	22.2	8.5	0.06	0.042	0.005
	N78_ENDC	100M	BPSK	135	69	DFT-30	Front	15mm	Ant 24	DSI 4	633334	3500.01	20.75	22.20	22.2	8.5	0.09	0.027	0.003
	N78_ENDC	100M	BPSK	135	69	DFT-30	Back	15mm	Ant 24	DSI 4	633334	3500.01	20.75	22.20	22.2	8.5	0.01	0.049	0.006
	N78_ENDC	100M	BPSK	1	137	DFT-30	Front	15mm	Ant 24	DSI 4	650000	3750	20.75	22.20	22.2	8.5	-0.17	0.071	0.008
	N78_ENDC	100M	BPSK	1	137	DFT-30	Back	15mm	Ant 24	DSI 4	650000	3750	20.75	22.20	22.2	8.5	0.05	0.098	0.012
	N78_ENDC	100M	BPSK	135	69	DFT-30	Front	15mm	Ant 24	DSI 4	650000	3750	20.72	22.20	22.2	8.5	0.07	0.076	0.009
	N78_ENDC	100M	BPSK	135	69	DFT-30	Back	15mm	Ant 24	DSI 4	650000	3750	20.72	22.20	22.2	8.5	-0.18	0.085	0.010
	N78_ENDC	100M	BPSK	1	137	DFT-30	Front	15mm	Ant 101	DSI 4	633334	3500.01	20.14	21.50	25.0	8.5	0.06	0.030	0.008
	N78_ENDC	100M	BPSK	1	137	DFT-30	Back	15mm	Ant 101	DSI 4	633334	3500.01	20.14	21.50	25.0	8.5	0.09	0.122	0.032
	N78_ENDC	100M	BPSK	135	69	DFT-30	Front	15mm	Ant 101	DSI 4	633334	3500.01	20.13	21.50	25.0	8.5	-0.13	0.025	0.007
	N78_ENDC	100M	BPSK	135	69	DFT-30	Back	15mm	Ant 101	DSI 4	633334	3500.01	20.13	21.50	25.0	8.5	0.16	0.120	0.031
	N78_ENDC	100M	BPSK	1	137	DFT-30	Front	15mm	Ant 101	DSI 4	650000	3750	19.91	21.50	25.0	8.5	0.18	0.040	0.011
	N78_ENDC	100M	BPSK	1	137	DFT-30	Back	15mm	Ant 101	DSI 4	650000	3750	19.91	21.50	25.0	8.5	-0.09	0.194	0.053
	N78_ENDC	100M	BPSK	135	69	DFT-30	Front	15mm	Ant 101	DSI 4	650000	3750	19.90	21.50	25.0	8.5	0.16	0.044	0.012
	N78_ENDC	100M	BPSK	135	69	DFT-30	Back	15mm	Ant 101	DSI 4	650000	3750	19.90	21.50	25.0	8.5	-0.17	0.207	0.057



Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
WIFI/BT																
75	Bluetooth	DH5 1Mbps	Front	15mm	Ant 24	Full	39	2441	13.40	15.00	1.445	76.79	1.302	-0.03	0.028	0.052
	Bluetooth	DH5 1Mbps	Back	15mm	Ant 24	Full	39	2441	13.40	15.00	1.445	76.79	1.302	0.13	0.012	0.022
76	WLAN2.4GHz	802.11b 1Mbps	Front	15mm	Ant 24+22	Full	1	2412	20.16	21.00	1.213	99.14	1.009	-0.09	0.129	0.158
	WLAN2.4GHz	802.11b 1Mbps	Back	15mm	Ant 24+22	Full	1	2412	20.16	21.00	1.213	99.14	1.009	-0.14	0.109	0.133
	WLAN2.4GHz	802.11b 1Mbps	Front	15mm	Ant 24+22	Simultaneous	6	2437	17.96	19.00	1.271	99.14	1.009	0.14	0.058	0.074
	WLAN2.4GHz	802.11b 1Mbps	Back	15mm	Ant 24+22	Simultaneous	6	2437	17.96	19.00	1.271	99.14	1.009	-0.12	0.044	0.056
77	WLAN5.3GHz	802.11n-HT40 MCS0	Front	15mm	Ant 22+24	Full	54	5270	19.76	21.00	1.330	93.35	1.071	-0.06	0.261	0.372
	WLAN5.3GHz	802.11n-HT40 MCS0	Back	15mm	Ant 22+24	Full	54	5270	19.76	21.00	1.330	93.35	1.071	0.05	0.225	0.321
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Front	15mm	Ant 22+24	Simultaneous	58	5290	16.36	18.00	1.459	88.19	1.134	0.16	0.087	0.144
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Back	15mm	Ant 22+24	Simultaneous	58	5290	16.36	18.00	1.459	88.19	1.134	0.14	0.070	0.116
78	WLAN5.5GHz	802.11n-HT40 MCS0	Front	15mm	Ant 22+24	Full	110	5550	19.55	21.00	1.396	93.35	1.071	-0.03	0.224	0.335
	WLAN5.5GHz	802.11n-HT40 MCS0	Back	15mm	Ant 22+24	Full	110	5550	19.55	21.00	1.396	93.35	1.071	0.07	0.205	0.307
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Front	15mm	Ant 22+24	Simultaneous	106	5530	16.27	18.00	1.489	88.19	1.134	0.02	0.101	0.171
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Back	15mm	Ant 22+24	Simultaneous	106	5530	16.27	18.00	1.489	88.19	1.134	0.19	0.090	0.152
79	WLAN5.8GHz	802.11n-HT40 MCS0	Front	15mm	Ant 22+24	Full	151	5755	19.91	21.00	1.286	93.35	1.071	-0.13	0.207	0.285
	WLAN5.8GHz	802.11n-HT40 MCS0	Back	15mm	Ant 22+24	Full	151	5755	19.91	21.00	1.286	93.35	1.071	0.1	0.158	0.218
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Front	15mm	Ant 22+24	Simultaneous	155	5775	16.41	18.00	1.442	88.19	1.134	0.06	0.088	0.144
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Back	15mm	Ant 22+24	Simultaneous	155	5775	16.41	18.00	1.442	88.19	1.134	0.09	0.070	0.114



15.4 Product specific 10g SAR

<GSM/WCDMA/LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)	
1750MHz																			
80	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Top Side	0mm	Ant 14	DSI 4	1413	1732.6	20.50	21.50	1.259	-0.01	2.040	2.568	
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Top Side	0mm	Ant 14	DSI 4	1312	1712.4	20.42	21.50	1.282	-0.17	1.710	2.193	
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Top Side	0mm	Ant 14	DSI 4	1513	1752.6	20.45	21.50	1.274	-0.18	1.920	2.445	
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Top Side	10mm	Ant 14	DSI 7	1413	1732.6	24.33	25.50	1.309	0.02	0.735	0.962	
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Top Side	0mm	Ant 14	DSI 5	1413	1732.6	19.54	20.50	1.247	0.03	1.590	1.983	
	LTE Band 66	20M	QPSK	1	49	-	Top Side	0mm	Ant 14	DSI 4	132322	1745	20.91	22.00	1.285	-0.08	2.150	2.763	
	LTE Band 66	20M	QPSK	1	49	-	Top Side	0mm	Ant 14	DSI 4	132072	1720	20.68	22.00	1.355	-0.16	1.820	2.466	
	LTE Band 66	20M	QPSK	1	49	-	Top Side	0mm	Ant 14	DSI 4	132572	1770	20.84	22.00	1.306	0.07	1.800	2.351	
	LTE Band 66	20M	QPSK	1	49	-	Top Side	10mm	Ant 14	DSI 7	132322	1745	23.01	24.00	1.256	0.01	0.452	0.568	
81	LTE Band 66	20M	QPSK	50	0	-	Top Side	0mm	Ant 14	DSI 4	132322	1745	20.74	22.00	1.337	0.09	2.230	2.981	
	LTE Band 66	20M	QPSK	50	0	-	Top Side	0mm	Ant 14	DSI 4	132072	1720	20.53	22.00	1.403	0.05	1.930	2.707	
	LTE Band 66	20M	QPSK	50	0	-	Top Side	0mm	Ant 14	DSI 4	132572	1770	20.59	22.00	1.384	0.15	1.780	2.463	
	LTE Band 66	20M	QPSK	50	0	-	Top Side	10mm	Ant 14	DSI 7	132322	1745	22.03	23.00	1.250	0.1	0.452	0.565	
	LTE Band 66	20M	QPSK	100	0	-	Top Side	0mm	Ant 14	DSI 4	132322	1745	20.73	22.00	1.340	0.12	1.970	2.639	
	LTE Band 66	20M	QPSK	1	49	-	Top Side	0mm	Ant 14	DSI 5	132322	1745	19.40	20.50	1.288	0.05	1.620	2.087	
	LTE Band 66	20M	QPSK	1	49	-	Top Side	0mm	Ant 14	DSI 5	132072	1720	19.25	20.50	1.334	0.03	1.550	2.067	
	LTE Band 66	20M	QPSK	1	49	-	Top Side	0mm	Ant 14	DSI 5	132572	1770	19.31	20.50	1.315	0.09	1.490	1.960	
	LTE Band 66	20M	QPSK	50	0	-	Top Side	0mm	Ant 14	DSI 5	132322	1745	19.18	20.50	1.355	0.09	1.530	2.073	
	LTE Band 66	20M	QPSK	50	0	-	Top Side	0mm	Ant 14	DSI 5	132072	1720	19.12	20.50	1.374	-0.1	1.450	1.992	
	LTE Band 66	20M	QPSK	50	0	-	Top Side	0mm	Ant 14	DSI 5	132572	1770	19.08	20.50	1.387	-0.13	1.480	2.052	
	LTE Band 66	20M	QPSK	100	0	-	Top Side	0mm	Ant 14	DSI 5	132322	1745	19.12	20.50	1.374	-0.1	1.420	1.951	
1900MHz																			
82	WCDMA II	-	-	-	-	RMC 12.2Kbps	Top Side	0mm	Ant 14	DSI 4	9400	1880	20.74	22.00	1.337	-0.06	2.350	3.141	
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Top Side	0mm	Ant 14	DSI 4	9262	1852.4	20.66	22.00	1.361	-0.03	2.050	2.791	
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Top Side	0mm	Ant 14	DSI 4	9538	1907.6	20.70	22.00	1.349	0.18	2.120	2.860	
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Top Side	10mm	Ant 14	DSI 7	9400	1880	22.55	24.00	1.396	0.1	0.542	0.757	
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Top Side	0mm	Ant 14	DSI 5	9400	1880	19.25	20.50	1.334	0.07	1.550	2.067	
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Top Side	0mm	Ant 14	DSI 5	9262	1852.4	19.15	20.50	1.365	-0.03	1.420	1.938	
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Top Side	0mm	Ant 14	DSI 5	9538	1907.6	19.18	20.50	1.355	0.04	1.450	1.965	
83	LTE Band 2	20M	QPSK	1	49	-	Top Side	0mm	Ant 14	DSI 4	18900	1880	20.33	21.50	1.309	-0.19	2.040	2.671	
	LTE Band 2	20M	QPSK	1	49	-	Top Side	0mm	Ant 14	DSI 4	18700	1860	20.22	21.50	1.343	0.04	1.920	2.578	
	LTE Band 2	20M	QPSK	1	49	-	Top Side	0mm	Ant 14	DSI 4	19100	1900	20.13	21.50	1.371	-0.15	1.830	2.509	
	LTE Band 2	20M	QPSK	1	49	-	Top Side	10mm	Ant 14	DSI 7	18900	1880	22.20	23.50	1.349	-0.09	0.464	0.626	
	LTE Band 2	20M	QPSK	50	0	-	Top Side	0mm	Ant 14	DSI 4	18900	1880	20.30	21.50	1.318	0.01	2.020	2.663	
	LTE Band 2	20M	QPSK	50	0	-	Top Side	0mm	Ant 14	DSI 4	18700	1860	20.17	21.50	1.358	-0.04	1.800	2.445	
	LTE Band 2	20M	QPSK	50	0	-	Top Side	0mm	Ant 14	DSI 4	19100	1900	20.23	21.50	1.340	-0.16	1.820	2.438	
	LTE Band 2	20M	QPSK	100	0	-	Top Side	0mm	Ant 14	DSI 4	18900	1880	20.16	21.50	1.361	-0.07	1.700	2.314	
	LTE Band 2	20M	QPSK	1	49	-	Top Side	0mm	Ant 14	DSI 5	18900	1880	19.30	20.50	1.318	0.14	1.500	1.977	
	LTE Band 2	20M	QPSK	50	0	-	Top Side	0mm	Ant 14	DSI 5	18900	1880	19.23	20.50	1.340	-0.18	1.460	1.956	
2600MHz																			
	LTE Band 7	20M	QPSK	1	49	-	Top Side	0mm	Ant 14	DSI 4	21100	2535	20.31	21.50	1.315	-0.18	1.920	2.525	
	LTE Band 7	20M	QPSK	1	49	-	Top Side	0mm	Ant 14	DSI 4	20850	2510	20.12	21.50	1.374	0.17	1.830	2.514	
84	LTE Band 7	20M	QPSK	1	49	-	Top Side	0mm	Ant 14	DSI 4	21350	2560	20.28	21.50	1.324	-0.04	2.160	2.861	
	LTE Band 7C	20M	QPSK	1	49	-	Top Side	0mm	Ant 14	DSI 4	21350+21152	2560+2540.2	20.14	21.50	1.368	0.12	2.050	2.804	
	LTE Band 7	20M	QPSK	1	49	-	Top Side	10mm	Ant 14	DSI 7	21350	2560	23.20	24.50	1.349	-0.18	0.575	0.776	
	LTE Band 7	20M	QPSK	50	0	-	Top Side	0mm	Ant 14	DSI 4	21100	2535	20.25	21.50	1.334	0.07	1.880	2.507	
	LTE Band 7	20M	QPSK	50	0	-	Top Side	0mm	Ant 14	DSI 4	20850	2510	20.15	21.50	1.365	-0.06	1.900	2.593	
	LTE Band 7	20M	QPSK	50	0	-	Top Side	0mm	Ant 14	DSI 4	21350	2560	20.18	21.50	1.355	0.17	2.050	2.778	
	LTE Band 7	20M	QPSK	100	0	-	Top Side	0mm	Ant 14	DSI 4	21100	2535	20.22	21.50	1.343	0.12	1.700	2.283	
	LTE Band 7	20M	QPSK	1	49	-	Top Side	0mm	Ant 14	DSI 5	21100	2535	19.35	20.50	1.303	0.11	1.610	2.098	



LTE Band 7	20M	QPSK	1	49	-	Top Side	0mm	Ant 14	DSI 5	20850	2510	19.20	20.50	1.349	-0.06	1.550	2.091
LTE Band 7	20M	QPSK	1	49	-	Top Side	0mm	Ant 14	DSI 5	21350	2560	19.28	20.50	1.324	0.17	1.620	2.145
LTE Band 7C	20M	QPSK	1	49	-	Top Side	0mm	Ant 14	DSI 5	21350+ 21152	2560+ 2540.2	19.11	20.50	1.377	0.12	1.520	2.093
LTE Band 7	20M	QPSK	50	0	-	Top Side	0mm	Ant 14	DSI 5	21100	2535	19.29	20.50	1.321	0.14	1.520	2.008
LTE Band 7	20M	QPSK	50	0	-	Top Side	0mm	Ant 14	DSI 5	20850	2510	19.03	20.50	1.403	-0.06	1.460	2.048
LTE Band 7	20M	QPSK	50	0	-	Top Side	0mm	Ant 14	DSI 5	21350	2560	19.20	20.50	1.349	0.17	1.570	2.118
LTE Band 7	20M	QPSK	100	0	-	Top Side	0mm	Ant 14	DSI 5	21100	2535	19.27	20.50	1.327	0.07	1.460	1.938

<5GNR SA SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)	
1900MHz																			
85	N2	20M	BPSK	1	53	DFT-15	Top Side	0mm	Ant 14	DSI 4	376000	1880	19.46	20.70	1.330	0.16	1.800	2.395	
	N2	20M	BPSK	1	53	DFT-15	Top Side	0mm	Ant 14	DSI 4	372000	1860	19.43	20.70	1.340	0.05	1.720	2.304	
	N2	20M	BPSK	1	53	DFT-15	Top Side	0mm	Ant 14	DSI 4	380000	1900	19.34	20.70	1.368	-0.12	1.660	2.270	
	N2	20M	BPSK	1	53	DFT-15	Top Side	10mm	Ant 14	DSI 7	376000	1880	22.12	23.20	1.282	-0.11	0.459	0.589	
	N2	20M	BPSK	50	28	DFT-15	Top Side	0mm	Ant 14	DSI 4	376000	1880	19.37	20.70	1.358	0.05	1.600	2.173	
	N2	20M	BPSK	50	28	DFT-15	Top Side	0mm	Ant 14	DSI 4	372000	1860	19.36	20.70	1.361	0.17	1.540	2.097	
	N2	20M	BPSK	50	28	DFT-15	Top Side	0mm	Ant 14	DSI 4	380000	1900	19.27	20.70	1.390	0.13	1.520	2.113	
	N2	20M	BPSK	100	0	DFT-15	Top Side	0mm	Ant 14	DSI 4	376000	1880	19.30	20.70	1.380	0.05	1.450	2.002	
	N2	20M	BPSK	1	53	DFT-15	Top Side	0mm	Ant 14	DSI 5	376000	1880	18.01	19.20	1.315	-0.03	1.320	1.736	
	N2	20M	BPSK	50	28	DFT-15	Top Side	0mm	Ant 14	DSI 5	376000	1880	18.00	19.20	1.318	-0.01	1.220	1.608	
2600MHz																			
86	N7	50M	BPSK	1	135	DFT-15	Top Side	0mm	Ant 14	DSI 4	507000	2535	21.38	22.70	1.355	0.18	2.340	3.171	
	N7	50M	BPSK	1	135	DFT-15	Top Side	10mm	Ant 14	DSI 7	507000	2535	23.35	24.70	1.365	0.00	0.445	0.607	
	N7	50M	BPSK	135	68	DFT-15	Top Side	0mm	Ant 14	DSI 4	507000	2535	21.34	22.70	1.368	-0.17	2.220	3.036	
	N7	50M	BPSK	270	0	DFT-15	Top Side	0mm	Ant 14	DSI 4	507000	2535	21.27	22.70	1.390	0.18	1.960	2.724	
	N7	50M	BPSK	1	135	DFT-15	Top Side	0mm	Ant 14	DSI 5	507000	2535	19.78	21.20	1.387	0.19	1.620	2.247	
	N7	50M	BPSK	135	68	DFT-15	Top Side	0mm	Ant 14	DSI 5	507000	2535	19.72	21.20	1.406	0.03	1.540	2.165	
	N7	50M	BPSK	270	0	DFT-15	Top Side	0mm	Ant 14	DSI 5	507000	2535	19.71	21.20	1.409	0.18	1.420	2.001	
3500-3900MHz																			
87	N77	100M	BPSK	1	137	DFT-30	Left Side	0mm	Ant 13	DSI 4	633334	3500.01	17.68	18.30	1.153	0.1	2.570	2.964	
	N77	100M	BPSK	1	137	DFT-30	Top Side	0mm	Ant 13	DSI 4	633334	3500.01	17.68	18.30	1.153	0.13	0.977	1.127	
	N77	100M	BPSK	1	137	DFT-30	Left Side	14mm	Ant 13	DSI 7	633334	3500.01	21.78	22.30	1.127	-0.03	0.270	0.304	
	N77	100M	BPSK	1	137	DFT-30	Top Side	10mm	Ant 13	DSI 7	633334	3500.01	21.78	22.30	1.127	0.07	0.372	0.419	
	N77	100M	BPSK	135	69	DFT-30	Left Side	0mm	Ant 13	DSI 4	633334	3500.01	17.62	18.30	1.169	-0.18	2.250	2.631	
	N77	100M	BPSK	135	69	DFT-30	Top Side	0mm	Ant 13	DSI 4	633334	3500.01	17.62	18.30	1.169	0.07	0.920	1.076	
	N77	100M	BPSK	270	0	DFT-30	Left Side	0mm	Ant 13	DSI 4	633334	3500.01	17.43	18.30	1.222	0.08	1.790	2.187	
	N77	100M	BPSK	1	137	DFT-30	Left Side	0mm	Ant 13	DSI 5	633334	3500.01	17.19	17.80	1.151	-0.09	2.280	2.624	
	N77	100M	BPSK	1	137	DFT-30	Top Side	0mm	Ant 13	DSI 5	633334	3500.01	17.19	17.80	1.151	0.17	0.880	1.013	
	N77	100M	BPSK	135	69	DFT-30	Left Side	0mm	Ant 13	DSI 5	633334	3500.01	17.16	17.80	1.159	0.12	1.910	2.213	
	N77	100M	BPSK	135	69	DFT-30	Top Side	0mm	Ant 13	DSI 5	633334	3500.01	17.16	17.80	1.159	-0.17	0.820	0.950	
	N77	100M	BPSK	270	0	DFT-30	Left Side	0mm	Ant 13	DSI 5	633334	3500.01	16.99	17.80	1.205	0.14	1.590	1.916	
	N77	100M	BPSK	1	137	DFT-30	Left Side	0mm	Ant 13	DSI 4	656000	3840	17.42	18.30	1.225	-0.16	1.880	2.302	
	N77	100M	BPSK	1	137	DFT-30	Left Side	14mm	Ant 13	DSI 7	656000	3840	21.52	22.30	1.197	0.01	0.331	0.396	
	N77	100M	BPSK	135	69	DFT-30	Left Side	0mm	Ant 13	DSI 4	656000	3840	17.41	18.30	1.227	-0.04	1.920	2.357	
	N77	100M	BPSK	135	69	DFT-30	Left Side	14mm	Ant 13	DSI 7	656000	3840	21.51	22.30	1.199	0.01	0.350	0.420	
	N77	100M	BPSK	270	0	DFT-30	Left Side	0mm	Ant 13	DSI 4	656000	3840	17.24	18.30	1.276	0.09	1.720	2.195	
	N77	100M	BPSK	1	137	DFT-30	Left Side	0mm	Ant 13	DSI 5	656000	3840	16.95	17.80	1.216	0.11	1.590	1.934	
	N77	100M	BPSK	135	69	DFT-30	Left Side	0mm	Ant 13	DSI 5	656000	3840	16.94	17.80	1.219	0.17	1.620	1.975	
	N77	100M	BPSK	270	0	DFT-30	Left Side	0mm	Ant 13	DSI 5	656000	3840	16.79	17.80	1.262	0.01	1.460	1.842	
88	N78	100M	BPSK	1	137	DFT-30	Left Side	0mm	Ant 13	DSI 4	633334	3500.01	17.62	18.50	1.225	-0.08	2.450	3.000	
	N78	100M	BPSK	1	137	DFT-30	Top Side	0mm	Ant 13	DSI 4	633334	3500.01	17.62	18.50	1.225	0.11	0.905	1.108	
	N78	100M	BPSK	1	137	DFT-30	Left Side	14mm	Ant 13	DSI 7	633334	3500.01	21.73	22.50	1.194	0.16	0.296	0.353	
	N78	100M	BPSK	1	137	DFT-30	Top Side	10mm	Ant 13	DSI 7	633334	3500.01	21.73	22.50	1.194	0.04	0.442	0.528	



N78	100M	BPSK	135	69	DFT-30	Left Side	0mm	Ant 13	DSI 4	633334	3500.01	17.55	18.50	1.245	0.19	2.310	2.875
N78	100M	BPSK	135	69	DFT-30	Top Side	0mm	Ant 13	DSI 4	633334	3500.01	17.55	18.50	1.245	-0.15	0.846	1.053
N78	100M	BPSK	270	0	DFT-30	Left Side	0mm	Ant 13	DSI 4	633334	3500.01	17.42	18.50	1.282	0.05	2.100	2.693
N78	100M	BPSK	1	137	DFT-30	Left Side	0mm	Ant 13	DSI 5	633334	3500.01	17.18	18.00	1.208	-0.17	2.150	2.597
N78	100M	BPSK	1	137	DFT-30	Top Side	0mm	Ant 13	DSI 5	633334	3500.01	17.18	18.00	1.208	0.09	0.805	0.972
N78	100M	BPSK	135	69	DFT-30	Left Side	0mm	Ant 13	DSI 5	633334	3500.01	17.16	18.00	1.213	0.17	2.020	2.451
N78	100M	BPSK	135	69	DFT-30	Top Side	0mm	Ant 13	DSI 5	633334	3500.01	17.16	18.00	1.213	0.04	0.807	0.979
N78	100M	BPSK	270	0	DFT-30	Left Side	0mm	Ant 13	DSI 5	633334	3500.01	16.98	18.00	1.265	-0.12	1.820	2.302
N78	100M	BPSK	1	137	DFT-30	Left Side	0mm	Ant 13	DSI 4	650000	3750	17.36	18.50	1.300	0.17	2.110	2.743
N78	100M	BPSK	1	137	DFT-30	Left Side	14mm	Ant 13	DSI 7	650000	3750	21.45	22.50	1.274	0.01	0.361	0.460
N78	100M	BPSK	135	69	DFT-30	Left Side	0mm	Ant 13	DSI 4	650000	3750	17.33	18.50	1.309	0.12	2.010	2.631
N78	100M	BPSK	270	0	DFT-30	Left Side	0mm	Ant 13	DSI 4	650000	3750	17.19	18.50	1.352	0.01	1.760	2.380
N78	100M	BPSK	1	137	DFT-30	Left Side	0mm	Ant 13	DSI 5	650000	3750	16.95	18.00	1.274	0.08	1.870	2.381
N78	100M	BPSK	135	69	DFT-30	Left Side	0mm	Ant 13	DSI 5	650000	3750	16.92	18.00	1.282	0.05	1.720	2.206
N78	100M	BPSK	270	0	DFT-30	Left Side	0mm	Ant 13	DSI 5	650000	3750	16.82	18.00	1.312	0.01	1.520	1.995

