FCC SAR Test Report

APPLICANT	:	**Xiaomi Communications Co., Ltd.**
EQUIPMENT	:	**Mobile Phone**
BRAND NAME	:	**Xiaomi**
MODEL NAME	:	**2201122G**
FCC ID	:	**2AFZZ122G**
STANDARD	:	**FCC 47 CFR Part 2 (2.1093)**

We, Sporton International (Kunshan) Inc., would like to declare that the tested sample has been evaluated in accordance with the test procedures 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 (Kunshan) Inc., the test report shall not be reproduced except in full.

Tony Zhang

Reviewed by: Tony Zhang / Supervisor

Kat Yin

Approved by: Kat Yin / Manager

ACCREDITED
Cert #5145.02

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

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Revision History

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FA1O1701	Rev. 01	Initial issue of report.	Dec. 20, 2021
FA1O1701	Rev. 02	Added LTE B7 Ant7 related information and data.	Jan. 12, 2022

1. Statement of Compliance

The maximum results of Specific Absorption Rate (SAR) found during testing for **Xiaomi Communications Co., Ltd., Mobile Phone, 2201122G,** 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	0.49	0.58	0.39	1.59
		GSM1900	0.68	0.51	0.16	
	WCDMA	Band II	0.64	1.01	0.47	
		Band IV	0.56	1.01	0.45	
		Band V	0.67	0.72	0.43	
	LTE	Band 7	0.84	0.51	0.61	
		Band 12/Band 17	0.55	0.59	0.34	
		Band 13	0.57	0.66	0.55	
		Band 25/ Band 2	0.62	0.99	0.60	
		Band 26/ Band 5	0.38	0.59	0.33	
		Band 66/ Band 4	0.94	1.01	0.61	
		Band 41/ Band 38	0.54	0.54	0.38	
		Band 42	0.93	0.49	0.39	
		Band 48	1.05	0.58	0.26	
	5G NR	n5	0.67	0.81	0.43	
		n7	**1.09**	0.75	0.23	
		n66	0.69	0.86	0.46	
		n41/ n38	**1.09**	0.74	0.31	
		n77	0.92	0.96	0.91	
		n78	0.94	**1.04**	**1.05**	
DTS	WLAN	2.4GHz WLAN	0.80	0.11	0.19	1.59
NII		5GHz WLAN	0.86	0.58	0.29	1.59
DSS	Bluetooth	2.4GHz Bluetooth	0.66	0.13	<0.10	1.59

Highest 10g SAR Summary				
Equipment Class	Frequency Band		Product Specific 10g SAR (W/kg) (Separation 0mm)	Highest Simultaneous Transmission 10g SAR (W/kg)
NII	WLAN	5GHz WLAN	**0.64**	-
Date of Testing:			2021/11/14 ~ 2021/12/28	

Remark:

1. This device supports LTE B2 / B4 / B5 / B17 / B38 and B25 / B66 / B26 / B12 / B41. Since the supported frequency span for LTE B2 / B4 / B5 / B17 / B38 falls completely within the supports frequency span for LTE B25 / B66 / B26 / B12 / B41, both LTE bands have the same target power, and both LTE bands share the same transmission path; therefore, SAR was only assessed for LTE B25 / B66 / B26 / B12 / B41.
2. This device supports 5G NR n38 and 5G NR n41. Since the supported frequency span for 5G NR n38 falls completely within the supports frequency span for 5G NR n41, both LTE bands have the same target power, and both LTE bands share the same transmission path; therefore, SAR was only assessed for 5G NR n41.

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

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

2. Administration Data

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

Testing Laboratory			
Test Firm	Sporton International (Kunshan) Inc.		
Test Site Location	No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300 People's Republic of China TEL : +86-512-57900158 FAX : +86-512-57900958		
Test Site No.	Sporton Site No.	FCC Designation No.	FCC Test Firm Registration No.
	SAR05-KS SAR01-KS	CN1257	314309

Applicant	
Company Name	Xiaomi Communications Co., Ltd.
Address	#019, 9th Floor, Building 6, 33 Xi'erqi Middle Road, Haidian District, Beijing, China, 100085

Manufacturer	
Company Name	Xiaomi Communications Co., Ltd.
Address	#019, 9th Floor, Building 6, 33 Xi'erqi Middle Road, Haidian District, Beijing, China, 100085

3. Guidance Applied

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

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

4. Equipment Under Test (EUT) Information

4.1 General Information

Product Feature & Specification	
Equipment Name	Mobile Phone
Brand Name	Xiaomi
Model Name	2201122G
FCC ID	2AFZZ122G
IMEI Code	SIM1: 863690050059371 SIM2: 863690050059389
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 25: 1850 MHz ~ 1915 MHz LTE Band 26: 814 MHz ~ 849 MHz LTE Band 38: 2570 MHz ~ 2620 MHz LTE Band 41: 2496 MHz ~ 2690 MHz LTE Band 42: 3450 MHz ~ 3550MHz LTE Band 48: 3550 MHz ~ 3700 MHz LTE Band 66: 1710 MHz ~ 1780 MHz 5G NR n5: 824 MHz ~ 849 MHz 5G NR n7: 2500 MHz ~ 2570 MHz 5G NR n38 : 2570 MHz ~ 2620 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 ~ 5720 MHz WLAN 5.8GHz Band: 5745 MHz ~ 5825 MHz WLAN 6E U-NII-5: 5925 MHz ~ 6425 MHz WLAN 6E U-NII-6: 6425 MHz ~ 6525 MHz WLAN 6E U-NII-7: 6525 MHz ~ 6875 MHz WLAN 6E U-NII-8: 6875 MHz ~ 7125 MHz Bluetooth: 2402 MHz ~ 2480 MHz WPC: 110KHz ~ 148 KHz NFC: 13.56 MHz
Mode	GSM/GPRS/EGPRS RMC/AMR 12.2Kbps HSDPA HSUPA DC-HSDPA HSPA+(16QAM uplink is not supported) LTE: QPSK, 16QAM, 64QAM, 256QAM 5G NR : CP-OFDM / DFT-s-OFDM, PI/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM WLAN 2.4GHz 802.11b/g/n HT20/HT40 WLAN 2.4GHz 802.11ax HE20/HE40 WLAN 5GHz 802.11a/n HT20/HT40 WLAN 5GHz 802.11ac VHT20/VHT40/VHT80/VHT160

	WLAN 5GHz 802.11ax HE20/HE40/HE80/HE160 WLAN 6GHz 802.11ax HE20/HE40/HE80/HE160 Bluetooth BR/EDR/LE WPC: ASK NFC:ASK
HW Version	P2.1
SW Version	MIUI 13
GSM / (E)GPRS Transfer mode	Class B – EUT cannot support Packet Switched and Circuit Switched Network simultaneously but can automatically switch between Packet and Circuit Switched Network.
EUT Stage	Identical Prototype

Remark:

1. This device supports VoIP in GPRS, EGPRS, WCDMA and LTE (e.g. for 3rd-party VoIP) and LTE supports VoLTE operation.
2. This device 2.4GHz WLAN support hotspot operation and Bluetooth support tethering applications.
3. This device 2.4GHz WLAN/5.2GHz WLAN/5.8GHz WLAN support hotspot operation, and 5.2GHz WLAN/5.8GHz WLAN supports WiFi Direct (GC/GO), and 5.3GHz / 5.5GHz supports WiFi Direct (GC only).
4. This device does not support DTM operation and supports GPRS/EGPRS mode up to multi-slot class 33.
5. For dual SIM card mobile has two SIM slots and supports dual SIM dual standby. The WWAN radio transmission will be enabled by either one SIM at a time (single active). After pre-scan two SIM cards power, we found test result of the SIM1 was the worse, so we chose SIM1 slot to perform all tests.
6. There are two types of EUT. The difference is that different memory capacity. According to the differences, we choose sample 1 to perform full test.
7. The device implements the power management and proximity sensor /receiver detection/hotspot mode for SAR compliance at different exposure conditions (head, body-worn, hotspot, extremity) and the Qualcomm smart transmit will manage to ensure the power level not exceeding the associated power table. Details about the power management decision and sensor detection are provided in the operational description. And the device will invoke corresponding work scenarios power level base on frequency bands/antennas, which can refer to power table at appendix E.
8. For WLAN when transmit simultaneous with WWAN, power reduction will be activated to head, hotspot.
9. For 5G NR test, using FTM (Factory Test Mode) to perform SAR with default 100% transmission.
10. NSA and SA mode should perform SAR separately. For the maximum power of NSA mode is the same as SA total power level, so SA SAR can represent NSA mode SAR.
11. 5GNR NSA mode, the power level is the same as 5GNR SA mode, so 5GNR NSA mode and SA mode power table only show one time.
12. 5G NR supports CP-OFDM and DFT-s-OFDM modulation, for DFT-s-OFDM power is higher than CP-OFDM, so only show DFT-s-OFDM power table and chose DFT-s-OFDM to perform SAR testing.
13. For DFT-s-OFDM and CP-OFDM output power measurement reduction, according to 38.101 maximum power reduction for the CP-OFDM mode will not higher than DFT-s-OFDM mode, therefore, CP-OFDM measurement is unnecessary.
14. 5G NR n77/n78 supports MIMO mode only limit to SA mode.
15. 5GNR n78 supports HPUE, HPUE power and SAR testing performed separately.
16. 5GNR n78 HUPE with higher power, 5GNR n78 HUPE SAR can represent power class 3 level SAR.
17. SAR Power density test report for WIFI 6E U-NII-5/6/7/8 will be separately submitted. About co-located SAR with WWAN/Bluetooth, always chose higher SAR of WLAN5G U-NII-1/2A/2C/3 and U-NII-5/6/7/8.
18. RF exposure report for WPC (Wireless power charging) will be separately submitted.
19. This device supports 5GNR FR1 bands as following table, including NSA mode and SA mode.

<5G NR>

Mode	Band	Duplex	SCS(KHz)	Bandwidths(BW)
NSA	n5	FDD	15	5, 10, 15, 20
	n7	FDD	15	5, 10, 15, 20, 25, 30, 40
	n66	FDD	15	5, 10, 15, 20, 30, 40
	n78	TDD	30	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100
SA	n5	FDD	15	5, 10, 15, 20
	n7	FDD	15	5, 10, 15, 20, 25, 30, 40
	n66	FDD	15	5, 10, 15, 20, 30, 40
	n38	TDD	30	10, 15, 20, 30, 40
	n41	TDD	30	20, 30, 40, 50, 60, 70, 80, 90, 100
	n77	TDD	30	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100
	n78	TDD	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	2AFZZ122G
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 25: 1850 MHz ~ 1915 MHz LTE Band 26: 814 MHz ~ 849 MHz LTE Band 38: 2570 MHz ~ 2620 MHz LTE Band 41: 2496 MHz ~ 2690 MHz LTE Band 42: 3450 MHz ~ 3550MHz LTE Band 48: 3550 MHz ~ 3700 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 25:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz LTE Band 26: 1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz LTE Band 38: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 41: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 42: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 48: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 66:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz
uplink modulations used	QPSK / 16QAM / 64QAM /256QAM
LTE Voice / Data requirements	Voice and Data
LTE Release Version	R15, Cat18
CA Support	Supported, Uplink and Downlink
LTE MPR permanently built-in by design	**Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 1, 2 and 3** Modulation | Channel bandwidth / Transmission bandwidth (N_{RB}) | MPR (dB) 1.4 MHz | 3.0 MHz | 5 MHz | 10 MHz | 15 MHz | 20 MHz QPSK | > 5 | > 4 | > 8 | > 12 | > 16 | > 18 | ≤ 1 16 QAM | ≤ 5 | ≤ 4 | ≤ 8 | ≤ 12 | ≤ 16 | ≤ 18 | ≤ 1 16 QAM | > 5 | > 4 | > 8 | > 12 | > 16 | > 18 | ≤ 2 64 QAM | ≤ 5 | ≤ 4 | ≤ 8 | ≤ 12 | ≤ 16 | ≤ 18 | ≤ 2 64 QAM | > 5 | > 4 | > 8 | > 12 | > 16 | > 18 | ≤ 3 256 QAM | ≥ 1 | ≤ 5
LTE A-MPR	In the base station simulator configuration, Network Setting value is set to NS_01 to disable A-MPR during SAR testing and the LTE SAR tests was transmitting on all TTI frames (Maximum TTI)
Spectrum plots for RB configuration	A properly configured base station simulator was used for the SAR and power measurement; therefore, spectrum plots for each RB allocation and offset configuration are not included in the SAR report.
Power reduction applied to satisfy SAR compliance	Yes, head/body-worn/ hotspot/extremity will trigger reduced power for some LTE bands, the detail please referred to section 14.
LTE Carrier Aggregation Combinations	Inter-Band and Intra-Band possible combinations and the detail power verification please referred to section 14.
LTE Carrier Aggregation Additional Information	1. This device supports LTE Carrier Aggregation (CA) in the uplink for intra-band and inter-band 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.

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

LTE Band 2

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

LTE Band 4

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

LTE Band 5

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

LTE Band 7

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

LTE Band 12

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

LTE Band 13

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

LTE Band 17

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

LTE Band 25

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

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

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

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

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

LTE Band 42								
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	42115	3452.5	42140	3455	42165	3457.5	42190	3460
M	42590	3500	42590	3500	42590	3500	42590	3500
H	43065	3547.5	43040	3545	43015	3542.5	42990	3540

LTE Band 48								
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	55265	3552.5	55290	3555	55315	3557.5	55340	3560
LM	55810	3607	55815	3607.5	55820	3608	55830	3609
MH	56170	3643	56165	3642.5	56160	3642	56150	3641
H	56715	3697.5	56690	3695	56665	3692.5	56640	3690

4.3 General 5G NR SAR Test and Reporting Considerations

5G NR Information	
Operating Frequency Range of each 5G NR transmission band	5G NR n5: 824 MHz ~ 849 MHz 5G NR n7: 2500 MHz ~ 2570 MHz 5G NR n38 : 2570 MHz ~ 2620 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	5G NR n5: 5MHz, 10MHz, 15MHz, 20MHz 5G NR n7: 5MHz, 10MHz, 15MHz, 20MHz, 25MHz, 30MHz, 40MHz 5G NR n38: 10MHz, 15MHz, 20MHz, 30MHz, 40MHz 5G NR n41: 20MHz, 30MHz, 40MHz, 50MHz, 60MHz, 70MHz, 80MHz, 90MHz, 100MHz 5G NR n66: 5MHz, 10MHz, 15MHz, 20MHz, 30MHz, 40MHz 5G NR n77: 10MHz, 15MHz, 20MHz, 30MHz, 40MHz, 50MHz, 60MHz, 70MHz, 80MHz, 90MHz, 100MHz 5G NR n78: 10MHz, 15MHz, 20MHz, 30MHz, 40MHz, 50MHz, 60MHz, 70MHz, 80MHz, 90MHz, 100MHz
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 n5	LTE B7
LTE Anchor Bands for n7	LTE B5/66
LTE Anchor Bands for n66	LTE B5/7/12
LTE Anchor Bands for n78	LTE B2/5/7/38/41/66

NR Band 5								
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	165300	826.5	165800	829	166300	831.5	166800	834
M	167300	836.5	167300	836.5	167300	836.5	167300	836.5
H	169300	846.5	168800	844	168300	841.5	167800	839

NR Band 7														
	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	500500	2502.5	501000	2505	501500	2507.5	502000	2510	502500	2512.5	503000	2515	504000	2520
M	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

NR Band 66												
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 30MHz		Bandwidth 40MHz	
	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	344000	1720	345000	1725	346000	1730
M	349000	1745	349000	1745	349000	1745	349000	1745	349000	1745	349000	1745
H	355500	1777.5	355000	1775	354500	1772.5	354000	1770	353000	1765	352000	1760

NR Band 38										
	Bandwidth10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 30MHz		Bandwidth 40MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	515004	2575.02	515502	2577.51	516000	2580	517002	2585.01	518004	2590.02
M	519000	2595	519000	2595	519000	2595	519000	2595	519000	2595
H	522996	2614.98	522498	2612.49	522000	2610	520998	2604.99	519996	2599.98

	NR Band 41																	
	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)
L	501204	2506.02	502200	2511	503202	2516.01	504204	2521.02	505200	2526	506202	2531.01	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
H	535998	2679.99	534996	2674.98	534000	2670	532998	2664.99	531996	2659.98	531000	2655	529998	2649.99	528996	2644.98	528000	2640

<3700 MHz ~ 3980 MHz>

NR Band 77																						
	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	650000	3750
M	656000	3840	656000	3850	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840
H	665000	3975	664834	3972.51	664668	3970.02	664334	3965.01	664000	3960	663668	3955.02	663334	3950.01	663000	3945	662668	3940.02	662334	3935.01	662000	3930

NR Band 78																						
	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	652834	3792.51	652668	3790.02	652334	3785.01	652000	3780	651668	3775.02	651334	3770.01	651000	3765	650668	3760.02	650334	3755.01		

<3450 MHz ~ 3550 MHz>

NR Band 77																						
	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	636334	3545.01	636166	3542.52	636000	3540	635668	3535.02	635334	3530.01	635000	3525	634668	3520.02	634334	3515.01	634000	3510	633668	3505.02		

NR Band 78																						
	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	636334	3545.01	636166	3542.52	636000	3540	635668	3535.02	635334	3530.01	635000	3525	634668	3520.02	634334	3515.01	634000	3510	633668	3505.02		

5. Smart Transmit feature for RF Exposure compliance

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

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

<Terminologies in this report>

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

<SAR Characterization>

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

<SAR design target and uncertainty>

Uncertainty dB (k=2)	Freq<3GHz		Freq≥3GHz	
	Main Ant	Aux Ant	Main Ant	Aux Ant
Total uncertainty	1.0	1.5	1.5	2.0

Supported Band	Main Ant	Aux Ant
LTE B5/12/13/17/26	Mian Ant 0	Aux Ant 1
LTE B42/48	Mian Ant 10	Aux Ant 11/12/13
LTE B2/4/7/25/38/41/66	Mian Ant 3	Aux Ant 0/4/5/7
5G NR n5	Mian Ant 0	Aux Ant 1
5G NR n7/38/41/66	Mian Ant 4	Aux Ant 0/3/5
5G NR n77/78	Mian Ant 10	Aux Ant 11/12/13

Note：For Qualcomm Smart Transmitter mechanism is enabled for LTE/5G NR only.

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

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

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

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

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

Band	Antenna	Head DSI 1	Hotspot DSI 5	Body Worn Sensor Off DSI 4	Sensor On DSI 2	Pmax*
LTE Band 7	Ant 0	34.70	18.00	30.90	19.00	21.0
LTE Band 7	Ant 3	32.00	19.50	27.00	19.50	24.5
LTE Band 12	Ant 0	33.40	29.40	31.80	24.50	24.5
LTE Band 17	Ant 0	33.40	29.40	31.80	24.50	24.5
LTE Band 13	Ant 0	33.70	30.10	33.00	24.50	24.5
LTE Band 2	Ant 3	31.50	21.50	27.30	21.50	24.7
LTE Band 25	Ant 3	31.50	21.50	27.30	21.50	24.7
LTE Band 5	Ant 0	34.80	27.20	30.70	24.50	24.5
LTE Band 26	Ant 0	34.80	27.20	30.70	24.50	24.5
LTE Band 4	Ant 0	20.50	28.00	31.50	21.50	21.5
LTE Band 4	Ant 3	31.50	22.00	27.30	22.00	24.7
LTE Band 66	Ant 0	20.50	28.00	31.50	21.50	21.5
LTE Band 66	Ant 3	31.50	22.00	27.30	22.00	24.7
LTE Band 38	Ant 0	18.6	26.10	32.70	19.50	19.5
LTE Band 38	Ant 3	32.50	19.70	27.40	19.70	22.7
LTE Band 41	Ant 0	18.6	26.10	32.70	19.50	19.5
LTE Band 41	Ant 3	32.50	19.70	27.40	19.70	22.7
LTE Band 42	Ant 12	18.0	22.50	27.9	18.00	19.0
LTE Band 48	Ant 12	15.5	15.5	23.80	15.5	16.5
FR1 n5	Ant 0	31.80	28.20	30.60	24.50	24.5
FR1 n7	Ant 0	37.60	20.00	33.20	20.00	23.0
FR1 n7	Ant 3	31.50	18.50	29.40	18.50	22.5
FR1 n66	Ant 0	35.50	27.90	31.50	22.00	23.0
FR1 n66	Ant 3	29.50	22.00	28.90	22.00	23.0
FR1 n38	Ant 0	32.70	17.50	35.10	17.50	21.5
FR1 n38	Ant 3	30.30	17.50	28.70	17.50	22.5
FR1 n41	Ant 0	32.70	17.50	35.10	17.50	21.5
FR1 n41	Ant 3	30.30	18.50	28.70	18.50	22.5
FR1 n77	Ant 12	35.40	18.70	26.10	18.70	23.7
FR1 n78 PC2	Ant 12	37.70	18.00	27.30	18.00	25.0
FR1 n78 PC3	Ant 12	37.70	18.00	27.30	18.00	23.7

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

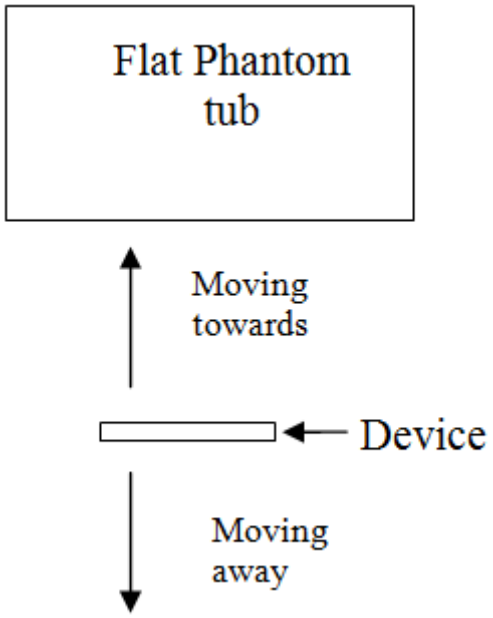
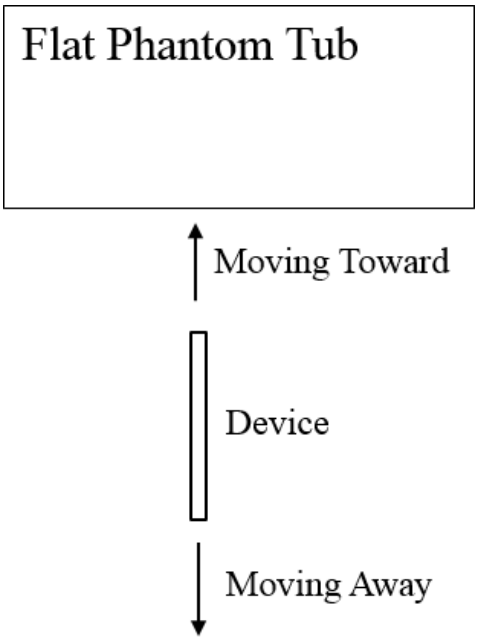
Band	Antenna	Head DSI 1	Hotspot DSI 5	Body Worn Sensor Off DSI 4	Sensor On DSI 2	Pmax*
LTE Band 7	Ant 4	17.50	17.50	30.10	17.50	23.5
LTE Band 7	Ant 5	21.00	20.00	20.00	23.00	23.0
LTE Band 7	Ant 7	23.00	23.00	23.00	23.00	23.0
LTE Band 12	Ant 1	21.20	21.20	24.20	24.20	24.2
LTE Band 17	Ant 1	21.20	21.20	24.20	24.20	24.2
LTE Band 13	Ant 1	20.50	20.20	27.20	24.20	24.2
LTE Band 2	Ant 4	14.50	16.00	27.80	19.50	22.5
LTE Band 25	Ant 4	15.50	16.00	27.80	19.50	22.5
LTE Band 5	Ant 1	21.20	21.20	28.40	24.00	24.0
LTE Band 26	Ant 1	21.20	21.20	29.40	24.00	24.0
LTE Band 4	Ant 4	15.50	16.50	27.70	21.00	22.5
LTE Band 4	Ant 5	19.00	19.00	21.00	23.00	23.0
LTE Band 66	Ant 4	16.50	16.50	27.70	21.00	22.5
LTE Band 66	Ant 5	19.00	19.00	21.00	23.00	23.0
LTE Band 38	Ant 4	16.50	16.50	27.40	16.50	20.5
LTE Band 38	Ant 5	20.00	18.00	19.00	21.00	21.0
LTE Band 41	Ant 4	16.50	16.50	27.40	16.50	20.5
LTE Band 41	Ant 5	20.00	18.00	19.00	21.00	21.0
LTE Band 42	Ant 10	17.20	17.20	32.10	19.20	22.2
LTE Band 42	Ant 11	22.30	25.40	29.00	18.50	18.5
LTE Band 42	Ant 13	26.90	17.70	20.7	17.70	21.7
LTE Band 48	Ant 10	14.50	14.50	28.10	16.50	19.5
LTE Band 48	Ant 11	15.0	15.0	26.80	16.0	16.0
LTE Band 48	Ant 13	25.40	18.00	26.40	18.00	20.0
FR1 n5	Ant 1	21.20	21.20	22.20	24.20	24.2
FR1 n7	Ant 4	16.50	19.50	31.50	19.50	24.5
FR1 n7	Ant 5	20.50	20.50	20.50	21.50	21.5
FR1 n66	Ant 4	18.50	18.50	28.30	21.50	24.5
FR1 n66	Ant 5	17.50	17.50	19.50	20.50	20.5
FR1 n38	Ant 4	18.50	18.50	29.90	18.50	24.5
FR1 n38	Ant 5	25.40	21.50	21.50	23.00	23.0
FR1 n41	Ant 4	19.50	19.50	29.90	19.50	24.5
FR1 n41	Ant 5	26.40	21.50	21.50	23.00	23.0
FR1 n77	Ant 10	16.20	16.50	28.10	18.20	24.2
FR1 n77	Ant 11	21.70	21.70	21.70	23.70	23.7
FR1 n77	Ant 13	26.10	16.50	24.50	16.50	23.7
FR1 n78 PC2	Ant 10	16.50	16.50	26.80	19.50	25.5
FR1 n78 PC2	Ant 11	23.00	23.00	23.00	25.00	25.0
FR1 n78 PC2	Ant 13	29.30	17.20	25.20	17.20	25.0
FR1 n78 PC3	Ant 10	16.50	16.50	26.80	19.50	24.2
FR1 n78 PC3	Ant 11	23.00	23.00	23.00	25.00	23.7
FR1 n78 PC3	Ant 13	29.30	17.20	25.20	17.20	23.7

Note: 1) *P_{max} is used for RF tune up procedure. The maximum allowed output power is equal to Pmax + Total uncertainty.
2) All P_{limit} power levels entered in the Table correspond to average power levels after accounting for duty cycle in the case TDD modulation schemes (for e.g., GSM & LTE TDD).
3) The max allowed output power is the Plimit + Total uncertainty, and if Plimit is higher than Pmax, the device output power will be Pmax instead.
4) LTE Band 7 at Antenna 7 is only active When at CA mode.

6. Proximity Sensor Triggering Test

6.1 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.
2. Proximity sensor triggering distance testing was performed according 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.
3. Capacitive proximity sensor placed coincident with antenna elements at the top/bottom end 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 bottom or left or right or top side of the device. There is no need to do sensor coverage testing for the proximity sensor is designed to support sufficient detection range and sensitivity to cover regions of the sensors in all applicable directions since the proximity sensor entirely covers the antenna.
4. The sensors can use to detect the proximity of the user's body or handheld states at the front or back or bottom or right or top side of the device use a detection threshold distance. When front/back/right /top/bottom sides of body or handheld condition is detected reduced power will be active. The trigger distance shown in the sections below.
5. 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.

	
Sensor detection test set-up, front and back sides	Sensor detection test set-up, right/top/bottom sides

<P-Sensor>

< Sensor for Ant0/Ant3 >

Proximity Sensor Triggering Distance (mm)								
Position	Front		Back		Right Side		Bottom Side	
	Moving towards	Moving away	Moving towards	Moving away	Moving towards	Moving away	Moving towards	Moving away
Minimum	16	16	16	16	16	16	16	16

< Sensor for Ant4/Ant10/Ant12/Ant13 >

Proximity Sensor Triggering Distance (mm)						
Position	Front		Back		Top Side	
	Moving towards	Moving away	Moving towards	Moving away	Moving towards	Moving away
Minimum	6	6	6	6	6	6

7. RF Exposure Limits

7.1 Uncontrolled Environment

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

7.2 Controlled Environment

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

Limits for Occupational/Controlled Exposure (W/kg)

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

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

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

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

8. Specific Absorption Rate (SAR)

8.1 Introduction

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

8.2 SAR Definition

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

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

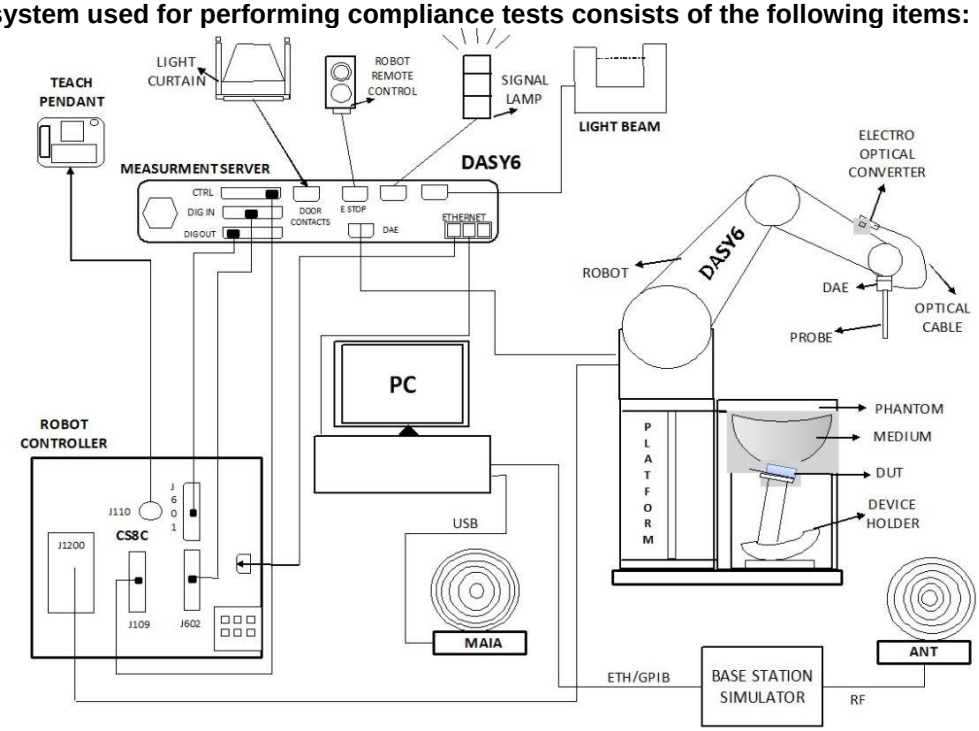
SAR is expressed in units of Watts per kilogram (W/kg)

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

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

9. System Description and Setup

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



- A standard high precision 6-axis robot with controller, teach pendant and software. An arm extension for accommodating the data acquisition electronics (DAE).
- An isotropic Field probe optimized and calibrated for the targeted measurement.
- A data acquisition electronics (DAE) which performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. The unit is battery powered with standard or rechargeable batteries. The signal is optically transmitted to the EOC.
- The Electro-optical converter (EOC) performs the conversion from optical to electrical signals for the digital communication to the DAE. To use optical surface detection, a special version of the EOC is required. The EOC signal is transmitted to the measurement server.
- The function of the measurement server is to perform the time critical tasks such as signal filtering, control of the robot operation and fast movement interrupts.
- The Light Beam used is for probe alignment. This improves the (absolute) accuracy of the probe positioning.
- A computer running Windows 10 and the DASY6 software.
- Remote control and teach pendant as well as additional circuitry for robot safety such as warning lamps, etc.
- The phantom, the device holder and other accessories according to the targeted measurement.

9.1 E-Field Probe

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

<EX3DV4 Probe>

Construction	Symmetric design with triangular core Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., DGBE)	
Frequency	10 MHz – >6 GHz Linearity: ±0.2 dB (30 MHz – 6 GHz)	
Directivity	±0.3 dB in TSL (rotation around probe axis) ±0.5 dB in TSL (rotation normal to probe axis)	
Dynamic Range	10 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	

9.2 Data Acquisition Electronics (DAE)

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

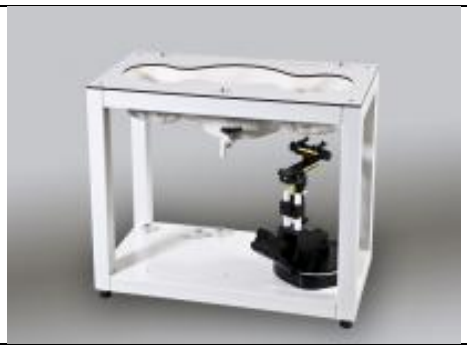
The input impedance of the DAE is 200 MOhm; the inputs are symmetrical and floating. Common mode rejection is above 80 dB.

Photo of DAE

9.3 Phantom

<SAM Twin Phantom>

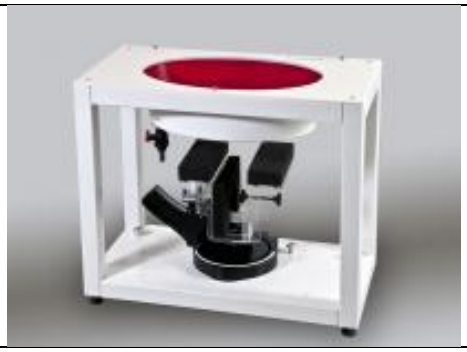
Shell Thickness	2 ± 0.2 mm; Center ear point: 6 ± 0.2 mm
Filling Volume	Approx. 25 liters
Dimensions	Length: 1000 mm; Width: 500 mm; Height: adjustable feet
Measurement Areas	Left Hand, Right Hand, Flat Phantom



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

<ELI Phantom>

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



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

9.4 Device Holder

<Mounting Device for Hand-Held Transmitter>

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

Mounting Device for Hand-Held Transmitters

Mounting Device Adaptor for Wide-Phones

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

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

Mounting Device for Laptops

10. Measurement Procedures

The measurement procedures are as follows:

<Conducted power measurement>

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

<SAR measurement>

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

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

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

10.1 Spatial Peak SAR Evaluation

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

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

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

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

10.2 Power Reference Measurement

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

10.3 Area Scan

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

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

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

10.4 Zoom Scan

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

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

			≤ 3 GHz	> 3 GHz
Maximum zoom scan spatial resolution: Δx_{Zoom}, Δy_{Zoom}			≤ 2 GHz: ≤ 8 mm 2 – 3 GHz: ≤ 5 mm*	3 – 4 GHz: ≤ 5 mm* 4 – 6 GHz: ≤ 4 mm*
Maximum zoom scan spatial resolution, normal to phantom surface	uniform grid: $\Delta z_{Zoom}(n)$		≤ 5 mm	3 – 4 GHz: ≤ 4 mm 4 – 5 GHz: ≤ 3 mm 5 – 6 GHz: ≤ 2 mm
	graded grid	$\Delta z_{Zoom}(1)$: between 1st two points closest to phantom surface	≤ 4 mm	3 – 4 GHz: ≤ 3 mm 4 – 5 GHz: ≤ 2.5 mm 5 – 6 GHz: ≤ 2 mm
		$\Delta z_{Zoom}(n>1)$: between subsequent points	$\leq 1.5 \cdot \Delta z_{Zoom}(n-1)$	
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 *reported* SAR from the *area scan based 1-g SAR estimation* procedures of KDB 447498 is ≤ 1.4 W/kg, ≤ 8 mm, ≤ 7 mm and ≤ 5 mm zoom scan resolution may be applied, respectively, for 2 GHz to 3 GHz, 3 GHz to 4 GHz and 4 GHz to 6 GHz.

10.5 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.

10.6 Power Drift Monitoring

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

11. Test Equipment List

Manufacturer	Name of Equipment	Type/Model	Serial Number	Calibration	
				Last Cal.	Due Date
SPEAG	750MHz System Validation Kit	D750V3	1087	2019/3/27	2022/3/24
SPEAG	835MHz System Validation Kit	D835V2	4d258	2020/5/7	2023/5/6
SPEAG	1750MHz System Validation Kit	D1750V2	1090	2019/3/27	2022/3/25
SPEAG	1900MHz System Validation Kit	D1900V2	5d170	2019/3/26	2022/3/24
SPEAG	2450MHz System Validation Kit	D2450V2	908	2019/3/25	2022/3/23
SPEAG	2600MHz System Validation Kit	D2600V2	1061	2020/11/26	2023/11/25
SPEAG	3500MHz System Validation Kit	D3500V2	1037	2020/11/25	2023/11/24
SPEAG	3700MHz System Validation Kit	D3700V2	1008	2020/11/25	2023/11/24
SPEAG	3900MHz System Validation Kit	D3900V2	1048	2020/5/14	2023/5/13
SPEAG	5000MHz System Validation Kit	D5GHzV2	1113	2019/9/24	2022/9/22
SPEAG	Data Acquisition Electronics	DAE4	1691	2021/10/4	2022/10/3
SPEAG	Data Acquisition Electronics	DAE4	1649	2021/2/3	2022/2/2
SPEAG	Dosimetric E-Field Probe	EX3DV4	7592	2021/6/24	2022/6/23
SPEAG	Dosimetric E-Field Probe	EX3DV4	3857	2021/11/24	2022/11/23
NCR	NCR	NCR	TP-2074	NCR	NCR
NCR	NCR	NCR	TP-1754	NCR	NCR
Testo	Thermo-Hygrometer	608-H1	1241332102	2021/1/7	2022/1/6
SPEAG	Phone Positioner	N/A	N/A	NCR	NCR
Anritsu	Radio Communication Analyzer	MT8821C	6201432831	2021/4/13	2022/4/12
Agilent	ENA Series Network Analyzer	E5071C	MY46106933	2021/7/31	2022/7/30
SPEAG	Dielectric Probe Kit	DAK-3.5	1138	2021/6/9	2022/6/8
Anritsu	Vector Signal Generator	MG3710A	6201682672	2021/1/7	2022/1/6
Rohde & Schwarz	Power Meter	NRVD	102081	2021/8/12	2022/8/11
Rohde & Schwarz	Power Sensor	NRV-Z5	100538	2021/8/12	2022/8/11
Rohde & Schwarz	Power Sensor	NRV-Z5	100539	2021/8/12	2022/8/11
R&S	CBT BLUETOOTH TESTER	CBT	101246	2021/4/12	2022/4/11
EXA	Spectrum Analyzer	FSV7	101632	2021/1/7	2022/1/6
FLUKE	DIGITAC THERMOMETER	51II	97240029	2021/8/13	2022/8/12
BONN	POWER AMPLIFIER	BLMA 0830-3	087193A	Note 1	
BONN	POWER AMPLIFIER	BLMA 2060-2	087193B	Note 1	
Agilent	Dual Directional Coupler	778D	20500	Note 1	
Agilent	Dual Directional Coupler	11691D	MY48151020	Note 1	
ARRA	Power Divider	A3200-2	N/A	Note 1	
MCL	Attenuation1	BW-S10W5+	N/A	Note 1	
MCL	Attenuation2	BW-S10W5+	N/A	Note 1	
MCL	Attenuation3	BW-S10W5+	N/A	Note 1	

Note:

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

12. System Verification

12.1 Tissue Simulating Liquids

For the measurement of the field distribution inside the SAM phantom with DASY, the phantom must be filled with around 25 liters of homogeneous body tissue simulating liquid. For head SAR testing, the liquid height from the ear reference point (ERP) of the phantom to the liquid top surface is larger than 15 cm, which is shown in Fig. 12.1. 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. 12.2.

