FCC SAR Test Report

APPLICANT	: Motorola Mobility LLC
EQUIPMENT	: Mobile Cellular Phone
BRAND NAME	: Motorola
MODEL NAME	: XT2309-2
FCC ID	: IHDT56AH5
STANDARD	: FCC 47 CFR Part 2 (2.1093)

We, Sporton International Inc. (Kunshan), would like to declare that the tested sample has been evaluated in accordance with the test procedures given in 47 CFR Part 2.1093 and FCC KDB and has been in compliance with the applicable technical standards.

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

Si Zhang

Approved by: Si Zhang

ACCREDITED Cert #5145.02

Sporton International Inc. (Kunshan)
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
FA2O2807	Rev. 01	Initial issue of report.	Dec. 29, 2022

1. Statement of Compliance

The maximum results of Specific Absorption Rate (SAR) found during testing for **Motorola Mobility LLC, Mobile Cellular Phone, XT2309-2,** are as follows.

Highest 1g SAR Summary						
Equipment Class	Frequency Band		Head (Separation 0mm)	Hotspot (Separation 5mm)	Body-worn (Separation 5mm)	Highest Simultaneous Transmission
			1g SAR (W/kg)			1g SAR (W/kg)
Licensed	GSM	GSM850	0.98	1.11	1.11	1.59
		GSM1900	1.04	1.28	0.83	
	WCDMA	WCDMA II	0.99	1.26	0.65	
		WCDMA IV	0.99	1.24	0.73	
		WCDMA V	0.98	1.28	**1.28**	
	LTE	LTE Band 12/17	0.90	1.09	1.09	
		LTE Band 13	0.22	1.14	1.14	
		LTE Band 26/5	0.98	1.18	1.18	
		LTE Band 66/4	0.98	1.24	0.75	
		LTE Band 25/2	0.99	1.25	0.71	
		LTE Band 7	0.97	1.23	0.90	
		LTE Band 41/38	0.99	1.25	1.25	
		LTE Band 42	0.69	0.99	0.45	
		LTE Band 48/43/42	0.99	1.00	0.45	
	5G NR	FR1 n2	0.97	0.98	0.78	
		FR1 n5	0.98	0.96	0.96	
		FR1 n7	0.99	1.23	0.90	
		FR1 n66	0.97	1.26	0.70	
		FR1 n41/n38	0.99	1.23	1.23	
		FR1 n77	0.98	1.25	0.93	
		FR1 n78	0.97	**1.29**	0.98	
DTS	WLAN	2.4GHz WLAN	**1.40**	0.37	1.12	1.59
NII		5GHz WLAN	1.19	0.40	0.97	1.59
DSS	Bluetooth	2.4GHz Bluetooth	0.19	0.15	<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)
Licensed	GSM	GSM1900	2.72	3.84
	WCDMA	WCDMA II	2.76	
		WCDMA IV	2.74	
		WCDMA V	2.20	
	LTE	LTE Band 26/5	1.95	
		LTE Band 66/4	2.75	
		LTE Band 25/2	2.76	
		LTE Band 7	2.76	
		LTE Band 41/38	**2.78**	
		LTE Band 42	2.70	
		LTE Band 48/43/42	2.76	
	5G NR	FR1 n2	2.77	
		FR1 n7	2.76	
		FR1 n66	2.72	
		FR1 n41/n38	2.76	
		FR1 n77	2.75	
		FR1 n78	2.76	
NII	WLAN	5GHz WLAN	2.00	3.84
Date of Testing:			2022/11/2 ~ 2022/12/22	

Remark:
1. This device supports LTE B2 / B4 / B5 / B17 / B38 / B42 (3550MHz~3600MHz) / B43 and B25 / B66 / B26 / B12 / B41 / B48. Since the supported frequency span for LTE B2 / B4 / B5 / B17 / B38 /B42 (3550MHz~3600MHz) / B43 falls completely within the supports frequency span for LTE B25 / B66 / B26 / B12 / B41 / B48, 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 / B48.
2. This device supports 5GNR n38/n78 and n41/n77. Since the supported frequency span for 5GNR n38/n78 falls completely within the supports frequency span for n41/n77, both 5GNR bands have the same target power, and both 5GNR bands share the same transmission path; therefore, SAR was only assessed for n41/n77.

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

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

2. Administration Data

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

Testing Laboratory			
Test Firm	Sporton International Inc. (Kunshan)		
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.
	SAR07-KS	CN1257	314309

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

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

3. Guidance Applied

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

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

4. Equipment Under Test (EUT) Information

4.1 General Information

Product Feature & Specification	
Equipment Name	Mobile Cellular Phone
Brand Name	Motorola
Model Name	XT2309-2
FCC ID	IHDT56AH5
IMEI Code	IMEI 1 : 358554730016114 IMEI 2 : 358554730016122
Frequency Band	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, 3550 MHz ~ 3600MHz LTE Band 43: 3600 MHz ~ 3700MHz LTE Band 48: 3550 MHz ~ 3700 MHz LTE Band 66: 1710 MHz ~ 1780 MHz 5G NR n2 : 1850 MHz ~ 1910 MHz 5G NR n5: 824 MHz ~ 849 MHz 5G NR n7: 2500 MHz ~ 2570 MHz 5G NR n66: 1710 MHz ~ 1780 MHz 5G NR n38 : 2570 MHz ~ 2620 MHz 5G NR n41 : 2496 MHz ~ 2690 MHz 5G NR n77: 3700 MHz ~ 3980 MHz 5G NR n78: 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 6GHz U-NII-5: 5925 MHz ~ 6425 MHz WLAN 6GHz U-NII-6: 6425 MHz ~ 6525 MHz WLAN 6GHz U-NII-7: 6525 MHz ~ 6875 MHz WLAN 6GHz U-NII-8: 6875 MHz ~ 7125 MHz Bluetooth: 2402 MHz ~ 2480 MHz NFC: 13.56 MHz
Mode	GSM/GPRS/EGPRS RMC/AMR 12.2Kbps HSDPA HSUPA DC-HSDPA HSPA+(16QAM uplink is not supported) 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/ax VHT20/VHT40/VHT80/VHT160/HE20/HE40/HE80/HE160 WLAN 6GHz 802.11a WLAN 6GHz 802.11ax HE20/HE40/HE80/HE160 Bluetooth BR/EDR/LE NFC: ASK
HW Version	DVT2
SW Version	T1TB33.3
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), LTE supports VoLTE operation.
2. This device 2.4GHz WLAN support hotspot operation and Bluetooth support tethering applications.
3. This device 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). WIFI 6E has no hotspot function.
4. The 2.4GHz/5GHz/6GHz WLAN can transmit in MIMO antenna mode only and it has no SISO antenna mode.
5. This device does not support DTM operation and supports GPRS/EGPRS mode up to multi-slot class 12.
6. This device has NFC operations, the NFC antenna is integrated into the device for this model, therefore, all SAR test were performed with the device which already incorporates the NFC antenna. A diagram showing the location of the antenna can be found in the operational description. According to FCC KDB publication 447498 D01v06, transmitters are consider to be operating simultaneously when there is overlapping transmission, with the exception of transmission during network hand-offs with maximum hand-off duration less than 30 seconds.
7. 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.
8. There are two different types of EUT. They are single SIM card mobile and dual SIM card mobile. The others are the same including circuit design, PCB board, structure and all components. After pre-scan two types of EUT, we found test result of the sample that dual SIM was the worst, so we chose dual SIM card mobile to perform all tests.
9. 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.
10. For WLAN when transmit simultaneous with WWAN, power reduction will be activated to head, body-worn, hotspot and Handheld. For WLAN when transmit simultaneous with WWAN and Proximity sensors trigger, power reduction will be activated to body-worn and Handheld.
11. For some WWAN bands, sensor on power level is higher than hotspot power level, so front/back sensor on SAR can represent hotspot conservatively.
12. This device implements antenna tuning techniques for several WWAN (cellular) operating modes and frequencies for the purpose of improving antenna efficiency over a broad range of frequencies. Specifically, these techniques are employed in the WCDMA, LTE and 5GNR modes. In this report SAR was measured according to the normally required SAR configurations with the tuner active and worst tune state (auto tune) was used for SAR testing. The detail descriptions of the antenna tuner and supplemental data for additional information can be referred to section 18 and appendix F.
13. This device supports HPUE for LTE Band 38/41 and 5GNR n77/n78 with class 2 level, HPUE power has been measured separately. For HPUE power is higher than power class 3 but with lower duty cycle, the maximum average power for class 2 and class 3 is almost the same, so we chose power class 3 full SAR testing and power class 2 verify the worst case of power class 3 SAR.
14. For 5GNR n77/n78 HPUE, 5GNR n77/n78 PC2 Maximum Duty Cycle is 50%, using FTM (Factory Test Mode) with 50% duty cycle is considered during SAR testing. For 5G NR other bands test, using FTM (Factory Test Mode) with default 100% duty cycle transmission to perform SAR testing.
15. 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.
16. 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.
17. 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.
18. 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.

19. This device supports 5GNR FR1 bands as following table, including NSA mode and SA mode. NSA and SA mode performed SAR separately.
20. SAR and 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.
21. The device support DBS (Dual Band Simultaneous) function, when the device 2.4GHz and 5GHz or 6GHz transmit at the same time the module will limit different output power for simultaneous transmission compliance.

<5G NR>

Mode	Band	Duplex	SCS(KHz)	Bandwidths(BW)
NSA	n2	FDD	15	5, 10, 15, 20
	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
	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
SA	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

<table>
<tr><th colspan="2">Summarized necessary items addressed in KDB 941225 D05 v02r05</th></tr>
<tr><td>FCC ID</td><td>IHDT56AH5</td></tr>
<tr><td>Equipment Name</td><td>Mobile Cellular Phone</td></tr>
<tr><td>Operating Frequency Range of each LTE transmission band</td><td>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 43: 3600 MHz ~ 3700MHz
LTE Band 48: 3550 MHz ~ 3700 MHz
LTE Band 66: 1710 MHz ~ 1780 MHz</td></tr>
<tr><td>Channel Bandwidth</td><td>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 43: 5MHz, 10MHz, 15MHz, 20MHz
LTE Band 48: 5MHz, 10MHz, 15MHz, 20MHz
LTE Band 66:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz</td></tr>
<tr><td>uplink modulations used</td><td>QPSK / 16QAM / 64QAM / 256QAM</td></tr>
<tr><td>LTE Voice / Data requirements</td><td>Voice and Data</td></tr>
<tr><td>LTE Release Version</td><td>R15, Cat18</td></tr>
<tr><td>CA Support</td><td>Supported, Uplink and Downlink</td></tr>
<tr><td>LTE MPR permanently built-in by design</td><td>Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 1, 2 and 3
<table>
<tr><th rowspan="2">Modulation</th><th colspan="6">Channel bandwidth / Transmission bandwidth (N_{RB})</th><th rowspan="2">MPR (dB)</th></tr>
<tr><th>1.4 MHz</th><th>3.0 MHz</th><th>5 MHz</th><th>10 MHz</th><th>15 MHz</th><th>20 MHz</th></tr>
<tr><td>QPSK</td><td>> 5</td><td>> 4</td><td>> 8</td><td>> 12</td><td>> 16</td><td>> 18</td><td>≤ 1</td></tr>
<tr><td>16 QAM</td><td>≤ 5</td><td>≤ 4</td><td>≤ 8</td><td>≤ 12</td><td>≤ 16</td><td>≤ 18</td><td>≤ 1</td></tr>
<tr><td>16 QAM</td><td>> 5</td><td>> 4</td><td>> 8</td><td>> 12</td><td>> 16</td><td>> 18</td><td>≤ 2</td></tr>
<tr><td>64 QAM</td><td>≤ 5</td><td>≤ 4</td><td>≤ 8</td><td>≤ 12</td><td>≤ 16</td><td>≤ 18</td><td>≤ 2</td></tr>
<tr><td>64 QAM</td><td>> 5</td><td>> 4</td><td>> 8</td><td>> 12</td><td>> 16</td><td>> 18</td><td>≤ 3</td></tr>
<tr><td>256 QAM</td><td colspan="6">≥ 1</td><td>≤ 5</td></tr>
</table></td></tr>
<tr><td>LTE A-MPR</td><td>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)</td></tr>
<tr><td>Spectrum plots for RB configuration</td><td>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.</td></tr>
<tr><td>Power reduction applied to satisfy SAR compliance</td><td>Yes, when operating in Proximity sensors/receiver/hotspot detect mechanism, head/body -worn /hotspot/extremity will trigger reduced power for some bands applied to satisfy SAR compliance, the detail please referred to section 14.</td></tr>
<tr><td>LTE Carrier Aggregation Combinations</td><td>Inter-Band and Intra-Band possible combinations and the detail power verification please referred to section 14.</td></tr>
<tr><td>LTE Carrier Aggregation Additional Information</td><td>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 5 carriers in the downlink and 2 carriers in the uplink.</td></tr>
</table>

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 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 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 43								
	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	43615	3602.5	43640	3605	43665	3607.5	43690	3610
M	44090	3650	44090	3650	44090	3650	44090	3650
H	44565	3697.5	44540	3695	44515	3692.5	44490	3690

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

<For LTE Overlap Bands Description>

1) LTE Bands BW

Band	1.4 MHz	3 MHz	5 MHz	10 MHz	15 MHz	20 MHz
LTE Band 2	Yes	Yes	Yes	Yes	Yes	Yes
LTE Band 25	Yes	Yes	Yes	Yes	Yes	Yes
LTE Band 5	Yes	Yes	Yes	Yes		
LTE Band 26	Yes	Yes	Yes	Yes	Yes	
LTE Band 17			Yes	Yes		
LTE Band 12	Yes	Yes	Yes	Yes		
LTE Band 4	Yes	Yes	Yes	Yes	Yes	Yes
LTE Band 66	Yes	Yes	Yes	Yes	Yes	Yes
LTE Band 38			Yes	Yes	Yes	Yes
LTE Band 41			Yes	Yes	Yes	Yes
LTE Band 43			Yes	Yes	Yes	Yes
LTE Band 48			Yes	Yes	Yes	Yes

2) LTE Bands tune up:

Band	Antenna	Head	Body Worn	Extremely	Sensor Off	Default
		DSI 2	DSI 3	DSI 6	DSI4	
		Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit
LTE Band 2	Ant 0	24	14.2	22.1	24	24
LTE Band 25	Ant 0	24	14.2	22.1	24	24
LTE Band 5	Ant 0	24	23.5	24	24	24
LTE Band 26	Ant 0	24	23.5	24	24	24
LTE Band 17	Ant 0	24	24	24	24	24
LTE Band 12	Ant 0	24	24	24	24	24
LTE Band 4	Ant 0	24	16	22.2	24	24
LTE Band 66	Ant 0	24	16	22.2	24	24
LTE Band 38	Ant 0	24	20.7	23.2	24	24
LTE Band 41	Ant 0	24	20.7	23.2	24	24
LTE Band 38 HPUE	Ant 0	27	22.3	24.8	27	27
LTE Band 41 HPUE	Ant 0	27	22.3	24.8	27	27

Band	Antenna	Head	Body Worn	Extremely	Sensor Off	Default
		DSI 2	DSI 3	DSI 6	DSI4	
		Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit
LTE Band 2	Ant 1	17.2	18.8	22	23	23
LTE Band 25	Ant 1	17.2	18.8	22	23	23
LTE Band 5	Ant 1	22.1	24	24	24	24
LTE Band 26	Ant 1	22.1	24	24	24	24
LTE Band 17	Ant 1	23.5	24	24	24	24
LTE Band 12	Ant 1	23.5	24	24	24	24
LTE Band 4	Ant 1	15.6	17.3	21.9	23	23
LTE Band 66	Ant 1	15.6	17.3	21.9	23	23
LTE Band 38	Ant 1	18.6	19.3	23	23	23
LTE Band 41	Ant 1	18.6	19.3	23	23	23
LTE Band 38 HPUE	Ant 1	20.2	20.9	24.6	26	26
LTE Band 41 HPUE	Ant 1	20.2	20.9	24.6	26	26

Band	Antenna	Head	Body Worn	Extremely	Sensor Off	Default
		DSI 2	DSI 3	DSI 6	DSI4	
		Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit
LTE Band 42	Ant 2	15.3	16.1	20.4	24	24
LTE Band 43	Ant 2	15.3	16.1	20.4	24	24
LTE Band 48	Ant 2	15.3	16.1	20.4	24	24

4.3 General 5G NR SAR Test and Reporting Considerations

5G NR Information	
Operating Frequency Range of each 5G NR transmission band	5G NR n2 : 1850 MHz ~ 1910 MHz 5G NR n5: 824 MHz ~ 849 MHz 5G NR n7: 2500 MHz ~ 2570 MHz 5G NR n66: 1710 MHz ~ 1780 MHz 5G NR n38 : 2570 MHz ~ 2620 MHz 5G NR n41 : 2496 MHz ~ 2690 MHz 5G NR n77: 3700 MHz ~ 3980 MHz 5G NR n78: 3700 MHz ~ 3800 MHz
Channel Bandwidth	The detail please refers to section 4.1 5GNR FR1 bands table.
SCS	FDD: SCS15KHz, TDD: SCS30KHz
uplink modulations used	DFT-s-OFDM: PI/2 BPSK / QPSK / 16QAM / 64QAM / 256QAM CP-OFDM: QPSK / 16QAM / 64QAM / 256QAM
A-MPR (Additional MPR) disabled for SAR Testing?	Yes
LTE Anchor Bands for n2	LTE B7
LTE Anchor Bands for n5	LTE B7
LTE Anchor Bands for n7	LTE B2/4/5/66
LTE Anchor Bands for n66	LTE B2/5/7
LTE Anchor Bands for n77	LTE B41
LTE Anchor Bands for n78	LTE B2/4/5/7/38/41/66

Transmission (H, M, L) channel numbers and frequencies in each 5G NR band

NR Band 2

	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	370500	1852.5	371000	1855	371500	1857.5	372000	1860
M	376000	1880	376000	1880	376000	1880	376000	1880
H	381500	1907.5	381000	1905	380500	1902.5	380000	1900

NR Band 5

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

NR Band 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	500202	2501.01	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	537000	2685	529998	2649.99	528996	2644.98	528000	2640

	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	3840	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840
H	665000	3975	664834	3972.51	664666	3970.02	664332	3965.01	664000	3960	663668	3955.02	663332	3950.01	663000	3945	662666	3940.02	662332	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		

<For NR Overlap Bands Description>

1) NR Bands BW

Mode	Band	Duplex	SCS(KHz)	Bandwidths(BW)
NSA	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
SA	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

2) NR Bands Tune up:

Band	Antenna	Head	Body Worn	Extremely	Sensor Off	Default
		DSI 2	DSI 3	DSI 6	DSI4	
		Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit
5G NR n38	Ant 0	24	20.7	23.2	24	24
5G NR n41	Ant 0	24	20.7	23.2	24	24

Band	Antenna	Head	Body Worn	Extremely	Sensor Off	Default
		DSI 2	DSI 3	DSI 6	DSI4	
		Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit
5G NR n38	Ant 1	16	15.6	20.9	24	24
5G NR n41	Ant 1	16	15.6	20.9	24	24

Band	Antenna	Head	Body Worn	Extremely	Sensor Off	Default
		DSI 2	DSI 3	DSI 6	DSI4	
		Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit
5G NR n77	Ant 2	11.6	12.5	17.2	24	24
5G NR n78	Ant 2	11.6	12.5	17.2	24	24
5G NR n77 HPUE	Ant 2	14.6	15.5	20.2	27	27
5G NR n78 HPUE	Ant 2	14.6	15.5	20.2	27	27

5. Smart Transmit feature for RF Exposure compliance

The 2nd generation of Smart Transmit (GEN2) operates based on pre-defined sub6 antenna groups (AG). This Device is enabled with the Qualcomm® Smart Transmit Gen2 feature. 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.

Note that WLAN/BT operations are not enabled with Smart Transmit.

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 GEN2 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.

Antenna Group:

Antenna Group 0 (AG0)	ANT1 & ANT2 & ANT4 & ANT5 & ANT8
Antenna Group 1 (AG1)	ANT0 & ANT7

<SAR design target and uncertainty>

Item	Uncertainty dB (k=2)
Total uncertainty	1.5

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

$$SAR\_design\_target < SAR_{regulatory\_limit} \times 10^{\frac{-total\ uncertainty}{10}}$$

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

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

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

Band	Antenna	Head DSI 2 Power	Body Worn &Hotspot DSI 3 Power	Extremity DSI6 Power	Sensor Off DSI4	Pmax
GSM850	Ant 0	30.5	26.2	24.2	24.2	24.2
GSM850	Ant 1	20.6	24.4	24.2	24.2	24.2
GSM1900	Ant 0	34.0	14.9	21.4	21.2	21.2
GSM1900	Ant 1	15.6	16.8	20.5	20.5	20.5
WCDMA II	Ant 0	32.9	14.0	21.2	23.0	23.0
WCDMA II	Ant 1	16.8	17.7	21.0	23.0	23.0
WCDMA IV	Ant 0	32.8	14.9	21.0	23.0	23.0
WCDMA IV	Ant 1	15.8	17.4	21.1	23.0	23.0
WCDMA V	Ant 0	29.8	23.1	24.0	23.0	23.0
WCDMA V	Ant 1	20.9	23.5	23.0	23.0	23.0
LTE Band 25(2)	Ant 0	31.5	13.2	21.1	23.0	23.0
LTE Band 25(2)	Ant 1	16.2	17.8	21.0	22.0	22.0
LTE Band 66(4)	Ant 0	31.2	15.0	21.2	23.0	23.0
LTE Band 66(4)	Ant 1	14.6	16.3	20.9	22.0	22.0
LTE Band 26(5)	Ant 0	30.1	22.5	23.0	23.0	23.0
LTE Band 26(5)	Ant 1	21.1	23.2	23.0	23.0	23.0
LTE Band 7	Ant 0	36.2	18.1	20.1	23.0	23.0
LTE Band 7	Ant 1	14.9	15.5	19.4	22.0	22.0
LTE Band 12(17)	Ant 0	31.9	23.6	23.0	23.0	23.0
LTE Band 12(17)	Ant 1	22.5	24.4	23.0	23.0	23.0
LTE Band 13	Ant 0	30.5	23.4	23.0	23.0	23.0
LTE Band 41 PC3(38 PC3)	Ant 0	34.2	17.7	20.2	22.4	21.0
LTE Band 41 PC2(38 PC2)	Ant 0	34.2	17.7	20.2	22.4	22.4
LTE Band 41 PC3(38 PC3)	Ant 1	15.6	16.3	20.0	21.4	20.0
LTE Band 41 PC2(38 PC2)	Ant 1	15.6	16.3	20.0	21.4	21.4
LTE Band 42	Ant 2	12.3	13.1	17.4	21.0	21.0
LTE Band 48(43/42)	Ant 2	12.3	13.1	17.4	21.0	21.0
5G NR n2	Ant 1	16.3	17.8	21.3	23.0	23.0
5G NR n5	Ant 0	29.8	24.1	23.0	23.0	23.0
5G NR n5	Ant 1	21.8	23.3	23.0	23.0	23.0
5G NR n7	Ant 0	34.9	18.2	20.7	23.0	23.0
5G NR n7	Ant 1	15.1	16.4	20.8	23.0	23.0
5G NR n66	Ant 0	32.6	13.9	19.2	23.0	23.0
5G NR n66	Ant 1	16.4	15.8	21.5	23.0	23.0
5G NR n41(n38)	Ant 0	33.0	19.7	22.2	23.0	23.0
5G NR n41(n38)	Ant 1	15.0	14.6	19.9	23.0	23.0
5G NR n77 PC3(n78 PC3)	Ant 2	10.6	11.5	16.2	23.0	23.0
5G NR n77 PC2(n78 PC2)	Ant 2	10.6	11.5	16.2	23.0	23.0
5G NR n77 PC3	Ant 4	13.7	15.3	19.6	19.6	20.5
5G NR n77 PC2	Ant 4	13.7	15.3	19.6	19.6	20.5
5G NR n77 PC3	Ant 5	14.1	17.3	19.5	20.0	20.0
5G NR n77 PC2	Ant 5	14.1	17.3	19.5	20.0	20.0
5G NR n77 PC3	Ant 7	28.5	18.2	18.2	18.2	22.0
5G NR n77 PC2	Ant 7	28.5	18.2	18.2	18.2	22.0
5G NR n78 PC3	Ant 4	13.9	15.0	19.5	19.5	23.0
5G NR n78 PC2	Ant 4	13.9	15.0	19.5	19.5	23.0

5G NR n78 PC3	Ant 5	13.7	17.0	19.5	23.0	23.0
5G NR n78 PC2	Ant 5	13.7	17.0	19.5	23.0	23.0
5G NR n78 PC3	Ant 7	30.7	18.8	18.8	18.8	23.0
5G NR n78 PC2	Ant 7	30.7	18.8	18.8	18.8	23.0

Note:

1) *P_{max} is used for RF tune up procedure. The maximum allowed output power is equal to Pmax + 1.0 dB device 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& NR TDD).

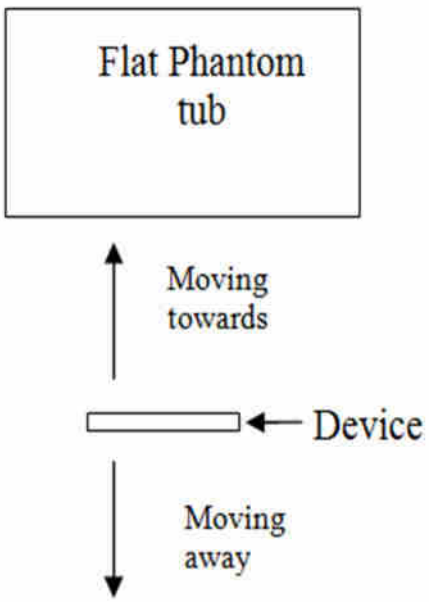
3) The max allowed output power is the Plimit + 1.0 dB device uncertainty, and if Plimit is higher than Pmax, the device output power will be Pmax instead.

4) For 5GNR n77/n78 HPUE, 5GNR n77/n78 PC2 Maximum Duty Cycle is 50%, using FTM (Factory Test Mode) with 50% duty cycle is considered during SAR testing. For 5G NR other bands test, using FTM (Factory Test Mode) with default 100% duty cycle transmission to perform SAR testing.

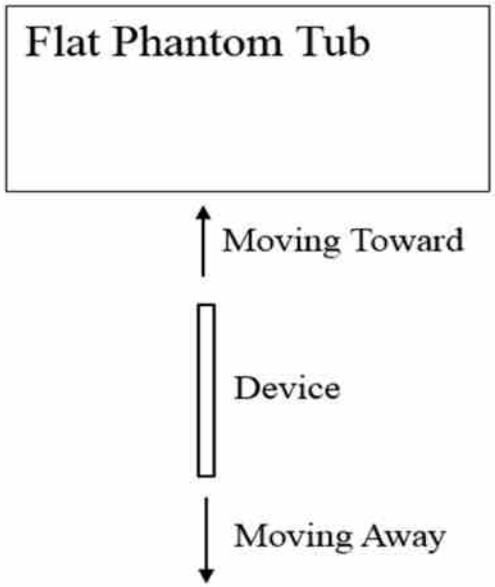
6. Proximity Sensor Triggering Test

<Proximity Sensor Triggering Distance>:

1. Proximity sensor triggering distance testing was performed according to the procedures outlined in KDB 616217 D04 section 6.2, and EUT moving further away from the flat phantom and EUT moving toward the flat phantom were both assessed and the tissue-equivalent medium for highest frequency (5850MHz) and lowest (835MHz) frequency was used for proximity sensor triggering testing.
2. Capacitive proximity sensors placed coincident with antenna elements at the top and bottom ends of the phone are utilized to determine when the device comes in proximity of the user's body at the front or back of the device.
3. The output power will reduce to body worn power level when top and bottom sensor pad be detected.
4. The sensors used to detect the proximity of the user's body at the front or back surface of the device use a detection threshold distance. The data shown in the sections below shows the distance(s). When front or back body worn condition is detected reduced power will be active.
5. The device employs proximity sensors also can detect the presence of the user's a finger or hand when handheld state at the front/back/top/bottom/left/right sides of the device. When front/back/top/bottom/left/right sides of handheld condition is detected reduced power will be active.
6. 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/Handheld detection test set-up, Front and Back sides



Handheld detection test set-up, Left Side, Right Side, Bottom Side and Top Side

<P-Sensor>

Proximity Sensor Triggering Distance (mm)				
Position	Front		Back	
	Moving towards	Moving away	Moving towards	Moving away
Minimum	17	17	22	19

<Handheld for ANT0>

Proximity Sensor Triggering Distance (mm)						
Position	Front		Back		Bottom Side	
	Moving towards	Moving away	Moving towards	Moving away	Moving towards	Moving away
Minimum	7	10	9	15	11	14

<Handheld for ANT 1>

Proximity Sensor Triggering Distance (mm)								
Position	Front		Back		Left Side		Top Side	
	Moving towards	Moving away	Moving towards	Moving away	Moving towards	Moving away	Moving towards	Moving away
Minimum	6	10	7	16	7	10	8	11

<Handheld for ANT 2>

Proximity Sensor Triggering Distance (mm)						
Position	Front		Back		Left Side	
	Moving towards	Moving away	Moving towards	Moving away	Moving towards	Moving away
Minimum	6	10	8	15	10	17

<Handheld for ANT 3&5>

Proximity Sensor Triggering Distance (mm)								
Position	Front		Back		Right Side		Top Side	
	Moving towards	Moving away	Moving towards	Moving away	Moving towards	Moving away	Moving towards	Moving away
Minimum	6	13	10	16	7	9	8	7

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:

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

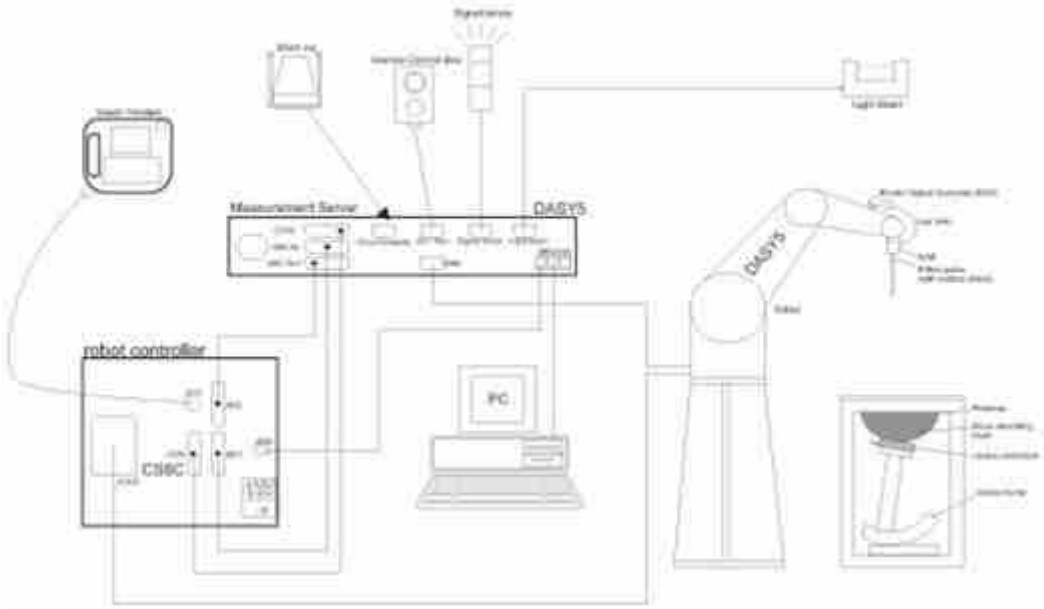
SAR is expressed in units of Watts per kilogram (W/kg)

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

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 DASY5 system used for performing compliance tests consists of the following items:



- A standard high precision 6-axis robot with controller, teach pendant and software. An arm extension for accommodating the data acquisition electronics (DAE).
- An isotropic Field probe optimized and calibrated for the targeted measurement.
- A data acquisition electronics (DAE) which performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. The unit is battery powered with standard or rechargeable batteries. The signal is optically transmitted to the EOC.
- The Electro-optical converter (EOC) performs the conversion from optical to electrical signals for the digital communication to the DAE. To use optical surface detection, a special version of the EOC is required. The EOC signal is transmitted to the measurement server.
- The function of the measurement server is to perform the time critical tasks such as signal filtering, control of the robot operation and fast movement interrupts.
- The Light Beam used is for probe alignment. This improves the (absolute) accuracy of the probe positioning.
- A computer running WinXP or Win10 and the DASY5 software.
- Remote control and teach pendant as well as additional circuitry for robot safety such as warning lamps, etc.
- The phantom, the device holder and other accessories according to the targeted measurement.

9.1 E-Field Probe

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

<EX3DV4 Probe>

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

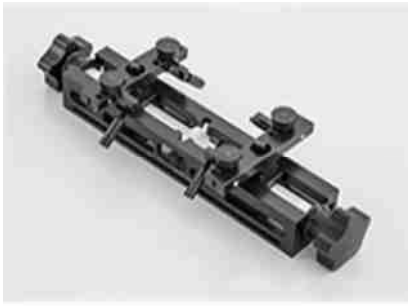
The ELI phantom is intended for compliance testing of handheld and body-mounted wireless devices or for evaluating transmitters operating at low frequencies. ELI is fully compatible with standard and all known tissue simulating liquids.