<ENDC SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)
835MHz																	
89	LTE Band 5_ENDC	10M	QPSK	1	25	Left Side	0mm	Ant 11	DSI 4	20525	836.5	23.56	24.80	1.330	0.05	1.050	1.397
	LTE Band 5_ENDC	10M	QPSK	25	0	Left Side	0mm	Ant 11	DSI 4	20525	836.5	22.58	23.80	1.324	-0.11	1.030	1.364
1750MHz																	
	LTE Band 66_ENDC	20M	QPSK	1	49	Top Side	0mm	Ant 14	DSI 4	132322	1745	19.65	20.50	1.216	-0.06	1.470	1.788
	LTE Band 66_ENDC	20M	QPSK	1	49	Top Side	10mm	Ant 14	DSI 7	132322	1745	22.79	24.00	1.321	0.03	0.562	0.743
	LTE Band 66_ENDC	20M	QPSK	50	0	Top Side	0mm	Ant 14	DSI 4	132322	1745	19.56	20.50	1.242	-0.1	1.420	1.763
	LTE Band 66_ENDC	20M	QPSK	1	49	Top Side	0mm	Ant 14	DSI 5	132322	1745	16.65	17.50	1.216	-0.08	0.772	0.939
	LTE Band 66_ENDC	20M	QPSK	50	0	Top Side	0mm	Ant 14	DSI 5	132322	1745	16.59	17.50	1.233	-0.05	0.711	0.877
1900MHz																	
	LTE Band 2_ENDC	20M	QPSK	1	49	Top Side	0mm	Ant 14	DSI 4	18900	1880	19.49	20.50	1.262	0.04	1.310	1.653
	LTE Band 2_ENDC	20M	QPSK	1	49	Top Side	10mm	Ant 14	DSI 7	18900	1880	22.20	23.50	1.349	0.05	0.487	0.657
	LTE Band 2_ENDC	20M	QPSK	50	0	Top Side	0mm	Ant 14	DSI 4	18900	1880	19.35	20.50	1.303	-0.14	1.260	1.642
	LTE Band 2_ENDC	20M	QPSK	1	49	Top Side	0mm	Ant 14	DSI 5	18900	1880	16.36	17.50	1.300	-0.17	0.644	0.837
	LTE Band 2_ENDC	20M	QPSK	50	0	Top Side	0mm	Ant 14	DSI 5	18900	1880	16.23	17.50	1.340	-0.11	0.644	0.863

<5GNR NSA SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)
	N78_ENDC	100M	BPSK	1	137	DFT-30	Left Side	0mm	Ant 13	DSI 4	633334	3500.01	16.61	17.50	1.227	0.17	1.620	1.988
	N78_ENDC	100M	BPSK	1	137	DFT-30	Left Side	14mm	Ant 13	DSI 7	633334	3500.01	20.70	21.50	1.202	0.1	0.226	0.272
	N78_ENDC	100M	BPSK	135	69	DFT-30	Left Side	0mm	Ant 13	DSI 4	633334	3500.01	16.59	17.50	1.233	-0.08	1.550	1.911
	N78_ENDC	100M	BPSK	270	0	DFT-30	Left Side	0mm	Ant 13	DSI 4	633334	3500.01	16.39	17.50	1.291	0.05	1.520	1.963
	N78_ENDC	100M	BPSK	1	137	DFT-30	Left Side	0mm	Ant 13	DSI 5	633334	3500.01	11.66	12.50	1.213	0.16	0.512	0.621
	N78_ENDC	100M	BPSK	135	69	DFT-30	Left Side	0mm	Ant 13	DSI 5	633334	3500.01	11.65	12.50	1.216	0.18	0.490	0.596
	N78_ENDC	100M	BPSK	1	137	DFT-30	Left Side	0mm	Ant 13	DSI 4	650000	3750	16.33	17.50	1.309	0.19	1.520	1.990
	N78_ENDC	100M	BPSK	1	137	DFT-30	Left Side	14mm	Ant 13	DSI 7	650000	3750	20.36	21.50	1.300	-0.09	0.307	0.399
	N78_ENDC	100M	BPSK	135	69	DFT-30	Left Side	0mm	Ant 13	DSI 4	650000	3750	16.30	17.50	1.318	-0.09	1.450	1.911
	N78_ENDC	100M	BPSK	270	0	DFT-30	Left Side	0mm	Ant 13	DSI 4	650000	3750	16.20	17.50	1.349	-0.18	1.400	1.889
	N78_ENDC	100M	BPSK	1	137	DFT-30	Left Side	0mm	Ant 13	DSI 5	650000	3750	11.46	12.50	1.271	-0.11	0.530	0.673
	N78_ENDC	100M	BPSK	135	69	DFT-30	Left Side	0mm	Ant 13	DSI 5	650000	3750	11.38	12.50	1.294	0.16	0.505	0.654

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)
WIFI																
	WLAN5.3GHz	802.11n-HT40 MCS0	Front	0mm	Ant 22+24	Full	54	5270	19.76	21.00	1.330	93.35	1.071	-0.07	0.902	1.285
	WLAN5.3GHz	802.11n-HT40 MCS0	Back	0mm	Ant 22+24	Full	54	5270	19.76	21.00	1.330	93.35	1.071	0.14	0.411	0.586
	WLAN5.3GHz	802.11n-HT40 MCS0	Left Side	0mm	Ant 22+24	Full	54	5270	19.76	21.00	1.330	93.35	1.071	0.09	0.025	0.036
90	WLAN5.3GHz	802.11n-HT40 MCS0	Right Side	0mm	Ant 22+24	Full	54	5270	19.76	21.00	1.330	93.35	1.071	-0.08	1.510	2.152
	WLAN5.3GHz	802.11n-HT40 MCS0	Top Side	0mm	Ant 22+24	Full	54	5270	19.76	21.00	1.330	93.35	1.071	0.05	0.759	1.082
	WLAN5.3GHz	802.11n-HT40 MCS0	Right Side	0mm	Ant 22+24	Full	62	5310	15.52	16.50	1.253	93.35	1.071	-0.08	0.588	0.789
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Front	0mm	Ant 22+24	Simultaneous	58	5290	16.36	18.00	1.459	88.19	1.134	-0.03	0.402	0.665
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Back	0mm	Ant 22+24	Simultaneous	58	5290	16.36	18.00	1.459	88.19	1.134	0.04	0.169	0.280
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Left Side	0mm	Ant 22+24	Simultaneous	58	5290	16.36	18.00	1.459	88.19	1.134	0.03	0.024	0.040
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Right Side	0mm	Ant 22+24	Simultaneous	58	5290	16.36	18.00	1.459	88.19	1.134	0.17	0.676	1.118
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Top Side	0mm	Ant 22+24	Simultaneous	58	5290	16.36	18.00	1.459	88.19	1.134	0.02	0.249	0.412
	WLAN5.5GHz	802.11n-HT40 MCS0	Front	0mm	Ant 22+24	Full	110	5550	19.55	21.00	1.396	93.35	1.071	-0.06	0.831	1.243
	WLAN5.5GHz	802.11n-HT40 MCS0	Back	0mm	Ant 22+24	Full	110	5550	19.55	21.00	1.396	93.35	1.071	-0.11	0.444	0.664
	WLAN5.5GHz	802.11n-HT40 MCS0	Left Side	0mm	Ant 22+24	Full	110	5550	19.55	21.00	1.396	93.35	1.071	-0.01	0.045	0.067
91	WLAN5.5GHz	802.11n-HT40 MCS0	Right Side	0mm	Ant 22+24	Full	110	5550	19.55	21.00	1.396	93.35	1.071	-0.05	1.850	2.767
	WLAN5.5GHz	802.11n-HT40 MCS0	Top Side	0mm	Ant 22+24	Full	110	5550	19.55	21.00	1.396	93.35	1.071	-0.07	0.506	0.757
	WLAN5.5GHz	802.11n-HT40 MCS0	Right Side	0mm	Ant 22+24	Full	102	5510	15.25	16.50	1.334	93.35	1.071	0.09	0.680	0.971
	WLAN5.5GHz	802.11n-HT40 MCS0	Right Side	0mm	Ant 22+24	Full	126	5630	19.17	21.00	1.524	93.35	1.071	-0.01	1.560	2.546
	WLAN5.5GHz	802.11n-HT40 MCS0	Right Side	0mm	Ant 22+24	Full	134	5670	18.25	20.00	1.496	93.35	1.071	-0.02	1.470	2.356
	WLAN5.5GHz	802.11n-HT40 MCS0	Right Side	0mm	Ant 22+24	Full	142	5710	19.28	21.00	1.486	93.35	1.071	0.07	1.700	2.705
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Front	0mm	Ant 22+24	Simultaneous	106	5530	16.27	18.00	1.489	88.19	1.134	-0.04	0.369	0.623
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Back	0mm	Ant 22+24	Simultaneous	106	5530	16.27	18.00	1.489	88.19	1.134	0.17	0.209	0.353
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Left Side	0mm	Ant 22+24	Simultaneous	106	5530	16.27	18.00	1.489	88.19	1.134	0.08	0.041	0.069
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Right Side	0mm	Ant 22+24	Simultaneous	106	5530	16.27	18.00	1.489	88.19	1.134	-0.12	0.794	1.341
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Top Side	0mm	Ant 22+24	Simultaneous	106	5530	16.27	18.00	1.489	88.19	1.134	-0.13	0.220	0.372

15.5 Repeated SAR Measurement

<10g>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Ratio	Reported 10g SAR (W/kg)
1st	LTE Band 66	20M	QPSK	50	0	-	Top Side	0mm	Ant 14	DSI 4	132322	1745	20.74	22.00	1.337	-	1.000	0.09	2.230	1	2.981
2nd	LTE Band 66	20M	QPSK	50	0	-	Top Side	0mm	Ant 14	DSI 4	132322	1745	20.74	22.00	1.337	-	1.000	-0.11	2.110	1.057	2.820
1st	WCDMA II	-	-	-	-	RMC 12.2Kbps	Top Side	0mm	Ant 14	DSI 4	9400	1880	20.74	22.00	1.337	-	1.000	-0.06	2.350	1	3.141
2nd	WCDMA II	-	-	-	-	RMC 12.2Kbps	Top Side	0mm	Ant 14	DSI 4	9400	1880	20.74	22.00	1.337	-	1.000	0.09	2.160	1.088	2.887
1st	N7	50M	BPSK	1	135	DFT-15	Top Side	0mm	Ant 14	DSI 4	507000	2535	21.38	22.70	1.355	-	1.000	0.18	2.340	1	3.171
2nd	N7	50M	BPSK	1	135	DFT-15	Top Side	0mm	Ant 14	DSI 4	507000	2535	21.38	22.70	1.355	-	1.000	0.08	2.260	1.035	3.063
1st	N77	100M	BPSK	1	137	DFT-30	Left Side	0mm	Ant 13	DSI 4	633334	3500.01	17.68	18.30	1.153	-	1.000	0.1	2.570	1	2.964
2nd	N77	100M	BPSK	1	137	DFT-30	Left Side	0mm	Ant 13	DSI 4	633334	3500.01	17.68	18.30	1.153	-	1.000	0.08	2.380	1.080	2.745
1st	N78	100M	BPSK	1	137	DFT-30	Left Side	0mm	Ant 13	DSI 4	650000	3750	17.36	18.50	1.300	-	1.000	0.17	2.110	1	2.743
2nd	N78	100M	BPSK	1	137	DFT-30	Left Side	0mm	Ant 13	DSI 4	650000	3750	17.36	18.50	1.300	-	1.000	-0.13	2.020	1.045	2.626

General Note:

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

16. Simultaneous Transmission Analysis

No.	Simultaneous Transmission Configurations	Portable Handset			
		Head	Body-worn	Hotspot	Product specific 10g SAR
1.	WWAN + 2.4GHz WLAN MIMO/SISO	Yes	Yes	Yes	Yes
2.	WWAN + 5GHz WLAN MIMO/SISO	Yes	Yes	Yes	Yes
3.	WWAN + Bluetooth	Yes	Yes	Yes	Yes
4.	5GHz WLAN + Bluetooth	Yes	Yes	Yes	Yes
5.	WWAN + 5GHz WLAN MIMO/SISO + Bluetooth	Yes	Yes	Yes	Yes
6.	2.4GHz WLAN SISO + 5GHz WLAN SISO	Yes	Yes	Yes	Yes
7.	WWAN +2.4GHz WLAN SISO + 5GHz WLAN SISO	Yes	Yes	Yes	Yes
8.	WWAN + NFC				Yes
9.	2.4GHz WLAN MIMO/SISO + NFC				Yes
10.	5GHz WLAN MIMO/SISO + NFC				Yes
11.	Bluetooth + NFC				Yes
12.	2.4GHz WLAN SISO + 5GHz WLAN SISO + NFC				Yes
13.	5GHz WLAN MIMO/SISO + Bluetooth + NFC				Yes
14.	WWAN + 2.4GHz WLAN MIMO/SISO + NFC				Yes
15.	WWAN + 5GHz WLAN MIMO/SISO + NFC				Yes
16.	WWAN + Bluetooth + NFC				Yes
17.	WWAN + 5GHz WLAN MIMO/SISO + Bluetooth + NFC				Yes
18.	WWAN + 2.4GHz WLAN SISO + 5GHz WLAN SISO + NFC				Yes

General Note:

- This device supports VoIP in GPRS, EGPRS, WCDMA and LTE (e.g. for 3rd-party VoIP), and LTE supports VoLTE function.
- EUT will choose each GSM, WCDM, LTE and 5G NR according to the network signal condition; therefore, they will not operate simultaneously at any moment.
- The above WWAN includes 5G NR mode and EN-DC combination.
- This device WLAN 2.4GHz supports hotspot operation and Bluetooth support tethering applications.
- This device 2.4GHz WLAN/ 5.2GHz WLAN/5.8GHz WLAN support hotspot operation, and 5.2GHz WLAN/5.8GHz WLAN supports WLAN Direct (GC/GO), and 5.3GHz / 5.5GHz supports WLAN Direct (GC only).
- SISO and MIMO all supported by WLAN2.4GHz/WLAN5GHz, for SISO mode power is less than per chain power of MIMO mode, so WLAN MIMO mode SAR can represent each SISO mode SAR.
- The worst case 5 GHz WLAN SAR for each configuration was used for SAR summation.
- WLAN 2.4GHz and Bluetooth share the same antenna, and cannot transmit simultaneously.
- According to the EUT characteristic, 5GHz and Bluetooth can transmit simultaneously.
- According to the EUT characteristic, WLAN 2.4GHz and WLAN 5GHz can transmit simultaneously.
- According to the EUT characteristic, WLAN 2.4GHz/WLAN 5GHz/Bluetooth and NFC can transmit simultaneously.
- 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.
- For distance SAR and non-distance SAR, always chose higher SAR to do co-located analysis.
- The reported SAR summation is calculated based on the same configuration and test position
- Per KDB 447498 D04, simultaneous transmission SAR is compliant if,
 - 1g Scalar SAR summation < 1.6W/kg and 10g Scalar SAR summation < 4.0W/kg.
 - $SPLSR = (SAR1 + SAR2)^{1.5} / (\text{min. separation distance, mm})$, 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.
 - If $SPLSR \leq 0.04$ for 1g SAR and $SPLSR \leq 0.10$ for 10g SAR, simultaneously transmission SAR measurement is not necessary.
 - Simultaneously transmission SAR measurement, and the reported multi-band 1g SAR < 1.6W/kg and 10g SAR < 4.0W/kg.



16.1 Head Exposure Conditions

WWAN Band	Exposure Position	1	5	8	9	1+5	1+8+9	1+5+8
		WWAN	WLAN2.4GHz Ant 24+22	WLAN5GHz Ant 22+24	Bluetooth Ant 24	Summed	Summed	Summed
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)
LTE Band 13 Ant 11	Right Cheek	0.069	0.100	0.287	0.082	0.17	0.44	0.46
	Right Tilted	0.016	0.121	0.290	0.013	0.14	0.32	0.43
	Left Cheek	0.169	0.227	0.675	0.124	0.40	0.97	1.07
	Left Tilted	0.016	0.154	0.535	0.025	0.17	0.58	0.71
LTE Band 13 Ant 41	Right Cheek	0.065	0.100	0.287	0.082	0.17	0.43	0.45
	Right Tilted	0.027	0.121	0.290	0.013	0.15	0.33	0.44
	Left Cheek	0.060	0.227	0.675	0.124	0.29	0.86	0.96
	Left Tilted	0.023	0.154	0.535	0.025	0.18	0.58	0.71
LTE Band 12 Ant 11	Right Cheek	0.220	0.100	0.287	0.082	0.32	0.59	0.61
	Right Tilted	0.062	0.121	0.290	0.013	0.18	0.37	0.47
	Left Cheek	0.455	0.227	0.675	0.124	0.68	1.25	1.36
	Left Tilted	0.059	0.154	0.535	0.025	0.21	0.62	0.75
LTE Band 12 Ant 41	Right Cheek	0.133	0.100	0.287	0.082	0.23	0.50	0.52
	Right Tilted	0.070	0.121	0.290	0.013	0.19	0.37	0.48
	Left Cheek	0.150	0.227	0.675	0.124	0.38	0.95	1.05
	Left Tilted	0.077	0.154	0.535	0.025	0.23	0.64	0.77
GSM850 Ant 11	Right Cheek	0.177	0.100	0.287	0.082	0.28	0.55	0.56
	Right Tilted	0.013	0.121	0.290	0.013	0.13	0.32	0.42
	Left Cheek	0.382	0.227	0.675	0.124	0.61	1.18	1.28
	Left Tilted	0.047	0.154	0.535	0.025	0.20	0.61	0.74
GSM850 Ant 41	Right Cheek	0.170	0.100	0.287	0.082	0.27	0.54	0.56
	Right Tilted	0.084	0.121	0.290	0.013	0.21	0.39	0.50
	Left Cheek	0.187	0.227	0.675	0.124	0.41	0.99	1.09
	Left Tilted	0.103	0.154	0.535	0.025	0.26	0.66	0.79
WCDMA V Ant 11	Right Cheek	0.185	0.100	0.287	0.082	0.29	0.55	0.57
	Right Tilted	0.022	0.121	0.290	0.013	0.14	0.33	0.43
	Left Cheek	0.444	0.227	0.675	0.124	0.67	1.24	1.35
	Left Tilted	0.053	0.154	0.535	0.025	0.21	0.61	0.74
WCDMA V Ant 41	Right Cheek	0.165	0.100	0.287	0.082	0.27	0.53	0.55
	Right Tilted	0.080	0.121	0.290	0.013	0.20	0.38	0.49
	Left Cheek	0.159	0.227	0.675	0.124	0.39	0.96	1.06
	Left Tilted	0.094	0.154	0.535	0.025	0.25	0.65	0.78
LTE Band 18 Ant 11	Right Cheek	0.225	0.100	0.287	0.082	0.33	0.59	0.61
	Right Tilted	0.046	0.121	0.290	0.013	0.17	0.35	0.46
	Left Cheek	0.490	0.227	0.675	0.124	0.72	1.29	1.39
	Left Tilted	0.066	0.154	0.535	0.025	0.22	0.63	0.76
LTE Band 26 Ant 11	Right Cheek	0.227	0.100	0.287	0.082	0.33	0.60	0.61
	Right Tilted	0.041	0.121	0.290	0.013	0.16	0.34	0.45
	Left Cheek	0.492	0.227	0.675	0.124	0.72	1.29	1.39
	Left Tilted	0.066	0.154	0.535	0.025	0.22	0.63	0.76
LTE Band 26 Ant 41	Right Cheek	0.141	0.100	0.287	0.082	0.24	0.51	0.53
	Right Tilted	0.074	0.121	0.290	0.013	0.20	0.38	0.49
	Left Cheek	0.154	0.227	0.675	0.124	0.38	0.95	1.06
	Left Tilted	0.088	0.154	0.535	0.025	0.24	0.65	0.78
WCDMA IV Ant 14	Right Cheek	0.534	0.100	0.287	0.082	0.63	0.90	0.92
	Right Tilted	0.553	0.121	0.290	0.013	0.67	0.86	0.96
	Left Cheek	0.393	0.227	0.675	0.124	0.62	1.19	1.30
	Left Tilted	0.468	0.154	0.535	0.025	0.62	1.03	1.16
WCDMA IV Ant 31	Right Cheek	0.155	0.100	0.287	0.082	0.26	0.52	0.54
	Right Tilted	0.104	0.121	0.290	0.013	0.23	0.41	0.52



	Left Cheek	0.163	0.227	0.675	0.124	0.39	0.96	1.07
	Left Tilted	0.131	0.154	0.535	0.025	0.29	0.69	0.82
LTE Band 4 Ant 31	Right Cheek	0.200	0.100	0.287	0.082	0.30	0.57	0.59
	Right Tilted	0.096	0.121	0.290	0.013	0.22	0.40	0.51
	Left Cheek	0.137	0.227	0.675	0.124	0.36	0.94	1.04
	Left Tilted	0.109	0.154	0.535	0.025	0.26	0.67	0.80
LTE Band 66 Ant 14	Right Cheek	0.668	0.100	0.287	0.082	0.77	1.04	1.06
	Right Tilted	0.830	0.121	0.290	0.013	0.95	1.13	1.24
	Left Cheek	0.486	0.227	0.675	0.124	0.71	1.29	1.39
	Left Tilted	0.533	0.154	0.535	0.025	0.69	1.09	1.22
LTE Band 66 Ant 31	Right Cheek	0.107	0.100	0.287	0.082	0.21	0.48	0.49
	Right Tilted	0.071	0.121	0.290	0.013	0.19	0.37	0.48
	Left Cheek	0.106	0.227	0.675	0.124	0.33	0.91	1.01
	Left Tilted	0.078	0.154	0.535	0.025	0.23	0.64	0.77
GSM1900 Ant 14	Right Cheek	0.904	0.100	0.287	0.082	1.00	1.27	1.29
	Right Tilted	0.865	0.121	0.290	0.013	0.99	1.17	1.28
	Left Cheek	0.489	0.227	0.675	0.124	0.72	1.29	1.39
	Left Tilted	0.533	0.154	0.535	0.025	0.69	1.09	1.22
GSM1900 Ant 31	Right Cheek	0.044	0.100	0.287	0.082	0.14	0.41	0.43
	Right Tilted	0.038	0.121	0.290	0.013	0.16	0.34	0.45
	Left Cheek	0.060	0.227	0.675	0.124	0.29	0.86	0.96
	Left Tilted	0.053	0.154	0.535	0.025	0.21	0.61	0.74
WCDMA II Ant 14	Right Cheek	0.887	0.100	0.287	0.082	0.99	1.26	1.27
	Right Tilted	0.729	0.121	0.290	0.013	0.85	1.03	1.14
	Left Cheek	0.490	0.227	0.675	0.124	0.72	1.29	1.39
	Left Tilted	0.557	0.154	0.535	0.025	0.71	1.12	1.25
WCDMA II Ant 31	Right Cheek	0.083	0.100	0.287	0.082	0.18	0.45	0.47
	Right Tilted	0.059	0.121	0.290	0.013	0.18	0.36	0.47
	Left Cheek	0.118	0.227	0.675	0.124	0.35	0.92	1.02
	Left Tilted	0.082	0.154	0.535	0.025	0.24	0.64	0.77
LTE Band 2 Ant 14	Right Cheek	0.849	0.100	0.287	0.082	0.95	1.22	1.24
	Right Tilted	0.741	0.121	0.290	0.013	0.86	1.04	1.15
	Left Cheek	0.469	0.227	0.675	0.124	0.70	1.27	1.37
	Left Tilted	0.518	0.154	0.535	0.025	0.67	1.08	1.21
LTE Band 2 Ant 31	Right Cheek	0.071	0.100	0.287	0.082	0.17	0.44	0.46
	Right Tilted	0.024	0.121	0.290	0.013	0.15	0.33	0.44
	Left Cheek	0.104	0.227	0.675	0.124	0.33	0.90	1.01
	Left Tilted	0.070	0.154	0.535	0.025	0.22	0.63	0.76
LTE Band 7 Ant 14	Right Cheek	0.778	0.100	0.287	0.082	0.88	1.15	1.17
	Right Tilted	0.488	0.121	0.290	0.013	0.61	0.79	0.90
	Left Cheek	0.277	0.227	0.675	0.124	0.50	1.08	1.18
	Left Tilted	0.287	0.154	0.535	0.025	0.44	0.85	0.98
LTE Band 7 Ant 31	Right Cheek	0.326	0.100	0.287	0.082	0.43	0.70	0.71
	Right Tilted	0.147	0.121	0.290	0.013	0.27	0.45	0.56
	Left Cheek	0.172	0.227	0.675	0.124	0.40	0.97	1.07
	Left Tilted	0.102	0.154	0.535	0.025	0.26	0.66	0.79
LTE Band 41 Ant 14	Right Cheek	0.712	0.100	0.287	0.082	0.81	1.08	1.10
	Right Tilted	0.456	0.121	0.290	0.013	0.58	0.76	0.87
	Left Cheek	0.261	0.227	0.675	0.124	0.49	1.06	1.16
	Left Tilted	0.277	0.154	0.535	0.025	0.43	0.84	0.97
LTE Band 41 Ant 31	Right Cheek	0.253	0.100	0.287	0.082	0.35	0.62	0.64
	Right Tilted	0.091	0.121	0.290	0.013	0.21	0.39	0.50
	Left Cheek	0.107	0.227	0.675	0.124	0.33	0.91	1.01
	Left Tilted	0.105	0.154	0.535	0.025	0.26	0.67	0.79