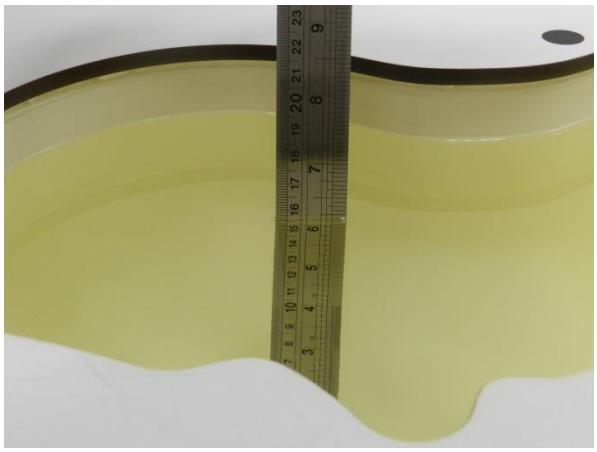


Fig 12.1 Photo of Liquid Height for Head SAR

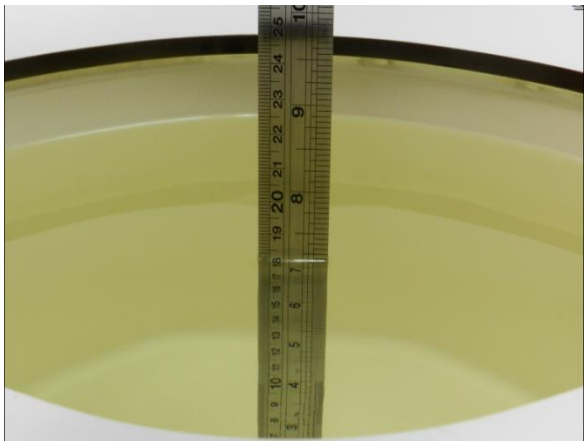


Fig 12.2 Photo of Liquid Height for Body SAR

12.2 Tissue Verification

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

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

Simulating Liquid for 5GHz, Manufactured by SPEAG

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

<Tissue Dielectric Parameter Check Results>

Frequency (MHz)	Tissue Type	Liquid Temp. (℃)	Conductivity (σ)	Permittivity (ε_r)	Conductivity Target (σ)	Permittivity Target (ε_r)	Delta (σ) (%)	Delta (ε_r) (%)	Limit (%)	Date
750	Head	22.6	0.890	43.700	0.89	41.90	0.00	4.30	±5	2021/11/14
835	Head	22.7	0.919	43.300	0.90	41.50	2.11	4.34	±5	2021/11/15
1750	Head	22.5	1.340	41.900	1.37	40.10	-2.19	4.49	±5	2021/11/18
1900	Head	22.5	1.440	41.700	1.40	40.00	2.86	4.25	±5	2021/11/19
2600	Head	22.8	1.940	40.700	1.96	39.00	-1.02	4.36	±5	2021/11/21
3500	Head	22.4	2.850	38.700	2.91	37.90	-2.06	2.11	±5	2021/11/23
3700	Head	22.5	2.980	38.900	3.12	37.70	-4.49	3.18	±5	2021/11/24
3900	Head	22.4	3.220	38.400	3.32	37.50	-3.01	2.40	±5	2021/11/25
750	Head	22.6	0.898	42.300	0.89	41.90	0.90	0.95	±5	2021/11/30
835	Head	22.7	0.928	42.100	0.90	41.50	3.11	1.45	±5	2021/12/1
1750	Head	22.6	1.380	40.000	1.37	40.10	0.73	-0.25	±5	2021/12/2
1900	Head	22.8	1.460	39.800	1.40	40.00	4.29	-0.50	±5	2021/12/3
2600	Head	22.8	1.980	40.600	1.96	39.00	1.02	4.10	±5	2021/12/4
3500	Head	22.9	2.850	38.700	2.91	37.90	-2.06	2.11	±5	2021/12/5
3700	Head	22.7	3.040	38.200	3.12	37.70	-2.56	1.33	±5	2021/12/6
3900	Head	22.9	3.250	37.800	3.32	37.50	-2.11	0.80	±5	2021/12/7
2450	Head	22.6	1.810	38.600	1.80	39.20	0.56	-1.53	±5	2021/11/14
5250	Head	22.7	4.590	36.200	4.71	35.90	-2.55	0.84	±5	2021/11/15
5600	Head	22.7	4.960	35.700	5.07	35.50	-2.17	0.56	±5	2021/11/18
5750	Head	22.8	5.140	35.500	5.22	35.40	-1.53	0.28	±5	2021/11/19
2600	Head	22.8	1.930	39.043	1.96	39.00	-1.53	0.11	±5	2021/12/28

12.3 System Performance Check Results

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

<1g SAR>

Date	Frequency (MHz)	Tissue Type	Input Power (mW)	Dipole S/N	Probe S/N	DAE S/N	Measured 1g SAR (W/kg)	Targeted 1g SAR (W/kg)	Normalized 1g SAR (W/kg)	Deviation (%)
2021/11/14	750	Head	50	1087	7592	1691	0.398	8.36	7.96	-4.78
2021/11/15	835	Head	50	4d258	7592	1691	0.494	9.44	9.88	4.66
2021/11/18	1750	Head	50	1090	7592	1691	1.790	36.40	35.8	-1.65
2021/11/19	1900	Head	50	5d170	7592	1691	2.010	39.00	40.2	3.08
2021/11/21	2600	Head	50	1061	7592	1691	2.610	56.60	52.2	-7.77
2021/11/23	3500	Head	50	1037	7592	1691	3.130	68.00	62.6	-7.94
2021/11/24	3700	Head	50	1008	7592	1691	3.110	67.60	62.2	-7.99
2021/11/25	3900	Head	50	1048	7592	1691	3.170	68.90	63.4	-7.98
2021/11/30	750	Head	50	1087	7592	1691	0.401	8.36	8.02	-4.07
2021/12/1	835	Head	50	4d258	7592	1691	0.480	9.44	9.6	1.69
2021/12/2	1750	Head	50	1090	7592	1691	1.800	36.40	36	-1.10
2021/12/3	1900	Head	50	5d170	7592	1691	2.000	39.00	40	2.56
2021/12/4	2600	Head	50	1061	7592	1691	2.010	43.20	40.2	-6.94
2021/12/5	3500	Head	50	1037	7592	1691	3.050	66.00	61	-7.58
2021/12/6	3700	Head	50	1008	7592	1691	3.170	67.60	63.4	-6.21
2021/12/7	3900	Head	50	1048	7592	1691	3.180	68.90	63.6	-7.69
2021/11/14	2450	Head	50	908	7592	1691	2.520	52.80	50.4	-4.55
2021/11/15	5250	Head	50	1113	7592	1691	3.710	80.50	74.2	-7.83
2021/11/18	5600	Head	50	1113	7592	1691	3.990	83.40	79.8	-4.32
2021/11/19	5750	Head	50	1113	7592	1691	4.150	80.00	83	3.75
2021/12/28	2600	Head	50	1061	3857	1649	2.610	56.60	52.2	-7.77

<10g SAR>

Date	Frequency (MHz)	Tissue Type	Input Power (mW)	Dipole S/N	Probe S/N	DAE S/N	Measured 10g SAR (W/kg)	Targeted 10g SAR (W/kg)	Normalized 10g SAR (W/kg)	Deviation (%)
2021/11/14	750	Head	50	1087	7592	1691	0.262	5.65	5.24	-7.26
2021/11/15	835	Head	50	4d258	7592	1691	0.320	6.13	6.4	4.40
2021/11/18	1750	Head	50	1090	7592	1691	0.950	19.20	19	-1.04
2021/11/19	1900	Head	50	5d170	7592	1691	1.040	20.30	20.8	2.46
2021/11/21	2600	Head	50	1061	7592	1691	1.170	25.10	23.4	-6.77
2021/11/23	3500	Head	50	1037	7592	1691	1.210	25.40	24.2	-4.72
2021/11/24	3700	Head	50	1008	7592	1691	1.140	24.40	22.8	-6.56
2021/11/25	3900	Head	50	1048	7592	1691	1.100	23.70	22	-7.17
2021/11/30	750	Head	50	1087	7592	1691	0.264	5.65	5.28	-6.55
2021/12/1	835	Head	50	4d258	7592	1691	0.312	6.13	6.24	1.79
2021/12/2	1750	Head	50	1090	7592	1691	0.959	19.20	19.18	-0.10
2021/12/3	1900	Head	50	5d170	7592	1691	1.030	20.30	20.6	1.48
2021/12/4	2600	Head	50	1061	7592	1691	1.040	22.60	20.8	-7.96
2021/12/5	3500	Head	50	1037	7592	1691	1.180	25.40	23.6	-7.09
2021/12/6	3700	Head	50	1008	7592	1691	1.190	24.40	23.8	-2.46
2021/12/7	3900	Head	50	1048	7592	1691	1.150	23.70	23	-2.95
2021/11/14	2450	Head	50	908	7592	1691	1.170	24.20	23.4	-3.31
2021/11/15	5250	Head	50	1113	7592	1691	1.120	23.10	22.4	-3.03
2021/11/18	5600	Head	50	1113	7592	1691	1.140	23.80	22.8	-4.20
2021/11/19	5750	Head	50	1113	7592	1691	1.210	22.80	24.2	6.14
2021/12/28	2600	Head	50	1061	3857	1649	1.170	25.10	23.4	-6.77

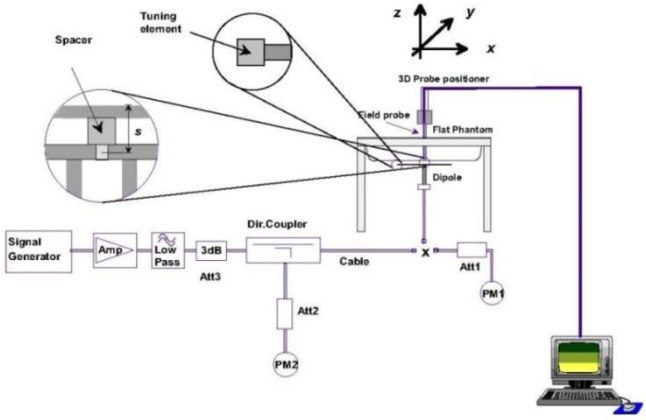


Fig 12.3.1 System Performance Check Setup

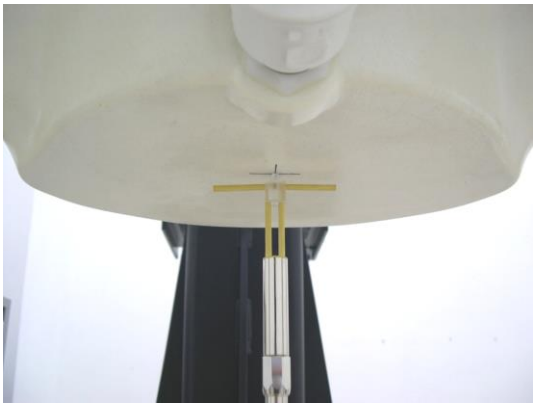


Fig 12.3.2 Setup Photo

13. RF Exposure Positions

13.1 Ear and handset reference point

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

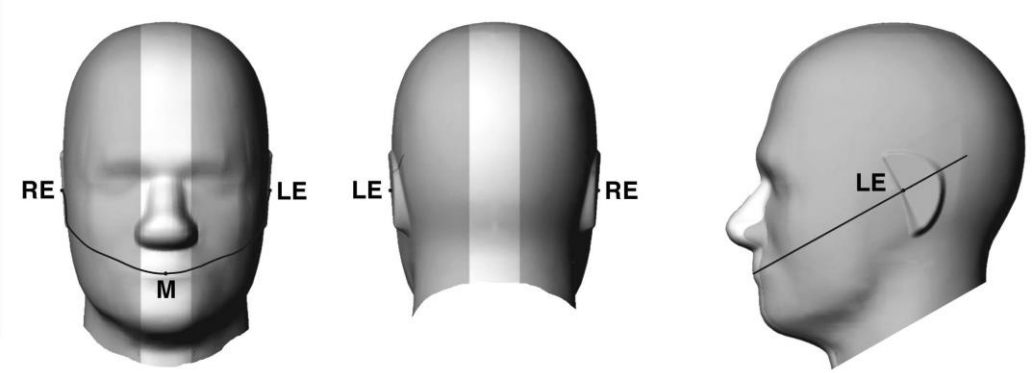


Fig 12.1.1 Front, back, and side views of SAM twin phantom

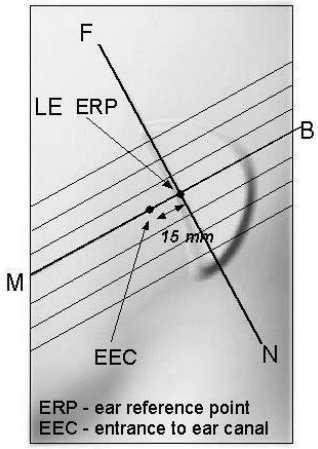


Fig 12.1.2 Close-up side view of phantom showing the ear region.

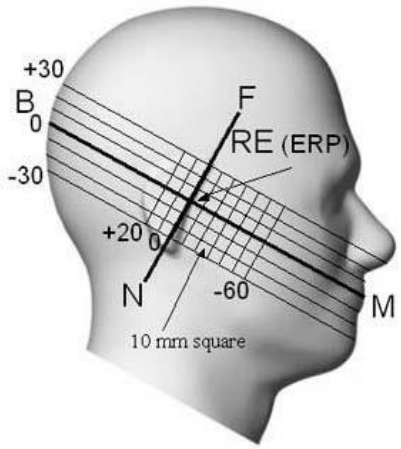


Fig 12.1.3 Side view of the phantom showing relevant markings and seven cross-sectional plane locations

13.2 Definition of the cheek position

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

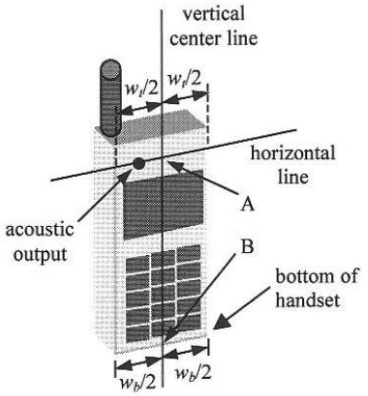


Fig 12.2.1 Handset vertical and horizontal reference lines—"fixed case

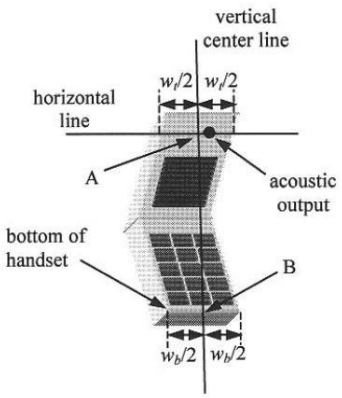


Fig 12.2.2 Handset vertical and horizontal reference lines—"clam-shell case"

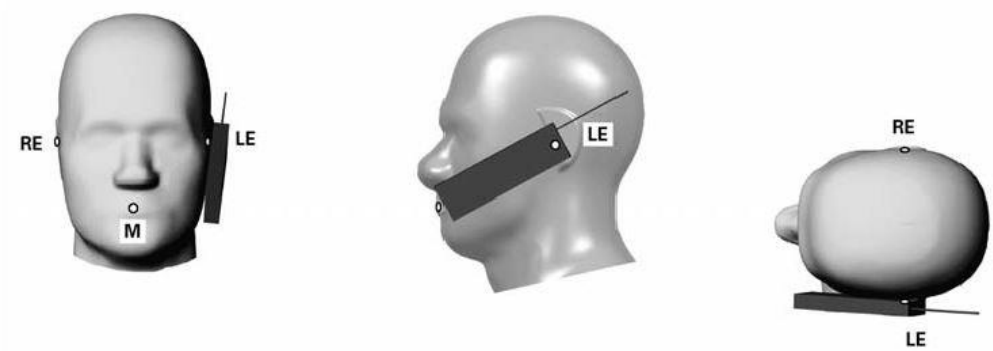


Fig 12.2.3 cheek or touch position. The reference points for the right ear (RE), left ear (LE), and mouth (M), which establish the Reference Plane for handset positioning, are indicated.

13.3 Definition of the tilt position

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

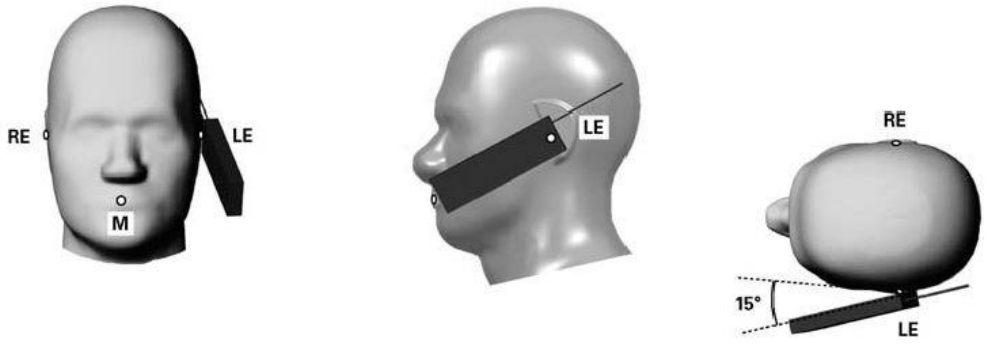


Fig 12.3.1 Tilt position. The reference points for the right ear (RE), left ear (LE), and mouth (M), which define the Reference Plane for handset positioning, are indicated.

13.4 Body Worn Accessory

Body-worn operating configurations are tested with the belt-clips and holsters attached to the device and positioned against a flat phantom in a normal use configuration (see Figure 12.4). Per KDB648474 D04v01r03, body-worn accessory exposure is typically related to voice mode operations when handsets are carried in body-worn accessories. The body-worn accessory procedures in FCC KDB 447498 D01v06 should be used to test for body-worn accessory SAR compliance, without a headset connected to it. This enables the test results for such configuration to be compatible with that required for hotspot mode when the body-worn accessory test separation distance is greater than or equal to that required for hotspot mode, when applicable. When the reported SAR for body-worn accessory, measured without a headset connected to the handset is > 1.2 W/kg, the highest reported SAR configuration for that wireless mode and frequency band should be repeated for that body-worn accessory with a handset attached to the handset.

Accessories for body-worn operation configurations are divided into two categories: those that do not contain metallic components and those that do contain metallic components and those that do contain metallic components. When multiple accessories that do not contain metallic components are supplied with the device, the device is tested with only the accessory that dictates the closest spacing to the body. Then multiple accessories that contain metallic components are test with the device with each accessory. If multiple accessories share an identical metallic component (i.e. the same metallic belt-chip used with different holsters with no other metallic components) only the accessory that dictates the closest spacing to the body is tested.

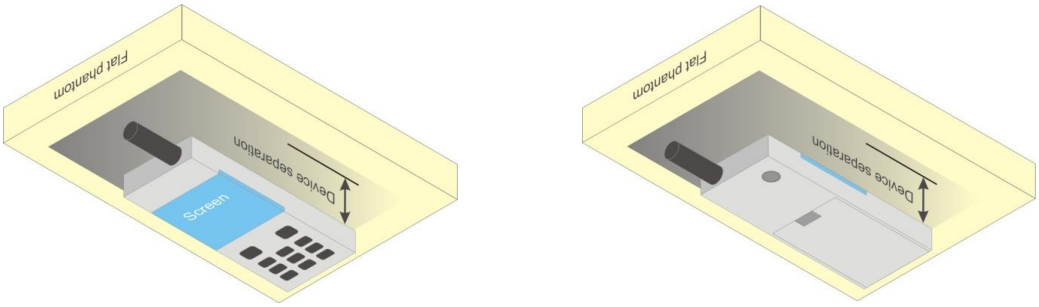


Fig 12.4 Body Worn Position

13.5 Product Specific 10g SAR Exposure

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

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

2. The UMPC mini-tablet procedures must also be applied to test the SAR of all surfaces and edges with an antenna located at ≤ 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.

13.6 Wireless Router

Some battery-operated handsets have the capability to transmit and receive user through simultaneous transmission of WIFI simultaneously with a separate licensed transmitter. The FCC has provided guidance in FCC KDB Publication 941225 D06 v02r01 where SAR test considerations for handsets (L x W ≥ 9 cm x 5 cm) are based on a composite test separation distance of 10mm from the front, back and edges of the device containing transmitting antennas within 2.5cm of their edges, determined form general mixed use conditions for this type of devices. Since the hotspot SAR results may overlap with the body-worn accessory SAR requirements, the more conservative configurations can be considered, thus excluding some body-worn accessory SAR tests.

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

14. Conducted RF Output Power (Unit: dBm)

The detailed conducted power table can refer to Appendix E.

<GSM Conducted Power>

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

<WCDMA Conducted Power>

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

A summary of these settings are illustrated below:

HSDPA Setup Configuration:

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

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

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

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

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

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

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

Setup Configuration

HSUPA Setup Configuration:

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

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

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

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

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

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

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

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

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

Setup Configuration

DC-HSDPA 3GPP release 8 Setup Configuration:

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

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

C.8.1.12 Fixed Reference Channel Definition H-Set 12

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

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

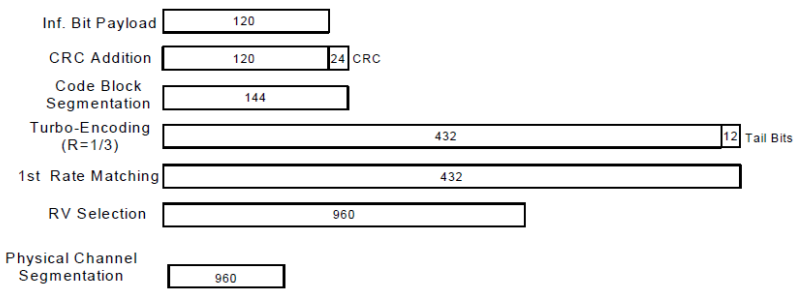


Figure C.8.19: Coding rate for Fixed reference Channel H-Set 12 (QPSK)

Setup Configuration

<WCDMA Conducted Power>

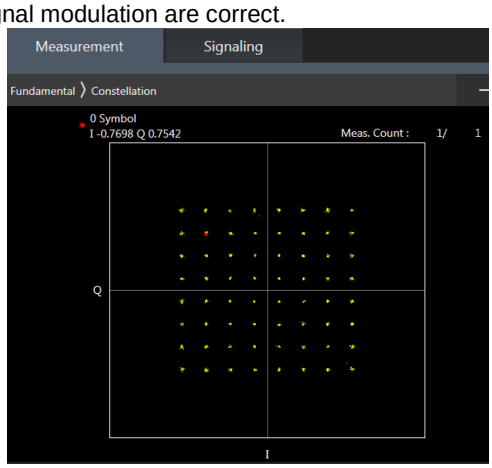
General Note:

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

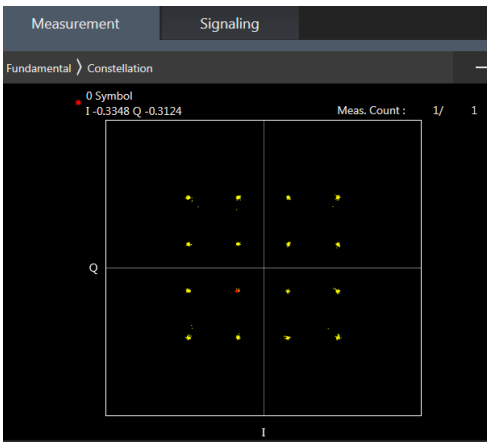
<LTE Conducted Power>

General Note:

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



64QAM



16QAM

<TDD LTE SAR Measurement>

TDD LTE configuration setup for SAR measurement

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

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

b. "special subframe S" contains both uplink and downlink transmissions, it has been taken into consideration to determine the transmission duty factor according to the worst case uplink and downlink cyclic prefix requirements for UpPTS

c. Establishing connections with base station simulators ensure a consistent means for testing SAR and recommended for evaluating SAR. The Anritsu MT8820C (firmware: #22.52#004) was used for LTE output power measurements and SAR testing.

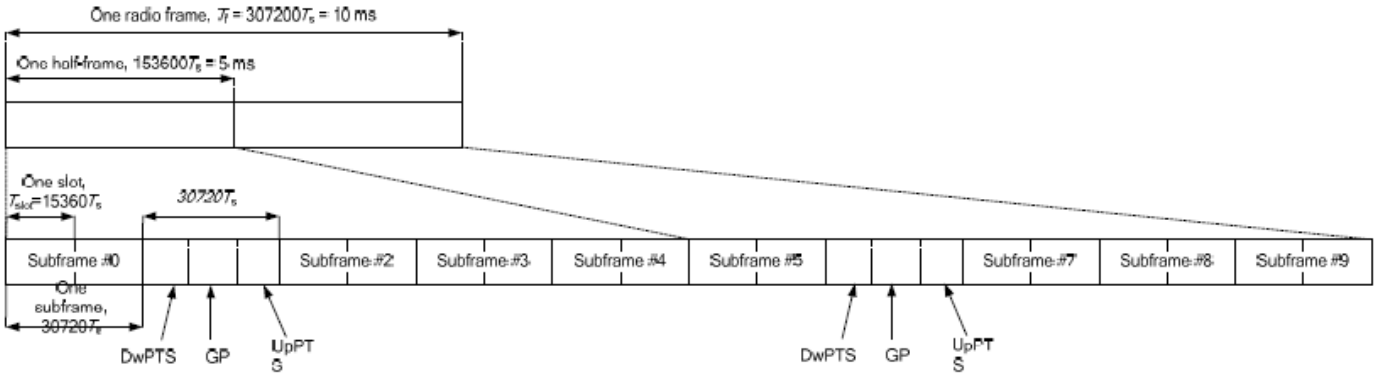


Figure 4.2-1: Frame structure type 2 (for 5 ms switch-point periodicity).

Table 4.2-2: Uplink-downlink configurations.

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

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

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

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

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

The highest duty factor is resulted from:

i. Uplink-downlink configuration: 0. In a half-frame consisted of 5 subfames, uplink operation is in 3 uplink subframes and 1 special subframe.

ii. special subframe configuration: 5-9 for normal cyclic prefix in downlink, 4-7 for extended cyclic prefix in downlink

iii. for special subframe with extended cyclic prefix in uplink, the total uplink duty factor in one half-frame is: (3+0.167)/5 = 63.3%

iv. for special subframe with normal cyclic prefix in uplink, the total uplink duty factor in one half-frame is: (3+0.143)/5 = 62.9%

v. For TDD LTE SAR measurement, the duty cycle 1:1.59 (62.9 %) was used perform testing and considering the theoretical duty cycle of 63.3% for extended cyclic prefix in the uplink, and the theoretical duty cycle of 62.9% for normal cyclic prefix in uplink, a scaling factor of extended cyclic prefix 63.3%/62.9% = 1.006 is applied to scale-up the measured SAR result. The scaled TDD LTE SAR = measured SAR (W/kg)* Tune-up Scaling Factor* scaling factor for extended cyclic prefix.

<LTE Carrier Aggregation>

General Note:

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

2CC Downlink Carrier Aggregation		3CC Downlink Carrier Aggregation		4CC Downlink Carrier Aggregation	
Number	Combination	Number	Combination	Number	Combination
1	CA_2C	1	CA_2A-4A-5A	1	CA_7C-66A-66A
2	CA_2A-4A	2	CA_2A-4A-7A		
3	CA_2A-5A	3	CA_2A-7A-7A		
4	CA_2A-7A	4	CA_2A-7C		
5	CA_4A-5A	5	CA_4A-7C		
6	CA_4A-7A	6	CA_5A-7A-7A		
7	CA_5A-7A	7	CA_5A-7C		
8	CA_5A-66A	8	CA_5A-7A-66A		
9	CA_7A-7A	9	CA_5A-66A-66A		
10	CA_7C	10	CA_7A-66A-66A		
11	CA_7A-42A	11	CA_12A-66A-66A		
12	CA_12A-66A	12	CA_7C-66A		
13	CA_38C	13	CA_41A-41A-41A		
14	CA_41A-41A				
15	CA_41C				
16	CA_66A-66A				
17	CA_7A-66A				
18	CA_2A-66A				
19	CA_42C				
20	CA_5A-41A				
21	CA_4A-48A				
22	CA_5A-48A				
23	CA_12A-48A				
24	CA_41A-48A				
25	CA_48A-48A				
26	CA_48A-66A				
27	CA_66B				
28	CA_66C				

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.

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

LTE 4x4 MIMO (Downlink)

This device supports downlink 4x4 MIMO operations for LTE Bands 4/7/66/38/41/42 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	WWAN Band
	LTE Band: B4/B7/B38/B41/B42/48/B66

LTE Carrier Aggregation Conducted Power (Uplink)

<Intra-band>

2CC Uplink Carrier Aggregation	
Number	Combination
1	7C
2	38C
3	42C

General Note:

i. The device supports intra-band uplink carrier aggregation for LTE B7/B38 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 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. According 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.

v. Additional SAR measurement for LTE UL CA whit 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 uplink carrier aggregation consideration>

LTE Uplink CA	2CC Uplink Carrier Aggregation	
Combination	Band&Ant No.	Band&Ant No.
4A-7A	LTE B4: Ant0/Ant3/Ant4/Ant5	LTE B7: Ant0/Ant3/Ant4/Ant5

General Note:

1. The single carrier of inter band CA uplink power level is the same as Non-CA standalone LTE power level.
2. The product implements Qualcomm Smart Transmit feature which controls the instantaneous transmitting power for WWAN transmitter to ensure the product in compliance with FCC RF exposure limit over a defined time window, for SAR (transmit frequency ≤ 6GHz). To control and manage transmitting power in real time and to ensure at all times the time-averaged RF exposure is compliant to the regulation requirement.
3. For LTE inter band CA mode, Qualcomm Smart Transmit algorithm in WWAN adds directly the time-averaged RF exposure between two LTE bands. Smart Transmit algorithm controls the total RF exposure base on LTE inter CA bands to not exceed FCC limit. In Part 1 Report, simultaneous transmission compliance was evaluated with other Radios (WLAN or BT) using standalone LTE SAR mode.

5G NR Output Power (Unit: dBm)

General Note:

1. 5G NR n5, n7, n66, n78 supports NSA operation.
2. 5G NR n5, n7, n66, n38, n41, n77, n78 supports SA operation.
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-QPSK and the reported SAR for the DFT-QPSK configuration is ≤ 1.45 W/kg; CP-OFDM testing is not required.
   b. For DFT-OFDM output power measurement reduction, according to 38.101 maximum power reduction for power class2 and 3, for 16QAM/64 QAM/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 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
   d. 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure
   e. 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
   f. PI/2 BPSK/16QAM/64QAM/256QAM output powers according to 3GPP MPR will not ½ dB higher than the same configuration in QPSK, also reported SAR for the QPSK configuration is less than 1.45 W/kg, PI/2 BPSK/16QAM/64QAM/256QAM AM 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. Due to test setup limitations, SAR testing for NR was performed using Factory Test Mode software to establish the connection and perform SAR with 100% transmission.
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. NSA and SA mode should perform SAR separately. For the maximum power of NSA mode is the same as SA total power level, so SA SAR can represent NSA mode SAR.
7. 5GNR NSA mode, the power level is the same as 5GNR SA mode, so 5GNR NSA mode and SA mode power table only show one time.
8. 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.
9. 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.
10. 5G NR n77/n78 supports MIMO mode only limit to SA mode. For per chain power of MIMO mode power level is SISO mode power power level(standalone SA mode).
11. 5GNR n78 supports HPUE, HPUE power and SAR testing performed separately.
12. 5GNR n78 HUPE with higher power, 5GNR n78 HUPE SAR can represent power class 3 level SAR.

<3GPP 38.101 MPR for EN-DC>

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

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

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

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

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

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

ENDC List	LTE Ant No.	NR Ant No.
DC_7A-N5A	ANT0&ANT3&ANT4&ANT5	ANT0&ANT1
DC_5A-N66A	ANT0&ANT1	ANT0&ANT3&ANT4&ANT5
DC_12A-N66A	ANT0&ANT1	ANT0&ANT3&ANT4&ANT5
DC_7A-N66A	ANT3&ANT5	ANT0&ANT4
DC_5A-N7A	ANT0&ANT1	ANT0&ANT3&ANT4&ANT5
DC_66A-N7A	ANT3&ANT5	ANT0&ANT4
DC_7A-N78A	ANT0&ANT3&ANT4&ANT5	ANT10&ANT11&ANT12&ANT13
DC_66A-N78A	ANT0&ANT3&ANT4&ANT5	ANT10&ANT11&ANT12&ANT13
DC_38A-N78A	ANT0&ANT3&ANT4&ANT5	ANT10&ANT11&ANT12&ANT13
DC_2A-N78A	ANT3&ANT4	ANT10&ANT11&ANT12&ANT13
DC_5A-N78A	ANT0&ANT1	ANT10&ANT11&ANT12&ANT13
DC_41A-N78A	ANT0&ANT3&ANT4&ANT5	ANT10&ANT11&ANT12&ANT13

UL MIMO combination:

NR UL MIMO	TX Ant	TX Ant
FR1 n77	Ant10/Ant11/Ant12/Ant13	Ant10/Ant11/Ant12/Ant13
FR1 n78	Ant10/Ant11/Ant12/Ant13	Ant10/Ant11/Ant12/Ant13

<WLAN Conducted Power>

General Note:

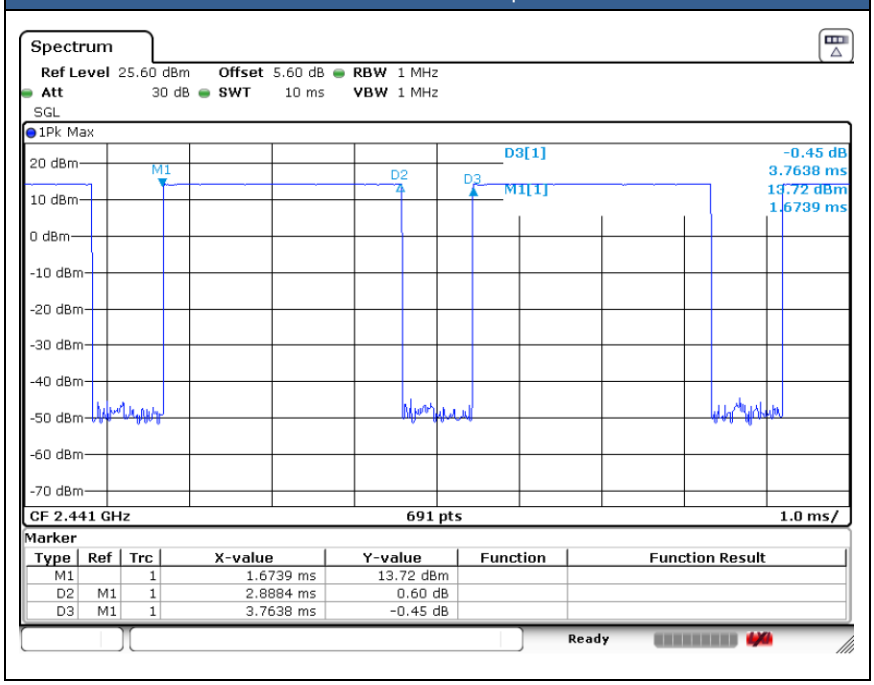
1. Per KDB 248227 D01v02r02, SAR test reduction is determined according to 802.11 transmission mode configurations and certain exposure conditions with multiple test positions. In the 2.4 GHz band, separate SAR procedures are applied to DSSS and OFDM configurations to simplify DSSS test requirements.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

<2.4GHz Bluetooth>

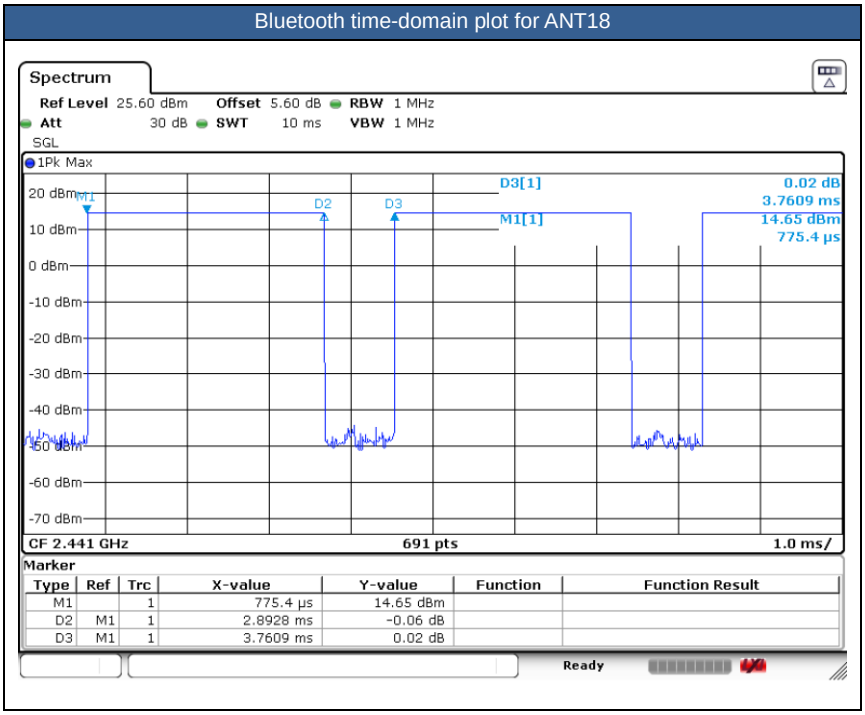
General Note:

1. For 2.4GHz Bluetooth SAR testing was selected 1Mbps, due to its highest average power.
2. The Bluetooth duty cycle is 76.74 % for ANT16, and 76.92 % for ANT18 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

Bluetooth time-domain plot for ANT16



Bluetooth time-domain plot for ANT18



15. Antenna Location

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

16. SAR Test Results

General Note:

1. Per KDB 447498 D01v06, the reported SAR is the measured SAR value adjusted for maximum tune-up tolerance.
   a. Tune-up scaling Factor = tune-up limit power (mW) / EUT RF power (mW), where tune-up limit is the maximum rated power among all production units.
   b. For SAR testing of BT/WLAN signal with non-100% duty cycle, the measured SAR is scaled-up by the duty cycle scaling factor which is equal to "1/(duty cycle)"
   c. For WWAN: Reported SAR(W/kg)= Measured SAR(W/kg)*Tune-up Scaling Factor
   d. For BT/WLAN: Reported SAR(W/kg)= Measured SAR(W/kg)* Duty Cycle scaling factor * Tune-up scaling factor
   e. For TDD LTE SAR measurement, the duty cycle 1:1.59 (62.9 %) was used perform testing and considering the theoretical duty cycle of 63.3% for extended cyclic prefix in the uplink, and the theoretical duty cycle of 62.9% for normal cyclic prefix in uplink, a scaling factor of extended cyclic prefix 63.3%/62.9% = 1.006 is applied to scale-up the measured SAR result. The Reported TDD LTE SAR = measured SAR (W/kg)* Tune-up Scaling Factor* scaling factor for extended cyclic prefix.
2. Per KDB 447498 D01v06, for each exposure position, testing of other required channels within the operating mode of a frequency band is not required when the *reported* 1-g or 10-g SAR for the mid-band or highest output power channel is:
   - ≤ 0.8 W/kg or 2.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≤ 100 MHz
   - ≤ 0.6 W/kg or 1.5 W/kg, for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz
   - ≤ 0.4 W/kg or 1.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≥ 200 MHz
3. Per KDB 865664 D01v01r04, for each frequency band, repeated SAR measurement is required when the measured SAR is ≥ 0.8W/kg. Per KDB 865664 D01v01r04, if the extremity repeated SAR is necessary, the same procedures should be adapted for measurements according to extremity and occupational exposure limits by applying a factor of 2.5 for extremity exposure and a factor of 5 for occupational exposure to the corresponding SAR thresholds.
4. 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.
5. The device implements the power management and proximity sensor /receiver detection/hotspot mode for SAR compliance at different exposure conditions (head, body-worn, hotspot, extremity) and the Qualcomm smart transmit will manage to ensure the power level not exceeding the associated power table. Details about the power management decision and sensor detection are provided in the operational description. And the device will invoke corresponding work scenarios power level base on frequency bands/antennas, which can refer to power table at appendix E.
6. For 2.4GHz, 5GHz WLAN when transmit simultaneous with WWAN, power reduction will be activated to head, hotspot.
7. For 5G NR test, using FTM (Factory Test Mode) to perform SAR with default 100% transmission.
8. 5G NR n77/n78 supports MIMO mode only limit to SA mode.
9. 5GNR n78 supports HPUE, HPUE power and SAR testing performed separately.
10. 5GNR n78 HUPE with higher power, 5GNR n78 HUPE SAR can represent power class 3 level SAR.
11. NSA and SA mode should perform SAR separately. For the maximum power of NSA mode is the same as SA total power level, so SA SAR can represent NSA mode SAR.
12. 5GNR NSA mode, the power level is the same as 5GNR SA mode, so 5GNR NSA mode and SA mode power table only show one time.
13. 5G NR supports CP-OFDM and DFT-s-OFDM modulation, for DFT-s-OFDM power is higher than CP-OFDM, so only show DFT-s-OFDM power table and chose DFT-s-OFDM to perform SAR testing.
14. For DFT-s-OFDM and CP-OFDM output power measurement reduction, according to 38.101 maximum power reduction for the CP-OFDM mode will not higher than DFT-s-OFDM mode, therefore, CP-OFDM measurement is unnecessary..
15. 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, including tolerance, allowed for phablet modes to compare with the 1.2 W/kg SAR test reduction threshold,
    a. WLAN 5.3/5.5GHz tested the product specific 10g SAR since it has no hotspot mode.
    b. 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.

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 ≤ ¼ dB higher than the primary mode, SAR measurement is not required for the secondary mode.

WCDMA Note:

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

LTE Note:

1. Per KDB 941225 D05v02r05, start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel.
2. Per KDB 941225 D05v02r05, 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure.
3. Per KDB 941225 D05v02r05, for QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested.
4. Per KDB 941225 D05v02r05, 16QAM/64QAM output power for each RB allocation configuration is > not ½ dB higher than the same configuration in QPSK and the reported SAR for the QPSK configuration is ≤ 1.45 W/kg; Per KDB 941225 D05v02r05, 16QAM/64QAM SAR testing is not required.
5. Per KDB 941225 D05v02r05, smaller bandwidth output power for each RB allocation configuration is > not ½ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg; Per KDB 941225 D05v02r05, smaller bandwidth SAR testing is not required.
6. 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 B2 / B4 / B5 / B17 / B38 SAR test was covered by B25 / B66 / B26 / B12 / B41; according to April 2015 TCB workshop, SAR test for overlapping LTE bands can be reduced if
   a. the maximum output power, including tolerance, for the smaller band is ≤ the larger band to qualify for the SAR test exclusion
   b. the channel bandwidth and other operating parameters for the smaller band are fully supported by the larger band

5G NR Note:

1. 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 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.
   b. 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure
   c. 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.
   d. PI/2 BPSK/16QAM/64QAM/256QAM output powers according to 3GPP MPR will not ½ dB higher than the same configuration in QPSK, also reported SAR for the QPSK configuration is less than 1.45 W/kg, PI/2 BPSK/16QAM /64QAM/256QAM SAR testing are not required.
   e. 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
   f. For 5G FR1 n5/n7/n41/n66/n77 the maximum bandwidth does not support three non-overlapping channels, 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.

WLAN Note:

1. Per KDB 248227 D01v02r02, for 2.4GHz 802.11g/n SAR testing is not required when the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg.
2. Per KDB 248227 D01v02r02, U-NII-1 SAR testing is not required when the U-NII-2A band highest reported SAR for a test configuration is ≤ 1.2 W/kg, SAR is not required for U-NII-1 band.
3. When the reported SAR of the test position is > 0.4 W/kg, SAR is repeated for the 802.11 transmission mode configuration tested in the initial test position to measure the subsequent next closet/smallest test separation distance and maximum coupling test position on the highest maximum output power channel, until the report SAR is ≤ 0.8 W/kg or all required test position are tested.
4. For all positions / configurations, when the reported SAR is > 0.8 W/kg, SAR is measured for these test positions / configurations on the subsequent next highest measured output power channel(s) until the reported SAR is ≤ 1.2 W/kg or all required channels are tested.
5. During SAR testing the WLAN transmission was verified using a spectrum analyzer.
6. For full RU and partial tone size output power measurement, after verification for the partial tone size mode power level will not higher than full tone size power level, so chose full tone power to be measured in this report.
7. SISO and MIMO all supported by WLAN, for SISO mode power is less than per chain power of MIMO mode. For WLAN SISO & MIMO mode, the whole testing has assessed only MIMO mode by referring to their higher conducted power, so only chose MIMO power to perform SAR testing.
8. 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 SISO antenna respectively to calculate sum of the power for MIMO mode.
9. Only chose MIMO power to perform SAR testing.

DSI status description:

The device has the following DSI state which used at different exposure condition.

This WWAN bands enabled with Qualcomm Smart Transmit feature which located at chapter 5. The default power is Pmax power, When Plimit power higher than Pmax power, the output power will be limited at Pmax, and so the SAR will use Pmax power to do the testing.