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	≤ 1.5·$\Delta z_{Zoom}(n-1)$	
Minimum zoom scan volume	x, y, z		≥ 30 mm	3 – 4 GHz: ≥ 28 mm 4 – 5 GHz: ≥ 25 mm 5 – 6 GHz: ≥ 22 mm

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

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

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	2022/2/24	2023/2/23
SPEAG	835MHz System Validation Kit	D835V2	4d091	2022/8/19	2023/8/18
SPEAG	1750MHz System Validation Kit	D1750V2	1090	2022/2/24	2023/2/23
SPEAG	1900MHz System Validation Kit	D1900V2	5d182	2021/12/20	2023/12/19
SPEAG	2450MHz System Validation Kit	D2450V2	1040	2020/5/6	2023/5/4
SPEAG	2600MHz System Validation Kit	D2600V2	1061	2020/11/26	2023/11/24
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	2023/5/12
SPEAG	5000MHz System Validation Kit	D5GHzV2	1341	2021/12/13	2022/12/12
SPEAG	5000MHz System Validation Kit	D5GHzV2	1113	2022/9/23	2023/9/22
SPEAG	Data Acquisition Electronics	DAE4	1305	2022/4/27	2023/4/26
SPEAG	Data Acquisition Electronics	DAE4	690	2022/6/15	2023/6/14
SPEAG	Dosimetric E-Field Probe	EX3DV4	7630	2022/3/4	2023/3/3
SPEAG	Dosimetric E-Field Probe	EX3DV4	7706	2022/1/20	2023/1/19
SPEAG	SAM Twin Phantom	SAM Twin	TP-2024	NCR	NCR
SPEAG	SAM Twin Phantom	SAM Twin	TP-1644	NCR	NCR
SPEAG	Phone Positioner	N/A	N/A	NCR	NCR
Anritsu	Radio Communication Analyzer	MT8821C	6262306175	2022/7/14	2023/7/13
Agilent	ENA Series Network Analyzer	E5071C	MY46104587	2022/5/24	2023/5/23
SPEAG	Dielectric Probe Kit	DAK-3.5	1071	2022/1/24	2023/1/23
Anritsu	Vector Signal Generator	MG3710A	6201682672	2022/1/6	2023/1/5
Rohde & Schwarz	Power Meter	NRVD	102081	2022/7/14	2023/7/13
Rohde & Schwarz	Power Sensor	NRV-Z5	100538	2022/7/14	2023/7/13
Rohde & Schwarz	Power Sensor	NRV-Z5	100539	2022/7/14	2023/7/13
R&S	CBT BLUETOOTH TESTER	CBT	100641	2022/1/5	2023/1/4
Rohde & Schwarz	Spectrum Analyzer	FSV7	101631	2022/10/12	2023/10/11
TES	DIGITAC THERMOMETER	1310	200505600	2022/7/12	2023/7/11
Testo	Thermo-Hygrometer	608-H1	1241332102	2022/1/6	2023/1/5
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	
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	

Note:

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

12. System Verification

12.1 Tissue Simulating Liquids

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

Fig 11.1 Photo of Liquid Height for Head SAR

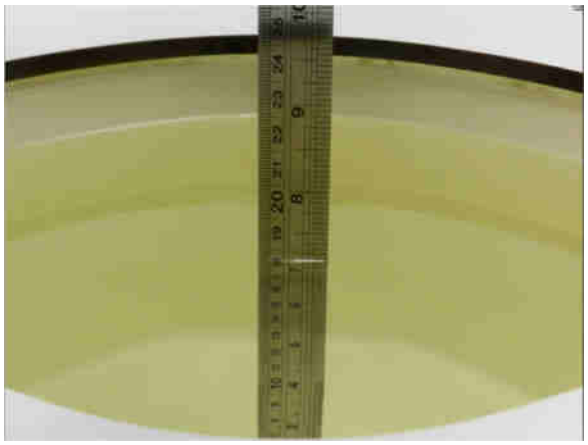


Fig 11.2 Photo of Liquid Height for Body SAR

12.2 Tissue Verification

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

Frequency (MHz)	Water (%)	Sugar (%)	Cellulose (%)	Salt (%)	Preventol (%)	DGBE (%)	Conductivity (σ)	Permittivity (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)	Liquid Type	Liquid Temp. (℃)	Conductivity (σ)	Permittivity (ε_r)	Conductivity Target (σ)	Permittivity Target (ε_r)	Delta (σ) (%)	Delta (ε_r) (%)	Limit (%)	Date
750	Head	22.8	0.872	41.171	0.89	41.90	-2.02	-1.74	±5	2022/11/2
835	Head	22.7	0.911	42.719	0.90	41.50	1.22	2.94	±5	2022/11/3
1750	Head	22.8	1.343	38.540	1.37	40.10	-1.97	-3.89	±5	2022/11/4
1900	Head	22.8	1.398	41.444	1.40	40.00	-0.14	3.61	±5	2022/11/5
2450	Head	22.7	1.810	38.621	1.80	39.20	0.56	-1.48	±5	2022/11/6
2600	Head	22.6	1.927	38.323	1.96	39.00	-1.68	-1.74	±5	2022/11/7
3500	Head	22.9	2.785	38.965	2.91	37.90	-4.30	2.81	±5	2022/11/8
3700	Head	22.7	3.078	38.038	3.12	37.70	-1.35	0.90	±5	2022/11/9
3900	Head	22.8	3.282	37.613	3.32	37.50	-1.14	0.30	±5	2022/11/10
5250	Head	22.7	4.579	36.302	4.71	35.90	-2.78	1.12	±5	2022/11/11
5600	Head	22.9	4.947	35.742	5.07	35.50	-2.43	0.68	±5	2022/11/12
5750	Head	22.8	5.128	35.554	5.22	35.40	-1.76	0.44	±5	2022/11/12
750	Head	22.7	0.900	41.192	0.89	41.90	1.12	-1.69	±5	2022/11/13
835	Head	22.6	0.902	41.240	0.90	41.50	0.22	-0.63	±5	2022/11/13
1750	Head	22.8	1.409	40.669	1.37	40.10	2.85	1.42	±5	2022/11/14
1900	Head	22.7	1.397	39.035	1.40	40.00	-0.21	-2.41	±5	2022/11/16
2450	Head	22.9	1.806	38.605	1.80	39.20	0.33	-1.52	±5	2022/11/18
2600	Head	22.9	1.926	38.230	1.96	39.00	-1.73	-1.97	±5	2022/11/20
3500	Head	22.8	2.784	38.912	2.91	37.90	-4.33	2.67	±5	2022/11/22
3700	Head	22.6	2.994	38.681	3.12	37.70	-4.04	2.60	±5	2022/11/20
3900	Head	22.7	3.194	38.385	3.32	37.50	-3.80	2.36	±5	2022/11/28
5250	Head	22.8	4.553	36.114	4.71	35.90	-3.33	0.60	±5	2022/11/30
5600	Head	22.9	4.924	35.585	5.07	35.50	-2.88	0.24	±5	2022/12/2
5750	Head	22.8	5.100	35.396	5.22	35.40	-2.30	-0.01	±5	2022/12/2
5250	Head	22.6	4.677	36.672	4.71	35.90	-0.70	2.15	±5	2022/12/20
5600	Head	22.8	5.084	36.029	5.07	35.50	0.28	1.49	±5	2022/12/21
5750	Head	22.9	5.256	35.780	5.22	35.40	0.69	1.07	±5	2022/12/22

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)	Liquid 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 (%)
2022/11/2	750	Head	50	1087	7630	1305	0.451	8.58	9.02	5.13
2022/11/3	835	Head	50	4d091	7630	1305	0.475	9.45	9.5	0.53
2022/11/4	1750	Head	50	1090	7630	1305	1.830	37.00	36.6	-1.08
2022/11/5	1900	Head	50	5d182	7630	1305	2.050	39.60	41	3.54
2022/11/6	2450	Head	50	1040	7630	1305	2.710	51.80	54.2	4.63
2022/11/7	2600	Head	50	1061	7630	1305	2.730	56.60	54.6	-3.53
2022/11/8	3500	Head	50	1037	7630	1305	3.390	68.00	67.8	-0.29
2022/11/9	3700	Head	50	1008	7630	1305	3.230	67.60	64.6	-4.44
2022/11/10	3900	Head	50	1048	7706	690	3.370	70.20	67.4	-3.99
2022/11/11	5250	Head	50	1341	7630	1305	3.780	80.70	75.6	-6.32
2022/11/12	5600	Head	50	1341	7630	1305	3.950	84.50	79	-6.51
2022/11/12	5750	Head	50	1341	7630	1305	3.770	80.60	75.4	-6.45
2022/11/13	750	Head	50	1087	7630	1305	0.415	8.58	8.3	-3.26
2022/11/13	835	Head	50	4d091	7630	1305	0.470	9.45	9.4	-0.53
2022/11/14	1750	Head	50	1090	7630	1305	1.920	37.00	38.4	3.78
2022/11/16	1900	Head	50	5d182	7630	1305	2.060	39.60	41.2	4.04
2022/11/18	2450	Head	50	1040	7630	1305	2.700	51.80	54	4.25
2022/11/20	2600	Head	50	1061	7630	1305	2.730	56.60	54.6	-3.53
2022/11/22	3500	Head	50	1037	7630	1305	3.330	68.00	66.6	-2.06
2022/11/20	3700	Head	50	1008	7630	1305	3.450	67.60	69	2.07
2022/11/28	3900	Head	50	1048	7706	690	3.360	70.20	67.2	-4.27
2022/11/30	5250	Head	50	1341	7630	1305	3.720	80.70	74.4	-7.81
2022/12/2	5600	Head	50	1341	7630	1305	4.010	84.50	80.2	-5.09
2022/12/2	5750	Head	50	1341	7630	1305	3.830	80.60	76.6	-4.96
2022/12/20	5250	Head	50	1113	7630	1305	3.790	81.50	75.8	-6.99
2022/12/21	5600	Head	50	1113	7630	1305	4.000	82.60	80	-3.15
2022/12/22	5750	Head	50	1113	7630	1305	3.840	80.80	76.8	-4.95

<10g SAR>

Date	Frequency (MHz)	Liquid Type	Input Power (mW)	Dipole S/N	Probe S/N	DAE S/N	Measured 10g SAR (W/kg)	Targeted 10g SAR (W/kg)	Normalized 10g SAR (W/kg)	Deviation (%)
2022/11/2	750	Head	50	1087	7630	1305	0.297	5.65	5.94	5.13
2022/11/3	835	Head	50	4d091	7630	1305	0.311	6.22	6.22	0.00
2022/11/4	1750	Head	50	1090	7630	1305	0.971	19.50	19.42	-0.41
2022/11/5	1900	Head	50	5d182	7630	1305	1.060	20.20	21.2	4.95
2022/11/6	2450	Head	50	1040	7630	1305	1.250	24.00	25	4.17
2022/11/7	2600	Head	50	1061	7630	1305	1.220	25.10	24.4	-2.79
2022/11/8	3500	Head	50	1037	7630	1305	1.320	25.40	26.4	3.94
2022/11/9	3700	Head	50	1008	7630	1305	1.230	24.40	24.6	0.82
2022/11/10	3900	Head	50	1048	7706	690	1.240	24.40	24.8	1.64
2022/11/11	5250	Head	50	1341	7630	1305	1.080	23.10	21.6	-6.49
2022/11/12	5600	Head	50	1341	7630	1305	1.120	24.00	22.4	-6.67
2022/11/12	5750	Head	50	1341	7630	1305	1.070	22.70	21.4	-5.73
2022/11/13	750	Head	50	1087	7630	1305	0.273	5.65	5.46	-3.36
2022/11/13	835	Head	50	4d091	7630	1305	0.307	6.22	6.14	-1.29
2022/11/14	1750	Head	50	1090	7630	1305	1.020	19.50	20.4	4.62
2022/11/16	1900	Head	50	5d182	7630	1305	1.060	20.20	21.2	4.95
2022/11/18	2450	Head	50	1040	7630	1305	1.260	24.00	25.2	5.00
2022/11/20	2600	Head	50	1061	7630	1305	1.220	25.10	24.4	-2.79
2022/11/22	3500	Head	50	1037	7630	1305	1.270	25.40	25.4	0.00
2022/11/20	3700	Head	50	1008	7630	1305	1.290	24.40	25.8	5.74
2022/11/28	3900	Head	50	1048	7706	690	1.200	24.40	24	-1.64
2022/11/30	5250	Head	50	1341	7630	1305	1.080	23.10	21.6	-6.49
2022/12/2	5600	Head	50	1341	7630	1305	1.130	24.00	22.6	-5.83
2022/12/2	5750	Head	50	1341	7630	1305	1.090	22.70	21.8	-3.96
2022/12/20	5250	Head	50	1113	7630	1305	1.210	23.30	24.2	3.86
2022/12/21	5600	Head	50	1113	7630	1305	1.140	23.70	22.8	-3.80
2022/12/22	5750	Head	50	1113	7630	1305	1.180	23.00	23.6	2.61

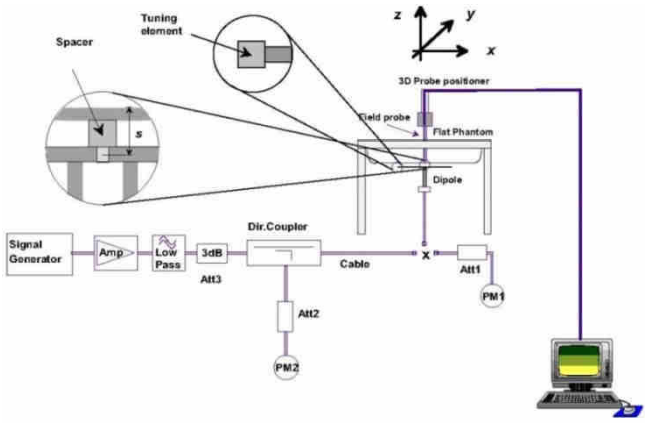


Fig 11.3.1 System Performance Check Setup

Fig 11.3.2 Setup Photo

13. RF Exposure Positions

13.1 Ear and handset reference point

Figure 12.1.1 shows the front, back, and side views of the SAM phantom. The center-of-mouth reference point is labeled “M,” the left ear reference point (ERP) is marked “LE,” and the right ERP is marked “RE.” Each ERP is 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.

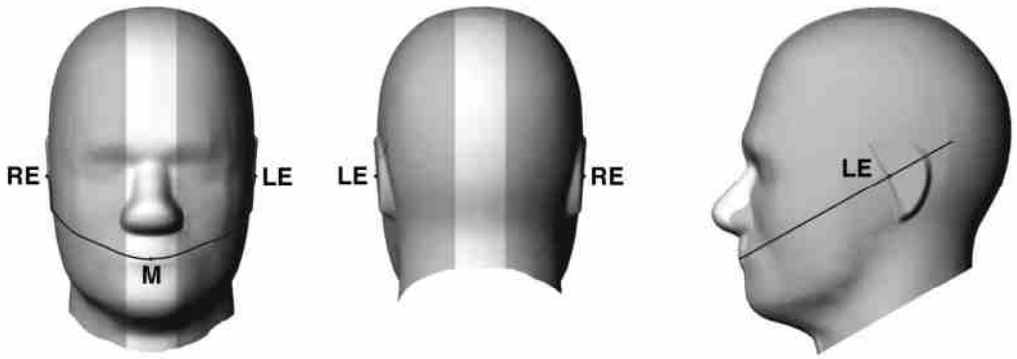


Fig 12.1.1 Front, back, and side views of SAM twin phantom

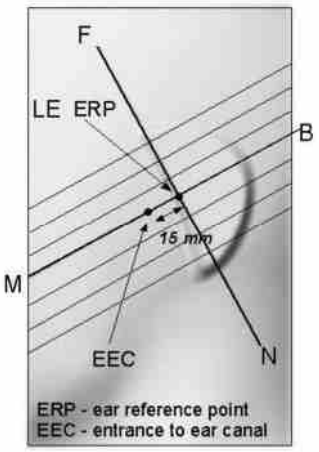


Fig 12.1.2 Close-up side view of phantom showing the ear region.

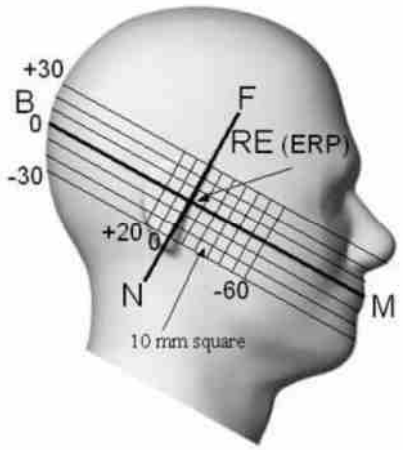


Fig 12.1.3 Side view of the phantom showing relevant markings and seven cross-sectional plane locations

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.

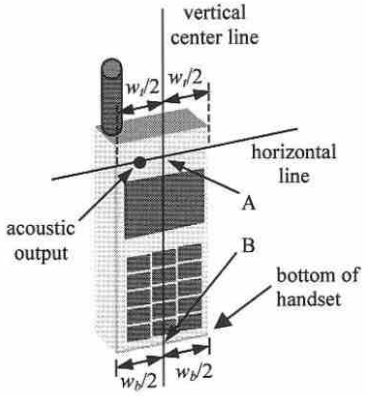


Fig 12.2.1 Handset vertical and horizontal reference lines—"fixed case

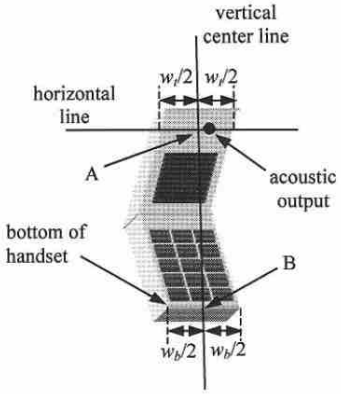


Fig 12.2.2 Handset vertical and horizontal reference lines—"clam-shell case"

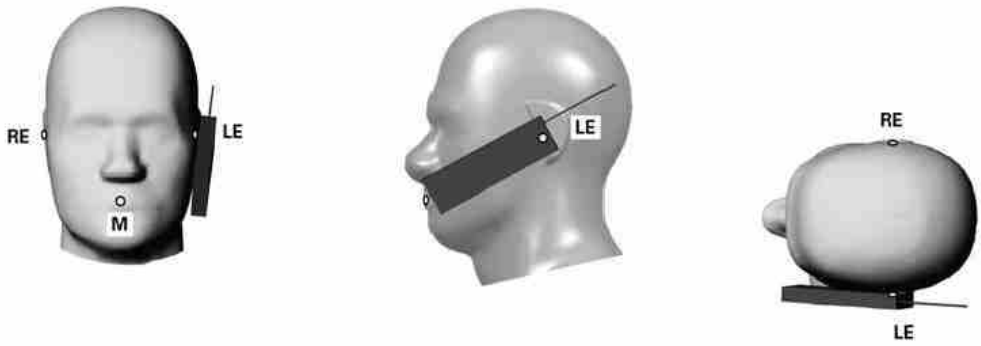


Fig 12.2.3 cheek or touch position. The reference points for the right ear (RE), left ear (LE), and mouth (M), which establish the Reference Plane for handset positioning, are indicated.

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

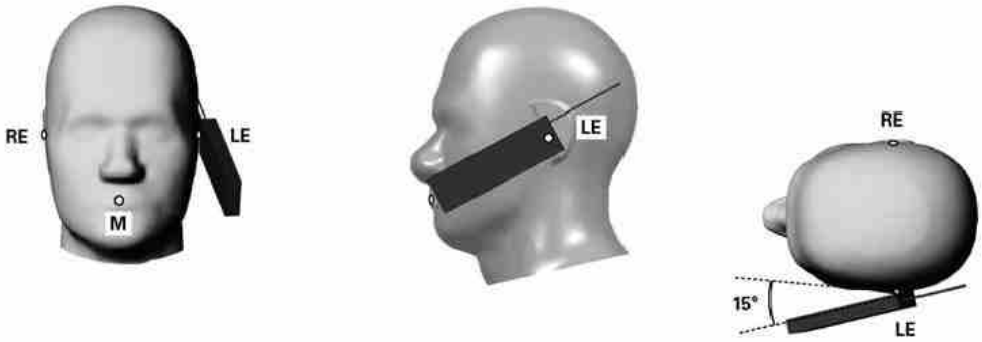


Fig 12.3.1 Tilt position. The reference points for the right ear (RE), left ear (LE), and mouth (M), which define the Reference Plane for handset positioning, are indicated.

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 11.4). Per KDB648474 D04v01r03, body-worn accessory exposure is typically related to voice mode operations when handsets are carried in body-worn accessories. The body-worn accessory procedures in FCC KDB 447498 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. 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.

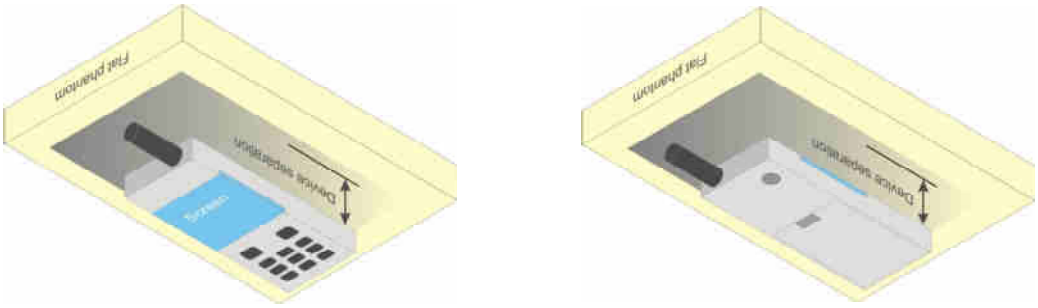


Fig 12.4 Body Worn Position

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 can provide similar mobile web access and multimedia support found in mini-tablets or UMPC mini-tablets and 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 $\beta_{hs} = 30/15 * \beta_c$.

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

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

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

Setup Configuration

HSUPA Setup Configuration:

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

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

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

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

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

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

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

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

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

Setup Configuration

DC-HSDPA 3GPP release 8 Setup Configuration:

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

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

C.8.1.12 Fixed Reference Channel Definition H-Set 12

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

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

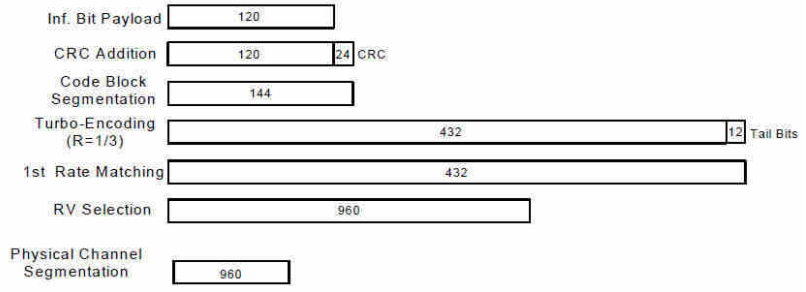


Figure C.8.19: Coding rate for Fixed reference Channel H-Set 12 (QPSK)

Setup Configuration

<WCDMA Conducted Power>

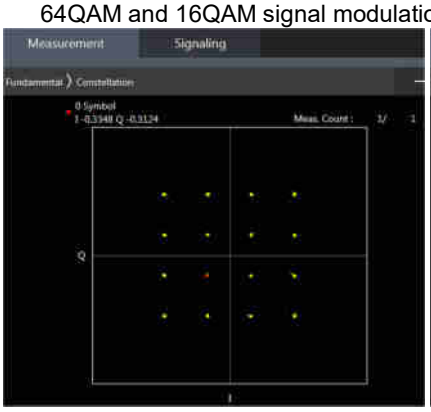
General Note:

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

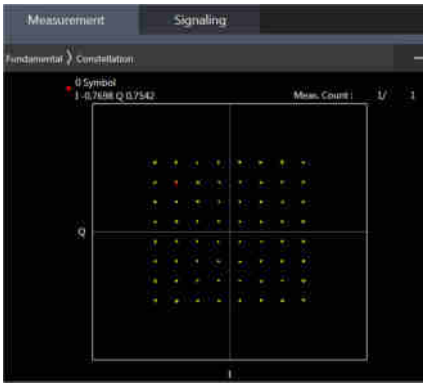
<LTE Conducted Power>

General Note:

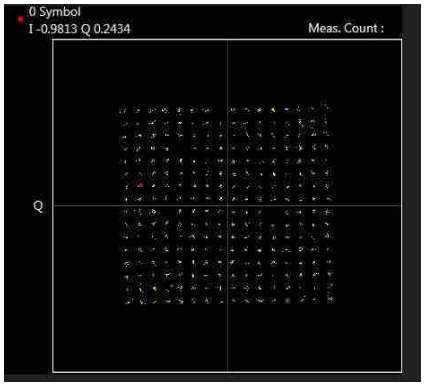
1. Anritsu MT8820C base station simulator was used to setup the connection with EUT; the frequency band, channel bandwidth, RB allocation configuration, modulation type are set in the base station simulator to configure EUT transmitting at maximum power and at different configurations which are requested 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/256QAM 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/256QAM 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 / B43 SAR test was covered by B25 / B66 / B26 / B12 / B41 / B48; 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 May 2017 TCB workshop, for 16QAM and 64QAM, 256QAM 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 256QAM, 64QAM and 16QAM signal modulation are correct.



16QAM



64QAM



256QAM

<TDD LTE SAR Measurement>

TDD LTE configuration setup for SAR measurement

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

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

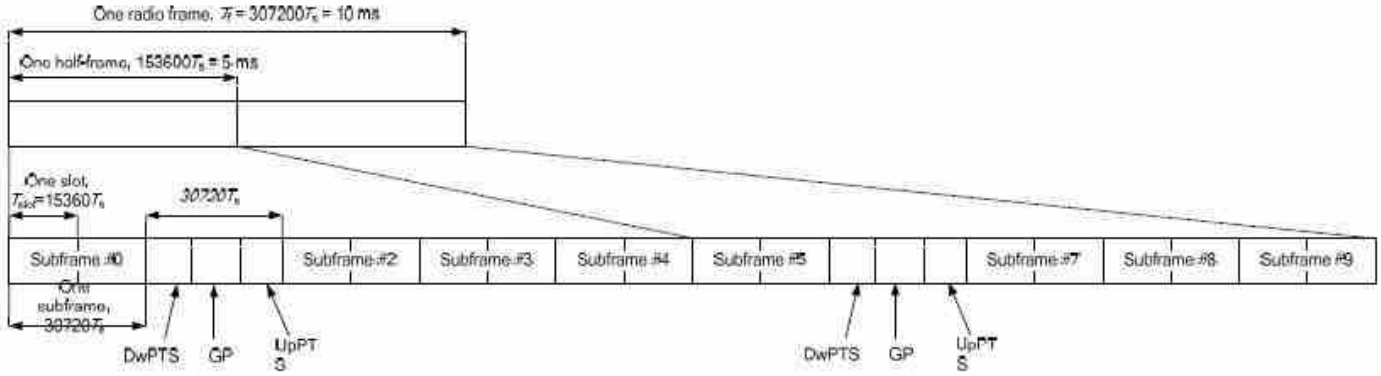


Figure 4.2-1: Frame structure type 2 (for 5 ms switch-point periodicity).

Table 4.2-2: Uplink-downlink configurations.

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

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

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

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

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

The highest duty factor is resulted from:

For LTE TDD Power class 2

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

For LTE TDD Power class 3

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

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

LTE TDD Band	Power Class level	support uplink/downlink configuration
LTE Band 38/41	> 23	1,2,3,4,5
	=23	0,1,2,3,4,5,6
	< 23	0,1,2,3,4,5,6

<LTE Carrier Aggregation>

General Note:

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

2CC Downlink Carrier Aggregation			3CC Downlink Carrier Aggregation			4CC Downlink Carrier Aggregation			5CC Downlink Carrier Aggregation		
Number	Combination	Covered by Measurement Superset	Number	Combination	Covered by Measurement Superset	Number	Combination	Covered by Measurement Superset	Number	Combination	Covered by Measurement Superset
1	CA_2C		1	CA_2A-4A-5A		1	CA_5A-7C-66A	5CC#1	1	CA_5A-7C-66A-66A	
2	CA_2A-4A	3CC#1	2	CA_2A-4A-7A		2	CA_41C-41C		2	CA_41C-41D	
3	CA_2A-5A	3CC#1	3	CA_2A-5A-66A		3	CA_41E				
4	CA_2A-7A	3CC#2	4	CA_2A-7C		4	CA_41A-41D				
5	CA_2A-66A	3CC#3	5	CA_2A-7A-7A		5	CA_41A-41A-41C				
6	CA_4A-5A	3CC#1	6	CA_4A-7C		6	CA_41C-42C				
7	CA_4A-7A	3CC#2	7	CA_5A-7C	5CC#1						
8	CA_5A-7A	3CC#8	8	CA_5A-7A-66A							
9	CA_5A-41A		9	CA_7A-66A-66A							
10	CA_5A-66A	3CC#8	10	CA_41D	4CC#4						
11	CA_7B		11	CA_41A-41C	4CC#5						
12	CA_7C	3CC#4	12	CA_41A-41A-41A							
13	CA_7A-7A	3CC#5	13	CA_41C-42A							
14	CA_7A-26A		14	CA_41A-42C							
15	CA_7A-32A		15	CA_42D							
16	CA_7A-42A										
17	CA_7A-66A	3CC#8									
18	CA_26A-41A										
19	CA_38C										
20	CA_41C	3CC#13									
21	CA_41A-41A	3CC#12									
22	CA_41A-42A										
23	CA_42C	3CC#14									
24	CA_66B										
25	CA_66C										
26	CA_66A-66A	3CC#9									

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 five 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 Band 2/4/7/38/41/42/66 only. Uplink transmission is limited to a single output stream. Power measurements were performed with downlink 4x4 MIMO active for the configuration with highest measured maximum conducted power with 4x4 downlink MIMO inactive measured among the channel bandwidth, modulation, and RB combinations in each frequency band.

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

4X4 MIMO	Band
	LTE Band 2/4/7/38/41/42/66

LTE Carrier Aggregation Conducted Power (Uplink)

LTE Uplink CA	2CC Uplink Carrier Aggregation	
Intra-band	Main Antenna Tx	ASDiv Tx
CA_7C	Ant 0	Ant 1
CA_38C	Ant 0	Ant 1
CA_41C	Ant 0	Ant 1

<Intra-band>

General Note:

i. The device supports intra-band uplink carrier aggregation for LTE B7/38/41 with a maximum of two uplink 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 uplink component carriers. For intra band contiguous carrier aggregation scenarios, 3GPP 36.101 table 6.2.2A-1 specifies that the aggregate maximum allowed output power is equivalent to the single carrier scenario. 3GPP 36.101 6.2.3A allows for several dB of MPR to be applied when not-contiguous RB allocation is implemented. The conducted power and MPR setting in this device are permanently implemented pre the 3GPP requirement.

iii. According Nov. 2017 TCB workshop, the output power with uplink CA active was measured for the configuration with the highest reported SAR with single carrier for each exposure condition. The power was measured with wideband signal integration over both component carriers.

iv. Additional SAR measurement for LTE UL CA 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	
Inter-band	Main Antenna Tx	ASDiv Tx
CA_4A-5A	Ant 1 + Ant 0	Ant 0 + Ant 1
CA_4A-7A	Ant 0 + Ant 1	Ant 1 + Ant 0
CA_5A-7A	Ant 0 + Ant 1	Ant 1 + Ant 0
CA_2A-7A	Ant 1 + Ant 0	Ant 0 + Ant 1
CA_2A-66A	Ant 1 + Ant 0	Ant 0 + Ant 1
CA_2A-4A	Ant 1 + Ant 0	Ant 0 + Ant 1

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 n2 / n5 / n7 / n66 / n77 / n78 is NSA mode.
2. 5G NR n7 / n66 / n38 / n41 / n77 / n78 is SA mode.
3. For 5G NR test procedure was following step similar FCC KDB 941225 D05:
   a. For DFT-OFDM and CP-OFDM output power measurement reduction, according to 38.101 maximum power reduction for power class2 and 3, the CP-OFDM mode will not higher than DFT-OFDM mode, therefore, similar FCC KDB 941225 D05 procedure for other modulation output power for each RB allocation configuration is > not ½ dB higher than the same configuration in DFT-s QPSK and the reported SAR for the DFT-s 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/64QAM/256QAM and smaller bandwidth output power will spot check largest channel bandwidth worst RB configuration to ensure the 16QAM/64QAM/256QAM and smaller bandwidth output power will not ½ dB higher than the same configuration in the largest supported bandwidth.
   c. SAR testing start with the largest channel bandwidth and measure SAR for 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 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. This device supports HPUE for 5GNR n77/n78 with class 2 level, HPUE power has been measured separately. For HPUE power is higher than power class 3 but with lower duty cycle, the maximum average power for class 2 and class 3 is almost the same, so we chose power class 3 full SAR testing and power class 2 verify the worst case of power class 3 SAR.
5. For 5GNR n77/n78 HPUE, 5GNR n77/n78 PC2 Maximum Duty Cycle is 50%, using FTM (Factory Test Mode) with 50% duty cycle is considered during SAR testing. For 5G NR other bands test, using FTM (Factory Test Mode) with default 100% duty cycle transmission to perform SAR testing.
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.

<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	Main Antenna Tx		ASDiv Tx	
	LTE TX	NR TX	LTE TX	NR TX
DC_7A_n5A	Ant 0	Ant 1	Ant 1	Ant 0
DC_2A_n7A	Ant 0	Ant 1	Ant 1	Ant 0
DC_4A_n7A	Ant 0	Ant 1	Ant 1	Ant 0
DC_5A_n7A	Ant 1	Ant 0	Ant 0	Ant 1
DC_66A_n7A	Ant 0	Ant 1	Ant 1	Ant 0
DC_2A_n66A	Ant 0	Ant 1		
DC_5A_n66A	Ant 1	Ant 0		
DC_7A_n66A	Ant 0	Ant 1		
DC_41A_n77A	Ant 0	Ant 2	Ant 1	Ant 2
DC_2A_n78A	Ant 0	Ant 2	Ant 1	Ant 2
DC_4A_n78A	Ant 0	Ant 2	Ant 1	Ant 2
DC_5A_n78A	Ant 0	Ant 2	Ant 1	Ant 2
DC_7A_n78A	Ant 0	Ant 2	Ant 1	Ant 2
DC_38A_n78A	Ant 0	Ant 2	Ant 1	Ant 2
DC_41A_n78A	Ant 0	Ant 2	Ant 1	Ant 2
DC_66A_n78A	Ant 0	Ant 2	Ant 1	Ant 2
DC_7A_n2A	Ant 0	Ant 1		

<WLAN Conducted Power>

General Note:

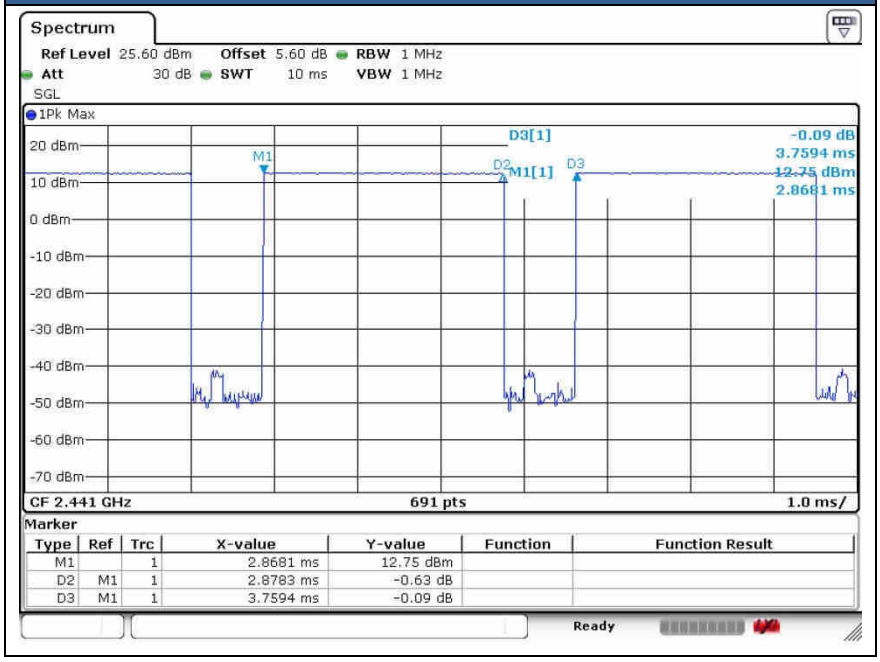
1. Per KDB 248227 D01v02r02, SAR test reduction is determined according to 802.11 transmission mode configurations and certain exposure conditions with multiple test positions. In the 2.4 GHz band, separate SAR procedures are applied to DSSS and OFDM configurations to simplify DSSS test requirements. 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. 802.11ax full tone and partial tone supported for WLAN2.4GHz/WLAN5GHz, after verification for the partial tone power level is far less than full tone power level, so we chose full tone power to be measured in this report.
6. The 2.4GHz/5GHz/6GHz WLAN can transmit in MIMO antenna mode only and it has no SISO antenna mode.