FR1	Exposure Position	1	5	8	9	1+5	1+8+9	1+5+8
		WWAN	WLAN2.4GHz Ant 24+22	WLAN5GHz Ant 22+24	Bluetooth Ant 24	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)
N5 Ant 11	Right Cheek	0.163	0.100	0.287	0.082	0.26	0.53	0.55
	Right Tilted	0.017	0.121	0.290	0.013	0.14	0.32	0.43
	Left Cheek	0.471	0.227	0.675	0.124	0.70	1.27	1.37
	Left Tilted	0.043	0.154	0.535	0.025	0.20	0.60	0.73
N5 Ant 41	Right Cheek	0.142	0.100	0.287	0.082	0.24	0.51	0.53
	Right Tilted	0.076	0.121	0.290	0.013	0.20	0.38	0.49
	Left Cheek	0.132	0.227	0.675	0.124	0.36	0.93	1.03
	Left Tilted	0.078	0.154	0.535	0.025	0.23	0.64	0.77
N66 Ant 14	Right Cheek	0.715	0.100	0.287	0.082	0.82	1.08	1.10
	Right Tilted	0.689	0.121	0.290	0.013	0.81	0.99	1.10
	Left Cheek	0.411	0.227	0.675	0.124	0.64	1.21	1.31
	Left Tilted	0.494	0.154	0.535	0.025	0.65	1.05	1.18
N66 Ant 31	Right Cheek	0.108	0.100	0.287	0.082	0.21	0.48	0.50
	Right Tilted	0.067	0.121	0.290	0.013	0.19	0.37	0.48
	Left Cheek	0.097	0.227	0.675	0.124	0.32	0.90	1.00
	Left Tilted	0.080	0.154	0.535	0.025	0.23	0.64	0.77
N2 Ant 14	Right Cheek	0.730	0.100	0.287	0.082	0.83	1.10	1.12
	Right Tilted	0.672	0.121	0.290	0.013	0.79	0.98	1.08
	Left Cheek	0.445	0.227	0.675	0.124	0.67	1.24	1.35
	Left Tilted	0.473	0.154	0.535	0.025	0.63	1.03	1.16
N2 Ant 31	Right Cheek	0.075	0.100	0.287	0.082	0.18	0.44	0.46
	Right Tilted	0.052	0.121	0.290	0.013	0.17	0.36	0.46
	Left Cheek	0.100	0.227	0.675	0.124	0.33	0.90	1.00
	Left Tilted	0.065	0.154	0.535	0.025	0.22	0.63	0.75
N7 Ant 14	Right Cheek	0.988	0.100	0.287	0.082	1.09	1.36	1.38
	Right Tilted	0.686	0.121	0.290	0.013	0.81	0.99	1.10
	Left Cheek	0.342	0.227	0.675	0.124	0.57	1.14	1.24
	Left Tilted	0.359	0.154	0.535	0.025	0.51	0.92	1.05
N7 Ant 31	Right Cheek	0.376	0.100	0.287	0.082	0.48	0.75	0.76
	Right Tilted	0.187	0.121	0.290	0.013	0.31	0.49	0.60
	Left Cheek	0.201	0.227	0.675	0.124	0.43	1.00	1.10
	Left Tilted	0.094	0.154	0.535	0.025	0.25	0.65	0.78
LTE Band 18 Ant 11	Right Cheek	0.225	0.100	0.287	0.082	0.33	0.59	0.61
	Right Tilted	0.046	0.121	0.290	0.013	0.17	0.35	0.46
	Left Cheek	0.490	0.227	0.675	0.124	0.72	1.29	1.39
	Left Tilted	0.066	0.154	0.535	0.025	0.22	0.63	0.76
N41 Ant 12	Right Cheek	0.948	0.100	0.287	0.082	1.05	1.32	1.34
	Right Tilted	0.239	0.121	0.290	0.013	0.36	0.54	0.65
	Left Cheek	0.265	0.227	0.675	0.124	0.49	1.06	1.17
	Left Tilted	0.113	0.154	0.535	0.025	0.27	0.67	0.80
N41 Ant 23	Right Cheek	0.186	0.100	0.287	0.082	0.29	0.56	0.57
	Right Tilted	0.082	0.121	0.290	0.013	0.20	0.39	0.49
	Left Cheek	0.485	0.227	0.675	0.124	0.71	1.28	1.39
	Left Tilted	0.193	0.154	0.535	0.025	0.35	0.75	0.88
N77 Ant 13	Right Cheek	0.528	0.100	0.287	0.082	0.63	0.90	0.92
	Right Tilted	0.879	0.121	0.290	0.013	1.00	1.18	1.29
	Left Cheek	0.250	0.227	0.675	0.124	0.48	1.05	1.15
	Left Tilted	0.340	0.154	0.535	0.025	0.49	0.90	1.03
N77 Ant 23	Right Cheek	0.125	0.100	0.287	0.082	0.23	0.49	0.51
	Right Tilted	0.122	0.121	0.290	0.013	0.24	0.43	0.53
	Left Cheek	0.392	0.227	0.675	0.124	0.62	1.19	1.29



	Left Tilted	0.339	0.154	0.535	0.025	0.49	0.90	1.03
N78 Ant 13	Right Cheek	0.741	0.100	0.287	0.082	0.84	1.11	1.13
	Right Tilted	0.908	0.121	0.290	0.013	1.03	1.21	1.32
	Left Cheek	0.253	0.227	0.675	0.124	0.48	1.05	1.16
	Left Tilted	0.345	0.154	0.535	0.025	0.50	0.91	1.03
N78 Ant 24	Right Cheek	0.023	0.100	0.287	0.082	0.12	0.39	0.41
	Right Tilted	0.010	0.121	0.290	0.013	0.13	0.31	0.42
	Left Cheek	0.083	0.227	0.675	0.124	0.31	0.88	0.98
	Left Tilted	0.025	0.154	0.535	0.025	0.18	0.59	0.71
N78 Ant 101	Right Cheek	0.129	0.100	0.287	0.082	0.23	0.50	0.52
	Right Tilted	0.045	0.121	0.290	0.013	0.17	0.35	0.46
	Left Cheek	0.049	0.227	0.675	0.124	0.28	0.85	0.95
	Left Tilted	0.019	0.154	0.535	0.025	0.17	0.58	0.71



WWAN	WWAN	Exposure Position	1	2	1+2
			WWAN	WWAN	Summed
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)
LTE Band 4_UL CA Ant 31	LTE Band 7_UL CA Ant 12	Right Cheek	0.099	0.472	0.57
		Right Tilted	0.049	0.143	0.19
		Left Cheek	0.064	0.136	0.20
		Left Tilted	0.052	0.087	0.14
LTE Band 4_UL CA Ant 31	LTE Band 7_UL CA Ant 14	Right Cheek	0.099	0.444	0.54
		Right Tilted	0.049	0.307	0.36
		Left Cheek	0.064	0.156	0.22
		Left Tilted	0.052	0.141	0.19

WWAN	WWAN	Exposure Position	1	2	5	8	9	1+2+5	1+2+8+9	1+2+5+8
			WWAN	WWAN	WLAN2.4GHz Ant 24+22	WLAN5GHz Ant 22+24	Bluetooth Ant 24	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)
LTE Band 4_UL CA Ant 31	LTE Band 7_UL CA Ant 12	Right Cheek	0.099	0.247	0.100	0.287	0.082	0.45	0.72	0.73
		Right Tilted	0.049	0.082	0.121	0.290	0.013	0.25	0.43	0.54
		Left Cheek	0.064	0.104	0.227	0.675	0.124	0.40	0.97	1.07
		Left Tilted	0.052	0.046	0.154	0.535	0.025	0.25	0.66	0.79
LTE Band 4_UL CA Ant 31	LTE Band 7_UL CA Ant 14	Right Cheek	0.099	0.354	0.100	0.287	0.082	0.55	0.82	0.84
		Right Tilted	0.049	0.246	0.121	0.290	0.013	0.42	0.60	0.71
		Left Cheek	0.064	0.141	0.227	0.675	0.124	0.43	1.00	1.11
		Left Tilted	0.052	0.123	0.154	0.535	0.025	0.33	0.74	0.86



WWAN	FR1	Exposure Position	1	2	1+2
			WWAN	FR1	Summed
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)
LTE Band 2_ENDC Ant 31	N7_ENDC Ant 12	Right Cheek	0.079	0.791	0.87
		Right Tilted	0.055	0.211	0.27
		Left Cheek	0.104	0.212	0.32
		Left Tilted	0.078	0.105	0.18
LTE Band 2_ENDC Ant 31	N7_ENDC Ant 14	Right Cheek	0.079	0.702	0.78
		Right Tilted	0.055	0.497	0.55
		Left Cheek	0.104	0.214	0.32
		Left Tilted	0.078	0.242	0.32
LTE Band 66_ENDC Ant 31	N7_ENDC Ant 12	Right Cheek	0.094	0.791	0.89
		Right Tilted	0.062	0.211	0.27
		Left Cheek	0.110	0.212	0.32
		Left Tilted	0.080	0.105	0.19
LTE Band 66_ENDC Ant 31	N7_ENDC Ant 14	Right Cheek	0.094	0.702	0.80
		Right Tilted	0.062	0.497	0.56
		Left Cheek	0.110	0.214	0.32
		Left Tilted	0.080	0.242	0.32
LTE Band 2_ENDC Ant 31	N66_ENDC Ant 12	Right Cheek	0.079	0.420	0.50
		Right Tilted	0.055	0.116	0.17
		Left Cheek	0.104	0.139	0.24
		Left Tilted	0.078	0.054	0.13
LTE Band 5_ENDC Ant 11	N66_ENDC Ant 12	Right Cheek	0.222	0.420	0.64
		Right Tilted	0.053	0.116	0.17
		Left Cheek	0.696	0.139	0.84
		Left Tilted	0.066	0.054	0.12
LTE Band 5_ENDC Ant 11	N66_ENDC Ant 14	Right Cheek	0.222	0.636	0.86
		Right Tilted	0.053	0.589	0.64
		Left Cheek	0.696	0.339	1.04
		Left Tilted	0.066	0.414	0.48
LTE Band 5_ENDC Ant 41	N66_ENDC Ant 12	Right Cheek	0.147	0.420	0.57
		Right Tilted	0.082	0.116	0.20
		Left Cheek	0.167	0.139	0.31
		Left Tilted	0.097	0.054	0.15
LTE Band 5_ENDC Ant 41	N66_ENDC Ant 14	Right Cheek	0.147	0.636	0.78
		Right Tilted	0.082	0.589	0.67
		Left Cheek	0.167	0.339	0.51
		Left Tilted	0.097	0.414	0.51
LTE Band 7_ENDC Ant 31	N66_ENDC Ant 12	Right Cheek	0.299	0.420	0.72
		Right Tilted	0.146	0.116	0.26
		Left Cheek	0.180	0.139	0.32
		Left Tilted	0.109	0.054	0.16
LTE Band 7_ENDC Ant 31	N66_ENDC Ant 14	Right Cheek	0.299	0.636	0.94
		Right Tilted	0.146	0.589	0.74
		Left Cheek	0.180	0.339	0.52
		Left Tilted	0.109	0.414	0.52



WWAN	FR1	Exposure Position	1	2	5	8	9	1+2+5	1+2+8+9	1+2+5+8
			WWAN	FR1	WLAN2.4GHz Ant 24+22	WLAN5GHz Ant 22+24	Bluetooth Ant 24	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)
LTE Band 2_ENDC Ant 31	N7_ENDC Ant 12	Right Cheek	0.079	0.369	0.100	0.287	0.082	0.55	0.82	0.84
		Right Tilted	0.055	0.099	0.121	0.290	0.013	0.28	0.46	0.57
		Left Cheek	0.104	0.099	0.227	0.675	0.124	0.43	1.00	1.11
		Left Tilted	0.078	0.049	0.154	0.535	0.025	0.28	0.69	0.82
LTE Band 2_ENDC Ant 31	N7_ENDC Ant 14	Right Cheek	0.079	0.304	0.100	0.287	0.082	0.48	0.75	0.77
		Right Tilted	0.055	0.217	0.121	0.290	0.013	0.39	0.58	0.68
		Left Cheek	0.104	0.092	0.227	0.675	0.124	0.42	1.00	1.10
		Left Tilted	0.078	0.105	0.154	0.535	0.025	0.34	0.74	0.87
LTE Band 66_ENDC Ant 31	N7_ENDC Ant 12	Right Cheek	0.094	0.369	0.100	0.287	0.082	0.56	0.83	0.85
		Right Tilted	0.062	0.099	0.121	0.290	0.013	0.28	0.46	0.57
		Left Cheek	0.110	0.099	0.227	0.675	0.124	0.44	1.01	1.11
		Left Tilted	0.080	0.049	0.154	0.535	0.025	0.28	0.69	0.82
LTE Band 66_ENDC Ant 31	N7_ENDC Ant 14	Right Cheek	0.094	0.304	0.100	0.287	0.082	0.50	0.77	0.79
		Right Tilted	0.062	0.217	0.121	0.290	0.013	0.40	0.58	0.69
		Left Cheek	0.110	0.092	0.227	0.675	0.124	0.43	1.00	1.10
		Left Tilted	0.080	0.105	0.154	0.535	0.025	0.34	0.75	0.87
LTE Band 2_ENDC Ant 31	N66_ENDC Ant 12	Right Cheek	0.079	0.213	0.100	0.287	0.082	0.39	0.66	0.68
		Right Tilted	0.055	0.064	0.121	0.290	0.013	0.24	0.42	0.53
		Left Cheek	0.104	0.091	0.227	0.675	0.124	0.42	0.99	1.10
		Left Tilted	0.078	0.050	0.154	0.535	0.025	0.28	0.69	0.82
LTE Band 5_ENDC Ant 11	N66_ENDC Ant 12	Right Cheek	0.107	0.213	0.100	0.287	0.082	0.42	0.69	0.71
		Right Tilted	0.025	0.064	0.121	0.290	0.013	0.21	0.39	0.50
		Left Cheek	0.244	0.091	0.227	0.675	0.124	0.56	1.13	1.24
		Left Tilted	0.030	0.050	0.154	0.535	0.025	0.23	0.64	0.77
LTE Band 5_ENDC Ant 11	N66_ENDC Ant 14	Right Cheek	0.107	0.291	0.100	0.287	0.082	0.50	0.77	0.79
		Right Tilted	0.025	0.289	0.121	0.290	0.013	0.44	0.62	0.73
		Left Cheek	0.244	0.179	0.227	0.675	0.124	0.65	1.22	1.33
		Left Tilted	0.030	0.208	0.154	0.535	0.025	0.39	0.80	0.93
LTE Band 5_ENDC Ant 41	N66_ENDC Ant 12	Right Cheek	0.147	0.213	0.100	0.287	0.082	0.46	0.73	0.75
		Right Tilted	0.082	0.064	0.121	0.290	0.013	0.27	0.45	0.56
		Left Cheek	0.167	0.091	0.227	0.675	0.124	0.49	1.06	1.16
		Left Tilted	0.097	0.050	0.154	0.535	0.025	0.30	0.71	0.84
LTE Band 5_ENDC Ant 41	N66_ENDC Ant 14	Right Cheek	0.147	0.291	0.100	0.287	0.082	0.54	0.81	0.83
		Right Tilted	0.082	0.289	0.121	0.290	0.013	0.49	0.67	0.78
		Left Cheek	0.167	0.179	0.227	0.675	0.124	0.57	1.15	1.25
		Left Tilted	0.097	0.208	0.154	0.535	0.025	0.46	0.87	0.99
LTE Band 7_ENDC Ant 31	N66_ENDC Ant 12	Right Cheek	0.299	0.213	0.100	0.287	0.082	0.61	0.88	0.90
		Right Tilted	0.146	0.064	0.121	0.290	0.013	0.33	0.51	0.62
		Left Cheek	0.180	0.091	0.227	0.675	0.124	0.50	1.07	1.17
		Left Tilted	0.109	0.050	0.154	0.535	0.025	0.31	0.72	0.85
LTE Band 7_ENDC Ant 31	N66_ENDC Ant 14	Right Cheek	0.299	0.291	0.100	0.287	0.082	0.69	0.96	0.98
		Right Tilted	0.146	0.289	0.121	0.290	0.013	0.56	0.74	0.85
		Left Cheek	0.180	0.179	0.227	0.675	0.124	0.59	1.16	1.26
		Left Tilted	0.109	0.208	0.154	0.535	0.025	0.47	0.88	1.01



WWAN	FR1	Exposure Position	1	2	5	8	9	1+2+5	1+2+8+9	1+2+5+8
			WWAN	FR1	WLAN2.4GHz Ant 24+22	WLAN5GHz Ant 22+24	Bluetooth Ant 24	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)
LTE Band 41_ENDC Ant 14	N78_ENDC Ant 13	Right Cheek	0.326	0.217	0.100	0.287	0.082	0.64	0.91	0.93
		Right Tilted	0.197	0.363	0.121	0.290	0.013	0.68	0.86	0.97
		Left Cheek	0.126	0.100	0.227	0.675	0.124	0.45	1.03	1.13
		Left Tilted	0.120	0.146	0.154	0.535	0.025	0.42	0.83	0.96
LTE Band 41_ENDC Ant 14	N78_ENDC Ant 23	Right Cheek	0.326	0.070	0.100	0.287	0.082	0.50	0.77	0.78
		Right Tilted	0.197	0.076	0.121	0.290	0.013	0.39	0.58	0.68
		Left Cheek	0.126	0.167	0.227	0.675	0.124	0.52	1.09	1.20
		Left Tilted	0.120	0.129	0.154	0.535	0.025	0.40	0.81	0.94
LTE Band 41_ENDC Ant 14	N78_ENDC Ant 24	Right Cheek	0.326	0.031	0.100	0.287	0.082	0.46	0.73	0.74
		Right Tilted	0.197	0.037	0.121	0.290	0.013	0.36	0.54	0.65
		Left Cheek	0.126	0.092	0.227	0.675	0.124	0.45	1.02	1.12
		Left Tilted	0.120	0.023	0.154	0.535	0.025	0.30	0.70	0.83
LTE Band 41_ENDC Ant 14	N78_ENDC Ant 101	Right Cheek	0.326	0.097	0.100	0.287	0.082	0.52	0.79	0.81
		Right Tilted	0.197	0.035	0.121	0.290	0.013	0.35	0.54	0.64
		Left Cheek	0.126	0.042	0.227	0.675	0.124	0.39	0.97	1.07
		Left Tilted	0.120	0.016	0.154	0.535	0.025	0.29	0.70	0.82
LTE Band 41_ENDC Ant 31	N78_ENDC Ant 13	Right Cheek	0.253	0.217	0.100	0.287	0.082	0.57	0.84	0.86
		Right Tilted	0.091	0.363	0.121	0.290	0.013	0.58	0.76	0.87
		Left Cheek	0.107	0.100	0.227	0.675	0.124	0.43	1.01	1.11
		Left Tilted	0.105	0.146	0.154	0.535	0.025	0.41	0.81	0.94
LTE Band 41_ENDC Ant 31	N78_ENDC Ant 23	Right Cheek	0.253	0.070	0.100	0.287	0.082	0.42	0.69	0.71
		Right Tilted	0.091	0.076	0.121	0.290	0.013	0.29	0.47	0.58
		Left Cheek	0.107	0.167	0.227	0.675	0.124	0.50	1.07	1.18
		Left Tilted	0.105	0.129	0.154	0.535	0.025	0.39	0.79	0.92
LTE Band 41_ENDC Ant 31	N78_ENDC Ant 24	Right Cheek	0.253	0.031	0.100	0.287	0.082	0.38	0.65	0.67
		Right Tilted	0.091	0.037	0.121	0.290	0.013	0.25	0.43	0.54
		Left Cheek	0.107	0.092	0.227	0.675	0.124	0.43	1.00	1.10
		Left Tilted	0.105	0.023	0.154	0.535	0.025	0.28	0.69	0.82
LTE Band 41_ENDC Ant 31	N78_ENDC Ant 101	Right Cheek	0.253	0.097	0.100	0.287	0.082	0.45	0.72	0.74
		Right Tilted	0.091	0.035	0.121	0.290	0.013	0.25	0.43	0.54
		Left Cheek	0.107	0.042	0.227	0.675	0.124	0.38	0.95	1.05
		Left Tilted	0.105	0.016	0.154	0.535	0.025	0.27	0.68	0.81
LTE Band 66_ENDC Ant 14	N78_ENDC Ant 13	Right Cheek	0.318	0.217	0.100	0.287	0.082	0.64	0.90	0.92
		Right Tilted	0.331	0.363	0.121	0.290	0.013	0.82	1.00	1.11
		Left Cheek	0.178	0.100	0.227	0.675	0.124	0.51	1.08	1.18
		Left Tilted	0.206	0.146	0.154	0.535	0.025	0.51	0.91	1.04
LTE Band 66_ENDC Ant 14	N78_ENDC Ant 23	Right Cheek	0.318	0.070	0.100	0.287	0.082	0.49	0.76	0.78
		Right Tilted	0.331	0.076	0.121	0.290	0.013	0.53	0.71	0.82
		Left Cheek	0.178	0.167	0.227	0.675	0.124	0.57	1.14	1.25
		Left Tilted	0.206	0.129	0.154	0.535	0.025	0.49	0.90	1.02
LTE Band 66_ENDC Ant 14	N78_ENDC Ant 24	Right Cheek	0.318	0.031	0.100	0.287	0.082	0.45	0.72	0.74
		Right Tilted	0.331	0.037	0.121	0.290	0.013	0.49	0.67	0.78
		Left Cheek	0.178	0.092	0.227	0.675	0.124	0.50	1.07	1.17
		Left Tilted	0.206	0.023	0.154	0.535	0.025	0.38	0.79	0.92
LTE Band 66_ENDC Ant 14	N78_ENDC Ant 101	Right Cheek	0.318	0.097	0.100	0.287	0.082	0.51	0.78	0.80
		Right Tilted	0.331	0.035	0.121	0.290	0.013	0.49	0.67	0.78
		Left Cheek	0.178	0.042	0.227	0.675	0.124	0.45	1.02	1.12
		Left Tilted	0.206	0.016	0.154	0.535	0.025	0.38	0.78	0.91
LTE Band 66_ENDC Ant 31	N78_ENDC Ant 13	Right Cheek	0.094	0.217	0.100	0.287	0.082	0.41	0.68	0.70
		Right Tilted	0.062	0.363	0.121	0.290	0.013	0.55	0.73	0.84
		Left Cheek	0.110	0.100	0.227	0.675	0.124	0.44	1.01	1.11



LTE Band 66_ENDC Ant 31	N78_ENDC Ant 23	Left Tilted	0.080	0.146	0.154	0.535	0.025	0.38	0.79	0.92
		Right Cheek	0.094	0.070	0.100	0.287	0.082	0.26	0.53	0.55
		Right Tilted	0.062	0.076	0.121	0.290	0.013	0.26	0.44	0.55
		Left Cheek	0.110	0.167	0.227	0.675	0.124	0.50	1.08	1.18
		Left Tilted	0.080	0.129	0.154	0.535	0.025	0.36	0.77	0.90
LTE Band 66_ENDC Ant 31	N78_ENDC Ant 24	Right Cheek	0.094	0.031	0.100	0.287	0.082	0.22	0.49	0.51
		Right Tilted	0.062	0.037	0.121	0.290	0.013	0.22	0.40	0.51
		Left Cheek	0.110	0.092	0.227	0.675	0.124	0.43	1.00	1.10
		Left Tilted	0.080	0.023	0.154	0.535	0.025	0.26	0.66	0.79
		Right Cheek	0.094	0.097	0.100	0.287	0.082	0.29	0.56	0.58
LTE Band 66_ENDC Ant 31	N78_ENDC Ant 101	Right Tilted	0.062	0.035	0.121	0.290	0.013	0.22	0.40	0.51
		Left Cheek	0.110	0.042	0.227	0.675	0.124	0.38	0.95	1.05
		Left Tilted	0.080	0.016	0.154	0.535	0.025	0.25	0.66	0.78

WWAN	FR1	Exposure Position	1	2	1+2
			WWAN	FR1	Summed
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)
LTE Band 41_ENDC Ant 14	N78_ENDC Ant 13	Right Cheek	0.712	0.441	1.15
		Right Tilted	0.456	0.746	1.20
		Left Cheek	0.261	0.213	0.47
		Left Tilted	0.277	0.308	0.59
LTE Band 41_ENDC Ant 14	N78_ENDC Ant 23	Right Cheek	0.712	0.147	0.86
		Right Tilted	0.456	0.158	0.61
		Left Cheek	0.261	0.351	0.61
		Left Tilted	0.277	0.271	0.55
LTE Band 41_ENDC Ant 14	N78_ENDC Ant 24	Right Cheek	0.712	0.028	0.74
		Right Tilted	0.456	0.010	0.47
		Left Cheek	0.261	0.093	0.35
		Left Tilted	0.277	0.026	0.30
LTE Band 41_ENDC Ant 14	N78_ENDC Ant 101	Right Cheek	0.712	0.101	0.81
		Right Tilted	0.456	0.035	0.49
		Left Cheek	0.261	0.044	0.30
		Left Tilted	0.277	0.018	0.30
LTE Band 41_ENDC Ant 31	N78_ENDC Ant 13	Right Cheek	0.253	0.441	0.69
		Right Tilted	0.091	0.746	0.84
		Left Cheek	0.107	0.213	0.32
		Left Tilted	0.105	0.308	0.41
LTE Band 41_ENDC Ant 31	N78_ENDC Ant 23	Right Cheek	0.253	0.147	0.40
		Right Tilted	0.091	0.158	0.25
		Left Cheek	0.107	0.351	0.46
		Left Tilted	0.105	0.271	0.38
LTE Band 41_ENDC Ant 31	N78_ENDC Ant 24	Right Cheek	0.253	0.028	0.28
		Right Tilted	0.091	0.010	0.10
		Left Cheek	0.107	0.093	0.20
		Left Tilted	0.105	0.026	0.13
LTE Band 41_ENDC Ant 31	N78_ENDC Ant 101	Right Cheek	0.253	0.101	0.35
		Right Tilted	0.091	0.035	0.13
		Left Cheek	0.107	0.044	0.15
		Left Tilted	0.105	0.018	0.12
LTE Band 66_ENDC Ant 14	N78_ENDC Ant 13	Right Cheek	0.624	0.441	1.07
		Right Tilted	0.642	0.746	1.39
		Left Cheek	0.356	0.213	0.57
		Left Tilted	0.414	0.308	0.72
LTE Band 66_ENDC Ant 14	N78_ENDC Ant 23	Right Cheek	0.624	0.147	0.77
		Right Tilted	0.642	0.158	0.80