Exposure Condition	DSI
Head SAR	DSI 1
Body worn Mode SAR	DSI 4
Hotspot Mode SAR	DSI 5
Extremity(Handheld) SAR	DSI 2/3

16.1 Head 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)
750 MHz																	
	LTE Band 12	10M	QPSK	1	0	Left Cheek	0mm	Ant 0	DSI 1	23095	707.5	24.37	25.50	1.297	0.03	0.109	0.141
	LTE Band 12	10M	QPSK	25	0	Left Cheek	0mm	Ant 0	DSI 1	23095	707.5	23.37	24.50	1.297	0.14	0.090	0.117
	LTE Band 12	10M	QPSK	1	0	Left Tilted	0mm	Ant 0	DSI 1	23095	707.5	24.37	25.50	1.297	0.05	0.061	0.079
	LTE Band 12	10M	QPSK	25	0	Left Tilted	0mm	Ant 0	DSI 1	23095	707.5	23.37	24.50	1.297	0.03	0.046	0.060
	LTE Band 12	10M	QPSK	1	0	Right Cheek	0mm	Ant 0	DSI 1	23095	707.5	24.37	25.50	1.297	0.02	0.099	0.128
	LTE Band 12	10M	QPSK	25	0	Right Cheek	0mm	Ant 0	DSI 1	23095	707.5	23.37	24.50	1.297	0.01	0.082	0.106
	LTE Band 12	10M	QPSK	1	0	Right Tilted	0mm	Ant 0	DSI 1	23095	707.5	24.37	25.50	1.297	-0.05	0.078	0.101
	LTE Band 12	10M	QPSK	25	0	Right Tilted	0mm	Ant 0	DSI 1	23095	707.5	23.37	24.50	1.297	0.03	0.063	0.082
	LTE Band 12	10M	QPSK	1	0	Left Cheek	0mm	Ant 1	DSI 1	23095	707.5	21.55	22.70	1.303	0.1	0.408	0.532
01	LTE Band 12	10M	QPSK	25	0	Left Cheek	0mm	Ant 1	DSI 1	23095	707.5	21.43	22.70	1.340	0.14	0.409	**0.548**
	LTE Band 12	10M	QPSK	1	0	Left Tilted	0mm	Ant 1	DSI 1	23095	707.5	21.55	22.70	1.303	-0.09	0.062	0.081
	LTE Band 12	10M	QPSK	25	0	Left Tilted	0mm	Ant 1	DSI 1	23095	707.5	21.43	22.70	1.340	0.05	0.060	0.080
	LTE Band 12	10M	QPSK	1	0	Right Cheek	0mm	Ant 1	DSI 1	23095	707.5	21.55	22.70	1.303	0.12	0.234	0.305
	LTE Band 12	10M	QPSK	25	0	Right Cheek	0mm	Ant 1	DSI 1	23095	707.5	21.43	22.70	1.340	0.14	0.239	0.320
	LTE Band 12	10M	QPSK	1	0	Right Tilted	0mm	Ant 1	DSI 1	23095	707.5	21.55	22.70	1.303	-0.13	0.047	0.061
	LTE Band 12	10M	QPSK	25	0	Right Tilted	0mm	Ant 1	DSI 1	23095	707.5	21.43	22.70	1.340	0.18	0.047	0.063
	LTE Band 13	10M	QPSK	1	0	Left Cheek	0mm	Ant 0	DSI 1	23230	782	24.36	25.50	1.300	0.17	0.101	0.131
	LTE Band 13	10M	QPSK	25	0	Left Cheek	0mm	Ant 0	DSI 1	23230	782	23.45	24.50	1.274	0.14	0.080	0.102
	LTE Band 13	10M	QPSK	1	0	Left Tilted	0mm	Ant 0	DSI 1	23230	782	24.36	25.50	1.300	-0.16	0.056	0.073
	LTE Band 13	10M	QPSK	25	0	Left Tilted	0mm	Ant 0	DSI 1	23230	782	23.45	24.50	1.274	0.12	0.042	0.053
	LTE Band 13	10M	QPSK	1	0	Right Cheek	0mm	Ant 0	DSI 1	23230	782	24.36	25.50	1.300	-0.16	0.102	0.133
	LTE Band 13	10M	QPSK	25	0	Right Cheek	0mm	Ant 0	DSI 1	23230	782	23.45	24.50	1.274	0.13	0.079	0.101
	LTE Band 13	10M	QPSK	1	0	Right Tilted	0mm	Ant 0	DSI 1	23230	782	24.36	25.50	1.300	0.15	0.071	0.092
	LTE Band 13	10M	QPSK	25	0	Right Tilted	0mm	Ant 0	DSI 1	23230	782	23.45	24.50	1.274	-0.12	0.058	0.074
	LTE Band 13	10M	QPSK	1	0	Left Cheek	0mm	Ant 1	DSI 1	23230	782	20.52	21.70	1.312	0.05	0.413	0.542
02	LTE Band 13	10M	QPSK	25	0	Left Cheek	0mm	Ant 1	DSI 1	23230	782	20.25	21.70	1.396	0.06	0.406	**0.567**
	LTE Band 13	10M	QPSK	1	0	Left Tilted	0mm	Ant 1	DSI 1	23230	782	20.52	21.70	1.312	0.11	0.066	0.087
	LTE Band 13	10M	QPSK	25	0	Left Tilted	0mm	Ant 1	DSI 1	23230	782	20.25	21.70	1.396	0.16	0.064	0.089
	LTE Band 13	10M	QPSK	1	0	Right Cheek	0mm	Ant 1	DSI 1	23230	782	20.52	21.70	1.312	-0.18	0.234	0.307
	LTE Band 13	10M	QPSK	25	0	Right Cheek	0mm	Ant 1	DSI 1	23230	782	20.25	21.70	1.396	0.06	0.227	0.317
	LTE Band 13	10M	QPSK	1	0	Right Tilted	0mm	Ant 1	DSI 1	23230	782	20.52	21.70	1.312	0.04	0.046	0.060
	LTE Band 13	10M	QPSK	25	0	Right Tilted	0mm	Ant 1	DSI 1	23230	782	20.25	21.70	1.396	0.11	0.048	0.067

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)
835 MHz																		
	GSM850	-	-	-	-	GPRS 4 Tx slots	Left Cheek	0mm	Ant 0	DSI 1	189	836.4	25.88	27.50	1.452	0.15	0.091	0.132
	GSM850	-	-	-	-	GPRS 4 Tx slots	Left Tilted	0mm	Ant 0	DSI 1	189	836.4	25.88	27.50	1.452	0.11	0.046	0.067
	GSM850	-	-	-	-	GPRS 4 Tx slots	Right Cheek	0mm	Ant 0	DSI 1	189	836.4	25.88	27.50	1.452	0.13	0.115	0.167
	GSM850	-	-	-	-	GPRS 4 Tx slots	Right Tilted	0mm	Ant 0	DSI 1	189	836.4	25.88	27.50	1.452	0.02	0.063	0.091
03	GSM850	-	-	-	-	GPRS 4 Tx slots	Left Cheek	0mm	Ant 1	DSI 1	189	836.4	24.21	25.00	1.199	0.1	0.404	**0.485**
	GSM850	-	-	-	-	GPRS 4 Tx slots	Left Tilted	0mm	Ant 1	DSI 1	189	836.4	24.21	25.00	1.199	0.13	0.054	0.065
	GSM850	-	-	-	-	GPRS 4 Tx slots	Right Cheek	0mm	Ant 1	DSI 1	189	836.4	24.21	25.00	1.199	0.02	0.230	0.276
	GSM850	-	-	-	-	GPRS 4 Tx slots	Right Tilted	0mm	Ant 1	DSI 1	189	836.4	24.21	25.00	1.199	-0.05	0.043	0.052
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 0	DSI 1	4182	836.4	23.92	25.00	1.282	0.02	0.127	0.163
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 0	DSI 1	4182	836.4	23.92	25.00	1.282	0.03	0.065	0.083
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 0	DSI 1	4182	836.4	23.92	25.00	1.282	0.09	0.126	0.162
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 0	DSI 1	4182	836.4	23.92	25.00	1.282	-0.08	0.080	0.103
04	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 1	DSI 1	4182	836.4	21.27	22.70	1.390	0.06	0.484	**0.673**
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 1	DSI 1	4182	836.4	21.27	22.70	1.390	-0.07	0.058	0.081
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 1	DSI 1	4182	836.4	21.27	22.70	1.390	0.06	0.274	0.381
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 1	DSI 1	4182	836.4	21.27	22.70	1.390	-0.02	0.047	0.065
	LTE Band 26	15M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	DSI 1	26865	831.5	24.48	25.50	1.265	0.02	0.071	0.090
	LTE Band 26	15M	QPSK	36	0	-	Left Cheek	0mm	Ant 0	DSI 1	26865	831.5	23.42	24.50	1.282	0.04	0.055	0.071
	LTE Band 26	15M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	DSI 1	26865	831.5	24.48	25.50	1.265	0.06	0.037	0.047
	LTE Band 26	15M	QPSK	36	0	-	Left Tilted	0mm	Ant 0	DSI 1	26865	831.5	23.42	24.50	1.282	0.09	0.029	0.037
	LTE Band 26	15M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	DSI 1	26865	831.5	24.48	25.50	1.265	0.1	0.081	0.102
	LTE Band 26	15M	QPSK	36	0	-	Right Cheek	0mm	Ant 0	DSI 1	26865	831.5	23.42	24.50	1.282	0.06	0.062	0.080
	LTE Band 26	15M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	DSI 1	26865	831.5	24.48	25.50	1.265	0.12	0.050	0.063
	LTE Band 26	15M	QPSK	36	0	-	Right Tilted	0mm	Ant 0	DSI 1	26865	831.5	23.42	24.50	1.282	0.14	0.040	0.051
	LTE Band 26	15M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	DSI 1	26865	831.5	21.38	22.70	1.355	0.17	0.195	0.264
	LTE Band 26	15M	QPSK	36	0	-	Left Cheek	0mm	Ant 1	DSI 1	26865	831.5	21.32	22.70	1.374	0.06	0.192	0.264
	LTE Band 26	15M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	DSI 1	26865	831.5	21.38	22.70	1.355	0.05	0.026	0.035
	LTE Band 26	15M	QPSK	36	0	-	Left Tilted	0mm	Ant 1	DSI 1	26865	831.5	21.32	22.70	1.374	0.04	0.026	0.036
05	LTE Band 26	15M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 1	26865	831.5	21.38	22.70	1.355	0.09	0.281	**0.381**
	LTE Band 26	15M	QPSK	36	0	-	Right Cheek	0mm	Ant 1	DSI 1	26865	831.5	21.32	22.70	1.374	-0.08	0.273	0.375
	LTE Band 26	15M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	DSI 1	26865	831.5	21.38	22.70	1.355	0.03	0.056	0.076
	LTE Band 26	15M	QPSK	36	0	-	Right Tilted	0mm	Ant 1	DSI 1	26865	831.5	21.32	22.70	1.374	0.07	0.053	0.073
	FR1 n5	20M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 0	DSI 1	167300	836.5	24.46	25.50	1.271	0.05	0.135	0.172
	FR1 n5	20M	QPSK	50	28	DFT-15	Left Cheek	0mm	Ant 0	DSI 1	167300	836.5	24.45	25.50	1.274	0.06	0.133	0.169
	FR1 n5	20M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 0	DSI 1	167300	836.5	24.46	25.50	1.271	0.01	0.068	0.086
	FR1 n5	20M	QPSK	50	28	DFT-15	Left Tilted	0mm	Ant 0	DSI 1	167300	836.5	24.45	25.50	1.274	0.04	0.066	0.084
	FR1 n5	20M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 0	DSI 1	167300	836.5	24.46	25.50	1.271	0.11	0.160	0.203
	FR1 n5	20M	QPSK	50	28	DFT-15	Right Cheek	0mm	Ant 0	DSI 1	167300	836.5	24.45	25.50	1.274	-0.15	0.153	0.195
	FR1 n5	20M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 0	DSI 1	167300	836.5	24.46	25.50	1.271	0.06	0.093	0.118
	FR1 n5	20M	QPSK	50	28	DFT-15	Right Tilted	0mm	Ant 0	DSI 1	167300	836.5	24.45	25.50	1.274	0.06	0.094	0.120
	FR1 n5	20M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 1	DSI 1	167300	836.5	21.41	22.70	1.346	0.11	0.366	0.493
06	FR1 n5	20M	QPSK	50	28	DFT-15	Left Cheek	0mm	Ant 1	DSI 1	167300	836.5	21.21	22.70	1.409	0.02	0.477	**0.672**
	FR1 n5	20M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 1	DSI 1	167300	836.5	21.41	22.70	1.346	0.03	0.043	0.058
	FR1 n5	20M	QPSK	50	28	DFT-15	Left Tilted	0mm	Ant 1	DSI 1	167300	836.5	21.21	22.70	1.409	0.07	0.063	0.089
	FR1 n5	20M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 1	DSI 1	167300	836.5	21.41	22.70	1.346	0.04	0.210	0.283
	FR1 n5	20M	QPSK	50	28	DFT-15	Right Cheek	0mm	Ant 1	DSI 1	167300	836.5	21.21	22.70	1.409	0.08	0.268	0.378
	FR1 n5	20M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 1	DSI 1	167300	836.5	21.41	22.70	1.346	-0.12	0.043	0.058
	FR1 n5	20M	QPSK	50	28	DFT-15	Right Tilted	0mm	Ant 1	DSI 1	167300	836.5	21.21	22.70	1.409	0.06	0.050	0.070

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)
								1750 MHz										
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 3	DSI 1	1413	1732.6	24.05	25.00	1.245	0.03	0.145	0.180
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 3	DSI 1	1413	1732.6	24.05	25.00	1.245	0.02	0.070	0.087
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 3	DSI 1	1413	1732.6	24.05	25.00	1.245	0.16	0.146	0.182
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 3	DSI 1	1413	1732.6	24.05	25.00	1.245	0.12	0.047	0.058
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Cheek	10mm	Ant 4	DSI 1	1413	1732.6	16.58	18.00	1.387	-0.15	0.197	0.273
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 4	DSI 1	1413	1732.6	16.58	18.00	1.387	-0.02	0.230	0.319
07	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 4	DSI 1	1413	1732.6	16.58	18.00	1.387	0.03	0.405	**0.562**
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 4	DSI 1	1413	1732.6	16.58	18.00	1.387	0.03	0.369	0.512
	LTE Band 66	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	DSI 1	132322	1745	21.49	23.00	1.416	0.12	0.023	0.033
	LTE Band 66	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 0	DSI 1	132322	1745	20.41	22.00	1.442	0.12	0.035	0.050
	LTE Band 66	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	DSI 1	132322	1745	21.49	23.00	1.416	0.03	0.002	0.003
	LTE Band 66	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 0	DSI 1	132322	1745	20.41	22.00	1.442	0.14	0.010	0.014
	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	DSI 1	132322	1745	21.49	23.00	1.416	0.16	0.000	0.000
	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 0	DSI 1	132322	1745	20.41	22.00	1.442	0.12	0.000	0.000
	LTE Band 66	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	DSI 1	132322	1745	21.49	23.00	1.416	0.03	0.005	0.007
	LTE Band 66	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 0	DSI 1	132322	1745	20.41	22.00	1.442	0.09	0.004	0.006
	LTE Band 66	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	DSI 1	132322	1745	24.61	25.70	1.285	0.03	0.137	0.176
	LTE Band 66	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 3	DSI 1	132322	1745	23.67	24.70	1.268	0.05	0.112	0.142
	LTE Band 66	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 3	DSI 1	132322	1745	24.61	25.70	1.285	0.15	0.067	0.086
	LTE Band 66	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 3	DSI 1	132322	1745	23.67	24.70	1.268	0.02	0.056	0.071
	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	DSI 1	132322	1745	24.61	25.70	1.285	-0.11	0.180	0.231
	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	DSI 1	132322	1745	23.67	24.70	1.268	-0.12	0.139	0.176
	LTE Band 66	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 3	DSI 1	132322	1745	24.61	25.70	1.285	0.03	0.051	0.066
	LTE Band 66	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 3	DSI 1	132322	1745	23.67	24.70	1.268	0.05	0.041	0.052
	LTE Band 66	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	DSI 1	132322	1745	16.66	18.00	1.361	0.02	0.246	0.335
	LTE Band 66	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 4	DSI 1	132322	1745	16.47	18.00	1.422	0.06	0.237	0.337
	LTE Band 66	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 4	DSI 1	132322	1745	16.66	18.00	1.361	0.05	0.260	0.354
	LTE Band 66	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 4	DSI 1	132322	1745	16.47	18.00	1.422	-0.01	0.260	0.370
	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 1	132322	1745	16.66	18.00	1.361	0.03	0.449	0.611
	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI 1	132322	1745	16.47	18.00	1.422	0.04	0.445	0.633
	LTE Band 66	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 1	132322	1745	16.66	18.00	1.361	0.11	0.428	0.583
	LTE Band 66	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	DSI 1	132322	1745	16.47	18.00	1.422	0.13	0.422	0.600
	LTE Band 66	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	DSI 1	132322	1745	18.81	20.50	1.476	-0.13	0.160	0.236
	LTE Band 66	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 5	DSI 1	132322	1745	18.77	20.50	1.489	0.02	0.161	0.240
	LTE Band 66	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 5	DSI 1	132322	1745	18.81	20.50	1.476	0.03	0.076	0.112
	LTE Band 66	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 5	DSI 1	132322	1745	18.77	20.50	1.489	0.19	0.083	0.124
	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 5	DSI 1	132322	1745	18.81	20.50	1.476	0.06	0.546	0.806
	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 5	DSI 1	132072	1720	18.70	20.50	1.514	0.1	0.610	0.923
08	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 5	DSI 1	132572	1770	18.80	20.50	1.479	0.05	0.638	**0.944**
	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 5	DSI 1	132322	1745	18.77	20.50	1.489	0.03	0.566	0.843
	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 5	DSI 1	132072	1720	18.54	20.50	1.570	0.04	0.600	0.942
	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 5	DSI 1	132572	1770	18.66	20.50	1.528	0.07	0.609	0.930
	LTE Band 66	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 5	DSI 1	132322	1745	18.72	20.50	1.507	-0.05	0.590	0.889
	LTE Band 66	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 5	DSI 1	132322	1745	18.81	20.50	1.476	0.03	0.185	0.273
	LTE Band 66	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 5	DSI 1	132322	1745	18.77	20.50	1.489	-0.13	0.200	0.298
	FR1 n66	40M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 0	DSI 1	349000	1745	22.99	24.50	1.416	0.02	0.034	0.048
	FR1 n66	40M	QPSK	108	54	DFT-15	Left Cheek	0mm	Ant 0	DSI 1	349000	1745	22.91	24.50	1.442	0.15	0.043	0.062
	FR1 n66	40M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 0	DSI 1	349000	1745	22.99	24.50	1.416	0.09	0.003	0.004
	FR1 n66	40M	QPSK	108	54	DFT-15	Left Tilted	0mm	Ant 0	DSI 1	349000	1745	22.91	24.50	1.442	0.01	0.011	0.016
	FR1 n66	40M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 0	DSI 1	349000	1745	22.99	24.50	1.416	0.01	0.000	0.000
	FR1 n66	40M	QPSK	108	54	DFT-15	Right Cheek	0mm	Ant 0	DSI 1	349000	1745	22.91	24.50	1.442	0.05	0.002	0.003
	FR1 n66	40M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 0	DSI 1	349000	1745	22.99	24.50	1.416	0.03	0.006	0.008
	FR1 n66	40M	QPSK	108	54	DFT-15	Right Tilted	0mm	Ant 0	DSI 1	349000	1745	22.91	24.50	1.442	-0.11	0.004	0.006

	FR1 n66	40M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 3	DSI 1	349000	1745	22.58	24.00	1.387	0.03	0.132	0.183
	FR1 n66	40M	QPSK	108	54	DFT-15	Left Cheek	0mm	Ant 3	DSI 1	349000	1745	22.54	24.00	1.400	0.05	0.134	0.188
	FR1 n66	40M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 3	DSI 1	349000	1745	22.58	24.00	1.387	0.07	0.065	0.090
	FR1 n66	40M	QPSK	108	54	DFT-15	Left Tilted	0mm	Ant 3	DSI 1	349000	1745	22.54	24.00	1.400	0.05	0.060	0.084
	FR1 n66	40M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 3	DSI 1	349000	1745	22.58	24.00	1.387	0.13	0.162	0.225
	FR1 n66	40M	QPSK	108	54	DFT-15	Right Cheek	0mm	Ant 3	DSI 1	349000	1745	22.54	24.00	1.400	-0.04	0.174	0.244
	FR1 n66	40M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 3	DSI 1	349000	1745	22.58	24.00	1.387	-0.16	0.052	0.072
	FR1 n66	40M	QPSK	108	54	DFT-15	Right Tilted	0mm	Ant 3	DSI 1	349000	1745	22.54	24.00	1.400	0.12	0.050	0.070
	FR1 n66	40M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 4	DSI 1	349000	1745	18.53	19.50	1.250	0.06	0.247	0.309
	FR1 n66	40M	QPSK	108	54	DFT-15	Left Cheek	0mm	Ant 4	DSI 1	349000	1745	18.44	19.50	1.276	0.15	0.239	0.305
	FR1 n66	40M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 4	DSI 1	349000	1745	18.53	19.50	1.250	0.12	0.294	0.368
	FR1 n66	40M	QPSK	108	54	DFT-15	Left Tilted	0mm	Ant 4	DSI 1	349000	1745	18.44	19.50	1.276	0.06	0.283	0.361
	FR1 n66	40M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 4	DSI 1	349000	1745	18.53	19.50	1.250	0.14	0.515	0.644
	FR1 n66	40M	QPSK	108	54	DFT-15	Right Cheek	0mm	Ant 4	DSI 1	349000	1745	18.44	19.50	1.276	0.02	0.493	0.629
	FR1 n66	40M	QPSK	216	0	DFT-15	Right Cheek	0mm	Ant 4	DSI 1	349000	1745	18.51	19.50	1.256	-0.13	0.486	0.610
	FR1 n66	40M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 4	DSI 1	349000	1745	18.44	19.50	1.276	-0.14	0.480	0.613
	FR1 n66	40M	QPSK	108	54	DFT-15	Right Tilted	0mm	Ant 4	DSI 1	349000	1745	18.53	19.50	1.250	0.17	0.465	0.581
	FR1 n66	40M	QPSK	216	0	DFT-15	Right Tilted	0mm	Ant 4	DSI 1	349000	1745	18.51	19.50	1.256	0.18	0.471	0.592
	FR1 n66	40M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 5	DSI 1	349000	1745	17.81	19.00	1.315	0.07	0.136	0.179
	FR1 n66	40M	QPSK	108	54	DFT-15	Left Cheek	0mm	Ant 5	DSI 1	349000	1745	17.79	19.00	1.321	0.05	0.143	0.189
	FR1 n66	40M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 5	DSI 1	349000	1745	17.81	19.00	1.315	0.13	0.069	0.091
	FR1 n66	40M	QPSK	108	54	DFT-15	Left Tilted	0mm	Ant 5	DSI 1	349000	1745	17.79	19.00	1.321	0.14	0.071	0.094
	FR1 n66	40M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 5	DSI 1	349000	1745	17.81	19.00	1.315	0.1	0.484	0.637
09	FR1 n66	40M	QPSK	108	54	DFT-15	Right Cheek	0mm	Ant 5	DSI 1	349000	1745	17.79	19.00	1.321	0.1	0.522	**0.690**
	FR1 n66	40M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 5	DSI 1	349000	1745	17.81	19.00	1.315	0.05	0.171	0.225
	FR1 n66	40M	QPSK	108	54	DFT-15	Right Tilted	0mm	Ant 5	DSI 1	349000	1745	17.79	19.00	1.321	0.03	0.176	0.233

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)
1900 MHz																		
	GSM1900	-	-	-	-	GPRS 4 Tx slots	Left Cheek	0mm	Ant 3	DSI 1	661	1880	23.45	24.50	1.274	0.15	0.110	0.140
	GSM1900	-	-	-	-	GPRS 4 Tx slots	Left Tilted	0mm	Ant 3	DSI 1	661	1880	23.45	24.50	1.274	0.16	0.066	0.084
	GSM1900	-	-	-	-	GPRS 4 Tx slots	Right Cheek	0mm	Ant 3	DSI 1	661	1880	23.45	24.50	1.274	0.1	0.059	0.075
	GSM1900	-	-	-	-	GPRS 4 Tx slots	Right Tilted	0mm	Ant 3	DSI 1	661	1880	23.45	24.50	1.274	-0.15	0.069	0.088
	GSM1900	-	-	-	-	GPRS 1 Tx slots	Left Cheek	0mm	Ant 4	DSI 1	661	1880	26.19	27.00	1.205	0.13	0.306	0.369
	GSM1900	-	-	-	-	GPRS 1 Tx slots	Left Tilted	0mm	Ant 4	DSI 1	661	1880	26.19	27.00	1.205	0.15	0.393	0.474
	GSM1900	-	-	-	-	GPRS 1 Tx slots	Right Cheek	0mm	Ant 4	DSI 1	661	1880	26.19	27.00	1.205	0.14	0.459	0.553
10	GSM1900	-	-	-	-	GPRS 1 Tx slots	Right Tilted	0mm	Ant 4	DSI 1	661	1880	26.19	27.00	1.205	0.1	0.564	**0.680**
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 3	DSI 1	9400	1880	24.25	25.00	1.189	-0.15	0.124	0.147
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 3	DSI 1	9400	1880	24.25	25.00	1.189	-0.11	0.084	0.100
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 3	DSI 1	9400	1880	24.25	25.00	1.189	0.02	0.087	0.103
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 3	DSI 1	9400	1880	24.25	25.00	1.189	0.03	0.082	0.097
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 4	DSI 1	9400	1880	15.68	17.00	1.355	0.12	0.236	0.320
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 4	DSI 1	9400	1880	15.68	17.00	1.355	0.13	0.318	0.431
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 4	DSI 1	9400	1880	15.68	17.00	1.355	0.04	0.429	0.581
11	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 4	DSI 1	9400	1880	15.68	17.00	1.355	0.06	0.472	**0.640**
	LTE Band 25	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	DSI 1	26340	1880	24.58	25.70	1.294	0.13	0.136	0.176
	LTE Band 25	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 3	DSI 1	26340	1880	23.65	24.70	1.274	-0.12	0.116	0.148
	LTE Band 25	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 3	DSI 1	26340	1880	24.58	25.70	1.294	0.02	0.089	0.115
	LTE Band 25	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 3	DSI 1	26340	1880	23.65	24.70	1.274	0.03	0.069	0.088
	LTE Band 25	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	DSI 1	26340	1880	24.58	25.70	1.294	0.12	0.178	0.230
	LTE Band 25	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	DSI 1	26340	1880	23.65	24.70	1.274	0.14	0.143	0.182
	LTE Band 25	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 3	DSI 1	26340	1880	24.58	25.70	1.294	0.16	0.091	0.118
	LTE Band 25	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 3	DSI 1	26340	1880	23.65	24.70	1.274	0.18	0.070	0.089
	LTE Band 25	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	DSI 1	26340	1880	16.24	17.00	1.191	0.03	0.256	0.305
	LTE Band 25	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 4	DSI 1	26340	1880	16.22	17.00	1.197	0.01	0.255	0.305
	LTE Band 25	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 4	DSI 1	26340	1880	16.24	17.00	1.191	0.06	0.334	0.398
	LTE Band 25	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 4	DSI 1	26340	1880	16.22	17.00	1.197	0.05	0.328	0.393
	LTE Band 25	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 1	26340	1880	16.24	17.00	1.191	0.11	0.458	0.546
	LTE Band 25	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI 1	26340	1880	16.22	17.00	1.197	0.03	0.452	0.541
12	LTE Band 25	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 1	26340	1880	16.24	17.00	1.191	0.16	0.522	**0.622**
	LTE Band 25	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	DSI 1	26340	1880	16.22	17.00	1.197	0.14	0.519	0.621

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)
2600 MHz																				
	LTE Band 7	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	DSI 1	21100	2535	21.57	22.50	1.239	-	-	0.03	0.000	0.000
	LTE Band 7	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 0	DSI 1	21100	2535	20.58	21.50	1.236	-	-	0.02	0.013	0.016
	LTE Band 7	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	DSI 1	21100	2535	21.57	22.50	1.239	-	-	0.05	0.038	0.047
	LTE Band 7_UL_CA	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	DSI 1	21100+21298	2535+2554.8	21.11	22.50	1.377	-	-	0.03	0.024	0.033
	LTE Band 7	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 0	DSI 1	21100	2535	20.58	21.50	1.236	-	-	0.06	0.000	0.000
	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	DSI 1	21100	2535	21.57	22.50	1.239	-	-	0.06	0.016	0.020
	LTE Band 7	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 0	DSI 1	21100	2535	20.58	21.50	1.236	-	-	0.06	0.022	0.027
	LTE Band 7	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	DSI 1	21100	2535	21.57	22.50	1.239	-	-	0.04	0.000	0.000
	LTE Band 7	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 0	DSI 1	21100	2535	20.58	21.50	1.236	-	-	0.05	0.000	0.000
	LTE Band 7	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	DSI 1	21100	2535	24.46	25.50	1.271	-	-	0.01	0.153	0.194
	LTE Band 7_UL_CA	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	DSI 1	21100+21298	2535+2554.8	24.00	25.50	1.413	-	-	0.05	0.134	0.189
	LTE Band 7	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 3	DSI 1	21100	2535	23.29	24.50	1.321	-	-	0.1	0.129	0.170
	LTE Band 7	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 3	DSI 1	21100	2535	24.46	25.50	1.271	-	-	0.03	0.036	0.046
	LTE Band 7	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 3	DSI 1	21100	2535	23.29	24.50	1.321	-	-	0.03	0.035	0.046
	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	DSI 1	21100	2535	24.46	25.50	1.271	-	-	0.04	0.094	0.119
	LTE Band 7	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	DSI 1	21100	2535	23.29	24.50	1.321	-	-	0.05	0.075	0.099
	LTE Band 7	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 3	DSI 1	21100	2535	24.46	25.50	1.271	-	-	0.06	0.074	0.094
	LTE Band 7	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 3	DSI 1	21100	2535	23.29	24.50	1.321	-	-	0.03	0.060	0.079
	LTE Band 7	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	DSI 1	21100	2535	17.20	19.00	1.514	-	-	0.03	0.245	0.371
	LTE Band 7	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 4	DSI 1	21100	2535	17.17	19.00	1.524	-	-	0.02	0.244	0.372
	LTE Band 7	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 4	DSI 1	21100	2535	17.20	19.00	1.514	-	-	0.01	0.278	0.421
	LTE Band 7	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 4	DSI 1	21100	2535	17.17	19.00	1.524	-	-	0.06	0.275	0.419
	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 1	21100	2535	17.20	19.00	1.514	-	-	0.05	0.452	0.684
	LTE Band 7	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI 1	21100	2535	17.17	19.00	1.524	-	-	0.06	0.445	0.678
	LTE Band 7	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 1	21100	2535	17.20	19.00	1.514	-	-	0.08	0.468	0.708
	LTE Band 7	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	DSI 1	21100	2535	17.17	19.00	1.524	-	-	-0.11	0.498	0.759
	LTE Band 7_UL_CA	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	DSI 1	21100+21298	2535+2554.8	17.05	19.00	1.567	-	-	0.11	0.453	0.710
	LTE Band 7	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	DSI 1	21100	2535	21.36	22.50	1.300	-	-	0.03	0.143	0.186
	LTE Band 7	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 5	DSI 1	21100	2535	21.33	22.50	1.309	-	-	0.08	0.144	0.189
	LTE Band 7	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 5	DSI 1	21100	2535	21.36	22.50	1.300	-	-	0.09	0.084	0.109
	LTE Band 7	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 5	DSI 1	21100	2535	21.33	22.50	1.309	-	-	0.14	0.088	0.115
13	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 5	DSI 1	21100	2535	21.36	22.50	1.300	-	-	0.02	0.649	**0.844**
	LTE Band 7_UL_CA	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 5	DSI 1	21100+21298	2535+2554.8	21.18	22.50	1.355	-	-	0.05	0.605	0.820
	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 5	DSI 1	20850	2510	21.27	22.50	1.327	-	-	0.17	0.557	0.739
	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 5	DSI 1	21350	2560	21.10	22.50	1.380	-	-	-0.19	0.601	0.830
	LTE Band 7	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 5	DSI 1	21100	2535	21.33	22.50	1.309	-	-	-0.12	0.593	0.776
	LTE Band 7	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 5	DSI 1	20850	2510	21.26	22.50	1.330	-	-	0.03	0.575	0.765
	LTE Band 7	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 5	DSI 1	21350	2560	21.11	22.50	1.377	-	-	0.03	0.612	0.843
	LTE Band 7	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 5	DSI 1	21100	2535	21.29	22.50	1.321	-	-	0.02	0.625	0.826
	LTE Band 7	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 5	DSI 1	21100	2535	21.36	22.50	1.300	-	-	0.05	0.221	0.287
	LTE Band 7	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 5	DSI 1	21100	2535	21.33	22.50	1.309	-	-	0.11	0.223	0.292
	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 7	DSI 1	21100	2535	23.28	24.50	1.324	-	-	0.06	0.182	0.241
	LTE Band 7	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 7	DSI 1	21100	2535	22.32	23.50	1.312	-	-	0.01	0.153	0.201
	LTE Band 7	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 7	DSI 1	21100	2535	23.28	24.50	1.324	-	-	0.11	0.107	0.142
	LTE Band 7	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 7	DSI 1	21100	2535	22.32	23.50	1.312	-	-	0.16	0.080	0.105
	LTE Band 7	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 7	DSI 1	21100	2535	23.28	24.50	1.324	-	-	0.01	0.091	0.121
	LTE Band 7	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 7	DSI 1	21100	2535	22.32	23.50	1.312	-	-	-0.04	0.069	0.091
	LTE Band 7	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 7	DSI 1	21100	2535	23.28	24.50	1.324	-	-	0.06	0.064	0.085
	LTE Band 7	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 7	DSI 1	21100	2535	22.32	23.50	1.312	-	-	0.08	0.048	0.063
	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	DSI 1	40620	2593	22.45	23.00	1.135	62.9	1.006	0.05	0.026	0.030
	LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 0	DSI 1	40620	2593	21.42	22.00	1.143	62.9	1.006	0.03	0.058	0.067
	LTE Band 38_UL_CA	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 0	DSI 1	37901+38099	2585.1+2604.9	20.41	22.00	1.442	62.9	1.006	0.03	0.025	0.036

	LTE Band 41	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	DSI 1	40620	2593	22.45	23.00	1.135	62.9	1.006	0.04	0.000	0.000
	LTE Band 41	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 0	DSI 1	40620	2593	21.42	22.00	1.143	62.9	1.006	0.03	0.030	0.034
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	DSI 1	40620	2593	22.45	23.00	1.135	62.9	1.006	0.03	0.036	0.041
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 0	DSI 1	40620	2593	21.42	22.00	1.143	62.9	1.006	0.02	0.041	0.047
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	DSI 1	40620	2593	22.45	23.00	1.135	62.9	1.006	0.12	0.027	0.031
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 0	DSI 1	40620	2593	21.42	22.00	1.143	62.9	1.006	-0.02	0.028	0.032
	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	DSI 1	40620	2593	24.41	25.70	1.346	62.9	1.006	0.02	0.086	0.116
	LTE Band 38_UL_CA	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	DSI 1	37901+38099	2585.1+2604.9	24.07	25.70	1.455	62.9	1.006	0.05	0.062	0.091
	LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 3	DSI 1	40620	2593	23.44	24.70	1.337	62.9	1.006	0.05	0.068	0.091
	LTE Band 41	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 3	DSI 1	40620	2593	24.41	25.70	1.346	62.9	1.006	0.06	0.021	0.028
	LTE Band 41	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 3	DSI 1	40620	2593	23.44	24.70	1.337	62.9	1.006	0.03	0.022	0.030
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	DSI 1	40620	2593	24.41	25.70	1.346	62.9	1.006	0.03	0.053	0.072
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	DSI 1	40620	2593	23.44	24.70	1.337	62.9	1.006	0.05	0.046	0.062
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 3	DSI 1	40620	2593	24.41	25.70	1.346	62.9	1.006	0.04	0.044	0.060
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 3	DSI 1	40620	2593	23.44	24.70	1.337	62.9	1.006	0.06	0.036	0.048
	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	DSI 1	40620	2593	19.42	20.00	1.143	62.9	1.006	0.09	0.237	0.272
	LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 4	DSI 1	40620	2593	19.41	20.00	1.146	62.9	1.006	0.14	0.235	0.271
	LTE Band 41	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 4	DSI 1	40620	2593	19.42	20.00	1.143	62.9	1.006	0.05	0.263	0.302
	LTE Band 41	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 4	DSI 1	40620	2593	19.41	20.00	1.146	62.9	1.006	0.06	0.260	0.300
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 1	40620	2593	19.42	20.00	1.143	62.9	1.006	0.01	0.449	0.516
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI 1	40620	2593	19.41	20.00	1.146	62.9	1.006	0.11	0.465	0.536
14	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 1	40620	2593	19.42	20.00	1.143	62.9	1.006	0.15	0.470	**0.540**
	LTE Band 38_UL_CA	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 1	37901+38099	2585.1+2604.9	18.30	20.00	1.479	62.9	1.006	0.11	0.346	0.515
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	DSI 1	40620	2593	19.41	20.00	1.146	62.9	1.006	0.03	0.467	0.538
	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	DSI 1	40620	2593	22.39	23.50	1.291	62.9	1.006	0.15	0.099	0.129
	LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 5	DSI 1	40620	2593	22.37	23.50	1.297	62.9	1.006	0.03	0.097	0.127
	LTE Band 41	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 5	DSI 1	40620	2593	22.39	23.50	1.291	62.9	1.006	0.11	0.058	0.075
	LTE Band 41	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 5	DSI 1	40620	2593	22.37	23.50	1.297	62.9	1.006	0.06	0.056	0.073
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 5	DSI 1	40620	2593	22.39	23.50	1.291	62.9	1.006	0.04	0.367	0.477
	LTE Band 38_UL_CA	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 5	DSI 1	37901+38099	2585.1+2604.9	22.21	23.50	1.346	62.9	1.006	-0.05	0.313	0.424
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 5	DSI 1	40620	2593	22.37	23.50	1.297	62.9	1.006	0.12	0.365	0.476
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 5	DSI 1	40620	2593	22.39	23.50	1.291	62.9	1.006	0.09	0.138	0.179
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 5	DSI 1	40620	2593	22.37	23.50	1.297	62.9	1.006	-0.1	0.135	0.176
	FR1 n7	40M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 0	DSI 1	507000	2535	23.03	24.50	1.403	-	-	0.04	0.000	0.000
	FR1 n7	40M	QPSK	108	54	DFT-15	Left Cheek	0mm	Ant 0	DSI 1	507000	2535	22.84	24.50	1.466	-	-	0.05	0.011	0.016
	FR1 n7	40M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 0	DSI 1	507000	2535	23.03	24.50	1.403	-	-	0.06	0.027	0.038
	FR1 n7	40M	QPSK	108	54	DFT-15	Left Tilted	0mm	Ant 0	DSI 1	507000	2535	22.84	24.50	1.466	-	-	0.05	0.000	0.000
	FR1 n7	40M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 0	DSI 1	507000	2535	23.03	24.50	1.403	-	-	0.04	0.014	0.020
	FR1 n7	40M	QPSK	108	54	DFT-15	Right Cheek	0mm	Ant 0	DSI 1	507000	2535	22.84	24.50	1.466	-	-	0.04	0.018	0.026
	FR1 n7	40M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 0	DSI 1	507000	2535	23.03	24.50	1.403	-	-	0.02	0.000	0.000
	FR1 n7	40M	QPSK	108	54	DFT-15	Right Tilted	0mm	Ant 0	DSI 1	507000	2535	22.84	24.50	1.466	-	-	0.03	0.000	0.000
	FR1 n7	40M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 3	DSI 1	507000	2535	22.53	24.00	1.403	-	-	0.04	0.099	0.139
	FR1 n7	40M	QPSK	108	54	DFT-15	Left Cheek	0mm	Ant 3	DSI 1	507000	2535	22.46	24.00	1.426	-	-	0.09	0.090	0.128
	FR1 n7	40M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 3	DSI 1	507000	2535	22.53	24.00	1.403	-	-	0.03	0.020	0.028
	FR1 n7	40M	QPSK	108	54	DFT-15	Left Tilted	0mm	Ant 3	DSI 1	507000	2535	22.46	24.00	1.426	-	-	0.05	0.016	0.023
	FR1 n7	40M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 3	DSI 1	507000	2535	22.53	24.00	1.403	-	-	0.06	0.066	0.093
	FR1 n7	40M	QPSK	108	54	DFT-15	Right Cheek	0mm	Ant 3	DSI 1	507000	2535	22.46	24.00	1.426	-	-	0.12	0.057	0.081
	FR1 n7	40M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 3	DSI 1	507000	2535	22.53	24.00	1.403	-	-	0.03	0.056	0.079
	FR1 n7	40M	QPSK	108	54	DFT-15	Right Tilted	0mm	Ant 3	DSI 1	507000	2535	22.46	24.00	1.426	-	-	-0.01	0.045	0.064
	FR1 n7	40M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 4	DSI 1	507000	2535	16.85	17.50	1.161	-	-	0.03	0.218	0.253
	FR1 n7	40M	QPSK	108	54	DFT-15	Left Cheek	0mm	Ant 4	DSI 1	507000	2535	16.78	17.50	1.180	-	-	0.02	0.193	0.228
	FR1 n7	40M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 4	DSI 1	507000	2535	16.85	17.50	1.161	-	-	0.04	0.277	0.322
	FR1 n7	40M	QPSK	108	54	DFT-15	Left Tilted	0mm	Ant 4	DSI 1	507000	2535	16.78	17.50	1.180	-	-	0.12	0.224	0.264
	FR1 n7	40M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 4	DSI 1	507000	2535	16.85	17.50	1.161	-	-	0.15	0.381	0.443
	FR1 n7	40M	QPSK	108	54	DFT-15	Right Cheek	0mm	Ant 4	DSI 1	507000	2535	16.78	17.50	1.180	-	-	0.02	0.350	0.413
	FR1 n7	40M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 4	DSI 1	507000	2535	16.85	17.50	1.161	-	-	0.02	0.526	0.611

	FR1 n7	40M	QPSK	108	54	DFT-15	Right Tilted	0mm	Ant 4	DSI 1	507000	2535	16.78	17.50	1.180	-	-	0.01	0.380	0.449
	FR1 n7	40M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 5	DSI 1	507000	2535	20.56	22.00	1.393	-	-	0.03	0.289	0.403
	FR1 n7	40M	QPSK	108	0	DFT-15	Left Cheek	0mm	Ant 5	DSI 1	507000	2535	20.32	22.00	1.472	-	-	0.03	0.213	0.314
	FR1 n7	40M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 5	DSI 1	507000	2535	20.56	22.00	1.393	-	-	0.15	0.156	0.217
	FR1 n7	40M	QPSK	108	0	DFT-15	Left Tilted	0mm	Ant 5	DSI 1	507000	2535	20.32	22.00	1.472	-	-	0.05	0.136	0.200
15	FR1 n7	40M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 5	DSI 1	507000	2535	20.56	22.00	1.393	-	-	-0.02	0.780	**1.087**
	FR1 n7	40M	QPSK	108	0	DFT-15	Right Cheek	0mm	Ant 5	DSI 1	507000	2535	20.32	22.00	1.472	-	-	0.02	0.729	1.073
	FR1 n7	40M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 5	DSI 1	507000	2535	20.56	22.00	1.393	-	-	0.01	0.338	0.471
	FR1 n7	40M	QPSK	108	0	DFT-15	Right Tilted	0mm	Ant 5	DSI 1	507000	2535	20.32	22.00	1.472	-	-	-0.06	0.270	0.398
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 0	DSI 1	518598	2592.99	21.88	23.00	1.294	-	-	0.06	0.031	0.040
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 0	DSI 1	518598	2592.99	21.86	23.00	1.300	-	-	0.05	0.065	0.085
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 0	DSI 1	518598	2592.99	21.88	23.00	1.294	-	-	0.04	0.000	0.000
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 0	DSI 1	518598	2592.99	21.86	23.00	1.300	-	-	0.04	0.032	0.042
	FR1 n41	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 0	DSI 1	518598	2592.99	21.88	23.00	1.294	-	-	0.03	0.042	0.054
	FR1 n41	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 0	DSI 1	518598	2592.99	21.86	23.00	1.300	-	-	0.03	0.050	0.065
	FR1 n41	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 0	DSI 1	518598	2592.99	21.88	23.00	1.294	-	-	0.04	0.031	0.040
	FR1 n41	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 0	DSI 1	518598	2592.99	21.86	23.00	1.300	-	-	0.05	0.036	0.047
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 3	DSI 1	518598	2592.99	22.42	24.00	1.439	-	-	0.06	0.126	0.181
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 3	DSI 1	518598	2592.99	22.40	24.00	1.445	-	-	0.05	0.099	0.143
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 3	DSI 1	518598	2592.99	22.42	24.00	1.439	-	-	0.03	0.029	0.042
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 3	DSI 1	518598	2592.99	22.40	24.00	1.445	-	-	0.01	0.031	0.045
	FR1 n41	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 3	DSI 1	518598	2592.99	22.42	24.00	1.439	-	-	0.01	0.054	0.078
	FR1 n41	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 3	DSI 1	518598	2592.99	22.40	24.00	1.445	-	-	0.1	0.050	0.072
	FR1 n41	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 3	DSI 1	518598	2592.99	22.42	24.00	1.439	-	-	0.03	0.049	0.071
	FR1 n41	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 3	DSI 1	518598	2592.99	22.40	24.00	1.445	-	-	0.02	0.035	0.051
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 4	DSI 1	518598	2592.99	19.72	20.50	1.197	-	-	0.03	0.410	0.491
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 4	DSI 1	518598	2592.99	19.71	20.50	1.199	-	-	0.02	0.398	0.477
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 4	DSI 1	518598	2592.99	19.72	20.50	1.197	-	-	0.04	0.423	0.506
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 4	DSI 1	518598	2592.99	19.71	20.50	1.199	-	-	0.12	0.421	0.505
	FR1 n41	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 4	DSI 1	518598	2592.99	19.72	20.50	1.197	-	-	0.15	0.513	0.614
	FR1 n41	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 4	DSI 1	518598	2592.99	19.71	20.50	1.199	-	-	0.02	0.565	0.678
	FR1 n41	100M	QPSK	270	0	DFT-30	Right Cheek	0mm	Ant 4	DSI 1	518598	2592.99	19.72	20.50	1.197	-	-	0.02	0.732	0.876
16	FR1 n41	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 4	DSI 1	518598	2592.99	19.71	20.50	1.199	-	-	0.01	0.911	**1.093**
	FR1 n41	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 4	DSI 1	518598	2592.99	19.72	20.50	1.197	-	-	0.11	0.894	1.070
	FR1 n41	100M	QPSK	270	0	DFT-30	Right Tilted	0mm	Ant 4	DSI 1	518598	2592.99	19.71	20.50	1.199	-	-	0.03	0.901	1.081
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 5	DSI 1	518598	2592.99	22.95	24.50	1.429	-	-	0.03	0.096	0.137
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 5	DSI 1	518598	2592.99	22.74	24.50	1.500	-	-	0.02	0.129	0.193
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 5	DSI 1	518598	2592.99	22.95	24.50	1.429	-	-	0.01	0.063	0.090
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 5	DSI 1	518598	2592.99	22.74	24.50	1.500	-	-	0.06	0.058	0.087
	FR1 n41	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 5	DSI 1	518598	2592.99	22.95	24.50	1.429	-	-	0.05	0.352	0.503
	FR1 n41	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 5	DSI 1	518598	2592.99	22.74	24.50	1.500	-	-	0.06	0.325	0.487
	FR1 n41	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 5	DSI 1	518598	2592.99	22.95	24.50	1.429	-	-	0.08	0.129	0.184
	FR1 n41	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 5	DSI 1	518598	2592.99	22.74	24.50	1.500	-	-	-0.11	0.109	0.163