<2.4GHz Bluetooth>

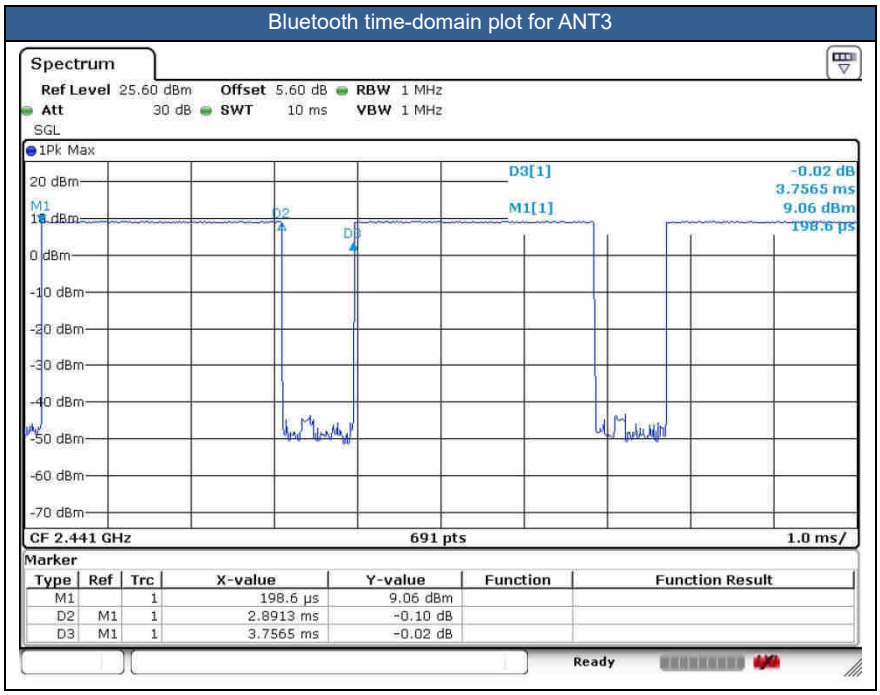
General Note:

1. For 2.4GHz Bluetooth SAR testing was selected 1Mbps, due to its highest average power.
2. The Bluetooth duty cycle are 76.97% for ANT3, 76.56% for ANT6 as following figure, according to 2016 Oct. TCB workshop for Bluetooth SAR scaling need further consideration and the maximum duty cycle is 83.3%, therefore the actual duty cycle will be scaled up to 83.3% for Bluetooth reported SAR calculation.

Bluetooth time-domain plot for ANT6



Bluetooth time-domain plot for ANT3



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 of power class 3, the duty cycle 1:1.59 (62.9 %) was used perform testing and considering the theoretical duty cycle of 63.3% for extended cyclic prefix in the uplink, and the theoretical duty cycle of 62.9% for normal cyclic prefix in uplink, a scaling factor of extended cyclic prefix 63.3%/62.9% = 1.006 is applied to scale-up the measured SAR result. The reported TDD LTE SAR (W/kg) = Measured SAR (W/kg)* Tune-up Scaling Factor* scaling factor for extended cyclic prefix.
   f. For TDD LTE SAR measurement of power class 2, the duty cycle 1:2.33 (42.9 %) was used perform testing and considering the theoretical duty cycle of 43.3% for extended cyclic prefix in the uplink, and the theoretical duty cycle of 42.9% for normal cyclic prefix in uplink, a scaling factor of extended cyclic prefix 43.3%/42.9% = 1.009 is applied to scale-up the measured SAR result. The reported TDD LTE SAR (W/kg) = 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. There are two different types of EUT. They are single SIM card mobile and dual SIM card mobile. The others are the same including circuit design, PCB board, structure and all components. It is special to declare. After pre-scan two types of EUT, we found test result of the sample that dual SIM was the worst, so we chose dual SIM card mobile to perform all tests.
6. 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.
7. For WLAN when transmit simultaneous with WWAN, power reduction will be activated to head, body-worn, hotspot and Handheld. For WLAN when transmit simultaneous with WWAN and Proximity sensors trigger, power reduction will be activated to body-worn and Handheld.
8. For some WWAN bands, sensor on power level is higher than hotspot power level, so front/back sensor on SAR can represent hotspot conservatively.
9. This device supports HPUE for LTE Band 38/41 and 5GNR n77/n78 with class 2 level, HPUE power has been measured separately. For HPUE power is higher than power class 3 but with lower duty cycle, the maximum average power for class 2 and class 3 is almost the same, so we chose power class 3 full SAR testing and power class 2 verify the worst case of power class 3 SAR.
10. For 5GNR n77/n78 HPUE, 5GNR n77/n78 PC2 Maximum Duty Cycle is 50%, using FTM (Factory Test Mode) with 50% duty cycle is considered during SAR testing. For 5G NR other bands test, using FTM (Factory Test Mode) with default 100% duty cycle transmission to perform SAR testing.
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. For this device SAR for WWAN transmitter scaled to maximum output power mode for product specific 10g SAR is higher than 1.2W/kg of GSM1900, WCDMA Band II/IV/V, LTE Band 2/4/5/7/25/26/66/38/41/42/43/48, 5GNR n2/n7/n66/n38/n41/n77/n78, therefore product specific 10g SAR is necessary.
    b. WLAN 5.3/5.5GHz tested the product specific 10g SAR since it has no hotspot mode.
    c. When 10-g product specific 10g SAR is considered, SAR thresholds is specified in the procedures for SAR test reduction and exclusion should be multiplied by 2.5.
16. For Ant 4 and Ant 6 which support WLAN5GHz or WLAN2.4GHz MIMO, there is no cap sensor on Ant 4 and Ant 6, thus the power of Ant 4 and Ant 6 will force cutback at all exposure conditions to meet the SAR compliance on WLAN transmit simultaneously with WWAN.

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/256QAM 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/256QAM 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 / B43 SAR test was covered by LTE B25 / B66 / B26 / B12 / B41 / B48; 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/Bluetooth Note:

1. Per KDB 248227 D01v02r02, for 2.4GHz 802.11g/n SAR testing is not required when the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg.
2. Per KDB 248227 D01v02r02, U-NII-1 SAR testing is not required when the U-NII-2A band highest reported SAR for a test configuration is ≤ 1.2 W/kg, SAR is not required for U-NII-1 band.
3. When the reported SAR of the test position is > 0.4 W/kg, SAR is repeated for the 802.11 transmission mode configuration tested in the initial test position to measure the subsequent next closet/smallest test separation distance and maximum coupling test position on the highest maximum output power channel, until the report SAR is ≤ 0.8 W/kg or all required test position are tested.
4. For all positions / configurations, when the reported SAR is > 0.8 W/kg, SAR is measured for these test positions / configurations on the subsequent next highest measured output power channel(s) until the reported SAR is ≤ 1.2 W/kg or all required channels are tested.
5. Per April 2019 TCB workshops, General principles of FCC KDB Publication 248227 D01 can be applied to determine the SAR Initial Test Configurations and test reduction for 802.11ax SAR testing. In applying the test guidance, the IEEE 802.11 mode with the maximum output power (out of all modes) should be considered for testing.
6. For modes is with the same maximum output power, the guidance from section 5.3.2 a) of FCC KDB Publication 248227 D01 should be applied, with 802.11ax being considered as the highest 802.11 mode for the appropriate frequency bands.
7. During SAR testing the WLAN transmission was verified using a spectrum analyzer.

16.1 Head SAR

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
750MHz																		
	LTE Band 12	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	DSI 2	23095	707.5	22.84	24.00	1.306	-0.09	0.122	0.159
	LTE Band 12	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 0	DSI 2	23095	707.5	21.74	23.00	1.337	0.07	0.074	0.099
	LTE Band 12	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	DSI 2	23095	707.5	22.84	24.00	1.306	0.06	0.096	0.125
	LTE Band 12	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 0	DSI 2	23095	707.5	21.74	23.00	1.337	0.03	0.055	0.074
	LTE Band 12	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	DSI 2	23095	707.5	22.84	24.00	1.306	0.05	0.096	0.125
	LTE Band 12	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 0	DSI 2	23095	707.5	21.74	23.00	1.337	0.02	0.058	0.078
	LTE Band 12	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	DSI 2	23095	707.5	22.84	24.00	1.306	-0.18	0.061	0.080
	LTE Band 12	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 0	DSI 2	23095	707.5	21.74	23.00	1.337	0.05	0.030	0.040
	LTE Band 12	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 2	23095	707.5	22.50	23.50	1.259	-0.07	0.696	0.876
	LTE Band 12	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 1	DSI 2	23095	707.5	22.15	23.00	1.216	-0.09	0.589	0.716
	LTE Band 12	10M	QPSK	50	0	-	Right Cheek	0mm	Ant 1	DSI 2	23095	707.5	22.11	23.00	1.227	0.02	0.575	0.706
01	LTE Band 12	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	DSI 2	23095	707.5	22.50	23.50	1.259	0.03	0.713	**0.898**
	LTE Band 12	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 1	DSI 2	23095	707.5	22.15	23.00	1.216	0.17	0.611	0.743
	LTE Band 12	10M	QPSK	50	0	-	Right Tilted	0mm	Ant 1	DSI 2	23095	707.5	22.11	23.00	1.227	0.03	0.603	0.740
	LTE Band 12	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	DSI 2	23095	707.5	22.50	23.50	1.259	0.06	0.379	0.477
	LTE Band 12	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 1	DSI 2	23095	707.5	22.15	23.00	1.216	0.13	0.339	0.412
	LTE Band 12	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	DSI 2	23095	707.5	22.50	23.50	1.259	0.06	0.433	0.545
	LTE Band 12	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 1	DSI 2	23095	707.5	22.15	23.00	1.216	0.08	0.370	0.450
02	LTE Band 13	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	DSI 2	23230	782	22.97	24.00	1.268	0.08	0.175	**0.222**
	LTE Band 13	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 0	DSI 2	23230	782	21.87	23.00	1.297	-0.17	0.110	0.143
	LTE Band 13	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	DSI 2	23230	782	22.97	24.00	1.268	0.08	0.096	0.122
	LTE Band 13	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 0	DSI 2	23230	782	21.87	23.00	1.297	0.02	0.060	0.078
	LTE Band 13	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	DSI 2	23230	782	22.97	24.00	1.268	0.02	0.100	0.127
	LTE Band 13	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 0	DSI 2	23230	782	21.87	23.00	1.297	0.02	0.062	0.080
	LTE Band 13	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	DSI 2	23230	782	22.97	24.00	1.268	0.02	0.089	0.113
	LTE Band 13	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 0	DSI 2	23230	782	21.87	23.00	1.297	0.05	0.055	0.071
835MHZ																		
	GSM850	-	-	-	-	GPRS (3 Tx slots)	Right Cheek	0mm	Ant 0	DSI 2	189	836.4	28.67	29.50	1.211	-0.03	0.241	0.292
	GSM850	-	-	-	-	GPRS (3 Tx slots)	Right Tilted	0mm	Ant 0	DSI 2	189	836.4	28.67	29.50	1.211	0.16	0.126	0.153
	GSM850	-	-	-	-	GPRS (3 Tx slots)	Left Cheek	0mm	Ant 0	DSI 2	189	836.4	28.67	29.50	1.211	0.19	0.144	0.174
	GSM850	-	-	-	-	GPRS (3 Tx slots)	Left Tilted	0mm	Ant 0	DSI 2	189	836.4	28.67	29.50	1.211	0.07	0.095	0.115
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Right Cheek	0mm	Ant 1	DSI 2	189	836.4	23.62	24.60	1.253	0.06	0.740	0.927
03	GSM850	-	-	-	-	GPRS (4 Tx slots)	Right Cheek	0mm	Ant 1	DSI 2	128	824.2	23.57	24.60	1.268	0.04	0.772	**0.979**
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Right Cheek	0mm	Ant 1	DSI 2	251	848.8	23.47	24.60	1.297	-0.01	0.738	0.957
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Right Tilted	0mm	Ant 1	DSI 2	189	836.4	23.62	24.60	1.253	0.08	0.681	0.853
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Right Tilted	0mm	Ant 1	DSI 2	128	824.2	23.57	24.60	1.268	-0.18	0.767	0.972
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Right Tilted	0mm	Ant 1	DSI 2	251	848.8	23.47	24.60	1.297	0.06	0.716	0.929
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Left Cheek	0mm	Ant 1	DSI 2	189	836.4	23.62	24.60	1.253	0.05	0.438	0.549
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Left Tilted	0mm	Ant 1	DSI 2	189	836.4	23.62	24.60	1.253	0.17	0.416	0.521
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 0	DSI 2	4182	836.4	23.23	24.00	1.194	-0.05	0.217	0.259
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 0	DSI 2	4182	836.4	23.23	24.00	1.194	0.05	0.112	0.134
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 0	DSI 2	4182	836.4	23.23	24.00	1.194	0.04	0.128	0.153
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 0	DSI 2	4182	836.4	23.23	24.00	1.194	0.07	0.096	0.115
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 1	DSI 2	4182	836.4	20.98	21.90	1.236	0.05	0.776	0.959
04	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 1	DSI 2	4132	826.4	20.90	21.90	1.259	-0.06	0.780	**0.982**
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 1	DSI 2	4233	846.6	20.95	21.90	1.245	-0.17	0.737	0.917
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 1	DSI 2	4182	836.4	20.98	21.90	1.236	0.12	0.760	0.939
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 1	DSI 2	4132	826.4	20.90	21.90	1.259	0.07	0.748	0.942
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 1	DSI 2	4233	846.6	20.95	21.90	1.245	0.08	0.745	0.927
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 1	DSI 2	4182	836.4	20.98	21.90	1.236	0.02	0.453	0.560
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 1	DSI 2	4182	836.4	20.98	21.90	1.236	0.17	0.465	0.575

	LTE Band 26	15M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	DSI 2	26865	831.5	22.87	24.00	1.297	0.09	0.189	0.245
	LTE Band 26	15M	QPSK	36	0	-	Right Cheek	0mm	Ant 0	DSI 2	26865	831.5	21.84	23.00	1.306	0.15	0.115	0.150
	LTE Band 26	15M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	DSI 2	26865	831.5	22.87	24.00	1.297	0.08	0.095	0.123
	LTE Band 26	15M	QPSK	36	0	-	Right Tilted	0mm	Ant 0	DSI 2	26865	831.5	21.84	23.00	1.306	0.07	0.057	0.074
	LTE Band 26	15M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	DSI 2	26865	831.5	22.87	24.00	1.297	0.03	0.105	0.136
	LTE Band 26	15M	QPSK	36	0	-	Left Cheek	0mm	Ant 0	DSI 2	26865	831.5	21.84	23.00	1.306	0.02	0.064	0.084
	LTE Band 26	15M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	DSI 2	26865	831.5	22.87	24.00	1.297	0.05	0.083	0.108
	LTE Band 26	15M	QPSK	36	0	-	Left Tilted	0mm	Ant 0	DSI 2	26865	831.5	21.84	23.00	1.306	0.06	0.050	0.065
05	LTE Band 26	15M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 2	26865	831.5	21.20	22.10	1.230	-0.06	0.795	**0.978**
	LTE Band 26	15M	QPSK	36	0	-	Right Cheek	0mm	Ant 1	DSI 2	26865	831.5	21.16	22.10	1.242	0.08	0.772	0.959
	LTE Band 26	15M	QPSK	75	0	-	Right Cheek	0mm	Ant 1	DSI 2	26865	831.5	21.14	22.10	1.247	-0.14	0.754	0.941
	LTE Band 26	15M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	DSI 2	26865	831.5	21.20	22.10	1.230	-0.15	0.775	0.953
	LTE Band 26	15M	QPSK	36	0	-	Right Tilted	0mm	Ant 1	DSI 2	26865	831.5	21.16	22.10	1.242	-0.03	0.745	0.925
	LTE Band 26	15M	QPSK	75	0	-	Right Tilted	0mm	Ant 1	DSI 2	26865	831.5	21.14	22.10	1.247	0.1	0.703	0.877
	LTE Band 26	15M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	DSI 2	26865	831.5	21.20	22.10	1.230	0.04	0.499	0.614
	LTE Band 26	15M	QPSK	36	0	-	Left Cheek	0mm	Ant 1	DSI 2	26865	831.5	21.16	22.10	1.242	0.07	0.482	0.598
	LTE Band 26	15M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	DSI 2	26865	831.5	21.20	22.10	1.230	0.04	0.523	0.643
	LTE Band 26	15M	QPSK	36	0	-	Left Tilted	0mm	Ant 1	DSI 2	26865	831.5	21.16	22.10	1.242	-0.05	0.506	0.628
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	DSI 2	167300	836.5	22.72	24.00	1.343	-0.07	0.185	0.248
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	DSI 2	167300	836.5	22.67	24.00	1.358	-0.15	0.192	0.261
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 0	DSI 2	167300	836.5	22.72	24.00	1.343	-0.16	0.085	0.114
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Right Tilted	0mm	Ant 0	DSI 2	167300	836.5	22.67	24.00	1.358	0.04	0.088	0.120
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	DSI 2	167300	836.5	22.72	24.00	1.343	-0.13	0.104	0.140
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	DSI 2	167300	836.5	22.67	24.00	1.358	0.01	0.115	0.156
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 0	DSI 2	167300	836.5	22.72	24.00	1.343	0.02	0.072	0.097
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Left Tilted	0mm	Ant 0	DSI 2	167300	836.5	22.67	24.00	1.358	-0.09	0.078	0.106
06	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	DSI 2	167300	836.5	21.55	22.80	1.334	-0.07	0.737	**0.983**
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	DSI 2	167300	836.5	21.47	22.80	1.358	0.16	0.714	0.970
	FR1 n5	20M	QPSK	100	0	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	DSI 2	167300	836.5	21.40	22.80	1.380	0.07	0.700	0.966
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	DSI 2	167300	836.5	21.55	22.80	1.334	0.08	0.701	0.935
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	DSI 2	167300	836.5	21.47	22.80	1.358	-0.17	0.644	0.875
	FR1 n5	20M	QPSK	100	0	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	DSI 2	167300	836.5	21.40	22.80	1.380	0.06	0.611	0.843
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 1	DSI 2	167300	836.5	21.55	22.80	1.334	0.01	0.444	0.592
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Left Cheek	0mm	Ant 1	DSI 2	167300	836.5	21.47	22.80	1.358	-0.1	0.407	0.553
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 1	DSI 2	167300	836.5	21.55	22.80	1.334	0.14	0.429	0.572
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Left Tilted	0mm	Ant 1	DSI 2	167300	836.5	21.47	22.80	1.358	-0.19	0.395	0.537
1750MHZ																		
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 0	DSI 2	1413	1732.6	23.13	24.00	1.222	-0.13	0.073	0.089
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 0	DSI 2	1413	1732.6	23.13	24.00	1.222	0.05	0.064	0.078
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 0	DSI 2	1413	1732.6	23.13	24.00	1.222	0.09	0.106	0.130
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 0	DSI 2	1413	1732.6	23.13	24.00	1.222	0.02	0.061	0.075
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 1	DSI 2	1413	1732.6	15.74	16.80	1.276	0.05	0.730	0.932
07	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 1	DSI 2	1312	1712.4	15.66	16.80	1.300	0.07	0.764	**0.993**
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 1	DSI 2	1513	1752.6	15.67	16.80	1.297	0.09	0.761	0.987
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 1	DSI 2	1413	1732.6	15.74	16.80	1.276	0.03	0.714	0.911
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 1	DSI 2	1312	1712.4	15.66	16.80	1.300	-0.04	0.755	0.982
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 1	DSI 2	1513	1752.6	15.67	16.80	1.297	-0.06	0.738	0.957
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 1	DSI 2	1413	1732.6	15.74	16.80	1.276	0.09	0.330	0.421
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 1	DSI 2	1413	1732.6	15.74	16.80	1.276	0.05	0.411	0.525
	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	DSI 2	132322	1745	22.94	24.00	1.276	0.05	0.099	0.126
	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 0	DSI 2	132322	1745	21.86	23.00	1.300	0.03	0.065	0.085
	LTE Band 66	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	DSI 2	132322	1745	22.94	24.00	1.276	0.1	0.089	0.114
	LTE Band 66	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 0	DSI 2	132322	1745	21.86	23.00	1.300	-0.14	0.056	0.073
	LTE Band 66	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	DSI 2	132322	1745	22.94	24.00	1.276	0.05	0.148	0.189
	LTE Band 66	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 0	DSI 2	132322	1745	21.86	23.00	1.300	0.14	0.096	0.125
	LTE Band 66	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	DSI 2	132322	1745	22.94	24.00	1.276	0.19	0.078	0.100

	LTE Band 66	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 0	DSI 2	132322	1745	21.86	23.00	1.300	-0.18	0.052	0.068
	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 2	132322	1745	14.59	15.60	1.262	-0.09	0.728	0.919
	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 2	132072	1720	14.41	15.60	1.315	0.05	0.657	0.864
08	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 2	132572	1770	14.51	15.60	1.285	-0.08	0.765	**0.983**
	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 1	DSI 2	132322	1745	14.54	15.60	1.276	0.08	0.669	0.854
	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 1	DSI 2	132072	1720	14.37	15.60	1.327	-0.03	0.634	0.842
	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 1	DSI 2	132572	1770	14.46	15.60	1.300	0.03	0.689	0.896
	LTE Band 66	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 1	DSI 2	132322	1745	14.47	15.60	1.297	0.06	0.667	0.865
	LTE Band 66	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	DSI 2	132322	1745	14.59	15.60	1.262	0.04	0.737	0.930
	LTE Band 66	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	DSI 2	132072	1720	14.41	15.60	1.315	-0.15	0.686	0.902
	LTE Band 66	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	DSI 2	132572	1770	14.51	15.60	1.285	0.03	0.749	0.963
	LTE Band 66	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 1	DSI 2	132322	1745	14.54	15.60	1.276	-0.16	0.676	0.863
	LTE Band 66	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 1	DSI 2	132072	1720	14.37	15.60	1.327	-0.09	0.714	0.948
	LTE Band 66	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 1	DSI 2	132572	1770	14.46	15.60	1.300	0.14	0.699	0.909
	LTE Band 66	20M	QPSK	100	0	-	Right Tilted	0mm	Ant 1	DSI 2	132322	1745	14.47	15.60	1.297	0.18	0.671	0.870
	LTE Band 66	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	DSI 2	132322	1745	14.59	15.60	1.262	0.05	0.372	0.469
	LTE Band 66	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 1	DSI 2	132322	1745	14.54	15.60	1.276	-0.06	0.326	0.416
	LTE Band 66	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	DSI 2	132322	1745	14.59	15.60	1.262	0.16	0.458	0.578
	LTE Band 66	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 1	DSI 2	132322	1745	14.54	15.60	1.276	0.04	0.417	0.532
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	DSI 2	349000	1745	22.49	24.00	1.416	0.07	0.066	0.093
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	DSI 2	349000	1745	22.37	24.00	1.455	0.16	0.052	0.076
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 0	DSI 2	349000	1745	22.49	24.00	1.416	-0.18	0.073	0.103
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Right Tilted	0mm	Ant 0	DSI 2	349000	1745	22.37	24.00	1.455	0.09	0.074	0.108
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	DSI 2	349000	1745	22.49	24.00	1.416	0.04	0.097	0.137
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	DSI 2	349000	1745	22.37	24.00	1.455	0.02	0.079	0.115
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 0	DSI 2	349000	1745	22.49	24.00	1.416	-0.08	0.061	0.086
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Left Tilted	0mm	Ant 0	DSI 2	349000	1745	22.37	24.00	1.455	-0.04	0.060	0.087
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	DSI 2	349000	1745	16.08	17.40	1.355	-0.01	0.640	0.867
09	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	DSI 2	349000	1745	16.03	17.40	1.371	-0.1	0.710	**0.973**
	FR1 n66	40M	QPSK	216	0	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	DSI 2	349000	1745	15.98	17.40	1.387	0.1	0.660	0.915
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	DSI 2	349000	1745	16.08	17.40	1.355	-0.16	0.629	0.852
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	DSI 2	349000	1745	16.03	17.40	1.371	0.14	0.708	0.971
	FR1 n66	40M	QPSK	216	0	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	DSI 2	349000	1745	15.98	17.40	1.387	0.06	0.649	0.900
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 1	DSI 2	349000	1745	16.08	17.40	1.355	-0.06	0.282	0.382
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Left Cheek	0mm	Ant 1	DSI 2	349000	1745	16.03	17.40	1.371	0.15	0.341	0.467
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 1	DSI 2	349000	1745	16.08	17.40	1.355	-0.05	0.354	0.480
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Left Tilted	0mm	Ant 1	DSI 2	349000	1745	16.03	17.40	1.371	-0.16	0.430	0.589
1900MHZ																		
	GSM1900	-	-	-	-	GPRS (3 Tx slots)	Right Cheek	0mm	Ant 0	DSI 2	661	1880	25.35	26.50	1.303	0.18	0.032	0.042
	GSM1900	-	-	-	-	GPRS (3 Tx slots)	Right Tilted	0mm	Ant 0	DSI 2	661	1880	25.35	26.50	1.303	0.06	0.026	0.034
	GSM1900	-	-	-	-	GPRS (3 Tx slots)	Left Cheek	0mm	Ant 0	DSI 2	661	1880	25.35	26.50	1.303	0.01	0.051	0.066
	GSM1900	-	-	-	-	GPRS (3 Tx slots)	Left Tilted	0mm	Ant 0	DSI 2	661	1880	25.35	26.50	1.303	-0.02	0.040	0.052
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Right Cheek	0mm	Ant 1	DSI 2	661	1880	18.27	19.60	1.358	-0.08	0.749	1.017
10	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Right Cheek	0mm	Ant 1	DSI 2	512	1850.2	18.22	19.60	1.374	0.06	0.760	**1.044**
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Right Cheek	0mm	Ant 1	DSI 2	810	1909.8	18.23	19.60	1.371	-0.02	0.733	1.005
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Right Tilted	0mm	Ant 1	DSI 2	661	1880	18.27	19.60	1.358	0.16	0.697	0.947
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Right Tilted	0mm	Ant 1	DSI 2	512	1850.2	18.22	19.60	1.374	0.05	0.712	0.978
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Right Tilted	0mm	Ant 1	DSI 2	810	1909.8	18.23	19.60	1.371	0.1	0.734	1.006
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Left Cheek	0mm	Ant 1	DSI 2	661	1880	18.27	19.60	1.358	-0.01	0.383	0.520
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Left Tilted	0mm	Ant 1	DSI 2	661	1880	18.27	19.60	1.358	-0.01	0.370	0.503
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 0	DSI 2	9400	1880	23.06	24.00	1.242	-0.11	0.058	0.072
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 0	DSI 2	9400	1880	23.06	24.00	1.242	-0.1	0.051	0.063
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 0	DSI 2	9400	1880	23.06	24.00	1.242	-0.06	0.103	0.128
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 0	DSI 2	9400	1880	23.06	24.00	1.242	-0.15	0.052	0.065
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 1	DSI 2	9400	1880	16.55	17.80	1.334	0.05	0.612	0.816
11	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 1	DSI 2	9262	1852.4	16.36	17.80	1.393	0.02	0.713	**0.993**

	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 1	DSI 2	9538	1907.6	16.31	17.80	1.409	0.05	0.621	0.875
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 1	DSI 2	9400	1880	16.55	17.80	1.334	0.06	0.641	0.855
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 1	DSI 2	9262	1852.4	16.36	17.80	1.393	-0.1	0.686	0.956
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 1	DSI 2	9538	1907.6	16.31	17.80	1.409	0.02	0.598	0.843
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 1	DSI 2	9400	1880	16.55	17.80	1.334	-0.08	0.386	0.515
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 1	DSI 2	9400	1880	16.55	17.80	1.334	0.03	0.420	0.560
	LTE Band 25	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	DSI 2	26340	1880	22.77	24.00	1.327	-0.17	0.068	0.090
	LTE Band 25	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 0	DSI 2	26340	1880	21.76	23.00	1.330	-0.15	0.046	0.061
	LTE Band 25	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	DSI 2	26340	1880	22.77	24.00	1.327	-0.09	0.069	0.092
	LTE Band 25	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 0	DSI 2	26340	1880	21.76	23.00	1.330	0.05	0.041	0.055
	LTE Band 25	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	DSI 2	26340	1880	22.77	24.00	1.327	0.01	0.132	0.175
	LTE Band 25	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 0	DSI 2	26340	1880	21.76	23.00	1.330	-0.07	0.085	0.113
	LTE Band 25	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	DSI 2	26340	1880	22.77	24.00	1.327	0.03	0.062	0.082
	LTE Band 25	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 0	DSI 2	26340	1880	21.76	23.00	1.330	0.05	0.030	0.040
	LTE Band 25	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 2	26340	1880	16.04	17.20	1.306	-0.14	0.729	0.952
12	LTE Band 25	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 2	26140	1860	15.98	17.20	1.324	0.04	0.749	**0.992**
	LTE Band 25	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 2	26590	1905	15.95	17.20	1.334	0.06	0.685	0.913
	LTE Band 25	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 1	DSI 2	26340	1880	16.00	17.20	1.318	0.07	0.669	0.882
	LTE Band 25	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 1	DSI 2	26140	1860	15.83	17.20	1.371	0.08	0.689	0.945
	LTE Band 25	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 1	DSI 2	26590	1905	15.71	17.20	1.409	0.14	0.632	0.891
	LTE Band 25	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 1	DSI 2	26340	1880	15.84	17.20	1.368	0.07	0.665	0.910
	LTE Band 25	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	DSI 2	26340	1880	16.04	17.20	1.306	-0.03	0.738	0.964
	LTE Band 25	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	DSI 2	26140	1860	15.98	17.20	1.324	0.09	0.738	0.977
	LTE Band 25	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	DSI 2	26590	1905	15.95	17.20	1.334	0.05	0.706	0.941
	LTE Band 25	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 1	DSI 2	26340	1880	16.00	17.20	1.318	-0.04	0.674	0.889
	LTE Band 25	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 1	DSI 2	26140	1860	15.83	17.20	1.371	0.04	0.687	0.942
	LTE Band 25	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 1	DSI 2	26590	1905	15.71	17.20	1.409	0.18	0.655	0.923
	LTE Band 25	20M	QPSK	100	0	-	Right Tilted	0mm	Ant 1	DSI 2	26340	1880	15.84	17.20	1.368	-0.17	0.673	0.920
	LTE Band 25	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	DSI 2	26340	1880	16.04	17.20	1.306	0.05	0.440	0.575
	LTE Band 25	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 1	DSI 2	26340	1880	16.00	17.20	1.318	-0.08	0.375	0.494
	LTE Band 25	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	DSI 2	26340	1880	16.04	17.20	1.306	-0.13	0.480	0.627
	LTE Band 25	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 1	DSI 2	26340	1880	16.00	17.20	1.318	0.12	0.405	0.534
	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	DSI 2	376000	1880	16.05	17.30	1.334	-0.15	0.709	0.945
	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	DSI 2	372000	1860	15.97	17.30	1.358	-0.13	0.703	0.955
13	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	DSI 2	380000	1900	16.03	17.30	1.340	-0.03	0.727	**0.974**
	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	DSI 2	376000	1880	16.01	17.30	1.346	0.17	0.703	0.946
	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	DSI 2	372000	1860	15.87	17.30	1.390	-0.12	0.690	0.959
	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	DSI 2	380000	1900	15.99	17.30	1.352	0.03	0.681	0.921
	FR1 n2	20M	QPSK	100	0	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	DSI 2	376000	1880	15.97	17.30	1.358	-0.15	0.617	0.838
	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	DSI 2	376000	1880	16.05	17.30	1.334	0.07	0.696	0.928
	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	DSI 2	372000	1860	15.97	17.30	1.358	-0.16	0.698	0.948
	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	DSI 2	380000	1900	16.03	17.30	1.340	-0.04	0.703	0.942
	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	DSI 2	376000	1880	16.01	17.30	1.346	-0.14	0.701	0.943
	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	DSI 2	372000	1860	15.87	17.30	1.390	0.19	0.681	0.947
	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	DSI 2	380000	1900	15.99	17.30	1.352	0.08	0.676	0.914
	FR1 n2	20M	QPSK	100	0	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	DSI 2	376000	1880	15.97	17.30	1.358	0.05	0.613	0.833
	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 1	DSI 2	376000	1880	16.05	17.30	1.334	0.01	0.400	0.533
	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Left Cheek	0mm	Ant 1	DSI 2	376000	1880	16.01	17.30	1.346	-0.17	0.406	0.546
	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 1	DSI 2	376000	1880	16.05	17.30	1.334	0.05	0.455	0.607
	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Left Tilted	0mm	Ant 1	DSI 2	376000	1880	16.01	17.30	1.346	0.02	0.448	0.603