		Left Cheek	0.356	0.351	0.71
		Left Tilted	0.414	0.271	0.69
LTE Band 66_ENDC Ant 14	N78_ENDC Ant 24	Right Cheek	0.624	0.028	0.65
		Right Tilted	0.642	0.010	0.65
		Left Cheek	0.356	0.093	0.45
		Left Tilted	0.414	0.026	0.44
LTE Band 66_ENDC Ant 14	N78_ENDC Ant 101	Right Cheek	0.624	0.101	0.72
		Right Tilted	0.642	0.035	0.68
		Left Cheek	0.356	0.044	0.40
		Left Tilted	0.414	0.018	0.43
LTE Band 66_ENDC Ant 31	N78_ENDC Ant 13	Right Cheek	0.094	0.441	0.54
		Right Tilted	0.062	0.746	0.81
		Left Cheek	0.110	0.213	0.32
		Left Tilted	0.080	0.308	0.39
LTE Band 66_ENDC Ant 31	N78_ENDC Ant 23	Right Cheek	0.094	0.147	0.24
		Right Tilted	0.062	0.158	0.22
		Left Cheek	0.110	0.351	0.46
		Left Tilted	0.080	0.271	0.35
LTE Band 66_ENDC Ant 31	N78_ENDC Ant 24	Right Cheek	0.094	0.028	0.12
		Right Tilted	0.062	0.010	0.07
		Left Cheek	0.110	0.093	0.20
		Left Tilted	0.080	0.026	0.11
LTE Band 66_ENDC Ant 31	N78_ENDC Ant 101	Right Cheek	0.094	0.101	0.19
		Right Tilted	0.062	0.035	0.10
		Left Cheek	0.110	0.044	0.15
		Left Tilted	0.080	0.018	0.10



WWAN	FR1	Exposure Position	1	2	5	8	9	1+2+5	1+2+8+9	1+2+5+8
			WWAN	FR1	WLAN2.4GHz Ant 24+22	WLAN5GHz Ant 22+24	Bluetooth Ant 24	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)
LTE Band 2_ENDC Ant 14	N78_ENDC Ant 13	Right Cheek	0.350	0.217	0.100	0.287	0.082	0.67	0.94	0.95
		Right Tilted	0.277	0.363	0.121	0.290	0.013	0.76	0.94	1.05
		Left Cheek	0.205	0.100	0.227	0.675	0.124	0.53	1.10	1.21
		Left Tilted	0.222	0.146	0.154	0.535	0.025	0.52	0.93	1.06
LTE Band 2_ENDC Ant 14	N78_ENDC Ant 23	Right Cheek	0.350	0.070	0.100	0.287	0.082	0.52	0.79	0.81
		Right Tilted	0.277	0.076	0.121	0.290	0.013	0.47	0.66	0.76
		Left Cheek	0.205	0.167	0.227	0.675	0.124	0.60	1.17	1.27
		Left Tilted	0.222	0.129	0.154	0.535	0.025	0.51	0.91	1.04
LTE Band 2_ENDC Ant 14	N78_ENDC Ant 24	Right Cheek	0.350	0.031	0.100	0.287	0.082	0.48	0.75	0.77
		Right Tilted	0.277	0.037	0.121	0.290	0.013	0.44	0.62	0.73
		Left Cheek	0.205	0.092	0.227	0.675	0.124	0.52	1.10	1.20
		Left Tilted	0.222	0.023	0.154	0.535	0.025	0.40	0.81	0.93
LTE Band 2_ENDC Ant 14	N78_ENDC Ant 101	Right Cheek	0.350	0.097	0.100	0.287	0.082	0.55	0.82	0.83
		Right Tilted	0.277	0.035	0.121	0.290	0.013	0.43	0.62	0.72
		Left Cheek	0.205	0.042	0.227	0.675	0.124	0.47	1.05	1.15
		Left Tilted	0.222	0.016	0.154	0.535	0.025	0.39	0.80	0.93
LTE Band 2_ENDC Ant 31	N78_ENDC Ant 13	Right Cheek	0.079	0.217	0.100	0.287	0.082	0.40	0.67	0.68
		Right Tilted	0.055	0.363	0.121	0.290	0.013	0.54	0.72	0.83
		Left Cheek	0.104	0.100	0.227	0.675	0.124	0.43	1.00	1.11
		Left Tilted	0.078	0.146	0.154	0.535	0.025	0.38	0.78	0.91
LTE Band 2_ENDC Ant 31	N78_ENDC Ant 23	Right Cheek	0.079	0.070	0.100	0.287	0.082	0.25	0.52	0.54
		Right Tilted	0.055	0.076	0.121	0.290	0.013	0.25	0.43	0.54
		Left Cheek	0.104	0.167	0.227	0.675	0.124	0.50	1.07	1.17
		Left Tilted	0.078	0.129	0.154	0.535	0.025	0.36	0.77	0.90
LTE Band 2_ENDC Ant 31	N78_ENDC Ant 24	Right Cheek	0.079	0.031	0.100	0.287	0.082	0.21	0.48	0.50
		Right Tilted	0.055	0.037	0.121	0.290	0.013	0.21	0.40	0.50
		Left Cheek	0.104	0.092	0.227	0.675	0.124	0.42	1.00	1.10
		Left Tilted	0.078	0.023	0.154	0.535	0.025	0.26	0.66	0.79
LTE Band 2_ENDC Ant 31	N78_ENDC Ant 101	Right Cheek	0.079	0.097	0.100	0.287	0.082	0.28	0.54	0.56
		Right Tilted	0.055	0.035	0.121	0.290	0.013	0.21	0.39	0.50
		Left Cheek	0.104	0.042	0.227	0.675	0.124	0.37	0.94	1.05
		Left Tilted	0.078	0.016	0.154	0.535	0.025	0.25	0.65	0.78
LTE Band 5_ENDC Ant 11	N78_ENDC Ant 13	Right Cheek	0.107	0.217	0.100	0.287	0.082	0.42	0.69	0.71
		Right Tilted	0.025	0.363	0.121	0.290	0.013	0.51	0.69	0.80
		Left Cheek	0.244	0.100	0.227	0.675	0.124	0.57	1.14	1.25
		Left Tilted	0.030	0.146	0.154	0.535	0.025	0.33	0.74	0.87
LTE Band 5_ENDC Ant 11	N78_ENDC Ant 23	Right Cheek	0.107	0.070	0.100	0.287	0.082	0.28	0.55	0.56
		Right Tilted	0.025	0.076	0.121	0.290	0.013	0.22	0.40	0.51
		Left Cheek	0.244	0.167	0.227	0.675	0.124	0.64	1.21	1.31
		Left Tilted	0.030	0.129	0.154	0.535	0.025	0.31	0.72	0.85
LTE Band 5_ENDC Ant 11	N78_ENDC Ant 24	Right Cheek	0.107	0.031	0.100	0.287	0.082	0.24	0.51	0.52
		Right Tilted	0.025	0.037	0.121	0.290	0.013	0.18	0.37	0.47
		Left Cheek	0.244	0.092	0.227	0.675	0.124	0.56	1.14	1.24
		Left Tilted	0.030	0.023	0.154	0.535	0.025	0.21	0.61	0.74
LTE Band 5_ENDC Ant 11	N78_ENDC Ant 101	Right Cheek	0.107	0.097	0.100	0.287	0.082	0.30	0.57	0.59
		Right Tilted	0.025	0.035	0.121	0.290	0.013	0.18	0.36	0.47
		Left Cheek	0.244	0.042	0.227	0.675	0.124	0.51	1.08	1.19
		Left Tilted	0.030	0.016	0.154	0.535	0.025	0.20	0.61	0.73
LTE Band 5_ENDC Ant 41	N78_ENDC Ant 13	Right Cheek	0.147	0.217	0.100	0.287	0.082	0.46	0.73	0.75
		Right Tilted	0.082	0.363	0.121	0.290	0.013	0.57	0.75	0.86
		Left Cheek	0.167	0.100	0.227	0.675	0.124	0.49	1.07	1.17
		Left Tilted	0.097	0.146	0.154	0.535	0.025	0.40	0.80	0.93



LTE Band 5_ENDC Ant 41	N78_ENDC Ant 23	Right Cheek	0.147	0.070	0.100	0.287	0.082	0.32	0.59	0.60
		Right Tilted	0.082	0.076	0.121	0.290	0.013	0.28	0.46	0.57
		Left Cheek	0.167	0.167	0.227	0.675	0.124	0.56	1.13	1.24
		Left Tilted	0.097	0.129	0.154	0.535	0.025	0.38	0.79	0.92
LTE Band 5_ENDC Ant 41	N78_ENDC Ant 24	Right Cheek	0.147	0.031	0.100	0.287	0.082	0.28	0.55	0.56
		Right Tilted	0.082	0.037	0.121	0.290	0.013	0.24	0.42	0.53
		Left Cheek	0.167	0.092	0.227	0.675	0.124	0.49	1.06	1.16
		Left Tilted	0.097	0.023	0.154	0.535	0.025	0.27	0.68	0.81
LTE Band 5_ENDC Ant 41	N78_ENDC Ant 101	Right Cheek	0.147	0.097	0.100	0.287	0.082	0.34	0.61	0.63
		Right Tilted	0.082	0.035	0.121	0.290	0.013	0.24	0.42	0.53
		Left Cheek	0.167	0.042	0.227	0.675	0.124	0.44	1.01	1.11
		Left Tilted	0.097	0.016	0.154	0.535	0.025	0.27	0.67	0.80

WWAN	FR1	Exposure Position	1	2	1+2
			WWAN	FR1	Summed
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)
LTE Band 2_ENDC Ant 14	N78_ENDC Ant 13	Right Cheek	0.719	0.441	1.16
		Right Tilted	0.568	0.746	1.31
		Left Cheek	0.421	0.213	0.63
		Left Tilted	0.456	0.308	0.76
LTE Band 2_ENDC Ant 14	N78_ENDC Ant 23	Right Cheek	0.719	0.147	0.87
		Right Tilted	0.568	0.158	0.73
		Left Cheek	0.421	0.351	0.77
		Left Tilted	0.456	0.271	0.73
LTE Band 2_ENDC Ant 14	N78_ENDC Ant 24	Right Cheek	0.719	0.028	0.75
		Right Tilted	0.568	0.010	0.58
		Left Cheek	0.421	0.093	0.51
		Left Tilted	0.456	0.026	0.48
LTE Band 2_ENDC Ant 14	N78_ENDC Ant 101	Right Cheek	0.719	0.101	0.82
		Right Tilted	0.568	0.035	0.60
		Left Cheek	0.421	0.044	0.46
		Left Tilted	0.456	0.018	0.47
LTE Band 2_ENDC Ant 31	N78_ENDC Ant 13	Right Cheek	0.079	0.441	0.52
		Right Tilted	0.055	0.746	0.80
		Left Cheek	0.104	0.213	0.32
		Left Tilted	0.078	0.308	0.39
LTE Band 2_ENDC Ant 31	N78_ENDC Ant 23	Right Cheek	0.079	0.147	0.23
		Right Tilted	0.055	0.158	0.21
		Left Cheek	0.104	0.351	0.46
		Left Tilted	0.078	0.271	0.35
LTE Band 2_ENDC Ant 31	N78_ENDC Ant 24	Right Cheek	0.079	0.028	0.11
		Right Tilted	0.055	0.010	0.07
		Left Cheek	0.104	0.093	0.20
		Left Tilted	0.078	0.026	0.10
LTE Band 2_ENDC Ant 31	N78_ENDC Ant 101	Right Cheek	0.079	0.101	0.18
		Right Tilted	0.055	0.035	0.09
		Left Cheek	0.104	0.044	0.15
		Left Tilted	0.078	0.018	0.10
LTE Band 5_ENDC Ant 11	N78_ENDC Ant 13	Right Cheek	0.222	0.441	0.66
		Right Tilted	0.053	0.746	0.80
		Left Cheek	0.696	0.213	0.91
		Left Tilted	0.066	0.308	0.37
LTE Band 5_ENDC Ant 11	N78_ENDC Ant 23	Right Cheek	0.222	0.147	0.37
		Right Tilted	0.053	0.158	0.21
		Left Cheek	0.696	0.351	1.05
		Left Tilted	0.066	0.271	0.34



LTE Band 5_ENDC Ant 11	N78_ENDC Ant 24	Right Cheek	0.222	0.028	0.25
		Right Tilted	0.053	0.010	0.06
		Left Cheek	0.696	0.093	0.79
		Left Tilted	0.066	0.026	0.09
LTE Band 5_ENDC Ant 11	N78_ENDC Ant 101	Right Cheek	0.222	0.101	0.32
		Right Tilted	0.053	0.035	0.09
		Left Cheek	0.696	0.044	0.74
		Left Tilted	0.066	0.018	0.08
LTE Band 5_ENDC Ant 41	N78_ENDC Ant 13	Right Cheek	0.147	0.441	0.59
		Right Tilted	0.082	0.746	0.83
		Left Cheek	0.167	0.213	0.38
		Left Tilted	0.097	0.308	0.41
LTE Band 5_ENDC Ant 41	N78_ENDC Ant 23	Right Cheek	0.147	0.147	0.29
		Right Tilted	0.082	0.158	0.24
		Left Cheek	0.167	0.351	0.52
		Left Tilted	0.097	0.271	0.37
LTE Band 5_ENDC Ant 41	N78_ENDC Ant 24	Right Cheek	0.147	0.028	0.17
		Right Tilted	0.082	0.010	0.09
		Left Cheek	0.167	0.093	0.26
		Left Tilted	0.097	0.026	0.12
LTE Band 5_ENDC Ant 41	N78_ENDC Ant 101	Right Cheek	0.147	0.101	0.25
		Right Tilted	0.082	0.035	0.12
		Left Cheek	0.167	0.044	0.21
		Left Tilted	0.097	0.018	0.12



WWAN	FR1	Exposure Position	1	2	5	8	9	1+2+5	1+2+8+9	1+2+5+8
			WWAN	FR1	WLAN2.4GHz Ant 24+22	WLAN5GHz Ant 22+24	Bluetooth Ant 24	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)
LTE Band 7_ENDC Ant 14	N78_ENDC Ant 13	Right Cheek	0.333	0.217	0.100	0.287	0.082	0.65	0.92	0.94
		Right Tilted	0.225	0.363	0.121	0.290	0.013	0.71	0.89	1.00
		Left Cheek	0.126	0.100	0.227	0.675	0.124	0.45	1.03	1.13
		Left Tilted	0.138	0.146	0.154	0.535	0.025	0.44	0.84	0.97
LTE Band 7_ENDC Ant 14	N78_ENDC Ant 23	Right Cheek	0.333	0.070	0.100	0.287	0.082	0.50	0.77	0.79
		Right Tilted	0.225	0.076	0.121	0.290	0.013	0.42	0.60	0.71
		Left Cheek	0.126	0.167	0.227	0.675	0.124	0.52	1.09	1.20
		Left Tilted	0.138	0.129	0.154	0.535	0.025	0.42	0.83	0.96
LTE Band 7_ENDC Ant 14	N78_ENDC Ant 24	Right Cheek	0.333	0.031	0.100	0.287	0.082	0.46	0.73	0.75
		Right Tilted	0.225	0.037	0.121	0.290	0.013	0.38	0.57	0.67
		Left Cheek	0.126	0.092	0.227	0.675	0.124	0.45	1.02	1.12
		Left Tilted	0.138	0.023	0.154	0.535	0.025	0.32	0.72	0.85
LTE Band 7_ENDC Ant 14	N78_ENDC Ant 101	Right Cheek	0.333	0.097	0.100	0.287	0.082	0.53	0.80	0.82
		Right Tilted	0.225	0.035	0.121	0.290	0.013	0.38	0.56	0.67
		Left Cheek	0.126	0.042	0.227	0.675	0.124	0.39	0.97	1.07
		Left Tilted	0.138	0.016	0.154	0.535	0.025	0.31	0.71	0.84
LTE Band 7_ENDC Ant 31	N78_ENDC Ant 13	Right Cheek	0.299	0.217	0.100	0.287	0.082	0.62	0.89	0.90
		Right Tilted	0.146	0.363	0.121	0.290	0.013	0.63	0.81	0.92
		Left Cheek	0.180	0.100	0.227	0.675	0.124	0.51	1.08	1.18
		Left Tilted	0.109	0.146	0.154	0.535	0.025	0.41	0.82	0.94
LTE Band 7_ENDC Ant 31	N78_ENDC Ant 23	Right Cheek	0.299	0.070	0.100	0.287	0.082	0.47	0.74	0.76
		Right Tilted	0.146	0.076	0.121	0.290	0.013	0.34	0.53	0.63
		Left Cheek	0.180	0.167	0.227	0.675	0.124	0.57	1.15	1.25
		Left Tilted	0.109	0.129	0.154	0.535	0.025	0.39	0.80	0.93
LTE Band 7_ENDC Ant 31	N78_ENDC Ant 24	Right Cheek	0.299	0.031	0.100	0.287	0.082	0.43	0.70	0.72
		Right Tilted	0.146	0.037	0.121	0.290	0.013	0.30	0.49	0.59
		Left Cheek	0.180	0.092	0.227	0.675	0.124	0.50	1.07	1.17
		Left Tilted	0.109	0.023	0.154	0.535	0.025	0.29	0.69	0.82
LTE Band 7_ENDC Ant 31	N78_ENDC Ant 101	Right Cheek	0.299	0.097	0.100	0.287	0.082	0.50	0.76	0.78
		Right Tilted	0.146	0.035	0.121	0.290	0.013	0.30	0.48	0.59
		Left Cheek	0.180	0.042	0.227	0.675	0.124	0.45	1.02	1.12
		Left Tilted	0.109	0.016	0.154	0.535	0.025	0.28	0.68	0.81



WWAN	FR1	Exposure Position	1	2	1+2
			WWAN	FR1	Summed
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)
LTE Band 7_ENDC Ant 14	N78_ENDC Ant 13	Right Cheek	0.720	0.441	1.16
		Right Tilted	0.487	0.746	1.23
		Left Cheek	0.274	0.213	0.49
		Left Tilted	0.299	0.308	0.61
LTE Band 7_ENDC Ant 14	N78_ENDC Ant 23	Right Cheek	0.720	0.147	0.87
		Right Tilted	0.487	0.158	0.65
		Left Cheek	0.274	0.351	0.63
		Left Tilted	0.299	0.271	0.57
LTE Band 7_ENDC Ant 14	N78_ENDC Ant 24	Right Cheek	0.720	0.028	0.75
		Right Tilted	0.487	0.010	0.50
		Left Cheek	0.274	0.093	0.37
		Left Tilted	0.299	0.026	0.33
LTE Band 7_ENDC Ant 14	N78_ENDC Ant 101	Right Cheek	0.720	0.101	0.82
		Right Tilted	0.487	0.035	0.52
		Left Cheek	0.274	0.044	0.32
		Left Tilted	0.299	0.018	0.32
LTE Band 7_ENDC Ant 31	N78_ENDC Ant 13	Right Cheek	0.299	0.441	0.74
		Right Tilted	0.146	0.746	0.89
		Left Cheek	0.180	0.213	0.39
		Left Tilted	0.109	0.308	0.42
LTE Band 7_ENDC Ant 31	N78_ENDC Ant 23	Right Cheek	0.299	0.147	0.45
		Right Tilted	0.146	0.158	0.30
		Left Cheek	0.180	0.351	0.53
		Left Tilted	0.109	0.271	0.38
LTE Band 7_ENDC Ant 31	N78_ENDC Ant 24	Right Cheek	0.299	0.028	0.33
		Right Tilted	0.146	0.010	0.16
		Left Cheek	0.180	0.093	0.27
		Left Tilted	0.109	0.026	0.14
LTE Band 7_ENDC Ant 31	N78_ENDC Ant 101	Right Cheek	0.299	0.101	0.40
		Right Tilted	0.146	0.035	0.18
		Left Cheek	0.180	0.044	0.22
		Left Tilted	0.109	0.018	0.13

16.2 Hotspot Exposure Conditions

WWAN Band	Exposure Position	1	5	8	9	1+5	1+8+9	1+5+8
		WWAN	WLAN2.4GHz Ant 24+22	WLAN5GHz Ant 22+24	Bluetooth Ant 24	Summed	Summed	Summed
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)
LTE Band 13 Ant 11	Front	0.080	0.079	0.276	0.073	0.16	0.43	0.44
	Back	0.112	0.141	0.204	0.151	0.25	0.47	0.46
	Left side	0.236	0.013	0.096	0.006	0.25	0.34	0.35
	Right side	0.009	0.223	0.522	0.183	0.23	0.71	0.75
	Top side	0.015	0.019	0.345	0.010	0.03	0.37	0.38
	Bottom side					0.00	0.00	0.00
LTE Band 13 Ant 41	Front	0.117	0.079	0.276	0.073	0.20	0.47	0.47
	Back	0.191	0.141	0.204	0.151	0.33	0.55	0.54
	Left side	0.107	0.013	0.096	0.006	0.12	0.21	0.22
	Right side	0.092	0.223	0.522	0.183	0.32	0.80	0.84
	Top side		0.019	0.345	0.010	0.02	0.36	0.36
	Bottom side	0.074				0.07	0.07	0.07
LTE Band 12 Ant 11	Front	0.264	0.079	0.276	0.073	0.34	0.61	0.62
	Back	0.371	0.141	0.204	0.151	0.51	0.73	0.72
	Left side	0.706	0.013	0.096	0.006	0.72	0.81	0.82
	Right side	0.044	0.223	0.522	0.183	0.27	0.75	0.79
	Top side	0.017	0.019	0.345	0.010	0.04	0.37	0.38
	Bottom side					0.00	0.00	0.00
LTE Band 12 Ant 41	Front	0.225	0.079	0.276	0.073	0.30	0.57	0.58
	Back	0.355	0.141	0.204	0.151	0.50	0.71	0.70
	Left side	0.216	0.013	0.096	0.006	0.23	0.32	0.33
	Right side	0.176	0.223	0.522	0.183	0.40	0.88	0.92
	Top side		0.019	0.345	0.010	0.02	0.36	0.36
	Bottom side	0.145				0.15	0.15	0.15
GSM850 Ant 11	Front	0.249	0.079	0.276	0.073	0.33	0.60	0.60
	Back	0.355	0.141	0.204	0.151	0.50	0.71	0.70
	Left side	0.684	0.013	0.096	0.006	0.70	0.79	0.79
	Right side	0.024	0.223	0.522	0.183	0.25	0.73	0.77
	Top side	0.021	0.019	0.345	0.010	0.04	0.38	0.39
	Bottom side					0.00	0.00	0.00
GSM850 Ant 41	Front	0.264	0.079	0.276	0.073	0.34	0.61	0.62
	Back	0.483	0.141	0.204	0.151	0.62	0.84	0.83
	Left side	0.167	0.013	0.096	0.006	0.18	0.27	0.28
	Right side	0.187	0.223	0.522	0.183	0.41	0.89	0.93
	Top side		0.019	0.345	0.010	0.02	0.36	0.36
	Bottom side	0.234				0.23	0.23	0.23
WCDMA V Ant 11	Front	0.267	0.079	0.276	0.073	0.35	0.62	0.62
	Back	0.379	0.141	0.204	0.151	0.52	0.73	0.72
	Left side	0.691	0.013	0.096	0.006	0.70	0.79	0.80
	Right side	0.015	0.223	0.522	0.183	0.24	0.72	0.76
	Top side	0.020	0.019	0.345	0.010	0.04	0.38	0.38
	Bottom side					0.00	0.00	0.00
WCDMA V Ant 41	Front	0.286	0.079	0.276	0.073	0.37	0.64	0.64
	Back	0.498	0.141	0.204	0.151	0.64	0.85	0.84
	Left side	0.210	0.013	0.096	0.006	0.22	0.31	0.32
	Right side	0.125	0.223	0.522	0.183	0.35	0.83	0.87
	Top side		0.019	0.345	0.010	0.02	0.36	0.36
	Bottom side	0.216				0.22	0.22	0.22
LTE Band 18 Ant	Front	0.328	0.079	0.276	0.073	0.41	0.68	0.68