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)
										3500MHz										
	LTE Band 42	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 10	DSI 1	42590	3500	19.49	20.70	1.321	62.9	1.006	0.03	0.399	0.530
	LTE Band 42	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 10	DSI 1	42590	3500	19.45	20.70	1.334	62.9	1.006	0.08	0.400	0.537
	LTE Band 42	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 10	DSI 1	42590	3500	19.49	20.70	1.321	62.9	1.006	0.09	0.436	0.580
	LTE Band 42	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 10	DSI 1	42590	3500	19.45	20.70	1.334	62.9	1.006	0.14	0.454	0.609
	LTE Band 42	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 10	DSI 1	42590	3500	19.49	20.70	1.321	62.9	1.006	0.16	0.492	0.654
	LTE Band 42	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 10	DSI 1	42190	3460	19.39	20.70	1.352	62.9	1.006	0.17	0.642	0.873
	LTE Band 42	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 10	DSI 1	42990	3540	19.27	20.70	1.390	62.9	1.006	-0.19	0.612	0.856
	LTE Band 42	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 10	DSI 1	42590	3500	19.45	20.70	1.334	62.9	1.006	-0.12	0.509	0.683
	LTE Band 42	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 10	DSI 1	42190	3460	19.26	20.70	1.393	62.9	1.006	0.03	0.631	0.884
	LTE Band 42	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 10	DSI 1	42990	3540	19.24	20.70	1.400	62.9	1.006	0.03	0.627	0.883
	LTE Band 42	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 10	DSI 1	42590	3500	19.37	20.70	1.358	62.9	1.006	0.02	0.633	0.865
	LTE Band 42	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 10	DSI 1	42590	3500	19.49	20.70	1.321	62.9	1.006	0.05	0.557	0.740
	LTE Band 42	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 10	DSI 1	42190	3460	19.39	20.70	1.352	62.9	1.006	0.11	0.605	0.823
	LTE Band 42	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 10	DSI 1	42990	3540	19.27	20.70	1.390	62.9	1.006	0.02	0.657	0.919
17	LTE Band 42	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 10	DSI 1	42590	3500	19.45	20.70	1.334	62.9	1.006	0.14	0.694	**0.931**
	LTE Band 42_UL_CA	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 10	DSI 1	42590+42788	3500+3519.8	19.22	20.70	1.406	62.9	1.006	0.12	0.643	0.910
	LTE Band 42	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 10	DSI 1	42190	3460	19.26	20.70	1.393	62.9	1.006	0.17	0.620	0.869
	LTE Band 42	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 10	DSI 1	42990	3540	19.24	20.70	1.400	62.9	1.006	-0.11	0.653	0.919
	LTE Band 42	20M	QPSK	100	0	-	Right Tilted	0mm	Ant 10	DSI 1	42590	3500	19.37	20.70	1.358	62.9	1.006	-0.19	0.621	0.849
	LTE Band 42	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 11	DSI 1	42590	3500	20.86	22.50	1.459	62.9	1.006	0.03	0.051	0.075
	LTE Band 42	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 11	DSI 1	42590	3500	19.84	21.50	1.466	62.9	1.006	0.03	0.046	0.068
	LTE Band 42	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 11	DSI 1	42590	3500	20.86	22.50	1.459	62.9	1.006	0.05	0.045	0.066
	LTE Band 42	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 11	DSI 1	42590	3500	19.84	21.50	1.466	62.9	1.006	0.04	0.038	0.056
	LTE Band 42	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 11	DSI 1	42590	3500	20.86	22.50	1.459	62.9	1.006	-0.05	0.315	0.462
	LTE Band 42_UL_CA	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 11	DSI 1	42590+42788	3500+3519.8	20.76	22.50	1.493	62.9	1.006	0.03	0.276	0.414
	LTE Band 42	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 11	DSI 1	42590	3500	19.84	21.50	1.466	62.9	1.006	0.03	0.258	0.380
	LTE Band 42	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 11	DSI 1	42590	3500	20.86	22.50	1.459	62.9	1.006	0.03	0.082	0.120
	LTE Band 42	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 11	DSI 1	42590	3500	19.84	21.50	1.466	62.9	1.006	0.04	0.068	0.100
	LTE Band 42	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 12	DSI 1	42590	3500	21.45	23.00	1.429	62.9	1.006	0.02	0.000	0.000
	LTE Band 42	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 12	DSI 1	42590	3500	20.36	22.00	1.459	62.9	1.006	0.15	0.003	0.004
	LTE Band 42	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 12	DSI 1	42590	3500	21.45	23.00	1.429	62.9	1.006	0.09	0.000	0.000
	LTE Band 42	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 12	DSI 1	42590	3500	20.36	22.00	1.459	62.9	1.006	0.01	0.011	0.016
	LTE Band 42_UL_CA	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 12	DSI 1	42590+42788	3500+3519.8	20.11	22.00	1.545	62.9	1.006	0.06	0.007	0.011
	LTE Band 42	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 12	DSI 1	42590	3500	21.45	23.00	1.429	62.9	1.006	0.01	0.002	0.003
	LTE Band 42	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 12	DSI 1	42590	3500	20.36	22.00	1.459	62.9	1.006	0.05	0.001	0.001
	LTE Band 42	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 12	DSI 1	42590	3500	21.45	23.00	1.429	62.9	1.006	0.03	0.000	0.000
	LTE Band 42	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 12	DSI 1	42590	3500	20.36	22.00	1.459	62.9	1.006	-0.11	0.000	0.000
	LTE Band 42	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 13	DSI 1	42590	3500	24.39	25.70	1.352	62.9	1.006	0.03	0.074	0.101
	LTE Band 42	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 13	DSI 1	42590	3500	23.12	24.70	1.439	62.9	1.006	0.14	0.072	0.104
	LTE Band 42	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 13	DSI 1	42590	3500	24.39	25.70	1.352	62.9	1.006	0.15	0.120	0.163
	LTE Band 42	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 13	DSI 1	42590	3500	23.12	24.70	1.439	62.9	1.006	0.06	0.110	0.159
	LTE Band 42	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 13	DSI 1	42590	3500	24.39	25.70	1.352	62.9	1.006	0.09	0.130	0.177
	LTE Band 42	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 13	DSI 1	42590	3500	23.12	24.70	1.439	62.9	1.006	0.04	0.169	0.245
	LTE Band 42	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 13	DSI 1	42590	3500	24.39	25.70	1.352	62.9	1.006	0.03	0.247	0.336
	LTE Band 42_UL_CA	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 13	DSI 1	42590+42788	3500+3519.8	24.07	25.70	1.455	62.9	1.006	0.15	0.216	0.316
	LTE Band 42	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 13	DSI 1	42590	3500	23.12	24.70	1.439	62.9	1.006	0.04	0.205	0.297
	LTE Band 48	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 10	DSI 1	56150	3641	16.62	18.00	1.374	62.9	1.006	0.04	0.587	0.811
	LTE Band 48	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 10	DSI 1	55340	3560	16.45	18.00	1.429	62.9	1.006	0.05	0.514	0.739
	LTE Band 48	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 10	DSI 1	55830	3609	16.41	18.00	1.442	62.9	1.006	0.03	0.551	0.799
	LTE Band 48	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 10	DSI 1	56640	3690	16.36	18.00	1.459	62.9	1.006	0.1	0.570	0.837
	LTE Band 48	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 10	DSI 1	56150	3641	16.55	18.00	1.396	62.9	1.006	0.12	0.542	0.761
	LTE Band 48	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 10	DSI 1	55340	3560	16.35	18.00	1.462	62.9	1.006	0.03	0.462	0.680

	LTE Band 48	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 10	DSI 1	55830	3609	16.54	18.00	1.400	62.9	1.006	0.06	0.499	0.703
	LTE Band 48	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 10	DSI 1	56640	3690	16.38	18.00	1.452	62.9	1.006	-0.06	0.536	0.783
	LTE Band 48	20M	QPSK	100	0	-	Left Cheek	0mm	Ant 10	DSI 1	56150	3641	16.37	18.00	1.455	62.9	1.006	0.02	0.531	0.777
	LTE Band 48	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 10	DSI 1	56150	3641	16.62	18.00	1.374	62.9	1.006	-0.06	0.670	0.926
	LTE Band 48	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 10	DSI 1	55340	3560	16.45	18.00	1.429	62.9	1.006	0.01	0.575	0.827
	LTE Band 48	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 10	DSI 1	55830	3609	16.41	18.00	1.442	62.9	1.006	-0.12	0.641	0.930
	LTE Band 48	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 10	DSI 1	56640	3690	16.36	18.00	1.459	62.9	1.006	0.16	0.664	0.974
	LTE Band 48	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 10	DSI 1	56150	3641	16.55	18.00	1.396	62.9	1.006	0.18	0.613	0.861
	LTE Band 48	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 10	DSI 1	55340	3560	16.35	18.00	1.462	62.9	1.006	0.02	0.534	0.785
	LTE Band 48	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 10	DSI 1	55830	3609	16.54	18.00	1.400	62.9	1.006	0.06	0.575	0.810
	LTE Band 48	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 10	DSI 1	56640	3690	16.38	18.00	1.452	62.9	1.006	-0.16	0.624	0.912
	LTE Band 48	20M	QPSK	100	0	-	Left Tilted	0mm	Ant 10	DSI 1	56150	3641	16.37	18.00	1.455	62.9	1.006	0.15	0.598	0.876
	LTE Band 48	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 10	DSI 1	56150	3641	16.62	18.00	1.374	62.9	1.006	-0.12	0.642	0.887
	LTE Band 48	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 10	DSI 1	55340	3560	16.45	18.00	1.429	62.9	1.006	0.02	0.614	0.883
	LTE Band 48	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 10	DSI 1	55830	3609	16.41	18.00	1.442	62.9	1.006	0.03	0.627	0.910
	LTE Band 48	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 10	DSI 1	56640	3690	16.36	18.00	1.459	62.9	1.006	0.06	0.660	0.969
	LTE Band 48	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 10	DSI 1	56150	3641	16.55	18.00	1.396	62.9	1.006	0.05	0.602	0.846
	LTE Band 48	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 10	DSI 1	55340	3560	16.35	18.00	1.462	62.9	1.006	0.03	0.554	0.815
	LTE Band 48	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 10	DSI 1	55830	3609	16.54	18.00	1.400	62.9	1.006	-0.05	0.572	0.805
	LTE Band 48	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 10	DSI 1	56640	3690	16.38	18.00	1.452	62.9	1.006	0.03	0.606	0.885
	LTE Band 48	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 10	DSI 1	56150	3641	16.37	18.00	1.455	62.9	1.006	-0.06	0.602	0.881
	LTE Band 48	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 10	DSI 1	56150	3641	16.62	18.00	1.374	62.9	1.006	-0.08	0.708	0.979
	LTE Band 48	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 10	DSI 1	55340	3560	16.45	18.00	1.429	62.9	1.006	-0.05	0.640	0.920
	LTE Band 48	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 10	DSI 1	55830	3609	16.41	18.00	1.442	62.9	1.006	0.02	0.687	0.997
18	LTE Band 48	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 10	DSI 1	56640	3690	16.36	18.00	1.459	62.9	1.006	0.03	0.714	**1.048**
	LTE Band 48	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 10	DSI 1	56150	3641	16.55	18.00	1.396	62.9	1.006	0.08	0.657	0.923
	LTE Band 48	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 10	DSI 1	55340	3560	16.35	18.00	1.462	62.9	1.006	0.11	0.591	0.869
	LTE Band 48	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 10	DSI 1	55830	3609	16.54	18.00	1.400	62.9	1.006	0.13	0.646	0.910
	LTE Band 48	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 10	DSI 1	56640	3690	16.38	18.00	1.452	62.9	1.006	0.16	0.661	0.966
	LTE Band 48	20M	QPSK	100	0	-	Right Tilted	0mm	Ant 10	DSI 1	56150	3641	16.37	18.00	1.455	62.9	1.006	0.04	0.671	0.982
	LTE Band 48	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 11	DSI 1	56150	3641	17.66	19.00	1.361	62.9	1.006	0.03	0.046	0.063
	LTE Band 48	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 11	DSI 1	56150	3641	17.62	19.00	1.374	62.9	1.006	0.02	0.035	0.048
	LTE Band 48	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 11	DSI 1	56150	3641	17.66	19.00	1.361	62.9	1.006	0.04	0.035	0.048
	LTE Band 48	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 11	DSI 1	56150	3641	17.62	19.00	1.374	62.9	1.006	0.06	0.024	0.033
	LTE Band 48	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 11	DSI 1	56150	3641	17.66	19.00	1.361	62.9	1.006	0.01	0.324	0.444
	LTE Band 48	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 11	DSI 1	56150	3641	17.62	19.00	1.374	62.9	1.006	0.11	0.258	0.357
	LTE Band 48	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 11	DSI 1	56150	3641	17.66	19.00	1.361	62.9	1.006	-0.03	0.067	0.092
	LTE Band 48	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 11	DSI 1	56150	3641	17.62	19.00	1.374	62.9	1.006	0.06	0.053	0.073
	LTE Band 48	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 12	DSI 1	56150	3641	18.85	20.50	1.462	62.9	1.006	0.03	0.000	0.000
	LTE Band 48	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 12	DSI 1	56150	3641	17.98	19.50	1.419	62.9	1.006	0.06	0.004	0.006
	LTE Band 48	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 12	DSI 1	56150	3641	18.85	20.50	1.462	62.9	1.006	0.12	0.000	0.000
	LTE Band 48	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 12	DSI 1	56150	3641	17.98	19.50	1.419	62.9	1.006	0.14	0.003	0.004
	LTE Band 48	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 12	DSI 1	56150	3641	18.85	20.50	1.462	62.9	1.006	0.16	0.003	0.004
	LTE Band 48	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 12	DSI 1	56150	3641	17.98	19.50	1.419	62.9	1.006	0.11	0.002	0.003
	LTE Band 48	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 12	DSI 1	56150	3641	18.85	20.50	1.462	62.9	1.006	-0.03	0.000	0.000
	LTE Band 48	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 12	DSI 1	56150	3641	17.98	19.50	1.419	62.9	1.006	0.03	0.000	0.000
	LTE Band 48	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 13	DSI 1	56150	3641	22.38	24.00	1.452	62.9	1.006	0.13	0.063	0.092
	LTE Band 48	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 13	DSI 1	56150	3641	21.44	23.00	1.432	62.9	1.006	0.15	0.057	0.082
	LTE Band 48	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 13	DSI 1	56150	3641	22.38	24.00	1.452	62.9	1.006	0.02	0.089	0.130
	LTE Band 48	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 13	DSI 1	56150	3641	21.44	23.00	1.432	62.9	1.006	0.03	0.087	0.125
	LTE Band 48	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 13	DSI 1	56150	3641	22.38	24.00	1.452	62.9	1.006	-0.12	0.078	0.114
	LTE Band 48	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 13	DSI 1	56150	3641	21.44	23.00	1.432	62.9	1.006	0.063	0.120	0.173
	LTE Band 48	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 13	DSI 1	56150	3641	22.38	24.00	1.452	62.9	1.006	0.03	0.220	0.321
	LTE Band 48	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 13	DSI 1	56150	3641	21.44	23.00	1.432	62.9	1.006	0.03	0.210	0.303
	FR1 n77	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 10	DSI 1	656000	3840	16.17	17.70	1.422	-	-	0.04	0.419	0.596
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 10	DSI 1	656000	3840	16.10	17.70	1.445	-	-	0.02	0.275	0.397

	FR1 n77	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 10	DSI 1	656000	3840	16.17	17.70	1.422	-	-	0.03	0.446	0.634
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 10	DSI 1	656000	3840	16.10	17.70	1.445	-	-	0.06	0.322	0.465
	FR1 n77	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 10	DSI 1	656000	3840	16.17	17.70	1.422	-	-	0.09	0.515	0.732
	FR1 n77	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 10	DSI 1	656000	3840	16.10	17.70	1.445	-	-	0.05	0.419	0.606
	FR1 n77	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 10	DSI 1	656000	3840	16.17	17.70	1.422	-	-	0.11	0.520	0.740
	FR1 n77	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 10	DSI 1	656000	3840	16.10	17.70	1.445	-	-	0.03	0.480	0.694
	FR1 n77	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 10	DSI 1	633334	3500.1	16.56	17.70	1.300	-	-	0.06	0.339	0.441
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 10	DSI 1	633334	3500.1	16.49	17.70	1.321	-	-	0.05	0.346	0.457
	FR1 n77	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 10	DSI 1	633334	3500.1	16.56	17.70	1.300	-	-	0.14	0.430	0.559
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 10	DSI 1	633334	3500.1	16.49	17.70	1.321	-	-	0.03	0.453	0.599
	FR1 n77	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 10	DSI 1	633334	3500.1	16.56	17.70	1.300	-	-	0.06	0.550	0.715
	FR1 n77	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 10	DSI 1	633334	3500.1	16.49	17.70	1.321	-	-	0.12	0.481	0.636
	FR1 n77	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 10	DSI 1	633334	3500.1	16.56	17.70	1.300	-	-	0.14	0.593	0.771
	FR1 n77	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 10	DSI 1	633334	3500.1	16.49	17.70	1.321	-	-	0.03	0.599	0.791
	FR1 n77	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 11	DSI 1	656000	3840	22.09	23.70	1.449	-	-	-0.06	0.078	0.113
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 11	DSI 1	656000	3840	22.04	23.70	1.466	-	-	0.01	0.071	0.104
	FR1 n77	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 11	DSI 1	656000	3840	22.09	23.70	1.449	-	-	-0.12	0.048	0.070
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 11	DSI 1	656000	3840	22.04	23.70	1.466	-	-	0.16	0.040	0.059
	FR1 n77	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 11	DSI 1	656000	3840	22.09	23.70	1.449	-	-	0.18	0.549	0.795
	FR1 n77	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 11	DSI 1	656000	3840	22.04	23.70	1.466	-	-	0.02	0.470	0.689
	FR1 n77	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 11	DSI 1	656000	3840	22.09	23.70	1.449	-	-	-0.16	0.130	0.188
	FR1 n77	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 11	DSI 1	656000	3840	22.04	23.70	1.466	-	-	0.15	0.116	0.170
	FR1 n77	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 11	DSI 1	633334	3500.1	21.81	23.70	1.545	-	-	0.06	0.211	0.326
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 11	DSI 1	633334	3500.1	21.77	23.70	1.560	-	-	0.04	0.190	0.296
	FR1 n77	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 11	DSI 1	633334	3500.1	21.81	23.70	1.545	-	-	0.06	0.080	0.124
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 11	DSI 1	633334	3500.1	21.77	23.70	1.560	-	-	0.07	0.077	0.120
19	FR1 n77	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 11	DSI 1	633334	3500.1	21.81	23.70	1.545	-	-	0.11	0.593	**0.916**
	FR1 n77	100M	QPSK	270	0	DFT-30	Right Cheek	0mm	Ant 11	DSI 1	633334	3500.1	21.77	23.70	1.560	-	-	0.06	0.472	0.736
	FR1 n77	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 11	DSI 1	633334	3500.1	21.70	23.70	1.585	-	-	0.08	0.631	0.631
	FR1 n77	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 11	DSI 1	633334	3500.1	21.81	23.70	1.545	-	-	-0.11	0.193	0.298
	FR1 n77	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 11	DSI 1	633334	3500.1	21.77	23.70	1.560	-	-	0.03	0.183	0.285
	FR1 n77	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 12	DSI 1	656000	3840	24.22	25.70	1.406	-	-	-0.11	0.044	0.062
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 12	DSI 1	656000	3840	24.08	25.70	1.452	-	-	0.03	0.038	0.055
	FR1 n77	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 12	DSI 1	656000	3840	24.22	25.70	1.406	-	-	0.05	0.000	0.000
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 12	DSI 1	656000	3840	24.08	25.70	1.452	-	-	0.06	0.000	0.000
	FR1 n77	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 12	DSI 1	656000	3840	24.22	25.70	1.406	-	-	0.01	0.000	0.000
	FR1 n77	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 12	DSI 1	656000	3840	24.08	25.70	1.452	-	-	0.14	0.051	0.074
	FR1 n77	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 12	DSI 1	656000	3840	24.22	25.70	1.406	-	-	-0.11	0.000	0.000
	FR1 n77	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 12	DSI 1	656000	3840	24.08	25.70	1.452	-	-	0.03	0.000	0.000
	FR1 n77	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 12	DSI 1	633334	3500.1	24.57	25.70	1.297	-	-	-0.11	0.000	0.000
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 12	DSI 1	633334	3500.1	24.40	25.70	1.349	-	-	0.03	0.054	0.073
	FR1 n77	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 12	DSI 1	633334	3500.1	24.57	25.70	1.297	-	-	0.05	0.000	0.000
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 12	DSI 1	633334	3500.1	24.40	25.70	1.349	-	-	0.09	0.046	0.062
	FR1 n77	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 12	DSI 1	633334	3500.1	24.57	25.70	1.297	-	-	-0.06	0.039	0.051
	FR1 n77	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 12	DSI 1	633334	3500.1	24.40	25.70	1.349	-	-	0.06	0.045	0.061
	FR1 n77	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 12	DSI 1	633334	3500.1	24.57	25.70	1.297	-	-	0.02	0.000	0.000
	FR1 n77	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 12	DSI 1	633334	3500.1	24.40	25.70	1.349	-	-	0.12	0.055	0.074
	FR1 n77	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 13	DSI 1	656000	3840	24.20	25.70	1.413	-	-	0.03	0.316	0.446
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 13	DSI 1	656000	3840	24.07	25.70	1.455	-	-	0.05	0.331	0.482
	FR1 n77	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 13	DSI 1	656000	3840	24.20	25.70	1.413	-	-	0.06	0.316	0.446
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 13	DSI 1	656000	3840	24.07	25.70	1.455	-	-	0.11	0.300	0.437
	FR1 n77	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 13	DSI 1	656000	3840	24.20	25.70	1.413	-	-	0.07	0.322	0.455
	FR1 n77	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 13	DSI 1	656000	3840	24.07	25.70	1.455	-	-	-0.11	0.317	0.461
	FR1 n77	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 13	DSI 1	656000	3840	24.20	25.70	1.413	-	-	0.13	0.324	0.458
	FR1 n77	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 13	DSI 1	656000	3840	24.07	25.70	1.455	-	-	0.16	0.320	0.466
	FR1 n77	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 13	DSI 1	633334	3500.1	24.64	25.70	1.276	-	-	-0.06	0.167	0.213

	FR1 n77	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 13	DSI 1	633334	3500.1	24.44	25.70	1.337	-	-	-0.12	0.142	0.190
	FR1 n77	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 13	DSI 1	633334	3500.1	24.64	25.70	1.276	-	-	0.03	0.234	0.299
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 13	DSI 1	633334	3500.1	24.44	25.70	1.337	-	-	0.05	0.189	0.253
	FR1 n77	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 13	DSI 1	633334	3500.1	24.64	25.70	1.276	-	-	0.04	0.363	0.463
	FR1 n77	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 13	DSI 1	633334	3500.1	24.44	25.70	1.337	-	-	0.05	0.322	0.430
	FR1 n77	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 13	DSI 1	633334	3500.1	24.64	25.70	1.276	-	-	0.08	0.491	0.627
	FR1 n77	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 13	DSI 1	633334	3500.1	24.44	25.70	1.337	-	-	0.12	0.403	0.539
	FR1 n78_HPUE	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 10	DSI 1	650000	3750	16.83	18.00	1.309	-	-	0.01	0.310	0.406
	FR1 n78_HPUE	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 10	DSI 1	650000	3750	16.82	18.00	1.312	-	-	0.03	0.455	0.597
	FR1 n78_HPUE	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 10	DSI 1	650000	3750	16.83	18.00	1.309	-	-	-0.05	0.501	0.656
	FR1 n78_HPUE	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 10	DSI 1	650000	3750	16.82	18.00	1.312	-	-	0.06	0.534	0.701
	FR1 n78_HPUE	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 10	DSI 1	650000	3750	16.83	18.00	1.309	-	-	-0.11	0.589	0.771
	FR1 n78_HPUE	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 10	DSI 1	650000	3750	16.82	18.00	1.312	-	-	0.03	0.605	0.794
	FR1 n78_HPUE	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 10	DSI 1	650000	3750	16.83	18.00	1.309	-	-	0.14	0.654	0.856
	FR1 n78_HPUE	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 10	DSI 1	650000	3750	16.82	18.00	1.312	-	-	-0.12	0.698	0.916
	FR1 n78_HPUE	100M	QPSK	270	0	DFT-30	Right Tilted	0mm	Ant 10	DSI 1	650000	3750	16.76	18.00	1.330	-	-	0.06	0.586	0.780
	FR1 n78_HPUE	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 10	DSI 1	633334	3500.1	17.87	18.00	1.030	-	-	0.13	0.270	0.278
	FR1 n78_HPUE	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 10	DSI 1	633334	3500.1	17.79	18.00	1.050	-	-	0.16	0.459	0.482
	FR1 n78_HPUE	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 10	DSI 1	633334	3500.1	17.87	18.00	1.030	-	-	0.18	0.509	0.524
	FR1 n78_HPUE	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 10	DSI 1	633334	3500.1	17.79	18.00	1.050	-	-	0.03	0.543	0.570
	FR1 n78_HPUE	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 10	DSI 1	633334	3500.1	17.87	18.00	1.030	-	-	-0.15	0.595	0.613
	FR1 n78_HPUE	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 10	DSI 1	633334	3500.1	17.79	18.00	1.050	-	-	0.03	0.606	0.636
	FR1 n78_HPUE	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 10	DSI 1	633334	3500.1	17.87	18.00	1.030	-	-	0.16	0.668	0.688
	FR1 n78_HPUE	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 10	DSI 1	633334	3500.1	17.79	18.00	1.050	-	-	-0.12	0.709	0.744
	FR1 n78_HPUE	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 11	DSI 1	650000	3750	23.85	25.00	1.303	-	-	0.02	0.206	0.268
	FR1 n78_HPUE	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 11	DSI 1	650000	3750	23.49	25.00	1.416	-	-	0.12	0.211	0.299
	FR1 n78_HPUE	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 11	DSI 1	650000	3750	23.85	25.00	1.303	-	-	0.05	0.075	0.098
	FR1 n78_HPUE	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 11	DSI 1	650000	3750	23.49	25.00	1.416	-	-	0.01	0.087	0.123
	FR1 n78_HPUE	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 11	DSI 1	650000	3750	23.85	25.00	1.303	-	-	0.06	0.627	0.817
	FR1 n78_HPUE	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 11	DSI 1	650000	3750	23.49	25.00	1.416	-	-	0.05	0.564	0.799
	FR1 n78_HPUE	100M	QPSK	270	0	DFT-30	Right Cheek	0mm	Ant 11	DSI 1	650000	3750	23.46	25.00	1.426	-	-	0.08	0.525	0.748
	FR1 n78_HPUE	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 11	DSI 1	650000	3750	23.85	25.00	1.303	-	-	-0.11	0.200	0.261
	FR1 n78_HPUE	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 11	DSI 1	650000	3750	23.49	25.00	1.416	-	-	0.14	0.210	0.297
	FR1 n78_HPUE	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 11	DSI 1	633334	3500.1	23.81	25.00	1.315	-	-	0.03	0.207	0.272
	FR1 n78_HPUE	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 11	DSI 1	633334	3500.1	23.21	25.00	1.510	-	-	0.01	0.233	0.352
	FR1 n78_HPUE	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 11	DSI 1	633334	3500.1	23.81	25.00	1.315	-	-	0.03	0.083	0.109
	FR1 n78_HPUE	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 11	DSI 1	633334	3500.1	23.21	25.00	1.510	-	-	0.08	0.085	0.128
20	FR1 n78_HPUE	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 11	DSI 1	633334	3500.1	23.81	25.00	1.315	-	-	0.06	0.712	**0.936**
	FR1 n78_HPUE	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 11	DSI 1	633334	3500.1	23.21	25.00	1.510	-	-	0.07	0.614	0.927
	FR1 n78_HPUE	100M	QPSK	270	0	DFT-30	Right Cheek	0mm	Ant 11	DSI 1	633334	3500.1	23.10	25.00	1.549	-	-	0.09	0.603	0.934
	FR1 n78_HPUE	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 11	DSI 1	633334	3500.1	23.81	25.00	1.315	-	-	-0.11	0.197	0.259
	FR1 n78_HPUE	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 11	DSI 1	633334	3500.1	23.21	25.00	1.510	-	-	0.03	0.187	0.282
	FR1 n78_HPUE	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 12	DSI 1	650000	3750	25.45	27.00	1.429	-	-	0.02	0.032	0.046
	FR1 n78_HPUE	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 12	DSI 1	650000	3750	25.31	27.00	1.476	-	-	0.04	0.031	0.046
	FR1 n78_HPUE	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 12	DSI 1	650000	3750	25.45	27.00	1.429	-	-	-0.06	0.028	0.040
	FR1 n78_HPUE	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 12	DSI 1	650000	3750	25.31	27.00	1.476	-	-	0.06	0.025	0.037
	FR1 n78_HPUE	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 12	DSI 1	650000	3750	25.45	27.00	1.429	-	-	0.03	0.021	0.030
	FR1 n78_HPUE	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 12	DSI 1	650000	3750	25.31	27.00	1.476	-	-	0.03	0.036	0.053
	FR1 n78_HPUE	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 12	DSI 1	650000	3750	25.45	27.00	1.429	-	-	0.05	0.041	0.059
	FR1 n78_HPUE	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 12	DSI 1	650000	3750	25.31	27.00	1.476	-	-	-0.11	0.028	0.041
	FR1 n78_HPUE	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 12	DSI 1	633334	3500.1	26.41	27.00	1.146	-	-	0.06	0.038	0.044
	FR1 n78_HPUE	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 12	DSI 1	633334	3500.1	26.31	27.00	1.172	-	-	0.04	0.035	0.041
	FR1 n78_HPUE	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 12	DSI 1	633334	3500.1	26.41	27.00	1.146	-	-	-0.02	0.029	0.033
	FR1 n78_HPUE	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 12	DSI 1	633334	3500.1	26.31	27.00	1.172	-	-	-0.06	0.029	0.034
	FR1 n78_HPUE	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 12	DSI 1	633334	3500.1	26.41	27.00	1.146	-	-	0.03	0.029	0.033
	FR1 n78_HPUE	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 12	DSI 1	633334	3500.1	26.31	27.00	1.172	-	-	0.05	0.039	0.046

	FR1 n78_HPUE	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 12	DSI 1	633334	3500.1	26.41	27.00	1.146	-	-	0.07	0.043	0.049
	FR1 n78_HPUE	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 12	DSI 1	633334	3500.1	26.31	27.00	1.172	-	-	-0.01	0.037	0.043
	FR1 n78_HPUE	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 13	DSI 1	650000	3750	26.41	27.00	1.146	-	-	0.04	0.100	0.115
	FR1 n78_HPUE	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 13	DSI 1	650000	3750	26.09	27.00	1.233	-	-	0.05	0.090	0.111
	FR1 n78_HPUE	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 13	DSI 1	650000	3750	26.41	27.00	1.146	-	-	0.08	0.156	0.179
	FR1 n78_HPUE	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 13	DSI 1	650000	3750	26.09	27.00	1.233	-	-	0.06	0.121	0.149
	FR1 n78_HPUE	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 13	DSI 1	650000	3750	26.41	27.00	1.146	-	-	0.01	0.243	0.278
	FR1 n78_HPUE	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 13	DSI 1	650000	3750	26.09	27.00	1.233	-	-	0.14	0.241	0.297
	FR1 n78_HPUE	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 13	DSI 1	650000	3750	26.41	27.00	1.146	-	-	-0.11	0.342	0.392
	FR1 n78_HPUE	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 13	DSI 1	650000	3750	26.09	27.00	1.233	-	-	0.03	0.295	0.364
	FR1 n78_HPUE	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 13	DSI 1	633334	3500.1	26.51	27.00	1.119	-	-	0.01	0.102	0.114
	FR1 n78_HPUE	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 13	DSI 1	633334	3500.1	25.26	27.00	1.493	-	-	0.15	0.100	0.149
	FR1 n78_HPUE	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 13	DSI 1	633334	3500.1	26.51	27.00	1.119	-	-	0.03	0.179	0.200
	FR1 n78_HPUE	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 13	DSI 1	633334	3500.1	25.26	27.00	1.493	-	-	0.05	0.136	0.203
	FR1 n78_HPUE	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 13	DSI 1	633334	3500.1	26.51	27.00	1.119	-	-	0.06	0.254	0.284
	FR1 n78_HPUE	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 13	DSI 1	633334	3500.1	25.26	27.00	1.493	-	-	0.03	0.243	0.363
	FR1 n78_HPUE	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 13	DSI 1	633334	3500.1	26.51	27.00	1.119	-	-	0.02	0.363	0.406
	FR1 n78_HPUE	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 13	DSI 1	633334	3500.1	25.26	27.00	1.493	-	-	0.06	0.304	0.454

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)
2450Mhz																
	2.4GHz WLAN	802.11b 1Mbps	Right Cheek	0mm	Ant 16+18	Full	11	2462	22.17	23.50	1.360	100	1.000	0.01	0.196	0.267
	2.4GHz WLAN	802.11b 1Mbps	Right Tilted	0mm	Ant 16+18	Full	11	2462	22.17	23.50	1.360	100	1.000	0.03	0.261	0.355
	2.4GHz WLAN	802.11b 1Mbps	Left Cheek	0mm	Ant 16+18	Full	11	2462	22.17	23.50	1.360	100	1.000	-0.02	0.470	0.639
21	2.4GHz WLAN	802.11b 1Mbps	Left Tilted	0mm	Ant 16+18	Full	11	2462	22.17	23.50	1.360	100	1.000	-0.02	0.587	**0.798**
	2.4GHz WLAN	802.11b 1Mbps	Left Tilted	0mm	Ant 16+18	Simultaneous	11	2462	17.32	18.50	1.312	100	1.000	0.14	0.178	0.234
	Bluetooth	1Mbps	Right Cheek	0mm	Ant 16	Full	39	2441	15.57	16.00	1.104	76.74	1.303	0.03	0.065	0.094
	Bluetooth	1Mbps	Right Tilted	0mm	Ant 16	Full	39	2441	15.57	16.00	1.104	76.74	1.303	0.04	0.226	0.325
	Bluetooth	1Mbps	Left Cheek	0mm	Ant 16	Full	39	2441	15.57	16.00	1.104	76.74	1.303	0.06	0.301	0.433
22	Bluetooth	1Mbps	Left Tilted	0mm	Ant 16	Full	39	2441	15.57	16.00	1.104	76.74	1.303	0.01	0.455	**0.655**
	Bluetooth	1Mbps	Left Tilted	0mm	Ant 16	Simultaneous	39	2441	10.68	11.00	1.076	76.74	1.303	0.12	0.173	0.243
	Bluetooth	1Mbps	Right Cheek	0mm	Ant 18	Full	39	2441	15.59	16.00	1.099	76.92	1.300	0.13	0.049	0.070
	Bluetooth	1Mbps	Right Tilted	0mm	Ant 18	Full	39	2441	15.59	16.00	1.099	76.92	1.300	0.05	0.036	0.051
	Bluetooth	1Mbps	Left Cheek	0mm	Ant 18	Full	39	2441	15.59	16.00	1.099	76.92	1.300	0.02	0.301	0.430
	Bluetooth	1Mbps	Left Tilted	0mm	Ant 18	Full	39	2441	15.59	16.00	1.099	76.92	1.300	0.01	0.118	0.169
	Bluetooth	1Mbps	Left Cheek	0mm	Ant 18	Simultaneous	39	2441	10.67	11.00	1.079	76.92	1.300	0.08	0.135	0.189
5000Mhz																
	5.3GHz WLAN	802.11a 6Mbps	Right Cheek	0mm	Ant 17+18	Full	52	5260	21.21	22.50	1.345	100	1.000	0.07	0.356	0.479
	5.3GHz WLAN	802.11a 6Mbps	Right Tilted	0mm	Ant 17+18	Full	52	5260	21.21	22.50	1.345	100	1.000	-0.11	0.375	0.504
	5.3GHz WLAN	802.11a 6Mbps	Left Cheek	0mm	Ant 17+18	Full	52	5260	21.21	22.50	1.345	100	1.000	0.13	0.595	0.800
23	5.3GHz WLAN	802.11a 6Mbps	Left Cheek	0mm	Ant 17+18	Full	64	5320	21.21	22.50	1.346	100	1.000	-0.03	0.640	**0.861**
	5.3GHz WLAN	802.11a 6Mbps	Left Tilted	0mm	Ant 17+18	Full	52	5260	21.21	22.50	1.345	100	1.000	0.05	0.583	0.784
	5.3GHz WLAN	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 17+18	Simultaneous	58	5290	14.91	16.50	1.442	100	1.000	0.04	0.167	0.241
	5.5GHz WLAN	802.11a 6Mbps	Right Cheek	0mm	Ant 17+18	Full	116	5580	18.95	20.50	1.429	100	1.000	0.08	0.219	0.313
	5.5GHz WLAN	802.11a 6Mbps	Right Tilted	0mm	Ant 17+18	Full	116	5580	18.95	20.50	1.429	100	1.000	-0.07	0.199	0.284
24	5.5GHz WLAN	802.11a 6Mbps	Left Cheek	0mm	Ant 17+18	Full	116	5580	18.95	20.50	1.429	100	1.000	0.02	0.386	**0.552**
	5.5GHz WLAN	802.11a 6Mbps	Left Tilted	0mm	Ant 17+18	Full	116	5580	18.95	20.50	1.429	100	1.000	0.06	0.364	0.520
	5.5GHz WLAN	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 17+18	Simultaneous	122	5610	15.10	16.50	1.380	100	1.000	0.13	0.159	0.219
	5.8GHz WLAN	802.11a 6Mbps	Right Cheek	0mm	Ant 17+18	Full	157	5785	22.03	22.50	1.115	100	1.000	0.03	0.346	0.386
	5.8GHz WLAN	802.11a 6Mbps	Right Tilted	0mm	Ant 17+18	Full	157	5785	22.03	22.50	1.115	100	1.000	0.02	0.395	0.441
	5.8GHz WLAN	802.11a 6Mbps	Left Cheek	0mm	Ant 17+18	Full	157	5785	22.03	22.50	1.115	100	1.000	0.06	0.688	0.767
25	5.8GHz WLAN	802.11a 6Mbps	Left Tilted	0mm	Ant 17+18	Full	157	5785	22.03	22.50	1.115	100	1.000	0.09	0.713	**0.795**
	5.8GHz WLAN	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 17+18	Simultaneous	155	5775	16.96	17.50	1.132	100	1.000	0.04	0.172	0.195

16.2 Hotspot 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)
750MHz																	
	LTE Band 12	10M	QPSK	1	0	Front	10mm	Ant 0	DSI 5	23095	707.5	24.37	25.50	1.297	0.13	0.252	0.327
	LTE Band 12	10M	QPSK	25	0	Front	10mm	Ant 0	DSI 5	23095	707.5	23.37	24.50	1.297	0.1	0.204	0.265
	LTE Band 12	10M	QPSK	1	0	Back	10mm	Ant 0	DSI 5	23095	707.5	24.37	25.50	1.297	0.06	0.273	0.354
	LTE Band 12	10M	QPSK	25	0	Back	10mm	Ant 0	DSI 5	23095	707.5	23.37	24.50	1.297	0.14	0.237	0.307
	LTE Band 12	10M	QPSK	1	0	Right Side	10mm	Ant 0	DSI 5	23095	707.5	24.37	25.50	1.297	0.08	0.225	0.292
	LTE Band 12	10M	QPSK	25	0	Right Side	10mm	Ant 0	DSI 5	23095	707.5	23.37	24.50	1.297	0.08	0.181	0.235
	LTE Band 12	10M	QPSK	1	0	Bottom Side	10mm	Ant 0	DSI 5	23095	707.5	24.37	25.50	1.297	0.12	0.148	0.192
	LTE Band 12	10M	QPSK	25	0	Bottom Side	10mm	Ant 0	DSI 5	23095	707.5	23.37	24.50	1.297	0.06	0.124	0.161
	LTE Band 12	10M	QPSK	1	0	Front	10mm	Ant 1	DSI 5	23095	707.5	21.55	22.70	1.303	0.13	0.250	0.326
	LTE Band 12	10M	QPSK	25	0	Front	10mm	Ant 1	DSI 5	23095	707.5	21.43	22.70	1.340	0.09	0.257	0.344
	LTE Band 12	10M	QPSK	1	0	Back	10mm	Ant 1	DSI 5	23095	707.5	21.55	22.70	1.303	0.08	0.297	0.387
	LTE Band 12	10M	QPSK	25	0	Back	10mm	Ant 1	DSI 5	23095	707.5	21.43	22.70	1.340	0.09	0.304	0.407
	LTE Band 12	10M	QPSK	1	0	Left Side	10mm	Ant 1	DSI 5	23095	707.5	21.55	22.70	1.303	0.11	0.440	0.573
26	LTE Band 12	10M	QPSK	25	0	Left Side	10mm	Ant 1	DSI 5	23095	707.5	21.43	22.70	1.340	0.01	0.443	**0.593**
	LTE Band 13	10M	QPSK	1	0	Front	10mm	Ant 0	DSI 5	23230	782	24.36	25.50	1.300	0.08	0.199	0.259
	LTE Band 13	10M	QPSK	25	0	Front	10mm	Ant 0	DSI 5	23230	782	23.45	24.50	1.274	0.12	0.157	0.200
	LTE Band 13	10M	QPSK	1	0	Back	10mm	Ant 0	DSI 5	23230	782	24.36	25.50	1.300	0.09	0.230	0.299
	LTE Band 13	10M	QPSK	25	0	Back	10mm	Ant 0	DSI 5	23230	782	23.45	24.50	1.274	0.05	0.168	0.214
	LTE Band 13	10M	QPSK	1	0	Right Side	10mm	Ant 0	DSI 5	23230	782	24.36	25.50	1.300	0.11	0.069	0.090
	LTE Band 13	10M	QPSK	25	0	Right Side	10mm	Ant 0	DSI 5	23230	782	23.45	24.50	1.274	0.07	0.054	0.069
	LTE Band 13	10M	QPSK	1	0	Bottom Side	10mm	Ant 0	DSI 5	23230	782	24.36	25.50	1.300	0.11	0.119	0.155
	LTE Band 13	10M	QPSK	25	0	Bottom Side	10mm	Ant 0	DSI 5	23230	782	23.45	24.50	1.274	0.12	0.092	0.117
	LTE Band 13	10M	QPSK	1	0	Front	10mm	Ant 1	DSI 5	23230	782	20.52	21.70	1.312	0.05	0.291	0.382
	LTE Band 13	10M	QPSK	25	0	Front	10mm	Ant 1	DSI 5	23230	782	20.25	21.70	1.396	0.13	0.278	0.388
	LTE Band 13	10M	QPSK	1	0	Back	10mm	Ant 1	DSI 5	23230	782	20.52	21.70	1.312	0.06	0.351	0.461
	LTE Band 13	10M	QPSK	25	0	Back	10mm	Ant 1	DSI 5	23230	782	20.25	21.70	1.396	0.04	0.335	0.468
27	LTE Band 13	10M	QPSK	1	0	Left Side	10mm	Ant 1	DSI 5	23230	782	20.52	21.70	1.312	-0.03	0.502	**0.659**
	LTE Band 13	10M	QPSK	25	0	Left Side	10mm	Ant 1	DSI 5	23230	782	20.25	21.70	1.396	0.1	0.459	0.641