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
2600MHz																				
	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	DSI 2	21100	2535	22.77	24.00	1.327	-	-	-0.06	0.045	0.060
	LTE Band 7	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 0	DSI 2	21100	2535	21.94	23.00	1.276	-	-	-0.11	0.028	0.036
	LTE Band 7	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	DSI 2	21100	2535	22.77	24.00	1.327	-	-	0.08	0.028	0.037
	LTE Band 7	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 0	DSI 2	21100	2535	21.94	23.00	1.276	-	-	0.1	0.010	0.013
	LTE Band 7	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	DSI 2	21100	2535	22.77	24.00	1.327	-	-	0.05	0.044	0.058
	LTE Band 7	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 0	DSI 2	21100	2535	21.94	23.00	1.276	-	-	0.03	0.028	0.036
	LTE Band 7	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	DSI 2	21100	2535	22.77	24.00	1.327	-	-	0.19	0.021	0.028
	LTE Band 7	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 0	DSI 2	21100	2535	21.94	23.00	1.276	-	-	-0.09	0.017	0.022
	LTE Band 7C	20M	QPSK	1	99		Right Cheek	0mm	Ant 0	DSI 2	21100+ 21298	2535+ 2554.8	22.24	24.00	1.500			0.03	0.035	0.052
	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 2	21100	2535	15.10	15.90	1.202	-	-	0.02	0.588	0.707
	LTE Band 7	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 1	DSI 2	21100	2535	15.03	15.90	1.222	-	-	0.07	0.561	0.685
	LTE Band 7	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	DSI 2	21100	2535	15.10	15.90	1.202	-	-	0.14	0.757	0.910
14	LTE Band 7	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	DSI 2	20850	2510	14.95	15.90	1.245	-	-	-0.14	0.782	**0.973**
	LTE Band 7	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	DSI 2	21350	2560	14.94	15.90	1.247	-	-	0.01	0.724	0.903
	LTE Band 7	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 1	DSI 2	21100	2535	15.03	15.90	1.222	-	-	-0.13	0.714	0.872
	LTE Band 7	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 1	DSI 2	20850	2510	14.95	15.90	1.245	-	-	0.12	0.701	0.872
	LTE Band 7	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 1	DSI 2	21350	2560	14.84	15.90	1.276	-	-	0.14	0.710	0.906
	LTE Band 7	20M	QPSK	100	0	-	Right Tilted	0mm	Ant 1	DSI 2	21100	2535	14.96	15.90	1.242	-	-	0.17	0.698	0.867
	LTE Band 7	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	DSI 2	21100	2535	15.10	15.90	1.202	-	-	0.03	0.397	0.477
	LTE Band 7	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 1	DSI 2	21100	2535	15.03	15.90	1.222	-	-	0.09	0.348	0.425
	LTE Band 7	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	DSI 2	21100	2535	15.10	15.90	1.202	-	-	0.18	0.499	0.600
	LTE Band 7	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 1	DSI 2	21100	2535	15.03	15.90	1.222	-	-	-0.08	0.468	0.572
	LTE Band 7C	20M	QPSK	1	99	-	Right Tilted	0mm	Ant 1	DSI 2	20850+ 21048	2510+ 2529.8	14.58	15.90	1.355	-	-	0.04	0.650	0.881
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	DSI 2	40620	2593	23.35	24.00	1.161	62.9	1.006	0.03	0.051	0.060
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 0	DSI 2	40620	2593	22.38	23.00	1.153	62.9	1.006	0.06	0.046	0.053
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	DSI 2	40620	2593	23.35	24.00	1.161	62.9	1.006	0.02	0.026	0.030
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 0	DSI 2	40620	2593	22.38	23.00	1.153	62.9	1.006	0.05	0.011	0.013
	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	DSI 2	40620	2593	23.35	24.00	1.161	62.9	1.006	-0.16	0.040	0.047
	LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 0	DSI 2	40620	2593	22.38	23.00	1.153	62.9	1.006	0.08	0.034	0.039
	LTE Band 41	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	DSI 2	40620	2593	23.35	24.00	1.161	62.9	1.006	0.09	0.030	0.035
	LTE Band 41	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 0	DSI 2	40620	2593	22.38	23.00	1.153	62.9	1.006	0.05	0.015	0.017
	LTE Band 41 HPUE	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	DSI 2	40620	2593	25.59	27.00	1.384	42.9	1.009	-0.06	0.055	0.077
	LTE Band 41C	20M	QPSK	1	99	-	Right Cheek	0mm	Ant 0	DSI 2	40620+ 40818	2593+ 2612.8	22.45	24.00	1.429	62.9	1.006	0.06	0.033	0.047
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 2	40620	2593	17.51	18.60	1.285	62.9	1.006	-0.1	0.610	0.789
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 2	39750	2506	17.40	18.60	1.318	62.9	1.006	-0.07	0.663	0.879
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 2	40185	2549.5	17.43	18.60	1.309	62.9	1.006	0.06	0.586	0.772
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 2	41055	2636.5	17.41	18.60	1.315	62.9	1.006	0.07	0.519	0.687
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 2	41490	2680	17.43	18.60	1.309	62.9	1.006	0.14	0.532	0.701
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 1	DSI 2	40620	2593	17.45	18.60	1.303	62.9	1.006	0.16	0.495	0.649
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 1	DSI 2	39750	2506	17.39	18.60	1.321	62.9	1.006	0.08	0.554	0.736
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 1	DSI 2	40185	2549.5	17.32	18.60	1.343	62.9	1.006	0.05	0.532	0.719
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 1	DSI 2	41055	2636.5	17.40	18.60	1.318	62.9	1.006	0.12	0.481	0.638
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 1	DSI 2	41490	2680	17.35	18.60	1.334	62.9	1.006	-0.02	0.488	0.655
	LTE Band 41	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 1	DSI 2	40620	2593	17.41	18.60	1.315	62.9	1.006	0.12	0.495	0.655
15	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	DSI 2	40620	2593	17.51	18.60	1.285	62.9	1.006	0.09	0.765	**0.989**
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	DSI 2	39750	2506	17.40	18.60	1.318	62.9	1.006	0.05	0.717	0.951
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	DSI 2	40185	2549.5	17.43	18.60	1.309	62.9	1.006	0.18	0.738	0.972
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	DSI 2	41055	2636.5	17.41	18.60	1.315	62.9	1.006	0.07	0.662	0.876
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	DSI 2	41490	2680	17.43	18.60	1.309	62.9	1.006	0.02	0.670	0.882
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 1	DSI 2	40620	2593	17.45	18.60	1.303	62.9	1.006	0.02	0.678	0.889
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 1	DSI 2	39750	2506	17.39	18.60	1.321	62.9	1.006	0.04	0.701	0.932
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 1	DSI 2	40185	2549.5	17.32	18.60	1.343	62.9	1.006	-0.14	0.663	0.896

	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 1	DSI 2	41055	2636.5	17.40	18.60	1.318	62.9	1.006	0.02	0.719	0.954
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 1	DSI 2	41490	2680	17.35	18.60	1.334	62.9	1.006	0.05	0.660	0.885
	LTE Band 41	20M	QPSK	100	0	-	Right Tilted	0mm	Ant 1	DSI 2	40620	2593	17.41	18.60	1.315	62.9	1.006	0.16	0.698	0.924
	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	DSI 2	40620	2593	17.51	18.60	1.285	62.9	1.006	-0.14	0.436	0.564
	LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 1	DSI 2	40620	2593	17.45	18.60	1.303	62.9	1.006	0.03	0.369	0.484
	LTE Band 41	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	DSI 2	40620	2593	17.51	18.60	1.285	62.9	1.006	0.04	0.476	0.615
	LTE Band 41	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	DSI 2	39750	2506	17.40	18.60	1.318	62.9	1.006	0.06	0.530	0.703
	LTE Band 41	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	DSI 2	40185	2549.5	17.43	18.60	1.309	62.9	1.006	0.07	0.522	0.687
	LTE Band 41	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	DSI 2	41055	2636.5	17.41	18.60	1.315	62.9	1.006	0.08	0.463	0.613
	LTE Band 41	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	DSI 2	41490	2680	17.43	18.60	1.309	62.9	1.006	0.01	0.513	0.676
	LTE Band 41	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 1	DSI 2	40620	2593	17.45	18.60	1.303	62.9	1.006	-0.13	0.441	0.578
	LTE Band 41	20M	QPSK	100	0	-	Left Tilted	0mm	Ant 1	DSI 2	40620	2593	17.41	18.60	1.315	62.9	1.006	0.03	0.441	0.583
	LTE Band 41 HPUE	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	DSI 2	40620	2593	19.43	20.20	1.194	42.9	1.009	-0.02	0.763	0.919
	LTE Band 41C	20M	QPSK	1	99	-	Right Tilted	0mm	Ant 1	DSI 2	40620+ 40818	2593+ 2612.8	17.46	18.60	1.300	62.9	1.006	0.05	0.712	0.931
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	DSI 2	507000	2535	23.49	24.00	1.125	-	-	0.03	0.071	0.080
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	DSI 2	507000	2535	23.41	24.00	1.146	-	-	-0.16	0.063	0.072
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 0	DSI 2	507000	2535	23.49	24.00	1.125	-	-	0.18	0.052	0.058
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Right Tilted	0mm	Ant 0	DSI 2	507000	2535	23.41	24.00	1.146	-	-	0.11	0.032	0.037
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	DSI 2	507000	2535	23.49	24.00	1.125	-	-	-0.16	0.037	0.042
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	DSI 2	507000	2535	23.41	24.00	1.146	-	-	-0.17	0.043	0.049
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 0	DSI 2	507000	2535	23.49	24.00	1.125	-	-	0.1	0.033	0.037
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Left Tilted	0mm	Ant 0	DSI 2	507000	2535	23.41	24.00	1.146	-	-	-0.18	0.016	0.018
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	DSI 2	507000	2535	15.02	16.10	1.282	-	-	-0.03	0.687	0.881
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	DSI 2	507000	2535	14.94	16.10	1.306	-	-	-0.19	0.611	0.798
	FR1 n7	40M	QPSK	216	0	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	DSI 2	507000	2535	14.90	16.10	1.318	-	-	0.09	0.596	0.786
16	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	DSI 2	507000	2535	15.02	16.10	1.282	-	-	-0.09	0.775	**0.994**
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	DSI 2	507000	2535	14.94	16.10	1.306	-	-	-0.1	0.731	0.955
	FR1 n7	40M	QPSK	216	0	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	DSI 2	507000	2535	14.90	16.10	1.318	-	-	0.09	0.654	0.862
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 1	DSI 2	507000	2535	15.02	16.10	1.282	-	-	-0.14	0.405	0.519
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Left Cheek	0mm	Ant 1	DSI 2	507000	2535	14.94	16.10	1.306	-	-	-0.02	0.422	0.551
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 1	DSI 2	507000	2535	15.02	16.10	1.282	-	-	-0.1	0.482	0.618
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Left Tilted	0mm	Ant 1	DSI 2	507000	2535	14.94	16.10	1.306	-	-	0.06	0.515	0.673
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 0	DSI 2	518598	2592.99	23.21	24.00	1.199	-	-	0.02	0.082	0.098
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 0	DSI 2	518598	2592.99	23.21	24.00	1.199	-	-	0.18	0.075	0.090
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 0	DSI 2	518598	2592.99	23.21	24.00	1.199	-	-	0.01	0.103	0.124
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 0	DSI 2	518598	2592.99	23.21	24.00	1.199	-	-	0.09	0.079	0.095
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 0	DSI 2	518598	2592.99	23.21	24.00	1.199	-	-	0.05	0.061	0.073
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 0	DSI 2	518598	2592.99	23.21	24.00	1.199	-	-	0.05	0.073	0.088
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 0	DSI 2	518598	2592.99	23.21	24.00	1.199	-	-	-0.12	0.083	0.100
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 0	DSI 2	518598	2592.99	23.21	24.00	1.199	-	-	0.09	0.059	0.071
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 1	DSI 2	518598	2592.99	15.06	16.00	1.242	-	-	0.01	0.683	0.848
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 1	DSI 2	518598	2592.99	14.94	16.00	1.276	-	-	0.07	0.576	0.735
	FR1 n41	100M	QPSK	270	0	DFT-SCS-30KHz	Right Cheek	0mm	Ant 1	DSI 2	518598	2592.99	14.92	16.00	1.282	-	-	-0.12	0.564	0.723
17	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 1	DSI 2	518598	2592.99	15.06	16.00	1.242	-	-	-0.05	0.793	**0.985**
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 1	DSI 2	518598	2592.99	14.94	16.00	1.276	-	-	-0.1	0.631	0.805
	FR1 n41	100M	QPSK	270	0	DFT-SCS-30KHz	Right Tilted	0mm	Ant 1	DSI 2	518598	2592.99	14.92	16.00	1.282	-	-	0.05	0.595	0.763
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 1	DSI 2	518598	2592.99	15.06	16.00	1.242	-	-	0.02	0.470	0.584
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 1	DSI 2	518598	2592.99	14.94	16.00	1.276	-	-	-0.05	0.436	0.557
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 1	DSI 2	518598	2592.99	15.06	16.00	1.242	-	-	-0.12	0.548	0.680
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 1	DSI 2	518598	2592.99	14.94	16.00	1.276	-	-	-0.09	0.496	0.633
3500MHZ~3900MHZ																				
18	LTE Band 42	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	DSI 2	42590	3500	13.87	15.30	1.390	62.9	1.006	0.04	0.493	**0.689**
	LTE Band 42	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 2	DSI 2	42590	3500	13.83	15.30	1.403	62.9	1.006	0.07	0.427	0.603
	LTE Band 42	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 2	DSI 2	42590	3500	13.87	15.30	1.390	62.9	1.006	0.05	0.091	0.127
	LTE Band 42	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 2	DSI 2	42590	3500	13.83	15.30	1.403	62.9	1.006	-0.08	0.089	0.126
	LTE Band 42	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 2	DSI 2	42590	3500	13.87	15.30	1.390	62.9	1.006	-0.09	0.094	0.131

	LTE Band 42	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 2	DSI 2	42590	3500	13.83	15.30	1.403	62.9	1.006	0.09	0.083	0.117
	LTE Band 42	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 2	DSI 2	42590	3500	13.87	15.30	1.390	62.9	1.006	-0.14	0.029	0.041
	LTE Band 42	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 2	DSI 2	42590	3500	13.83	15.30	1.403	62.9	1.006	-0.02	0.019	0.027
	LTE Band 48	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	DSI 2	55830	3609	13.90	15.30	1.380	62.9	1.006	-0.06	0.622	0.864
	LTE Band 48	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	DSI 2	55340	3560	13.70	15.30	1.445	62.9	1.006	0.07	0.587	0.854
19	LTE Band 48	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	DSI 2	56150	3641	13.83	15.30	1.403	62.9	1.006	0.02	0.698	**0.985**
	LTE Band 48	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	DSI 2	56640	3690	13.84	15.30	1.400	62.9	1.006	-0.03	0.613	0.863
	LTE Band 48	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 2	DSI 2	55830	3609	13.82	15.30	1.406	62.9	1.006	0.11	0.638	0.902
	LTE Band 48	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 2	DSI 2	55340	3560	13.67	15.30	1.455	62.9	1.006	0.04	0.577	0.845
	LTE Band 48	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 2	DSI 2	56150	3641	13.62	15.30	1.472	62.9	1.006	-0.14	0.632	0.936
	LTE Band 48	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 2	DSI 2	56640	3690	13.80	15.30	1.413	62.9	1.006	0.16	0.629	0.894
	LTE Band 48	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 2	DSI 2	55830	3609	13.83	15.30	1.403	62.9	1.006	0.02	0.598	0.844
	LTE Band 48	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 2	DSI 2	55830	3609	13.90	15.30	1.380	62.9	1.006	0.03	0.082	0.114
	LTE Band 48	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 2	DSI 2	55830	3609	13.82	15.30	1.406	62.9	1.006	0.03	0.062	0.088
	LTE Band 48	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 2	DSI 2	55830	3609	13.90	15.30	1.380	62.9	1.006	-0.06	0.114	0.159
	LTE Band 48	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 2	DSI 2	55830	3609	13.82	15.30	1.406	62.9	1.006	-0.07	0.095	0.134
	LTE Band 48	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 2	DSI 2	55830	3609	13.90	15.30	1.380	62.9	1.006	-0.05	0.036	0.050
	LTE Band 48	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 2	DSI 2	55830	3609	13.82	15.30	1.406	62.9	1.006	0.02	0.023	0.032
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 2	DSI 2	656000	3840	10.61	11.60	1.256	-	-	-0.01	0.779	0.978
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 2	DSI 2	656000	3840	10.57	11.60	1.268	-	-	0.01	0.697	0.884
	FR1 n77 Part27O	100M	QPSK	270	0	DFT-SCS-30KHz	Right Cheek	0mm	Ant 2	DSI 2	656000	3840	10.53	11.60	1.279	-	-	0.07	0.637	0.815
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 2	DSI 2	656000	3840	10.61	11.60	1.256	-	-	-0.14	0.089	0.112
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 2	DSI 2	656000	3840	10.57	11.60	1.268	-	-	0.08	0.095	0.120
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 2	DSI 2	656000	3840	10.61	11.60	1.256	-	-	-0.05	0.183	0.230
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 2	DSI 2	656000	3840	10.57	11.60	1.268	-	-	-0.02	0.237	0.300
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 2	DSI 2	656000	3840	10.61	11.60	1.256	-	-	0.07	0.036	0.045
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 2	DSI 2	656000	3840	10.57	11.60	1.268	-	-	0.02	0.039	0.049
	FR1 n77 Part27O HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 2	DSI 2	656000	3840	13.59	14.60	1.262	50	1.000	0.03	0.776	0.979
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 4	DSI 2	656000	3840	13.75	14.70	1.245	-	-	0.04	0.472	0.587
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 4	DSI 2	656000	3840	13.74	14.70	1.247	-	-	0.07	0.516	0.644
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 4	DSI 2	656000	3840	13.75	14.70	1.245	-	-	-0.03	0.540	0.672
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 4	DSI 2	656000	3840	13.74	14.70	1.247	-	-	0.07	0.578	0.721
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 4	DSI 2	656000	3840	13.75	14.70	1.245	-	-	0.04	0.660	0.821
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 4	DSI 2	656000	3840	13.74	14.70	1.247	-	-	0.06	0.717	0.894
	FR1 n77 Part27O	100M	QPSK	270	0	DFT-SCS-30KHz	Left Cheek	0mm	Ant 4	DSI 2	656000	3840	13.69	14.70	1.262	-	-	0.08	0.690	0.871
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 4	DSI 2	656000	3840	13.75	14.70	1.245	-	-	-0.18	0.696	0.866
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 4	DSI 2	656000	3840	13.74	14.70	1.247	-	-	0.06	0.780	0.973
	FR1 n77 Part27O	100M	QPSK	270	0	DFT-SCS-30KHz	Left Tilted	0mm	Ant 4	DSI 2	656000	3840	13.69	14.70	1.262	-	-	0.07	0.685	0.864
	FR1 n77 Part27O HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 4	DSI 2	656000	3840	16.68	17.70	1.265	50	1.000	0.01	0.771	0.975
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 5	DSI 2	656000	3840	13.89	15.10	1.321	-	-	-0.03	0.206	0.272
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 5	DSI 2	656000	3840	13.84	15.10	1.337	-	-	0.02	0.196	0.262
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 5	DSI 2	656000	3840	13.89	15.10	1.321	-	-	-0.03	0.199	0.263
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 5	DSI 2	656000	3840	13.84	15.10	1.337	-	-	-0.18	0.178	0.238
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 5	DSI 2	656000	3840	13.89	15.10	1.321	-	-	-0.17	0.737	0.974
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 5	DSI 2	656000	3840	13.84	15.10	1.337	-	-	0.13	0.673	0.900
	FR1 n77 Part27O	100M	QPSK	270	0	DFT-SCS-30KHz	Left Cheek	0mm	Ant 5	DSI 2	656000	3840	13.80	15.10	1.349	-	-	0.06	0.653	0.881
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 5	DSI 2	656000	3840	13.89	15.10	1.321	-	-	0.18	0.686	0.906
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 5	DSI 2	656000	3840	13.84	15.10	1.337	-	-	0.05	0.634	0.847
	FR1 n77 Part27O	100M	QPSK	270	0	DFT-SCS-30KHz	Left Tilted	0mm	Ant 5	DSI 2	656000	3840	13.80	15.10	1.349	-	-	-0.1	0.612	0.826
20	FR1 n77 Part27O HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 5	DSI 2	656000	3840	16.81	18.10	1.346	50	1.000	0.11	0.731	**0.984**
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 7	DSI 2	656000	3840	22.22	23.00	1.197	-	-	0.08	0.143	0.171
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 7	DSI 2	656000	3840	21.89	23.00	1.291	-	-	-0.17	0.132	0.170
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 7	DSI 2	656000	3840	22.22	23.00	1.197	-	-	-0.11	0.196	0.235
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 7	DSI 2	656000	3840	21.89	23.00	1.291	-	-	0.06	0.168	0.217
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 7	DSI 2	656000	3840	22.22	23.00	1.197	-	-	0.03	0.229	0.274
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 7	DSI 2	656000	3840	21.89	23.00	1.291	-	-	0.09	0.203	0.262

	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 7	DSI 2	656000	3840	22.22	23.00	1.197	-	-	0.05	0.143	0.171
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 7	DSI 2	656000	3840	21.89	23.00	1.291	-	-	0.01	0.127	0.164
	FR1 n77 Part27O HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 7	DSI 2	656000	3840	25.06	26.00	1.242	50	1.000	0.03	0.226	0.281
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 4	DSI 2	650000	3750	14.05	14.90	1.216	-	-	0.04	0.471	0.573
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 4	DSI 2	650000	3750	14.01	14.90	1.227	-	-	0.07	0.458	0.562
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 4	DSI 2	650000	3750	14.05	14.90	1.216	-	-	-0.03	0.526	0.640
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 4	DSI 2	650000	3750	14.01	14.90	1.227	-	-	0.07	0.504	0.619
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 4	DSI 2	650000	3750	14.05	14.90	1.216	-	-	-0.02	0.743	0.904
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 4	DSI 2	650000	3750	14.01	14.90	1.227	-	-	0.06	0.702	0.862
	FR1 n78 Part27O	100M	QPSK	270	0	DFT-SCS-30KHz	Left Cheek	0mm	Ant 4	DSI 2	650000	3750	13.98	14.90	1.236	-	-	0.08	0.712	0.880
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 4	DSI 2	650000	3750	14.05	14.90	1.216	-	-	-0.18	0.707	0.860
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 4	DSI 2	650000	3750	14.01	14.90	1.227	-	-	0.06	0.686	0.842
	FR1 n78 Part27O	100M	QPSK	270	0	DFT-SCS-30KHz	Left Tilted	0mm	Ant 4	DSI 2	650000	3750	13.98	14.90	1.236	-	-	0.07	0.686	0.848
	FR1 n78 Part27O HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 4	DSI 2	650000	3750	16.66	17.90	1.330	50	1.000	0.04	0.724	0.963
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 5	DSI 2	650000	3750	13.58	14.70	1.294	-	-	-0.03	0.186	0.241
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 5	DSI 2	650000	3750	13.56	14.70	1.300	-	-	0.02	0.186	0.242
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 5	DSI 2	650000	3750	13.58	14.70	1.294	-	-	-0.03	0.180	0.233
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 5	DSI 2	650000	3750	13.56	14.70	1.300	-	-	-0.18	0.180	0.234
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 5	DSI 2	650000	3750	13.58	14.70	1.294	-	-	-0.17	0.730	0.945
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 5	DSI 2	650000	3750	13.56	14.70	1.300	-	-	-0.07	0.735	0.956
	FR1 n78 Part27O	100M	QPSK	270	0	DFT-SCS-30KHz	Left Cheek	0mm	Ant 5	DSI 2	650000	3750	13.51	14.70	1.315	-	-	0.06	0.642	0.844
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 5	DSI 2	650000	3750	13.58	14.70	1.294	-	-	0.18	0.624	0.808
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 5	DSI 2	650000	3750	13.56	14.70	1.300	-	-	0.05	0.609	0.792
	FR1 n78 Part27O	100M	QPSK	270	0	DFT-SCS-30KHz	Left Tilted	0mm	Ant 5	DSI 2	650000	3750	13.51	14.70	1.315	-	-	-0.1	0.619	0.814
21	FR1 n78 Part27O HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 5	DSI 2	650000	3750	16.46	17.70	1.330	50	1.000	0.13	0.731	**0.973**
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 7	DSI 2	650000	3750	23.07	24.00	1.239	-	-	0.08	0.101	0.125
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 7	DSI 2	650000	3750	23.05	24.00	1.245	-	-	-0.17	0.100	0.124
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 7	DSI 2	650000	3750	23.07	24.00	1.239	-	-	-0.11	0.151	0.187
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 7	DSI 2	650000	3750	23.05	24.00	1.245	-	-	0.06	0.143	0.178
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 7	DSI 2	650000	3750	23.07	24.00	1.239	-	-	0.03	0.171	0.212
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 7	DSI 2	650000	3750	23.05	24.00	1.245	-	-	0.09	0.152	0.189
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 7	DSI 2	650000	3750	23.07	24.00	1.239	-	-	0.05	0.102	0.126
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 7	DSI 2	650000	3750	23.05	24.00	1.245	-	-	0.01	0.099	0.123
	FR1 n78 Part27O HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 7	DSI 2	650000	3750	26.10	27.00	1.230	50	1.000	0.11	0.168	0.207

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)
WLAN2.4G/BT																
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 3+6	Standalone	6	2437	18.22	19.50	1.343	97.94	1.021	0.06	0.608	0.834
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 3+6	Standalone	1	2412	18.13	19.50	1.371	97.94	1.021	0.03	0.588	0.823
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 3+6	Standalone	6	2437	18.22	19.50	1.343	97.94	1.021	0.01	0.652	0.894
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 3+6	Standalone	1	2412	18.13	19.50	1.371	97.94	1.021	0.05	0.630	0.882
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 3+6	Standalone	6	2437	18.22	19.50	1.343	97.94	1.021	0.02	0.910	1.248
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 3+6	Standalone	1	2412	18.13	19.50	1.371	97.94	1.021	0.09	0.981	1.373
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 3+6	Standalone	11	2462	18.12	19.50	1.374	97.94	1.021	0.03	0.986	1.383
22	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 3+6	Standalone	6	2437	18.22	19.50	1.343	97.94	1.021	-0.03	1.020	**1.398**
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 3+6	Standalone	1	2412	18.13	19.50	1.371	97.94	1.021	0.04	0.910	1.274
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 3+6	Standalone	11	2462	18.12	19.50	1.374	97.94	1.021	0.01	0.981	1.376
	WLAN2.4GHz	802.11n-HT40 MCS0	Left Cheek	0mm	Ant 3+6	Standalone	6	2437	17.79	19.50	1.483	99.10	1.009	-0.01	0.765	1.144
	WLAN2.4GHz	802.11n-HT40 MCS0	Left Tilted	0mm	Ant 3+6	Standalone	6	2437	17.79	19.50	1.483	99.10	1.009	0.08	0.751	1.123
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 3+6	DBS only	6	2437	15.24	16.50	1.337	97.94	1.021	0.02	0.533	0.727
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 3+6	WWAN +non DBS	6	2437	12.22	13.50	1.343	97.94	1.021	0.03	0.271	0.372
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 3+6	WWAN +non DBS	6	2437	12.22	13.50	1.343	97.94	1.021	0.06	0.199	0.273
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 3+6	WWAN +non DBS	6	2437	12.22	13.50	1.343	97.94	1.021	-0.02	0.215	0.295
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 3+6	WWAN +non DBS	6	2437	12.22	13.50	1.343	97.94	1.021	0.03	0.258	0.354
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 3+6	WWAN +DBS	6	2437	9.15	10.50	1.365	97.94	1.021	0.04	0.133	0.185
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 3+6	WWAN +DBS	6	2437	9.15	10.50	1.365	97.94	1.021	0.06	0.088	0.123
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 3+6	WWAN +DBS	6	2437	9.15	10.50	1.365	97.94	1.021	-0.02	0.096	0.134
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 3+6	WWAN +DBS	6	2437	9.15	10.50	1.365	97.94	1.021	0.03	0.115	0.160
	Bluetooth	1Mbps	Right Cheek	0mm	Ant 6	Full power	0	2402	11.33	12.00	1.167	76.56	1.088	0.06	0.052	0.066
	Bluetooth	1Mbps	Right Tilted	0mm	Ant 6	Full power	0	2402	11.33	12.00	1.167	76.56	1.088	0.02	0.013	0.017
23	Bluetooth	1Mbps	Left Cheek	0mm	Ant 6	Full power	0	2402	11.33	12.00	1.167	76.56	1.088	0.04	0.153	**0.194**
	Bluetooth	1Mbps	Left Tilted	0mm	Ant 6	Full power	0	2402	11.33	12.00	1.167	76.56	1.088	0.01	0.034	0.043
	Bluetooth	1Mbps	Right Cheek	0mm	Ant 3	Full power	78	2480	9.21	10.50	1.346	76.97	1.082	0.03	0.076	0.111
	Bluetooth	1Mbps	Right Tilted	0mm	Ant 3	Full power	78	2480	9.21	10.50	1.346	76.97	1.082	0.01	0.082	0.119
	Bluetooth	1Mbps	Left Cheek	0mm	Ant 3	Full power	78	2480	9.21	10.50	1.346	76.97	1.082	0.07	0.129	0.188
	Bluetooth	1Mbps	Left Tilted	0mm	Ant 3	Full power	78	2480	9.21	10.50	1.346	76.97	1.082	-0.02	0.125	0.182

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)
						WLAN5GHz										
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 4+5	Standalone	58	5290	16.23	17.50	1.340	99.30	1.007	0.06	0.330	0.445
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 4+5	Standalone	58	5290	16.23	17.50	1.340	99.30	1.007	0.01	0.320	0.432
24	WLAN5.3GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 4+5	Standalone	58	5290	16.23	17.50	1.340	99.30	1.007	-0.02	0.885	**1.194**
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 4+5	Standalone	58	5290	16.23	17.50	1.340	99.30	1.007	0.03	0.831	1.121
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 4+5	DBS only	58	5290	14.15	15.50	1.365	99.30	1.007	0.04	0.565	0.776
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 4+5	WWAN +non DBS	58	5290	11.13	12.50	1.371	99.30	1.007	-0.03	0.099	0.137
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 4+5	WWAN +non DBS	58	5290	11.13	12.50	1.371	99.30	1.007	0.01	0.104	0.144
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 4+5	WWAN +non DBS	58	5290	11.13	12.50	1.371	99.30	1.007	-0.02	0.265	0.366
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 4+5	WWAN +non DBS	58	5290	11.13	12.50	1.371	99.30	1.007	0.05	0.187	0.258
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 4+5	WWAN +DBS	58	5290	8.11	9.50	1.377	99.30	1.007	0.03	0.141	0.196
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 4+5	WWAN +DBS	58	5290	8.11	9.50	1.377	99.30	1.007	0.09	0.074	0.103
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 4+5	WWAN +DBS	58	5290	8.11	9.50	1.377	99.30	1.007	0.01	0.083	0.115
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 4+5	WWAN +DBS	58	5290	8.11	9.50	1.377	99.30	1.007	0.07	0.113	0.157
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 4+5	Standalone	138	5690	16.05	17.50	1.395	99.30	1.007	0.06	0.349	0.490
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 4+5	Standalone	138	5690	16.05	17.50	1.395	99.30	1.007	0.01	0.359	0.504
25	WLAN5.5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 4+5	Standalone	138	5690	16.05	17.50	1.395	99.30	1.007	-0.05	0.840	**1.180**
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 4+5	Standalone	106	5530	15.78	17.50	1.486	99.30	1.007	0.02	0.710	1.063
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 4+5	Standalone	138	5690	16.05	17.50	1.395	99.30	1.007	0.01	0.778	1.093
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 4+5	Standalone	106	5530	15.78	17.50	1.486	99.30	1.007	0.06	0.720	1.078
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 4+5	DBS only	138	5690	13.94	15.50	1.431	99.30	1.007	0.09	0.553	0.797
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 4+5	WWAN +non DBS	138	5690	10.94	12.50	1.432	99.30	1.007	0.02	0.113	0.163
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 4+5	WWAN +non DBS	138	5690	10.94	12.50	1.432	99.30	1.007	0.01	0.116	0.167
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 4+5	WWAN +non DBS	138	5690	10.94	12.50	1.432	99.30	1.007	0.03	0.255	0.368
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 4+5	WWAN +non DBS	138	5690	10.94	12.50	1.432	99.30	1.007	0.05	0.181	0.261
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 4+5	WWAN +DBS	138	5690	7.89	9.50	1.448	99.30	1.007	0.06	0.136	0.198
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 4+5	WWAN +DBS	138	5690	7.89	9.50	1.448	99.30	1.007	0.01	0.077	0.112
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 4+5	WWAN +DBS	138	5690	7.89	9.50	1.448	99.30	1.007	0.06	0.086	0.125
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 4+5	WWAN +DBS	138	5690	7.89	9.50	1.448	99.30	1.007	0.09	0.107	0.156
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 4+5	Standalone	155	5775	15.58	17.00	1.387	99.30	1.007	0.03	0.355	0.496
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 4+5	Standalone	155	5775	15.58	17.00	1.387	99.30	1.007	0.01	0.359	0.501
26	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 4+5	Standalone	155	5775	15.58	17.00	1.387	99.30	1.007	-0.06	0.844	**1.179**
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 4+5	Standalone	155	5775	15.58	17.00	1.387	99.30	1.007	0.05	0.741	1.035
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 4+5	DBS only	155	5775	13.52	15.00	1.406	99.30	1.007	0.01	0.534	0.756
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 4+5	WWAN +non DBS	155	5775	10.54	12.00	1.400	99.30	1.007	0.05	0.103	0.145
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 4+5	WWAN +non DBS	155	5775	10.54	12.00	1.400	99.30	1.007	0.01	0.107	0.151
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 4+5	WWAN +non DBS	155	5775	10.54	12.00	1.400	99.30	1.007	0.03	0.252	0.355
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 4+5	WWAN +non DBS	155	5775	10.54	12.00	1.400	99.30	1.007	0.01	0.181	0.255
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 4+5	WWAN +DBS	155	5775	7.49	9.00	1.416	99.30	1.007	0.01	0.133	0.190
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 4+5	WWAN +DBS	155	5775	7.49	9.00	1.416	99.30	1.007	0.13	0.051	0.073
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 4+5	WWAN +DBS	155	5775	7.49	9.00	1.416	99.30	1.007	0.01	0.051	0.073
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 4+5	WWAN +DBS	155	5775	7.49	9.00	1.416	99.30	1.007	0.05	0.112	0.160