11	Back	0.426	0.141	0.204	0.151	0.57	0.78	0.77
	Left side	0.911	0.013	0.096	0.006	0.92	1.01	1.02
	Right side	0.030	0.223	0.522	0.183	0.25	0.74	0.78
	Top side	0.017	0.019	0.345	0.010	0.04	0.37	0.38
	Bottom side					0.00	0.00	0.00
LTE Band 26 Ant 11	Front	0.303	0.079	0.276	0.073	0.38	0.65	0.66
	Back	0.391	0.141	0.204	0.151	0.53	0.75	0.74
	Left side	0.760	0.013	0.096	0.006	0.77	0.86	0.87
	Right side	0.027	0.223	0.522	0.183	0.25	0.73	0.77
	Top side	0.013	0.019	0.345	0.010	0.03	0.37	0.38
	Bottom side					0.00	0.00	0.00
LTE Band 26 Ant 41	Front	0.260	0.079	0.276	0.073	0.34	0.61	0.62
	Back	0.428	0.141	0.204	0.151	0.57	0.78	0.77
	Left side	0.193	0.013	0.096	0.006	0.21	0.30	0.30
	Right side	0.109	0.223	0.522	0.183	0.33	0.81	0.85
	Top side		0.019	0.345	0.010	0.02	0.36	0.36
	Bottom side	0.199				0.20	0.20	0.20
WCDMA IV Ant 14	Front	0.228	0.079	0.276	0.073	0.31	0.58	0.58
	Back	0.336	0.141	0.204	0.151	0.48	0.69	0.68
	Left side	0.123	0.013	0.096	0.006	0.14	0.23	0.23
	Right side	0.060	0.223	0.522	0.183	0.28	0.77	0.81
	Top side	0.630	0.019	0.345	0.010	0.65	0.99	0.99
	Bottom side					0.00	0.00	0.00
WCDMA IV Ant 31	Front	0.343	0.079	0.276	0.073	0.42	0.69	0.70
	Back	0.401	0.141	0.204	0.151	0.54	0.76	0.75
	Left side	0.034	0.013	0.096	0.006	0.05	0.14	0.14
	Right side	0.078	0.223	0.522	0.183	0.30	0.78	0.82
	Top side		0.019	0.345	0.010	0.02	0.36	0.36
	Bottom side	0.728				0.73	0.73	0.73
LTE Band 66 Ant 14	Front	0.256	0.079	0.276	0.073	0.34	0.61	0.61
	Back	0.287	0.141	0.204	0.151	0.43	0.64	0.63
	Left side	0.141	0.013	0.096	0.006	0.15	0.24	0.25
	Right side	0.077	0.223	0.522	0.183	0.30	0.78	0.82
	Top side	0.630	0.019	0.345	0.010	0.65	0.99	0.99
	Bottom side					0.00	0.00	0.00
LTE Band 66 Ant 31	Front	0.384	0.079	0.276	0.073	0.46	0.73	0.74
	Back	0.437	0.141	0.204	0.151	0.58	0.79	0.78
	Left side	0.035	0.013	0.096	0.006	0.05	0.14	0.14
	Right side	0.083	0.223	0.522	0.183	0.31	0.79	0.83
	Top side		0.019	0.345	0.010	0.02	0.36	0.36
	Bottom side	0.600				0.60	0.60	0.60
GSM1900 Ant 14	Front	0.195	0.079	0.276	0.073	0.27	0.54	0.55
	Back	0.262	0.141	0.204	0.151	0.40	0.62	0.61
	Left side	0.101	0.013	0.096	0.006	0.11	0.20	0.21
	Right side	0.055	0.223	0.522	0.183	0.28	0.76	0.80
	Top side	0.670	0.019	0.345	0.010	0.69	1.03	1.03
	Bottom side					0.00	0.00	0.00
GSM1900 Ant 31	Front	0.374	0.079	0.276	0.073	0.45	0.72	0.73
	Back	0.448	0.141	0.204	0.151	0.59	0.80	0.79
	Left side	0.056	0.013	0.096	0.006	0.07	0.16	0.17
	Right side	0.087	0.223	0.522	0.183	0.31	0.79	0.83
	Top side		0.019	0.345	0.010	0.02	0.36	0.36
	Bottom side	0.916				0.92	0.92	0.92
WCDMA II Ant 14	Front	0.260	0.079	0.276	0.073	0.34	0.61	0.62
	Back	0.343	0.141	0.204	0.151	0.48	0.70	0.69
	Left side	0.132	0.013	0.096	0.006	0.15	0.23	0.24



	Right side	0.073	0.223	0.522	0.183	0.30	0.78	0.82
	Top side	0.677	0.019	0.345	0.010	0.70	1.03	1.04
	Bottom side					0.00	0.00	0.00
WCDMA II Ant 31	Front	0.325	0.079	0.276	0.073	0.40	0.67	0.68
	Back	0.560	0.141	0.204	0.151	0.70	0.92	0.91
	Left side	0.052	0.013	0.096	0.006	0.07	0.15	0.16
	Right side	0.081	0.223	0.522	0.183	0.30	0.79	0.83
	Top side		0.019	0.345	0.010	0.02	0.36	0.36
	Bottom side	0.845				0.85	0.85	0.85
LTE Band 2 Ant 14	Front	0.256	0.079	0.276	0.073	0.34	0.61	0.61
	Back	0.278	0.141	0.204	0.151	0.42	0.63	0.62
	Left side	0.132	0.013	0.096	0.006	0.15	0.23	0.24
	Right side	0.074	0.223	0.522	0.183	0.30	0.78	0.82
	Top side	0.684	0.019	0.345	0.010	0.70	1.04	1.05
	Bottom side					0.00	0.00	0.00
LTE Band 2 Ant 31	Front	0.324	0.079	0.276	0.073	0.40	0.67	0.68
	Back	0.398	0.141	0.204	0.151	0.54	0.75	0.74
	Left side	0.045	0.013	0.096	0.006	0.06	0.15	0.15
	Right side	0.078	0.223	0.522	0.183	0.30	0.78	0.82
	Top side		0.019	0.345	0.010	0.02	0.36	0.36
	Bottom side	0.756				0.76	0.76	0.76
LTE Band 7 Ant 14	Front	0.307	0.079	0.276	0.073	0.39	0.66	0.66
	Back	0.299	0.141	0.204	0.151	0.44	0.65	0.64
	Left side	0.264	0.013	0.096	0.006	0.28	0.37	0.37
	Right side	0.040	0.223	0.522	0.183	0.26	0.75	0.79
	Top side	0.635	0.019	0.345	0.010	0.65	0.99	1.00
	Bottom side					0.00	0.00	0.00
LTE Band 7 Ant 31	Front	0.230	0.079	0.276	0.073	0.31	0.58	0.59
	Back	0.589	0.141	0.204	0.151	0.73	0.94	0.93
	Left side	0.062	0.013	0.096	0.006	0.08	0.16	0.17
	Right side	0.154	0.223	0.522	0.183	0.38	0.86	0.90
	Top side		0.019	0.345	0.010	0.02	0.36	0.36
	Bottom side	0.245				0.25	0.25	0.25
LTE Band 41 Ant 14	Front	0.438	0.079	0.276	0.073	0.52	0.79	0.79
	Back	0.490	0.141	0.204	0.151	0.63	0.85	0.84
	Left side	0.371	0.013	0.096	0.006	0.38	0.47	0.48
	Right side	0.030	0.223	0.522	0.183	0.25	0.74	0.78
	Top side	0.825	0.019	0.345	0.010	0.84	1.18	1.19
	Bottom side					0.00	0.00	0.00
LTE Band 41 Ant 31	Front	0.254	0.079	0.276	0.073	0.33	0.60	0.61
	Back	0.648	0.141	0.204	0.151	0.79	1.00	0.99
	Left side	0.058	0.013	0.096	0.006	0.07	0.16	0.17
	Right side	0.173	0.223	0.522	0.183	0.40	0.88	0.92
	Top side		0.019	0.345	0.010	0.02	0.36	0.36
	Bottom side	0.255				0.26	0.26	0.26

FR1	Exposure Position	1	5	8	9	1+5	1+8+9	1+5+8
		FR1	WLAN2.4GHz Ant 24+22	WLAN5GHz Ant 22+24	Bluetooth Ant 24	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)
N5 Ant 11	Front	0.266	0.079	0.276	0.073	0.35	0.62	0.62
	Back	0.394	0.141	0.204	0.151	0.54	0.75	0.74
	Left side	0.824	0.013	0.096	0.006	0.84	0.93	0.93
	Right side	0.026	0.223	0.522	0.183	0.25	0.73	0.77
	Top side	0.014	0.019	0.345	0.010	0.03	0.37	0.38
	Bottom side					0.00	0.00	0.00
N5 Ant 41	Front	0.227	0.079	0.276	0.073	0.31	0.58	0.58
	Back	0.318	0.141	0.204	0.151	0.46	0.67	0.66
	Left side	0.149	0.013	0.096	0.006	0.16	0.25	0.26
	Right side	0.111	0.223	0.522	0.183	0.33	0.82	0.86
	Top side		0.019	0.345	0.010	0.02	0.36	0.36
	Bottom side	0.166				0.17	0.17	0.17
N66 Ant 14	Front	0.171	0.079	0.276	0.073	0.25	0.52	0.53
	Back	0.244	0.141	0.204	0.151	0.39	0.60	0.59
	Left side	0.090	0.013	0.096	0.006	0.10	0.19	0.20
	Right side	0.052	0.223	0.522	0.183	0.28	0.76	0.80
	Top side	0.453	0.019	0.345	0.010	0.47	0.81	0.82
	Bottom side					0.00	0.00	0.00
N66 Ant 31	Front	0.357	0.079	0.276	0.073	0.44	0.71	0.71
	Back	0.409	0.141	0.204	0.151	0.55	0.76	0.75
	Left side	0.042	0.013	0.096	0.006	0.06	0.14	0.15
	Right side	0.075	0.223	0.522	0.183	0.30	0.78	0.82
	Top side		0.019	0.345	0.010	0.02	0.36	0.36
	Bottom side	0.642				0.64	0.64	0.64
N2 Ant 14	Front	0.193	0.079	0.276	0.073	0.27	0.54	0.55
	Back	0.265	0.141	0.204	0.151	0.41	0.62	0.61
	Left side	0.101	0.013	0.096	0.006	0.11	0.20	0.21
	Right side	0.067	0.223	0.522	0.183	0.29	0.77	0.81
	Top side	0.511	0.019	0.345	0.010	0.53	0.87	0.88
	Bottom side					0.00	0.00	0.00
N2 Ant 31	Front	0.253	0.079	0.276	0.073	0.33	0.60	0.61
	Back	0.293	0.141	0.204	0.151	0.43	0.65	0.64
	Left side	0.045	0.013	0.096	0.006	0.06	0.15	0.15
	Right side	0.055	0.223	0.522	0.183	0.28	0.76	0.80
	Top side		0.019	0.345	0.010	0.02	0.36	0.36
	Bottom side	0.544				0.54	0.54	0.54
N7 Ant 14	Front	0.433	0.079	0.276	0.073	0.51	0.78	0.79
	Back	0.474	0.141	0.204	0.151	0.62	0.83	0.82
	Left side	0.340	0.013	0.096	0.006	0.35	0.44	0.45
	Right side	0.058	0.223	0.522	0.183	0.28	0.76	0.80
	Top side	0.747	0.019	0.345	0.010	0.77	1.10	1.11
	Bottom side					0.00	0.00	0.00
N7 Ant 31	Front	0.242	0.079	0.276	0.073	0.32	0.59	0.60
	Back	0.576	0.141	0.204	0.151	0.72	0.93	0.92
	Left side	0.081	0.013	0.096	0.006	0.09	0.18	0.19
	Right side	0.152	0.223	0.522	0.183	0.38	0.86	0.90
	Top side		0.019	0.345	0.010	0.02	0.36	0.36
	Bottom side	0.276				0.28	0.28	0.28
N41 Ant 12	Front	0.255	0.079	0.276	0.073	0.33	0.60	0.61
	Back	0.425	0.141	0.204	0.151	0.57	0.78	0.77
	Left side	0.282	0.013	0.096	0.006	0.30	0.38	0.39



	Right side	0.012	0.223	0.522	0.183	0.24	0.72	0.76
	Top side	0.084	0.019	0.345	0.010	0.10	0.44	0.45
	Bottom side					0.00	0.00	0.00
N41 Ant 23	Front	0.215	0.079	0.276	0.073	0.29	0.56	0.57
	Back	0.367	0.141	0.204	0.151	0.51	0.72	0.71
	Left side	0.009	0.013	0.096	0.006	0.02	0.11	0.12
	Right side	0.538	0.223	0.522	0.183	0.76	1.24	1.28
	Top side	0.172	0.019	0.345	0.010	0.19	0.53	0.54
	Bottom side					0.00	0.00	0.00
N77 Ant 13	Front	0.127	0.079	0.276	0.073	0.21	0.48	0.48
	Back	0.396	0.141	0.204	0.151	0.54	0.75	0.74
	Left side	0.739	0.013	0.096	0.006	0.75	0.84	0.85
	Right side	0.100	0.223	0.522	0.183	0.32	0.81	0.85
	Top side	0.619	0.019	0.345	0.010	0.64	0.97	0.98
	Bottom side					0.00	0.00	0.00
N77 Ant 23	Front	0.192	0.079	0.276	0.073	0.27	0.54	0.55
	Back	0.437	0.141	0.204	0.151	0.58	0.79	0.78
	Left side	0.021	0.013	0.096	0.006	0.03	0.12	0.13
	Right side	0.500	0.223	0.522	0.183	0.72	1.21	1.25
	Top side	0.172	0.019	0.345	0.010	0.19	0.53	0.54
	Bottom side					0.00	0.00	0.00
N78 Ant 13	Front	0.135	0.079	0.276	0.073	0.21	0.48	0.49
	Back	0.410	0.141	0.204	0.151	0.55	0.77	0.76
	Left side	0.807	0.013	0.096	0.006	0.82	0.91	0.92
	Right side	0.031	0.223	0.522	0.183	0.25	0.74	0.78
	Top side	0.496	0.019	0.345	0.010	0.52	0.85	0.86
	Bottom side					0.00	0.00	0.00
N78 Ant 24	Front	0.017	0.079	0.276	0.073	0.10	0.37	0.37
	Back	0.019	0.141	0.204	0.151	0.16	0.37	0.36
	Left side	0.002	0.013	0.096	0.006	0.01	0.10	0.11
	Right side	0.030	0.223	0.522	0.183	0.25	0.74	0.78
	Top side	0.006	0.019	0.345	0.010	0.02	0.36	0.37
	Bottom side					0.00	0.00	0.00
N78 Ant 101	Front	0.019	0.079	0.276	0.073	0.10	0.37	0.37
	Back	0.104	0.141	0.204	0.151	0.24	0.46	0.45
	Left side	0.043	0.013	0.096	0.006	0.06	0.15	0.15
	Right side	0.003	0.223	0.522	0.183	0.23	0.71	0.75
	Top side	0.022	0.019	0.345	0.010	0.04	0.38	0.39
	Bottom side					0.00	0.00	0.00

WWAN Band 4	WWAN Band 7	Exposure Position	1	2	5	8	9	1+2+5	1+2+8+9	1+2+5+8
			WWAN	WWAN	WLAN2.4GHz Ant 24+22	WLAN5GHz Ant 22+24	Bluetooth Ant 24	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)
LTE Band 4_UL CA Ant 31	LTE Band 7_UL CA Ant 12	Front	0.224	0.081	0.079	0.276	0.073	0.38	0.65	0.66
		Back	0.264	0.175	0.141	0.204	0.151	0.58	0.79	0.78
		Left side	0.018	0.118	0.013	0.096	0.006	0.15	0.24	0.25
		Right side	0.062	0.018	0.223	0.522	0.183	0.30	0.79	0.83
		Top side		0.050	0.019	0.345	0.010	0.07	0.41	0.41
		Bottom side	0.393					0.39	0.39	0.39
LTE Band 4_UL CA Ant 31	LTE Band 7_UL CA Ant 14	Front	0.224	0.156	0.079	0.276	0.073	0.46	0.73	0.74
		Back	0.264	0.141	0.141	0.204	0.151	0.55	0.76	0.75
		Left side	0.018	0.130	0.013	0.096	0.006	0.16	0.25	0.26
		Right side	0.062	0.069	0.223	0.522	0.183	0.35	0.84	0.88
		Top side		0.313	0.019	0.345	0.010	0.33	0.67	0.68
		Bottom side	0.393					0.39	0.39	0.39



WWAN Band 2/66/5/7	FR1 Band N7/66	Exposure Position	1	2	5	8	9	1+2+5	1+2+8+9	1+2+5+8
			WWAN	FR1	WLAN2.4GHz Ant 24+22	WLAN5GHz Ant 22+24	Bluetooth Ant 24	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)
LTE Band 2_ENDC Ant 31	N7_ENDC Ant 12	Front	0.143	0.155	0.079	0.276	0.073	0.38	0.65	0.65
		Back	0.168	0.310	0.141	0.204	0.151	0.62	0.83	0.82
		Left side	0.020	0.208	0.013	0.096	0.006	0.24	0.33	0.34
		Right side	0.027	0.043	0.223	0.522	0.183	0.29	0.78	0.82
		Top side		0.099	0.019	0.345	0.010	0.12	0.45	0.46
		Bottom side	0.249					0.25	0.25	0.25
LTE Band 2_ENDC Ant 31	N7_ENDC Ant 14	Front	0.143	0.083	0.079	0.276	0.073	0.31	0.58	0.58
		Back	0.168	0.093	0.141	0.204	0.151	0.40	0.62	0.61
		Left side	0.020	0.057	0.013	0.096	0.006	0.09	0.18	0.19
		Right side	0.027	0.061	0.223	0.522	0.183	0.31	0.79	0.83
		Top side		0.147	0.019	0.345	0.010	0.17	0.50	0.51
		Bottom side	0.249					0.25	0.25	0.25
LTE Band 66_ENDC Ant 31	N7_ENDC Ant 12	Front	0.176	0.155	0.079	0.276	0.073	0.41	0.68	0.69
		Back	0.202	0.310	0.141	0.204	0.151	0.65	0.87	0.86
		Left side	0.017	0.208	0.013	0.096	0.006	0.24	0.33	0.33
		Right side	0.041	0.043	0.223	0.522	0.183	0.31	0.79	0.83
		Top side		0.099	0.019	0.345	0.010	0.12	0.45	0.46
		Bottom side	0.306					0.31	0.31	0.31
LTE Band 66_ENDC Ant 31	N7_ENDC Ant 14	Front	0.176	0.083	0.079	0.276	0.073	0.34	0.61	0.61
		Back	0.202	0.093	0.141	0.204	0.151	0.44	0.65	0.64
		Left side	0.017	0.057	0.013	0.096	0.006	0.09	0.18	0.18
		Right side	0.041	0.061	0.223	0.522	0.183	0.33	0.81	0.85
		Top side		0.147	0.019	0.345	0.010	0.17	0.50	0.51
		Bottom side	0.306					0.31	0.31	0.31
LTE Band 2_ENDC Ant 31	N66_ENDC Ant 12	Front	0.143	0.108	0.079	0.276	0.073	0.33	0.60	0.61
		Back	0.168	0.218	0.141	0.204	0.151	0.53	0.74	0.73
		Left side	0.020	0.370	0.013	0.096	0.006	0.40	0.49	0.50
		Right side	0.027	0.052	0.223	0.522	0.183	0.30	0.78	0.82
		Top side		0.097	0.019	0.345	0.010	0.12	0.45	0.46
		Bottom side	0.249					0.25	0.25	0.25
LTE Band 5_ENDC Ant 11	N66_ENDC Ant 12	Front	0.168	0.108	0.079	0.276	0.073	0.36	0.63	0.63
		Back	0.225	0.218	0.141	0.204	0.151	0.58	0.80	0.79
		Left side	0.534	0.370	0.013	0.096	0.006	0.92	1.01	1.01
		Right side	0.016	0.052	0.223	0.522	0.183	0.29	0.77	0.81
		Top side	0.020	0.097	0.019	0.345	0.010	0.14	0.47	0.48
		Bottom side						0.00	0.00	0.00
LTE Band 5_ENDC Ant 11	N66_ENDC Ant 14	Front	0.168	0.075	0.079	0.276	0.073	0.32	0.59	0.60
		Back	0.225	0.096	0.141	0.204	0.151	0.46	0.68	0.67
		Left side	0.534	0.072	0.013	0.096	0.006	0.62	0.71	0.72
		Right side	0.016	0.026	0.223	0.522	0.183	0.27	0.75	0.79
		Top side	0.020	0.172	0.019	0.345	0.010	0.21	0.55	0.56
		Bottom side						0.00	0.00	0.00
LTE Band 5_ENDC Ant 41	N66_ENDC Ant 12	Front	0.132	0.108	0.079	0.276	0.073	0.32	0.59	0.60
		Back	0.192	0.218	0.141	0.204	0.151	0.55	0.77	0.76
		Left side	0.081	0.370	0.013	0.096	0.006	0.46	0.55	0.56
		Right side	0.064	0.052	0.223	0.522	0.183	0.34	0.82	0.86
		Top side		0.097	0.019	0.345	0.010	0.12	0.45	0.46
		Bottom side	0.128					0.13	0.13	0.13
LTE Band 5_ENDC Ant 41	N66_ENDC Ant 14	Front	0.132	0.075	0.079	0.276	0.073	0.29	0.56	0.56
		Back	0.192	0.096	0.141	0.204	0.151	0.43	0.64	0.63
		Left side	0.081	0.072	0.013	0.096	0.006	0.17	0.26	0.26



		Right side	0.064	0.026	0.223	0.522	0.183	0.31	0.80	0.84
		Top side		0.172	0.019	0.345	0.010	0.19	0.53	0.54
		Bottom side	0.128					0.13	0.13	0.13
LTE Band 7_ENDC Ant 31	N66_ENDC Ant 12	Front	0.108	0.108	0.079	0.276	0.073	0.30	0.57	0.57
		Back	0.220	0.218	0.141	0.204	0.151	0.58	0.79	0.78
		Left side	0.022	0.370	0.013	0.096	0.006	0.41	0.49	0.50
		Right side	0.076	0.052	0.223	0.522	0.183	0.35	0.83	0.87
		Top side		0.097	0.019	0.345	0.010	0.12	0.45	0.46
		Bottom side	0.133					0.13	0.13	0.13
LTE Band 7_ENDC Ant 31	N66_ENDC Ant 14	Front	0.108	0.075	0.079	0.276	0.073	0.26	0.53	0.54
		Back	0.220	0.096	0.141	0.204	0.151	0.46	0.67	0.66
		Left side	0.022	0.072	0.013	0.096	0.006	0.11	0.20	0.20
		Right side	0.076	0.026	0.223	0.522	0.183	0.33	0.81	0.85
		Top side		0.172	0.019	0.345	0.010	0.19	0.53	0.54
		Bottom side	0.133					0.13	0.13	0.13

WWAN Band 41/66	FR1 Band N78	Exposure Position	1	2	5	8	9	1+2+5	1+2+8+9	1+2+5+8
			WWAN	FR1	WLAN2.4GHz Ant 24+22	WLAN5GHz Ant 22+24	Bluetooth Ant 24	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)
LTE Band 41_ENDC Ant 14	N78_ENDC Ant 13	Front	0.192	0.064	0.079	0.276	0.073	0.34	0.61	0.61
		Back	0.208	0.089	0.141	0.204	0.151	0.44	0.65	0.64
		Left side	0.168	0.187	0.013	0.096	0.006	0.37	0.46	0.46
		Right side	0.039	0.048	0.223	0.522	0.183	0.31	0.79	0.83
		Top side	0.387	0.116	0.019	0.345	0.010	0.52	0.86	0.87
		Bottom side						0.00	0.00	0.00
LTE Band 41_ENDC Ant 14	N78_ENDC Ant 23	Front	0.192	0.020	0.079	0.276	0.073	0.29	0.56	0.57
		Back	0.208	0.068	0.141	0.204	0.151	0.42	0.63	0.62
		Left side	0.168	0.027	0.013	0.096	0.006	0.21	0.30	0.30
		Right side	0.039	0.189	0.223	0.522	0.183	0.45	0.93	0.97
		Top side	0.387	0.053	0.019	0.345	0.010	0.46	0.80	0.80
		Bottom side						0.00	0.00	0.00
LTE Band 41_ENDC Ant 14	N78_ENDC Ant 24	Front	0.192	0.017	0.079	0.276	0.073	0.29	0.56	0.56
		Back	0.208	0.019	0.141	0.204	0.151	0.37	0.58	0.57
		Left side	0.168	0.002	0.013	0.096	0.006	0.18	0.27	0.28
		Right side	0.039	0.030	0.223	0.522	0.183	0.29	0.77	0.81
		Top side	0.387	0.006	0.019	0.345	0.010	0.41	0.75	0.76
		Bottom side						0.00	0.00	0.00
LTE Band 41_ENDC Ant 14	N78_ENDC Ant 101	Front	0.192	0.019	0.079	0.276	0.073	0.29	0.56	0.57
		Back	0.208	0.104	0.141	0.204	0.151	0.45	0.67	0.66
		Left side	0.168	0.043	0.013	0.096	0.006	0.22	0.31	0.32
		Right side	0.039	0.010	0.223	0.522	0.183	0.27	0.75	0.79
		Top side	0.387	0.022	0.019	0.345	0.010	0.43	0.76	0.77
		Bottom side						0.00	0.00	0.00
LTE Band 41_ENDC Ant 31	N78_ENDC Ant 13	Front	0.139	0.019	0.079	0.276	0.073	0.24	0.51	0.51
		Back	0.218	0.104	0.141	0.204	0.151	0.46	0.68	0.67
		Left side	0.021	0.043	0.013	0.096	0.006	0.08	0.17	0.17
		Right side	0.090	0.010	0.223	0.522	0.183	0.32	0.80	0.84
		Top side		0.022	0.019	0.345	0.010	0.04	0.38	0.39
		Bottom side	0.131					0.13	0.13	0.13
LTE Band 41_ENDC Ant 31	N78_ENDC Ant 23	Front	0.139	0.064	0.079	0.276	0.073	0.28	0.55	0.56
		Back	0.218	0.089	0.141	0.204	0.151	0.45	0.66	0.65
		Left side	0.021	0.187	0.013	0.096	0.006	0.22	0.31	0.32
		Right side	0.090	0.048	0.223	0.522	0.183	0.36	0.84	0.88
		Top side		0.116	0.019	0.345	0.010	0.14	0.47	0.48
		Bottom side	0.131					0.13	0.13	0.13