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)
								835 MHZ										
	GSM850	-	-	-	-	GPRS 4 Tx slots	Front	10mm	Ant 0	DSI 5	189	836.4	25.88	27.50	1.452	0.1	0.213	0.309
	GSM850	-	-	-	-	GPRS 4 Tx slots	Back	10mm	Ant 0	DSI 5	189	836.4	25.88	27.50	1.452	0.1	0.321	0.466
	GSM850	-	-	-	-	GPRS 4 Tx slots	Right Side	10mm	Ant 0	DSI 5	189	836.4	25.88	27.50	1.452	0.12	0.242	0.351
	GSM850	-	-	-	-	GPRS 4 Tx slots	Bottom Side	10mm	Ant 0	DSI 5	189	836.4	25.88	27.50	1.452	0.1	0.150	0.218
	GSM850	-	-	-	-	GPRS 4 Tx slots	Front	10mm	Ant 1	DSI 5	189	836.4	24.11	25.00	1.227	0.11	0.264	0.324
	GSM850	-	-	-	-	GPRS 4 Tx slots	Back	10mm	Ant 1	DSI 5	189	836.4	24.11	25.00	1.227	0.04	0.320	0.393
28	GSM850	-	-	-	-	GPRS 4 Tx slots	Left Side	10mm	Ant 1	DSI 5	189	836.4	24.11	25.00	1.227	0.01	0.471	**0.578**
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 0	DSI 5	4182	836.4	23.92	25.00	1.282	0.14	0.364	0.467
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 0	DSI 5	4182	836.4	23.92	25.00	1.282	0.13	0.378	0.485
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Side	10mm	Ant 0	DSI 5	4182	836.4	23.92	25.00	1.282	0.13	0.389	0.499
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Bottom Side	10mm	Ant 0	DSI 5	4182	836.4	23.92	25.00	1.282	0.05	0.260	0.333
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 1	DSI 5	4182	836.4	21.27	22.70	1.390	0.08	0.304	0.423
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 1	DSI 5	4182	836.4	21.27	22.70	1.390	0.12	0.368	0.512
29	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 1	DSI 5	4182	836.4	21.27	22.70	1.390	-0.01	**0.520**	**0.723**
	LTE Band 26	15M	QPSK	1	0	-	Front	10mm	Ant 0	DSI 5	26865	831.5	24.48	25.50	1.265	0.13	0.339	0.429
	LTE Band 26	15M	QPSK	36	0	-	Front	10mm	Ant 0	DSI 5	26865	831.5	23.42	24.50	1.282	0.12	0.286	0.367
30	LTE Band 26	15M	QPSK	1	0	-	Back	10mm	Ant 0	DSI 5	26865	831.5	24.48	25.50	1.265	-0.05	0.467	**0.591**
	LTE Band 26	15M	QPSK	36	0	-	Back	10mm	Ant 0	DSI 5	26865	831.5	23.42	24.50	1.282	0.14	0.390	0.500
	LTE Band 26	15M	QPSK	1	0	-	Right Side	10mm	Ant 0	DSI 5	26865	831.5	24.48	25.50	1.265	0.06	0.450	0.569
	LTE Band 26	15M	QPSK	36	0	-	Right Side	10mm	Ant 0	DSI 5	26865	831.5	23.42	24.50	1.282	0.05	0.371	0.476
	LTE Band 26	15M	QPSK	1	0	-	Bottom Side	10mm	Ant 0	DSI 5	26865	831.5	24.48	25.50	1.265	0.07	0.284	0.359
	LTE Band 26	15M	QPSK	36	0	-	Bottom Side	10mm	Ant 0	DSI 5	26865	831.5	23.42	24.50	1.282	0.12	0.234	0.300
	LTE Band 26	15M	QPSK	1	0	-	Front	10mm	Ant 1	DSI 5	26865	831.5	21.38	22.70	1.355	0.05	0.198	0.268
	LTE Band 26	15M	QPSK	36	0	-	Front	10mm	Ant 1	DSI 5	26865	831.5	21.32	22.70	1.374	0.13	0.218	0.300
	LTE Band 26	15M	QPSK	1	0	-	Back	10mm	Ant 1	DSI 5	26865	831.5	21.38	22.70	1.355	0.12	0.237	0.321
	LTE Band 26	15M	QPSK	36	0	-	Back	10mm	Ant 1	DSI 5	26865	831.5	21.32	22.70	1.374	0.07	0.265	0.364
	LTE Band 26	15M	QPSK	1	0	-	Left Side	10mm	Ant 1	DSI 5	26865	831.5	21.38	22.70	1.355	0.05	0.410	0.556
	LTE Band 26	15M	QPSK	36	0	-	Left Side	10mm	Ant 1	DSI 5	26865	831.5	21.32	22.70	1.374	0.09	0.427	0.587
	FR1 n5	20M	QPSK	1	1	DFT-15	Front	10mm	Ant 0	DSI 5	167300	836.5	24.46	25.50	1.271	0.06	0.241	0.306
	FR1 n5	20M	QPSK	50	28	DFT-15	Front	10mm	Ant 0	DSI 5	167300	836.5	24.45	25.50	1.274	0.14	0.244	0.311
	FR1 n5	20M	QPSK	1	1	DFT-15	Back	10mm	Ant 0	DSI 5	167300	836.5	24.46	25.50	1.271	0.06	0.314	0.399
	FR1 n5	20M	QPSK	50	28	DFT-15	Back	10mm	Ant 0	DSI 5	167300	836.5	24.45	25.50	1.274	0.06	0.324	0.413
	FR1 n5	20M	QPSK	1	1	DFT-15	Right Side	10mm	Ant 0	DSI 5	167300	836.5	24.46	25.50	1.271	0.06	0.357	0.454
	FR1 n5	20M	QPSK	50	28	DFT-15	Right Side	10mm	Ant 0	DSI 5	167300	836.5	24.45	25.50	1.274	0.04	0.364	0.464
	FR1 n5	20M	QPSK	1	1	DFT-15	Bottom Side	10mm	Ant 0	DSI 5	167300	836.5	24.46	25.50	1.271	0.12	0.178	0.226
	FR1 n5	20M	QPSK	50	28	DFT-15	Bottom Side	10mm	Ant 0	DSI 5	167300	836.5	24.45	25.50	1.274	0.12	0.188	0.239
	FR1 n5	20M	QPSK	1	1	DFT-15	Front	10mm	Ant 1	DSI 5	167300	836.5	21.41	22.70	1.346	0.14	0.267	0.359
	FR1 n5	20M	QPSK	50	28	DFT-15	Front	10mm	Ant 1	DSI 5	167300	836.5	21.21	22.70	1.409	0.1	0.298	0.420
	FR1 n5	20M	QPSK	1	1	DFT-15	Back	10mm	Ant 1	DSI 5	167300	836.5	21.41	22.70	1.346	0.08	0.313	0.421
	FR1 n5	20M	QPSK	50	28	DFT-15	Back	10mm	Ant 1	DSI 5	167300	836.5	21.21	22.70	1.409	0.05	0.352	0.496
	FR1 n5	20M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 1	DSI 5	167300	836.5	21.41	22.70	1.346	0.13	0.550	0.740
31	FR1 n5	20M	QPSK	50	28	DFT-15	Left Side	10mm	Ant 1	DSI 5	167300	836.5	21.21	22.70	1.409	0.01	0.572	**0.806**
	FR1 n5	20M	QPSK	100	0	DFT-15	Left Side	10mm	Ant 1	DSI 5	167300	836.5	21.22	22.70	1.406	0.02	0.542	0.762

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)
1750 MHZ																		
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 3	DSI 5	1413	1732.6	21.65	23.00	1.365	0.07	0.503	0.686
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 3	DSI 5	1413	1732.6	21.65	23.00	1.365	0.07	0.441	0.602
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 3	DSI 5	1413	1732.6	21.65	23.00	1.365	0.1	0.180	0.246
32	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Bottom Side	10mm	Ant 3	DSI 5	1413	1732.6	21.65	23.00	1.365	-0.02	0.738	**1.007**
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Bottom Side	10mm	Ant 3	DSI 5	1312	1712.4	21.60	23.00	1.380	0.01	0.723	0.998
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Bottom Side	10mm	Ant 3	DSI 5	1513	1752.6	21.56	23.00	1.393	-0.08	0.702	0.978
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 4	DSI 5	1413	1732.6	16.58	18.00	1.387	0.06	0.102	0.141
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 4	DSI 5	1413	1732.6	16.58	18.00	1.387	0.06	0.129	0.179
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 4	DSI 5	1413	1732.6	16.58	18.00	1.387	0.06	0.057	0.079
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Top Side	10mm	Ant 4	DSI 5	1413	1732.6	16.58	18.00	1.387	0.09	0.146	0.202
	LTE Band 66	20M	QPSK	1	0	-	Front	10mm	Ant 0	DSI 5	132322	1745	21.49	23.00	1.416	0.08	0.149	0.211
	LTE Band 66	20M	QPSK	50	0	-	Front	10mm	Ant 0	DSI 5	132322	1745	20.41	22.00	1.442	0.06	0.123	0.177
	LTE Band 66	20M	QPSK	1	0	-	Back	10mm	Ant 0	DSI 5	132322	1745	21.49	23.00	1.416	0.14	0.144	0.204
	LTE Band 66	20M	QPSK	50	0	-	Back	10mm	Ant 0	DSI 5	132322	1745	20.41	22.00	1.442	0.04	0.115	0.166
	LTE Band 66	20M	QPSK	1	0	-	Right Side	10mm	Ant 0	DSI 5	132322	1745	21.49	23.00	1.416	0.1	0.175	0.248
	LTE Band 66	20M	QPSK	50	0	-	Right Side	10mm	Ant 0	DSI 5	132322	1745	20.41	22.00	1.442	0.09	0.142	0.205
	LTE Band 66	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 0	DSI 5	132322	1745	21.49	23.00	1.416	0.08	0.050	0.071
	LTE Band 66	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 0	DSI 5	132322	1745	20.41	22.00	1.442	0.06	0.041	0.059
	LTE Band 66	20M	QPSK	1	0	-	Front	10mm	Ant 3	DSI 5	132322	1745	22.44	23.00	1.138	0.09	0.478	0.544
	LTE Band 66	20M	QPSK	50	0	-	Front	10mm	Ant 3	DSI 5	132322	1745	22.43	23.00	1.140	0.08	0.485	0.553
	LTE Band 66	20M	QPSK	1	0	-	Back	10mm	Ant 3	DSI 5	132322	1745	22.44	23.00	1.138	0.08	0.470	0.535
	LTE Band 66	20M	QPSK	50	0	-	Back	10mm	Ant 3	DSI 5	132322	1745	22.43	23.00	1.140	0.06	0.471	0.537
	LTE Band 66	20M	QPSK	1	0	-	Left Side	10mm	Ant 3	DSI 5	132322	1745	22.44	23.00	1.138	0.13	0.175	0.199
	LTE Band 66	20M	QPSK	50	0	-	Left Side	10mm	Ant 3	DSI 5	132322	1745	22.43	23.00	1.140	0.08	0.174	0.198
	LTE Band 66	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 3	DSI 5	132322	1745	22.44	23.00	1.138	0.09	0.812	0.924
	LTE Band 66	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 3	DSI 5	132072	1720	22.24	23.00	1.191	0.11	0.802	0.955
33	LTE Band 66	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 3	DSI 5	132572	1770	22.27	23.00	1.183	-0.01	0.857	**1.014**
	LTE Band 66	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 3	DSI 5	132322	1745	22.43	23.00	1.140	0.11	0.840	0.958
	LTE Band 66	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 3	DSI 5	132072	1720	22.33	23.00	1.167	0.12	0.762	0.889
	LTE Band 66	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 3	DSI 5	132572	1770	22.26	23.00	1.186	0.09	0.854	1.013
	LTE Band 66	20M	QPSK	100	0	-	Bottom Side	10mm	Ant 3	DSI 5	132322	1745	22.32	23.00	1.169	0.11	0.780	0.912
	LTE Band 66	20M	QPSK	1	0	-	Front	10mm	Ant 4	DSI 5	132322	1745	16.66	18.00	1.361	0.1	0.101	0.138
	LTE Band 66	20M	QPSK	50	0	-	Front	10mm	Ant 4	DSI 5	132322	1745	16.47	18.00	1.422	0.06	0.101	0.144
	LTE Band 66	20M	QPSK	1	0	-	Back	10mm	Ant 4	DSI 5	132322	1745	16.66	18.00	1.361	0.12	0.139	0.189
	LTE Band 66	20M	QPSK	50	0	-	Back	10mm	Ant 4	DSI 5	132322	1745	16.47	18.00	1.422	0.1	0.140	0.199
	LTE Band 66	20M	QPSK	1	0	-	Left Side	10mm	Ant 4	DSI 5	132322	1745	16.66	18.00	1.361	0.07	0.039	0.053
	LTE Band 66	20M	QPSK	50	0	-	Left Side	10mm	Ant 4	DSI 5	132322	1745	16.47	18.00	1.422	0.06	0.038	0.054
	LTE Band 66	20M	QPSK	1	0	-	Top Side	10mm	Ant 4	DSI 5	132322	1745	16.66	18.00	1.361	0.02	0.159	0.216
	LTE Band 66	20M	QPSK	50	0	-	Top Side	10mm	Ant 4	DSI 5	132322	1745	16.47	18.00	1.422	0.11	0.151	0.215
	LTE Band 66	20M	QPSK	1	0	-	Front	10mm	Ant 5	DSI 5	132322	1745	18.81	20.5	1.476	0.11	0.095	0.140
	LTE Band 66	20M	QPSK	50	0	-	Front	10mm	Ant 5	DSI 5	132322	1745	18.77	20.5	1.489	0.1	0.098	0.146
	LTE Band 66	20M	QPSK	1	0	-	Back	10mm	Ant 5	DSI 5	132322	1745	18.81	20.5	1.476	0.13	0.126	0.186
	LTE Band 66	20M	QPSK	50	0	-	Back	10mm	Ant 5	DSI 5	132322	1745	18.77	20.5	1.489	0.09	0.133	0.198
	LTE Band 66	20M	QPSK	1	0	-	Left Side	10mm	Ant 5	DSI 5	132322	1745	18.81	20.5	1.476	0.1	0.225	0.332
	LTE Band 66	20M	QPSK	50	0	-	Left Side	10mm	Ant 5	DSI 5	132322	1745	18.77	20.5	1.489	0.12	0.232	0.346
	LTE Band 66	20M	QPSK	1	0	-	Top Side	10mm	Ant 5	DSI 5	132322	1745	18.81	20.5	1.476	0.07	0.005	0.007
	LTE Band 66	20M	QPSK	50	0	-	Top Side	10mm	Ant 5	DSI 5	132322	1745	18.77	20.5	1.489	0.04	0.006	0.009
	FR1 n66	40M	QPSK	1	1	DFT-15	Front	10mm	Ant 0	DSI 5	349000	1745	22.99	24.50	1.416	0.09	0.168	0.238
	FR1 n66	40M	QPSK	108	54	DFT-15	Front	10mm	Ant 0	DSI 5	349000	1745	22.91	24.50	1.442	0.09	0.176	0.254
	FR1 n66	40M	QPSK	1	1	DFT-15	Back	10mm	Ant 0	DSI 5	349000	1745	22.99	24.50	1.416	0.1	0.149	0.211
	FR1 n66	40M	QPSK	108	54	DFT-15	Back	10mm	Ant 0	DSI 5	349000	1745	22.91	24.50	1.442	0.07	0.165	0.238
	FR1 n66	40M	QPSK	1	1	DFT-15	Right Side	10mm	Ant 0	DSI 5	349000	1745	22.99	24.50	1.416	0.07	0.246	0.348
	FR1 n66	40M	QPSK	108	54	DFT-15	Right Side	10mm	Ant 0	DSI 5	349000	1745	22.91	24.50	1.442	0.1	0.249	0.359

	FR1 n66	40M	QPSK	1	1	DFT-15	Bottom Side	10mm	Ant 0	DSI 5	349000	1745	22.99	24.50	1.416	0.07	0.077	0.109
	FR1 n66	40M	QPSK	108	54	DFT-15	Bottom Side	10mm	Ant 0	DSI 5	349000	1745	22.91	24.50	1.442	0.11	0.078	0.112
	FR1 n66	40M	QPSK	1	1	DFT-15	Front	10mm	Ant 3	DSI 5	349000	1745	21.38	23.00	1.452	0.12	0.350	0.508
	FR1 n66	40M	QPSK	108	54	DFT-15	Front	10mm	Ant 3	DSI 5	349000	1745	21.35	23.00	1.462	0.11	0.376	0.550
	FR1 n66	40M	QPSK	1	1	DFT-15	Back	10mm	Ant 3	DSI 5	349000	1745	21.38	23.00	1.452	0.07	0.327	0.475
	FR1 n66	40M	QPSK	108	54	DFT-15	Back	10mm	Ant 3	DSI 5	349000	1745	21.35	23.00	1.462	0.09	0.341	0.499
	FR1 n66	40M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 3	DSI 5	349000	1745	21.38	23.00	1.452	0.13	0.123	0.179
	FR1 n66	40M	QPSK	108	54	DFT-15	Left Side	10mm	Ant 3	DSI 5	349000	1745	21.35	23.00	1.462	0.06	0.128	0.187
	FR1 n66	40M	QPSK	1	1	DFT-15	Bottom Side	10mm	Ant 3	DSI 5	349000	1745	21.38	23.00	1.452	0.08	0.566	0.822
34	FR1 n66	40M	QPSK	108	54	DFT-15	Bottom Side	10mm	Ant 3	DSI 5	349000	1745	21.35	23.00	1.462	0.02	0.591	**0.864**
	FR1 n66	40M	QPSK	216	0	DFT-15	Bottom Side	10mm	Ant 3	DSI 5	349000	1745	21.33	23.00	1.469	0.09	0.532	0.781
	FR1 n66	40M	QPSK	1	1	DFT-15	Front	10mm	Ant 4	DSI 5	349000	1745	18.53	19.50	1.250	0.1	0.130	0.163
	FR1 n66	40M	QPSK	108	54	DFT-15	Front	10mm	Ant 4	DSI 5	349000	1745	18.44	19.50	1.276	0.13	0.126	0.161
	FR1 n66	40M	QPSK	1	1	DFT-15	Back	10mm	Ant 4	DSI 5	349000	1745	18.53	19.50	1.250	0.14	0.162	0.203
	FR1 n66	40M	QPSK	108	54	DFT-15	Back	10mm	Ant 4	DSI 5	349000	1745	18.44	19.50	1.276	0.08	0.151	0.193
	FR1 n66	40M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 4	DSI 5	349000	1745	18.53	19.50	1.250	0.06	0.071	0.089
	FR1 n66	40M	QPSK	108	54	DFT-15	Left Side	10mm	Ant 4	DSI 5	349000	1745	18.44	19.50	1.276	0.1	0.072	0.092
	FR1 n66	40M	QPSK	1	1	DFT-15	Top Side	10mm	Ant 4	DSI 5	349000	1745	18.53	19.50	1.250	0.06	0.209	0.261
	FR1 n66	40M	QPSK	108	54	DFT-15	Top Side	10mm	Ant 4	DSI 5	349000	1745	18.44	19.50	1.276	0.05	0.248	0.317
	FR1 n66	40M	QPSK	1	1	DFT-15	Front	10mm	Ant 5	DSI 5	349000	1745	17.81	19.00	1.315	0.08	0.118	0.155
	FR1 n66	40M	QPSK	108	54	DFT-15	Front	10mm	Ant 5	DSI 5	349000	1745	17.79	19.00	1.321	0.13	0.118	0.156
	FR1 n66	40M	QPSK	1	1	DFT-15	Back	10mm	Ant 5	DSI 5	349000	1745	17.81	19.00	1.315	0.05	0.153	0.201
	FR1 n66	40M	QPSK	108	54	DFT-15	Back	10mm	Ant 5	DSI 5	349000	1745	17.79	19.00	1.321	0.08	0.156	0.206
	FR1 n66	40M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 5	DSI 5	349000	1745	17.81	19.00	1.315	0.04	0.274	0.360
	FR1 n66	40M	QPSK	108	54	DFT-15	Left Side	10mm	Ant 5	DSI 5	349000	1745	17.79	19.00	1.321	0.08	0.338	0.447
	FR1 n66	40M	QPSK	1	1	DFT-15	Top Side	10mm	Ant 5	DSI 5	349000	1745	17.81	19.00	1.315	0.09	0.004	0.005
	FR1 n66	40M	QPSK	108	54	DFT-15	Top Side	10mm	Ant 5	DSI 5	349000	1745	17.79	19.00	1.321	0.07	0.003	0.004

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)
1900 MHZ																		
	GSM1900	-	-	-	-	GPRS 4 Tx slots	Front	10mm	Ant 3	DSI 5	661	1880	23.45	24.50	1.274	0.08	0.252	0.321
	GSM1900	-	-	-	-	GPRS 4 Tx slots	Back	10mm	Ant 3	DSI 5	661	1880	23.45	24.50	1.274	0.1	0.216	0.275
	GSM1900	-	-	-	-	GPRS 4 Tx slots	Left Side	10mm	Ant 3	DSI 5	661	1880	23.45	24.50	1.274	0.08	0.082	0.104
35	GSM1900	-	-	-	-	GPRS 4 Tx slots	Bottom Side	10mm	Ant 3	DSI 5	661	1880	23.45	24.50	1.274	0.1	0.403	**0.513**
	GSM1900	-	-	-	-	GPRS 1 Tx slots	Front	10mm	Ant 4	DSI 5	661	1880	26.19	27.00	1.205	0.12	0.227	0.274
	GSM1900	-	-	-	-	GPRS 1 Tx slots	Back	10mm	Ant 4	DSI 5	661	1880	26.19	27.00	1.205	0.04	0.273	0.329
	GSM1900	-	-	-	-	GPRS 1 Tx slots	Left Side	10mm	Ant 4	DSI 5	661	1880	26.19	27.00	1.205	0.08	0.118	0.142
	GSM1900	-	-	-	-	GPRS 1 Tx slots	Top Side	10mm	Ant 4	DSI 5	661	1880	26.19	27.00	1.205	0.1	0.353	0.425
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 3	DSI 5	9400	1880	21.76	23.00	1.330	0.06	0.454	0.604
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 3	DSI 5	9400	1880	21.76	23.00	1.330	0.08	0.432	0.575
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 3	DSI 5	9400	1880	21.76	23.00	1.330	0.13	0.164	0.218
36	WCDMA II	-	-	-	-	RMC 12.2Kbps	Bottom Side	10mm	Ant 3	DSI 5	9400	1880	21.76	23.00	1.330	0.01	0.758	**1.008**
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Bottom Side	10mm	Ant 3	DSI 5	9262	1852.4	21.74	23.00	1.337	0.03	0.691	0.924
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Bottom Side	10mm	Ant 3	DSI 5	9538	1907.6	21.72	23.00	1.343	0.09	0.723	0.971
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 4	DSI 5	9400	1880	15.68	17.00	1.355	0.05	0.073	0.099
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 4	DSI 5	9400	1880	15.68	17.00	1.355	0.04	0.101	0.137
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 4	DSI 5	9400	1880	15.68	17.00	1.355	0.1	0.040	0.054
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Top Side	10mm	Ant 4	DSI 5	9400	1880	15.68	17.00	1.355	0.1	0.202	0.274
	LTE Band 25	20M	QPSK	1	0	-	Front	10mm	Ant 3	DSI 5	26340	1880	22.16	22.50	1.081	0.07	0.451	0.488
	LTE Band 25	20M	QPSK	50	0	-	Front	10mm	Ant 3	DSI 5	26340	1880	22.12	22.50	1.091	0.11	0.463	0.505
	LTE Band 25	20M	QPSK	1	0	-	Back	10mm	Ant 3	DSI 5	26340	1880	22.16	22.50	1.081	0.13	0.465	0.503
	LTE Band 25	20M	QPSK	50	0	-	Back	10mm	Ant 3	DSI 5	26340	1880	22.12	22.50	1.091	0.12	0.479	0.523
	LTE Band 25	20M	QPSK	1	0	-	Left Side	10mm	Ant 3	DSI 5	26340	1880	22.16	22.50	1.081	0.14	0.189	0.204
	LTE Band 25	20M	QPSK	50	0	-	Left Side	10mm	Ant 3	DSI 5	26340	1880	22.12	22.50	1.091	0.07	0.195	0.213
	LTE Band 25	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 3	DSI 5	26340	1880	22.16	22.50	1.081	0.05	0.863	0.933
	LTE Band 25	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 3	DSI 5	26140	1860	21.87	22.50	1.156	0.11	0.850	0.983
37	LTE Band 25	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 3	DSI 5	26590	1905	22.02	22.50	1.117	0.02	0.887	**0.991**
	LTE Band 25	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 3	DSI 5	26340	1880	22.12	22.50	1.091	0.08	0.880	0.960
	LTE Band 25	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 3	DSI 5	26140	1860	22.04	22.50	1.112	0.09	0.858	0.954
	LTE Band 25	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 3	DSI 5	26590	1905	21.96	22.50	1.132	0.09	0.871	0.986
	LTE Band 25	20M	QPSK	100	0	-	Bottom Side	10mm	Ant 3	DSI 5	26340	1880	22.00	22.50	1.122	0.03	0.863	0.968
	LTE Band 25	20M	QPSK	1	0	-	Front	10mm	Ant 4	DSI 5	26340	1880	16.24	17.50	1.337	0.11	0.089	0.119
	LTE Band 25	20M	QPSK	50	0	-	Front	10mm	Ant 4	DSI 5	26340	1880	16.22	17.50	1.343	0.1	0.092	0.124
	LTE Band 25	20M	QPSK	1	0	-	Back	10mm	Ant 4	DSI 5	26340	1880	16.24	17.50	1.337	0.13	0.115	0.154
	LTE Band 25	20M	QPSK	50	0	-	Back	10mm	Ant 4	DSI 5	26340	1880	16.22	17.50	1.343	0.13	0.121	0.162
	LTE Band 25	20M	QPSK	1	0	-	Left Side	10mm	Ant 4	DSI 5	26340	1880	16.24	17.50	1.337	0.08	0.046	0.061
	LTE Band 25	20M	QPSK	50	0	-	Left Side	10mm	Ant 4	DSI 5	26340	1880	16.22	17.50	1.343	0.11	0.047	0.063
	LTE Band 25	20M	QPSK	1	0	-	Top Side	10mm	Ant 4	DSI 5	26340	1880	16.24	17.50	1.337	0.11	0.203	0.271
	LTE Band 25	20M	QPSK	50	0	-	Top Side	10mm	Ant 4	DSI 5	26340	1880	16.22	17.50	1.343	0.06	0.214	0.287

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)
										2600 MHZ										
	LTE Band 7	20M	QPSK	1	0	-	Front	10mm	Ant 0	DSI 5	21100	2535	18.54	19.50	1.247	-	-	0.07	0.097	0.121
	LTE Band 7	20M	QPSK	50	0	-	Front	10mm	Ant 0	DSI 5	21100	2535	18.43	19.50	1.279	-	-	0.13	0.101	0.129
	LTE Band 7	20M	QPSK	1	0	-	Back	10mm	Ant 0	DSI 5	21100	2535	18.54	19.50	1.247	-	-	0.1	0.087	0.109
	LTE Band 7	20M	QPSK	50	0	-	Back	10mm	Ant 0	DSI 5	21100	2535	18.43	19.50	1.279	-	-	0.04	0.095	0.122
	LTE Band 7	20M	QPSK	1	0	-	Right Side	10mm	Ant 0	DSI 5	21100	2535	18.54	19.50	1.247	-	-	0.14	0.065	0.081
	LTE Band 7	20M	QPSK	50	0	-	Right Side	10mm	Ant 0	DSI 5	21100	2535	18.43	19.50	1.279	-	-	0.1	0.070	0.090
	LTE Band 7	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 0	DSI 5	21100	2535	18.54	19.50	1.247	-	-	0.14	0.134	0.167
	LTE Band 7	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 0	DSI 5	21100	2535	18.43	19.50	1.279	-	-	0.05	0.139	0.178
	LTE Band 7_UL_CA	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 0	DSI 5	21100+21298	2535+2554.8	17.95	19.50	1.429	-	-	0.06	0.102	0.146
	LTE Band 7	20M	QPSK	1	0	-	Front	10mm	Ant 3	DSI 5	21100	2535	19.54	20.50	1.247	-	-	0.05	0.145	0.181
	LTE Band 7	20M	QPSK	50	0	-	Front	10mm	Ant 3	DSI 5	21100	2535	19.50	20.50	1.259	-	-	0.07	0.145	0.183
	LTE Band 7	20M	QPSK	1	0	-	Back	10mm	Ant 3	DSI 5	21100	2535	19.54	20.50	1.247	-	-	0.13	0.198	0.247
	LTE Band 7	20M	QPSK	50	0	-	Back	10mm	Ant 3	DSI 5	21100	2535	19.50	20.50	1.259	-	-	0.09	0.202	0.254
	LTE Band 7	20M	QPSK	1	0	-	Left Side	10mm	Ant 3	DSI 5	21100	2535	19.54	20.50	1.247	-	-	0.11	0.062	0.077
	LTE Band 7	20M	QPSK	50	0	-	Left Side	10mm	Ant 3	DSI 5	21100	2535	19.50	20.50	1.259	-	-	0.05	0.064	0.081
	LTE Band 7	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 3	DSI 5	21100	2535	19.54	20.50	1.247	-	-	-0.03	0.354	0.442
	LTE Band 7_UL_CA	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 3	DSI 5	21100+21298	2535+2554.8	19.26	20.50	1.330	-	-	0.13	0.305	0.406
	LTE Band 7	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 3	DSI 5	21100	2535	19.50	20.50	1.259	-	-	0.08	0.348	0.438
	LTE Band 7	20M	QPSK	1	0	-	Front	10mm	Ant 4	DSI 5	21100	2535	17.20	19.00	1.514	-	-	0.12	0.077	0.117
	LTE Band 7	20M	QPSK	50	0	-	Front	10mm	Ant 4	DSI 5	21100	2535	17.17	19.00	1.524	-	-	0.06	0.078	0.119
	LTE Band 7	20M	QPSK	1	0	-	Back	10mm	Ant 4	DSI 5	21100	2535	17.20	19.00	1.514	-	-	0.13	0.068	0.103
	LTE Band 7	20M	QPSK	50	0	-	Back	10mm	Ant 4	DSI 5	21100	2535	17.17	19.00	1.524	-	-	0.13	0.067	0.102
	LTE Band 7	20M	QPSK	1	0	-	Left Side	10mm	Ant 4	DSI 5	21100	2535	17.20	19.00	1.514	-	-	0.06	0.024	0.036
	LTE Band 7	20M	QPSK	50	0	-	Left Side	10mm	Ant 4	DSI 5	21100	2535	17.17	19.00	1.524	-	-	0.06	0.006	0.009
	LTE Band 7	20M	QPSK	1	0	-	Top Side	10mm	Ant 4	DSI 5	21100	2535	17.20	19.00	1.514	-	-	0.08	0.161	0.244
	LTE Band 7_UL_CA	20M	QPSK	1	0	-	Top Side	10mm	Ant 4	DSI 5	21100+21298	2535+2554.8	17.13	19.00	1.538	-	-	0.05	0.123	0.189
	LTE Band 7	20M	QPSK	50	0	-	Top Side	10mm	Ant 4	DSI 5	21100	2535	17.17	19.00	1.524	-	-	0.1	0.158	0.241
	LTE Band 7	20M	QPSK	1	0	-	Front	10mm	Ant 5	DSI 5	21100	2535	20.47	21.50	1.268	-	-	0.09	0.090	0.114
	LTE Band 7	20M	QPSK	50	0	-	Front	10mm	Ant 5	DSI 5	21100	2535	20.38	21.50	1.294	-	-	0.1	0.095	0.123
	LTE Band 7	20M	QPSK	1	0	-	Back	10mm	Ant 5	DSI 5	21100	2535	20.47	21.50	1.268	-	-	0.08	0.125	0.158
	LTE Band 7	20M	QPSK	50	0	-	Back	10mm	Ant 5	DSI 5	21100	2535	20.38	21.50	1.294	-	-	0.12	0.131	0.170
	LTE Band 7	20M	QPSK	1	0	-	Left Side	10mm	Ant 5	DSI 5	21100	2535	20.47	21.50	1.268	-	-	0.07	0.242	0.307
	LTE Band 7	20M	QPSK	50	0	-	Left Side	10mm	Ant 5	DSI 5	21100	2535	20.38	21.50	1.294	-	-	0.13	0.249	0.322
	LTE Band 7_UL_CA	20M	QPSK	50	0	-	Left Side	10mm	Ant 5	DSI 5	21100+21298	2535+2554.8	19.85	21.50	1.462	-	-	0.05	0.203	0.297
	LTE Band 7	20M	QPSK	1	0	-	Top Side	10mm	Ant 5	DSI 5	21100	2535	20.47	21.50	1.268	-	-	0.11	0.015	0.019
	LTE Band 7	20M	QPSK	50	0	-	Top Side	10mm	Ant 5	DSI 5	21100	2535	20.38	21.50	1.294	-	-	0.12	0.005	0.006
	LTE Band 7	20M	QPSK	1	0		Front	10mm	Ant 7	DSI 5	21100	2535	23.28	24.50	1.324	-	-	-0.11	0.030	0.040
	LTE Band 7	20M	QPSK	50	0		Front	10mm	Ant 7	DSI 5	21100	2535	22.32	23.50	1.312	-	-	0.1	0.030	0.039
38	LTE Band 7	20M	QPSK	1	0		Back	10mm	Ant 7	DSI 5	21100	2535	23.28	24.50	1.324	-	-	0.02	0.384	**0.509**
	LTE Band 7	20M	QPSK	50	0		Back	10mm	Ant 7	DSI 5	21100	2535	22.32	23.50	1.312	-	-	-0.08	0.300	0.394
	LTE Band 7	20M	QPSK	1	0		Left Side	10mm	Ant 7	DSI 5	21100	2535	23.28	24.50	1.324	-	-	0.08	0.148	0.196
	LTE Band 7	20M	QPSK	50	0		Left Side	10mm	Ant 7	DSI 5	21100	2535	22.32	23.50	1.312	-	-	0.03	0.120	0.157
	LTE Band 41	20M	QPSK	1	0	-	Front	10mm	Ant 0	DSI 5	40620	2593	22.38	23.00	1.153	62.9	1.006	0.04	0.140	0.162
	LTE Band 41	20M	QPSK	50	0	-	Front	10mm	Ant 0	DSI 5	40620	2593	21.45	22.00	1.135	62.9	1.006	0.09	0.108	0.123
	LTE Band 41	20M	QPSK	1	0	-	Back	10mm	Ant 0	DSI 5	40620	2593	22.38	23.00	1.153	62.9	1.006	0.12	0.136	0.158
	LTE Band 41	20M	QPSK	50	0	-	Back	10mm	Ant 0	DSI 5	40620	2593	21.45	22.00	1.135	62.9	1.006	0.14	0.110	0.126
	LTE Band 41	20M	QPSK	1	0	-	Right Side	10mm	Ant 0	DSI 5	40620	2593	22.38	23.00	1.153	62.9	1.006	0.08	0.117	0.136
	LTE Band 41	20M	QPSK	50	0	-	Right Side	10mm	Ant 0	DSI 5	40620	2593	21.45	22.00	1.135	62.9	1.006	0.07	0.094	0.107
	LTE Band 41	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 0	DSI 5	40620	2593	22.38	23.00	1.153	62.9	1.006	0.03	0.210	0.244
	LTE Band 38_UL_CA	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 0	DSI 5	37901+38099	2585.1+2604.9	21.34	23.00	1.466	62.9	1.006	0.06	0.135	0.199
	LTE Band 41	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 0	DSI 5	40620	2593	21.45	22.00	1.135	62.9	1.006	0.06	0.167	0.191

	LTE Band 41	20M	QPSK	1	0	-	Front	10mm	Ant 3	DSI 5	40620	2593	21.36	22.70	1.361	62.9	1.006	0.14	0.154	0.211
	LTE Band 41	20M	QPSK	50	0	-	Front	10mm	Ant 3	DSI 5	40620	2593	21.25	22.70	1.396	62.9	1.006	0.05	0.153	0.215
	LTE Band 41	20M	QPSK	1	0	-	Back	10mm	Ant 3	DSI 5	40620	2593	21.36	22.70	1.361	62.9	1.006	0.05	0.203	0.278
	LTE Band 41	20M	QPSK	50	0	-	Back	10mm	Ant 3	DSI 5	40620	2593	21.25	22.70	1.396	62.9	1.006	0.08	0.204	0.287
	LTE Band 41	20M	QPSK	1	0	-	Left Side	10mm	Ant 3	DSI 5	40620	2593	21.36	22.70	1.361	62.9	1.006	0.05	0.057	0.078
	LTE Band 41	20M	QPSK	50	0	-	Left Side	10mm	Ant 3	DSI 5	40620	2593	21.25	22.70	1.396	62.9	1.006	0.1	0.051	0.072
39	LTE Band 41	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 3	DSI 5	40620	2593	21.36	22.70	1.361	62.9	1.006	0.03	0.394	**0.540**
	LTE Band 38_UL_CA	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 3	DSI 5	37901+38099	2585.1+2604.9	21.00	22.70	1.479	62.9	1.006	0.06	0.356	0.530
	LTE Band 41	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 3	DSI 5	40620	2593	21.25	22.70	1.396	62.9	1.006	0.1	0.380	0.534
	LTE Band 41	20M	QPSK	1	0	-	Front	10mm	Ant 4	DSI 5	40620	2593	19.42	20.00	1.143	62.9	1.006	0.12	0.069	0.079
	LTE Band 41	20M	QPSK	50	0	-	Front	10mm	Ant 4	DSI 5	40620	2593	19.41	20.00	1.146	62.9	1.006	0.08	0.070	0.081
	LTE Band 41	20M	QPSK	1	0	-	Back	10mm	Ant 4	DSI 5	40620	2593	19.42	20.00	1.143	62.9	1.006	0.1	0.058	0.067
	LTE Band 41	20M	QPSK	50	0	-	Back	10mm	Ant 4	DSI 5	40620	2593	19.41	20.00	1.146	62.9	1.006	0.13	0.059	0.068
	LTE Band 41	20M	QPSK	1	0	-	Left Side	10mm	Ant 4	DSI 5	40620	2593	19.42	20.00	1.143	62.9	1.006	0.08	0.037	0.043
	LTE Band 41	20M	QPSK	50	0	-	Left Side	10mm	Ant 4	DSI 5	40620	2593	19.41	20.00	1.146	62.9	1.006	0.04	0.037	0.043
	LTE Band 41	20M	QPSK	1	0	-	Top Side	10mm	Ant 4	DSI 5	40620	2593	19.42	20.00	1.143	62.9	1.006	0.1	0.143	0.164
	LTE Band 41	20M	QPSK	50	0	-	Top Side	10mm	Ant 4	DSI 5	40620	2593	19.41	20.00	1.146	62.9	1.006	0.13	0.144	0.166
	LTE Band 38_UL_CA	20M	QPSK	50	0	-	Top Side	10mm	Ant 4	DSI 5	37901+38099	2585.1+2604.9	18.25	20.00	1.496	62.9	1.006	0.05	0.097	0.146
	LTE Band 41	20M	QPSK	1	0	-	Front	10mm	Ant 5	DSI 5	40620	2593	21.40	22.50	1.288	62.9	1.006	0.07	0.073	0.095
	LTE Band 41	20M	QPSK	50	0	-	Front	10mm	Ant 5	DSI 5	40620	2593	21.38	22.50	1.294	62.9	1.006	0.05	0.073	0.095
	LTE Band 41	20M	QPSK	1	0	-	Back	10mm	Ant 5	DSI 5	40620	2593	21.40	22.50	1.288	62.9	1.006	0.1	0.101	0.131
	LTE Band 41	20M	QPSK	50	0	-	Back	10mm	Ant 5	DSI 5	40620	2593	21.38	22.50	1.294	62.9	1.006	0.11	0.096	0.125
	LTE Band 41	20M	QPSK	1	0	-	Left Side	10mm	Ant 5	DSI 5	40620	2593	21.40	22.50	1.288	62.9	1.006	0.06	0.198	0.257
	LTE Band 38_UL_CA	20M	QPSK	1	0	-	Left Side	10mm	Ant 5	DSI 5	37901+38099	2585.1+2604.9	20.74	22.50	1.500	62.9	1.006	-0.05	0.149	0.225
	LTE Band 41	20M	QPSK	50	0	-	Left Side	10mm	Ant 5	DSI 5	40620	2593	21.38	22.50	1.294	62.9	1.006	0.11	0.183	0.238
	LTE Band 41	20M	QPSK	1	0	-	Top Side	10mm	Ant 5	DSI 5	40620	2593	21.40	22.50	1.288	62.9	1.006	0.07	0.000	0.000
	LTE Band 41	20M	QPSK	50	0	-	Top Side	10mm	Ant 5	DSI 5	40620	2593	21.38	22.50	1.294	62.9	1.006	0.05	0.000	0.000
	FR1 n7	40M	QPSK	1	1	DFT-15	Front	10mm	Ant 0	DSI 5	507000	2535	19.90	21.50	1.445	-	-	0.07	0.140	0.202
	FR1 n7	40M	QPSK	108	54	DFT-15	Front	10mm	Ant 0	DSI 5	507000	2535	19.83	21.50	1.469	-	-	0.11	0.157	0.231
	FR1 n7	40M	QPSK	1	1	DFT-15	Back	10mm	Ant 0	DSI 5	507000	2535	19.90	21.50	1.445	-	-	0.09	0.122	0.176
	FR1 n7	40M	QPSK	108	54	DFT-15	Back	10mm	Ant 0	DSI 5	507000	2535	19.83	21.50	1.469	-	-	0.11	0.151	0.222
	FR1 n7	40M	QPSK	1	1	DFT-15	Right Side	10mm	Ant 0	DSI 5	507000	2535	19.90	21.50	1.445	-	-	0.12	0.089	0.129
	FR1 n7	40M	QPSK	108	54	DFT-15	Right Side	10mm	Ant 0	DSI 5	507000	2535	19.83	21.50	1.469	-	-	0.08	0.125	0.184
	FR1 n7	40M	QPSK	1	1	DFT-15	Bottom Side	10mm	Ant 0	DSI 5	507000	2535	19.90	21.50	1.445	-	-	0.07	0.198	0.286
	FR1 n7	40M	QPSK	108	54	DFT-15	Bottom Side	10mm	Ant 0	DSI 5	507000	2535	19.83	21.50	1.469	-	-	0.07	0.263	0.386
	FR1 n7	40M	QPSK	1	1	DFT-15	Front	10mm	Ant 3	DSI 5	507000	2535	18.37	20.00	1.455	-	-	0.12	0.131	0.191
	FR1 n7	40M	QPSK	108	54	DFT-15	Front	10mm	Ant 3	DSI 5	507000	2535	18.21	20.00	1.510	-	-	0.13	0.118	0.178
	FR1 n7	40M	QPSK	1	1	DFT-15	Back	10mm	Ant 3	DSI 5	507000	2535	18.37	20.00	1.455	-	-	0.08	0.167	0.243
	FR1 n7	40M	QPSK	108	54	DFT-15	Back	10mm	Ant 3	DSI 5	507000	2535	18.21	20.00	1.510	-	-	0.07	0.144	0.217
	FR1 n7	40M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 3	DSI 5	507000	2535	18.37	20.00	1.455	-	-	0.14	0.048	0.070
	FR1 n7	40M	QPSK	108	54	DFT-15	Left Side	10mm	Ant 3	DSI 5	507000	2535	18.21	20.00	1.510	-	-	0.06	0.050	0.076
	FR1 n7	40M	QPSK	1	1	DFT-15	Bottom Side	10mm	Ant 3	DSI 5	507000	2535	18.37	20.00	1.455	-	-	0.12	0.287	0.418
	FR1 n7	40M	QPSK	108	54	DFT-15	Bottom Side	10mm	Ant 3	DSI 5	507000	2535	18.21	20.00	1.510	-	-	0.1	0.266	0.402
	FR1 n7	40M	QPSK	1	1	DFT-15	Front	10mm	Ant 4	DSI 5	507000	2535	19.85	20.50	1.161	-	-	0.05	0.152	0.177
	FR1 n7	40M	QPSK	108	54	DFT-15	Front	10mm	Ant 4	DSI 5	507000	2535	19.76	20.50	1.186	-	-	0.13	0.139	0.165
	FR1 n7	40M	QPSK	1	1	DFT-15	Back	10mm	Ant 4	DSI 5	507000	2535	19.85	20.50	1.161	-	-	0.12	0.160	0.186
	FR1 n7	40M	QPSK	108	54	DFT-15	Back	10mm	Ant 4	DSI 5	507000	2535	19.76	20.50	1.186	-	-	0.12	0.146	0.173
	FR1 n7	40M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 4	DSI 5	507000	2535	19.85	20.50	1.161	-	-	0.06	0.081	0.094
	FR1 n7	40M	QPSK	108	54	DFT-15	Left Side	10mm	Ant 4	DSI 5	507000	2535	19.76	20.50	1.186	-	-	0.06	0.071	0.084
	FR1 n7	40M	QPSK	1	1	DFT-15	Top Side	10mm	Ant 4	DSI 5	507000	2535	19.85	20.50	1.161	-	-	0.13	0.296	0.344
	FR1 n7	40M	QPSK	108	54	DFT-15	Top Side	10mm	Ant 4	DSI 5	507000	2535	19.76	20.50	1.186	-	-	0.07	0.320	0.379
	FR1 n7	40M	QPSK	1	1	DFT-15	Front	10mm	Ant 5	DSI 5	507000	2535	20.39	22.00	1.449	-	-	0.08	0.147	0.213
	FR1 n7	40M	QPSK	108	54	DFT-15	Front	10mm	Ant 5	DSI 5	507000	2535	20.31	22.00	1.476	-	-	0.07	0.155	0.229
	FR1 n7	40M	QPSK	1	1	DFT-15	Back	10mm	Ant 5	DSI 5	507000	2535	20.39	22.00	1.449	-	-	0.07	0.211	0.306
	FR1 n7	40M	QPSK	108	54	DFT-15	Back	10mm	Ant 5	DSI 5	507000	2535	20.31	22.00	1.476	-	-	0.06	0.159	0.235
	FR1 n7	40M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 5	DSI 5	507000	2535	20.39	22.00	1.449	-	-	0.07	0.381	0.552