16.2 Hotspot SAR

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
750MHz																		
	LTE Band 12	10M	QPSK	1	0	-	Front	5mm	Ant 0	DSI 3	23095	707.5	22.84	24.00	1.306	0.03	0.691	0.903
	LTE Band 12	10M	QPSK	25	0	-	Front	5mm	Ant 0	DSI 3	23095	707.5	21.74	23.00	1.337	0.01	0.540	0.722
	LTE Band 12	10M	QPSK	50	0	-	Front	5mm	Ant 0	DSI 3	23095	707.5	21.65	23.00	1.365	0.06	0.532	0.726
27	LTE Band 12	10M	QPSK	1	0	-	Back	5mm	Ant 0	DSI 3	23095	707.5	22.84	24.00	1.306	-0.1	0.837	**1.093**
	LTE Band 12	10M	QPSK	25	0	-	Back	5mm	Ant 0	DSI 3	23095	707.5	21.74	23.00	1.337	-0.03	0.650	0.869
	LTE Band 12	10M	QPSK	50	0	-	Back	5mm	Ant 0	DSI 3	23095	707.5	21.65	23.00	1.365	0.05	0.642	0.876
	LTE Band 12	10M	QPSK	1	0	-	Left Side	5mm	Ant 0	DSI 3	23095	707.5	22.84	24.00	1.306	0.06	0.156	0.204
	LTE Band 12	10M	QPSK	25	0	-	Left Side	5mm	Ant 0	DSI 3	23095	707.5	21.74	23.00	1.337	0.01	0.091	0.122
	LTE Band 12	10M	QPSK	1	0	-	Right Side	5mm	Ant 0	DSI 3	23095	707.5	22.84	24.00	1.306	-0.02	0.301	0.393
	LTE Band 12	10M	QPSK	25	0	-	Right Side	5mm	Ant 0	DSI 3	23095	707.5	21.74	23.00	1.337	0.03	0.186	0.249
	LTE Band 12	10M	QPSK	1	0	-	Bottom side	5mm	Ant 0	DSI 3	23095	707.5	22.84	24.00	1.306	0.06	0.643	0.840
	LTE Band 12	10M	QPSK	25	0	-	Bottom side	5mm	Ant 0	DSI 3	23095	707.5	21.74	23.00	1.337	0.07	0.389	0.520
	LTE Band 12	10M	QPSK	50	0	-	Bottom side	5mm	Ant 0	DSI 3	23095	707.5	21.65	23.00	1.365	0.06	0.380	0.519
	LTE Band 12	10M	QPSK	1	0	-	Front	5mm	Ant 1	DSI 3	23095	707.5	23.09	24.00	1.233	0.03	0.285	0.351
	LTE Band 12	10M	QPSK	25	0	-	Front	5mm	Ant 1	DSI 3	23095	707.5	22.15	23.00	1.216	0.01	0.220	0.268
	LTE Band 12	10M	QPSK	1	0	-	Back	5mm	Ant 1	DSI 3	23095	707.5	23.09	24.00	1.233	-0.02	0.543	0.670
	LTE Band 12	10M	QPSK	25	0	-	Back	5mm	Ant 1	DSI 3	23095	707.5	22.15	23.00	1.216	0.05	0.400	0.486
	LTE Band 12	10M	QPSK	1	0	-	Left Side	5mm	Ant 1	DSI 3	23095	707.5	23.09	24.00	1.233	0.01	0.163	0.201
	LTE Band 12	10M	QPSK	25	0	-	Left Side	5mm	Ant 1	DSI 3	23095	707.5	22.15	23.00	1.216	0.13	0.153	0.186
	LTE Band 12	10M	QPSK	1	0	-	Right Side	5mm	Ant 1	DSI 3	23095	707.5	23.09	24.00	1.233	0.05	0.099	0.122
	LTE Band 12	10M	QPSK	25	0	-	Right Side	5mm	Ant 1	DSI 3	23095	707.5	22.15	23.00	1.216	0.01	0.074	0.090
	LTE Band 12	10M	QPSK	1	0	-	Top Side	5mm	Ant 1	DSI 3	23095	707.5	23.09	24.00	1.233	0.15	0.575	0.709
	LTE Band 12	10M	QPSK	25	0	-	Top Side	5mm	Ant 1	DSI 3	23095	707.5	22.15	23.00	1.216	0.05	0.455	0.553
	LTE Band 13	10M	QPSK	1	0	-	Front	5mm	Ant 0	DSI 3	23230	782	22.97	24.00	1.268	0.06	0.875	1.109
	LTE Band 13	10M	QPSK	25	0	-	Front	5mm	Ant 0	DSI 3	23230	782	21.87	23.00	1.297	0.01	0.687	0.891
	LTE Band 13	10M	QPSK	50	0	-	Front	5mm	Ant 0	DSI 3	23230	782	21.82	23.00	1.312	0.03	0.674	0.884
28	LTE Band 13	10M	QPSK	1	0	-	Back	5mm	Ant 0	DSI 3	23230	782	22.97	24.00	1.268	-0.05	0.896	**1.136**
	LTE Band 13	10M	QPSK	25	0	-	Back	5mm	Ant 0	DSI 3	23230	782	21.87	23.00	1.297	0.04	0.692	0.898
	LTE Band 13	10M	QPSK	50	0	-	Back	5mm	Ant 0	DSI 3	23230	782	21.82	23.00	1.312	-0.02	0.675	0.886
	LTE Band 13	10M	QPSK	1	0	-	Left Side	5mm	Ant 0	DSI 3	23230	782	22.97	24.00	1.268	0.01	0.204	0.259
	LTE Band 13	10M	QPSK	25	0	-	Left Side	5mm	Ant 0	DSI 3	23230	782	21.87	23.00	1.297	0.06	0.128	0.166
	LTE Band 13	10M	QPSK	1	0	-	Right Side	5mm	Ant 0	DSI 3	23230	782	22.97	24.00	1.268	0.03	0.375	0.475
	LTE Band 13	10M	QPSK	25	0	-	Right Side	5mm	Ant 0	DSI 3	23230	782	21.87	23.00	1.297	0.01	0.239	0.310
	LTE Band 13	10M	QPSK	1	0	-	Bottom Side	5mm	Ant 0	DSI 3	23230	782	22.97	24.00	1.268	0.04	0.763	0.967
	LTE Band 13	10M	QPSK	25	0	-	Bottom Side	5mm	Ant 0	DSI 3	23230	782	21.87	23.00	1.297	0.09	0.482	0.625
	LTE Band 13	10M	QPSK	50	0	-	Bottom Side	5mm	Ant 0	DSI 3	23230	782	21.82	23.00	1.312	0.06	0.467	0.613
850MHZ																		
	GSM850	-	-	-	-	GPRS (3 Tx slots)	Front	5mm	Ant 0	DSI 3	189	836.4	28.67	29.50	1.211	0.06	0.829	1.004
	GSM850	-	-	-	-	GPRS (3 Tx slots)	Front	5mm	Ant 0	DSI 3	128	824.2	28.60	29.50	1.230	0.02	0.785	0.966
29	GSM850	-	-	-	-	GPRS (3 Tx slots)	Front	5mm	Ant 0	DSI 3	251	848.8	28.59	29.50	1.233	0.03	0.896	**1.105**
	GSM850	-	-	-	-	GPRS (3 Tx slots)	Back	5mm	Ant 0	DSI 3	189	836.4	28.67	29.50	1.211	-0.03	0.808	0.978
	GSM850	-	-	-	-	GPRS (3 Tx slots)	Back	5mm	Ant 0	DSI 3	128	824.2	28.60	29.50	1.230	0.01	0.813	1.000
	GSM850	-	-	-	-	GPRS (3 Tx slots)	Back	5mm	Ant 0	DSI 3	251	848.8	28.59	29.50	1.233	0.05	0.850	1.048
	GSM850	-	-	-	-	GPRS (3 Tx slots)	Left Side	5mm	Ant 0	DSI 3	189	836.4	28.67	29.50	1.211	0.04	0.163	0.197
	GSM850	-	-	-	-	GPRS (3 Tx slots)	Right Side	5mm	Ant 0	DSI 3	189	836.4	28.67	29.50	1.211	0.03	0.275	0.333
	GSM850	-	-	-	-	GPRS (3 Tx slots)	Bottom Side	5mm	Ant 0	DSI 3	189	836.4	28.67	29.50	1.211	0.02	0.508	0.615
	GSM850	-	-	-	-	GPRS (3 Tx slots)	Front	5mm	Ant 1	DSI 3	189	836.4	28.74	29.50	1.191	-0.08	0.476	0.567
	GSM850	-	-	-	-	GPRS (3 Tx slots)	Back	5mm	Ant 1	DSI 3	189	836.4	28.74	29.50	1.191	-0.03	0.699	0.833
	GSM850	-	-	-	-	GPRS (3 Tx slots)	Back	5mm	Ant 1	DSI 3	128	824.2	28.62	29.50	1.225	0.04	0.703	0.861
	GSM850	-	-	-	-	GPRS (3 Tx slots)	Back	5mm	Ant 1	DSI 3	251	848.8	28.64	29.50	1.219	0.03	0.680	0.829

	GSM850	-	-	-	-	GPRS (3 Tx slots)	Left Side	5mm	Ant 1	DSI 3	189	836.4	28.74	29.50	1.191	-0.08	0.277	0.330
	GSM850	-	-	-	-	GPRS (3 Tx slots)	Right Side	5mm	Ant 1	DSI 3	189	836.4	28.74	29.50	1.191	-0.03	0.130	0.155
	GSM850	-	-	-	-	GPRS (3 Tx slots)	Top Side	5mm	Ant 1	DSI 3	189	836.4	28.74	29.50	1.191	0.04	0.771	0.918
	GSM850	-	-	-	-	GPRS (3 Tx slots)	Top Side	5mm	Ant 1	DSI 3	128	824.2	28.62	29.50	1.225	-0.09	0.782	0.958
	GSM850	-	-	-	-	GPRS (3 Tx slots)	Top Side	5mm	Ant 1	DSI 3	251	848.8	28.64	29.50	1.219	0.01	0.747	0.911
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Front	5mm	Ant 0	DSI 3	4182	836.4	23.23	24.00	1.194	0.06	0.968	1.156
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Front	5mm	Ant 0	DSI 3	4132	826.4	23.17	24.00	1.211	0.1	0.993	1.202
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Front	5mm	Ant 0	DSI 3	4233	846.6	23.15	24.00	1.216	0.02	0.993	1.208
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 0	DSI 3	4182	836.4	23.23	24.00	1.194	0.03	0.931	1.112
30	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 0	DSI 3	4132	826.4	23.17	24.00	1.211	-0.08	1.060	**1.283**
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 0	DSI 3	4233	846.6	23.15	24.00	1.216	-0.03	0.968	1.177
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Side	5mm	Ant 0	DSI 3	4182	836.4	23.23	24.00	1.194	0.04	0.144	0.172
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Side	5mm	Ant 0	DSI 3	4182	836.4	23.23	24.00	1.194	0.05	0.342	0.408
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Bottom Side	5mm	Ant 0	DSI 3	4182	836.4	23.23	24.00	1.194	0.06	0.692	0.826
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Bottom Side	5mm	Ant 0	DSI 3	4132	826.4	23.17	24.00	1.211	0.1	0.746	0.903
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Bottom Side	5mm	Ant 0	DSI 3	4233	846.6	23.15	24.00	1.216	-0.02	0.729	0.887
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Front	5mm	Ant 1	DSI 3	4182	836.4	23.42	24.00	1.143	-0.08	0.449	0.513
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 1	DSI 3	4182	836.4	23.42	24.00	1.143	0.05	0.604	0.690
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Side	5mm	Ant 1	DSI 3	4182	836.4	23.42	24.00	1.143	0.03	0.532	0.608
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Side	5mm	Ant 1	DSI 3	4182	836.4	23.42	24.00	1.143	0.04	0.147	0.168
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Top Side	5mm	Ant 1	DSI 3	4182	836.4	23.42	24.00	1.143	0.09	0.746	0.853
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Top Side	5mm	Ant 1	DSI 3	4132	826.4	23.37	24.00	1.156	-0.15	0.754	0.872
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Top Side	5mm	Ant 1	DSI 3	4233	846.6	23.35	24.00	1.161	0.01	0.742	0.862
	LTE Band 26	15M	QPSK	1	0	-	Front	5mm	Ant 0	DSI 3	26865	831.5	22.87	23.50	1.156	0.03	1.000	1.156
	LTE Band 26	15M	QPSK	36	0	-	Front	5mm	Ant 0	DSI 3	26865	831.5	21.84	23.00	1.306	-0.03	0.765	0.999
	LTE Band 26	15M	QPSK	75	0	-	Front	5mm	Ant 0	DSI 3	26865	831.5	21.80	23.00	1.318	0.01	0.750	0.989
31	LTE Band 26	15M	QPSK	1	0	-	Back	5mm	Ant 0	DSI 3	26865	831.5	22.87	23.50	1.156	0.05	1.020	**1.179**
	LTE Band 26	15M	QPSK	36	0	-	Back	5mm	Ant 0	DSI 3	26865	831.5	21.84	23.00	1.306	0.01	0.803	1.049
	LTE Band 26	15M	QPSK	75	0	-	Back	5mm	Ant 0	DSI 3	26865	831.5	21.80	23.00	1.318	0.03	0.789	1.040
	LTE Band 26	15M	QPSK	1	0	-	Left Side	5mm	Ant 0	DSI 3	26865	831.5	22.87	23.50	1.156	-0.08	0.178	0.206
	LTE Band 26	15M	QPSK	36	0	-	Left Side	5mm	Ant 0	DSI 3	26865	831.5	21.84	23.00	1.306	-0.03	0.105	0.137
	LTE Band 26	15M	QPSK	1	0	-	Right Side	5mm	Ant 0	DSI 3	26865	831.5	22.87	23.50	1.156	0.04	0.342	0.395
	LTE Band 26	15M	QPSK	36	0	-	Right Side	5mm	Ant 0	DSI 3	26865	831.5	21.84	23.00	1.306	0.05	0.208	0.272
	LTE Band 26	15M	QPSK	1	0	-	Bottom Side	5mm	Ant 0	DSI 3	26865	831.5	22.87	23.50	1.156	0.01	0.783	0.905
	LTE Band 26	15M	QPSK	36	0	-	Bottom Side	5mm	Ant 0	DSI 3	26865	831.5	21.84	23.00	1.306	0.05	0.608	0.794
	LTE Band 26	15M	QPSK	75	0	-	Bottom Side	5mm	Ant 0	DSI 3	26865	831.5	21.80	23.00	1.318	0.01	0.600	0.791
	LTE Band 26	15M	QPSK	1	0	-	Front	5mm	Ant 1	DSI 3	26865	831.5	23.06	24.00	1.242	0.01	0.485	0.602
	LTE Band 26	15M	QPSK	36	0	-	Front	5mm	Ant 1	DSI 3	26865	831.5	22.12	23.00	1.225	0.09	0.294	0.360
	LTE Band 26	15M	QPSK	1	0	-	Back	5mm	Ant 1	DSI 3	26865	831.5	23.06	24.00	1.242	0.03	0.651	0.808
	LTE Band 26	15M	QPSK	36	0	-	Back	5mm	Ant 1	DSI 3	26865	831.5	22.12	23.00	1.225	0.06	0.509	0.623
	LTE Band 26	15M	QPSK	75	0	-	Back	5mm	Ant 1	DSI 3	26865	831.5	22.01	23.00	1.256	0.01	0.500	0.628
	LTE Band 26	15M	QPSK	1	0	-	Left Side	5mm	Ant 1	DSI 3	26865	831.5	23.06	24.00	1.242	0.03	0.341	0.423
	LTE Band 26	15M	QPSK	36	0	-	Left Side	5mm	Ant 1	DSI 3	26865	831.5	22.12	23.00	1.225	0.09	0.208	0.255
	LTE Band 26	15M	QPSK	1	0	-	Right Side	5mm	Ant 1	DSI 3	26865	831.5	23.06	24.00	1.242	-0.01	0.151	0.187
	LTE Band 26	15M	QPSK	36	0	-	Right Side	5mm	Ant 1	DSI 3	26865	831.5	22.12	23.00	1.225	0.05	0.094	0.115
	LTE Band 26	15M	QPSK	1	0	-	Top Side	5mm	Ant 1	DSI 3	26865	831.5	23.06	24.00	1.242	0.07	0.758	0.941
	LTE Band 26	15M	QPSK	36	0	-	Top Side	5mm	Ant 1	DSI 3	26865	831.5	22.12	23.00	1.225	0.06	0.592	0.725
	LTE Band 26	15M	QPSK	75	0	-	Top Side	5mm	Ant 1	DSI 3	26865	831.5	22.01	23.00	1.256	0.04	0.573	0.720
32	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 0	DSI 3	167300	836.5	22.72	24.00	1.343	0.01	0.715	**0.960**
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Front	5mm	Ant 0	DSI 3	167300	836.5	22.67	24.00	1.358	0.06	0.586	0.796
	FR1 n5	20M	QPSK	100	0	DFT-SCS-15KHz	Front	5mm	Ant 0	DSI 3	167300	836.5	21.69	23.00	1.352	0.03	0.521	0.704
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 0	DSI 3	167300	836.5	22.72	24.00	1.343	0.03	0.676	0.908
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Back	5mm	Ant 0	DSI 3	167300	836.5	22.67	24.00	1.358	-0.08	0.636	0.864
	FR1 n5	20M	QPSK	100	0	DFT-SCS-15KHz	Back	5mm	Ant 0	DSI 3	167300	836.5	21.69	23.00	1.352	0.06	0.533	0.721
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Left Side	5mm	Ant 0	DSI 3	167300	836.5	22.72	24.00	1.343	-0.03	0.098	0.132
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Left Side	5mm	Ant 0	DSI 3	167300	836.5	22.67	24.00	1.358	0.04	0.087	0.118

	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Right Side	5mm	Ant 0	DSI 3	167300	836.5	22.72	24.00	1.343	0.05	0.211	0.283
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Right Side	5mm	Ant 0	DSI 3	167300	836.5	22.67	24.00	1.358	0.06	0.184	0.250
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	5mm	Ant 0	DSI 3	167300	836.5	22.72	24.00	1.343	0.1	0.454	0.610
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Bottom Side	5mm	Ant 0	DSI 3	167300	836.5	22.67	24.00	1.358	-0.02	0.428	0.581
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 1	DSI 3	167300	836.5	22.98	24.00	1.265	0.06	0.526	0.665
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Front	5mm	Ant 1	DSI 3	167300	836.5	22.95	24.00	1.274	0.01	0.413	0.526
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 1	DSI 3	167300	836.5	22.98	24.00	1.265	-0.05	0.679	0.859
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Back	5mm	Ant 1	DSI 3	167300	836.5	22.95	24.00	1.274	0.02	0.558	0.711
	FR1 n5	20M	QPSK	100	0	DFT-SCS-15KHz	Back	5mm	Ant 1	DSI 3	167300	836.5	22.00	23.00	1.259	0.05	0.511	0.643
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Left Side	5mm	Ant 1	DSI 3	167300	836.5	22.98	24.00	1.265	0.06	0.316	0.400
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Left Side	5mm	Ant 1	DSI 3	167300	836.5	22.95	24.00	1.274	0.09	0.224	0.285
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Right Side	5mm	Ant 1	DSI 3	167300	836.5	22.98	24.00	1.265	-0.01	0.107	0.135
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Right Side	5mm	Ant 1	DSI 3	167300	836.5	22.95	24.00	1.274	0.03	0.101	0.129
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Top Side	5mm	Ant 1	DSI 3	167300	836.5	22.98	24.00	1.265	0.11	0.718	0.908
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Top Side	5mm	Ant 1	DSI 3	167300	836.5	22.95	24.00	1.274	0.01	0.701	0.893
	FR1 n5	20M	QPSK	100	0	DFT-SCS-15KHz	Top Side	5mm	Ant 1	DSI 3	167300	836.5	22.00	23.00	1.259	0.05	0.559	0.704
1750MHZ																		
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	5mm	Ant 0	DSI 3	1413	1732.6	14.83	15.90	1.279	-0.13	0.574	0.734
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 0	DSI 3	1413	1732.6	14.83	15.90	1.279	0.11	0.538	0.688
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Side	5mm	Ant 0	DSI 3	1413	1732.6	14.83	15.90	1.279	0.06	0.017	0.022
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Side	5mm	Ant 0	DSI 3	1413	1732.6	14.83	15.90	1.279	0.04	0.092	0.118
33	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Bottom Side	5mm	Ant 0	DSI 3	1413	1732.6	14.83	15.90	1.279	0.03	0.971	**1.242**
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Bottom Side	5mm	Ant 0	DSI 3	1312	1712.4	14.79	15.90	1.291	0.05	0.863	1.114
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Bottom Side	5mm	Ant 0	DSI 3	1513	1752.6	14.81	15.90	1.285	0.01	0.926	1.190
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	5mm	Ant 1	DSI 3	1413	1732.6	17.27	18.40	1.297	0.03	0.537	0.697
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 1	DSI 3	1413	1732.6	17.27	18.40	1.297	0.02	0.454	0.589
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Side	5mm	Ant 1	DSI 3	1413	1732.6	17.27	18.40	1.297	0.06	0.229	0.297
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Side	5mm	Ant 1	DSI 3	1413	1732.6	17.27	18.40	1.297	-0.06	0.035	0.045
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Top Side	5mm	Ant 1	DSI 3	1413	1732.6	17.27	18.40	1.297	0.03	0.766	0.994
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Top Side	5mm	Ant 1	DSI 3	1312	1712.4	17.23	18.40	1.309	0.06	0.741	0.970
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Top Side	5mm	Ant 1	DSI 3	1513	1752.6	17.11	18.40	1.346	0.01	0.724	0.974
	LTE Band 66	20M	QPSK	1	0	-	Front	5mm	Ant 0	DSI 3	132322	1745	15.39	16.00	1.151	0.09	0.599	0.689
	LTE Band 66	20M	QPSK	50	0	-	Front	5mm	Ant 0	DSI 3	132322	1745	15.34	16.00	1.164	0.03	0.584	0.680
	LTE Band 66	20M	QPSK	1	0	-	Back	5mm	Ant 0	DSI 3	132322	1745	15.39	16.00	1.151	-0.01	0.648	0.746
	LTE Band 66	20M	QPSK	50	0	-	Back	5mm	Ant 0	DSI 3	132322	1745	15.34	16.00	1.164	0.03	0.612	0.712
	LTE Band 66	20M	QPSK	1	0	-	Left Side	5mm	Ant 0	DSI 3	132322	1745	15.39	16.00	1.151	0.02	0.021	0.024
	LTE Band 66	20M	QPSK	50	0	-	Left Side	5mm	Ant 0	DSI 3	132322	1745	15.34	16.00	1.164	0.04	0.013	0.015
	LTE Band 66	20M	QPSK	1	0	-	Right Side	5mm	Ant 0	DSI 3	132322	1745	15.39	16.00	1.151	-0.06	0.098	0.113
	LTE Band 66	20M	QPSK	50	0	-	Right Side	5mm	Ant 0	DSI 3	132322	1745	15.34	16.00	1.164	0.02	0.064	0.075
	LTE Band 66	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 0	DSI 3	132322	1745	15.39	16.00	1.151	0.06	1.020	1.174
	LTE Band 66	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 0	DSI 3	132072	1720	15.32	16.00	1.169	-0.01	1.000	1.169
34	LTE Band 66	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 0	DSI 3	132572	1770	15.25	16.00	1.189	-0.01	1.040	**1.236**
	LTE Band 66	20M	QPSK	50	0	-	Bottom Side	5mm	Ant 0	DSI 3	132322	1745	15.34	16.00	1.164	0.02	0.958	1.115
	LTE Band 66	20M	QPSK	50	0	-	Bottom Side	5mm	Ant 0	DSI 3	132072	1720	15.25	16.00	1.189	0.04	0.964	1.146
	LTE Band 66	20M	QPSK	50	0	-	Bottom Side	5mm	Ant 0	DSI 3	132572	1770	15.26	16.00	1.186	-0.06	0.979	1.161
	LTE Band 66	20M	QPSK	100	0	-	Bottom Side	5mm	Ant 0	DSI 3	132322	1745	15.28	16.00	1.180	0.03	0.962	1.135
	LTE Band 66	20M	QPSK	1	0	-	Front	5mm	Ant 1	DSI 3	132322	1745	16.14	17.30	1.306	0.05	0.543	0.709
	LTE Band 66	20M	QPSK	50	0	-	Front	5mm	Ant 1	DSI 3	132322	1745	16.08	17.30	1.324	0.04	0.521	0.690
	LTE Band 66	20M	QPSK	1	0	-	Back	5mm	Ant 1	DSI 3	132322	1745	16.14	17.30	1.306	0.04	0.564	0.737
	LTE Band 66	20M	QPSK	50	0	-	Back	5mm	Ant 1	DSI 3	132322	1745	16.08	17.30	1.324	0.06	0.522	0.691
	LTE Band 66	20M	QPSK	1	0	-	Left Side	5mm	Ant 1	DSI 3	132322	1745	16.14	17.30	1.306	0.03	0.203	0.265
	LTE Band 66	20M	QPSK	50	0	-	Left Side	5mm	Ant 1	DSI 3	132322	1745	16.08	17.30	1.324	0.06	0.190	0.252
	LTE Band 66	20M	QPSK	1	0	-	Right Side	5mm	Ant 1	DSI 3	132322	1745	16.14	17.30	1.306	0.01	0.033	0.043
	LTE Band 66	20M	QPSK	50	0	-	Right Side	5mm	Ant 1	DSI 3	132322	1745	16.08	17.30	1.324	0.03	0.023	0.030
	LTE Band 66	20M	QPSK	1	0	-	Top Side	5mm	Ant 1	DSI 3	132322	1745	16.14	17.30	1.306	-0.07	0.748	0.977
	LTE Band 66	20M	QPSK	1	0	-	Top Side	5mm	Ant 1	DSI 3	132072	1720	16.03	17.30	1.340	0.06	0.721	0.966

	LTE Band 66	20M	QPSK	1	0	-	Top Side	5mm	Ant 1	DSI 3	132572	1770	16.10	17.30	1.318	0.02	0.693	0.914
	LTE Band 66	20M	QPSK	50	0	-	Top Side	5mm	Ant 1	DSI 3	132322	1745	16.08	17.30	1.324	0.04	0.674	0.893
	LTE Band 66	20M	QPSK	50	0	-	Top Side	5mm	Ant 1	DSI 3	132072	1720	16.05	17.30	1.334	-0.06	0.695	0.927
	LTE Band 66	20M	QPSK	50	0	-	Top Side	5mm	Ant 1	DSI 3	132572	1770	15.95	17.30	1.365	0.03	0.703	0.959
	LTE Band 66	20M	QPSK	100	0	-	Top Side	5mm	Ant 1	DSI 3	132322	1745	16.06	17.30	1.330	0.06	0.682	0.907
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 0	DSI 3	349000	1745	14.03	14.90	1.222	-0.01	0.563	0.688
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Front	5mm	Ant 0	DSI 3	349000	1745	14.03	14.90	1.222	0.05	0.519	0.634
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 0	DSI 3	349000	1745	14.03	14.90	1.222	0.15	0.576	0.704
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Back	5mm	Ant 0	DSI 3	349000	1745	14.03	14.90	1.222	0.03	0.534	0.652
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Left Side	5mm	Ant 0	DSI 3	349000	1745	14.03	14.90	1.222	0.06	0.022	0.027
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Left Side	5mm	Ant 0	DSI 3	349000	1745	14.03	14.90	1.222	0.09	0.018	0.022
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Right Side	5mm	Ant 0	DSI 3	349000	1745	14.03	14.90	1.222	-0.02	0.108	0.132
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Right Side	5mm	Ant 0	DSI 3	349000	1745	14.03	14.90	1.222	0.04	0.101	0.123
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	5mm	Ant 0	DSI 3	349000	1745	14.03	14.90	1.222	0.03	1.010	1.234
35	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Bottom Side	5mm	Ant 0	DSI 3	349000	1745	14.03	14.90	1.222	0.01	1.030	**1.258**
	FR1 n66	40M	QPSK	216	0	DFT-SCS-15KHz	Bottom Side	5mm	Ant 0	DSI 3	349000	1745	13.97	14.90	1.239	0.06	0.958	1.187
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 1	DSI 3	349000	1745	15.49	16.80	1.352	0.04	0.432	0.584
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Front	5mm	Ant 1	DSI 3	349000	1745	15.42	16.80	1.374	-0.01	0.467	0.642
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 1	DSI 3	349000	1745	15.49	16.80	1.352	0.09	0.423	0.572
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Back	5mm	Ant 1	DSI 3	349000	1745	15.42	16.80	1.374	-0.02	0.435	0.598
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Left Side	5mm	Ant 1	DSI 3	349000	1745	15.49	16.80	1.352	0.06	0.151	0.204
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Left Side	5mm	Ant 1	DSI 3	349000	1745	15.42	16.80	1.374	-0.01	0.133	0.183
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Right Side	5mm	Ant 1	DSI 3	349000	1745	15.49	16.80	1.352	0.02	0.037	0.050
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Right Side	5mm	Ant 1	DSI 3	349000	1745	15.42	16.80	1.374	0.03	0.041	0.056
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Top Side	5mm	Ant 1	DSI 3	349000	1745	15.49	16.80	1.352	0.04	0.668	0.903
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Top Side	5mm	Ant 1	DSI 3	349000	1745	15.42	16.80	1.374	0.08	0.715	0.982
	FR1 n66	40M	QPSK	216	0	DFT-SCS-15KHz	Top Side	5mm	Ant 1	DSI 3	349000	1745	15.40	16.80	1.380	-0.02	0.623	0.860
1900MHZ																		
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Front	5mm	Ant 0	DSI 3	661	1880	17.93	18.90	1.250	0.06	0.500	0.625
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Back	5mm	Ant 0	DSI 3	661	1880	17.93	18.90	1.250	0.13	0.642	0.803
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Back	5mm	Ant 0	DSI 3	512	1850.2	17.82	18.90	1.282	-0.08	0.644	0.826
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Back	5mm	Ant 0	DSI 3	810	1909.8	17.89	18.90	1.262	0.05	0.635	0.801
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Left Side	5mm	Ant 0	DSI 3	661	1880	17.93	18.90	1.250	0.01	0.015	0.019
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Right Side	5mm	Ant 0	DSI 3	661	1880	17.93	18.90	1.250	0.03	0.073	0.091
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Bottom Side	5mm	Ant 0	DSI 3	661	1880	17.93	18.90	1.250	0.01	0.933	1.166
36	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Bottom Side	5mm	Ant 0	DSI 3	512	1850.2	17.82	18.90	1.282	0.08	0.996	**1.277**
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Bottom Side	5mm	Ant 0	DSI 3	810	1909.8	17.89	18.90	1.262	0.03	0.947	1.195
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Front	5mm	Ant 1	DSI 3	661	1880	19.41	20.80	1.377	0.06	0.423	0.583
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Back	5mm	Ant 1	DSI 3	661	1880	19.41	20.80	1.377	0.14	0.492	0.678
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Left Side	5mm	Ant 1	DSI 3	661	1880	19.41	20.80	1.377	0.04	0.091	0.125
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Right Side	5mm	Ant 1	DSI 3	661	1880	19.41	20.80	1.377	0.03	0.030	0.041
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Top Side	5mm	Ant 1	DSI 3	661	1880	19.41	20.80	1.377	-0.16	0.712	0.981
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Top Side	5mm	Ant 1	DSI 3	512	1850.2	19.28	20.80	1.419	0.02	0.689	0.978
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Top Side	5mm	Ant 1	DSI 3	810	1909.8	19.31	20.80	1.409	-0.03	0.679	0.957
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	5mm	Ant 0	DSI 3	9400	1880	13.63	15.00	1.371	0.06	0.401	0.550
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 0	DSI 3	9400	1880	13.63	15.00	1.371	-0.12	0.475	0.651
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Side	5mm	Ant 0	DSI 3	9400	1880	13.63	15.00	1.371	0.05	0.016	0.022
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Side	5mm	Ant 0	DSI 3	9400	1880	13.63	15.00	1.371	0.03	0.069	0.095
37	WCDMA II	-	-	-	-	RMC 12.2Kbps	Bottom Side	5mm	Ant 0	DSI 3	9400	1880	13.63	15.00	1.371	0.05	0.918	**1.258**
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Bottom Side	5mm	Ant 0	DSI 3	9262	1852.4	13.56	15.00	1.393	0.03	0.861	1.200
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Bottom Side	5mm	Ant 0	DSI 3	9538	1907.6	13.60	15.00	1.380	0.01	0.903	1.246
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	5mm	Ant 1	DSI 3	9400	1880	17.35	18.70	1.365	0.06	0.365	0.498
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 1	DSI 3	9400	1880	17.35	18.70	1.365	0.03	0.408	0.557
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Side	5mm	Ant 1	DSI 3	9400	1880	17.35	18.70	1.365	-0.03	0.202	0.276
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Side	5mm	Ant 1	DSI 3	9400	1880	17.35	18.70	1.365	0.04	0.027	0.037
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Top Side	5mm	Ant 1	DSI 3	9400	1880	17.35	18.70	1.365	-0.06	0.715	0.976