LTE Band 41_ENDC Ant 31	N78_ENDC Ant 24	Front	0.139	0.020	0.079	0.276	0.073	0.24	0.51	0.51
		Back	0.218	0.068	0.141	0.204	0.151	0.43	0.64	0.63
		Left side	0.021	0.027	0.013	0.096	0.006	0.06	0.15	0.16
		Right side	0.090	0.189	0.223	0.522	0.183	0.50	0.98	1.02
		Top side		0.053	0.019	0.345	0.010	0.07	0.41	0.42
		Bottom side	0.131					0.13	0.13	0.13
LTE Band 41_ENDC Ant 31	N78_ENDC Ant 101	Front	0.139	0.017	0.079	0.276	0.073	0.24	0.51	0.51
		Back	0.218	0.019	0.141	0.204	0.151	0.38	0.59	0.58
		Left side	0.021	0.002	0.013	0.096	0.006	0.04	0.12	0.13
		Right side	0.090	0.030	0.223	0.522	0.183	0.34	0.83	0.87
		Top side		0.006	0.019	0.345	0.010	0.02	0.36	0.37
		Bottom side	0.131					0.13	0.13	0.13
LTE Band 66_ENDC Ant 14	N78_ENDC Ant 13	Front	0.115	0.019	0.079	0.276	0.073	0.21	0.48	0.49
		Back	0.153	0.104	0.141	0.204	0.151	0.40	0.61	0.60
		Left side	0.061	0.043	0.013	0.096	0.006	0.12	0.21	0.21
		Right side	0.034	0.010	0.223	0.522	0.183	0.27	0.75	0.79
		Top side	0.322	0.022	0.019	0.345	0.010	0.36	0.70	0.71
		Bottom side						0.00	0.00	0.00
LTE Band 66_ENDC Ant 14	N78_ENDC Ant 23	Front	0.115	0.064	0.079	0.276	0.073	0.26	0.53	0.53
		Back	0.153	0.089	0.141	0.204	0.151	0.38	0.60	0.59
		Left side	0.061	0.187	0.013	0.096	0.006	0.26	0.35	0.36
		Right side	0.034	0.048	0.223	0.522	0.183	0.31	0.79	0.83
		Top side	0.322	0.116	0.019	0.345	0.010	0.46	0.79	0.80
		Bottom side						0.00	0.00	0.00
LTE Band 66_ENDC Ant 14	N78_ENDC Ant 24	Front	0.115	0.020	0.079	0.276	0.073	0.21	0.48	0.49
		Back	0.153	0.068	0.141	0.204	0.151	0.36	0.58	0.57
		Left side	0.061	0.027	0.013	0.096	0.006	0.10	0.19	0.20
		Right side	0.034	0.189	0.223	0.522	0.183	0.45	0.93	0.97
		Top side	0.322	0.053	0.019	0.345	0.010	0.39	0.73	0.74
		Bottom side						0.00	0.00	0.00
LTE Band 66_ENDC Ant 14	N78_ENDC Ant 101	Front	0.115	0.017	0.079	0.276	0.073	0.21	0.48	0.49
		Back	0.153	0.019	0.141	0.204	0.151	0.31	0.53	0.52
		Left side	0.061	0.002	0.013	0.096	0.006	0.08	0.16	0.17
		Right side	0.034	0.030	0.223	0.522	0.183	0.29	0.77	0.81
		Top side	0.322	0.006	0.019	0.345	0.010	0.35	0.68	0.69
		Bottom side						0.00	0.00	0.00
LTE Band 66_ENDC Ant 31	N78_ENDC Ant 13	Front	0.176	0.019	0.079	0.276	0.073	0.27	0.54	0.55
		Back	0.202	0.104	0.141	0.204	0.151	0.45	0.66	0.65
		Left side	0.017	0.043	0.013	0.096	0.006	0.07	0.16	0.17
		Right side	0.041	0.010	0.223	0.522	0.183	0.27	0.76	0.80
		Top side		0.022	0.019	0.345	0.010	0.04	0.38	0.39
		Bottom side	0.306					0.31	0.31	0.31
LTE Band 66_ENDC Ant 31	N78_ENDC Ant 23	Front	0.176	0.020	0.079	0.276	0.073	0.28	0.55	0.55
		Back	0.202	0.068	0.141	0.204	0.151	0.41	0.63	0.62
		Left side	0.017	0.027	0.013	0.096	0.006	0.06	0.15	0.15
		Right side	0.041	0.189	0.223	0.522	0.183	0.45	0.94	0.98
		Top side		0.053	0.019	0.345	0.010	0.07	0.41	0.42
		Bottom side	0.306					0.31	0.31	0.31
LTE Band 66_ENDC Ant 31	N78_ENDC Ant 24	Front	0.176	0.017	0.079	0.276	0.073	0.27	0.54	0.55
		Back	0.202	0.019	0.141	0.204	0.151	0.36	0.58	0.57
		Left side	0.017	0.002	0.013	0.096	0.006	0.03	0.12	0.13
		Right side	0.041	0.030	0.223	0.522	0.183	0.29	0.78	0.82
		Top side		0.006	0.019	0.345	0.010	0.02	0.36	0.37
		Bottom side	0.306					0.31	0.31	0.31
LTE Band 66_ENDC Ant	N78_ENDC Ant 101	Front	0.176	0.019	0.079	0.276	0.073	0.27	0.54	0.55
		Back	0.202	0.104	0.141	0.204	0.151	0.45	0.66	0.65



31	Left side	0.017	0.043	0.013	0.096	0.006	0.07	0.16	0.17
	Right side	0.041	0.010	0.223	0.522	0.183	0.27	0.76	0.80
	Top side		0.022	0.019	0.345	0.010	0.04	0.38	0.39
	Bottom side	0.306					0.31	0.31	0.31

WWAN Band 2/5/7	FR1 Band N78	Exposure Position	1	2	5	8	9	1+2+5	1+2+8+9	1+2+5+8
			WWAN	FR1	WLAN2.4GHz Ant 24+22	WLAN5GHz Ant 22+24	Bluetooth Ant 24	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)
LTE Band 2_ENDC Ant 14	N78_ENDC Ant 13	Front	0.125	0.064	0.079	0.276	0.073	0.27	0.54	0.54
		Back	0.152	0.089	0.141	0.204	0.151	0.38	0.60	0.59
		Left side	0.060	0.187	0.013	0.096	0.006	0.26	0.35	0.36
		Right side	0.036	0.048	0.223	0.522	0.183	0.31	0.79	0.83
		Top side	0.338	0.116	0.019	0.345	0.010	0.47	0.81	0.82
		Bottom side						0.00	0.00	0.00
LTE Band 2_ENDC Ant 14	N78_ENDC Ant 23	Front	0.125	0.020	0.079	0.276	0.073	0.22	0.49	0.50
		Back	0.152	0.068	0.141	0.204	0.151	0.36	0.58	0.57
		Left side	0.060	0.027	0.013	0.096	0.006	0.10	0.19	0.20
		Right side	0.036	0.189	0.223	0.522	0.183	0.45	0.93	0.97
		Top side	0.338	0.053	0.019	0.345	0.010	0.41	0.75	0.76
		Bottom side						0.00	0.00	0.00
LTE Band 2_ENDC Ant 14	N78_ENDC Ant 24	Front	0.125	0.017	0.079	0.276	0.073	0.22	0.49	0.50
		Back	0.152	0.019	0.141	0.204	0.151	0.31	0.53	0.52
		Left side	0.060	0.002	0.013	0.096	0.006	0.07	0.16	0.17
		Right side	0.036	0.030	0.223	0.522	0.183	0.29	0.77	0.81
		Top side	0.338	0.006	0.019	0.345	0.010	0.36	0.70	0.71
		Bottom side						0.00	0.00	0.00
LTE Band 2_ENDC Ant 14	N78_ENDC Ant 101	Front	0.125	0.019	0.079	0.276	0.073	0.22	0.49	0.50
		Back	0.152	0.104	0.141	0.204	0.151	0.40	0.61	0.60
		Left side	0.060	0.043	0.013	0.096	0.006	0.12	0.21	0.21
		Right side	0.036	0.010	0.223	0.522	0.183	0.27	0.75	0.79
		Top side	0.338	0.022	0.019	0.345	0.010	0.38	0.72	0.72
		Bottom side						0.00	0.00	0.00
LTE Band 2_ENDC Ant 31	N78_ENDC Ant 13	Front	0.143	0.019	0.079	0.276	0.073	0.24	0.51	0.52
		Back	0.168	0.104	0.141	0.204	0.151	0.41	0.63	0.62
		Left side	0.020	0.043	0.013	0.096	0.006	0.08	0.17	0.17
		Right side	0.027	0.010	0.223	0.522	0.183	0.26	0.74	0.78
		Top side		0.022	0.019	0.345	0.010	0.04	0.38	0.39
		Bottom side	0.249					0.25	0.25	0.25
LTE Band 2_ENDC Ant 31	N78_ENDC Ant 23	Front	0.143	0.064	0.079	0.276	0.073	0.29	0.56	0.56
		Back	0.168	0.089	0.141	0.204	0.151	0.40	0.61	0.60
		Left side	0.020	0.187	0.013	0.096	0.006	0.22	0.31	0.32
		Right side	0.027	0.048	0.223	0.522	0.183	0.30	0.78	0.82
		Top side		0.116	0.019	0.345	0.010	0.14	0.47	0.48
		Bottom side	0.249					0.25	0.25	0.25
LTE Band 2_ENDC Ant 31	N78_ENDC Ant 24	Front	0.143	0.020	0.079	0.276	0.073	0.24	0.51	0.52
		Back	0.168	0.068	0.141	0.204	0.151	0.38	0.59	0.58
		Left side	0.020	0.027	0.013	0.096	0.006	0.06	0.15	0.16
		Right side	0.027	0.189	0.223	0.522	0.183	0.44	0.92	0.96
		Top side		0.053	0.019	0.345	0.010	0.07	0.41	0.42
		Bottom side	0.249					0.25	0.25	0.25
LTE Band 2_ENDC Ant 31	N78_ENDC Ant 101	Front	0.143	0.017	0.079	0.276	0.073	0.24	0.51	0.52
		Back	0.168	0.019	0.141	0.204	0.151	0.33	0.54	0.53
		Left side	0.020	0.002	0.013	0.096	0.006	0.03	0.12	0.13
		Right side	0.027	0.030	0.223	0.522	0.183	0.28	0.76	0.80
		Top side		0.006	0.019	0.345	0.010	0.02	0.36	0.37
		Bottom side								



		Bottom side	0.249					0.25	0.25	0.25
LTE Band 5_ENDC Ant 11	N78_ENDC Ant 13	Front	0.168	0.019	0.079	0.276	0.073	0.27	0.54	0.54
		Back	0.225	0.104	0.141	0.204	0.151	0.47	0.68	0.67
		Left side	0.534	0.043	0.013	0.096	0.006	0.59	0.68	0.69
		Right side	0.016	0.010	0.223	0.522	0.183	0.25	0.73	0.77
		Top side	0.020	0.022	0.019	0.345	0.010	0.06	0.40	0.41
		Bottom side						0.00	0.00	0.00
LTE Band 5_ENDC Ant 11	N78_ENDC Ant 23	Front	0.168	0.064	0.079	0.276	0.073	0.31	0.58	0.59
		Back	0.225	0.089	0.141	0.204	0.151	0.46	0.67	0.66
		Left side	0.534	0.187	0.013	0.096	0.006	0.73	0.82	0.83
		Right side	0.016	0.048	0.223	0.522	0.183	0.29	0.77	0.81
		Top side	0.020	0.116	0.019	0.345	0.010	0.16	0.49	0.50
		Bottom side						0.00	0.00	0.00
LTE Band 5_ENDC Ant 11	N78_ENDC Ant 24	Front	0.168	0.020	0.079	0.276	0.073	0.27	0.54	0.54
		Back	0.225	0.068	0.141	0.204	0.151	0.43	0.65	0.64
		Left side	0.534	0.027	0.013	0.096	0.006	0.57	0.66	0.67
		Right side	0.016	0.189	0.223	0.522	0.183	0.43	0.91	0.95
		Top side	0.020	0.053	0.019	0.345	0.010	0.09	0.43	0.44
		Bottom side						0.00	0.00	0.00
LTE Band 5_ENDC Ant 11	N78_ENDC Ant 101	Front	0.168	0.017	0.079	0.276	0.073	0.26	0.53	0.54
		Back	0.225	0.019	0.141	0.204	0.151	0.38	0.60	0.59
		Left side	0.534	0.002	0.013	0.096	0.006	0.55	0.64	0.64
		Right side	0.016	0.030	0.223	0.522	0.183	0.27	0.75	0.79
		Top side	0.020	0.006	0.019	0.345	0.010	0.04	0.38	0.39
		Bottom side						0.00	0.00	0.00
LTE Band 5_ENDC Ant 41	N78_ENDC Ant 13	Front	0.132	0.019	0.079	0.276	0.073	0.23	0.50	0.51
		Back	0.192	0.104	0.141	0.204	0.151	0.44	0.65	0.64
		Left side	0.081	0.043	0.013	0.096	0.006	0.14	0.23	0.23
		Right side	0.064	0.010	0.223	0.522	0.183	0.30	0.78	0.82
		Top side		0.022	0.019	0.345	0.010	0.04	0.38	0.39
		Bottom side	0.128					0.13	0.13	0.13
LTE Band 5_ENDC Ant 41	N78_ENDC Ant 23	Front	0.132	0.020	0.079	0.276	0.073	0.23	0.50	0.51
		Back	0.192	0.068	0.141	0.204	0.151	0.40	0.62	0.61
		Left side	0.081	0.027	0.013	0.096	0.006	0.12	0.21	0.22
		Right side	0.064	0.189	0.223	0.522	0.183	0.48	0.96	1.00
		Top side		0.053	0.019	0.345	0.010	0.07	0.41	0.42
		Bottom side	0.128					0.13	0.13	0.13
LTE Band 5_ENDC Ant 41	N78_ENDC Ant 24	Front	0.132	0.017	0.079	0.276	0.073	0.23	0.50	0.50
		Back	0.192	0.019	0.141	0.204	0.151	0.35	0.57	0.56
		Left side	0.081	0.002	0.013	0.096	0.006	0.10	0.18	0.19
		Right side	0.064	0.030	0.223	0.522	0.183	0.32	0.80	0.84
		Top side		0.006	0.019	0.345	0.010	0.02	0.36	0.37
		Bottom side	0.128					0.13	0.13	0.13
LTE Band 5_ENDC Ant 41	N78_ENDC Ant 101	Front	0.132	0.019	0.079	0.276	0.073	0.23	0.50	0.51
		Back	0.192	0.104	0.141	0.204	0.151	0.44	0.65	0.64
		Left side	0.081	0.043	0.013	0.096	0.006	0.14	0.23	0.23
		Right side	0.064	0.010	0.223	0.522	0.183	0.30	0.78	0.82
		Top side		0.022	0.019	0.345	0.010	0.04	0.38	0.39
		Bottom side	0.128					0.13	0.13	0.13
LTE Band 7_ENDC Ant 14	N78_ENDC Ant 13	Front	0.125	0.064	0.079	0.276	0.073	0.27	0.54	0.54
		Back	0.145	0.089	0.141	0.204	0.151	0.38	0.59	0.58
		Left side	0.109	0.187	0.013	0.096	0.006	0.31	0.40	0.41
		Right side	0.014	0.048	0.223	0.522	0.183	0.29	0.77	0.81
		Top side	0.240	0.116	0.019	0.345	0.010	0.38	0.71	0.72
		Bottom side						0.00	0.00	0.00
LTE Band	N78_ENDC Ant	Front	0.125	0.020	0.079	0.276	0.073	0.22	0.49	0.50



7_ENDC Ant 14	23	Back	0.145	0.068	0.141	0.204	0.151	0.35	0.57	0.56
		Left side	0.109	0.027	0.013	0.096	0.006	0.15	0.24	0.25
		Right side	0.014	0.189	0.223	0.522	0.183	0.43	0.91	0.95
		Top side	0.240	0.053	0.019	0.345	0.010	0.31	0.65	0.66
		Bottom side						0.00	0.00	0.00
LTE Band 7_ENDC Ant 14	N78_ENDC Ant 24	Front	0.125	0.017	0.079	0.276	0.073	0.22	0.49	0.50
		Back	0.145	0.019	0.141	0.204	0.151	0.30	0.52	0.51
		Left side	0.109	0.002	0.013	0.096	0.006	0.12	0.21	0.22
		Right side	0.014	0.030	0.223	0.522	0.183	0.27	0.75	0.79
		Top side	0.240	0.006	0.019	0.345	0.010	0.26	0.60	0.61
LTE Band 7_ENDC Ant 14	N78_ENDC Ant 101	Bottom side						0.00	0.00	0.00
		Front	0.125	0.019	0.079	0.276	0.073	0.22	0.49	0.50
		Back	0.145	0.104	0.141	0.204	0.151	0.39	0.60	0.59
		Left side	0.109	0.043	0.013	0.096	0.006	0.17	0.25	0.26
		Right side	0.014	0.010	0.223	0.522	0.183	0.25	0.73	0.77
LTE Band 7_ENDC Ant 31	N78_ENDC Ant 13	Top side	0.240	0.022	0.019	0.345	0.010	0.28	0.62	0.63
		Bottom side						0.00	0.00	0.00
		Front	0.108	0.064	0.079	0.276	0.073	0.25	0.52	0.53
		Back	0.220	0.089	0.141	0.204	0.151	0.45	0.66	0.65
		Left side	0.022	0.187	0.013	0.096	0.006	0.22	0.31	0.32
LTE Band 7_ENDC Ant 31	N78_ENDC Ant 23	Right side	0.076	0.048	0.223	0.522	0.183	0.35	0.83	0.87
		Top side		0.116	0.019	0.345	0.010	0.14	0.47	0.48
		Bottom side	0.133					0.13	0.13	0.13
		Front	0.108	0.020	0.079	0.276	0.073	0.21	0.48	0.48
		Back	0.220	0.068	0.141	0.204	0.151	0.43	0.64	0.63
LTE Band 7_ENDC Ant 31	N78_ENDC Ant 24	Left side	0.022	0.027	0.013	0.096	0.006	0.06	0.15	0.16
		Right side	0.076	0.189	0.223	0.522	0.183	0.49	0.97	1.01
		Top side		0.053	0.019	0.345	0.010	0.07	0.41	0.42
		Bottom side	0.133					0.13	0.13	0.13
		Front	0.108	0.017	0.079	0.276	0.073	0.20	0.47	0.48
LTE Band 7_ENDC Ant 31	N78_ENDC Ant 101	Back	0.220	0.019	0.141	0.204	0.151	0.38	0.59	0.58
		Left side	0.022	0.002	0.013	0.096	0.006	0.04	0.13	0.13
		Right side	0.076	0.030	0.223	0.522	0.183	0.33	0.81	0.85
		Top side		0.006	0.019	0.345	0.010	0.02	0.36	0.37
		Bottom side	0.133					0.13	0.13	0.13
LTE Band 7_ENDC Ant 31	N78_ENDC Ant 101	Front	0.108	0.019	0.079	0.276	0.073	0.21	0.48	0.48
		Back	0.220	0.104	0.141	0.204	0.151	0.47	0.68	0.67
		Left side	0.022	0.043	0.013	0.096	0.006	0.08	0.17	0.17
		Right side	0.076	0.010	0.223	0.522	0.183	0.31	0.79	0.83
		Top side		0.022	0.019	0.345	0.010	0.04	0.38	0.39
Bottom side	0.133					0.13	0.13	0.13		



16.3 Body-Worn Accessory Exposure Conditions

WWAN Band	Exposure Position	1	5	8	9	1+5	1+8+9	1+5+8
		WWAN	WLAN2.4GHz Ant 24+22	WLAN5GHz Ant 22+24	Bluetooth Ant 24	Summed	Summed	Summed
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)
LTE Band 13 Ant 11	Front	0.051	0.074	0.171	0.052	0.13	0.27	0.30
	Back	0.081	0.056	0.152	0.022	0.14	0.26	0.29
LTE Band 13 Ant 41	Front	0.077	0.074	0.171	0.052	0.15	0.30	0.32
	Back	0.133	0.056	0.152	0.022	0.19	0.31	0.34
LTE Band 12 Ant 11	Front	0.152	0.074	0.171	0.052	0.23	0.38	0.40
	Back	0.226	0.056	0.152	0.022	0.28	0.40	0.43
LTE Band 12 Ant 41	Front	0.209	0.074	0.171	0.052	0.28	0.43	0.45
	Back	0.270	0.056	0.152	0.022	0.33	0.44	0.48
GSM850 Ant 11	Front	0.215	0.074	0.171	0.052	0.29	0.44	0.46
	Back	0.425	0.056	0.152	0.022	0.48	0.60	0.63
GSM850 Ant 41	Front	0.159	0.074	0.171	0.052	0.23	0.38	0.40
	Back	0.269	0.056	0.152	0.022	0.33	0.44	0.48
WCDMA V Ant 11	Front	0.209	0.074	0.171	0.052	0.28	0.43	0.45
	Back	0.305	0.056	0.152	0.022	0.36	0.48	0.51
WCDMA V Ant 41	Front	0.170	0.074	0.171	0.052	0.24	0.39	0.42
	Back	0.283	0.056	0.152	0.022	0.34	0.46	0.49
LTE Band 26 Ant 11	Front	0.214	0.074	0.171	0.052	0.29	0.44	0.46
	Back	0.365	0.056	0.152	0.022	0.42	0.54	0.57
LTE Band 26 Ant 41	Front	0.158	0.074	0.171	0.052	0.23	0.38	0.40
	Back	0.248	0.056	0.152	0.022	0.30	0.42	0.46
WCDMA IV Ant 14	Front	0.453	0.074	0.171	0.052	0.53	0.68	0.70
	Back	0.830	0.056	0.152	0.022	0.89	1.00	1.04
WCDMA IV Ant 31	Front	0.215	0.074	0.171	0.052	0.29	0.44	0.46
	Back	0.295	0.056	0.152	0.022	0.35	0.47	0.50
LTE Band 4 Ant 14	Front	0.379	0.074	0.171	0.052	0.45	0.60	0.62
	Back	0.644	0.056	0.152	0.022	0.70	0.82	0.85
LTE Band 4 Ant 31	Front	0.277	0.074	0.171	0.052	0.35	0.50	0.52
	Back	0.325	0.056	0.152	0.022	0.38	0.50	0.53
LTE Band 66 Ant 14	Front	0.298	0.074	0.171	0.052	0.37	0.52	0.54
	Back	0.571	0.056	0.152	0.022	0.63	0.75	0.78
LTE Band 66 Ant 31	Front	0.248	0.074	0.171	0.052	0.32	0.47	0.49
	Back	0.311	0.056	0.152	0.022	0.37	0.49	0.52
GSM1900 Ant 14	Front	0.164	0.074	0.171	0.052	0.24	0.39	0.41
	Back	0.328	0.056	0.152	0.022	0.38	0.50	0.54
GSM1900 Ant 31	Front	0.226	0.074	0.171	0.052	0.30	0.45	0.47
	Back	0.405	0.056	0.152	0.022	0.46	0.58	0.61
WCDMA II Ant 14	Front	0.306	0.074	0.171	0.052	0.38	0.53	0.55
	Back	0.518	0.056	0.152	0.022	0.57	0.69	0.73
WCDMA II Ant 31	Front	0.213	0.074	0.171	0.052	0.29	0.44	0.46
	Back	0.336	0.056	0.152	0.022	0.39	0.51	0.54
LTE Band 2 Ant 14	Front	0.271	0.074	0.171	0.052	0.35	0.49	0.52
	Back	0.441	0.056	0.152	0.022	0.50	0.62	0.65
LTE Band 2 Ant 31	Front	0.243	0.074	0.171	0.052	0.32	0.47	0.49
	Back	0.360	0.056	0.152	0.022	0.42	0.53	0.57
LTE Band 7 Ant 14	Front	0.353	0.074	0.171	0.052	0.43	0.58	0.60
	Back	0.600	0.056	0.152	0.022	0.66	0.77	0.81
LTE Band 7 Ant 31	Front	0.164	0.074	0.171	0.052	0.24	0.39	0.41
	Back	0.377	0.056	0.152	0.022	0.43	0.55	0.59
LTE Band 41 Ant	Front	0.329	0.074	0.171	0.052	0.40	0.55	0.57



14	Back	0.367	0.056	0.152	0.022	0.42	0.54	0.58
LTE Band 41 Ant 31	Front	0.168	0.074	0.171	0.052	0.24	0.39	0.41
	Back	0.361	0.056	0.152	0.022	0.42	0.54	0.57