40	FR1 n7	40M	QPSK	108	54	DFT-15	Left Side	10mm	Ant 5	DSI 5	507000	2535	20.31	22.00	1.476	-	-	0.03	0.510	**0.753**
	FR1 n7	40M	QPSK	1	1	DFT-15	Top Side	10mm	Ant 5	DSI 5	507000	2535	20.39	22.00	1.449	-	-	0.09	0.064	0.093
	FR1 n7	40M	QPSK	108	54	DFT-15	Top Side	10mm	Ant 5	DSI 5	507000	2535	20.31	22.00	1.476	-	-	0.08	0.069	0.102
	FR1 n41	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 0	DSI 5	518598	2592.99	17.80	19.00	1.318	-	-	0.07	0.073	0.096
	FR1 n41	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 0	DSI 5	518598	2592.99	17.76	19.00	1.330	-	-	0.05	0.086	0.114
	FR1 n41	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 0	DSI 5	518598	2592.99	17.80	19.00	1.318	-	-	0.12	0.070	0.092
	FR1 n41	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 0	DSI 5	518598	2592.99	17.76	19.00	1.330	-	-	0.07	0.097	0.129
	FR1 n41	100M	QPSK	1	1	DFT-30	Right Side	10mm	Ant 0	DSI 5	518598	2592.99	17.80	19.00	1.318	-	-	0.12	0.055	0.073
	FR1 n41	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 0	DSI 5	518598	2592.99	17.76	19.00	1.330	-	-	0.14	0.117	0.156
	FR1 n41	100M	QPSK	1	1	DFT-30	Bottom Side	10mm	Ant 0	DSI 5	518598	2592.99	17.80	19.00	1.318	-	-	0.12	0.118	0.156
	FR1 n41	100M	QPSK	135	69	DFT-30	Bottom Side	10mm	Ant 0	DSI 5	518598	2592.99	17.76	19.00	1.330	-	-	0.14	0.139	0.185
	FR1 n41	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 3	DSI 5	518598	2592.99	18.56	20.00	1.393	-	-	0.14	0.177	0.247
	FR1 n41	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 3	DSI 5	518598	2592.99	18.35	20.00	1.462	-	-	0.1	0.177	0.259
	FR1 n41	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 3	DSI 5	518598	2592.99	18.56	20.00	1.393	-	-	0.12	0.202	0.281
	FR1 n41	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 3	DSI 5	518598	2592.99	18.35	20.00	1.462	-	-	0.13	0.203	0.297
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 3	DSI 5	518598	2592.99	18.56	20.00	1.393	-	-	0.09	0.073	0.102
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 3	DSI 5	518598	2592.99	18.35	20.00	1.462	-	-	0.06	0.066	0.097
	FR1 n41	100M	QPSK	1	1	DFT-30	Bottom Side	10mm	Ant 3	DSI 5	518598	2592.99	18.56	20.00	1.393	-	-	0.08	0.407	0.567
41	FR1 n41	100M	QPSK	135	69	DFT-30	Bottom Side	10mm	Ant 3	DSI 5	518598	2592.99	18.35	20.00	1.462	-	-	0.04	0.504	**0.737**
	FR1 n41	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 4	DSI 5	518598	2592.99	19.72	20.50	1.197	-	-	0.04	0.128	0.153
	FR1 n41	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 4	DSI 5	518598	2592.99	19.71	20.50	1.199	-	-	0.12	0.124	0.149
	FR1 n41	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 4	DSI 5	518598	2592.99	19.72	20.50	1.197	-	-	0.1	0.130	0.156
	FR1 n41	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 4	DSI 5	518598	2592.99	19.71	20.50	1.199	-	-	0.13	0.120	0.144
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 4	DSI 5	518598	2592.99	19.72	20.50	1.197	-	-	0.13	0.062	0.074
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 4	DSI 5	518598	2592.99	19.71	20.50	1.199	-	-	0.07	0.066	0.079
	FR1 n41	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 4	DSI 5	518598	2592.99	19.72	20.50	1.197	-	-	0.05	0.298	0.357
	FR1 n41	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 4	DSI 5	518598	2592.99	19.71	20.50	1.199	-	-	0.04	0.306	0.367
	FR1 n41	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 5	DSI 5	518598	2592.99	22.10	23.00	1.230	-	-	0.14	0.165	0.203
	FR1 n41	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 5	DSI 5	518598	2592.99	22.07	23.00	1.239	-	-	0.12	0.123	0.152
	FR1 n41	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 5	DSI 5	518598	2592.99	22.10	23.00	1.230	-	-	0.13	0.209	0.257
	FR1 n41	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 5	DSI 5	518598	2592.99	22.07	23.00	1.239	-	-	0.12	0.145	0.180
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 5	DSI 5	518598	2592.99	22.10	23.00	1.230	-	-	0.09	0.511	0.629
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 5	DSI 5	518598	2592.99	22.07	23.00	1.239	-	-	0.09	0.413	0.512
	FR1 n41	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 5	DSI 5	518598	2592.99	22.10	23.00	1.230	-	-	0.04	0.072	0.089
	FR1 n41	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 5	DSI 5	518598	2592.99	22.07	23.00	1.239	-	-	0.06	0.055	0.068

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)
										3500 MHZ										
	LTE Band 42	20M	QPSK	1	0	-	Front	10mm	Ant 10	DSI 5	42590	3500	19.49	20.70	1.321	62.9	1.006	0.11	0.161	0.214
	LTE Band 42	20M	QPSK	50	0	-	Front	10mm	Ant 10	DSI 5	42590	3500	19.45	20.70	1.334	62.9	1.006	0.08	0.157	0.211
	LTE Band 42	20M	QPSK	1	0	-	Back	10mm	Ant 10	DSI 5	42590	3500	19.49	20.70	1.321	62.9	1.006	0.12	0.219	0.291
	LTE Band 42	20M	QPSK	50	0	-	Back	10mm	Ant 10	DSI 5	42590	3500	19.45	20.70	1.334	62.9	1.006	0.1	0.215	0.288
	LTE Band 42	20M	QPSK	1	0	-	Left Side	10mm	Ant 10	DSI 5	42590	3500	19.49	20.70	1.321	62.9	1.006	0.06	0.041	0.054
	LTE Band 42	20M	QPSK	50	0	-	Left Side	10mm	Ant 10	DSI 5	42590	3500	19.45	20.70	1.334	62.9	1.006	0.06	0.033	0.044
	LTE Band 42	20M	QPSK	1	0	-	Top Side	10mm	Ant 10	DSI 5	42590	3500	19.49	20.70	1.321	62.9	1.006	0.08	0.354	0.471
	LTE Band 42_UL_CA	20M	QPSK	1	0	-	Top Side	10mm	Ant 10	DSI 5	42590+42788	3500+3519.8	19.25	20.70	1.396	62.9	1.006	0.11	0.308	0.433
	LTE Band 42	20M	QPSK	50	0	-	Top Side	10mm	Ant 10	DSI 5	42590	3500	19.45	20.70	1.334	62.9	1.006	0.09	0.350	0.470
	LTE Band 42	20M	QPSK	1	0	-	Front	10mm	Ant 11	DSI 5	42590	3500	20.86	22.50	1.459	62.9	1.006	0.1	0.061	0.090
	LTE Band 42	20M	QPSK	50	0	-	Front	10mm	Ant 11	DSI 5	42590	3500	19.84	21.50	1.466	62.9	1.006	0.06	0.053	0.078
	LTE Band 42	20M	QPSK	1	0	-	Back	10mm	Ant 11	DSI 5	42590	3500	20.86	22.50	1.459	62.9	1.006	0.02	0.153	0.225
	LTE Band 42_UL_CA	20M	QPSK	1	0	-	Back	10mm	Ant 11	DSI 5	42590+42788	3500+3519.8	20.76	22.50	1.493	62.9	1.006	0.16	0.128	0.192
	LTE Band 42	20M	QPSK	50	0	-	Back	10mm	Ant 11	DSI 5	42590	3500	19.84	21.50	1.466	62.9	1.006	0.11	0.118	0.174
	LTE Band 42	20M	QPSK	1	0	-	Left Side	10mm	Ant 11	DSI 5	42590	3500	20.86	22.50	1.459	62.9	1.006	0.06	0.149	0.219
	LTE Band 42	20M	QPSK	50	0	-	Left Side	10mm	Ant 11	DSI 5	42590	3500	19.84	21.50	1.466	62.9	1.006	0.06	0.118	0.174
	LTE Band 42	20M	QPSK	1	0	-	Top Side	10mm	Ant 11	DSI 5	42590	3500	20.86	22.50	1.459	62.9	1.006	0.13	0.027	0.040
	LTE Band 42	20M	QPSK	50	0	-	Top Side	10mm	Ant 11	DSI 5	42590	3500	19.84	21.50	1.466	62.9	1.006	0.13	0.003	0.004
	LTE Band 42	20M	QPSK	1	0	-	Front	10mm	Ant 12	DSI 5	42590	3500	21.45	23.00	1.429	62.9	1.006	0.1	0.163	0.234
	LTE Band 42	20M	QPSK	50	0	-	Front	10mm	Ant 12	DSI 5	42590	3500	20.36	22.00	1.459	62.9	1.006	0.1	0.161	0.236
42	LTE Band 42	20M	QPSK	1	0	-	Back	10mm	Ant 12	DSI 5	42590	3500	21.45	23.00	1.429	62.9	1.006	-0.03	0.340	**0.489**
	LTE Band 42_UL_CA	20M	QPSK	1	0	-	Back	10mm	Ant 12	DSI 5	42590+42788	3500+3519.8	21.00	23.00	1.585	62.9	1.006	0.05	0.305	0.486
	LTE Band 42	20M	QPSK	50	0	-	Back	10mm	Ant 12	DSI 5	42590	3500	20.36	22.00	1.459	62.9	1.006	0.14	0.316	0.464
	LTE Band 42	20M	QPSK	1	0	-	Left Side	10mm	Ant 12	DSI 5	42590	3500	21.45	23.00	1.429	62.9	1.006	0.06	0.053	0.076
	LTE Band 42	20M	QPSK	50	0	-	Left Side	10mm	Ant 12	DSI 5	42590	3500	20.36	22.00	1.459	62.9	1.006	0.08	0.055	0.081
	LTE Band 42	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 12	DSI 5	42590	3500	21.45	23.00	1.429	62.9	1.006	0.09	0.332	0.477
	LTE Band 42	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 12	DSI 5	42590	3500	20.36	22.00	1.459	62.9	1.006	0.12	0.330	0.484
	LTE Band 42	20M	QPSK	1	0	-	Front	10mm	Ant 13	DSI 5	42590	3500	20.58	21.70	1.294	62.9	1.006	0.1	0.024	0.031
	LTE Band 42	20M	QPSK	50	0	-	Front	10mm	Ant 13	DSI 5	42590	3500	20.49	21.70	1.321	62.9	1.006	0.13	0.036	0.048
	LTE Band 42	20M	QPSK	1	0	-	Back	10mm	Ant 13	DSI 5	42590	3500	20.58	21.70	1.294	62.9	1.006	0.08	0.305	0.397
	LTE Band 42_UL_CA	20M	QPSK	1	0	-	Back	10mm	Ant 13	DSI 5	42590+42788	3500+3519.8	20.25	21.70	1.396	62.9	1.006	0.03	0.249	0.350
	LTE Band 42	20M	QPSK	50	0	-	Back	10mm	Ant 13	DSI 5	42590	3500	20.49	21.70	1.321	62.9	1.006	0.05	0.295	0.392
	LTE Band 42	20M	QPSK	1	0	-	Left Side	10mm	Ant 13	DSI 5	42590	3500	20.58	21.70	1.294	62.9	1.006	0.13	0.076	0.099
	LTE Band 42	20M	QPSK	50	0	-	Left Side	10mm	Ant 13	DSI 5	42590	3500	20.49	21.70	1.321	62.9	1.006	0.13	0.079	0.105
	LTE Band 42	20M	QPSK	1	0	-	Top Side	10mm	Ant 13	DSI 5	42590	3500	20.58	21.70	1.294	62.9	1.006	0.11	0.046	0.060
	LTE Band 42	20M	QPSK	50	0	-	Top Side	10mm	Ant 13	DSI 5	42590	3500	20.49	21.70	1.321	62.9	1.006	0.11	0.045	0.060
	LTE Band 48	20M	QPSK	1	0	-	Front	10mm	Ant 10	DSI 5	56150	3641	16.62	18.00	1.374	62.9	1.006	0.1	0.175	0.242
	LTE Band 48	20M	QPSK	50	0	-	Front	10mm	Ant 10	DSI 5	56150	3641	16.55	18.00	1.396	62.9	1.006	0.06	0.165	0.232
	LTE Band 48	20M	QPSK	1	0	-	Back	10mm	Ant 10	DSI 5	56150	3641	16.62	18.00	1.374	62.9	1.006	0.11	0.253	0.350
	LTE Band 48	20M	QPSK	50	0	-	Back	10mm	Ant 10	DSI 5	56150	3641	16.55	18.00	1.396	62.9	1.006	0.06	0.228	0.320
	LTE Band 48	20M	QPSK	1	0	-	Left Side	10mm	Ant 10	DSI 5	56150	3641	16.62	18.00	1.374	62.9	1.006	0.08	0.032	0.044
	LTE Band 48	20M	QPSK	50	0	-	Left Side	10mm	Ant 10	DSI 5	56150	3641	16.55	18.00	1.396	62.9	1.006	0.04	0.031	0.044
43	LTE Band 48	20M	QPSK	1	0	-	Top Side	10mm	Ant 10	DSI 5	56150	3641	16.62	18.00	1.374	62.9	1.006	-0.03	0.422	**0.583**
	LTE Band 48	20M	QPSK	50	0	-	Top Side	10mm	Ant 10	DSI 5	56150	3641	16.55	18.00	1.396	62.9	1.006	0.12	0.376	0.528
	LTE Band 48	20M	QPSK	1	0	-	Front	10mm	Ant 11	DSI 5	56150	3641	17.66	19.00	1.361	62.9	1.006	0.12	0.055	0.075
	LTE Band 48	20M	QPSK	50	0	-	Front	10mm	Ant 11	DSI 5	56150	3641	17.62	19.00	1.374	62.9	1.006	0.07	0.039	0.054
	LTE Band 48	20M	QPSK	1	0	-	Back	10mm	Ant 11	DSI 5	56150	3641	17.66	19.00	1.361	62.9	1.006	0.07	0.130	0.178
	LTE Band 48	20M	QPSK	50	0	-	Back	10mm	Ant 11	DSI 5	56150	3641	17.62	19.00	1.374	62.9	1.006	0.05	0.100	0.138
	LTE Band 48	20M	QPSK	1	0	-	Left Side	10mm	Ant 11	DSI 5	56150	3641	17.66	19.00	1.361	62.9	1.006	0.1	0.187	0.256
	LTE Band 48	20M	QPSK	50	0	-	Left Side	10mm	Ant 11	DSI 5	56150	3641	17.62	19.00	1.374	62.9	1.006	0.06	0.150	0.207
	LTE Band 48	20M	QPSK	1	0	-	Top Side	10mm	Ant 11	DSI 5	56150	3641	17.66	19.00	1.361	62.9	1.006	0.06	0.037	0.051
	LTE Band 48	20M	QPSK	50	0	-	Top Side	10mm	Ant 11	DSI 5	56150	3641	17.62	19.00	1.374	62.9	1.006	0.12	0.021	0.029

	LTE Band 48	20M	QPSK	1	0	-	Front	10mm	Ant 12	DSI 5	56150	3641	18.00	19.50	1.413	62.9	1.006	0.09	0.117	0.166
	LTE Band 48	20M	QPSK	50	0	-	Front	10mm	Ant 12	DSI 5	56150	3641	17.83	19.50	1.469	62.9	1.006	0.11	0.095	0.140
	LTE Band 48	20M	QPSK	1	0	-	Back	10mm	Ant 12	DSI 5	56150	3641	18.00	19.50	1.413	62.9	1.006	0.05	0.241	0.342
	LTE Band 48	20M	QPSK	50	0	-	Back	10mm	Ant 12	DSI 5	56150	3641	17.83	19.50	1.469	62.9	1.006	0.14	0.190	0.281
	LTE Band 48	20M	QPSK	1	0	-	Left Side	10mm	Ant 12	DSI 5	56150	3641	18.00	19.50	1.413	62.9	1.006	0.08	0.031	0.044
	LTE Band 48	20M	QPSK	50	0	-	Left Side	10mm	Ant 12	DSI 5	56150	3641	17.83	19.50	1.469	62.9	1.006	0.14	0.058	0.086
	LTE Band 48	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 12	DSI 5	56150	3641	18.00	19.50	1.413	62.9	1.006	0.14	0.240	0.341
	LTE Band 48	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 12	DSI 5	56150	3641	17.83	19.50	1.469	62.9	1.006	0.06	0.190	0.281
	LTE Band 48	20M	QPSK	1	0	-	Front	10mm	Ant 13	DSI 5	56150	3641	20.48	22.00	1.419	62.9	1.006	0.11	0.033	0.047
	LTE Band 48	20M	QPSK	50	0	-	Front	10mm	Ant 13	DSI 5	56150	3641	20.43	22.00	1.435	62.9	1.006	0.11	0.025	0.036
	LTE Band 48	20M	QPSK	1	0	-	Back	10mm	Ant 13	DSI 5	56150	3641	20.48	22.00	1.419	62.9	1.006	0.09	0.400	0.571
	LTE Band 48	20M	QPSK	50	0	-	Back	10mm	Ant 13	DSI 5	56150	3641	20.43	22.00	1.435	62.9	1.006	0.08	0.319	0.461
	LTE Band 48	20M	QPSK	1	0	-	Left Side	10mm	Ant 13	DSI 5	56150	3641	20.48	22.00	1.419	62.9	1.006	0.04	0.113	0.161
	LTE Band 48	20M	QPSK	50	0	-	Left Side	10mm	Ant 13	DSI 5	56150	3641	20.43	22.00	1.435	62.9	1.006	0.07	0.089	0.129
	LTE Band 48	20M	QPSK	1	0	-	Top Side	10mm	Ant 13	DSI 5	56150	3641	20.48	22.00	1.419	62.9	1.006	0.14	0.066	0.094
	LTE Band 48	20M	QPSK	50	0	-	Top Side	10mm	Ant 13	DSI 5	56150	3641	20.43	22.00	1.435	62.9	1.006	0.14	0.050	0.072
	FR1 n77	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 10	DSI 5	656000	3840	16.17	18.00	1.524	-	-	0.06	0.121	0.184
	FR1 n77	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 10	DSI 5	656000	3840	16.10	18.00	1.549	-	-	0.1	0.076	0.118
	FR1 n77	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 10	DSI 5	656000	3840	16.17	18.00	1.524	-	-	0.14	0.136	0.207
	FR1 n77	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 10	DSI 5	656000	3840	16.10	18.00	1.549	-	-	0.07	0.097	0.150
	FR1 n77	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 10	DSI 5	656000	3840	16.17	18.00	1.524	-	-	0.08	0.026	0.040
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 10	DSI 5	656000	3840	16.10	18.00	1.549	-	-	0.13	0.033	0.051
	FR1 n77	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 10	DSI 5	656000	3840	16.17	18.00	1.524	-	-	0.07	0.275	0.419
	FR1 n77	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 10	DSI 5	656000	3840	16.10	18.00	1.549	-	-	0.12	0.154	0.239
	FR1 n77	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 10	DSI 5	633334	3500.01	16.33	18.00	1.469	-	-	0.05	0.097	0.142
	FR1 n77	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 10	DSI 5	633334	3500.01	16.29	18.00	1.483	-	-	0.09	0.103	0.153
	FR1 n77	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 10	DSI 5	633334	3500.01	16.33	18.00	1.469	-	-	0.09	0.131	0.192
	FR1 n77	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 10	DSI 5	633334	3500.01	16.29	18.00	1.483	-	-	0.05	0.132	0.196
	FR1 n77	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 10	DSI 5	633334	3500.01	16.33	18.00	1.469	-	-	0.1	0.042	0.062
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 10	DSI 5	633334	3500.01	16.29	18.00	1.483	-	-	0.09	0.023	0.034
	FR1 n77	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 10	DSI 5	633334	3500.01	16.33	18.00	1.469	-	-	0.08	0.188	0.276
	FR1 n77	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 10	DSI 5	633334	3500.01	16.29	18.00	1.483	-	-	0.11	0.208	0.308
	FR1 n77	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 11	DSI 5	656000	3840	22.09	23.70	1.449	-	-	0.14	0.125	0.181
	FR1 n77	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 11	DSI 5	656000	3840	22.04	23.70	1.466	-	-	0.14	0.107	0.157
	FR1 n77	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 11	DSI 5	656000	3840	22.09	23.70	1.449	-	-	0.06	0.264	0.382
	FR1 n77	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 11	DSI 5	656000	3840	22.04	23.70	1.466	-	-	0.13	0.228	0.334
	FR1 n77	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 11	DSI 5	656000	3840	22.09	23.70	1.449	-	-	0.09	0.501	0.726
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 11	DSI 5	656000	3840	22.04	23.70	1.466	-	-	0.05	0.414	0.607
	FR1 n77	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 11	DSI 5	656000	3840	22.09	23.70	1.449	-	-	0.05	0.058	0.084
	FR1 n77	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 11	DSI 5	656000	3840	22.04	23.70	1.466	-	-	0.05	0.058	0.085
	FR1 n77	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 11	DSI 5	633334	3500.01	21.86	23.70	1.528	-	-	0.05	0.152	0.232
	FR1 n77	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 11	DSI 5	633334	3500.01	21.77	23.70	1.560	-	-	0.12	0.154	0.240
	FR1 n77	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 11	DSI 5	633334	3500.01	21.86	23.70	1.528	-	-	0.07	0.333	0.509
	FR1 n77	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 11	DSI 5	633334	3500.01	21.77	23.70	1.560	-	-	0.06	0.357	0.557
	FR1 n77	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 11	DSI 5	633334	3500.01	21.86	23.70	1.528	-	-	0.06	0.543	0.829
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 11	DSI 5	633334	3500.01	21.77	23.70	1.560	-	-	0.07	0.516	0.805
	FR1 n77	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 11	DSI 5	633334	3500.01	21.86	23.70	1.528	-	-	0.06	0.054	0.082
	FR1 n77	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 11	DSI 5	633334	3500.01	21.77	23.70	1.560	-	-	0.07	0.058	0.090
	FR1 n77	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 12	DSI 5	656000	3840	19.69	20.70	1.262	-	-	0.07	0.197	0.249
	FR1 n77	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 12	DSI 5	656000	3840	19.66	20.70	1.271	-	-	0.12	0.186	0.236
	FR1 n77	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 12	DSI 5	656000	3840	19.69	20.70	1.262	-	-	0.07	0.544	0.686
	FR1 n77	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 12	DSI 5	656000	3840	19.66	20.70	1.271	-	-	0.12	0.504	0.640
	FR1 n77	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 12	DSI 5	656000	3840	19.69	20.70	1.262	-	-	0.05	0.062	0.078
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 12	DSI 5	656000	3840	19.66	20.70	1.271	-	-	0.08	0.063	0.080
	FR1 n77	100M	QPSK	1	1	DFT-30	Bottom Side	10mm	Ant 12	DSI 5	656000	3840	19.69	20.70	1.262	-	-	0.14	0.485	0.612
	FR1 n77	100M	QPSK	135	69	DFT-30	Bottom Side	10mm	Ant 12	DSI 5	656000	3840	19.66	20.70	1.271	-	-	0.13	0.455	0.578

	FR1 n77	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 12	DSI 5	633334	3500.01	19.58	20.70	1.294	-	-	0.08	0.306	0.396
	FR1 n77	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 12	DSI 5	633334	3500.01	19.44	20.70	1.337	-	-	0.09	0.284	0.380
44	FR1 n77	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 12	DSI 5	633334	3500.01	19.58	20.70	1.294	-	-	-0.19	0.743	**0.962**
	FR1 n77	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 12	DSI 5	633334	3500.01	19.44	20.70	1.337	-	-	0.07	0.695	0.929
	FR1 n77	100M	QPSK	270	0	DFT-30	Back	10mm	Ant 12	DSI 5	633334	3500.01	19.33	20.70	1.371	-	-	0.12	0.651	0.892
	FR1 n77	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 12	DSI 5	633334	3500.01	19.58	20.70	1.294	-	-	0.1	0.087	0.113
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 12	DSI 5	633334	3500.01	19.44	20.70	1.337	-	-	0.06	0.078	0.104
	FR1 n77	100M	QPSK	1	1	DFT-30	Bottom Side	10mm	Ant 12	DSI 5	633334	3500.01	19.58	20.70	1.294	-	-	0.09	0.721	0.933
	FR1 n77	100M	QPSK	135	69	DFT-30	Bottom Side	10mm	Ant 12	DSI 5	633334	3500.01	19.44	20.70	1.337	-	-	0.05	0.582	0.778
	FR1 n77	100M	QPSK	270	0	DFT-30	Bottom Side	10mm	Ant 12	DSI 5	633334	3500.01	19.33	20.70	1.371	-	-	0.1	0.558	0.765
	FR1 n77	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 13	DSI 5	656000	3840	17.19	18.50	1.352	-	-	0.07	0.047	0.064
	FR1 n77	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 13	DSI 5	656000	3840	17.05	18.50	1.396	-	-	0.12	0.027	0.038
	FR1 n77	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 13	DSI 5	656000	3840	17.19	18.50	1.352	-	-	0.07	0.276	0.373
	FR1 n77	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 13	DSI 5	656000	3840	17.05	18.50	1.396	-	-	0.1	0.221	0.309
	FR1 n77	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 13	DSI 5	656000	3840	17.19	18.50	1.352	-	-	0.12	0.044	0.059
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 13	DSI 5	656000	3840	17.05	18.50	1.396	-	-	0.12	0.042	0.059
	FR1 n77	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 13	DSI 5	656000	3840	17.19	18.50	1.352	-	-	0.04	0.024	0.032
	FR1 n77	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 13	DSI 5	656000	3840	17.05	18.50	1.396	-	-	0.12	0.022	0.031
	FR1 n77	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 13	DSI 5	633334	3500.01	16.93	18.50	1.435	-	-	0.13	0.030	0.043
	FR1 n77	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 13	DSI 5	633334	3500.01	16.81	18.50	1.476	-	-	0.09	0.021	0.031
	FR1 n77	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 13	DSI 5	633334	3500.01	16.93	18.50	1.435	-	-	0.14	0.306	0.439
	FR1 n77	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 13	DSI 5	633334	3500.01	16.81	18.50	1.476	-	-	0.04	0.251	0.370
	FR1 n77	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 13	DSI 5	633334	3500.01	16.93	18.50	1.435	-	-	0.07	0.082	0.118
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 13	DSI 5	633334	3500.01	16.81	18.50	1.476	-	-	0.11	0.077	0.114
	FR1 n77	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 13	DSI 5	633334	3500.01	16.93	18.50	1.435	-	-	0.05	0.083	0.119
	FR1 n77	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 13	DSI 5	633334	3500.01	16.81	18.50	1.476	-	-	0.1	0.063	0.093
	FR1 n78_HPUE	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 10	DSI 5	650000	3750	16.83	18.00	1.309	-	-	0.07	0.157	0.206
	FR1 n78_HPUE	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 10	DSI 5	650000	3750	16.82	18.00	1.312	-	-	0.11	0.151	0.198
	FR1 n78_HPUE	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 10	DSI 5	650000	3750	16.83	18.00	1.309	-	-	0.06	0.187	0.245
	FR1 n78_HPUE	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 10	DSI 5	650000	3750	16.82	18.00	1.312	-	-	0.04	0.179	0.235
	FR1 n78_HPUE	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 10	DSI 5	650000	3750	16.83	18.00	1.309	-	-	0.13	0.049	0.064
	FR1 n78_HPUE	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 10	DSI 5	650000	3750	16.82	18.00	1.312	-	-	0.05	0.030	0.039
	FR1 n78_HPUE	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 10	DSI 5	650000	3750	16.83	18.00	1.309	-	-	0.09	0.353	0.462
	FR1 n78_HPUE	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 10	DSI 5	650000	3750	16.82	18.00	1.312	-	-	0.07	0.362	0.475
	FR1 n78_HPUE	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 10	DSI 5	633334	3500.01	16.46	18.00	1.426	-	-	0.12	0.097	0.138
	FR1 n78_HPUE	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 10	DSI 5	633334	3500.01	16.38	18.00	1.452	-	-	0.13	0.093	0.135
	FR1 n78_HPUE	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 10	DSI 5	633334	3500.01	16.46	18.00	1.426	-	-	0.11	0.132	0.188
	FR1 n78_HPUE	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 10	DSI 5	633334	3500.01	16.38	18.00	1.452	-	-	0.08	0.133	0.193
	FR1 n78_HPUE	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 10	DSI 5	633334	3500.01	16.46	18.00	1.426	-	-	0.12	0.027	0.038
	FR1 n78_HPUE	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 10	DSI 5	633334	3500.01	16.38	18.00	1.452	-	-	0.11	0.110	0.160
	FR1 n78_HPUE	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 10	DSI 5	633334	3500.01	16.46	18.00	1.426	-	-	0.06	0.203	0.289
	FR1 n78_HPUE	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 10	DSI 5	633334	3500.01	16.38	18.00	1.452	-	-	0.06	0.259	0.376
	FR1 n78_HPUE	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 11	DSI 5	650000	3750	23.85	25.00	1.303	-	-	0.1	0.216	0.281
	FR1 n78_HPUE	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 11	DSI 5	650000	3750	23.49	25.00	1.416	-	-	0.06	0.177	0.251
	FR1 n78_HPUE	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 11	DSI 5	650000	3750	23.85	25.00	1.303	-	-	0.04	0.487	0.635
	FR1 n78_HPUE	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 11	DSI 5	650000	3750	23.49	25.00	1.416	-	-	0.1	0.379	0.537
	FR1 n78_HPUE	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 11	DSI 5	650000	3750	23.85	25.00	1.303	-	-	0.06	0.759	0.989
	FR1 n78_HPUE	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 11	DSI 5	650000	3750	23.49	25.00	1.416	-	-	0.12	0.615	0.871
	FR1 n78_HPUE	100M	QPSK	270	0	DFT-30	Left Side	10mm	Ant 11	DSI 5	650000	3750	23.46	25.00	1.426	-	-	0.05	0.601	0.857
	FR1 n78_HPUE	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 11	DSI 5	650000	3750	23.85	25.00	1.303	-	-	0.07	0.099	0.129
	FR1 n78_HPUE	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 11	DSI 5	650000	3750	23.49	25.00	1.416	-	-	0.05	0.073	0.103
	FR1 n78_HPUE	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 11	DSI 5	633334	3500.01	23.81	25.00	1.315	-	-	0.09	0.236	0.310
	FR1 n78_HPUE	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 11	DSI 5	633334	3500.01	23.21	25.00	1.510	-	-	0.13	0.246	0.371
	FR1 n78_HPUE	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 11	DSI 5	633334	3500.01	23.81	25.00	1.315	-	-	0.04	0.572	0.752
	FR1 n78_HPUE	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 11	DSI 5	633334	3500.01	23.21	25.00	1.510	-	-	0.06	0.513	0.775
	FR1 n78_HPUE	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 11	DSI 5	633334	3500.01	23.81	25.00	1.315	-	-	0.13	0.684	0.900

45	FR1 n78_HPUE	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 11	DSI 5	633334	3500.01	23.21	25.00	1.510	-	-	-0.07	0.691	**1.043**
	FR1 n78_HPUE	100M	QPSK	270	0	DFT-30	Left Side	10mm	Ant 11	DSI 5	633334	3500.01	23.10	25.00	1.549	-	-	0.13	0.668	1.035
	FR1 n78_HPUE	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 11	DSI 5	633334	3500.01	23.81	25.00	1.315	-	-	0.1	0.076	0.100
	FR1 n78_HPUE	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 11	DSI 5	633334	3500.01	23.21	25.00	1.510	-	-	0.12	0.087	0.131
	FR1 n78	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 12	DSI 5	650000	3750	18.87	20.00	1.297	-	-	0.09	0.234	0.304
	FR1 n78	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 12	DSI 5	650000	3750	18.85	20.00	1.303	-	-	0.1	0.219	0.285
	FR1 n78	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 12	DSI 5	650000	3750	18.87	20.00	1.297	-	-	0.1	0.623	0.808
	FR1 n78	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 12	DSI 5	650000	3750	18.85	20.00	1.303	-	-	0.06	0.549	0.715
	FR1 n78	100M	QPSK	270	0	DFT-30	Back	10mm	Ant 12	DSI 5	650000	3750	18.68	20.00	1.355	-	-	-0.02	0.535	0.725
	FR1 n78	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 12	DSI 5	650000	3750	18.87	20.00	1.297	-	-	0.08	0.074	0.096
	FR1 n78	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 12	DSI 5	650000	3750	18.85	20.00	1.303	-	-	0.12	0.072	0.094
	FR1 n78	100M	QPSK	1	1	DFT-30	Bottom Side	10mm	Ant 12	DSI 5	650000	3750	18.87	20.00	1.297	-	-	0.09	0.483	0.627
	FR1 n78	100M	QPSK	135	69	DFT-30	Bottom Side	10mm	Ant 12	DSI 5	650000	3750	18.85	20.00	1.303	-	-	0.1	0.505	0.658
	FR1 n78_HPUE	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 12	DSI 5	633334	3500.01	19.15	20.00	1.216	-	-	0.08	0.303	0.369
	FR1 n78_HPUE	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 12	DSI 5	633334	3500.01	18.92	20.00	1.282	-	-	0.06	0.275	0.353
	FR1 n78_HPUE	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 12	DSI 5	633334	3500.01	19.15	20.00	1.216	-	-	0.14	0.706	0.859
	FR1 n78_HPUE	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 12	DSI 5	633334	3500.01	18.92	20.00	1.282	-	-	0.04	0.621	0.796
	FR1 n78_HPUE	100M	QPSK	270	0	DFT-30	Back	10mm	Ant 12	DSI 5	633334	3500.01	18.97	20.00	1.268	-	-	0.05	0.598	0.758
	FR1 n78_HPUE	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 12	DSI 5	633334	3500.01	19.15	20.00	1.216	-	-	0.1	0.072	0.088
	FR1 n78_HPUE	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 12	DSI 5	633334	3500.01	18.92	20.00	1.282	-	-	0.09	0.067	0.086
	FR1 n78_HPUE	100M	QPSK	1	1	DFT-30	Bottom Side	10mm	Ant 12	DSI 5	633334	3500.01	19.15	20.00	1.216	-	-	0.12	0.641	0.780
	FR1 n78_HPUE	100M	QPSK	135	69	DFT-30	Bottom Side	10mm	Ant 12	DSI 5	633334	3500.01	18.92	20.00	1.282	-	-	0.04	0.550	0.705
	FR1 n78	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 13	DSI 5	650000	3750	17.83	19.20	1.371	-	-	0.07	0.022	0.030
	FR1 n78	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 13	DSI 5	650000	3750	17.81	19.20	1.377	-	-	0.06	0.032	0.044
	FR1 n78	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 13	DSI 5	650000	3750	17.83	19.20	1.371	-	-	0.02	0.219	0.300
	FR1 n78	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 13	DSI 5	650000	3750	17.81	19.20	1.377	-	-	0.14	0.188	0.259
	FR1 n78	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 13	DSI 5	650000	3750	17.83	19.20	1.371	-	-	0.11	0.054	0.074
	FR1 n78	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 13	DSI 5	650000	3750	17.81	19.20	1.377	-	-	0.11	0.055	0.076
	FR1 n78_HPUE	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 13	DSI 5	633334	3500.01	17.61	19.20	1.442	-	-	0.07	0.030	0.043
	FR1 n78_HPUE	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 13	DSI 5	633334	3500.01	17.41	19.20	1.510	-	-	0.05	0.026	0.039
	FR1 n78_HPUE	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 13	DSI 5	633334	3500.01	17.61	19.20	1.442	-	-	0.12	0.383	0.552
	FR1 n78_HPUE	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 13	DSI 5	633334	3500.01	17.41	19.20	1.510	-	-	0.1	0.282	0.426
	FR1 n78_HPUE	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 13	DSI 5	633334	3500.01	17.61	19.20	1.442	-	-	0.12	0.088	0.127
	FR1 n78_HPUE	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 13	DSI 5	633334	3500.01	17.41	19.20	1.510	-	-	0.14	0.084	0.127

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)
2450Mhz																
	2.4GHz WLAN	802.11b 1Mbps	Front	10mm	Ant 1+2	Full	11	2462	22.17	23.50	1.360	100	1.000	0.05	0.055	0.075
	2.4GHz WLAN	802.11b 1Mbps	Back	10mm	Ant 1+2	Full	11	2462	22.17	23.50	1.360	100	1.000	0.03	0.072	0.098
46	2.4GHz WLAN	802.11b 1Mbps	Top Side	10mm	Ant 1+2	Full	11	2462	22.17	23.50	1.360	100	1.000	-0.03	0.082	**0.112**
	2.4GHz WLAN	802.11b 1Mbps	Right Side	10mm	Ant 1+2	Full	11	2462	22.17	23.50	1.360	100	1.000	0.01	0.067	0.091
	Bluetooth	1Mbps	Front	10mm	Ant 16	Full	39	2441	15.57	16.00	1.104	76.74	1.303	0.11	0.035	0.050
	Bluetooth	1Mbps	Back	10mm	Ant 16	Full	39	2441	15.57	16.00	1.104	76.74	1.303	0.06	0.048	0.069
47	Bluetooth	1Mbps	Top Side	10mm	Ant 16	Full	39	2441	15.57	16.00	1.104	76.74	1.303	0.02	0.087	**0.125**
	Bluetooth	1Mbps	Right Side	10mm	Ant 16	Full	39	2441	15.57	16.00	1.104	76.74	1.303	0.02	0.011	0.016
	Bluetooth	1Mbps	Front	10mm	Ant 18	Full	39	2441	15.59	16.00	1.099	76.92	1.300	0.08	0.006	0.009
	Bluetooth	1Mbps	Back	10mm	Ant 18	Full	39	2441	15.59	16.00	1.099	76.92	1.300	-0.06	0.005	0.007
	Bluetooth	1Mbps	Top Side	10mm	Ant 18	Full	39	2441	15.59	16.00	1.099	76.92	1.300	0.05	0.001	0.001
	Bluetooth	1Mbps	Right Side	10mm	Ant 18	Full	39	2441	15.59	16.00	1.099	76.92	1.300	0.08	0.013	0.019
5000Mhz																
	5.2GHz WLAN	802.11a 6Mbps	Front	10mm	Ant 17+18	Full	40	5200	20.24	21.50	1.338	100	1.000	0.03	0.172	0.230
	5.2GHz WLAN	802.11a 6Mbps	Back	10mm	Ant 17+18	Full	40	5200	20.24	21.50	1.338	100	1.000	0.02	0.180	0.241
	5.2GHz WLAN	802.11a 6Mbps	Top Side	10mm	Ant 17+18	Full	40	5200	20.24	21.50	1.338	100	1.000	-0.05	0.137	0.183
48	5.2GHz WLAN	802.11a 6Mbps	Right Side	10mm	Ant 17+18	Full	40	5200	20.24	21.50	1.338	100	1.000	-0.07	0.222	**0.297**
	5.8GHz WLAN	802.11a 6Mbps	Front	10mm	Ant 17+18	Full	157	5785	22.03	22.50	1.115	100	1.000	-0.01	0.412	0.460
	5.8GHz WLAN	802.11a 6Mbps	Back	10mm	Ant 17+18	Full	157	5785	22.03	22.50	1.115	100	1.000	-0.07	0.454	0.506
	5.8GHz WLAN	802.11a 6Mbps	Top Side	10mm	Ant 17+18	Full	157	5785	22.03	22.50	1.115	100	1.000	0.06	0.476	0.531
49	5.8GHz WLAN	802.11a 6Mbps	Right Side	10mm	Ant 17+18	Full	157	5785	22.03	22.50	1.115	100	1.000	0.1	0.520	**0.580**
	5.8GHz WLAN	802.11ac-VHT80 MCS0	Right Side	10mm	Ant 17+18	Simultaneous	155	5775	19.83	20.50	1.166	100	1.000	-0.05	0.231	0.269

16.3 Body Worn Accessory 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)
750MHz																	
	LTE Band 12	10M	QPSK	1	0	Front	15mm	Ant 0	DSI 4	23095	707.5	24.37	25.50	1.297	-0.08	0.131	0.170
	LTE Band 12	10M	QPSK	25	0	Front	15mm	Ant 0	DSI 4	23095	707.5	23.37	24.50	1.297	-0.05	0.111	0.144
	LTE Band 12	10M	QPSK	1	0	Back	15mm	Ant 0	DSI 4	23095	707.5	24.37	25.50	1.297	0.02	0.158	0.205
	LTE Band 12	10M	QPSK	25	0	Back	15mm	Ant 0	DSI 4	23095	707.5	23.37	24.50	1.297	0.03	0.134	0.174
	LTE Band 12	10M	QPSK	1	0	Front	15mm	Ant 1	DSI 4	23095	707.5	24.47	25.70	1.327	-0.07	0.217	0.288
	LTE Band 12	10M	QPSK	25	0	Front	15mm	Ant 1	DSI 4	23095	707.5	23.45	24.70	1.334	0.03	0.222	0.296
	LTE Band 12	10M	QPSK	1	0	Back	15mm	Ant 1	DSI 4	23095	707.5	24.47	25.70	1.327	-0.01	0.251	0.333
50	LTE Band 12	10M	QPSK	25	0	Back	15mm	Ant 1	DSI 4	23095	707.5	23.45	24.70	1.334	-0.07	0.253	**0.337**
	LTE Band 13	10M	QPSK	1	0	Front	15mm	Ant 0	DSI 4	23230	782	24.36	25.50	1.300	0.02	0.101	0.131
	LTE Band 13	10M	QPSK	25	0	Front	15mm	Ant 0	DSI 4	23230	782	23.45	24.50	1.274	0.01	0.098	0.125
	LTE Band 13	10M	QPSK	1	0	Back	15mm	Ant 0	DSI 4	23230	782	24.36	25.50	1.300	-0.06	0.120	0.156
	LTE Band 13	10M	QPSK	25	0	Back	15mm	Ant 0	DSI 4	23230	782	23.45	24.50	1.274	0.12	0.116	0.148
	LTE Band 13	10M	QPSK	1	0	Front	15mm	Ant 1	DSI 4	23230	782	24.44	25.70	1.337	0.06	0.351	0.469
	LTE Band 13	10M	QPSK	25	0	Front	15mm	Ant 1	DSI 4	23230	782	23.38	24.70	1.355	0.05	0.269	0.365
51	LTE Band 13	10M	QPSK	1	0	Back	15mm	Ant 1	DSI 4	23230	782	24.44	25.70	1.337	-0.06	0.409	**0.547**
	LTE Band 13	10M	QPSK	25	0	Back	15mm	Ant 1	DSI 4	23230	782	23.38	24.70	1.355	0.08	0.313	0.424