	WCDMA II	-	-	-	-	RMC 12.2Kbps	Top Side	5mm	Ant 1	DSI 3	9262	1852.4	17.31	18.70	1.377	0.02	0.677	0.932
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Top Side	5mm	Ant 1	DSI 3	9538	1907.6	17.24	18.70	1.400	0.01	0.658	0.921
	LTE Band 25	20M	QPSK	1	0	-	Front	5mm	Ant 0	DSI 3	26340	1880	12.92	14.20	1.343	0.13	0.433	0.581
	LTE Band 25	20M	QPSK	50	0	-	Front	5mm	Ant 0	DSI 3	26340	1880	12.86	14.20	1.361	0.11	0.400	0.545
	LTE Band 25	20M	QPSK	1	0	-	Back	5mm	Ant 0	DSI 3	26340	1880	12.92	14.20	1.343	-0.16	0.487	0.654
	LTE Band 25	20M	QPSK	50	0	-	Back	5mm	Ant 0	DSI 3	26340	1880	12.86	14.20	1.361	0.05	0.428	0.583
	LTE Band 25	20M	QPSK	1	0	-	Left Side	5mm	Ant 0	DSI 3	26340	1880	12.92	14.20	1.343	0.11	0.018	0.024
	LTE Band 25	20M	QPSK	50	0	-	Left Side	5mm	Ant 0	DSI 3	26340	1880	12.86	14.20	1.361	0.05	0.011	0.015
	LTE Band 25	20M	QPSK	1	0	-	Right Side	5mm	Ant 0	DSI 3	26340	1880	12.92	14.20	1.343	0.01	0.085	0.114
	LTE Band 25	20M	QPSK	50	0	-	Right Side	5mm	Ant 0	DSI 3	26340	1880	12.86	14.20	1.361	0.05	0.055	0.075
38	LTE Band 25	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 0	DSI 3	26340	1880	12.92	14.20	1.343	-0.01	0.932	**1.251**
	LTE Band 25	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 0	DSI 3	26140	1860	12.87	14.20	1.358	0.06	0.906	1.231
	LTE Band 25	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 0	DSI 3	26590	1905	12.83	14.20	1.371	0.01	0.860	1.179
	LTE Band 25	20M	QPSK	50	0	-	Bottom Side	5mm	Ant 0	DSI 3	26340	1880	12.86	14.20	1.361	0.01	0.904	1.231
	LTE Band 25	20M	QPSK	50	0	-	Bottom Side	5mm	Ant 0	DSI 3	26140	1860	12.76	14.20	1.393	0.06	0.888	1.237
	LTE Band 25	20M	QPSK	50	0	-	Bottom Side	5mm	Ant 0	DSI 3	26590	1905	12.72	14.20	1.406	0.13	0.877	1.233
	LTE Band 25	20M	QPSK	100	0	-	Bottom Side	5mm	Ant 0	DSI 3	26340	1880	12.72	14.20	1.406	0.09	0.856	1.204
	LTE Band 25	20M	QPSK	1	0	-	Front	5mm	Ant 1	DSI 3	26340	1880	17.62	18.80	1.312	0.09	0.519	0.681
	LTE Band 25	20M	QPSK	50	0	-	Front	5mm	Ant 1	DSI 3	26340	1880	17.54	18.80	1.337	-0.06	0.485	0.648
	LTE Band 25	20M	QPSK	1	0	-	Back	5mm	Ant 1	DSI 3	26340	1880	17.62	18.80	1.312	0.08	0.538	0.706
	LTE Band 25	20M	QPSK	50	0	-	Back	5mm	Ant 1	DSI 3	26340	1880	17.54	18.80	1.337	0.03	0.518	0.692
	LTE Band 25	20M	QPSK	1	0	-	Left Side	5mm	Ant 1	DSI 3	26340	1880	17.62	18.80	1.312	0.04	0.224	0.294
	LTE Band 25	20M	QPSK	50	0	-	Left Side	5mm	Ant 1	DSI 3	26340	1880	17.54	18.80	1.337	-0.03	0.197	0.263
	LTE Band 25	20M	QPSK	1	0	-	Right Side	5mm	Ant 1	DSI 3	26340	1880	17.62	18.80	1.312	0.02	0.033	0.043
	LTE Band 25	20M	QPSK	50	0	-	Right Side	5mm	Ant 1	DSI 3	26340	1880	17.54	18.80	1.337	0.06	0.023	0.031
	LTE Band 25	20M	QPSK	1	0	-	Top Side	5mm	Ant 1	DSI 3	26340	1880	17.62	18.80	1.312	-0.03	0.745	0.978
	LTE Band 25	20M	QPSK	1	0	-	Top Side	5mm	Ant 1	DSI 3	26140	1860	17.57	18.80	1.327	0.02	0.716	0.950
	LTE Band 25	20M	QPSK	1	0	-	Top Side	5mm	Ant 1	DSI 3	26590	1905	17.51	18.80	1.346	0.01	0.697	0.938
	LTE Band 25	20M	QPSK	50	0	-	Top Side	5mm	Ant 1	DSI 3	26340	1880	17.54	18.80	1.337	-0.06	0.692	0.925
	LTE Band 25	20M	QPSK	50	0	-	Top Side	5mm	Ant 1	DSI 3	26140	1860	17.50	18.80	1.349	0.02	0.712	0.960
	LTE Band 25	20M	QPSK	50	0	-	Top Side	5mm	Ant 1	DSI 3	26590	1905	17.42	18.80	1.374	-0.04	0.708	0.973
	LTE Band 25	20M	QPSK	100	0	-	Top Side	5mm	Ant 1	DSI 3	26340	1880	17.52	18.80	1.343	0.03	0.695	0.933
	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 1	DSI 3	376000	1880	17.59	18.80	1.321	0.02	0.483	0.638
	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Front	5mm	Ant 1	DSI 3	376000	1880	17.59	18.80	1.321	0.02	0.521	0.688
	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 1	DSI 3	376000	1880	17.59	18.80	1.321	0.04	0.552	0.729
	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Back	5mm	Ant 1	DSI 3	376000	1880	17.59	18.80	1.321	-0.01	0.588	0.777
	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Left Side	5mm	Ant 1	DSI 3	376000	1880	17.59	18.80	1.321	-0.04	0.208	0.275
	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Left Side	5mm	Ant 1	DSI 3	376000	1880	17.59	18.80	1.321	0.03	0.205	0.271
	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Right Side	5mm	Ant 1	DSI 3	376000	1880	17.59	18.80	1.321	0.05	0.035	0.046
	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Right Side	5mm	Ant 1	DSI 3	376000	1880	17.59	18.80	1.321	0.02	0.037	0.049
39	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Top Side	5mm	Ant 1	DSI 3	376000	1880	17.59	18.80	1.321	0.01	0.745	**0.984**
	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Top Side	5mm	Ant 1	DSI 3	372000	1860	17.45	18.80	1.365	0.05	0.719	0.981
	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Top Side	5mm	Ant 1	DSI 3	380000	1900	17.56	18.80	1.330	0.04	0.734	0.977
	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Top Side	5mm	Ant 1	DSI 3	376000	1880	17.59	18.80	1.321	-0.06	0.692	0.914
	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Top Side	5mm	Ant 1	DSI 3	372000	1860	17.39	18.80	1.384	0.05	0.708	0.980
	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Top Side	5mm	Ant 1	DSI 3	380000	1900	17.42	18.80	1.374	-0.03	0.666	0.915
	FR1 n2	20M	QPSK	100	0	DFT-SCS-15KHz	Top Side	5mm	Ant 1	DSI 3	376000	1880	17.50	18.80	1.349	0.09	0.613	0.827

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
2600MHz																				
	LTE Band 7	20M	QPSK	1	0	-	Front	5mm	Ant 0	DSI 3	21100	2535	18.37	19.10	1.183	-	1.000	0.03	0.346	0.409
	LTE Band 7	20M	QPSK	50	0	-	Front	5mm	Ant 0	DSI 3	21100	2535	18.30	19.10	1.202	-	1.000	0.06	0.322	0.387
	LTE Band 7	20M	QPSK	1	0	-	Back	5mm	Ant 0	DSI 3	21100	2535	18.37	19.10	1.183	-	1.000	0.03	0.764	0.904
	LTE Band 7	20M	QPSK	1	0	-	Back	5mm	Ant 0	DSI 3	20850	2510	18.21	19.10	1.227	-	1.000	0.11	0.697	0.856
	LTE Band 7	20M	QPSK	1	0	-	Back	5mm	Ant 0	DSI 3	21350	2560	18.18	19.10	1.236	-	1.000	0.11	0.716	0.885
	LTE Band 7	20M	QPSK	50	0	-	Back	5mm	Ant 0	DSI 3	21100	2535	18.30	19.10	1.202	-	1.000	0.13	0.690	0.830
	LTE Band 7	20M	QPSK	50	0	-	Back	5mm	Ant 0	DSI 3	20850	2510	18.18	19.10	1.236	-	1.000	0.08	0.719	0.889
	LTE Band 7	20M	QPSK	50	0	-	Back	5mm	Ant 0	DSI 3	21350	2560	18.12	19.10	1.253	-	1.000	0.09	0.706	0.885
	LTE Band 7	20M	QPSK	100	0	-	Back	5mm	Ant 0	DSI 3	21100	2535	18.20	19.10	1.230	-	1.000	0.01	0.701	0.862
	LTE Band 7	20M	QPSK	1	0	-	Left Side	5mm	Ant 0	DSI 3	21100	2535	18.37	19.10	1.183	-	1.000	0.03	0.061	0.072
	LTE Band 7	20M	QPSK	50	0	-	Left Side	5mm	Ant 0	DSI 3	21100	2535	18.30	19.10	1.202	-	1.000	0.01	0.039	0.047
	LTE Band 7	20M	QPSK	1	0	-	Right Side	5mm	Ant 0	DSI 3	21100	2535	18.37	19.10	1.183	-	1.000	0.05	0.069	0.082
	LTE Band 7	20M	QPSK	50	0	-	Right Side	5mm	Ant 0	DSI 3	21100	2535	18.30	19.10	1.202	-	1.000	0.05	0.045	0.054
40	LTE Band 7	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 0	DSI 3	21100	2535	18.37	19.10	1.183	-	1.000	-0.13	1.040	**1.230**
	LTE Band 7	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 0	DSI 3	20850	2510	18.21	19.10	1.227	-	1.000	0.03	0.991	1.216
	LTE Band 7	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 0	DSI 3	21350	2560	18.18	19.10	1.236	-	1.000	0.01	0.987	1.220
	LTE Band 7	20M	QPSK	50	0	-	Bottom Side	5mm	Ant 0	DSI 3	21100	2535	18.30	19.10	1.202	-	1.000	0.07	0.955	1.148
	LTE Band 7	20M	QPSK	50	0	-	Bottom Side	5mm	Ant 0	DSI 3	20850	2510	18.18	19.10	1.236	-	1.000	0.09	0.988	1.221
	LTE Band 7	20M	QPSK	50	0	-	Bottom Side	5mm	Ant 0	DSI 3	21350	2560	18.12	19.10	1.253	-	1.000	0.04	0.964	1.208
	LTE Band 7	20M	QPSK	100	0	-	Bottom Side	5mm	Ant 0	DSI 3	21100	2535	18.20	19.10	1.230	-	1.000	0.01	0.950	1.169
	LTE Band 7C	20M	QPSK	1	99	-	Bottom Side	5mm	Ant 0	DSI 3	21100+21298	2535+2612.8	18.18	19.10	1.236	-	1.000	0.05	0.930	1.149
	LTE Band 7	20M	QPSK	1	0	-	Front	5mm	Ant 1	DSI 3	21100	2535	15.10	16.50	1.380	-	-	0.04	0.298	0.411
	LTE Band 7	20M	QPSK	50	0	-	Front	5mm	Ant 1	DSI 3	21100	2535	15.03	16.50	1.403	-	-	-0.02	0.258	0.362
	LTE Band 7	20M	QPSK	1	0	-	Back	5mm	Ant 1	DSI 3	21100	2535	15.10	16.50	1.380	-	-	-0.16	0.408	0.563
	LTE Band 7	20M	QPSK	50	0	-	Back	5mm	Ant 1	DSI 3	21100	2535	15.03	16.50	1.403	-	-	0.06	0.363	0.509
	LTE Band 7	20M	QPSK	1	0	-	Left Side	5mm	Ant 1	DSI 3	21100	2535	15.10	16.50	1.380	-	-	0.09	0.047	0.065
	LTE Band 7	20M	QPSK	50	0	-	Left Side	5mm	Ant 1	DSI 3	21100	2535	15.03	16.50	1.403	-	-	0.04	0.039	0.055
	LTE Band 7	20M	QPSK	1	0	-	Right Side	5mm	Ant 1	DSI 3	21100	2535	15.10	16.50	1.380	-	-	0.02	0.008	0.011
	LTE Band 7	20M	QPSK	50	0	-	Right Side	5mm	Ant 1	DSI 3	21100	2535	15.03	16.50	1.403	-	-	0.06	0.005	0.007
	LTE Band 7	20M	QPSK	1	0	-	Top Side	5mm	Ant 1	DSI 3	21100	2535	15.10	16.50	1.380	-	-	0.11	0.707	0.976
	LTE Band 7	20M	QPSK	1	0	-	Top Side	5mm	Ant 1	DSI 3	20850	2510	14.95	16.50	1.429	-	-	0.04	0.677	0.967
	LTE Band 7	20M	QPSK	1	0	-	Top Side	5mm	Ant 1	DSI 3	21350	2560	14.94	16.50	1.432	-	-	0.02	0.640	0.917
	LTE Band 7	20M	QPSK	50	0	-	Top Side	5mm	Ant 1	DSI 3	21100	2535	15.03	16.50	1.403	-	-	0.09	0.653	0.916
	LTE Band 7	20M	QPSK	50	0	-	Top Side	5mm	Ant 1	DSI 3	20850	2510	14.95	16.50	1.429	-	-	-0.02	0.656	0.937
	LTE Band 7	20M	QPSK	50	0	-	Top Side	5mm	Ant 1	DSI 3	21350	2560	14.84	16.50	1.466	-	-	0.04	0.661	0.969
	LTE Band 7	20M	QPSK	100	0	-	Top Side	5mm	Ant 1	DSI 3	21100	2535	14.96	16.50	1.426	-	-	0.06	0.648	0.924
	LTE Band 7C	20M	QPSK	1	99	-	Top Side	5mm	Ant 1	DSI 3	21100+21298	2535+2612.8	15.02	16.50	1.406	-	-	0.03	0.670	0.942
	LTE Band 41	20M	QPSK	1	0	-	Front	5mm	Ant 0	DSI 3	40620	2593	20.03	20.70	1.167	62.9	1.006	0.03	0.313	0.367
	LTE Band 41	20M	QPSK	50	0	-	Front	5mm	Ant 0	DSI 3	40620	2593	19.99	20.70	1.178	62.9	1.006	0.13	0.293	0.347
	LTE Band 41	20M	QPSK	1	0	-	Back	5mm	Ant 0	DSI 3	40620	2593	20.03	20.70	1.167	62.9	1.006	0.12	0.845	0.992
	LTE Band 41	20M	QPSK	1	0	-	Back	5mm	Ant 0	DSI 3	39750	2506	19.97	20.70	1.183	62.9	1.006	0.11	0.927	1.103
	LTE Band 41	20M	QPSK	1	0	-	Back	5mm	Ant 0	DSI 3	40185	2549.5	19.93	20.70	1.194	62.9	1.006	0.09	0.992	1.192
	LTE Band 41	20M	QPSK	1	0	-	Back	5mm	Ant 0	DSI 3	41055	2636.5	20.00	20.70	1.175	62.9	1.006	0.04	0.874	1.033
41	LTE Band 41	20M	QPSK	1	0	-	Back	5mm	Ant 0	DSI 3	41490	2680	19.88	20.70	1.208	62.9	1.006	-0.08	1.030	**1.252**
	LTE Band 41	20M	QPSK	50	0	-	Back	5mm	Ant 0	DSI 3	40620	2593	19.99	20.70	1.178	62.9	1.006	0.05	0.958	1.135
	LTE Band 41	20M	QPSK	50	0	-	Back	5mm	Ant 0	DSI 3	39750	2506	19.85	20.70	1.216	62.9	1.006	0.06	0.974	1.192
	LTE Band 41	20M	QPSK	50	0	-	Back	5mm	Ant 0	DSI 3	40185	2549.5	19.95	20.70	1.189	62.9	1.006	0.04	0.956	1.143
	LTE Band 41	20M	QPSK	50	0	-	Back	5mm	Ant 0	DSI 3	41055	2636.5	19.86	20.70	1.213	62.9	1.006	0.05	0.934	1.140
	LTE Band 41	20M	QPSK	50	0	-	Back	5mm	Ant 0	DSI 3	41490	2680	19.91	20.70	1.199	62.9	1.006	0.06	0.947	1.143
	LTE Band 41	20M	QPSK	100	0	-	Back	5mm	Ant 0	DSI 3	40620	2593	19.84	20.70	1.219	62.9	1.006	0.08	0.995	1.220
	LTE Band 41	20M	QPSK	1	0	-	Left Side	5mm	Ant 0	DSI 3	40620	2593	20.03	20.70	1.167	62.9	1.006	0.05	0.041	0.048
	LTE Band 41	20M	QPSK	50	0	-	Left Side	5mm	Ant 0	DSI 3	40620	2593	19.99	20.70	1.178	62.9	1.006	0.08	0.031	0.037

	LTE Band 41	20M	QPSK	1	0	-	Right Side	5mm	Ant 0	DSI 3	40620	2593	20.03	20.70	1.167	62.9	1.006	0.01	0.037	0.043
	LTE Band 41	20M	QPSK	50	0	-	Right Side	5mm	Ant 0	DSI 3	40620	2593	19.99	20.70	1.178	62.9	1.006	0.13	0.026	0.031
	LTE Band 41	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 0	DSI 3	40620	2593	20.03	20.70	1.167	62.9	1.006	0.11	0.725	0.851
	LTE Band 41	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 0	DSI 3	39750	2506	19.97	20.70	1.183	62.9	1.006	0.06	0.715	0.851
	LTE Band 41	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 0	DSI 3	40185	2549.5	19.93	20.70	1.194	62.9	1.006	0.01	0.692	0.831
	LTE Band 41	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 0	DSI 3	41055	2636.5	20.00	20.70	1.175	62.9	1.006	0.05	0.663	0.784
	LTE Band 41	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 0	DSI 3	41490	2680	19.88	20.70	1.208	62.9	1.006	0.01	0.684	0.831
	LTE Band 41	20M	QPSK	50	0	-	Bottom Side	5mm	Ant 0	DSI 3	40620	2593	19.99	20.70	1.178	62.9	1.006	0.05	0.704	0.834
	LTE Band 41	20M	QPSK	50	0	-	Bottom Side	5mm	Ant 0	DSI 3	39750	2506	19.85	20.70	1.216	62.9	1.006	0.13	0.678	0.830
	LTE Band 41	20M	QPSK	50	0	-	Bottom Side	5mm	Ant 0	DSI 3	40185	2549.5	19.95	20.70	1.189	62.9	1.006	0.05	0.665	0.795
	LTE Band 41	20M	QPSK	50	0	-	Bottom Side	5mm	Ant 0	DSI 3	41055	2636.5	19.86	20.70	1.213	62.9	1.006	0.01	0.704	0.859
	LTE Band 41	20M	QPSK	50	0	-	Bottom Side	5mm	Ant 0	DSI 3	41490	2680	19.91	20.70	1.199	62.9	1.006	0.05	0.648	0.782
	LTE Band 41	20M	QPSK	100	0	-	Bottom Side	5mm	Ant 0	DSI 3	40620	2593	19.84	20.70	1.219	62.9	1.006	0.01	0.700	0.858
	LTE Band 41 HPUE	20M	QPSK	1	0	-	Back	5mm	Ant 0	DSI 3	41490	2680	22.02	22.30	1.067	42.9	1.009	0.1	1.070	1.152
	LTE Band 41C	20M	QPSK	1	0	-	Back	5mm	Ant 0	DSI 3	41490+ 41292	2680+ 2660.2	19.83	20.70	1.222	62.9	1.006	0.02	0.970	1.192
	LTE Band 41	20M	QPSK	1	0	-	Front	5mm	Ant 1	DSI 3	40620	2593	18.17	19.30	1.297	62.9	1.006	0.04	0.339	0.442
	LTE Band 41	20M	QPSK	50	0	-	Front	5mm	Ant 1	DSI 3	40620	2593	18.13	19.30	1.309	62.9	1.006	0.05	0.301	0.396
	LTE Band 41	20M	QPSK	1	0	-	Back	5mm	Ant 1	DSI 3	40620	2593	18.17	19.30	1.297	62.9	1.006	-0.14	0.450	0.587
	LTE Band 41	20M	QPSK	50	0	-	Back	5mm	Ant 1	DSI 3	40620	2593	18.13	19.30	1.309	62.9	1.006	0.09	0.428	0.564
	LTE Band 41	20M	QPSK	1	0	-	Left Side	5mm	Ant 1	DSI 3	40620	2593	18.17	19.30	1.297	62.9	1.006	0.04	0.039	0.051
	LTE Band 41	20M	QPSK	50	0	-	Left Side	5mm	Ant 1	DSI 3	40620	2593	18.13	19.30	1.309	62.9	1.006	0.06	0.028	0.037
	LTE Band 41	20M	QPSK	1	0	-	Right Side	5mm	Ant 1	DSI 3	40620	2593	18.17	19.30	1.297	62.9	1.006	0.05	0.015	0.020
	LTE Band 41	20M	QPSK	50	0	-	Right Side	5mm	Ant 1	DSI 3	40620	2593	18.13	19.30	1.309	62.9	1.006	0.03	0.008	0.011
	LTE Band 41	20M	QPSK	1	0	-	Top Side	5mm	Ant 1	DSI 3	40620	2593	18.17	19.30	1.297	62.9	1.006	-0.02	0.763	0.996
	LTE Band 41	20M	QPSK	1	0	-	Top Side	5mm	Ant 1	DSI 3	39750	2506	18.04	19.30	1.337	62.9	1.006	0.01	0.682	0.917
	LTE Band 41	20M	QPSK	1	0	-	Top Side	5mm	Ant 1	DSI 3	40185	2549.5	17.93	19.30	1.371	62.9	1.006	-0.02	0.703	0.970
	LTE Band 41	20M	QPSK	1	0	-	Top Side	5mm	Ant 1	DSI 3	41055	2636.5	18.00	19.30	1.349	62.9	1.006	0.03	0.714	0.969
	LTE Band 41	20M	QPSK	1	0	-	Top Side	5mm	Ant 1	DSI 3	41490	2680	18.01	19.30	1.346	62.9	1.006	0.01	0.700	0.948
	LTE Band 41	20M	QPSK	50	0	-	Top Side	5mm	Ant 1	DSI 3	40620	2593	18.13	19.30	1.309	62.9	1.006	-0.02	0.713	0.939
	LTE Band 41	20M	QPSK	50	0	-	Top Side	5mm	Ant 1	DSI 3	39750	2506	18.04	19.30	1.337	62.9	1.006	0.06	0.694	0.933
	LTE Band 41	20M	QPSK	50	0	-	Top Side	5mm	Ant 1	DSI 3	40185	2549.5	18.08	19.30	1.324	62.9	1.006	0.04	0.715	0.953
	LTE Band 41	20M	QPSK	50	0	-	Top Side	5mm	Ant 1	DSI 3	41055	2636.5	17.93	19.30	1.371	62.9	1.006	-0.03	0.708	0.976
	LTE Band 41	20M	QPSK	50	0	-	Top Side	5mm	Ant 1	DSI 3	41490	2680	17.95	19.30	1.365	62.9	1.006	0.04	0.696	0.955
	LTE Band 41	20M	QPSK	100	0	-	Top Side	5mm	Ant 1	DSI 3	40620	2593	18.08	19.30	1.324	62.9	1.006	0.08	0.700	0.933
	LTE Band 41 HPUE	20M	QPSK	1	0	-	Top Side	5mm	Ant 1	DSI 3	40620	2593	20.23	20.90	1.167	42.9	1.009	0.02	0.761	0.896
	LTE Band 41C	20M	QPSK	1	99	-	Top Side	5mm	Ant 1	DSI 3	40620+40818	2593+2612.8	18.11	19.30	1.315	62.9	1.006	0.06	0.740	0.979
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 0	DSI 3	507000	2535	18.08	19.20	1.294	-	-	0.03	0.387	0.501
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Front	5mm	Ant 0	DSI 3	507000	2535	18.05	19.20	1.303	-	-	0.1	0.378	0.493
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 0	DSI 3	507000	2535	18.08	19.20	1.294	-	-	-0.02	0.622	0.805
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Back	5mm	Ant 0	DSI 3	507000	2535	18.05	19.20	1.303	-	-	-0.07	0.688	0.897
	FR1 n7	40M	QPSK	216	0	DFT-SCS-15KHz	Back	5mm	Ant 0	DSI 3	507000	2535	18.00	19.20	1.318	-	-	0.01	0.639	0.842
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Left Side	5mm	Ant 0	DSI 3	507000	2535	18.08	19.20	1.294	-	-	0.09	0.034	0.044
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Left Side	5mm	Ant 0	DSI 3	507000	2535	18.05	19.20	1.303	-	-	-0.03	0.045	0.059
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Right Side	5mm	Ant 0	DSI 3	507000	2535	18.08	19.20	1.294	-	-	0.04	0.073	0.094
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Right Side	5mm	Ant 0	DSI 3	507000	2535	18.05	19.20	1.303	-	-	0.05	0.068	0.089
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	5mm	Ant 0	DSI 3	507000	2535	18.08	19.20	1.294	-	-	0.03	0.932	1.206
42	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Bottom Side	5mm	Ant 0	DSI 3	507000	2535	18.05	19.20	1.303	-	-	-0.02	0.946	**1.233**
	FR1 n7	40M	QPSK	216	0	DFT-SCS-15KHz	Bottom Side	5mm	Ant 0	DSI 3	507000	2535	18.00	19.20	1.318	-	-	0.04	0.915	1.206
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 1	DSI 3	507000	2535	15.94	17.40	1.400	-	-	0.04	0.307	0.430
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Front	5mm	Ant 1	DSI 3	507000	2535	15.94	17.40	1.400	-	-	0.02	0.349	0.488
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 1	DSI 3	507000	2535	15.94	17.40	1.400	-	-	0.01	0.420	0.588
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Back	5mm	Ant 1	DSI 3	507000	2535	15.94	17.40	1.400	-	-	-0.16	0.470	0.658
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Left Side	5mm	Ant 1	DSI 3	507000	2535	15.94	17.40	1.400	-	-	0.01	0.063	0.088
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Left Side	5mm	Ant 1	DSI 3	507000	2535	15.94	17.40	1.400	-	-	0.06	0.056	0.078
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Right Side	5mm	Ant 1	DSI 3	507000	2535	15.94	17.40	1.400	-	-	0.04	0.006	0.008
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Right Side	5mm	Ant 1	DSI 3	507000	2535	15.94	17.40	1.400	-	-	-0.03	0.009	0.013

	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Top Side	5mm	Ant 1	DSI 3	507000	2535	15.94	17.40	1.400	-	-	0.04	0.705	0.987
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Top Side	5mm	Ant 1	DSI 3	507000	2535	15.94	17.40	1.400	-	-	0.08	0.695	0.973
	FR1 n7	40M	QPSK	216	0	DFT-SCS-15KHz	Top Side	5mm	Ant 1	DSI 3	507000	2535	15.79	17.40	1.449	-	-	0.02	0.677	0.981
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Front	5mm	Ant 0	DSI 3	518598	2592.99	19.79	20.70	1.233	-	-	0.06	0.449	0.554
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Front	5mm	Ant 0	DSI 3	518598	2592.99	19.76	20.70	1.242	-	-	0.01	0.477	0.592
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Back	5mm	Ant 0	DSI 3	518598	2592.99	19.79	20.70	1.233	-	-	0.07	0.882	1.088
43	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Back	5mm	Ant 0	DSI 3	518598	2592.99	19.76	20.70	1.242	-	-	0.06	0.992	**1.232**
	FR1 n41	100M	QPSK	270	0	DFT-SCS-30KHz	Back	5mm	Ant 0	DSI 3	518598	2592.99	19.65	20.70	1.274	-	-	0.05	0.887	1.130
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	5mm	Ant 0	DSI 3	518598	2592.99	19.79	20.70	1.233	-	-	0.03	0.046	0.057
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Left Side	5mm	Ant 0	DSI 3	518598	2592.99	19.76	20.70	1.242	-	-	-0.02	0.067	0.083
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Right Side	5mm	Ant 0	DSI 3	518598	2592.99	19.79	20.70	1.233	-	-	0.04	0.057	0.070
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Right Side	5mm	Ant 0	DSI 3	518598	2592.99	19.76	20.70	1.242	-	-	0.02	0.045	0.056
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Bottom Side	5mm	Ant 0	DSI 3	518598	2592.99	19.79	20.70	1.233	-	-	0.1	0.873	1.077
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Bottom Side	5mm	Ant 0	DSI 3	518598	2592.99	19.76	20.70	1.242	-	-	0.06	0.824	1.023
	FR1 n41	100M	QPSK	270	0	DFT-SCS-30KHz	Bottom Side	5mm	Ant 0	DSI 3	518598	2592.99	19.65	20.70	1.274	-	-	-0.02	0.757	0.964
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Front	5mm	Ant 1	DSI 3	518598	2592.99	14.56	15.60	1.271	-	-	-0.16	0.300	0.381
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Front	5mm	Ant 1	DSI 3	518598	2592.99	14.50	15.60	1.288	-	-	0.02	0.267	0.344
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Back	5mm	Ant 1	DSI 3	518598	2592.99	14.56	15.60	1.271	-	-	0.06	0.363	0.461
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Back	5mm	Ant 1	DSI 3	518598	2592.99	14.50	15.60	1.288	-	-	0.04	0.306	0.394
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	5mm	Ant 1	DSI 3	518598	2592.99	14.56	15.60	1.271	-	-	0.06	0.066	0.084
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Left Side	5mm	Ant 1	DSI 3	518598	2592.99	14.50	15.60	1.288	-	-	0.05	0.040	0.052
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Right Side	5mm	Ant 1	DSI 3	518598	2592.99	14.56	15.60	1.271	-	-	0.03	0.012	0.015
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Right Side	5mm	Ant 1	DSI 3	518598	2592.99	14.50	15.60	1.288	-	-	-0.02	0.018	0.023
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	5mm	Ant 1	DSI 3	518598	2592.99	14.56	15.60	1.271	-	-	0.04	0.781	0.992
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	5mm	Ant 1	DSI 3	518598	2592.99	14.50	15.60	1.288	-	-	0.02	0.699	0.900
	FR1 n41	100M	QPSK	270	0	DFT-SCS-30KHz	Top Side	5mm	Ant 1	DSI 3	518598	2592.99	14.48	15.60	1.294	-	-	0.01	0.681	0.881
3500MHZ~3900MHZ																				
	LTE Band 42	20M	QPSK	1	0	-	Front	5mm	Ant 2	DSI 3	42590	3500	15.06	16.10	1.271	62.9	1.006	0.03	0.349	0.446
	LTE Band 42	20M	QPSK	50	0	-	Front	5mm	Ant 2	DSI 3	42590	3500	15.00	16.10	1.288	62.9	1.006	0.11	0.303	0.393
	LTE Band 42	20M	QPSK	1	0	-	Back	5mm	Ant 2	DSI 3	42590	3500	15.06	16.10	1.271	62.9	1.006	0.01	0.268	0.343
	LTE Band 42	20M	QPSK	50	0	-	Back	5mm	Ant 2	DSI 3	42590	3500	15.00	16.10	1.288	62.9	1.006	0.13	0.244	0.316
	LTE Band 42	20M	QPSK	1	0	-	Left Side	5mm	Ant 2	DSI 3	42590	3500	15.06	16.10	1.271	62.9	1.006	0.15	0.739	0.945
	LTE Band 42	20M	QPSK	1	0	-	Left Side	5mm	Ant 2	DSI 3	42190	3460	14.90	16.10	1.318	62.9	1.006	0.11	0.698	0.926
44	LTE Band 42	20M	QPSK	1	0	-	Left Side	5mm	Ant 2	DSI 3	42990	3540	14.93	16.10	1.309	62.9	1.006	0.03	0.755	**0.994**
	LTE Band 42	20M	QPSK	50	0	-	Left Side	5mm	Ant 2	DSI 3	42590	3500	15.00	16.10	1.288	62.9	1.006	0.13	0.699	0.906
	LTE Band 42	20M	QPSK	50	0	-	Left Side	5mm	Ant 2	DSI 3	42190	3460	14.70	16.10	1.380	62.9	1.006	0.01	0.681	0.946
	LTE Band 42	20M	QPSK	50	0	-	Left Side	5mm	Ant 2	DSI 3	42990	3540	14.74	16.10	1.368	62.9	1.006	0.05	0.701	0.965
	LTE Band 42	20M	QPSK	100	0	-	Left Side	5mm	Ant 2	DSI 3	42590	3500	14.94	16.10	1.306	62.9	1.006	0.06	0.702	0.922
	LTE Band 42	20M	QPSK	1	0	-	Right Side	5mm	Ant 2	DSI 3	42590	3500	15.06	16.10	1.271	62.9	1.006	0.04	0.005	0.006
	LTE Band 42	20M	QPSK	50	0	-	Right Side	5mm	Ant 2	DSI 3	42590	3500	15.00	16.10	1.288	62.9	1.006	0.08	0.004	0.005
	LTE Band 42	20M	QPSK	1	0	-	Top Side	5mm	Ant 2	DSI 3	42590	3500	15.06	16.10	1.271	62.9	1.006	0.06	0.069	0.088
	LTE Band 42	20M	QPSK	50	0	-	Top Side	5mm	Ant 2	DSI 3	42590	3500	15.00	16.10	1.288	62.9	1.006	0.01	0.060	0.078
	LTE Band 48	20M	QPSK	1	0	-	Front	5mm	Ant 2	DSI 3	55830	3609	15.10	16.10	1.259	62.9	1.006	0.04	0.357	0.452
	LTE Band 48	20M	QPSK	50	0	-	Front	5mm	Ant 2	DSI 3	55830	3609	15.03	16.10	1.279	62.9	1.006	-0.03	0.340	0.438
	LTE Band 48	20M	QPSK	1	0	-	Back	5mm	Ant 2	DSI 3	55830	3609	15.10	16.10	1.259	62.9	1.006	0.05	0.199	0.252
	LTE Band 48	20M	QPSK	50	0	-	Back	5mm	Ant 2	DSI 3	55830	3609	15.03	16.10	1.279	62.9	1.006	0.04	0.181	0.233
	LTE Band 48	20M	QPSK	1	0	-	Left Side	5mm	Ant 2	DSI 3	55830	3609	15.10	16.10	1.259	62.9	1.006	-0.02	0.748	0.947
	LTE Band 48	20M	QPSK	1	0	-	Left Side	5mm	Ant 2	DSI 3	55340	3560	14.98	16.10	1.294	62.9	1.006	0.02	0.661	0.861
	LTE Band 48	20M	QPSK	1	0	-	Left Side	5mm	Ant 2	DSI 3	56150	3641	14.82	16.10	1.343	62.9	1.006	0.1	0.664	0.897
45	LTE Band 48	20M	QPSK	1	0	-	Left Side	5mm	Ant 2	DSI 3	56640	3690	14.93	16.10	1.309	62.9	1.006	0.06	0.762	**1.004**
	LTE Band 48	20M	QPSK	50	0	-	Left Side	5mm	Ant 2	DSI 3	55830	3609	15.03	16.10	1.279	62.9	1.006	0.03	0.721	0.928
	LTE Band 48	20M	QPSK	50	0	-	Left Side	5mm	Ant 2	DSI 3	55340	3560	14.78	16.10	1.355	62.9	1.006	0.01	0.689	0.939
	LTE Band 48	20M	QPSK	50	0	-	Left Side	5mm	Ant 2	DSI 3	56150	3641	14.80	16.10	1.349	62.9	1.006	-0.16	0.691	0.938
	LTE Band 48	20M	QPSK	50	0	-	Left Side	5mm	Ant 2	DSI 3	56640	3690	14.73	16.10	1.371	62.9	1.006	0.02	0.679	0.936
	LTE Band 48	20M	QPSK	100	0	-	Left Side	5mm	Ant 2	DSI 3	55830	3609	14.99	16.10	1.291	62.9	1.006	0.01	0.688	0.894
	LTE Band 48	20M	QPSK	1	0	-	Right Side	5mm	Ant 2	DSI 3	55830	3609	15.10	16.10	1.259	62.9	1.006	0.06	0.004	0.005