FR1	Exposure Position	1	5	8	9	1+5	1+8+9	1+5+8
		FR1	WLAN2.4GHz Ant 24+22	WLAN5GHz Ant 22+24	Bluetooth Ant 24	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)
N5 Ant 11	Front	0.172	0.074	0.171	0.052	0.25	0.40	0.42
	Back	0.288	0.056	0.152	0.022	0.34	0.46	0.50
N5 Ant 41	Front	0.137	0.074	0.171	0.052	0.21	0.36	0.38
	Back	0.197	0.056	0.152	0.022	0.25	0.37	0.41
N66 Ant 14	Front	0.165	0.074	0.171	0.052	0.24	0.39	0.41
	Back	0.356	0.056	0.152	0.022	0.41	0.53	0.56
N66 Ant 31	Front	0.236	0.074	0.171	0.052	0.31	0.46	0.48
	Back	0.271	0.056	0.152	0.022	0.33	0.45	0.48
N2 Ant 14	Front	0.269	0.074	0.171	0.052	0.34	0.49	0.51
	Back	0.409	0.056	0.152	0.022	0.47	0.58	0.62
N2 Ant 31	Front	0.181	0.074	0.171	0.052	0.26	0.40	0.43
	Back	0.223	0.056	0.152	0.022	0.28	0.40	0.43
N7 Ant 14	Front	0.464	0.074	0.171	0.052	0.54	0.69	0.71
	Back	0.617	0.056	0.152	0.022	0.67	0.79	0.83
N7 Ant 31	Front	0.129	0.074	0.171	0.052	0.20	0.35	0.37
	Back	0.259	0.056	0.152	0.022	0.32	0.43	0.47
N41 Ant 12	Front	0.229	0.074	0.171	0.052	0.30	0.45	0.47
	Back	0.373	0.056	0.152	0.022	0.43	0.55	0.58
N41 Ant 23	Front	0.163	0.074	0.171	0.052	0.24	0.39	0.41
	Back	0.260	0.056	0.152	0.022	0.32	0.43	0.47
N77 Ant 13	Front	0.168	0.074	0.171	0.052	0.24	0.39	0.41
	Back	0.917	0.056	0.152	0.022	0.97	1.09	1.13
N77 Ant 23	Front	0.148	0.074	0.171	0.052	0.22	0.37	0.39
	Back	0.348	0.056	0.152	0.022	0.40	0.52	0.56
N78 Ant 13	Front	0.171	0.074	0.171	0.052	0.25	0.39	0.42
	Back	0.930	0.056	0.152	0.022	0.99	1.10	1.14
N78 Ant 24	Front	0.009	0.074	0.171	0.052	0.08	0.23	0.25
	Back	0.012	0.056	0.152	0.022	0.07	0.19	0.22
N78 Ant 101	Front	0.011	0.074	0.171	0.052	0.08	0.23	0.26
	Back	0.056	0.056	0.152	0.022	0.11	0.23	0.26



WWAN	WWAN	Exposure Position	1	2	5	8	9	1+2+5	1+2+8+9	1+2+5+8
			WWAN	WWAN	WLAN2.4GHz Ant 24+22	WLAN5GHz Ant 22+24	Bluetooth Ant 24	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)
LTE Band 4_UL CA Ant 31	LTE Band 7_UL CA Ant 12	Front	0.119	0.068	0.074	0.171	0.052	0.26	0.41	0.43
		Back	0.161	0.174	0.056	0.152	0.022	0.39	0.51	0.54
LTE Band 4_UL CA Ant 31	LTE Band 7_UL CA Ant 14	Front	0.119	0.158	0.074	0.171	0.052	0.35	0.50	0.52
		Back	0.161	0.326	0.056	0.152	0.022	0.54	0.66	0.70

WWAN	FR1	Exposure Position	1	2	5	8	9	1+2+5	1+2+8+9	1+2+5+8
			WWAN	FR1	WLAN2.4GHz Ant 24+22	WLAN5GHz Ant 22+24	Bluetooth Ant 24	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)
LTE Band 2_ENDC Ant 31	N7_ENDC Ant 12	Front	0.152	0.139	0.074	0.171	0.052	0.37	0.51	0.54
		Back	0.184	0.205	0.056	0.152	0.022	0.45	0.56	0.60
LTE Band 2_ENDC Ant 31	N7_ENDC Ant 14	Front	0.152	0.251	0.074	0.171	0.052	0.48	0.63	0.65
		Back	0.184	0.264	0.056	0.152	0.022	0.50	0.62	0.66
LTE Band 66_ENDC Ant 31	N7_ENDC Ant 12	Front	0.179	0.139	0.074	0.171	0.052	0.39	0.54	0.56
		Back	0.202	0.205	0.056	0.152	0.022	0.46	0.58	0.62
LTE Band 66_ENDC Ant 31	N7_ENDC Ant 14	Front	0.179	0.251	0.074	0.171	0.052	0.50	0.65	0.68
		Back	0.202	0.264	0.056	0.152	0.022	0.52	0.64	0.67
LTE Band 2_ENDC Ant 31	N66_ENDC Ant 12	Front	0.152	0.125	0.074	0.171	0.052	0.35	0.50	0.52
		Back	0.184	0.236	0.056	0.152	0.022	0.48	0.59	0.63
LTE Band 5_ENDC Ant 11	N66_ENDC Ant 12	Front	0.170	0.125	0.074	0.171	0.052	0.37	0.52	0.54
		Back	0.373	0.236	0.056	0.152	0.022	0.67	0.78	0.82
LTE Band 5_ENDC Ant 11	N66_ENDC Ant 14	Front	0.170	0.288	0.074	0.171	0.052	0.53	0.68	0.70
		Back	0.373	0.559	0.056	0.152	0.022	0.99	1.11	1.14
LTE Band 5_ENDC Ant 41	N66_ENDC Ant 12	Front	0.129	0.125	0.074	0.171	0.052	0.33	0.48	0.50
		Back	0.157	0.236	0.056	0.152	0.022	0.45	0.57	0.60
LTE Band 5_ENDC Ant 41	N66_ENDC Ant 14	Front	0.129	0.288	0.074	0.171	0.052	0.49	0.64	0.66
		Back	0.157	0.559	0.056	0.152	0.022	0.77	0.89	0.92
LTE Band 7_ENDC Ant 31	N66_ENDC Ant 12	Front	0.084	0.125	0.074	0.171	0.052	0.28	0.43	0.45
		Back	0.147	0.236	0.056	0.152	0.022	0.44	0.56	0.59
LTE Band 7_ENDC Ant 31	N66_ENDC Ant 14	Front	0.084	0.288	0.074	0.171	0.052	0.45	0.60	0.62
		Back	0.147	0.559	0.056	0.152	0.022	0.76	0.88	0.91



WWAN Band 41/66	FR1 Band N78	Exposure Position	1	2	5	8	9	1+2+5	1+2+8+9	1+2+5+8
			WWAN	FR1	WLAN2.4GHz Ant 24+22	WLAN5GHz Ant 22+24	Bluetooth Ant 24	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)
LTE Band 41_ENDC Ant 14	N78_ENDC Ant 13	Front	0.329	0.167	0.074	0.171	0.052	0.57	0.72	0.74
		Back	0.367	0.541	0.056	0.152	0.022	0.96	1.08	1.12
LTE Band 41_ENDC Ant 14	N78_ENDC Ant 23	Front	0.329	0.033	0.074	0.171	0.052	0.44	0.59	0.61
		Back	0.367	0.184	0.056	0.152	0.022	0.61	0.73	0.76
LTE Band 41_ENDC Ant 14	N78_ENDC Ant 24	Front	0.329	0.009	0.074	0.171	0.052	0.41	0.56	0.58
		Back	0.367	0.012	0.056	0.152	0.022	0.43	0.55	0.59
LTE Band 41_ENDC Ant 14	N78_ENDC Ant 101	Front	0.329	0.012	0.074	0.171	0.052	0.42	0.56	0.59
		Back	0.367	0.057	0.056	0.152	0.022	0.48	0.60	0.63
LTE Band 41_ENDC Ant 31	N78_ENDC Ant 13	Front	0.145	0.167	0.074	0.171	0.052	0.39	0.54	0.56
		Back	0.253	0.541	0.056	0.152	0.022	0.85	0.97	1.00
LTE Band 41_ENDC Ant 31	N78_ENDC Ant 23	Front	0.145	0.033	0.074	0.171	0.052	0.25	0.40	0.42
		Back	0.253	0.184	0.056	0.152	0.022	0.49	0.61	0.65
LTE Band 41_ENDC Ant 31	N78_ENDC Ant 24	Front	0.145	0.009	0.074	0.171	0.052	0.23	0.38	0.40
		Back	0.253	0.012	0.056	0.152	0.022	0.32	0.44	0.47
LTE Band 41_ENDC Ant 31	N78_ENDC Ant 101	Front	0.145	0.012	0.074	0.171	0.052	0.23	0.38	0.40
		Back	0.253	0.057	0.056	0.152	0.022	0.37	0.48	0.52
LTE Band 66_ENDC Ant 14	N78_ENDC Ant 13	Front	0.328	0.167	0.074	0.171	0.052	0.57	0.72	0.74
		Back	0.396	0.541	0.056	0.152	0.022	0.99	1.11	1.15
LTE Band 66_ENDC Ant 14	N78_ENDC Ant 23	Front	0.328	0.033	0.074	0.171	0.052	0.44	0.58	0.61
		Back	0.396	0.184	0.056	0.152	0.022	0.64	0.75	0.79
LTE Band 66_ENDC Ant 14	N78_ENDC Ant 24	Front	0.328	0.009	0.074	0.171	0.052	0.41	0.56	0.58
		Back	0.396	0.012	0.056	0.152	0.022	0.46	0.58	0.62
LTE Band 66_ENDC Ant 14	N78_ENDC Ant 101	Front	0.328	0.012	0.074	0.171	0.052	0.41	0.56	0.59
		Back	0.396	0.057	0.056	0.152	0.022	0.51	0.63	0.66
LTE Band 66_ENDC Ant 31	N78_ENDC Ant 13	Front	0.179	0.167	0.074	0.171	0.052	0.42	0.57	0.59
		Back	0.202	0.541	0.056	0.152	0.022	0.80	0.92	0.95
LTE Band 66_ENDC Ant 31	N78_ENDC Ant 23	Front	0.179	0.033	0.074	0.171	0.052	0.29	0.44	0.46
		Back	0.202	0.184	0.056	0.152	0.022	0.44	0.56	0.59
LTE Band 66_ENDC Ant 31	N78_ENDC Ant 24	Front	0.179	0.009	0.074	0.171	0.052	0.26	0.41	0.43
		Back	0.202	0.012	0.056	0.152	0.022	0.27	0.39	0.42
LTE Band 66_ENDC Ant 31	N78_ENDC Ant 101	Front	0.179	0.012	0.074	0.171	0.052	0.27	0.41	0.44
		Back	0.202	0.057	0.056	0.152	0.022	0.31	0.43	0.47



WWAN Band 2/5	FR1 Band N78	Exposure Position	1	2	5	8	9	1+2+5	1+2+8+9	1+2+5+8
			WWAN	FR1	WLAN2.4GHz Ant 24+22	WLAN5GHz Ant 22+24	Bluetooth Ant 24	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)
LTE Band 2_ENDC Ant 14	N78_ENDC Ant 13	Front	0.263	0.167	0.074	0.171	0.052	0.50	0.65	0.68
		Back	0.328	0.541	0.056	0.152	0.022	0.93	1.04	1.08
LTE Band 2_ENDC Ant 14	N78_ENDC Ant 23	Front	0.263	0.033	0.074	0.171	0.052	0.37	0.52	0.54
		Back	0.328	0.184	0.056	0.152	0.022	0.57	0.69	0.72
LTE Band 2_ENDC Ant 14	N78_ENDC Ant 24	Front	0.263	0.009	0.074	0.171	0.052	0.35	0.50	0.52
		Back	0.328	0.012	0.056	0.152	0.022	0.40	0.51	0.55
LTE Band 2_ENDC Ant 14	N78_ENDC Ant 101	Front	0.263	0.012	0.074	0.171	0.052	0.35	0.50	0.52
		Back	0.328	0.057	0.056	0.152	0.022	0.44	0.56	0.59
LTE Band 2_ENDC Ant 31	N78_ENDC Ant 13	Front	0.152	0.167	0.074	0.171	0.052	0.39	0.54	0.56
		Back	0.184	0.541	0.056	0.152	0.022	0.78	0.90	0.93
LTE Band 2_ENDC Ant 31	N78_ENDC Ant 23	Front	0.152	0.033	0.074	0.171	0.052	0.26	0.41	0.43
		Back	0.184	0.184	0.056	0.152	0.022	0.42	0.54	0.58
LTE Band 2_ENDC Ant 31	N78_ENDC Ant 24	Front	0.152	0.009	0.074	0.171	0.052	0.24	0.38	0.41
		Back	0.184	0.012	0.056	0.152	0.022	0.25	0.37	0.40
LTE Band 2_ENDC Ant 31	N78_ENDC Ant 101	Front	0.152	0.012	0.074	0.171	0.052	0.24	0.39	0.41
		Back	0.184	0.057	0.056	0.152	0.022	0.30	0.41	0.45
LTE Band 5_ENDC Ant 11	N78_ENDC Ant 13	Front	0.170	0.167	0.074	0.171	0.052	0.41	0.56	0.58
		Back	0.373	0.541	0.056	0.152	0.022	0.97	1.09	1.12
LTE Band 5_ENDC Ant 11	N78_ENDC Ant 23	Front	0.170	0.033	0.074	0.171	0.052	0.28	0.43	0.45
		Back	0.373	0.184	0.056	0.152	0.022	0.61	0.73	0.77
LTE Band 5_ENDC Ant 11	N78_ENDC Ant 24	Front	0.170	0.009	0.074	0.171	0.052	0.25	0.40	0.42
		Back	0.373	0.012	0.056	0.152	0.022	0.44	0.56	0.59
LTE Band 5_ENDC Ant 11	N78_ENDC Ant 101	Front	0.170	0.012	0.074	0.171	0.052	0.26	0.41	0.43
		Back	0.373	0.057	0.056	0.152	0.022	0.49	0.60	0.64
LTE Band 5_ENDC Ant 41	N78_ENDC Ant 13	Front	0.129	0.167	0.074	0.171	0.052	0.37	0.52	0.54
		Back	0.157	0.541	0.056	0.152	0.022	0.75	0.87	0.91
LTE Band 5_ENDC Ant 41	N78_ENDC Ant 23	Front	0.129	0.033	0.074	0.171	0.052	0.24	0.39	0.41
		Back	0.157	0.184	0.056	0.152	0.022	0.40	0.52	0.55
LTE Band 5_ENDC Ant 41	N78_ENDC Ant 24	Front	0.129	0.009	0.074	0.171	0.052	0.21	0.36	0.38
		Back	0.157	0.012	0.056	0.152	0.022	0.22	0.34	0.38
LTE Band 5_ENDC Ant 41	N78_ENDC Ant 101	Front	0.129	0.012	0.074	0.171	0.052	0.22	0.36	0.39
		Back	0.157	0.057	0.056	0.152	0.022	0.27	0.39	0.42



WWAN Band 7	FR1 Band N78	Exposure Position	1	2	5	8	9	1+2+5	1+2+8+9	1+2+5+8
			WWAN	FR1	WLAN2.4GHz Ant 24+22	WLAN5GHz Ant 22+24	Bluetooth Ant 24	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)
LTE Band 7_ENDC Ant 14	N78_ENDC Ant 13	Front	0.244	0.167	0.074	0.171	0.052	0.49	0.63	0.66
		Back	0.274	0.541	0.056	0.152	0.022	0.87	0.99	1.02
LTE Band 7_ENDC Ant 14	N78_ENDC Ant 23	Front	0.244	0.033	0.074	0.171	0.052	0.35	0.50	0.52
		Back	0.274	0.184	0.056	0.152	0.022	0.51	0.63	0.67
LTE Band 7_ENDC Ant 14	N78_ENDC Ant 24	Front	0.244	0.009	0.074	0.171	0.052	0.33	0.48	0.50
		Back	0.274	0.012	0.056	0.152	0.022	0.34	0.46	0.49
LTE Band 7_ENDC Ant 14	N78_ENDC Ant 101	Front	0.244	0.012	0.074	0.171	0.052	0.33	0.48	0.50
		Back	0.274	0.057	0.056	0.152	0.022	0.39	0.50	0.54
LTE Band 7_ENDC Ant 31	N78_ENDC Ant 13	Front	0.084	0.167	0.074	0.171	0.052	0.33	0.47	0.50
		Back	0.147	0.541	0.056	0.152	0.022	0.74	0.86	0.90
LTE Band 7_ENDC Ant 31	N78_ENDC Ant 23	Front	0.084	0.033	0.074	0.171	0.052	0.19	0.34	0.36
		Back	0.147	0.184	0.056	0.152	0.022	0.39	0.51	0.54
LTE Band 7_ENDC Ant 31	N78_ENDC Ant 24	Front	0.084	0.009	0.074	0.171	0.052	0.17	0.32	0.34
		Back	0.147	0.012	0.056	0.152	0.022	0.21	0.33	0.37
LTE Band 7_ENDC Ant 31	N78_ENDC Ant 101	Front	0.084	0.012	0.074	0.171	0.052	0.17	0.32	0.34
		Back	0.147	0.057	0.056	0.152	0.022	0.26	0.38	0.41



16.4 Product specific 10g SAR Exposure Conditions

Note: For Bluetooth Product specific 10g stand-alone SAR is not required for a transmitter or antenna, due to 1g hotspot SAR is <1.2W/kg.

WWAN Band	Exposure Position	1	8	10	1+10	1+8+10
		WWAN	WLAN5GHz Ant 22+24	NFC	Summed	Summed
		10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)
WCDMA IV Ant 14	Front		1.285	0.001	0.00	1.29
	Back		0.664	0.042	0.04	0.71
	Left side		0.067	0.001	0.00	0.07
	Right side		2.767	0.001	0.00	2.77
	Top side	2.568	1.082	0.001	2.57	3.65
	Bottom side			0.001	0.00	0.00
WCDMA IV Ant 31	Front		1.285	0.001	0.00	1.29
	Back		0.664	0.042	0.04	0.71
	Left side		0.067	0.001	0.00	0.07
	Right side		2.767	0.001	0.00	2.77
	Top side		1.082	0.001	0.00	1.08
	Bottom side			0.001	0.00	0.00
LTE Band 66 Ant 14	Front		1.285	0.001	0.00	1.29
	Back		0.664	0.042	0.04	0.71
	Left side		0.067	0.001	0.00	0.07
	Right side		2.767	0.001	0.00	2.77
	Top side	2.087	1.082	0.001	2.09	3.17
	Bottom side			0.001	0.00	0.00
LTE Band 66 Ant 31	Front		1.285	0.001	0.00	1.29
	Back		0.664	0.042	0.04	0.71
	Left side		0.067	0.001	0.00	0.07
	Right side		2.767	0.001	0.00	2.77
	Top side		1.082	0.001	0.00	1.08
	Bottom side			0.001	0.00	0.00
WCDMA II Ant 14	Front		1.285	0.001	0.00	1.29
	Back		0.664	0.042	0.04	0.71
	Left side		0.067	0.001	0.00	0.07
	Right side		2.767	0.001	0.00	2.77
	Top side	2.067	1.082	0.001	2.07	3.15
	Bottom side			0.001	0.00	0.00
WCDMA II Ant 31	Front		1.285	0.001	0.00	1.29
	Back		0.664	0.042	0.04	0.71
	Left side		0.067	0.001	0.00	0.07
	Right side		2.767	0.001	0.00	2.77
	Top side		1.082	0.001	0.00	1.08
	Bottom side			0.001	0.00	0.00
LTE Band 2 Ant 14	Front		1.285	0.001	0.00	1.29
	Back		0.664	0.042	0.04	0.71
	Left side		0.067	0.001	0.00	0.07
	Right side		2.767	0.001	0.00	2.77
	Top side	2.671	1.082	0.001	2.67	3.75
	Bottom side			0.001	0.00	0.00
LTE Band 2 Ant 31	Front		1.285	0.001	0.00	1.29
	Back		0.664	0.042	0.04	0.71
	Left side		0.067	0.001	0.00	0.07
	Right side		2.767	0.001	0.00	2.77
	Top side		1.082	0.001	0.00	1.08
	Bottom side			0.001	0.00	0.00
LTE Band 7 Ant 14	Front		1.285	0.001	0.00	1.29



	Back		0.664	0.042	0.04	0.71
	Left side		0.067	0.001	0.00	0.07
	Right side		2.767	0.001	0.00	2.77
	Top side	2.145	1.082	0.001	2.15	3.23
	Bottom side			0.001	0.00	0.00
LTE Band 7 Ant 31	Front		1.285	0.001	0.00	1.29
	Back		0.664	0.042	0.04	0.71
	Left side		0.067	0.001	0.00	0.07
	Right side		2.767	0.001	0.00	2.77
	Top side		1.082	0.001	0.00	1.08
	Bottom side			0.001	0.00	0.00

FR1	Exposure Position	1	8	10	1+10	1+8+10
		FR1	WLAN5GHz Ant 22+24	NFC	Summed	Summed
		10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)
N66 Ant 31	Front		0.665	0.001	0.00	0.67
	Back		0.353	0.042	0.04	0.40
	Left side		0.069	0.001	0.00	0.07
	Right side		1.341	0.001	0.00	1.34
	Top side		0.412	0.001	0.00	0.41
	Bottom side			0.001	0.00	0.00
N2 Ant 31	Front		0.665	0.001	0.00	0.67
	Back		0.353	0.042	0.04	0.40
	Left side		0.069	0.001	0.00	0.07
	Right side		1.341	0.001	0.00	1.34
	Top side		0.412	0.001	0.00	0.41
	Bottom side			0.001	0.00	0.00
N7 Ant 14	Front		0.665	0.001	0.00	0.67
	Back		0.353	0.042	0.04	0.40
	Left side		0.069	0.001	0.00	0.07
	Right side		1.341	0.001	0.00	1.34
	Top side	2.247	0.412	0.001	2.25	2.66
	Bottom side			0.001	0.00	0.00
N7 Ant 31	Front		0.665	0.001	0.00	0.67
	Back		0.353	0.042	0.04	0.40
	Left side		0.069	0.001	0.00	0.07
	Right side		1.341	0.001	0.00	1.34
	Top side		0.412	0.001	0.00	0.41
	Bottom side			0.001	0.00	0.00
N77 Ant 13	Front		0.665	0.001	0.00	0.67
	Back		0.353	0.042	0.04	0.40
	Left side	2.964	0.069	0.001	2.97	3.03
	Right side		1.341	0.001	0.00	1.34
	Top side	1.127	0.412	0.001	1.13	1.54
	Bottom side			0.001	0.00	0.00
N78 Ant 13	Front		0.665	0.001	0.00	0.67
	Back		0.353	0.042	0.04	0.40
	Left side	2.597	0.069	0.001	2.60	2.67
	Right side		1.341	0.001	0.00	1.34
	Top side	0.979	0.412	0.001	0.98	1.39
	Bottom side			0.001	0.00	0.00



WWAN Band 4	WWAN Band 7	Exposure Position	1	2	8	10	1+2+10	1+2+8+10
			WWAN	FR1	WLAN5GHz Ant 22+24	NFC	Summed	Summed
			10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)
LTE Band 4_UL CA Ant 31	LTE Band 7_UL CA Ant 12	Front			0.665	0.001	0.00	0.67
		Back			0.353	0.042	0.04	0.40
		Left side			0.069	0.001	0.00	0.07
		Right side			1.341	0.001	0.00	1.34
		Top side			0.412	0.001	0.00	0.41
		Bottom side				0.001	0.00	0.00
LTE Band 4_UL CA Ant 31	LTE Band 7_UL CA Ant 14	Front			0.665	0.001	0.00	0.67
		Back			0.353	0.042	0.04	0.40
		Left side			0.069	0.001	0.00	0.07
		Right side			1.341	0.001	0.00	1.34
		Top side			0.412	0.001	0.00	0.41
		Bottom side				0.001	0.00	0.00

WWAN Band 2/66/5/7	FR1 Band N7/66	Exposure Position	1	2	8	10	1+2+10	1+2+8+10
			WWAN	FR1	WLAN5GHz Ant 22+24	NFC	Summed	Summed
			10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)
LTE Band 2_ENDC Ant 31	N7_ENDC Ant 12	Front			0.665	0.001	0.00	0.67
		Back			0.353	0.042	0.04	0.40
		Left side			0.069	0.001	0.00	0.07
		Right side			1.341	0.001	0.00	1.34
		Top side			0.412	0.001	0.00	0.41
		Bottom side				0.001	0.00	0.00
LTE Band 2_ENDC Ant 31	N7_ENDC Ant 14	Front			0.665	0.001	0.00	0.67
		Back			0.353	0.042	0.04	0.40
		Left side			0.069	0.001	0.00	0.07
		Right side			1.341	0.001	0.00	1.34
		Top side			0.412	0.001	0.00	0.41
		Bottom side				0.001	0.00	0.00
LTE Band 66_ENDC Ant 31	N7_ENDC Ant 12	Front			0.665	0.001	0.00	0.67
		Back			0.353	0.042	0.04	0.40
		Left side			0.069	0.001	0.00	0.07
		Right side			1.341	0.001	0.00	1.34
		Top side			0.412	0.001	0.00	0.41
		Bottom side				0.001	0.00	0.00
LTE Band 66_ENDC Ant 31	N7_ENDC Ant 14	Front			0.665	0.001	0.00	0.67
		Back			0.353	0.042	0.04	0.40
		Left side			0.069	0.001	0.00	0.07
		Right side			1.341	0.001	0.00	1.34
		Top side			0.412	0.001	0.00	0.41
		Bottom side				0.001	0.00	0.00
LTE Band 2_ENDC Ant 31	N66_ENDC Ant 12	Front			0.665	0.001	0.00	0.67
		Back			0.353	0.042	0.04	0.40
		Left side			0.069	0.001	0.00	0.07
		Right side			1.341	0.001	0.00	1.34
		Top side			0.412	0.001	0.00	0.41
		Bottom side				0.001	0.00	0.00
LTE Band 5_ENDC Ant 11	N66_ENDC Ant 12	Front			0.665	0.001	0.00	0.67
		Back			0.353	0.042	0.04	0.40
		Left side	1.397		0.069	0.001	1.40	1.47
		Right side			1.341	0.001	0.00	1.34