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)
850MHz																		
	GSM850	-	-	-	-	GPRS 4 Tx slots	Front	15mm	Ant 0	DSI 4	189	836.4	25.88	27.50	1.452	0.06	0.113	0.164
	GSM850	-	-	-	-	GPRS 4 Tx slots	Back	15mm	Ant 0	DSI 4	189	836.4	25.88	27.50	1.452	-0.04	0.136	0.197
	GSM850	-	-	-	-	GPRS 4 Tx slots	Front	15mm	Ant 1	DSI 4	189	836.4	26.78	28.00	1.324	0.02	0.238	0.315
52	GSM850	-	-	-	-	GPRS 4 Tx slots	Back	15mm	Ant 1	DSI 4	189	836.4	26.78	28.00	1.324	-0.04	0.291	**0.385**
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 0	DSI 4	4182	836.4	23.92	25.00	1.282	0.03	0.153	0.196
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 0	DSI 4	4182	836.4	23.92	25.00	1.282	-0.01	0.175	0.224
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 1	DSI 4	4182	836.4	24.60	25.70	1.288	0.16	0.305	0.393
53	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 1	DSI 4	4182	836.4	24.60	25.70	1.288	0.01	0.334	**0.430**
	LTE Band 26	15M	QPSK	1	0	-	Front	15mm	Ant 0	DSI 4	26865	831.5	24.48	25.50	1.265	0.04	0.091	0.115
	LTE Band 26	15M	QPSK	36	0	-	Front	15mm	Ant 0	DSI 4	26865	831.5	23.42	24.50	1.282	0.12	0.076	0.097
	LTE Band 26	15M	QPSK	1	0	-	Back	15mm	Ant 0	DSI 4	26865	831.5	24.48	25.50	1.265	0.03	0.210	0.266
	LTE Band 26	15M	QPSK	36	0	-	Back	15mm	Ant 0	DSI 4	26865	831.5	23.42	24.50	1.282	0.04	0.178	0.228
	LTE Band 26	15M	QPSK	1	0	-	Front	15mm	Ant 1	DSI 4	26865	831.5	24.41	25.70	1.346	0.03	0.213	0.287
	LTE Band 26	15M	QPSK	36	0	-	Front	15mm	Ant 1	DSI 4	26865	831.5	23.44	24.70	1.337	0.02	0.189	0.253
54	LTE Band 26	15M	QPSK	1	0	-	Back	15mm	Ant 1	DSI 4	26865	831.5	24.41	25.70	1.346	0.01	0.245	**0.330**
	LTE Band 26	15M	QPSK	36	0	-	Back	15mm	Ant 1	DSI 4	26865	831.5	23.44	24.70	1.337	0.12	0.226	0.302
	FR1 n5	20M	QPSK	1	1	DFT-15	Front	15mm	Ant 0	DSI 4	167300	836.5	24.46	25.50	1.271	0.04	0.158	0.201
	FR1 n5	20M	QPSK	50	28	DFT-15	Front	15mm	Ant 0	DSI 4	167300	836.5	24.45	25.50	1.274	0.12	0.161	0.205
	FR1 n5	20M	QPSK	1	1	DFT-15	Back	15mm	Ant 0	DSI 4	167300	836.5	24.46	25.50	1.271	0.15	0.203	0.258
	FR1 n5	20M	QPSK	50	28	DFT-15	Back	15mm	Ant 0	DSI 4	167300	836.5	24.45	25.50	1.274	0.02	0.213	0.271
	FR1 n5	20M	QPSK	1	1	DFT-15	Front	15mm	Ant 1	DSI 4	167300	836.5	22.45	23.70	1.334	0.03	0.243	0.324
	FR1 n5	20M	QPSK	50	28	DFT-15	Front	15mm	Ant 1	DSI 4	167300	836.5	22.28	23.70	1.387	0.06	0.265	0.367
	FR1 n5	20M	QPSK	1	1	DFT-15	Back	15mm	Ant 1	DSI 4	167300	836.5	22.45	23.70	1.334	0.05	0.278	0.371
55	FR1 n5	20M	QPSK	50	28	DFT-15	Back	15mm	Ant 1	DSI 4	167300	836.5	22.28	23.70	1.387	-0.03	0.310	**0.430**

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)
1750 MHZ																		
56	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 3	DSI 4	1413	1732.6	24.05	25.00	1.245	-0.05	0.363	0.452
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 3	DSI 4	1413	1732.6	24.05	25.00	1.245	0.01	0.318	0.396
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 4	DSI 4	1413	1732.6	22.49	24.00	1.416	0.02	0.176	0.249
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 4	DSI 4	1413	1732.6	22.49	24.00	1.416	0.08	0.239	0.338
	LTE Band 66	20M	QPSK	1	0	-	Front	15mm	Ant 0	DSI 4	132322	1745	21.49	23.00	1.416	-0.02	0.078	0.110
	LTE Band 66	20M	QPSK	50	0	-	Front	15mm	Ant 0	DSI 4	132322	1745	20.41	22.00	1.442	0.03	0.082	0.118
	LTE Band 66	20M	QPSK	1	0	-	Back	15mm	Ant 0	DSI 4	132322	1745	21.49	23.00	1.416	0.03	0.080	0.113
	LTE Band 66	20M	QPSK	50	0	-	Back	15mm	Ant 0	DSI 4	132322	1745	20.41	22.00	1.442	-0.02	0.079	0.114
57	LTE Band 66	20M	QPSK	1	0	-	Front	15mm	Ant 3	DSI 4	132322	1745	24.61	25.70	1.285	-0.04	0.473	0.608
	LTE Band 66	20M	QPSK	50	0	-	Front	15mm	Ant 3	DSI 4	132322	1745	23.67	24.70	1.268	0.12	0.380	0.482
	LTE Band 66	20M	QPSK	1	0	-	Back	15mm	Ant 3	DSI 4	132322	1745	24.61	25.70	1.285	0.02	0.459	0.590
	LTE Band 66	20M	QPSK	50	0	-	Back	15mm	Ant 3	DSI 4	132322	1745	23.67	24.70	1.268	0.03	0.365	0.463
	LTE Band 66	20M	QPSK	1	0	-	Front	15mm	Ant 4	DSI 4	132322	1745	23.14	24.00	1.219	0.03	0.193	0.235
	LTE Band 66	20M	QPSK	50	0	-	Front	15mm	Ant 4	DSI 4	132322	1745	22.07	23.00	1.239	0.05	0.148	0.183
	LTE Band 66	20M	QPSK	1	0	-	Back	15mm	Ant 4	DSI 4	132322	1745	23.14	24.00	1.219	0.03	0.270	0.329
	LTE Band 66	20M	QPSK	50	0	-	Back	15mm	Ant 4	DSI 4	132322	1745	22.07	23.00	1.239	0.03	0.204	0.253
	LTE Band 66	20M	QPSK	1	0	-	Front	15mm	Ant 5	DSI 4	132322	1745	20.92	22.50	1.439	0.05	0.078	0.112
	LTE Band 66	20M	QPSK	50	0	-	Front	15mm	Ant 5	DSI 4	132322	1745	20.78	22.50	1.486	0.06	0.081	0.120
	LTE Band 66	20M	QPSK	1	0	-	Back	15mm	Ant 5	DSI 4	132322	1745	20.92	22.50	1.439	0.06	0.107	0.154
	LTE Band 66	20M	QPSK	50	0	-	Back	15mm	Ant 5	DSI 4	132322	1745	20.78	22.50	1.486	-0.06	0.106	0.158
	FR1 n66	40M	QPSK	1	1	DFT-15	Front	15mm	Ant 0	DSI 4	349000	1745	22.99	24.50	1.416	0.03	0.104	0.147
	FR1 n66	40M	QPSK	108	54	DFT-15	Front	15mm	Ant 0	DSI 4	349000	1745	22.91	24.50	1.442	0.08	0.109	0.157
	FR1 n66	40M	QPSK	1	1	DFT-15	Back	15mm	Ant 0	DSI 4	349000	1745	22.99	24.50	1.416	0.15	0.102	0.144
	FR1 n66	40M	QPSK	108	54	DFT-15	Back	15mm	Ant 0	DSI 4	349000	1745	22.91	24.50	1.442	0.06	0.107	0.154
	FR1 n66	40M	QPSK	1	1	DFT-15	Front	15mm	Ant 3	DSI 4	349000	1745	22.58	24.00	1.387	0.05	0.288	0.399
	FR1 n66	40M	QPSK	108	54	DFT-15	Front	15mm	Ant 3	DSI 4	349000	1745	22.54	24.00	1.400	0.04	0.216	0.302
	FR1 n66	40M	QPSK	1	1	DFT-15	Back	15mm	Ant 3	DSI 4	349000	1745	22.58	24.00	1.387	0.09	0.258	0.358
	FR1 n66	40M	QPSK	108	54	DFT-15	Back	15mm	Ant 3	DSI 4	349000	1745	22.54	24.00	1.400	-0.07	0.207	0.290
	FR1 n66	40M	QPSK	1	1	DFT-15	Front	15mm	Ant 4	DSI 4	349000	1745	24.47	25.50	1.268	0.06	0.284	0.360
	FR1 n66	40M	QPSK	108	54	DFT-15	Front	15mm	Ant 4	DSI 4	349000	1745	24.25	25.50	1.334	0.04	0.270	0.360
58	FR1 n66	40M	QPSK	1	1	DFT-15	Back	15mm	Ant 4	DSI 4	349000	1745	24.47	25.50	1.268	-0.03	0.364	0.461
	FR1 n66	40M	QPSK	108	54	DFT-15	Back	15mm	Ant 4	DSI 4	349000	1745	24.25	25.50	1.334	-0.05	0.340	0.453
	FR1 n66	40M	QPSK	1	1	DFT-15	Front	15mm	Ant 5	DSI 4	349000	1745	19.88	21.00	1.294	0.02	0.062	0.080
	FR1 n66	40M	QPSK	108	54	DFT-15	Front	15mm	Ant 5	DSI 4	349000	1745	19.82	21.00	1.312	0.05	0.062	0.081
	FR1 n66	40M	QPSK	1	1	DFT-15	Back	15mm	Ant 5	DSI 4	349000	1745	19.88	21.00	1.294	0.04	0.080	0.104
	FR1 n66	40M	QPSK	108	54	DFT-15	Back	15mm	Ant 5	DSI 4	349000	1745	19.82	21.00	1.312	0.08	0.079	0.104

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)
1900 MHZ																		
59	GSM1900	-	-	-	-	GPRS 4 Tx slots	Front	15mm	Ant 3	DSI 4	661	1880	23.45	24.50	1.274	-0.01	0.127	**0.162**
	GSM1900	-	-	-	-	GPRS 4 Tx slots	Back	15mm	Ant 3	DSI 4	661	1880	23.45	24.50	1.274	0.03	0.119	0.152
	GSM1900	-	-	-	-	GPRS 4 Tx slots	Front	15mm	Ant 4	DSI 4	661	1880	28.17	30.00	1.524	0.04	0.078	0.119
	GSM1900	-	-	-	-	GPRS 4 Tx slots	Back	15mm	Ant 4	DSI 4	661	1880	28.17	30.00	1.524	0.06	0.105	0.160
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 3	DSI 4	9400	1880	24.25	25.00	1.189	0.02	0.378	0.449
6	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 3	DSI 4	9400	1880	24.25	25.00	1.189	-0.01	0.399	**0.474**
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 4	DSI 4	9400	1880	22.62	24.00	1.374	0.05	0.185	0.254
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 4	DSI 4	9400	1880	22.62	24.00	1.374	0.06	0.267	0.367
61	LTE Band 25	20M	QPSK	1	0	-	Front	15mm	Ant 3	DSI 4	26340	1880	24.58	25.70	1.294	-0.02	0.462	**0.598**
	LTE Band 25	20M	QPSK	50	0	-	Front	15mm	Ant 3	DSI 4	26340	1880	23.65	24.70	1.274	-0.01	0.384	0.489
	LTE Band 25	20M	QPSK	1	0	-	Back	15mm	Ant 3	DSI 4	26340	1880	24.58	25.70	1.294	0.01	0.457	0.591
	LTE Band 25	20M	QPSK	50	0	-	Back	15mm	Ant 3	DSI 4	26340	1880	23.65	24.70	1.274	0.16	0.374	0.476
	LTE Band 25	20M	QPSK	1	0	-	Front	15mm	Ant 4	DSI 4	26340	1880	23.15	24.00	1.216	0.11	0.197	0.240
	LTE Band 25	20M	QPSK	50	0	-	Front	15mm	Ant 4	DSI 4	26340	1880	22.15	23.00	1.216	0.03	0.160	0.195
	LTE Band 25	20M	QPSK	1	0	-	Back	15mm	Ant 4	DSI 4	26340	1880	23.15	24.00	1.216	0.02	0.270	0.328
	LTE Band 25	20M	QPSK	50	0	-	Back	15mm	Ant 4	DSI 4	26340	1880	22.15	23.00	1.216	0.05	0.222	0.270

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)
2600 MHZ																				
	LTE Band 7	20M	QPSK	1	0	-	Front	15mm	Ant 0	DSI 4	21100	2535	21.57	22.50	1.239	-	-	-0.02	0.090	0.111
	LTE Band 7_UL_CA	20M	QPSK	1	0	-	Front	15mm	Ant 0	DSI 4	21100+21298	2535+2554.8	21.11	22.50	1.377	-	-	0.03	0.072	0.099
	LTE Band 7	20M	QPSK	50	0	-	Front	15mm	Ant 0	DSI 4	21100	2535	20.58	21.50	1.236	-	-	0.04	0.076	0.094
	LTE Band 7	20M	QPSK	1	0	-	Back	15mm	Ant 0	DSI 4	21100	2535	21.57	22.50	1.239	-	-	0.01	0.073	0.090
	LTE Band 7	20M	QPSK	50	0	-	Back	15mm	Ant 0	DSI 4	21100	2535	20.58	21.50	1.236	-	-	0.09	0.060	0.074
	LTE Band 7	20M	QPSK	1	0	-	Front	15mm	Ant 3	DSI 4	21100	2535	24.46	25.50	1.271	-	-	0.04	0.358	0.455
	LTE Band 7	20M	QPSK	50	0	-	Front	15mm	Ant 3	DSI 4	21100	2535	23.29	24.50	1.321	-	-	0.16	0.297	0.392
62	LTE Band 7	20M	QPSK	1	0	-	Back	15mm	Ant 3	DSI 4	21100	2535	24.46	25.50	1.271	-	-	0.01	0.482	**0.612**
	LTE Band 7_UL_CA	20M	QPSK	1	0	-	Back	15mm	Ant 3	DSI 4	21100+21298	2535+2554.8	24.00	25.50	1.413	-	-	-0.05	0.387	0.547
	LTE Band 7	20M	QPSK	50	0	-	Back	15mm	Ant 3	DSI 4	21100	2535	23.29	24.50	1.321	-	-	0.14	0.395	0.522
	LTE Band 7	20M	QPSK	1	0	-	Front	15mm	Ant 4	DSI 4	21100	2535	23.50	25.00	1.413	-	-	0.03	0.169	0.239
	LTE Band 7_UL_CA	20M	QPSK	1	0	-	Front	15mm	Ant 4	DSI 4	21100+21298	2535+2554.8	23.33	25.00	1.469	-	-	0.01	0.148	0.217
	LTE Band 7	20M	QPSK	50	0	-	Front	15mm	Ant 4	DSI 4	21100	2535	22.43	24.00	1.435	-	-	-0.15	0.135	0.194
	LTE Band 7	20M	QPSK	1	0	-	Back	15mm	Ant 4	DSI 4	21100	2535	23.50	25.00	1.413	-	-	-0.13	0.139	0.196
	LTE Band 7	20M	QPSK	50	0	-	Back	15mm	Ant 4	DSI 4	21100	2535	22.43	24.00	1.435	-	-	-0.02	0.113	0.162
	LTE Band 7	20M	QPSK	1	0	-	Front	15mm	Ant 5	DSI 4	21100	2535	20.47	21.50	1.268	-	-	0.16	0.051	0.065
	LTE Band 7	20M	QPSK	50	0	-	Front	15mm	Ant 5	DSI 4	21100	2535	20.38	21.50	1.294	-	-	0.11	0.056	0.072
	LTE Band 7	20M	QPSK	1	0	-	Back	15mm	Ant 5	DSI 4	21100	2535	20.47	21.50	1.268	-	-	0.04	0.068	0.086
	LTE Band 7_UL_CA	20M	QPSK	1	0	-	Back	15mm	Ant 5	DSI 4	21100+21298	2535+2554.8	20.03	21.50	1.403	-	-	0.08	0.043	0.060
	LTE Band 7	20M	QPSK	50	0	-	Back	15mm	Ant 5	DSI 4	21100	2535	20.38	21.50	1.294	-	-	0.05	0.063	0.082
	LTE Band 7	20M	QPSK	1	0		Front	15mm	Ant 7	DSI 4	21100	2535	23.28	24.50	1.324	-	-	0.06	0.027	0.036
	LTE Band 7	20M	QPSK	50	0		Front	15mm	Ant 7	DSI 4	21100	2535	22.32	23.50	1.312	-	-	-0.13	0.023	0.030
	LTE Band 7	20M	QPSK	1	0		Back	15mm	Ant 7	DSI 4	21100	2535	23.28	24.50	1.324	-	-	0.12	0.152	0.201
	LTE Band 7	20M	QPSK	50	0		Back	15mm	Ant 7	DSI 4	21100	2535	22.32	23.50	1.312	-	-	-0.16	0.118	0.155
	LTE Band 41	20M	QPSK	1	0	-	Front	15mm	Ant 0	DSI 4	40620	2593	22.38	23.00	1.153	62.9	1.006	0.17	0.046	0.053
	LTE Band 38_UL_CA	20M	QPSK	1	0	-	Front	15mm	Ant 0	DSI 4	37901+38099	2585.1+2604.9	21.34	23.00	1.466	62.9	1.006	0.03	0.028	0.041
	LTE Band 41	20M	QPSK	50	0	-	Front	15mm	Ant 0	DSI 4	40620	2593	21.45	22.00	1.135	62.9	1.006	0.11	0.037	0.042
	LTE Band 41	20M	QPSK	1	0	-	Back	15mm	Ant 0	DSI 4	40620	2593	22.38	23.00	1.153	62.9	1.006	0.02	0.035	0.041
	LTE Band 41	20M	QPSK	50	0	-	Back	15mm	Ant 0	DSI 4	40620	2593	21.45	22.00	1.135	62.9	1.006	0.02	0.029	0.033
	LTE Band 41	20M	QPSK	1	0	-	Front	15mm	Ant 3	DSI 4	40620	2593	24.41	25.70	1.346	62.9	1.006	0.06	0.198	0.268
	LTE Band 41	20M	QPSK	50	0	-	Front	15mm	Ant 3	DSI 4	40620	2593	23.44	24.70	1.337	62.9	1.006	0.06	0.154	0.207
63	LTE Band 41	20M	QPSK	1	0	-	Back	15mm	Ant 3	DSI 4	40620	2593	24.41	25.70	1.346	62.9	1.006	-0.08	0.278	**0.376**

	LTE Band 38_UL_CA	20M	QPSK	1	0	-	Back	15mm	Ant 3	DSI 4	37901+38099	2585.1+2604.9	24.07	25.70	1.455	62.9	1.006	-0.08	0.246	0.360
	LTE Band 41	20M	QPSK	50	0	-	Back	15mm	Ant 3	DSI 4	40620	2593	23.44	24.70	1.337	62.9	1.006	0.04	0.211	0.284
	LTE Band 41	20M	QPSK	1	0	-	Front	15mm	Ant 4	DSI 4	40620	2593	23.10	24.00	1.230	62.9	1.006	-0.15	0.185	0.229
	LTE Band 38_UL_CA	20M	QPSK	1	0	-	Front	15mm	Ant 4	DSI 4	37901+38099	2585.1+2604.9	22.74	24.00	1.337	62.9	1.006	0.02	0.149	0.200
	LTE Band 41	20M	QPSK	50	0	-	Front	15mm	Ant 4	DSI 4	40620	2593	22.14	23.00	1.219	62.9	1.006	0.1	0.175	0.215
	LTE Band 41	20M	QPSK	1	0	-	Back	15mm	Ant 4	DSI 4	40620	2593	23.10	24.00	1.230	62.9	1.006	-0.05	0.183	0.226
	LTE Band 41	20M	QPSK	50	0	-	Back	15mm	Ant 4	DSI 4	40620	2593	22.14	23.00	1.219	62.9	1.006	0.11	0.180	0.221
	LTE Band 41	20M	QPSK	1	0	-	Front	15mm	Ant 5	DSI 4	40620	2593	21.40	22.50	1.288	62.9	1.006	0.16	0.046	0.060
	LTE Band 41	20M	QPSK	50	0	-	Front	15mm	Ant 5	DSI 4	40620	2593	21.38	22.50	1.294	62.9	1.006	0.02	0.041	0.053
	LTE Band 41	20M	QPSK	1	0	-	Back	15mm	Ant 5	DSI 4	40620	2593	21.40	22.50	1.288	62.9	1.006	0.03	0.048	0.062
	LTE Band 41	20M	QPSK	50	0	-	Back	15mm	Ant 5	DSI 4	40620	2593	21.38	22.50	1.294	62.9	1.006	0.04	0.053	0.069
	LTE Band 38_UL_CA	20M	QPSK	50	0	-	Back	15mm	Ant 5	DSI 4	37901+38099	2585.1+2604.9	20.72	22.50	1.507	62.9	1.006	0.06	0.038	0.058
	FR1 n7	40M	QPSK	1	1	DFT-15	Front	15mm	Ant 0	DSI 4	507000	2535	23.03	24.50	1.403	-	-	0.11	0.066	0.093
	FR1 n7	40M	QPSK	108	54	DFT-15	Front	15mm	Ant 0	DSI 4	507000	2535	22.84	24.50	1.466	-	-	0.15	0.071	0.104
	FR1 n7	40M	QPSK	1	1	DFT-15	Back	15mm	Ant 0	DSI 4	507000	2535	23.03	24.50	1.403	-	-	0.12	0.047	0.066
	FR1 n7	40M	QPSK	108	54	DFT-15	Back	15mm	Ant 0	DSI 4	507000	2535	22.84	24.50	1.466	-	-	0.19	0.063	0.092
	FR1 n7	40M	QPSK	1	1	DFT-15	Front	15mm	Ant 3	DSI 4	507000	2535	22.53	24.00	1.403	-	-	0.12	0.119	0.167
	FR1 n7	40M	QPSK	108	54	DFT-15	Front	15mm	Ant 3	DSI 4	507000	2535	22.46	24.00	1.426	-	-	0.11	0.113	0.161
64	FR1 n7	40M	QPSK	1	1	DFT-15	Back	15mm	Ant 3	DSI 4	507000	2535	22.53	24.00	1.403	-	-	-0.01	0.161	**0.226**
	FR1 n7	40M	QPSK	108	54	DFT-15	Back	15mm	Ant 3	DSI 4	507000	2535	22.46	24.00	1.426	-	-	-0.15	0.142	0.202
	FR1 n7	40M	QPSK	1	1	DFT-15	Front	15mm	Ant 4	DSI 4	507000	2535	24.72	25.50	1.197	-	-	-0.11	0.170	0.203
	FR1 n7	40M	QPSK	108	54	DFT-15	Front	15mm	Ant 4	DSI 4	507000	2535	24.57	25.50	1.239	-	-	0.01	0.177	0.219
	FR1 n7	40M	QPSK	1	1	DFT-15	Back	15mm	Ant 4	DSI 4	507000	2535	24.72	25.50	1.197	-	-	0.03	0.172	0.206
	FR1 n7	40M	QPSK	108	54	DFT-15	Back	15mm	Ant 4	DSI 4	507000	2535	24.57	25.50	1.239	-	-	0.05	0.175	0.217
	FR1 n7	40M	QPSK	1	1	DFT-15	Front	15mm	Ant 5	DSI 4	507000	2535	20.39	22.00	1.449	-	-	-0.1	0.046	0.067
	FR1 n7	40M	QPSK	108	54	DFT-15	Front	15mm	Ant 5	DSI 4	507000	2535	20.31	22.00	1.476	-	-	-0.04	0.047	0.069
	FR1 n7	40M	QPSK	1	1	DFT-15	Back	15mm	Ant 5	DSI 4	507000	2535	20.39	22.00	1.449	-	-	0.05	0.067	0.097
	FR1 n7	40M	QPSK	108	54	DFT-15	Back	15mm	Ant 5	DSI 4	507000	2535	20.31	22.00	1.476	-	-	0.12	0.065	0.096
	FR1 n41	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 0	DSI 4	518598	2592.99	21.88	23.00	1.294	-	-	0.11	0.035	0.045
	FR1 n41	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 0	DSI 4	518598	2592.99	21.86	23.00	1.300	-	-	0.13	0.037	0.048
	FR1 n41	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 0	DSI 4	518598	2592.99	21.88	23.00	1.294	-	-	0.16	0.026	0.034
	FR1 n41	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 0	DSI 4	518598	2592.99	21.86	23.00	1.300	-	-	0.04	0.030	0.039
	FR1 n41	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 3	DSI 4	518598	2592.99	22.42	24.00	1.439	-	-	0.05	0.139	0.200
	FR1 n41	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 3	DSI 4	518598	2592.99	22.40	24.00	1.445	-	-	0.06	0.107	0.155
	FR1 n41	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 3	DSI 4	518598	2592.99	22.42	24.00	1.439	-	-	0.05	0.184	0.265
	FR1 n41	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 3	DSI 4	518598	2592.99	22.40	24.00	1.445	-	-	0.04	0.167	0.241
65	FR1 n41	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 4	DSI 4	518598	2592.99	24.48	25.50	1.265	-	-	-0.03	0.248	**0.314**
	FR1 n41	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 4	DSI 4	518598	2592.99	24.44	25.50	1.276	-	-	0.06	0.246	0.314
	FR1 n41	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 4	DSI 4	518598	2592.99	24.48	25.50	1.265	-	-	0.03	0.243	0.307
	FR1 n41	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 4	DSI 4	518598	2592.99	24.44	25.50	1.276	-	-	0.12	0.244	0.311
	FR1 n41	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 5	DSI 4	518598	2592.99	22.10	23.00	1.230	-	-	0.11	0.053	0.065
	FR1 n41	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 5	DSI 4	518598	2592.99	22.07	23.00	1.239	-	-	0.11	0.040	0.050
	FR1 n41	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 5	DSI 4	518598	2592.99	22.10	23.00	1.230	-	-	0.14	0.066	0.081
	FR1 n41	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 5	DSI 4	518598	2592.99	22.07	23.00	1.239	-	-	0.12	0.047	0.058

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)
										3500 MHZ										
	LTE Band 42	20M	QPSK	1	0	-	Front	15mm	Ant 10	DSI 4	42590	3500	24.57	25.70	1.297	62.9	1.006	0.05	0.063	0.082
	LTE Band 42	20M	QPSK	50	0	-	Front	15mm	Ant 10	DSI 4	42590	3500	23.45	24.70	1.334	62.9	1.006	0.03	0.055	0.074
	LTE Band 42	20M	QPSK	1	0	-	Back	15mm	Ant 10	DSI 4	42590	3500	24.57	25.70	1.297	62.9	1.006	0.04	0.087	0.114
	LTE Band 42_UL_CA	20M	QPSK	1	0	-	Back	15mm	Ant 10	DSI 4	42590+42788	3500+3519.8	24.07	25.70	1.297	62.9	1.006	0.15	0.061	0.080
	LTE Band 42	20M	QPSK	50	0	-	Back	15mm	Ant 10	DSI 4	42590	3500	23.45	24.70	1.334	62.9	1.006	0.01	0.071	0.095
	LTE Band 42	20M	QPSK	1	0	-	Front	15mm	Ant 11	DSI 4	42590	3500	20.86	22.50	1.459	62.9	1.006	0.14	0.032	0.047
	LTE Band 42	20M	QPSK	50	0	-	Front	15mm	Ant 11	DSI 4	42590	3500	19.84	21.50	1.466	62.9	1.006	0.03	0.024	0.035
	LTE Band 42	20M	QPSK	1	0	-	Back	15mm	Ant 11	DSI 4	42590	3500	20.86	22.50	1.459	62.9	1.006	0.05	0.067	0.098
	LTE Band 42_UL_CA	20M	QPSK	1	0	-	Back	15mm	Ant 11	DSI 4	42590+42788	3500+3519.8	20.76	22.50	1.459	62.9	1.006	0.13	0.046	0.068
	LTE Band 42	20M	QPSK	50	0	-	Back	15mm	Ant 11	DSI 4	42590	3500	19.84	21.50	1.466	62.9	1.006	0.04	0.054	0.080
	LTE Band 42	20M	QPSK	1	0	-	Front	15mm	Ant 12	DSI 4	42590	3500	21.45	23.00	1.429	62.9	1.006	0.03	0.080	0.115
	LTE Band 42	20M	QPSK	50	0	-	Front	15mm	Ant 12	DSI 4	42590	3500	20.36	22.00	1.459	62.9	1.006	0.08	0.076	0.112
	LTE Band 42	20M	QPSK	1	0	-	Back	15mm	Ant 12	DSI 4	42590	3500	21.45	23.00	1.429	62.9	1.006	0.11	0.098	0.141
	LTE Band 42_UL_CA	20M	QPSK	1	0	-	Back	15mm	Ant 12	DSI 4	42590+42788	3500+3519.8	21.00	23.00	1.429	62.9	1.006	0.13	0.064	0.092
	LTE Band 42	20M	QPSK	50	0	-	Back	15mm	Ant 12	DSI 4	42590	3500	20.36	22.00	1.459	62.9	1.006	0.13	0.088	0.129
	LTE Band 42	20M	QPSK	1	0	-	Front	15mm	Ant 13	DSI 4	42590	3500	24.39	25.70	1.352	62.9	1.006	0.05	0.047	0.064
	LTE Band 42	20M	QPSK	50	0	-	Front	15mm	Ant 13	DSI 4	42590	3500	23.12	24.70	1.439	62.9	1.006	0.06	0.046	0.067
	LTE Band 42	20M	QPSK	1	0	-	Back	15mm	Ant 13	DSI 4	42590	3500	24.39	25.70	1.352	62.9	1.006	0.02	0.263	0.358
66	LTE Band 42	20M	QPSK	50	0	-	Back	15mm	Ant 13	DSI 4	42590	3500	23.12	24.70	1.439	62.9	1.006	0.08	0.272	**0.394**
	LTE Band 42_UL_CA	20M	QPSK	50	0	-	Back	15mm	Ant 13	DSI 4	42590+42788	3500+3519.8	23.32	24.70	1.439	62.9	1.006	-0.05	0.215	0.311
	LTE Band 48	20M	QPSK	1	0	-	Front	15mm	Ant 10	DSI 4	56150	3641	21.67	23.00	1.358	62.9	1.006	-0.19	0.078	0.107
	LTE Band 48	20M	QPSK	50	0	-	Front	15mm	Ant 10	DSI 4	56150	3641	20.70	22.00	1.380	62.9	1.006	-0.12	0.068	0.094
	LTE Band 48	20M	QPSK	1	0	-	Back	15mm	Ant 10	DSI 4	56150	3641	21.67	23.00	1.358	62.9	1.006	0.04	0.112	0.153
	LTE Band 48	20M	QPSK	50	0	-	Back	15mm	Ant 10	DSI 4	56150	3641	20.70	22.00	1.380	62.9	1.006	-0.01	0.092	0.128
	LTE Band 48	20M	QPSK	1	0	-	Front	15mm	Ant 11	DSI 4	56150	3641	18.49	20.00	1.455	62.9	1.006	0.09	0.055	0.081
	LTE Band 48	20M	QPSK	50	0	-	Front	15mm	Ant 11	DSI 4	56150	3641	17.30	19.00	1.524	62.9	1.006	0.03	0.036	0.055
	LTE Band 48	20M	QPSK	1	0	-	Back	15mm	Ant 11	DSI 4	56150	3641	18.49	20.00	1.455	62.9	1.006	0.09	0.064	0.094
	LTE Band 48	20M	QPSK	50	0	-	Back	15mm	Ant 11	DSI 4	56150	3641	17.30	19.00	1.524	62.9	1.006	0.1	0.049	0.075
	LTE Band 48	20M	QPSK	1	0	-	Front	15mm	Ant 12	DSI 4	56150	3641	18.85	20.50	1.507	62.9	1.006	0.11	0.050	0.076
	LTE Band 48	20M	QPSK	50	0	-	Front	15mm	Ant 12	DSI 4	56150	3641	17.99	19.50	1.452	62.9	1.006	0.06	0.042	0.061
	LTE Band 48	20M	QPSK	1	0	-	Back	15mm	Ant 12	DSI 4	56150	3641	18.85	20.50	1.507	62.9	1.006	0.06	0.140	0.212
	LTE Band 48	20M	QPSK	50	0	-	Back	15mm	Ant 12	DSI 4	56150	3641	17.99	19.50	1.452	62.9	1.006	0.01	0.101	0.148
	LTE Band 48	20M	QPSK	1	0	-	Front	15mm	Ant 13	DSI 4	56150	3641	22.37	24.00	1.486	62.9	1.006	0.13	0.034	0.051
	LTE Band 48	20M	QPSK	50	0	-	Front	15mm	Ant 13	DSI 4	56150	3641	21.43	23.00	1.514	62.9	1.006	0.11	0.033	0.050
67	LTE Band 48	20M	QPSK	1	0	-	Back	15mm	Ant 13	DSI 4	56150	3641	22.37	24.00	1.486	62.9	1.006	-0.06	0.171	**0.256**
	LTE Band 48	20M	QPSK	50	0	-	Back	15mm	Ant 13	DSI 4	56150	3641	21.43	23.00	1.514	62.9	1.006	0.12	0.165	0.251
	FR1 n77	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 10	DSI 4	656000	3840	24.57	25.70	1.297	-	-	0.03	0.268	0.348
	FR1 n77	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 10	DSI 4	656000	3840	24.40	25.70	1.349	-	-	-0.05	0.150	0.202
	FR1 n77	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 10	DSI 4	656000	3840	24.57	25.70	1.297	-	-	0.03	0.339	0.440
	FR1 n77	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 10	DSI 4	656000	3840	24.40	25.70	1.349	-	-	-0.06	0.176	0.237
	FR1 n77	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 10	DSI 4	633334	3500.1	24.59	25.70	1.291	-	-	0.03	0.275	0.355
	FR1 n77	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 10	DSI 4	633334	3500.1	24.36	25.70	1.361	-	-	-0.05	0.151	0.206
	FR1 n77	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 10	DSI 4	633334	3500.1	24.59	25.70	1.291	-	-	0.03	0.345	0.445
	FR1 n77	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 10	DSI 4	633334	3500.1	24.36	25.70	1.361	-	-	-0.06	0.177	0.241
	FR1 n77	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 11	DSI 4	656000	3840	22.09	23.70	1.449	-	-	-0.12	0.068	0.099
	FR1 n77	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 11	DSI 4	656000	3840	22.04	23.70	1.466	-	-	0.03	0.071	0.104
	FR1 n77	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 11	DSI 4	656000	3840	22.09	23.70	1.449	-	-	0.11	0.134	0.194
	FR1 n77	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 11	DSI 4	656000	3840	22.04	23.70	1.466	-	-	-0.12	0.156	0.229
	FR1 n77	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 11	DSI 4	633334	3500.1	21.81	23.70	1.545	-	-	-0.12	0.077	0.119
	FR1 n77	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 11	DSI 4	633334	3500.1	21.77	23.70	1.560	-	-	0.03	0.079	0.123
	FR1 n77	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 11	DSI 4	633334	3500.1	21.81	23.70	1.545	-	-	0.11	0.162	0.250
	FR1 n77	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 11	DSI 4	633334	3500.1	21.77	23.70	1.560	-	-	-0.12	0.177	0.276

	FR1 n77	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 12	DSI 4	656000	3840	24.22	25.70	1.406	-	-	0.08	0.158	0.222
	FR1 n77	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 12	DSI 4	656000	3840	24.08	25.70	1.452	-	-	0.11	0.104	0.151
	FR1 n77	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 12	DSI 4	656000	3840	24.22	25.70	1.406	-	-	0.13	0.415	0.584
	FR1 n77	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 12	DSI 4	656000	3840	24.08	25.70	1.452	-	-	0.16	0.299	0.434
	FR1 n77	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 12	DSI 4	633334	3500.1	24.57	25.70	1.297	-	-	0.08	0.166	0.215
	FR1 n77	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 12	DSI 4	633334	3500.1	24.40	25.70	1.349	-	-	0.11	0.117	0.158
	FR1 n77	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 12	DSI 4	633334	3500.1	24.57	25.70	1.297	-	-	0.13	0.483	0.627
	FR1 n77	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 12	DSI 4	633334	3500.1	24.40	25.70	1.349	-	-	0.16	0.357	0.482
	FR1 n77	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 13	DSI 4	656000	3840	24.20	25.70	1.413	-	-	0.03	0.068	0.096
	FR1 n77	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 13	DSI 4	656000	3840	24.07	25.70	1.455	-	-	0.05	0.056	0.082
68	FR1 n77	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 13	DSI 4	656000	3840	24.20	25.70	1.413	-	-	0.06	0.643	**0.908**
	FR1 n77	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 13	DSI 4	656000	3840	24.07	25.70	1.455	-	-	0.01	0.412	0.600
	FR1 n77	100M	QPSK	270	0	DFT-30	Back	15mm	Ant 13	DSI 4	656000	3840	22.98	24.70	1.486	-	-	0.05	0.502	0.746
	FR1 n77	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 13	DSI 4	633334	3500.1	24.64	25.70	1.276	-	-	0.03	0.070	0.089
	FR1 n77	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 13	DSI 4	633334	3500.1	24.60	25.70	1.288	-	-	0.05	0.059	0.076
	FR1 n77	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 13	DSI 4	633334	3500.1	24.64	25.70	1.276	-	-	0.06	0.686	0.876
	FR1 n77	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 13	DSI 4	633334	3500.1	24.60	25.70	1.288	-	-	0.01	0.439	0.566
	FR1 n77	100M	QPSK	270	0	DFT-30	Back	15mm	Ant 13	DSI 4	633334	3500.1	23.35	24.70	1.365	-	-	-0.12	0.468	0.639
	FR1 n78	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 10	DSI 4	650000	3750	26.09	27.00	1.233	-	-	0.04	0.509	0.628
	FR1 n78	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 10	DSI 4	650000	3750	25.95	27.00	1.274	-	-	0.06	0.312	0.397
	FR1 n78	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 10	DSI 4	650000	3750	26.09	27.00	1.233	-	-	0.07	0.613	0.756
	FR1 n78	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 10	DSI 4	650000	3750	25.95	27.00	1.274	-	-	0.11	0.390	0.497
	FR1 n78	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 10	DSI 4	633334	3500.1	26.83	27.00	1.040	-	-	0.04	0.525	0.546
	FR1 n78	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 10	DSI 4	633334	3500.1	26.67	27.00	1.079	-	-	0.06	0.388	0.419
	FR1 n78	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 10	DSI 4	633334	3500.1	26.83	27.00	1.040	-	-	0.07	0.656	0.682
	FR1 n78	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 10	DSI 4	633334	3500.1	26.67	27.00	1.079	-	-	0.11	0.470	0.507
	FR1 n78	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 11	DSI 4	650000	3750	23.85	25.00	1.303	-	-	0.03	0.112	0.146
	FR1 n78	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 11	DSI 4	650000	3750	23.49	25.00	1.416	-	-	0.05	0.106	0.150
	FR1 n78	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 11	DSI 4	650000	3750	23.85	25.00	1.303	-	-	0.09	0.298	0.388
	FR1 n78	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 11	DSI 4	650000	3750	23.49	25.00	1.416	-	-	-0.06	0.217	0.307
	FR1 n78	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 11	DSI 4	633334	3500.1	23.81	25.00	1.315	-	-	0.03	0.143	0.188
	FR1 n78	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 11	DSI 4	633334	3500.1	23.21	25.00	1.510	-	-	0.05	0.114	0.172
	FR1 n78	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 11	DSI 4	633334	3500.1	23.81	25.00	1.315	-	-	0.09	0.306	0.402
	FR1 n78	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 11	DSI 4	633334	3500.1	23.21	25.00	1.510	-	-	-0.06	0.243	0.367
	FR1 n78	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 12	DSI 4	650000	3750	25.45	27.00	1.429	-	-	-0.12	0.321	0.459
	FR1 n78	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 12	DSI 4	650000	3750	25.31	27.00	1.476	-	-	0.03	0.219	0.323
	FR1 n78	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 12	DSI 4	650000	3750	25.45	27.00	1.429	-	-	0.05	0.362	0.517
	FR1 n78	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 12	DSI 4	650000	3750	25.31	27.00	1.476	-	-	0.04	0.417	0.615
	FR1 n78	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 12	DSI 4	633334	3500.1	26.41	27.00	1.146	-	-	-0.12	0.367	0.420
	FR1 n78	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 12	DSI 4	633334	3500.1	26.31	27.00	1.172	-	-	0.03	0.260	0.305
	FR1 n78	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 12	DSI 4	633334	3500.1	26.41	27.00	1.146	-	-	0.05	0.394	0.451
	FR1 n78	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 12	DSI 4	633334	3500.1	26.31	27.00	1.172	-	-	0.04	0.555	0.651
	FR1 n78	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 13	DSI 4	650000	3750	26.41	27.00	1.146	-	-	0.06	0.065	0.074
	FR1 n78	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 13	DSI 4	650000	3750	26.09	27.00	1.233	-	-	0.01	0.041	0.051
	FR1 n78	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 13	DSI 4	650000	3750	26.41	27.00	1.146	-	-	0.02	0.843	0.966
	FR1 n78	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 13	DSI 4	650000	3750	26.09	27.00	1.233	-	-	0.03	0.644	0.794
	FR1 n78	100M	QPSK	270	0	DFT-30	Back	15mm	Ant 13	DSI 4	650000	3750	25.00	26.00	1.259	-	-	0.03	0.714	0.899
	FR1 n78	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 13	DSI 4	633334	3500.1	26.51	27.00	1.119	-	-	0.06	0.071	0.079
	FR1 n78	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 13	DSI 4	633334	3500.1	26.28	27.00	1.180	-	-	0.01	0.049	0.058
69	FR1 n78	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 13	DSI 4	633334	3500.1	26.51	27.00	1.119	-	-	-0.08	0.937	**1.049**
	FR1 n78	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 13	DSI 4	633334	3500.1	26.28	27.00	1.180	-	-	0.03	0.753	0.889
	FR1 n78	100M	QPSK	270	0	DFT-30	Back	15mm	Ant 13	DSI 4	633334	3500.1	25.17	26.00	1.211	-	-	-0.05	0.811	0.982