	LTE Band 48	20M	QPSK	50	0	-	Right Side	5mm	Ant 2	DSI 3	55830	3609	15.03	16.10	1.279	62.9	1.006	0.04	0.005	0.006
	LTE Band 48	20M	QPSK	1	0	-	Top Side	5mm	Ant 2	DSI 3	55830	3609	15.10	16.10	1.259	62.9	1.006	-0.03	0.056	0.071
	LTE Band 48	20M	QPSK	50	0	-	Top Side	5mm	Ant 2	DSI 3	55830	3609	15.03	16.10	1.279	62.9	1.006	0.04	0.032	0.041
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Front	5mm	Ant 2	DSI 3	656000	3840	11.63	12.50	1.222	-	-	-0.01	0.329	0.402
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Front	5mm	Ant 2	DSI 3	656000	3840	11.59	12.50	1.233	-	-	0.02	0.324	0.400
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Back	5mm	Ant 2	DSI 3	656000	3840	11.63	12.50	1.222	-	-	0.05	0.226	0.276
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Back	5mm	Ant 2	DSI 3	656000	3840	11.59	12.50	1.233	-	-	-0.03	0.184	0.227
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	5mm	Ant 2	DSI 3	656000	3840	11.63	12.50	1.222	-	-	0.06	0.783	0.957
	FR1 n77 Part27O HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	5mm	Ant 2	DSI 3	656000	3840	14.52	15.50	1.253	50	1.000	0.05	0.781	0.979
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Left Side	5mm	Ant 2	DSI 3	656000	3840	11.59	12.50	1.233	-	-	0.04	0.662	0.816
	FR1 n77 Part27O	100M	QPSK	270	0	DFT-SCS-30KHz	Left Side	5mm	Ant 2	DSI 3	656000	3840	11.57	12.50	1.239	-	-	-0.03	0.688	0.852
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Right Side	5mm	Ant 2	DSI 3	656000	3840	11.63	12.50	1.222	-	-	0.06	0.002	0.002
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Right Side	5mm	Ant 2	DSI 3	656000	3840	11.59	12.50	1.233	-	-	0.05	0.002	0.002
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	5mm	Ant 2	DSI 3	656000	3840	11.63	12.50	1.222	-	-	0.03	0.035	0.043
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	5mm	Ant 2	DSI 3	656000	3840	11.59	12.50	1.233	-	-	-0.02	0.034	0.042
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Front	5mm	Ant 4	DSI 3	656000	3840	15.15	16.30	1.303	-	-	-0.03	0.334	0.435
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Front	5mm	Ant 4	DSI 3	656000	3840	15.12	16.30	1.312	-	-	-0.01	0.355	0.466
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Back	5mm	Ant 4	DSI 3	656000	3840	15.15	16.30	1.303	-	-	0.02	0.316	0.412
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Back	5mm	Ant 4	DSI 3	656000	3840	15.12	16.30	1.312	-	-	0.01	0.331	0.434
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	5mm	Ant 4	DSI 3	656000	3840	15.15	16.30	1.303	-	-	-0.03	0.049	0.064
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Left Side	5mm	Ant 4	DSI 3	656000	3840	15.12	16.30	1.312	-	-	0.01	0.055	0.072
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Right Side	5mm	Ant 4	DSI 3	656000	3840	15.15	16.30	1.303	-	-	0.06	0.099	0.129
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Right Side	5mm	Ant 4	DSI 3	656000	3840	15.12	16.30	1.312	-	-	0.04	0.097	0.127
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	5mm	Ant 4	DSI 3	656000	3840	15.15	16.30	1.303	-	-	-0.03	0.748	0.975
	FR1 n77 Part27O HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	5mm	Ant 4	DSI 3	656000	3840	18.08	19.30	1.324	50	1.000	0.05	0.744	0.985
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	5mm	Ant 4	DSI 3	656000	3840	15.12	16.30	1.312	-	-	0.06	0.700	0.919
	FR1 n77 Part27O	100M	QPSK	270	0	DFT-SCS-30KHz	Top Side	5mm	Ant 4	DSI 3	656000	3840	15.08	16.30	1.324	-	-	0.05	0.677	0.897
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Front	5mm	Ant 5	DSI 3	656000	3840	17.33	18.30	1.250	-	-	-0.05	0.729	0.911
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Front	5mm	Ant 5	DSI 3	656000	3840	17.27	18.30	1.268	-	-	0.06	0.651	0.825
	FR1 n77 Part27O	100M	QPSK	270	0	DFT-SCS-30KHz	Front	5mm	Ant 5	DSI 3	656000	3840	17.21	18.30	1.285	-	-	0.04	0.633	0.814
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Back	5mm	Ant 5	DSI 3	656000	3840	17.33	18.30	1.250	-	-	0.02	0.587	0.734
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Back	5mm	Ant 5	DSI 3	656000	3840	17.27	18.30	1.268	-	-	0.01	0.511	0.648
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	5mm	Ant 5	DSI 3	656000	3840	17.33	18.30	1.250	-	-	-0.03	0.019	0.024
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Left Side	5mm	Ant 5	DSI 3	656000	3840	17.27	18.30	1.268	-	-	0.01	0.013	0.016
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Right Side	5mm	Ant 5	DSI 3	656000	3840	17.33	18.30	1.250	-	-	0.06	0.434	0.543
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Right Side	5mm	Ant 5	DSI 3	656000	3840	17.27	18.30	1.268	-	-	0.04	0.484	0.614
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	5mm	Ant 5	DSI 3	656000	3840	17.33	18.30	1.250	-	-	0.06	0.776	0.970
	FR1 n77 Part27O HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	5mm	Ant 5	DSI 3	656000	3840	20.23	21.30	1.279	50	1.000	0.05	0.774	0.990
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	5mm	Ant 5	DSI 3	656000	3840	17.27	18.30	1.268	-	-	0.05	0.706	0.895
	FR1 n77 Part27O	100M	QPSK	270	0	DFT-SCS-30KHz	Top Side	5mm	Ant 5	DSI 3	656000	3840	17.21	18.30	1.285	-	-	0.03	0.700	0.900
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Front	5mm	Ant 7	DSI 3	656000	3840	18.21	19.20	1.256	-	-	-0.08	0.714	0.897
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Front	5mm	Ant 7	DSI 3	656000	3840	18.17	19.20	1.268	-	-	0.03	0.618	0.783
	FR1 n77 Part27O	100M	QPSK	270	0	DFT-SCS-30KHz	Front	5mm	Ant 7	DSI 3	656000	3840	18.14	19.20	1.276	-	-	0.01	0.611	0.780
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Back	5mm	Ant 7	DSI 3	656000	3840	18.21	19.20	1.256	-	-	0.05	0.482	0.605
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Back	5mm	Ant 7	DSI 3	656000	3840	18.17	19.20	1.268	-	-	-0.03	0.435	0.551
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	5mm	Ant 7	DSI 3	656000	3840	18.21	19.20	1.256	-	-	0.06	0.981	1.232
46	FR1 n77 Part27O HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	5mm	Ant 7	DSI 3	656000	3840	21.12	22.20	1.282	50	1.000	0.04	0.977	**1.253**
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Left Side	5mm	Ant 7	DSI 3	656000	3840	18.17	19.20	1.268	-	-	0.04	0.941	1.193
	FR1 n77 Part27O	100M	QPSK	270	0	DFT-SCS-30KHz	Left Side	5mm	Ant 7	DSI 3	656000	3840	18.14	19.20	1.276	-	-	-0.03	0.920	1.174
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Right Side	5mm	Ant 7	DSI 3	656000	3840	18.21	19.20	1.256	-	-	0.06	0.030	0.038
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Right Side	5mm	Ant 7	DSI 3	656000	3840	18.17	19.20	1.268	-	-	0.05	0.022	0.028
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Bottom Side	5mm	Ant 7	DSI 3	656000	3840	18.21	19.20	1.256	-	-	0.03	0.461	0.579
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Bottom Side	5mm	Ant 7	DSI 3	656000	3840	18.17	19.20	1.268	-	-	-0.02	0.378	0.479
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Front	5mm	Ant 4	DSI 3	650000	3750	15.24	16.00	1.191	-	-	0.04	0.322	0.384
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Front	5mm	Ant 4	DSI 3	650000	3750	15.22	16.00	1.197	-	-	-0.05	0.415	0.497
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Back	5mm	Ant 4	DSI 3	650000	3750	15.24	16.00	1.191	-	-	-0.03	0.356	0.424

	FR1 n78 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Back	5mm	Ant 4	DSI 3	650000	3750	15.22	16.00	1.197	-	-	0.07	0.340	0.407
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	5mm	Ant 4	DSI 3	650000	3750	15.24	16.00	1.191	-	-	0.04	0.052	0.062
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Left Side	5mm	Ant 4	DSI 3	650000	3750	15.22	16.00	1.197	-	-	0.06	0.044	0.053
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Right Side	5mm	Ant 4	DSI 3	650000	3750	15.24	16.00	1.191	-	-	0.08	0.098	0.117
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Right Side	5mm	Ant 4	DSI 3	650000	3750	15.22	16.00	1.197	-	-	-0.18	0.139	0.166
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	5mm	Ant 4	DSI 3	650000	3750	15.24	16.00	1.191	-	-	0.04	0.793	0.945
	FR1 n78 Part27O HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	5mm	Ant 4	DSI 3	650000	3750	18.01	19.00	1.256	50	1.000	0.05	0.789	0.991
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	5mm	Ant 4	DSI 3	650000	3750	15.22	16.00	1.197	-	-	0.07	0.786	0.941
	FR1 n78 Part27O	100M	QPSK	270	0	DFT-SCS-30KHz	Top Side	5mm	Ant 4	DSI 3	650000	3750	15.16	16.00	1.213	-	-	0.07	0.738	0.895
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Front	5mm	Ant 5	DSI 3	650000	3750	17.10	18.00	1.230	-	-	0.04	0.530	0.652
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Front	5mm	Ant 5	DSI 3	650000	3750	17.01	18.00	1.256	-	-	0.03	0.571	0.717
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Back	5mm	Ant 5	DSI 3	650000	3750	17.10	18.00	1.230	-	-	-0.03	0.474	0.583
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Back	5mm	Ant 5	DSI 3	650000	3750	17.01	18.00	1.256	-	-	0.07	0.466	0.585
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	5mm	Ant 5	DSI 3	650000	3750	17.10	18.00	1.230	-	-	0.04	0.022	0.027
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Left Side	5mm	Ant 5	DSI 3	650000	3750	17.01	18.00	1.256	-	-	0.06	0.017	0.021
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Right Side	5mm	Ant 5	DSI 3	650000	3750	17.10	18.00	1.230	-	-	0.08	0.264	0.325
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Right Side	5mm	Ant 5	DSI 3	650000	3750	17.01	18.00	1.256	-	-	-0.18	0.386	0.485
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	5mm	Ant 5	DSI 3	650000	3750	17.10	18.00	1.230	-	-	0.06	0.711	0.875
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	5mm	Ant 5	DSI 3	650000	3750	17.01	18.00	1.256	-	-	0.07	0.766	0.962
	FR1 n78 Part27O HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	5mm	Ant 5	DSI 3	650000	3750	19.93	21.00	1.279	50	1.000	0.04	0.761	0.974
	FR1 n78 Part27O	100M	QPSK	270	0	DFT-SCS-30KHz	Top Side	5mm	Ant 5	DSI 3	650000	3750	16.96	18.00	1.271	-	-	0.07	0.637	0.809
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Front	5mm	Ant 7	DSI 3	650000	3750	18.93	19.80	1.222	-	-	0.06	0.719	0.878
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Front	5mm	Ant 7	DSI 3	650000	3750	18.87	19.80	1.239	-	-	-0.05	0.762	0.944
	FR1 n78 Part27O	100M	QPSK	270	0	DFT-SCS-30KHz	Front	5mm	Ant 7	DSI 3	650000	3750	18.86	19.80	1.242	-	-	0.01	0.671	0.833
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Back	5mm	Ant 7	DSI 3	650000	3750	18.93	19.80	1.222	-	-	0.05	0.400	0.489
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Back	5mm	Ant 7	DSI 3	650000	3750	18.87	19.80	1.239	-	-	-0.03	0.381	0.472
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	5mm	Ant 7	DSI 3	650000	3750	18.93	19.80	1.222	-	-	0.06	0.987	1.206
47	FR1 n78 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Left Side	5mm	Ant 7	DSI 3	650000	3750	18.87	19.80	1.239	-	-	0.17	1.040	**1.288**
	FR1 n78 Part27O HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Left Side	5mm	Ant 7	DSI 3	650000	3750	21.69	22.80	1.291	50	1.000	0.11	0.991	1.280
	FR1 n78 Part27O	100M	QPSK	270	0	DFT-SCS-30KHz	Left Side	5mm	Ant 7	DSI 3	650000	3750	18.86	19.80	1.242	-	-	-0.03	0.961	1.193
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Right Side	5mm	Ant 7	DSI 3	650000	3750	18.93	19.80	1.222	-	-	0.06	0.033	0.040
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Right Side	5mm	Ant 7	DSI 3	650000	3750	18.87	19.80	1.239	-	-	0.05	0.020	0.025
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Bottom Side	5mm	Ant 7	DSI 3	650000	3750	18.93	19.80	1.222	-	-	0.03	0.245	0.299
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Bottom Side	5mm	Ant 7	DSI 3	650000	3750	18.87	19.80	1.239	-	-	0.03	0.340	0.421

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)
						WLAN/BT										
	WLAN2.4GHz	802.11b 1Mbps	Front	5mm	Ant 3+6	WWAN +non DBS	6	2437	17.30	18.50	1.318	97.94	1.021	0.06	0.194	0.261
	WLAN2.4GHz	802.11b 1Mbps	Back	5mm	Ant 3+6	WWAN +non DBS	6	2437	17.30	18.50	1.318	97.94	1.021	0.01	0.190	0.256
	WLAN2.4GHz	802.11b 1Mbps	Left Side	5mm	Ant 3+6	WWAN +non DBS	6	2437	17.30	18.50	1.318	97.94	1.021	-0.02	0.010	0.013
	WLAN2.4GHz	802.11b 1Mbps	Right Side	5mm	Ant 3+6	WWAN +non DBS	6	2437	17.30	18.50	1.318	97.94	1.021	0.03	0.034	0.046
48	WLAN2.4GHz	802.11b 1Mbps	Top Side	5mm	Ant 3+6	WWAN +non DBS	6	2437	17.30	18.50	1.318	97.94	1.021	0.05	0.276	**0.371**
	WLAN2.4GHz	802.11b 1Mbps	Top Side	5mm	Ant 3+6	WWAN +DBS	6	2437	14.35	15.50	1.303	97.94	1.021	0.01	0.146	0.194
	WLAN2.4GHz	802.11b 1Mbps	Front	5mm	Ant 3+6	WWAN +DBS	6	2437	14.35	15.50	1.303	97.94	1.021	0.06	0.075	0.100
	WLAN2.4GHz	802.11b 1Mbps	Back	5mm	Ant 3+6	WWAN +DBS	6	2437	14.35	15.50	1.303	97.94	1.021	-0.02	0.074	0.098
	WLAN2.4GHz	802.11b 1Mbps	Left Side	5mm	Ant 3+6	WWAN +DBS	6	2437	14.35	15.50	1.303	97.94	1.021	0.01	0.004	0.005
	WLAN2.4GHz	802.11b 1Mbps	Right Side	5mm	Ant 3+6	WWAN +DBS	6	2437	14.35	15.50	1.303	97.94	1.021	0.02	0.013	0.017
	Bluetooth	1Mbps	Front	5mm	Ant 6	Full power	0	2402	11.33	12.00	1.167	76.56	1.088	-0.02	0.072	0.091
	Bluetooth	1Mbps	Back	5mm	Ant 6	Full power	0	2402	11.33	12.00	1.167	76.56	1.088	0.08	0.057	0.072
	Bluetooth	1Mbps	Left Side	5mm	Ant 6	Full power	0	2402	11.33	12.00	1.167	76.56	1.088	0.02	0.008	0.010
	Bluetooth	1Mbps	Right Side	5mm	Ant 6	Full power	0	2402	11.33	12.00	1.167	76.56	1.088	-0.06	0.104	0.132
	Bluetooth	1Mbps	Top Side	5mm	Ant 6	Full power	0	2402	11.33	12.00	1.167	76.56	1.088	0.01	0.007	0.009
	Bluetooth	1Mbps	Front	5mm	Ant 3	Full power	78	2480	9.21	10.50	1.346	76.97	1.082	0.06	0.034	0.050
	Bluetooth	1Mbps	Back	5mm	Ant 3	Full power	78	2480	9.21	10.50	1.346	76.97	1.082	0.01	0.039	0.057
	Bluetooth	1Mbps	Left Side	5mm	Ant 3	Full power	78	2480	9.21	10.50	1.346	76.97	1.082	0.04	0.002	0.003
	Bluetooth	1Mbps	Right Side	5mm	Ant 3	Full power	78	2480	9.21	10.50	1.346	76.97	1.082	0.02	0.001	0.001
49	Bluetooth	1Mbps	Top Side	5mm	Ant 3	Full power	78	2480	9.21	10.50	1.346	76.97	1.082	-0.06	0.106	**0.154**
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Front	5mm	Ant 4+5	WWAN +non DBS	42	5210	16.41	18.00	1.442	99.30	1.007	0.03	0.239	0.347
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Back	5mm	Ant 4+5	WWAN +non DBS	42	5210	16.41	18.00	1.442	99.30	1.007	0.15	0.150	0.218
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Left Side	5mm	Ant 4+5	WWAN +non DBS	42	5210	16.41	18.00	1.442	99.30	1.007	0.11	0.024	0.035
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Right Side	5mm	Ant 4+5	WWAN +non DBS	42	5210	16.41	18.00	1.442	99.30	1.007	0.14	0.133	0.193
50	WLAN5.2GHz	802.11ac-VHT80 MCS0	Top Side	5mm	Ant 4+5	WWAN +non DBS	42	5210	16.41	18.00	1.442	99.30	1.007	-0.03	0.273	**0.396**
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Top Side	5mm	Ant 4+5	WWAN +DBS	42	5210	13.42	15.00	1.439	99.30	1.007	0.06	0.110	0.159
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Front	5mm	Ant 4+5	WWAN +DBS	42	5210	13.42	15.00	1.439	99.30	1.007	0.01	0.096	0.139
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Back	5mm	Ant 4+5	WWAN +DBS	42	5210	13.42	15.00	1.439	99.30	1.007	-0.03	0.060	0.087
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Left Side	5mm	Ant 4+5	WWAN +DBS	42	5210	13.42	15.00	1.439	99.30	1.007	0.02	0.010	0.014
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Right Side	5mm	Ant 4+5	WWAN +DBS	42	5210	13.42	15.00	1.439	99.30	1.007	0.06	0.054	0.078
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Front	5mm	Ant 4+5	WWAN +non DBS	155	5775	16.51	18.00	1.409	99.30	1.007	0.13	0.272	0.386
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Back	5mm	Ant 4+5	WWAN +non DBS	155	5775	16.51	18.00	1.409	99.30	1.007	0.11	0.200	0.284
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Side	5mm	Ant 4+5	WWAN +non DBS	155	5775	16.51	18.00	1.409	99.30	1.007	0.12	0.029	0.041
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Side	5mm	Ant 4+5	WWAN +non DBS	155	5775	16.51	18.00	1.409	99.30	1.007	0.06	0.116	0.165
51	WLAN5.8GHz	802.11ac-VHT80 MCS0	Top Side	5mm	Ant 4+5	WWAN +non DBS	155	5775	16.51	18.00	1.409	99.30	1.007	-0.08	0.274	**0.389**
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Top Side	5mm	Ant 4+5	WWAN +DBS	155	5775	13.52	15.00	1.406	99.30	1.007	0.01	0.133	0.188
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Front	5mm	Ant 4+5	WWAN +DBS	155	5775	13.52	15.00	1.406	99.30	1.007	0.06	0.130	0.184
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Back	5mm	Ant 4+5	WWAN +DBS	155	5775	13.52	15.00	1.406	99.30	1.007	-0.02	0.097	0.137
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Side	5mm	Ant 4+5	WWAN +DBS	155	5775	13.52	15.00	1.406	99.30	1.007	0.03	0.014	0.020
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Side	5mm	Ant 4+5	WWAN +DBS	155	5775	13.52	15.00	1.406	99.30	1.007	0.06	0.056	0.079

16.3 Body Worn Accessory SAR

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Headset	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	5mm	Ant 0	-	DSI 3	23095	707.5	22.84	24.00	1.306	0.03	0.691	0.903
	LTE Band 12	10M	QPSK	25	0	-	Front	5mm	Ant 0	-	DSI 3	23095	707.5	21.74	23.00	1.337	0.01	0.540	0.722
	LTE Band 12	10M	QPSK	50	0	-	Front	5mm	Ant 0	-	DSI 3	23095	707.5	21.65	23.00	1.365	0.06	0.532	0.726
52	LTE Band 12	10M	QPSK	1	0	-	Back	5mm	Ant 0	-	DSI 3	23095	707.5	22.84	24.00	1.306	-0.1	0.837	**1.093**
	LTE Band 12	10M	QPSK	25	0	-	Back	5mm	Ant 0	-	DSI 3	23095	707.5	21.74	23.00	1.337	-0.03	0.650	0.869
	LTE Band 12	10M	QPSK	50	0	-	Back	5mm	Ant 0	-	DSI 3	23095	707.5	21.65	23.00	1.365	0.05	0.642	0.876
	LTE Band 12	10M	QPSK	1	0	-	Front	5mm	Ant 1	-	DSI 3	23095	707.5	23.09	24.00	1.233	0.03	0.285	0.351
	LTE Band 12	10M	QPSK	25	0	-	Front	5mm	Ant 1	-	DSI 3	23095	707.5	22.15	23.00	1.216	0.01	0.220	0.268
	LTE Band 12	10M	QPSK	1	0	-	Back	5mm	Ant 1	-	DSI 3	23095	707.5	23.09	24.00	1.233	-0.02	0.543	0.670
	LTE Band 12	10M	QPSK	25	0	-	Back	5mm	Ant 1	-	DSI 3	23095	707.5	22.15	23.00	1.216	0.05	0.400	0.486
	LTE Band 13	10M	QPSK	1	0	-	Front	5mm	Ant 0	-	DSI 3	23230	782	22.97	24.00	1.268	0.06	0.875	1.109
	LTE Band 13	10M	QPSK	25	0	-	Front	5mm	Ant 0	-	DSI 3	23230	782	21.87	23.00	1.297	0.01	0.687	0.891
	LTE Band 13	10M	QPSK	50	0	-	Front	5mm	Ant 0	-	DSI 3	23230	782	21.82	23.00	1.312	0.03	0.674	0.884
53	LTE Band 13	10M	QPSK	1	0	-	Back	5mm	Ant 0	-	DSI 3	23230	782	22.97	24.00	1.268	-0.05	0.896	**1.136**
	LTE Band 13	10M	QPSK	25	0	-	Back	5mm	Ant 0	-	DSI 3	23230	782	21.87	23.00	1.297	0.04	0.692	0.898
	LTE Band 13	10M	QPSK	50	0	-	Back	5mm	Ant 0	-	DSI 3	23230	782	21.82	23.00	1.312	-0.02	0.675	0.886
835MHZ																			
	GSM850	-	-	-	-	GPRS (3 Tx slots)	Front	5mm	Ant 0	-	DSI 3	189	836.4	28.67	29.50	1.211	0.06	0.829	1.004
	GSM850	-	-	-	-	GPRS (3 Tx slots)	Front	5mm	Ant 0	-	DSI 3	128	824.2	28.60	29.50	1.230	0.02	0.785	0.966
54	GSM850	-	-	-	-	GPRS (3 Tx slots)	Front	5mm	Ant 0	-	DSI 3	251	848.8	28.59	29.50	1.233	0.03	0.896	**1.105**
	GSM850	-	-	-	-	GPRS (3 Tx slots)	Back	5mm	Ant 0	-	DSI 3	189	836.4	28.67	29.50	1.211	-0.03	0.808	0.978
	GSM850	-	-	-	-	GPRS (3 Tx slots)	Back	5mm	Ant 0	-	DSI 3	128	824.2	28.60	29.50	1.230	0.01	0.813	1.000
	GSM850	-	-	-	-	GPRS (3 Tx slots)	Back	5mm	Ant 0	-	DSI 3	251	848.8	28.59	29.50	1.233	0.05	0.850	1.048
	GSM850	-	-	-	-	GPRS (3 Tx slots)	Front	5mm	Ant 1	-	DSI 3	189	836.4	28.74	29.50	1.191	-0.08	0.476	0.567
	GSM850	-	-	-	-	GPRS (3 Tx slots)	Back	5mm	Ant 1	-	DSI 3	189	836.4	28.74	29.50	1.191	-0.03	0.699	0.833
	GSM850	-	-	-	-	GPRS (3 Tx slots)	Back	5mm	Ant 1	-	DSI 3	128	824.2	28.62	29.50	1.225	0.04	0.703	0.861
	GSM850	-	-	-	-	GPRS (3 Tx slots)	Back	5mm	Ant 1	-	DSI 3	251	848.8	28.64	29.50	1.219	0.03	0.680	0.829
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Front	5mm	Ant 0	-	DSI 3	4182	836.4	23.23	24.00	1.194	0.06	0.968	1.156
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Front	5mm	Ant 0	-	DSI 3	4132	826.4	23.17	24.00	1.211	0.1	0.993	1.202
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Front	5mm	Ant 0	-	DSI 3	4233	846.6	23.15	24.00	1.216	0.02	0.993	1.208
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 0	-	DSI 3	4182	836.4	23.23	24.00	1.194	0.03	0.931	1.112
55	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 0	-	DSI 3	4132	826.4	23.17	24.00	1.211	-0.08	1.060	**1.283**
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 0	-	DSI 3	4233	846.6	23.15	24.00	1.216	-0.03	0.968	1.177
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 0	Headset	DSI 3	4132	826.4	23.17	24.00	1.211	0.02	0.546	0.661
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Front	5mm	Ant 0	Headset	DSI 3	4233	846.6	23.15	24.00	1.216	0.06	0.488	0.593
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Front	5mm	Ant 1	-	DSI 3	4182	836.4	23.42	24.00	1.143	-0.08	0.449	0.513
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 1	-	DSI 3	4182	836.4	23.42	24.00	1.143	0.05	0.604	0.690
	LTE Band 26	15M	QPSK	1	0	-	Front	5mm	Ant 0	-	DSI 3	26865	831.5	22.87	23.50	1.156	0.03	1.000	1.156
	LTE Band 26	15M	QPSK	36	0	-	Front	5mm	Ant 0	-	DSI 3	26865	831.5	21.84	23.00	1.306	-0.03	0.765	0.999
	LTE Band 26	15M	QPSK	75	0	-	Front	5mm	Ant 0	-	DSI 3	26865	831.5	21.80	23.00	1.318	0.01	0.750	0.989
56	LTE Band 26	15M	QPSK	1	0	-	Back	5mm	Ant 0	-	DSI 3	26865	831.5	22.87	23.50	1.156	0.05	1.020	**1.179**
	LTE Band 26	15M	QPSK	36	0	-	Back	5mm	Ant 0	-	DSI 3	26865	831.5	21.84	23.00	1.306	0.01	0.803	1.049
	LTE Band 26	15M	QPSK	75	0	-	Back	5mm	Ant 0	-	DSI 3	26865	831.5	21.80	23.00	1.318	0.03	0.789	1.040
	LTE Band 26	15M	QPSK	1	0	-	Front	16mm	Ant 0	-	DSI 4	26865	831.5	22.87	24.00	1.297	0.01	0.269	0.349
	LTE Band 26	15M	QPSK	1	0	-	Back	18mm	Ant 0	-	DSI 4	26865	831.5	22.87	24.00	1.297	0.06	0.219	0.284
	LTE Band 26	15M	QPSK	1	0	-	Front	5mm	Ant 1	-	DSI 3	26865	831.5	23.06	24.00	1.242	0.01	0.485	0.602
	LTE Band 26	15M	QPSK	36	0	-	Front	5mm	Ant 1	-	DSI 3	26865	831.5	22.12	23.00	1.225	0.09	0.294	0.360
	LTE Band 26	15M	QPSK	1	0	-	Back	5mm	Ant 1	-	DSI 3	26865	831.5	23.06	24.00	1.242	0.03	0.651	0.808
	LTE Band 26	15M	QPSK	36	0	-	Back	5mm	Ant 1	-	DSI 3	26865	831.5	22.12	23.00	1.225	0.06	0.509	0.623
	LTE Band 26	15M	QPSK	75	0	-	Back	5mm	Ant 1	-	DSI 3	26865	831.5	22.01	23.00	1.256	0.01	0.500	0.628

57	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 0	-	DSI 3	167300	836.5	22.72	24.00	1.343	0.01	0.715	**0.960**
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Front	5mm	Ant 0	-	DSI 3	167300	836.5	22.67	24.00	1.358	0.06	0.586	0.796
	FR1 n5	20M	QPSK	100	0	DFT-SCS-15KHz	Front	5mm	Ant 0	-	DSI 3	167300	836.5	21.69	23.00	1.352	0.03	0.521	0.704
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 0	-	DSI 3	167300	836.5	22.72	24.00	1.343	0.03	0.676	0.908
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Back	5mm	Ant 0	-	DSI 3	167300	836.5	22.67	24.00	1.358	-0.08	0.636	0.864
	FR1 n5	20M	QPSK	100	0	DFT-SCS-15KHz	Back	5mm	Ant 0	-	DSI 3	167300	836.5	21.69	23.00	1.352	0.06	0.533	0.721
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 1	-	DSI 3	167300	836.5	22.98	24.00	1.265	0.06	0.526	0.665
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Front	5mm	Ant 1	-	DSI 3	167300	836.5	22.95	24.00	1.274	0.01	0.413	0.526
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 1	-	DSI 3	167300	836.5	22.98	24.00	1.265	-0.05	0.679	0.859
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Back	5mm	Ant 1	-	DSI 3	167300	836.5	22.95	24.00	1.274	0.02	0.558	0.711
	FR1 n5	20M	QPSK	100	0	DFT-SCS-15KHz	Back	5mm	Ant 1	-	DSI 3	167300	836.5	22.00	23.00	1.259	0.05	0.511	0.643
1750MHZ																			
58	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	5mm	Ant 0	-	DSI 3	1413	1732.6	14.83	15.90	1.279	-0.13	0.574	**0.734**
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 0	-	DSI 3	1413	1732.6	14.83	15.90	1.279	0.11	0.538	0.688
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	16mm	Ant 0	-	DSI 4	1413	1732.6	23.13	24.00	1.222	0.15	0.560	0.684
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	18mm	Ant 0	-	DSI 4	1413	1732.6	23.13	24.00	1.222	0.03	0.498	0.608
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	5mm	Ant 1	-	DSI 3	1413	1732.6	17.27	18.40	1.297	0.03	0.537	0.697
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 1	-	DSI 3	1413	1732.6	17.27	18.40	1.297	0.02	0.454	0.589
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	16mm	Ant 1	-	DSI 4	1413	1732.6	23.61	24.00	1.094	0.05	0.301	0.329
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	18mm	Ant 1	-	DSI 4	1413	1732.6	23.61	24.00	1.094	0.01	0.203	0.222
	LTE Band 66	20M	QPSK	1	0	-	Front	5mm	Ant 0	-	DSI 3	132322	1745	15.39	16.00	1.151	0.09	0.599	0.689
	LTE Band 66	20M	QPSK	50	0	-	Front	5mm	Ant 0	-	DSI 3	132322	1745	15.34	16.00	1.164	0.03	0.584	0.680
59	LTE Band 66	20M	QPSK	1	0	-	Back	5mm	Ant 0	-	DSI 3	132322	1745	15.39	16.00	1.151	-0.01	0.648	**0.746**
	LTE Band 66	20M	QPSK	50	0	-	Back	5mm	Ant 0	-	DSI 3	132322	1745	15.34	16.00	1.164	0.03	0.612	0.712
	LTE Band 66	20M	QPSK	1	0	-	Front	16mm	Ant 0	-	DSI 4	132322	1745	22.94	24.00	1.276	0.06	0.512	0.654
	LTE Band 66	20M	QPSK	1	0	-	Back	18mm	Ant 0	-	DSI 4	132322	1745	22.94	24.00	1.276	0.06	0.490	0.625
	LTE Band 66	20M	QPSK	1	0	-	Front	5mm	Ant 1	-	DSI 3	132322	1745	16.14	17.30	1.306	0.05	0.543	0.709
	LTE Band 66	20M	QPSK	50	0	-	Front	5mm	Ant 1	-	DSI 3	132322	1745	16.08	17.30	1.324	0.04	0.521	0.690
	LTE Band 66	20M	QPSK	1	0	-	Back	5mm	Ant 1	-	DSI 3	132322	1745	16.14	17.30	1.306	0.04	0.564	0.737
	LTE Band 66	20M	QPSK	50	0	-	Back	5mm	Ant 1	-	DSI 3	132322	1745	16.08	17.30	1.324	0.06	0.522	0.691
	LTE Band 66	20M	QPSK	1	0	-	Front	16mm	Ant 1	-	DSI 4	132322	1745	21.95	23.00	1.274	0.08	0.322	0.410
	LTE Band 66	20M	QPSK	1	0	-	Back	18mm	Ant 1	-	DSI 4	132322	1745	21.95	23.00	1.274	0.01	0.295	0.376
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 0	-	DSI 3	349000	1745	14.03	14.90	1.222	-0.01	0.563	0.688
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Front	5mm	Ant 0	-	DSI 3	349000	1745	14.03	14.90	1.222	0.05	0.519	0.634
60	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 0	-	DSI 3	349000	1745	14.03	14.90	1.222	0.15	0.576	**0.704**
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Back	5mm	Ant 0	-	DSI 3	349000	1745	14.03	14.90	1.222	0.03	0.534	0.652
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Front	16mm	Ant 0	-	DSI 4	349000	1745	22.49	24.00	1.416	0.05	0.477	0.675
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Back	18mm	Ant 0	-	DSI 4	349000	1745	22.49	24.00	1.416	0.01	0.489	0.692
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 1	-	DSI 3	349000	1745	15.49	16.80	1.352	0.04	0.432	0.584
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Front	5mm	Ant 1	-	DSI 3	349000	1745	15.42	16.80	1.374	-0.01	0.467	0.642
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 1	-	DSI 3	349000	1745	15.49	16.80	1.352	0.09	0.423	0.572
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Back	5mm	Ant 1	-	DSI 3	349000	1745	15.42	16.80	1.374	-0.02	0.435	0.598
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Front	16mm	Ant 1	-	DSI 4	349000	1745	22.86	24.00	1.300	0.05	0.401	0.521
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Back	18mm	Ant 1	-	DSI 4	349000	1745	22.86	24.00	1.300	0.01	0.344	0.447
1900MHZ																			
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Front	5mm	Ant 0	-	DSI 3	661	1880	17.93	18.90	1.250	0.06	0.500	0.625
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Back	5mm	Ant 0	-	DSI 3	661	1880	17.93	18.90	1.250	0.13	0.642	0.803
61	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Back	5mm	Ant 0	-	DSI 3	512	1850.2	17.82	18.90	1.282	-0.08	0.644	**0.826**
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Back	5mm	Ant 0	-	DSI 3	810	1909.8	17.89	18.90	1.262	0.05	0.635	0.801
	GSM1900	-	-	-	-	GPRS (3 Tx slots)	Front	16mm	Ant 0	-	DSI 4	661	1880	25.35	26.50	1.303	0.05	0.366	0.477
	GSM1900	-	-	-	-	GPRS (3 Tx slots)	Back	18mm	Ant 0	-	DSI 4	512	1850.2	25.27	26.50	1.327	0.01	0.254	0.337
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Front	5mm	Ant 1	-	DSI 3	661	1880	19.41	20.80	1.377	0.06	0.423	0.583
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Back	5mm	Ant 1	-	DSI 3	661	1880	19.41	20.80	1.377	0.14	0.492	0.678
	GSM1900	-	-	-	-	GPRS (1 Tx slot)	Front	16mm	Ant 1	-	DSI 4	661	1880	29.23	30.50	1.340	0.16	0.216	0.289
	GSM1900	-	-	-	-	GPRS (1 Tx slot)	Back	18mm	Ant 1	-	DSI 4	661	1880	29.23	30.50	1.340	0.01	0.146	0.196
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	5mm	Ant 0	-	DSI 3	9400	1880	13.63	15.00	1.371	0.06	0.401	0.550