		Top side			0.412	0.001	0.00	0.41
		Bottom side				0.001	0.00	0.00
LTE Band 5_ENDC Ant 11	N66_ENDC Ant 14	Front			0.665	0.001	0.00	0.67
		Back			0.353	0.042	0.04	0.40
		Left side	1.397		0.069	0.001	1.40	1.47
		Right side			1.341	0.001	0.00	1.34
		Top side			0.412	0.001	0.00	0.41
		Bottom side				0.001	0.00	0.00
LTE Band 5_ENDC Ant 41	N66_ENDC Ant 12	Front			0.665	0.001	0.00	0.67
		Back			0.353	0.042	0.04	0.40
		Left side			0.069	0.001	0.00	0.07
		Right side			1.341	0.001	0.00	1.34
		Top side			0.412	0.001	0.00	0.41
		Bottom side				0.001	0.00	0.00
LTE Band 5_ENDC Ant 41	N66_ENDC Ant 14	Front			0.665	0.001	0.00	0.67
		Back			0.353	0.042	0.04	0.40
		Left side			0.069	0.001	0.00	0.07
		Right side			1.341	0.001	0.00	1.34
		Top side			0.412	0.001	0.00	0.41
		Bottom side				0.001	0.00	0.00
LTE Band 7_ENDC Ant 31	N66_ENDC Ant 12	Front			0.665	0.001	0.00	0.67
		Back			0.353	0.042	0.04	0.40
		Left side			0.069	0.001	0.00	0.07
		Right side			1.341	0.001	0.00	1.34
		Top side			0.412	0.001	0.00	0.41
		Bottom side				0.001	0.00	0.00
LTE Band 7_ENDC Ant 31	N66_ENDC Ant 14	Front			0.665	0.001	0.00	0.67
		Back			0.353	0.042	0.04	0.40
		Left side			0.069	0.001	0.00	0.07
		Right side			1.341	0.001	0.00	1.34
		Top side			0.412	0.001	0.00	0.41
		Bottom side				0.001	0.00	0.00



WWAN Band 41/66	FR1 Band N78	Exposure Position	1	2	8	10	1+2+10	1+2+8+10
			WWAN	FR1	WLAN5GHz Ant 22+24	NFC	Summed	Summed
			10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)
LTE Band 41_ENDC Ant 14	N78_ENDC Ant 13	Front			0.665	0.001	0.00	0.67
		Back			0.353	0.042	0.04	0.40
		Left side		1.990	0.069	0.001	1.99	2.06
		Right side			1.341	0.001	0.00	1.34
		Top side			0.412	0.001	0.00	0.41
		Bottom side				0.001	0.00	0.00
LTE Band 41_ENDC Ant 14	N78_ENDC Ant 23	Front			0.665	0.001	0.00	0.67
		Back			0.353	0.042	0.04	0.40
		Left side			0.069	0.001	0.00	0.07
		Right side			1.341	0.001	0.00	1.34
		Top side			0.412	0.001	0.00	0.41
		Bottom side				0.001	0.00	0.00
LTE Band 41_ENDC Ant 14	N78_ENDC Ant 24	Front			0.665	0.001	0.00	0.67
		Back			0.353	0.042	0.04	0.40
		Left side			0.069	0.001	0.00	0.07
		Right side			1.341	0.001	0.00	1.34
		Top side			0.412	0.001	0.00	0.41
		Bottom side				0.001	0.00	0.00
LTE Band 41_ENDC Ant 14	N78_ENDC Ant 101	Front			0.665	0.001	0.00	0.67
		Back			0.353	0.042	0.04	0.40
		Left side			0.069	0.001	0.00	0.07
		Right side			1.341	0.001	0.00	1.34
		Top side			0.412	0.001	0.00	0.41
		Bottom side				0.001	0.00	0.00
LTE Band 41_ENDC Ant 31	N78_ENDC Ant 13	Front			0.665	0.001	0.00	0.67
		Back			0.353	0.042	0.04	0.40
		Left side			0.069	0.001	0.00	0.07
		Right side			1.341	0.001	0.00	1.34
		Top side			0.412	0.001	0.00	0.41
		Bottom side				0.001	0.00	0.00
LTE Band 41_ENDC Ant 31	N78_ENDC Ant 23	Front			0.665	0.001	0.00	0.67
		Back			0.353	0.042	0.04	0.40
		Left side		1.990	0.069	0.001	1.99	2.06
		Right side			1.341	0.001	0.00	1.34
		Top side			0.412	0.001	0.00	0.41
		Bottom side				0.001	0.00	0.00
LTE Band 41_ENDC Ant 31	N78_ENDC Ant 24	Front			0.665	0.001	0.00	0.67
		Back			0.353	0.042	0.04	0.40
		Left side			0.069	0.001	0.00	0.07
		Right side			1.341	0.001	0.00	1.34
		Top side			0.412	0.001	0.00	0.41
		Bottom side				0.001	0.00	0.00
LTE Band 41_ENDC Ant 31	N78_ENDC Ant 101	Front			0.665	0.001	0.00	0.67
		Back			0.353	0.042	0.04	0.40
		Left side			0.069	0.001	0.00	0.07
		Right side			1.341	0.001	0.00	1.34
		Top side			0.412	0.001	0.00	0.41
		Bottom side				0.001	0.00	0.00
LTE Band 66_ENDC Ant 14	N78_ENDC Ant 13	Front			0.665	0.001	0.00	0.67
		Back			0.353	0.042	0.04	0.40
		Left side			0.069	0.001	0.00	0.07



		Right side			1.341	0.001	0.00	1.34
		Top side	1.788		0.412	0.001	1.79	2.20
		Bottom side				0.001	0.00	0.00
LTE Band 66_ENDC Ant 14	N78_ENDC Ant 23	Front			0.665	0.001	0.00	0.67
		Back			0.353	0.042	0.04	0.40
		Left side		1.990	0.069	0.001	1.99	2.06
		Right side			1.341	0.001	0.00	1.34
		Top side	1.788		0.412	0.001	1.79	2.20
		Bottom side				0.001	0.00	0.00
LTE Band 66_ENDC Ant 14	N78_ENDC Ant 24	Front			0.665	0.001	0.00	0.67
		Back			0.353	0.042	0.04	0.40
		Left side			0.069	0.001	0.00	0.07
		Right side			1.341	0.001	0.00	1.34
		Top side	1.788		0.412	0.001	1.79	2.20
		Bottom side				0.001	0.00	0.00
LTE Band 66_ENDC Ant 14	N78_ENDC Ant 101	Front			0.665	0.001	0.00	0.67
		Back			0.353	0.042	0.04	0.40
		Left side			0.069	0.001	0.00	0.07
		Right side			1.341	0.001	0.00	1.34
		Top side	1.788		0.412	0.001	1.79	2.20
		Bottom side				0.001	0.00	0.00
LTE Band 66_ENDC Ant 31	N78_ENDC Ant 13	Front			0.665	0.001	0.00	0.67
		Back			0.353	0.042	0.04	0.40
		Left side			0.069	0.001	0.00	0.07
		Right side			1.341	0.001	0.00	1.34
		Top side			0.412	0.001	0.00	0.41
		Bottom side				0.001	0.00	0.00
LTE Band 66_ENDC Ant 31	N78_ENDC Ant 23	Front			0.665	0.001	0.00	0.67
		Back			0.353	0.042	0.04	0.40
		Left side			0.069	0.001	0.00	0.07
		Right side			1.341	0.001	0.00	1.34
		Top side			0.412	0.001	0.00	0.41
		Bottom side				0.001	0.00	0.00
LTE Band 66_ENDC Ant 31	N78_ENDC Ant 24	Front			0.665	0.001	0.00	0.67
		Back			0.353	0.042	0.04	0.40
		Left side			0.069	0.001	0.00	0.07
		Right side			1.341	0.001	0.00	1.34
		Top side			0.412	0.001	0.00	0.41
		Bottom side				0.001	0.00	0.00
LTE Band 66_ENDC Ant 31	N78_ENDC Ant 101	Front			0.665	0.001	0.00	0.67
		Back			0.353	0.042	0.04	0.40
		Left side			0.069	0.001	0.00	0.07
		Right side			1.341	0.001	0.00	1.34
		Top side			0.412	0.001	0.00	0.41
		Bottom side				0.001	0.00	0.00



WWAN Band 2/5/7	FR1 Band N78	Exposure Position	1	2	8	10	1+2+10	1+2+8+10
			WWAN	FR1	WLAN5GHz Ant 22+24	NFC	Summed	Summed
			10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)
LTE Band 2_ENDC Ant 14	N78_ENDC Ant 13	Front			0.665	0.001	0.00	0.67
		Back			0.353	0.042	0.04	0.40
		Left side		1.990	0.069	0.001	1.99	2.06
		Right side			1.341	0.001	0.00	1.34
		Top side	1.653		0.412	0.001	1.65	2.07
		Bottom side				0.001	0.00	0.00
LTE Band 2_ENDC Ant 14	N78_ENDC Ant 23	Front			0.665	0.001	0.00	0.67
		Back			0.353	0.042	0.04	0.40
		Left side			0.069	0.001	0.00	0.07
		Right side			1.341	0.001	0.00	1.34
		Top side	1.653		0.412	0.001	1.65	2.07
		Bottom side				0.001	0.00	0.00
LTE Band 2_ENDC Ant 14	N78_ENDC Ant 24	Front			0.665	0.001	0.00	0.67
		Back			0.353	0.042	0.04	0.40
		Left side			0.069	0.001	0.00	0.07
		Right side			1.341	0.001	0.00	1.34
		Top side	1.653		0.412	0.001	1.65	2.07
		Bottom side				0.001	0.00	0.00
LTE Band 2_ENDC Ant 14	N78_ENDC Ant 101	Front			0.665	0.001	0.00	0.67
		Back			0.353	0.042	0.04	0.40
		Left side			0.069	0.001	0.00	0.07
		Right side			1.341	0.001	0.00	1.34
		Top side	1.653		0.412	0.001	1.65	2.07
		Bottom side				0.001	0.00	0.00
LTE Band 2_ENDC Ant 31	N78_ENDC Ant 13	Front			0.665	0.001	0.00	0.67
		Back			0.353	0.042	0.04	0.40
		Left side			0.069	0.001	0.00	0.07
		Right side			1.341	0.001	0.00	1.34
		Top side			0.412	0.001	0.00	0.41
		Bottom side				0.001	0.00	0.00
LTE Band 2_ENDC Ant 31	N78_ENDC Ant 23	Front			0.665	0.001	0.00	0.67
		Back			0.353	0.042	0.04	0.40
		Left side		1.990	0.069	0.001	1.99	2.06
		Right side			1.341	0.001	0.00	1.34
		Top side			0.412	0.001	0.00	0.41
		Bottom side				0.001	0.00	0.00
LTE Band 2_ENDC Ant 31	N78_ENDC Ant 24	Front			0.665	0.001	0.00	0.67
		Back			0.353	0.042	0.04	0.40
		Left side			0.069	0.001	0.00	0.07
		Right side			1.341	0.001	0.00	1.34
		Top side			0.412	0.001	0.00	0.41
		Bottom side				0.001	0.00	0.00
LTE Band 2_ENDC Ant 31	N78_ENDC Ant 101	Front			0.665	0.001	0.00	0.67
		Back			0.353	0.042	0.04	0.40
		Left side			0.069	0.001	0.00	0.07
		Right side			1.341	0.001	0.00	1.34
		Top side			0.412	0.001	0.00	0.41
		Bottom side				0.001	0.00	0.00
LTE Band 5_ENDC Ant 11	N78_ENDC Ant 13	Front			0.665	0.001	0.00	0.67
		Back			0.353	0.042	0.04	0.40
		Left side	1.397		0.069	0.001	1.40	1.47



		Right side			1.341	0.001	0.00	1.34
		Top side			0.412	0.001	0.00	0.41
		Bottom side				0.001	0.00	0.00
LTE Band 5_ENDC Ant 11	N78_ENDC Ant 23	Front			0.665	0.001	0.00	0.67
		Back			0.353	0.042	0.04	0.40
		Left side	1.397	1.990	0.069	0.001	3.39	3.46
		Right side			1.341	0.001	0.00	1.34
		Top side			0.412	0.001	0.00	0.41
		Bottom side				0.001	0.00	0.00
LTE Band 5_ENDC Ant 11	N78_ENDC Ant 24	Front			0.665	0.001	0.00	0.67
		Back			0.353	0.042	0.04	0.40
		Left side	1.397		0.069	0.001	1.40	1.47
		Right side			1.341	0.001	0.00	1.34
		Top side			0.412	0.001	0.00	0.41
		Bottom side				0.001	0.00	0.00
LTE Band 5_ENDC Ant 11	N78_ENDC Ant 101	Front			0.665	0.001	0.00	0.67
		Back			0.353	0.042	0.04	0.40
		Left side	1.397		0.069	0.001	1.40	1.47
		Right side			1.341	0.001	0.00	1.34
		Top side			0.412	0.001	0.00	0.41
		Bottom side				0.001	0.00	0.00
LTE Band 5_ENDC Ant 41	N78_ENDC Ant 13	Front			0.665	0.001	0.00	0.67
		Back			0.353	0.042	0.04	0.40
		Left side			0.069	0.001	0.00	0.07
		Right side			1.341	0.001	0.00	1.34
		Top side			0.412	0.001	0.00	0.41
		Bottom side				0.001	0.00	0.00
LTE Band 5_ENDC Ant 41	N78_ENDC Ant 23	Front			0.665	0.001	0.00	0.67
		Back			0.353	0.042	0.04	0.40
		Left side			0.069	0.001	0.00	0.07
		Right side			1.341	0.001	0.00	1.34
		Top side			0.412	0.001	0.00	0.41
		Bottom side				0.001	0.00	0.00
LTE Band 5_ENDC Ant 41	N78_ENDC Ant 24	Front			0.665	0.001	0.00	0.67
		Back			0.353	0.042	0.04	0.40
		Left side			0.069	0.001	0.00	0.07
		Right side			1.341	0.001	0.00	1.34
		Top side			0.412	0.001	0.00	0.41
		Bottom side				0.001	0.00	0.00
LTE Band 5_ENDC Ant 41	N78_ENDC Ant 101	Front			0.665	0.001	0.00	0.67
		Back			0.353	0.042	0.04	0.40
		Left side			0.069	0.001	0.00	0.07
		Right side			1.341	0.001	0.00	1.34
		Top side			0.412	0.001	0.00	0.41
		Bottom side				0.001	0.00	0.00
LTE Band 7_ENDC Ant 14	N78_ENDC Ant 13	Front			0.665		0.00	0.67
		Back			0.353		0.00	0.35
		Left side		1.990	0.069		1.99	2.06
		Right side			1.341		0.00	1.34
		Top side			0.412		0.00	0.41
		Bottom side					0.00	0.00
LTE Band 7_ENDC Ant 14	N78_ENDC Ant 23	Front			0.665		0.00	0.67
		Back			0.353		0.00	0.35
		Left side			0.069		0.00	0.07
		Right side			1.341		0.00	1.34
		Top side			0.412		0.00	0.41



		Bottom side					0.00	0.00
LTE Band 7_ENDC Ant 14	N78_ENDC Ant 24	Front			0.665		0.00	0.67
		Back			0.353		0.00	0.35
		Left side			0.069		0.00	0.07
		Right side			1.341		0.00	1.34
		Top side			0.412		0.00	0.41
		Bottom side					0.00	0.00
LTE Band 7_ENDC Ant 14	N78_ENDC Ant 101	Front			0.665		0.00	0.67
		Back			0.353		0.00	0.35
		Left side			0.069		0.00	0.07
		Right side			1.341		0.00	1.34
		Top side			0.412		0.00	0.41
		Bottom side					0.00	0.00
LTE Band 7_ENDC Ant 31	N78_ENDC Ant 13	Front			0.665		0.00	0.67
		Back			0.353		0.00	0.35
		Left side		1.990	0.069		1.99	2.06
		Right side			1.341		0.00	1.34
		Top side			0.412		0.00	0.41
		Bottom side					0.00	0.00
LTE Band 7_ENDC Ant 31	N78_ENDC Ant 23	Front			0.665		0.00	0.67
		Back			0.353		0.00	0.35
		Left side			0.069		0.00	0.07
		Right side			1.341		0.00	1.34
		Top side			0.412		0.00	0.41
		Bottom side					0.00	0.00
LTE Band 7_ENDC Ant 31	N78_ENDC Ant 24	Front			0.665		0.00	0.67
		Back			0.353		0.00	0.35
		Left side			0.069		0.00	0.07
		Right side			1.341		0.00	1.34
		Top side			0.412		0.00	0.41
		Bottom side					0.00	0.00
LTE Band 7_ENDC Ant 31	N78_ENDC Ant 101	Front			0.665		0.00	0.67
		Back			0.353		0.00	0.35
		Left side			0.069		0.00	0.07
		Right side			1.341		0.00	1.34
		Top side			0.412		0.00	0.41
		Bottom side					0.00	0.00

Test Engineer : Hank Huang, Kevin Xu, David Dai, Bin He



17. Uncertainty Assessment

Per KDB 865664 D01 SAR measurement 100MHz to 6GHz, when the highest measured 1-g SAR within a frequency band is < 1.5 W/kg and the measured 10-g SAR within a frequency band is < 3.75 W/kg. The expanded SAR measurement uncertainty must be $\leq 30\%$, for a confidence interval of $k = 2$. If these conditions are met, extensive SAR measurement uncertainty analysis described in IEEE Std 1528-2013 is not required in SAR reports submitted for equipment approval. For this device, the highest measured 1-g SAR is less 1.5W/kg and highest measured 10-g SAR is less 3.75W/kg. Therefore, the measurement uncertainty table is not required in this report.



18. References

- [1] FCC 47 CFR Part 2 “Frequency Allocations and Radio Treaty Matters; General Rules and Regulations”
- [2] ANSI/IEEE Std. C95.1-1992, “IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz”, September 1992
- [3] IEEE Std. 1528-2013, “IEEE Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques”, Sep 2013
- [4] SPEAG DASY System Handbook
- [5] FCC KDB 248227 D01 v02r02, “SAR Guidance for IEEE 802.11 (WiFi) Transmitters”, Oct 2015.
- [6] FCC KDB 447498 D04 v01, “Mobile and Portable Device RF Exposure Procedures and Equipment Authorization Policies”, Nov 2021
- [7] FCC KDB 648474 D04 v01r03, “SAR Evaluation Considerations for Wireless Handsets”, Oct 2015.
- [8] FCC KDB 941225 D01 v03r01, “3G SAR MEAUREMENT PROCEDURES”, Oct 2015
- [9] FCC KDB 941225 D05 v02r05, “SAR Evaluation Considerations for LTE Devices”, Dec 2015
- [10] FCC KDB 941225 D05A v01r02, “Rel. 10 LTE SAR Test Guidance and KDB Inquiries”, Oct 2015
- [11] FCC KDB 941225 D06 v02r01, "SAR Evaluation Procedures for Portable Devices with Wireless Router Capabilities", Oct 2015.
- [12] FCC KDB 865664 D01 v01r04, "SAR Measurement Requirements for 100 MHz to 6 GHz", Aug 2015.
- [13] FCC KDB 865664 D02 v01r02, “RF Exposure Compliance Reporting and Documentation Considerations” Oct 2015.
- [14] FCC KDB 616217 D04 v01r02, “SAR Evaluation Considerations for Laptop, Notebook, Netbook and Tablet Computers”, Oct 2015

-----THE END-----



Appendix A. Plots of System Performance Check

The plots are shown as follows.

System Check_Head_750MHz

DUT: D750V3-SN:1099

Communication System: UID 0, CW (0); Frequency: 750 MHz; Duty Cycle: 1:1

Medium: HSL_750_220716 Medium parameters used: $f = 750$ MHz; $\sigma = 0.886$ S/m; $\epsilon_r = 41.534$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.5 °C; Liquid Temperature : 22.4 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3819; ConvF(9.82, 9.82, 9.82); Calibrated: 2022/5/30
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn715; Calibrated: 2021/12/29
- Phantom: SAM (30deg probe tilt) with CRP v4.0; Type: QD000P40CC; Serial: TP: 1500
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.13 (7474)

Pin=250mW/Area Scan (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 2.83 W/kg

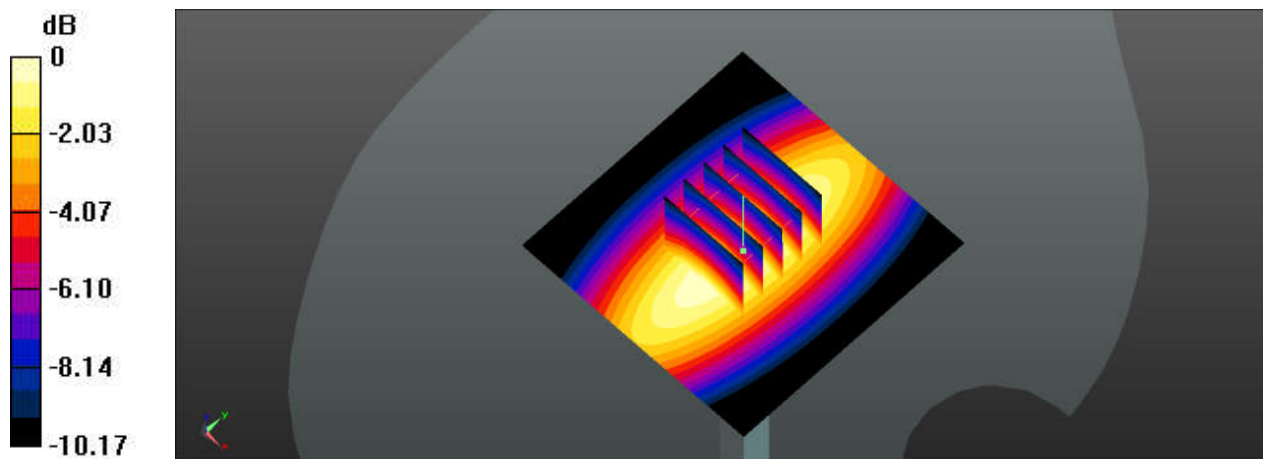
Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 59.96 V/m; Power Drift = -0.14 dB

Peak SAR (extrapolated) = 3.18 W/kg

SAR(1 g) = 2.12 W/kg; SAR(10 g) = 1.41 W/kg

Maximum value of SAR (measured) = 2.81 W/kg



0 dB = 2.81 W/kg

System Check_Head_750MHz

DUT: D750V3-SN:1099

Communication System: UID 0, CW (0); Frequency: 750 MHz; Duty Cycle: 1:1

Medium: HSL_750_220720 Medium parameters used: $f = 750$ MHz; $\sigma = 0.88$ S/m; $\epsilon_r = 40.752$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.4 °C; Liquid Temperature : 22.6 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3819; ConvF(9.82, 9.82, 9.82); Calibrated: 2022/5/30
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn715; Calibrated: 2021/12/29
- Phantom: SAM (30deg probe tilt) with CRP v4.0; Type: QD000P40CC; Serial: TP: 1500
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.13 (7474)

Pin=250mW/Area Scan (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 2.81 W/kg

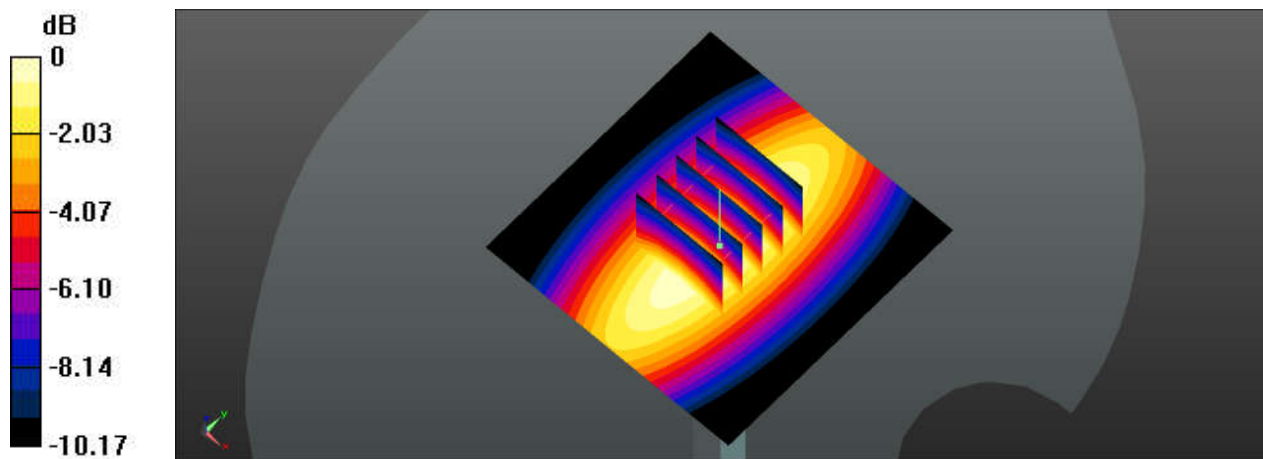
Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 59.96 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 3.16 W/kg

SAR(1 g) = 2.11 W/kg; SAR(10 g) = 1.4 W/kg

Maximum value of SAR (measured) = 2.79 W/kg



0 dB = 2.79 W/kg