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)
2450MHz																
70	2.4GHz WLAN	802.11b 1Mbps	Front	15mm	Ant 16+18	Full	11	2462	22.17	23.50	1.360	100	1.000	-0.01	0.138	**0.188**
	2.4GHz WLAN	802.11b 1Mbps	Back	15mm	Ant 16+18	Full	11	2462	22.17	23.50	1.360	100	1.000	0.02	0.131	0.178
	Bluetooth	1Mbps	Front	15mm	Ant 16	Full	39	2441	15.57	16.00	1.104	76.74	1.303	0.08	0.015	0.022
71	Bluetooth	1Mbps	Back	15mm	Ant 16	Full	39	2441	15.57	16.00	1.104	76.74	1.303	-0.02	0.024	**0.035**
	Bluetooth	1Mbps	Front	15mm	Ant 18	Full	39	2441	15.59	16.00	1.099	76.92	1.300	0.02	0.019	0.027
	Bluetooth	1Mbps	Back	15mm	Ant 18	Full	39	2441	15.59	16.00	1.099	76.92	1.300	-0.11	0.017	0.024
5000MHz																
72	5.3GHz WLAN	802.11a 6Mbps	Front	15mm	Ant 17+18	Full	52	5260	21.21	22.50	1.345	100	1.000	0.05	0.088	**0.118**
	5.3GHz WLAN	802.11a 6Mbps	Back	15mm	Ant 17+18	Full	52	5260	21.21	22.50	1.345	100	1.000	-0.012	0.073	0.098
73	5.5GHz WLAN	802.11a 6Mbps	Front	15mm	Ant 17+18	Full	116	5580	18.95	20.50	1.429	100	1.000	0.03	0.045	**0.064**
	5.5GHz WLAN	802.11a 6Mbps	Back	15mm	Ant 17+18	Full	116	5580	18.95	20.50	1.429	100	1.000	0.05	0.036	0.051
	5.8GHz WLAN	802.11a 6Mbps	Front	15mm	Ant 17+18	Full	157	5785	22.03	22.50	1.115	100	1.000	0.06	0.252	0.281
74	5.8GHz WLAN	802.11a 6Mbps	Back	15mm	Ant 17+18	Full	157	5785	22.03	22.50	1.115	100	1.000	0.01	0.262	**0.292**

16.4 Product Specific SAR

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)
5000Mhz																
75	5.3GHz WLAN	802.11a 6Mbps	Front	0mm	Ant 17+18	Full	64	5320	21.21	22.50	1.346	100	1.000	-0.06	0.474	**0.638**
	5.3GHz WLAN	802.11a 6Mbps	Back	0mm	Ant 17+18	Full	64	5320	21.21	22.50	1.346	100	1.000	0.01	0.220	0.296
	5.3GHz WLAN	802.11a 6Mbps	Top Side	0mm	Ant 17+18	Full	64	5320	21.21	22.50	1.346	100	1.000	0.06	0.267	0.359
	5.3GHz WLAN	802.11a 6Mbps	Right Side	0mm	Ant 17+18	Full	64	5320	21.21	22.50	1.346	100	1.000	0.01	0.356	0.479
76	5.5GHz WLAN	802.11a 6Mbps	Front	0mm	Ant 17+18	Full	116	5580	18.95	20.50	1.429	100	1.000	0.06	0.262	**0.374**
	5.5GHz WLAN	802.11a 6Mbps	Back	0mm	Ant 17+18	Full	116	5580	18.95	20.50	1.429	100	1.000	0.09	0.140	0.200
	5.5GHz WLAN	802.11a 6Mbps	Top Side	0mm	Ant 17+18	Full	116	5580	18.95	20.50	1.429	100	1.000	0.13	0.158	0.226
	5.5GHz WLAN	802.11a 6Mbps	Right Side	0mm	Ant 17+18	Full	116	5580	18.95	20.50	1.429	100	1.000	0.05	0.245	0.350

16.5 Repeated SAR Measurement

<1g>

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)	Ratio	Reported 1g SAR (W/kg)
1st	FR1 n41	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 4	DSI 1	518598	2592.99	19.71	20.50	1.199	0.01	0.911	1	1.093
2nd	FR1 n41	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 4	DSI 1	518598	2592.99	19.71	20.50	1.199	0.06	0.859	1.061	1.030
1st	LTE Band 66	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 3	DSI 5	132572	1770	22.27	23.00	1.183	-0.01	0.857	1	1.014
2nd	LTE Band 66	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 3	DSI 5	132572	1770	22.27	23.00	1.183	0.06	0.811	1.057	0.959
1st	LTE Band 25	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 3	DSI 5	26590	1905	22.02	22.50	1.117	0.02	0.887	1	0.991
2nd	LTE Band 25	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 3	DSI 5	26590	1905	22.02	22.50	1.117	0.12	0.843	1.052	0.942
1st	FR1 n78	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 13	DSI 4	633334	3500.1	26.51	27.00	1.119	-0.08	0.937	1	1.049
2nd	FR1 n78	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 13	DSI 4	633334	3500.1	26.51	27.00	1.119	0.05	0.913	1.026	1.022

General Note:

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

17. Simultaneous Transmission Analysis

NO.	Simultaneous Transmission Configurations	Portable Handset			
		Head	Body-worn	Hotspot	Product Specific
1.	WWAN + WLAN 5GHz + Bluetooth Ant 16	Yes	Yes	Yes	Yes
2.	WWAN + WLAN 5GHz + Bluetooth Ant 18	Yes	Yes	Yes	Yes
3.	WWAN + WLAN 2.4GHz + WLAN 5GHz	Yes	Yes	Yes	Yes
4.	WWAN + WLAN 6GHz + Bluetooth Ant 16	Yes	Yes		Yes
5.	WWAN + WLAN 6GHz + Bluetooth Ant 18	Yes	Yes		Yes
6.	WWAN + WLAN 2.4GHz + WLAN 6GHz	Yes	Yes		Yes

General Note:

1. This device supports VoIP in GPRS, EGPRS, WCDMA and LTE (e.g. for 3rd-party VoIP), LTE supports VoLTE operation.
2. WWAN above includes 5G NR bands.
3. EUT will choose each GSM, WCDMA, LTE and 5GNR according to the network signal condition; therefore, they will not operate simultaneously at any moment.
4. For EN-DC mode, Qualcomm Smart Transmit algorithm in WWAN adds directly the time-averaged RF exposure from 4G(LTE) and time-averaged RF exposure from 5G NR. Smart Transmit algorithm controls the total RF exposure from both 4G and 5G NR to not exceed FCC limit. Therefore, simultaneous transmission compliance between 4G+5G NR operation is demonstrated in the Part 2 Report during algorithm validation. In Part 1 Report, simultaneous transmission compliance was evaluated individually with other Radios (WLAN or BT) using one of 4G or 5G NR.
5. This device 2.4GHz WLAN support hotspot operation and Bluetooth support tethering applications.
6. 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). WIFI 6E has no hotspot function.
7. WLAN2.4GHz and Bluetooth share the same antenna, so can't transmit simultaneously.
8. WLAN2.4GHz/WLAN5GHz/WLAN6GHz MIMO SAR can represent SISO SAR to do co-located SAR analysis.
9. According to the EUT characteristic, WLAN 5GHz/6GHz and Bluetooth can transmit simultaneously.
10. According to the EUT characteristic, WLAN 5GHz/6GHz and WLAN 2.4GHz can transmit simultaneously.
11. According to the EUT characteristic, WLAN 5GHz and WLAN 6GHz can't transmit simultaneously.
12. 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.
13. The worst case 5 GHz WLAN SAR for each configuration was used for SAR summation.
14. Chose the worst zoom scan SAR of WLAN correspondingly for co-located with WWAN analysis.
15. The reported SAR summation is calculated based on the same configuration and test position.
16. SAR Power density test report for WLAN6E U-NII-5/6/7/8 will be separately submitted. About co-located SAR with WWAN/Bluetooth, always chose higher SAR of WLAN5G U-NII-1/2A/2C/3 and U-NII-5/6/7/8.
17. Per KDB 447498 D01v06, simultaneous transmission SAR is compliant if,
    i) 1g Scalar SAR summation < 1.6W/kg and 10g Scalar SAR summation < 4.0W/kg.
    ii) SPLSR = (SAR1 + SAR2)^1.5 / (min. separation distance, mm), and the peak separation distance is determined from the square root of [(x1-x2)2 + (y1-y2)2 + (z1-z2)2], where (x1, y1, z1) and (x2, y2, z2) are the coordinates of the extrapolated peak SAR locations in the zoom scan.
    iii) If SPLSR ≤ 0.04 for 1g SAR and SPLSR≤ 0.10 for 10g SAR , simultaneously transmission SAR measurement is not necessary.
    iv) Simultaneously transmission SAR measurement, and the reported multi-band 1g SAR < 1.6W/kg and 10g SAR < 4.0W/kg.

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

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

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

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

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

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

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

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

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

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

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

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

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

Above analysis is also apply to LTE inter band uplink, LTE1 + LTE2 + WLAN + BT simultaneous transmission, So inter band CA uplink no need to do additional simultaneously analysis again. Only required comply with total exposure ratio (TER) of LTE + WLAN + BT < 1.

Above analysis is also apply to NR band UL MIMO, NR1 + NR2 + WLAN + BT simultaneous transmission, So UL MIMO no need to do additional simultaneously analysis again. Only required comply with total exposure ratio (TER) of NR + WLAN + BT < 1.

17.2 Head Exposure Conditions

WWAN Band	Exposure Position	1	2	3	4	5	6	7	8	2+4 Summed 1g SAR (W/kg)	1+3+5 Summed 1g SAR (W/kg)	1+5+6 Summed 1g SAR (W/kg)	1+5+7 Summed 1g SAR (W/kg)	1+3+8 Summed 1g SAR (W/kg)	1+8+6 Summed 1g SAR (W/kg)	1+8+7 Summed 1g SAR (W/kg)
		WWAN	WLAN2.4GHz DBS Ant 16+18	WLAN 2.4GHz Simultaneous Ant 16+18	WLAN5GHz DBS Ant 17+18	WLAN 5GHz Simultaneous Ant 17+18	Bluetooth Ant 16	Bluetooth Ant 18	6E WIFI Ant 17+18							
		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)							
WWAN All Bands	Right Cheek	1.087	0.267	0.234	0.479	0.241	0.243	0.189	0.252	0.75	1.56	1.57	1.52	1.57	1.58	1.53
	Right Tilted	1.093	0.355	0.234	0.504	0.241	0.243	0.189	0.230	0.86	1.57	1.58	1.52	1.56	1.57	1.51
	Left Cheek	0.837	0.639	0.234	0.861	0.241	0.243	0.189	0.509	1.50	1.31	1.32	1.27	1.58	**1.59**	1.54
	Left Tilted	0.974	0.798	0.234	0.795	0.241	0.243	0.189	0.369	**1.59**	1.45	1.46	1.40	1.58	1.59	1.53

17.3 Hotspot Exposure Conditions

WWAN Band	Exposure Position	1	3	5	6	7	1+3+5 Summed 1g SAR (W/kg)	1+5+6 Summed 1g SAR (W/kg)	1+5+7 Summed 1g SAR (W/kg)	1+3+8 Summed 1g SAR (W/kg)	1+8+6 Summed 1g SAR (W/kg)	1+8+7 Summed 1g SAR (W/kg)
		WWAN	WLAN 2.4GHz Simultaneous Ant 16+18	WLAN 5GHz Simultaneous Ant 17+18	Bluetooth Ant 16	Bluetooth Ant 18						
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)						
WWAN All Bands	Front	0.686	0.075	0.297	0.050	0.009	1.06	1.03	0.99	0.98	0.74	0.70
	Back	0.962	0.098	0.297	0.069	0.007	1.36	1.33	1.27	1.26	1.03	0.97
	Left side	1.043					1.04	1.04	1.04	1.04	1.04	1.04
	Right side	0.569	0.091	0.297	0.016	0.019	0.96	0.88	0.89	0.87	0.59	0.59
	Top side	0.583	0.112	0.297	0.125	0.001	0.99	1.01	0.88	0.88	0.71	0.58
	Bottom side	1.014					1.01	1.01	1.01	1.01	1.01	1.01

17.4 Body-Worn Accessory Exposure Conditions

WWAN Band	Exposure Position	1	2	3	4	5	6	7	8	2+4 Summed 1g SAR (W/kg)	1+3+5 Summed 1g SAR (W/kg)	1+5+6 Summed 1g SAR (W/kg)	1+5+7 Summed 1g SAR (W/kg)	1+3+8 Summed 1g SAR (W/kg)	1+8+6 Summed 1g SAR (W/kg)	1+8+7 Summed 1g SAR (W/kg)
		WWAN	WLAN2.4GHz DBS Ant 16+18	WLAN 2.4GHz Simultaneous Ant 16+18	WLAN5GHz DBS Ant 17+18	WLAN 5GHz Simultaneous Ant 17+18	Bluetooth Ant 16	Bluetooth Ant 18	6E WIFI Ant 17+18							
		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)							
WWAN All Bands	Front	0.628	0.188	0.188	0.281	0.281	0.022	0.027	0.085	0.47	1.10	0.93	0.94	0.90	0.74	0.74
	Back	1.049	0.178	0.178	0.292	0.292	0.035	0.024	0.117	0.47	1.52	1.38	1.37	1.34	1.20	1.19

Test Engineer : Nick Hu, Seven Xu, Bruce Li, Martin Li

18. 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 ≤ 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.

19. 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 865664 D01 v01r04, "SAR Measurement Requirements for 100 MHz to 6 GHz", Aug 2015.

[6] FCC KDB 865664 D02 v01r02, “RF Exposure Compliance Reporting and Documentation Considerations” Oct 2015.

[7] FCC KDB 447498 D01 v06, “Mobile and Portable Device RF Exposure Procedures and Equipment Authorization Policies”, Oct 2015

[8] FCC KDB 648474 D04 v01r03, “SAR Evaluation Considerations for Wireless Handsets”, Oct 2015.

[9] FCC KDB 248227 D01 v02r02, “SAR Guidance for IEEE 802.11 (WiFi) Transmitters”, Oct 2015.

[10] FCC KDB 616217 D04 v01r02, “SAR Evaluation Considerations for Laptop, Notebook, Netbook and Tablet Computers”, Oct 2015

[11] FCC KDB 941225 D01 v03r01, “3G SAR MEAUREMENT PROCEDURES”, Oct 2015

[12] FCC KDB 941225 D05 v02r05, “SAR Evaluation Considerations for LTE Devices”, Dec 2015

[13] FCC KDB 941225 D05A v01r02, “Rel. 10 LTE SAR Test Guidance and KDB Inquiries”, Oct 2015

[14] FCC KDB 941225 D06 v02r01, "SAR Evaluation Procedures for Portable Devices with Wireless Router Capabilities", Oct 2015.

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

Appendix A. Plots of System Performance Check

The plots are shown as follows.

Date: 2021-11-14

System Check_Head_750MHz

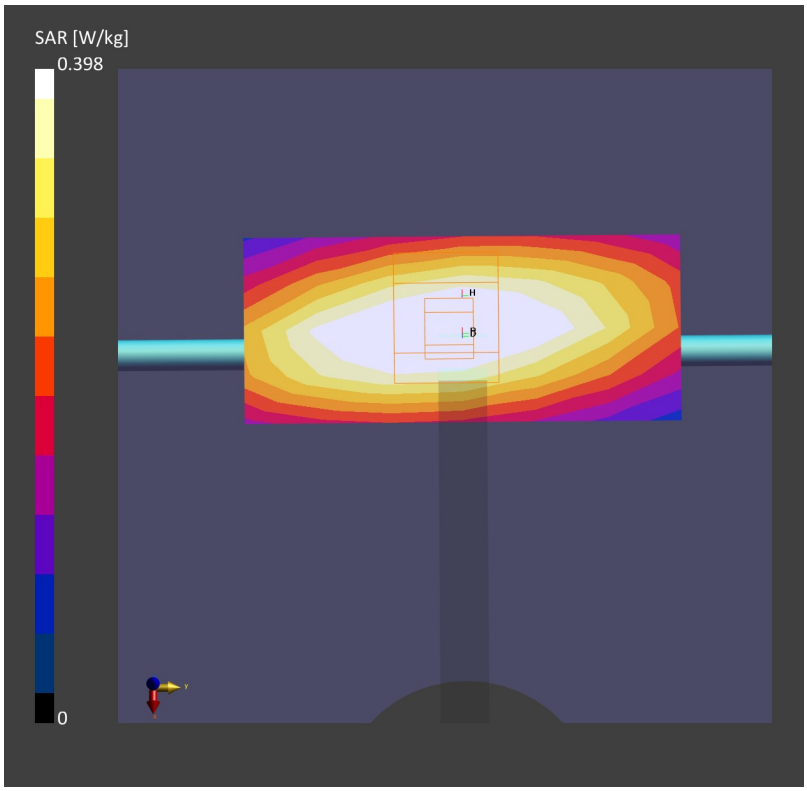
DUT: D750V3-SN:1087

Communication System: ; Frequency: 750.0
Medium: HSL. Medium parameters used: f= 750.0 MHz; σ= 0.89 S/m; ε_r = 43.7
Ambient Temperature: 23.2°C; Liquid Temperature: 22.6°C

DASY6 Configuration:
- Probe: EX3DV4 - SN7592; ConvF(10.25, 10.25, 10.25); Calibrated: 2021-06-24
- Sensor-Surface: 1.4 mm
- Electronics: DAE4 Sn1691; Calibrated: 2021-10-04
- Phantom: Twin-SAM V8.0 (30deg probe tilt); Serial: 2074; Section: Flat
- Measurement Software: cDASY6 V6.6.0.13926

Area Scan (40.0 mm x 90.0 mm): Measurement Grid: 15.0 mm x 15.0 mm
SAR (1g) = 0.396 W/kg; SAR (10g) = 0.264 W/kg;

Zoom Scan (32.0 mm x 32.0 mm x 30.0 mm): Measurement Grid: 8.0 mm x 8.0 mm x 5.0 mm
Power Drift = 0.04 dB
SAR (1g) = 0.398 W/kg; SAR (10g) = 0.262 W/kg;



Date: 2021-11-15

System Check_Head_835MHz

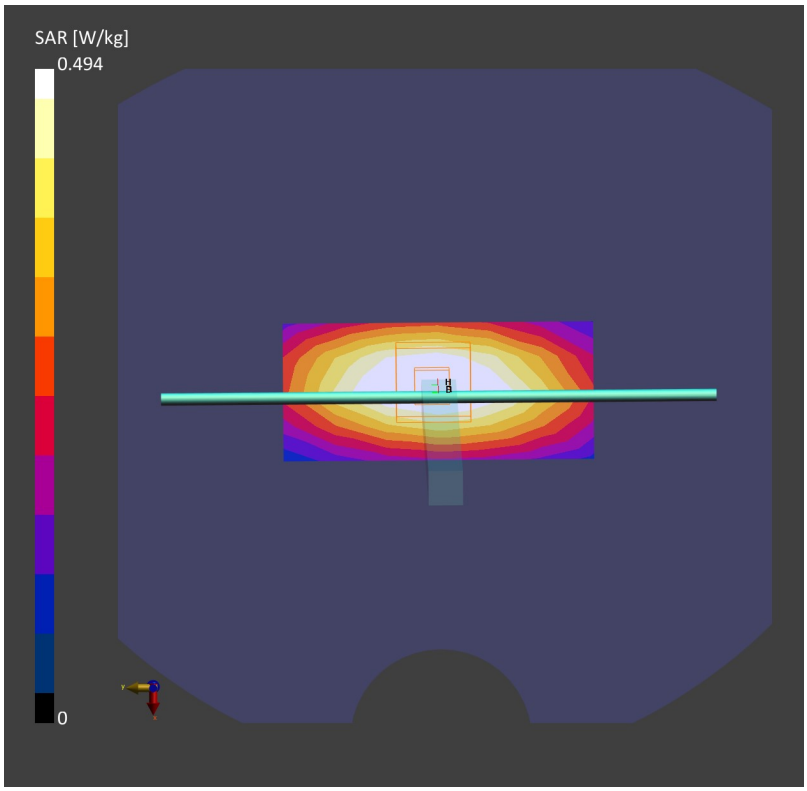
DUT: D835V2-SN:4d258

Communication System: ; Frequency: 835.0
Medium: HSL. Medium parameters used: f= 835.0 MHz; σ= 0.919 S/m; ε_r = 43.3
Ambient Temperature: 23.2°C; Liquid Temperature: 22.7°C

DASY6 Configuration:
- Probe: EX3DV4 - SN7592; ConvF(9.98, 9.98, 9.98); Calibrated: 2021-06-24
- Sensor-Surface: 1.4 mm
- Electronics: DAE4 Sn1691; Calibrated: 2021-10-04
- Phantom: Twin-SAM V8.0 (30deg probe tilt); Serial: 2074; Section: Flat
- Measurement Software: cDASY6 V6.6.0.13926

Area Scan (40.0 mm x 90.0 mm): Measurement Grid: 15.0 mm x 15.0 mm
SAR (1g) = 0.491 W/kg; SAR (10g) = 0.324 W/kg;

Zoom Scan (32.0 mm x 32.0 mm x 30.0 mm): Measurement Grid: 8.0 mm x 8.0 mm x 5.0 mm
Power Drift = 0.03 dB
SAR (1g) = 0.494 W/kg; SAR (10g) = 0.320 W/kg;



Date: 2021-11-18

System Check_Head_1750MHz

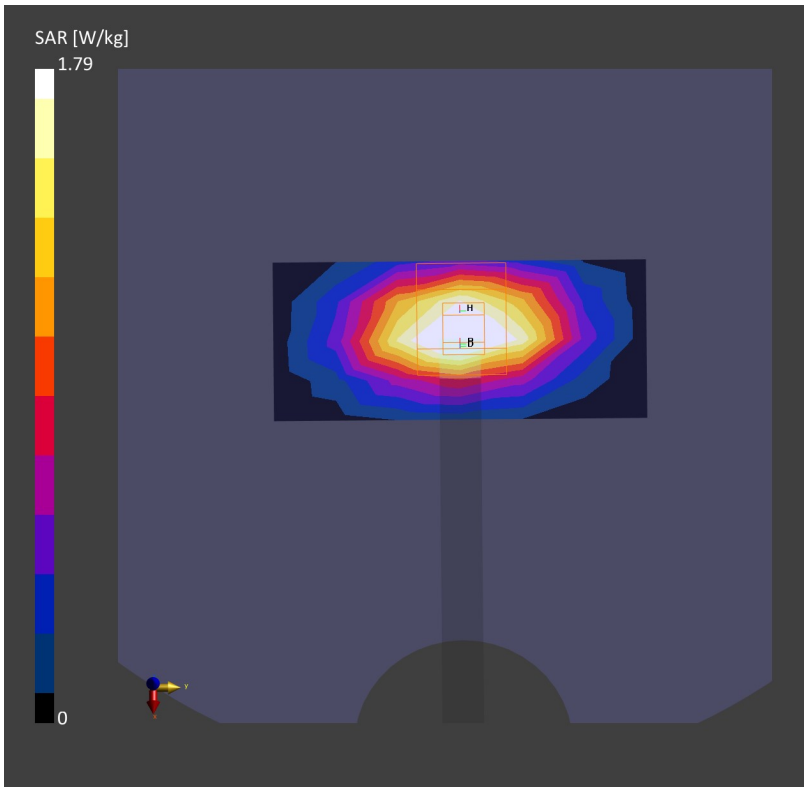
DUT: D1750V2-SN:1090

Communication System: ; Frequency: 1750.0
Medium: HSL. Medium parameters used: f= 1750.0 MHz; σ= 1.34 S/m; ε_r = 41.9
Ambient Temperature: 23.5°C; Liquid Temperature: 22.5°C

DASY6 Configuration:
- Probe: EX3DV4 - SN7592; ConvF(8.45, 8.45, 8.45); Calibrated: 2021-06-24
- Sensor-Surface: 1.4 mm
- Electronics: DAE4 Sn1691; Calibrated: 2021-10-04
- Phantom: Twin-SAM V8.0 (30deg probe tilt); Serial: 2074; Section: Flat
- Measurement Software: cDASY6 V6.6.0.13926

Area Scan (40.0 mm x 90.0 mm): Measurement Grid: 15.0 mm x 15.0 mm
SAR (1g) = 1.77 W/kg; SAR (10g) = 0.964 W/kg;

Zoom Scan (32.0 mm x 32.0 mm x 30.0 mm): Measurement Grid: 8.0 mm x 8.0 mm x 5.0 mm
Power Drift = 0.01 dB
SAR (1g) = 1.79 W/kg; SAR (10g) = 0.950 W/kg;



Date: 2021-11-19

System Check_Head_1900MHz

DUT: D1900V2-SN:5d170

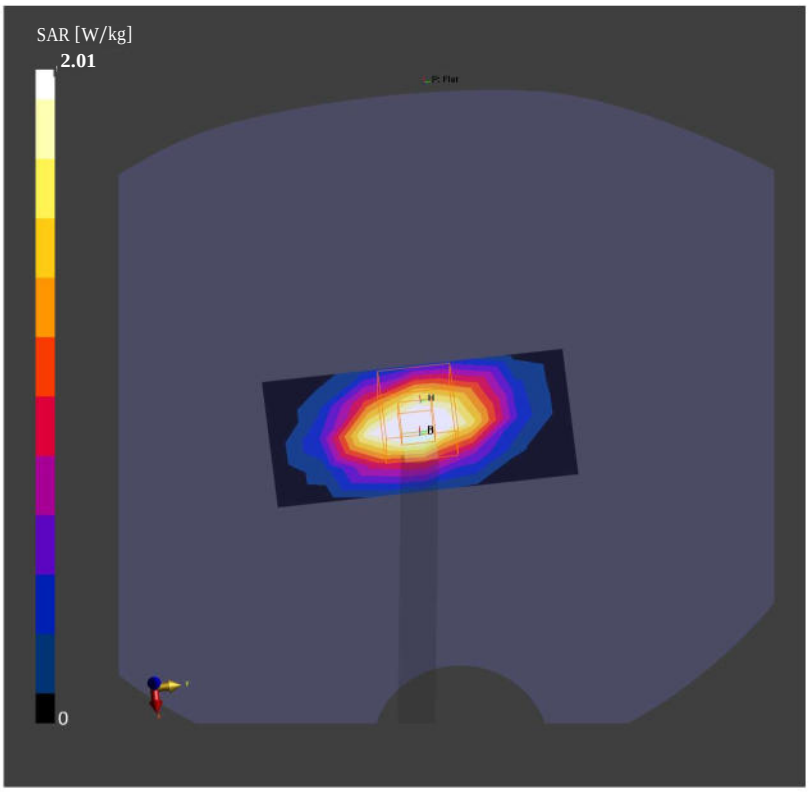
Communication System: ; Frequency: 1900.0
Medium: HSL. Medium parameters used: f= 1900.0 MHz; σ= 1.44 S/m; ε_r = 41.7
Ambient Temperature: 23.3°C; Liquid Temperature: 22.5°C

DASY6 Configuration:
- Probe: EX3DV4 - SN7592; ConvF(8.13, 8.13, 8.13); Calibrated: 2021-06-24
- Sensor-Surface: 1.4 mm
- Electronics: DAE4 Sn1691; Calibrated: 2021-10-04
- Phantom: Twin-SAM V8.0 (30deg probe tilt); Serial: 2074; Section: Flat
- Measurement Software: cDASY6 V6.6.0.13926

Area Scan (40.0 mm x **90.0 mm)**: Measurement Grid: 15.0 mm x 15.0 mm

SAR (1g) = 1.98 W/kg; SAR (10g) = 1.04 W/kg;

Zoom Scan (32.0 mm x **32.0 mm** x **30.0 mm)**: Measurement Grid: 8.0 mm x 8.0 mm x 5.0 mm
Power Drift= 0.01 dB
SAR (1g) = 2.01 W/kg; SAR (10g) = 1.04 W/kg;



Date: 2021-11-21

System Check_Head_2600MHz

DUT: D2600V2-SN:1061

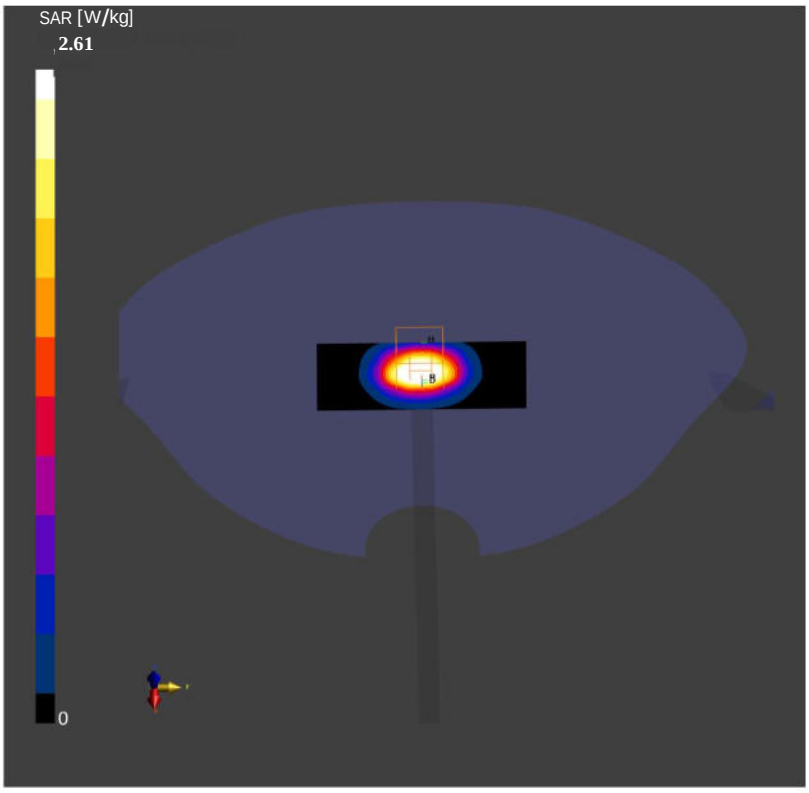
Communication System: ; Frequency: 2600.0
Medium: HSL. Medium parameters used: f= 2600.0 MHz; σ= 1.94 S/m; ε_r = 40.7
Ambient Temperature: 23.3°C; Liquid Temperature: 22.8°C

DASY6 Configuration:
- Probe: EX3DV4 - SN7592; ConvF(7.26, 7.26, 7.26); Calibrated: 2021-06-24
- Sensor-Surface: 1.4 mm
- Electronics: DAE4 Sn1691; Calibrated: 2021-10-04
- Phantom: Twin-SAM V8.0 (30deg probe tilt); Serial: 2074; Section: Flat
- Measurement Software: cDASY6 V6.6.0.13926

Area Scan (40.0 mm x **96.0 mm)**: Measurement Grid: 12.0 mm x 12.0 mm

SAR (1g) = 2.45 W/kg; SAR (10g) = 1.12 W/kg;

Zoom Scan (30.0 mm x **30.0 mm** x **30.0 mm)**: Measurement Grid: 5.0 mm x 5.0 mm x 5.0 mm
Power Drift = -0.01 dB
SAR (1g) = 2.61 W/kg; SAR (10g) = 1.17 W/kg;



Date:2021-11-23

System Check_Head_3500MHz

DUT: D3500V2-SN:1037

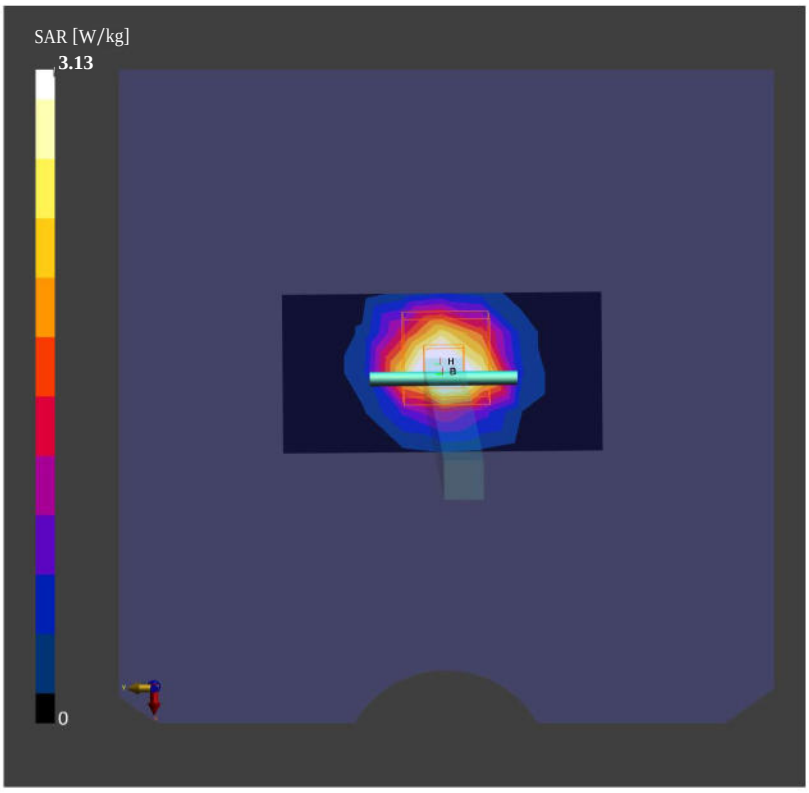
Communication System: ; Frequency: 3500.0
Medium: HSL. Medium parameters used: f= 3500.0 MHz; σ= 2.85 S/m; ε_r = 38.7
Ambient Temperature: 23.2°C; Liquid Temperature: 22.4°C

DASY6 Configuration:
- Probe: EX3DV4 - SN7592; ConvF(6.69, 6.69, 6.69); Calibrated: 2021-06-24
- Sensor-Surface: 1.4 mm
- Electronics: DAE4 Sn1691; Calibrated: 2021-10-04
- Phantom: Twin-SAM V8.0 (30deg probe tilt); Serial: 2074; Section: Flat
- Measurement Software: cDASY6 V6.6.0.13926

Area Scan (40.0 mm x **80.0 mm)**: Measurement Grid: 10.0 mm x 10.0 mm

SAR (1g) = 2.98 W/kg; SAR (10g) = 1.17 W/kg;

Zoom Scan (24.0 mm x **24.0 mm** x **22.0 mm)**: Measurement Grid: 4.0 mm x 4.0 mm x 1.4 mm
Power Drift = 0.02 dB
SAR (1g) = 3.13 W/kg; SAR (10g) = 1.21 W/kg;



Date: 2021-11-24

System Check_Head_3700MHz

DUT: D3700V2-SN:1008

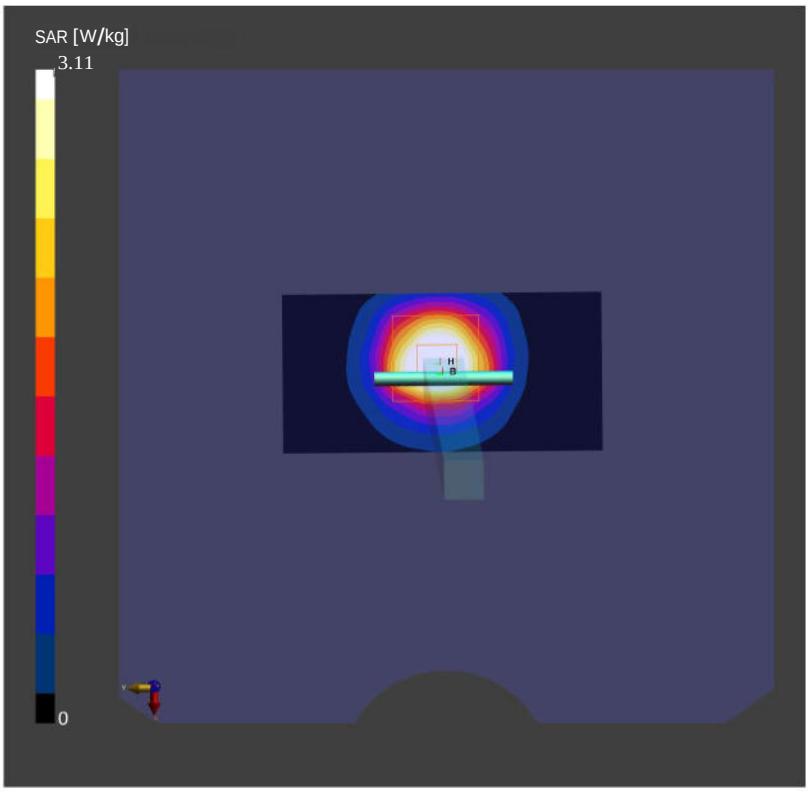
Communication System: ; Frequency: 3700.0
Medium: HSL. Medium parameters used: f= 3700.0 MHz; σ= 2.98 S/m; ε_r = 38.9
Ambient Temperature: 23.4°C; Liquid Temperature: 22.5°C

DASY6 Configuration:
- Probe: EX3DV4 - SN7592; ConvF(6.64, 6.64, 6.64); Calibrated: 2021-06-24
- Sensor-Surface: 1.4 mm
- Electronics: DAE4 Sn1691; Calibrated: 2021-10-04
- Phantom: Twin-SAM V8.0 (30deg probe tilt); Serial: 2074; Section: Flat
- Measurement Software: cDASY6 V6.6.0.13926

Area Scan (40.0 mm x **80.0 mm)**: Measurement Grid: 10.0 mm x 10.0 mm

SAR (1g) = 2.84 W/kg; SAR (10g) = 1.10 W/kg;

Zoom Scan (24.0 mm x **24.0 mm** x **22.0 mm)**: Measurement Grid: 4.0 mm x 4.0 mm x 1.4 mm
Power Drift = 0.01 dB
SAR (1g) = 3.11 W/kg; SAR (10g) = 1.14 W/kg;



Date: 2021-11-25

System Check_Head_3900MHz

DUT: D3900V2-SN:1048

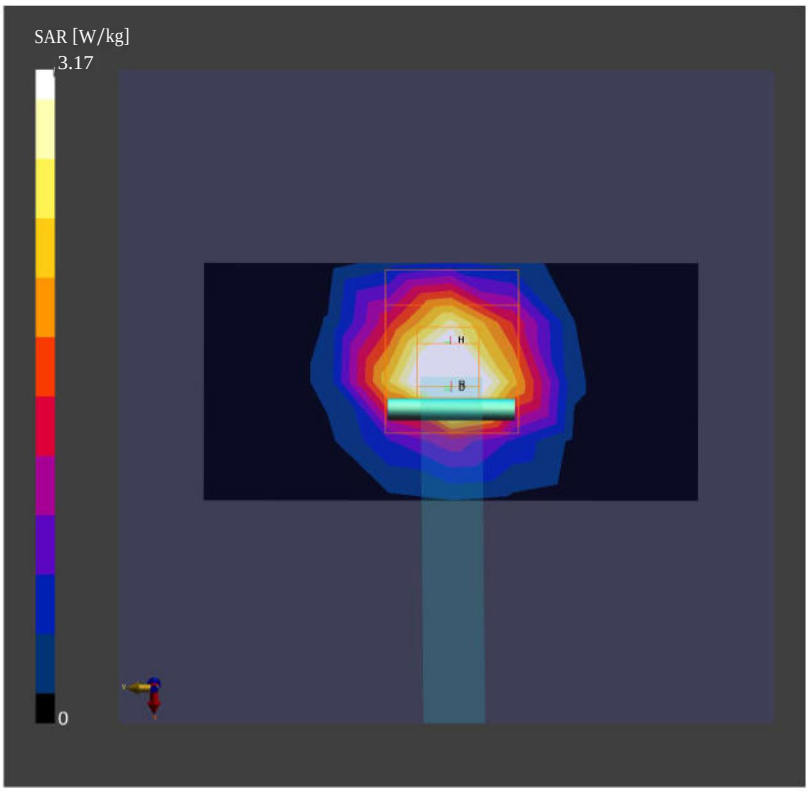
Communication System: ; Frequency: 3900.0
Medium: HSL. Medium parameters used: f= 3900.0 MHz; σ= 3.22 S/m; ε_r =38.4
Ambient Temperature: 23.1°C; Liquid Temperature: 22.4°C

DASY6 Configuration:
- Probe: EX3DV4 - SN7592; ConvF(6.5, 6.5, 6.5); Calibrated: 2021-06-24
- Sensor-Surface: 1.4 mm
- Electronics: DAE4 Sn1691; Calibrated: 2021-10-04
- Phantom: Twin-SAM V8.0 (30deg probe tilt); Serial: 2074; Section: Flat
- Measurement Software: cDASY6 V6.6.0.13926

Area Scan (40.0 mm x **80.0 mm)**: Measurement Grid: 10.0 mm x 10.0 mm

SAR (1g) = 2.86 W/kg; SAR (10g) = 1.05 W/kg;

Zoom Scan (24.0 mm x **24.0 mm** x **22.0 mm)**: Measurement Grid: 4.0 mm x4.0 mm x 1.4 mm
Power Drift = -0.02 dB
SAR (1g) = 3.17 W/kg; SAR (10g) = 1.10 W/kg;



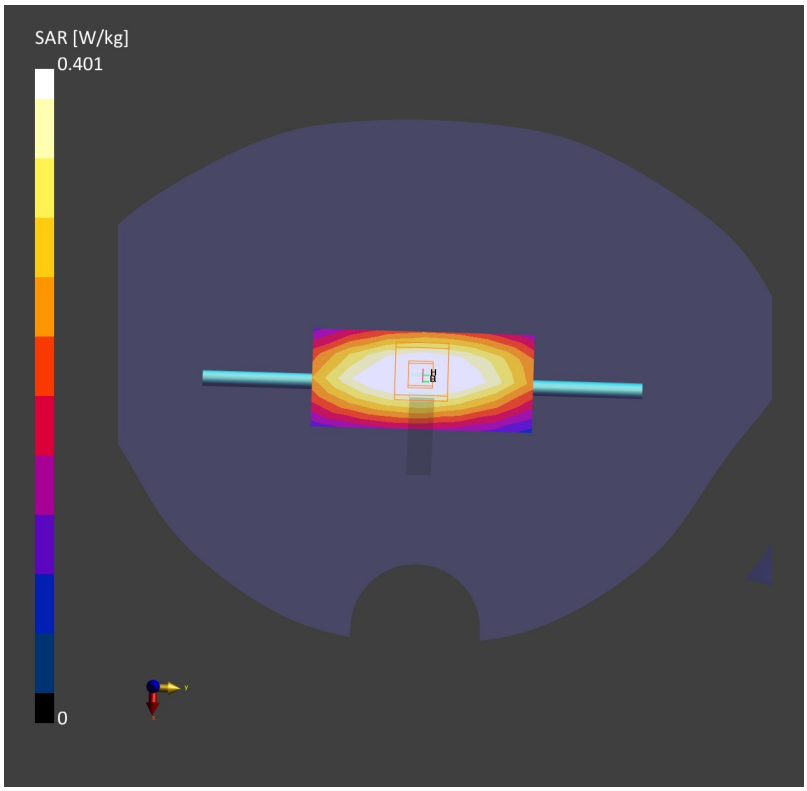
Date: 2021-11-30

System Check_Head_750MHz

DUT: D750V3-SN:1087

Communication System: ; Frequency: 750.0
Medium: HSL. Medium parameters used: f= 750.0 MHz; σ= 0.898 S/m; ε_r = 42.3
Ambient Temperature: 23.3°C; Liquid Temperature: 22.6°C

DASY6 Configuration:
- Probe: EX3DV4 - SN7592; ConvF(10.25, 10.25, 10.25); Calibrated: 2021-06-24
- Sensor-Surface: 1.4 mm
- Electronics: DAE4 Sn1691; Calibrated: 2021-10-04
- Phantom: Twin-SAM V8.0 (30deg probe tilt); Serial: 2074; Section: Flat
- Measurement Software: cDASY6 V6.6.0.13926

Area Scan (40.0 mm x 90.0 mm): Measurement Grid: 15.0 mm x 15.0 mm
SAR (1g) = 0.400 W/kg; SAR (10g) = 0.267 W/kg;

Zoom Scan (32.0 mm x 32.0 mm x 30.0 mm): Measurement Grid: 8.0 mm x 8.0 mm x 5 mm
Power Drift = 0.03 dB
SAR (1g) = 0.401 W/kg; SAR (10g) = 0.264 W/kg;