62	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 0	-	DSI 3	9400	1880	13.63	15.00	1.371	-0.12	0.475	**0.651**
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	16mm	Ant 0	-	DSI 4	9400	1880	23.06	24.00	1.242	0.13	0.411	0.510
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	18mm	Ant 0	-	DSI 4	9400	1880	23.06	24.00	1.242	0.11	0.434	0.539
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	5mm	Ant 1	-	DSI 3	9400	1880	17.35	18.70	1.365	0.06	0.365	0.498
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 1	-	DSI 3	9400	1880	17.35	18.70	1.365	0.03	0.408	0.557
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	16mm	Ant 1	-	DSI 4	9400	1880	23.63	24.00	1.089	0.11	0.266	0.290
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	18mm	Ant 1	-	DSI 4	9400	1880	23.63	24.00	1.089	0.05	0.230	0.250
	LTE Band 25	20M	QPSK	1	0	-	Front	5mm	Ant 0	-	DSI 3	26340	1880	12.92	14.20	1.343	0.13	0.433	0.581
	LTE Band 25	20M	QPSK	50	0	-	Front	5mm	Ant 0	-	DSI 3	26340	1880	12.86	14.20	1.361	0.11	0.400	0.545
	LTE Band 25	20M	QPSK	1	0	-	Back	5mm	Ant 0	-	DSI 3	26340	1880	12.92	14.20	1.343	-0.16	0.487	0.654
	LTE Band 25	20M	QPSK	50	0	-	Back	5mm	Ant 0	-	DSI 3	26340	1880	12.86	14.20	1.361	0.05	0.428	0.583
	LTE Band 25	20M	QPSK	1	0	-	Front	16mm	Ant 0	-	DSI 4	26340	1880	22.77	24.00	1.327	0.09	0.339	0.450
	LTE Band 25	20M	QPSK	1	0	-	Back	18mm	Ant 0	-	DSI 4	26340	1880	22.77	24.00	1.327	0.04	0.341	0.453
	LTE Band 25	20M	QPSK	1	0	-	Front	5mm	Ant 1	-	DSI 3	26340	1880	17.62	18.80	1.312	0.09	0.519	0.681
	LTE Band 25	20M	QPSK	50	0	-	Front	5mm	Ant 1	-	DSI 3	26340	1880	17.54	18.80	1.337	-0.06	0.485	0.648
63	LTE Band 25	20M	QPSK	1	0	-	Back	5mm	Ant 1	-	DSI 3	26340	1880	17.62	18.80	1.312	0.08	0.538	**0.706**
	LTE Band 25	20M	QPSK	50	0	-	Back	5mm	Ant 1	-	DSI 3	26340	1880	17.54	18.80	1.337	0.03	0.518	0.692
	LTE Band 25	20M	QPSK	1	0	-	Front	16mm	Ant 1	-	DSI 4	26340	1880	21.91	23.00	1.285	0.15	0.267	0.343
	LTE Band 25	20M	QPSK	1	0	-	Back	18mm	Ant 1	-	DSI 4	26340	1880	21.91	23.00	1.285	0.11	0.213	0.274
	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 1	-	DSI 3	376000	1880	17.59	18.80	1.321	0.02	0.483	0.638
	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Front	5mm	Ant 1	-	DSI 3	376000	1880	17.59	18.80	1.321	0.02	0.521	0.688
	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 1	-	DSI 3	376000	1880	17.59	18.80	1.321	0.04	0.552	0.729
64	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Back	5mm	Ant 1	-	DSI 3	376000	1880	17.59	18.80	1.321	-0.01	0.588	**0.777**
	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Front	16mm	Ant 1	-	DSI 4	376000	1880	22.37	24.00	1.455	0.13	0.281	0.409
	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Back	18mm	Ant 1	-	DSI 4	376000	1880	22.37	24.00	1.455	0.11	0.211	0.307

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Headset	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
2600MHz																					
	LTE Band 7	20M	QPSK	1	0	-	Front	5mm	Ant 0	-	DSI 3	21100	2535	18.37	19.10	1.183	-	-	0.03	0.346	0.409
	LTE Band 7	20M	QPSK	50	0	-	Front	5mm	Ant 0	-	DSI 3	21100	2535	18.30	19.10	1.202	-	-	0.06	0.322	0.387
65	LTE Band 7	20M	QPSK	1	0	-	Back	5mm	Ant 0	-	DSI 3	21100	2535	18.37	19.10	1.183	-	-	0.03	0.764	**0.904**
	LTE Band 7	20M	QPSK	1	0	-	Back	5mm	Ant 0	-	DSI 3	20850	2510	18.21	19.10	1.227	-	-	0.11	0.697	0.856
	LTE Band 7	20M	QPSK	1	0	-	Back	5mm	Ant 0	-	DSI 3	21350	2560	18.18	19.10	1.236	-	-	0.11	0.716	0.885
	LTE Band 7	20M	QPSK	50	0	-	Back	5mm	Ant 0	-	DSI 3	21100	2535	18.30	19.10	1.202	-	-	0.13	0.690	0.830
	LTE Band 7	20M	QPSK	50	0	-	Back	5mm	Ant 0	-	DSI 3	20850	2510	18.18	19.10	1.236	-	-	0.08	0.719	0.889
	LTE Band 7	20M	QPSK	50	0	-	Back	5mm	Ant 0	-	DSI 3	21350	2560	18.12	19.10	1.253	-	-	0.09	0.706	0.885
	LTE Band 7	20M	QPSK	100	0	-	Back	5mm	Ant 0	-	DSI 3	21100	2535	18.20	19.10	1.230	-	-	0.01	0.701	0.862
	LTE Band 7C	20M	QPSK	1	99	-	Back	5mm	Ant 0	-	DSI 3	21100+21298	2535+2612.8	18.18	19.10	1.236	-	-	0.06	0.720	0.890
	LTE Band 7	20M	QPSK	1	0	-	Front	16mm	Ant 0	-	DSI 4	21100	2535	22.77	24.00	1.327	-	-	0.08	0.303	0.402
	LTE Band 7	20M	QPSK	1	0	-	Back	18mm	Ant 0	-	DSI 4	21100	2535	22.77	24.00	1.327	-	-	0.01	0.314	0.417
	LTE Band 7	20M	QPSK	1	0	-	Front	5mm	Ant 1	-	DSI 3	21100	2535	15.10	16.50	1.380	-	-	0.04	0.298	0.411
	LTE Band 7	20M	QPSK	50	0	-	Front	5mm	Ant 1	-	DSI 3	21100	2535	15.03	16.50	1.403	-	-	-0.02	0.258	0.362
	LTE Band 7	20M	QPSK	1	0	-	Back	5mm	Ant 1	-	DSI 3	21100	2535	15.10	16.50	1.380	-	-	-0.16	0.408	0.563
	LTE Band 7	20M	QPSK	50	0	-	Back	5mm	Ant 1	-	DSI 3	21100	2535	15.03	16.50	1.403	-	-	0.06	0.363	0.509
	LTE Band 7C	20M	QPSK	1	99	-	Back	5mm	Ant 1	-	DSI 3	21100+21298	2535+2612.8	15.02	16.50	1.406	-	-	0.03	0.388	0.546
	LTE Band 7	20M	QPSK	1	0	-	Front	16mm	Ant 1	-	DSI 4	21100	2535	21.93	23.00	1.279	-	-	0.05	0.256	0.328
	LTE Band 7	20M	QPSK	1	0	-	Back	18mm	Ant 1	-	DSI 4	21100	2535	21.93	23.00	1.279	-	-	0.01	0.358	0.458
	LTE Band 41	20M	QPSK	1	0	-	Front	5mm	Ant 0	-	DSI 3	40620	2593	20.03	20.70	1.167	62.9	1.006	0.03	0.313	0.367
	LTE Band 41	20M	QPSK	50	0	-	Front	5mm	Ant 0	-	DSI 3	40620	2593	19.99	20.70	1.178	62.9	1.006	0.13	0.293	0.347
	LTE Band 41	20M	QPSK	1	0	-	Back	5mm	Ant 0	-	DSI 3	40620	2593	20.03	20.70	1.167	62.9	1.006	0.12	0.845	0.992
	LTE Band 41	20M	QPSK	1	0	-	Back	5mm	Ant 0	-	DSI 3	39750	2506	19.97	20.70	1.183	62.9	1.006	0.11	0.927	1.103
	LTE Band 41	20M	QPSK	1	0	-	Back	5mm	Ant 0	-	DSI 3	40185	2549.5	19.93	20.70	1.194	62.9	1.006	0.09	0.992	1.192
	LTE Band 41	20M	QPSK	1	0	-	Back	5mm	Ant 0	-	DSI 3	41055	2636.5	20.00	20.70	1.175	62.9	1.006	0.04	0.874	1.033

66	LTE Band 41	20M	QPSK	1	0	-	Back	5mm	Ant 0	-	DSI 3	41490	2680	19.88	20.70	1.208	62.9	1.006	-0.08	1.030	**1.252**
	LTE Band 41	20M	QPSK	50	0	-	Back	5mm	Ant 0	-	DSI 3	40620	2593	19.99	20.70	1.178	62.9	1.006	0.05	0.958	1.135
	LTE Band 41	20M	QPSK	50	0	-	Back	5mm	Ant 0	-	DSI 3	39750	2506	19.85	20.70	1.216	62.9	1.006	0.06	0.974	1.192
	LTE Band 41	20M	QPSK	50	0	-	Back	5mm	Ant 0	-	DSI 3	40185	2549.5	19.95	20.70	1.189	62.9	1.006	0.04	0.956	1.143
	LTE Band 41	20M	QPSK	50	0	-	Back	5mm	Ant 0	-	DSI 3	41055	2636.5	19.86	20.70	1.213	62.9	1.006	0.05	0.934	1.140
	LTE Band 41	20M	QPSK	50	0	-	Back	5mm	Ant 0	-	DSI 3	41490	2680	19.91	20.70	1.199	62.9	1.006	0.06	0.947	1.143
	LTE Band 41	20M	QPSK	100	0	-	Back	5mm	Ant 0	-	DSI 3	40620	2593	19.84	20.70	1.219	62.9	1.006	0.08	0.995	1.220
	LTE Band 41	20M	QPSK	1	0	-	Back	5mm	Ant 0	Headset	DSI 3	41490	2680	19.88	20.70	1.208	62.9	1.006	0.06	0.506	0.615
	LTE Band 41 HPUE	20M	QPSK	1	0	-	Back	5mm	Ant 0	-	DSI 3	41490	2680	22.02	22.30	1.067	42.9	1.009	0.1	1.070	1.152
	LTE Band 41C	20M	QPSK	1	0	-	Back	5mm	Ant 0	-	DSI 3	41490+41292	2680+2660.2	19.83	20.70	1.222	62.9	1.006	0.05	0.975	1.198
	LTE Band 41	20M	QPSK	1	0	-	Front	16mm	Ant 0	-	DSI 4	40620	2593	23.35	24.00	1.161	62.9	1.006	0.06	0.201	0.235
	LTE Band 41	20M	QPSK	1	0	-	Back	18mm	Ant 0	-	DSI 4	41490	2680	23.23	24.00	1.194	62.9	1.006	0.01	0.233	0.280
	LTE Band 41	20M	QPSK	1	0	-	Front	5mm	Ant 1	-	DSI 3	40620	2593	18.17	19.30	1.297	62.9	1.006	0.04	0.339	0.442
	LTE Band 41	20M	QPSK	50	0	-	Front	5mm	Ant 1	-	DSI 3	40620	2593	18.13	19.30	1.309	62.9	1.006	0.05	0.301	0.396
	LTE Band 41	20M	QPSK	1	0	-	Back	5mm	Ant 1	-	DSI 3	40620	2593	18.17	19.30	1.297	62.9	1.006	-0.14	0.450	0.587
	LTE Band 41	20M	QPSK	50	0	-	Back	5mm	Ant 1	-	DSI 3	40620	2593	18.13	19.30	1.309	62.9	1.006	0.09	0.428	0.564
	LTE Band 41 HPUE	20M	QPSK	1	0	-	Back	5mm	Ant 1	-	DSI 3	40620	2593	20.23	20.90	1.167	42.9	1.009	-0.04	0.459	0.540
	LTE Band 41C	20M	QPSK	1	99	-	Back	5mm	Ant 1	-	DSI 3	40620+40818	2593+2612.8	18.11	19.30	1.315	62.9	1.006	0.01	0.432	0.572
	LTE Band 41	20M	QPSK	1	0	-	Front	16mm	Ant 1	-	DSI 4	40620	2593	22.39	23.00	1.151	62.90	1.006	0.05	0.237	0.274
	LTE Band 41	20M	QPSK	1	0	-	Back	18mm	Ant 1	-	DSI 4	40620	2593	22.39	23.00	1.151	62.90	1.006	0.01	0.301	0.348
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 0	-	DSI 3	507000	2535	18.08	19.20	1.294	-	-	0.03	0.387	0.501
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Front	5mm	Ant 0	-	DSI 3	507000	2535	18.05	19.20	1.303	-	-	0.1	0.378	0.493
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 0	-	DSI 3	507000	2535	18.08	19.20	1.294	-	-	-0.02	0.622	0.805
67	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Back	5mm	Ant 0	-	DSI 3	507000	2535	18.05	19.20	1.303	-	-	-0.07	0.688	**0.897**
	FR1 n7	40M	QPSK	216	0	DFT-SCS-15KHz	Back	5mm	Ant 0	-	DSI 3	507000	2535	18.00	19.20	1.318	-	-	0.01	0.639	0.842
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Front	16mm	Ant 0	-	DSI 4	507000	2535	23.49	24.00	1.125	-	-	0.04	0.299	0.336
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Back	18mm	Ant 0	-	DSI 4	507000	2535	23.41	24.00	1.146	-	-	0.05	0.286	0.328
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 1	-	DSI 3	507000	2535	15.94	17.40	1.400	-	-	0.04	0.307	0.430
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Front	5mm	Ant 1	-	DSI 3	507000	2535	15.94	17.40	1.400	-	-	0.02	0.349	0.488
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 1	-	DSI 3	507000	2535	15.94	17.40	1.400	-	-	0.01	0.420	0.588
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Back	5mm	Ant 1	-	DSI 3	507000	2535	15.94	17.40	1.400	-	-	-0.16	0.470	0.658
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Front	16mm	Ant 1	-	DSI 4	507000	2535	22.77	24.00	1.327	-	-	0.05	0.301	0.400
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Back	18mm	Ant 1	-	DSI 4	507000	2535	22.77	24.00	1.327	-	-	0.06	0.404	0.536
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Front	5mm	Ant 0	-	DSI 3	518598	2592.99	19.79	20.70	1.233	-	-	0.06	0.449	0.554
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Front	5mm	Ant 0	-	DSI 3	518598	2592.99	19.76	20.70	1.242	-	-	0.01	0.477	0.592
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Back	5mm	Ant 0	-	DSI 3	518598	2592.99	19.79	20.70	1.233	-	-	0.07	0.882	1.088
68	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Back	5mm	Ant 0	-	DSI 3	518598	2592.99	19.76	20.70	1.242	-	-	0.06	0.992	**1.232**
	FR1 n41	100M	QPSK	270	0	DFT-SCS-30KHz	Back	5mm	Ant 0	-	DSI 3	518598	2592.99	19.65	20.70	1.274	-	-	0.05	0.887	1.130
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Back	5mm	Ant 0	Headset	DSI 3	518598	2592.99	19.76	20.70	1.242	-	-	0.07	0.508	0.631
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Front	16mm	Ant 0	-	DSI 4	518598	2592.99	23.21	24.00	1.199	-	-	0.04	0.305	0.366
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Back	18mm	Ant 0	-	DSI 4	518598	2592.99	23.21	24.00	1.199	-	-	0.01	0.297	0.356
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Front	5mm	Ant 1	-	DSI 3	518598	2592.99	14.56	15.60	1.271	-	-	-0.16	0.300	0.381
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Front	5mm	Ant 1	-	DSI 3	518598	2592.99	14.50	15.60	1.288	-	-	0.02	0.267	0.344
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Back	5mm	Ant 1	-	DSI 3	518598	2592.99	14.56	15.60	1.271	-	-	0.06	0.363	0.461
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Back	5mm	Ant 1	-	DSI 3	518598	2592.99	14.50	15.60	1.288	-	-	0.04	0.306	0.394
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Front	16mm	Ant 1	-	DSI 4	518598	2592.99	22.52	24.00	1.406	-	-	0.01	0.253	0.356
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Back	18mm	Ant 1	-	DSI 4	518598	2592.99	22.52	24.00	1.406	-	-	0.05	0.319	0.449
3500MHZ~3900MHZ																					
69	LTE Band 42	20M	QPSK	1	0	-	Front	5mm	Ant 2	-	DSI 3	42590	3500	15.06	16.10	1.271	62.9	1.006	0.03	0.349	**0.446**
	LTE Band 42	20M	QPSK	50	0	-	Front	5mm	Ant 2	-	DSI 3	42590	3500	15.00	16.10	1.288	62.9	1.006	0.11	0.303	0.393
	LTE Band 42	20M	QPSK	1	0	-	Back	5mm	Ant 2	-	DSI 3	42590	3500	15.06	16.10	1.271	62.9	1.006	0.01	0.268	0.343
	LTE Band 42	20M	QPSK	50	0	-	Back	5mm	Ant 2	-	DSI 3	42590	3500	15.00	16.10	1.288	62.9	1.006	0.13	0.244	0.316
	LTE Band 42	20M	QPSK	1	0	-	Front	16mm	Ant 2	-	DSI 4	42590	3500	23.41	24.00	1.146	62.90	1.006	0.05	0.305	0.351
	LTE Band 42	20M	QPSK	1	0	-	Back	18mm	Ant 2	-	DSI 4	42590	3500	23.41	24.00	1.146	62.90	1.006	0.01	0.256	0.295
70	LTE Band 48	20M	QPSK	1	0	-	Front	5mm	Ant 2	-	DSI 3	55830	3609	15.10	16.10	1.259	62.9	1.006	0.04	0.357	**0.452**
	LTE Band 48	20M	QPSK	50	0	-	Front	5mm	Ant 2	-	DSI 3	55830	3609	15.03	16.10	1.279	62.9	1.006	-0.03	0.340	0.438

	LTE Band 48	20M	QPSK	1	0	-	Back	5mm	Ant 2	-	DSI 3	55830	3609	15.10	16.10	1.259	62.9	1.006	0.05	0.199	0.252
	LTE Band 48	20M	QPSK	50	0	-	Back	5mm	Ant 2	-	DSI 3	55830	3609	15.03	16.10	1.279	62.9	1.006	0.04	0.181	0.233
	LTE Band 48	20M	QPSK	1	0	-	Front	16mm	Ant 2	-	DSI 4	55830	3609	23.42	24.00	1.143	62.90	1.006	0.05	0.319	0.367
	LTE Band 48	20M	QPSK	1	0	-	Back	18mm	Ant 2	-	DSI 4	55830	3609	23.42	24.00	1.143	62.90	1.006	0.01	0.212	0.244
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Front	5mm	Ant 2	-	DSI 3	656000	3840	11.63	12.50	1.222	-	-	-0.01	0.329	0.402
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Front	5mm	Ant 2	-	DSI 3	656000	3840	11.59	12.50	1.233	-	-	0.02	0.324	0.400
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Back	5mm	Ant 2	-	DSI 3	656000	3840	11.63	12.50	1.222	-	-	0.05	0.226	0.276
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Back	5mm	Ant 2	-	DSI 3	656000	3840	11.59	12.50	1.233	-	-	-0.03	0.184	0.227
	FR1 n77 Part27O HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Front	5mm	Ant 2	-	DSI 3	656000	3840	14.52	15.50	1.253	50	1.000	0.03	0.321	0.402
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Front	16mm	Ant 2	-	DSI 4	656000	3840	22.57	24.00	1.390	-	-	0.09	0.287	0.399
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Back	18mm	Ant 2	-	DSI 4	656000	3840	22.57	24.00	1.390	-	-	0.01	0.215	0.299
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Front	5mm	Ant 4	-	DSI 3	656000	3840	15.15	16.30	1.303	-	-	-0.03	0.334	0.435
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Front	5mm	Ant 4	-	DSI 3	656000	3840	15.12	16.30	1.312	-	-	-0.01	0.355	0.466
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Back	5mm	Ant 4	-	DSI 3	656000	3840	15.15	16.30	1.303	-	-	0.02	0.316	0.412
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Back	5mm	Ant 4	-	DSI 3	656000	3840	15.12	16.30	1.312	-	-	0.01	0.331	0.434
	FR1 n77 Part27O HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Front	5mm	Ant 4	-	DSI 3	656000	3840	18.03	19.30	1.340	50	1.000	-0.01	0.351	0.470
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Front	16mm	Ant 4	-	DSI 4	656000	3840	19.47	20.60	1.297	-	-	0.08	0.212	0.275
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Back	18mm	Ant 4	-	DSI 4	656000	3840	19.47	20.60	1.297	-	-	0.01	0.181	0.235
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Front	5mm	Ant 5	-	DSI 3	656000	3840	17.33	18.30	1.250	-	-	-0.05	0.729	0.911
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Front	5mm	Ant 5	-	DSI 3	656000	3840	17.27	18.30	1.268	-	-	0.06	0.651	0.825
	FR1 n77 Part27O	100M	QPSK	270	0	DFT-SCS-30KHz	Front	5mm	Ant 5	-	DSI 3	656000	3840	17.21	18.30	1.285	-	-	0.04	0.633	0.814
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Back	5mm	Ant 5	-	DSI 3	656000	3840	17.33	18.30	1.250	-	-	0.02	0.587	0.734
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Back	5mm	Ant 5	-	DSI 3	656000	3840	17.27	18.30	1.268	-	-	0.01	0.511	0.648
71	FR1 n77 Part27O HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Front	5mm	Ant 5	-	DSI 3	656000	3840	20.23	21.30	1.279	50	1.000	0.08	0.725	**0.928**
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Front	16mm	Ant 5	-	DSI 4	656000	3840	20.19	21.00	1.205	-	-	0.05	0.316	0.381
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Back	18mm	Ant 5	-	DSI 4	656000	3840	20.19	21.00	1.205	-	-	0.01	0.203	0.245
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Front	5mm	Ant 7	-	DSI 3	656000	3840	18.21	19.20	1.256	-	-	-0.08	0.714	0.897
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Front	5mm	Ant 7	-	DSI 3	656000	3840	18.17	19.20	1.268	-	-	0.03	0.618	0.783
	FR1 n77 Part27O	100M	QPSK	270	0	DFT-SCS-30KHz	Front	5mm	Ant 7	-	DSI 3	656000	3840	18.14	19.20	1.276	-	-	0.01	0.611	0.780
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Back	5mm	Ant 7	-	DSI 3	656000	3840	18.21	19.20	1.256	-	-	0.05	0.482	0.605
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Back	5mm	Ant 7	-	DSI 3	656000	3840	18.17	19.20	1.268	-	-	-0.03	0.435	0.551
	FR1 n77 Part27O HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Front	5mm	Ant 7	-	DSI 3	656000	3840	21.12	22.20	1.282	50	1.000	-0.08	0.711	0.912
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Front	16mm	Ant 7	-	DSI 4	656000	3840	18.21	19.20	1.256	-	-	0.05	0.315	0.396
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Back	18mm	Ant 7	-	DSI 4	656000	3840	18.21	19.20	1.256	-	-	0.05	0.160	0.201
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Front	5mm	Ant 4	-	DSI 3	650000	3750	15.24	16.00	1.191	-	-	0.04	0.322	0.384
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Front	5mm	Ant 4	-	DSI 3	650000	3750	15.22	16.00	1.197	-	-	-0.05	0.415	0.497
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Back	5mm	Ant 4	-	DSI 3	650000	3750	15.24	16.00	1.191	-	-	-0.03	0.356	0.424
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Back	5mm	Ant 4	-	DSI 3	650000	3750	15.22	16.00	1.197	-	-	0.07	0.340	0.407
	FR1 n78 Part27O HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Front	5mm	Ant 4	-	DSI 3	650000	3750	17.96	19.00	1.271	50	1.000	0.05	0.411	0.522
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Front	16mm	Ant 4	-	DSI 4	650000	3750	19.18	20.50	1.197	-	-	0.11	0.244	0.292
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Back	18mm	Ant 4	-	DSI 4	650000	3750	19.23	20.50	1.191	-	-	0.13	0.239	0.285
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Front	5mm	Ant 5	-	DSI 3	650000	3750	17.10	18.00	1.230	-	-	0.04	0.530	0.652
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Front	5mm	Ant 5	-	DSI 3	650000	3750	17.01	18.00	1.256	-	-	0.03	0.571	0.717
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Back	5mm	Ant 5	-	DSI 3	650000	3750	17.10	18.00	1.230	-	-	-0.03	0.474	0.583
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Back	5mm	Ant 5	-	DSI 3	650000	3750	17.01	18.00	1.256	-	-	0.07	0.466	0.585
	FR1 n78 Part27O HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Front	5mm	Ant 5	-	DSI 3	650000	3750	19.93	21.00	1.279	50	1.000	0.05	0.566	0.724
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Front	16mm	Ant 5	-	DSI 4	650000	3750	23.09	24.00	1.233	-	-	0.11	0.503	0.620
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Back	18mm	Ant 5	-	DSI 4	650000	3750	23.09	24.00	1.233	-	-	0.14	0.321	0.396
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Front	5mm	Ant 7	-	DSI 3	650000	3750	18.93	19.80	1.222	-	-	0.06	0.719	0.878
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Front	5mm	Ant 7	-	DSI 3	650000	3750	18.87	19.80	1.239	-	-	-0.05	0.762	0.944
	FR1 n78 Part27O	100M	QPSK	270	0	DFT-SCS-30KHz	Front	5mm	Ant 7	-	DSI 3	650000	3750	18.86	19.80	1.242	-	-	0.01	0.671	0.833
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Back	5mm	Ant 7	-	DSI 3	650000	3750	18.93	19.80	1.222	-	-	0.05	0.400	0.489
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Back	5mm	Ant 7	-	DSI 3	650000	3750	18.87	19.80	1.239	-	-	-0.03	0.381	0.472
72	FR1 n78 Part27O HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Front	5mm	Ant 7	-	DSI 3	650000	3750	21.69	22.80	1.291	50	1.000	0.04	0.758	**0.979**
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Front	16mm	Ant 7	-	DSI 4	650000	3750	18.87	19.80	1.239	-	-	0.08	0.358	0.443
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Back	18mm	Ant 7	-	DSI 4	650000	3750	18.93	19.80	1.222	-	-	0.01	0.165	0.202

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)
WLAN/BT																
73	WLAN2.4GHz	802.11b 1Mbps	Front	5mm	Ant 3+6	Standalone	6	2437	22.34	23.50	1.306	97.94	1.021	0.03	0.840	**1.120**
	WLAN2.4GHz	802.11b 1Mbps	Front	5mm	Ant 3+6	Standalone	1	2412	22.24	23.50	1.337	97.94	1.021	0.06	0.823	1.123
	WLAN2.4GHz	802.11b 1Mbps	Back	5mm	Ant 3+6	Standalone	6	2437	22.34	23.50	1.306	97.94	1.021	0.02	0.752	1.003
	WLAN2.4GHz	802.11b 1Mbps	Back	5mm	Ant 3+6	Standalone	1	2412	22.24	23.50	1.337	97.94	1.021	0.08	0.722	0.985
	WLAN2.4GHz	802.11b 1Mbps	Front	5mm	Ant 3+6	DBS only	6	2437	20.80	22.00	1.318	97.94	1.021	0.06	0.575	0.774
	WLAN2.4GHz	802.11b 1Mbps	Back	5mm	Ant 3+6	DBS only	6	2437	20.80	22.00	1.318	97.94	1.021	0.08	0.512	0.689
	WLAN2.4GHz	802.11b 1Mbps	Front	5mm	Ant 3+6	WWAN+non DBS	6	2437	17.30	18.50	1.318	97.94	1.021	0.02	0.279	0.376
	WLAN2.4GHz	802.11b 1Mbps	Back	5mm	Ant 3+6	WWAN+non DBS	6	2437	17.30	18.50	1.318	97.94	1.021	0.01	0.272	0.366
	WLAN2.4GHz	802.11b 1Mbps	Front	5mm	Ant 3+6	WWAN +DBS	6	2437	14.35	15.50	1.303	97.94	1.021	0.03	0.137	0.182
	WLAN2.4GHz	802.11b 1Mbps	Back	5mm	Ant 3+6	WWAN +DBS	6	2437	14.35	15.50	1.303	97.94	1.021	0.05	0.126	0.168
	WLAN2.4GHz	802.11b 1Mbps	Front	16mm	Ant 3+6	Full power	6	2437	22.34	23.50	1.306	97.94	1.021	0.06	0.052	0.069
	WLAN2.4GHz	802.11b 1Mbps	Back	18mm	Ant 3+6	Full power	6	2437	22.34	23.50	1.306	97.94	1.021	0.01	0.073	0.097
74	Bluetooth	1Mbps	Front	5mm	Ant 6	Full power	0	2402	11.33	12.00	1.167	76.56	1.088	-0.02	0.072	**0.091**
	Bluetooth	1Mbps	Back	5mm	Ant 6	Full power	0	2402	11.33	12.00	1.167	76.56	1.088	0.08	0.057	0.072
	Bluetooth	1Mbps	Front	5mm	Ant 3	Full power	78	2480	9.21	10.50	1.346	76.97	1.082	0.06	0.034	0.050
	Bluetooth	1Mbps	Back	5mm	Ant 3	Full power	78	2480	9.21	10.50	1.346	76.97	1.082	0.01	0.039	0.057
75	WLAN5.3GHz	802.11a 6Mbps	Front	5mm	Ant 4+5	Standalone	64	5320	19.93	21.00	1.279	99.23	1.008	-0.09	0.745	**0.961**
	WLAN5.3GHz	802.11a 6Mbps	Front	5mm	Ant 4+5	Standalone	56	5280	19.89	21.00	1.291	99.23	1.008	0.06	0.711	0.925
	WLAN5.3GHz	802.11a 6Mbps	Back	5mm	Ant 4+5	Standalone	64	5320	19.93	21.00	1.279	99.23	1.008	0.04	0.611	0.788
	WLAN5.3GHz	802.11a 6Mbps	Front	5mm	Ant 4+5	DBS only	64	5320	18.87	20.00	1.296	99.23	1.008	0.01	0.591	0.772
	WLAN5.3GHz	802.11a 6Mbps	Back	5mm	Ant 4+5	DBS only	64	5320	18.87	20.00	1.296	99.23	1.008	0.04	0.438	0.572
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Front	5mm	Ant 4+5	WWAN +non DBS	58	5290	15.86	17.00	1.300	99.30	1.007	0.05	0.289	0.378
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Back	5mm	Ant 4+5	WWAN +non DBS	58	5290	15.86	17.00	1.300	99.30	1.007	0.01	0.199	0.261
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Front	5mm	Ant 4+5	WWAN +DBS	58	5290	12.77	14.00	1.327	99.30	1.007	0.03	0.145	0.194
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Back	5mm	Ant 4+5	WWAN +DBS	58	5290	12.77	14.00	1.327	99.30	1.007	0.02	0.130	0.174
	WLAN5.3GHz	802.11a 6Mbps	Front	16mm	Ant 4+5	Full power	64	5320	19.93	21.00	1.279	99.23	1.008	0.05	0.099	0.128
	WLAN5.3GHz	802.11a 6Mbps	Back	18mm	Ant 4+5	Full power	64	5320	19.93	21.00	1.279	99.23	1.008	0.01	0.051	0.066
	WLAN5.5GHz	802.11a 6Mbps	Front	5mm	Ant 4+5	Standalone	140	5700	19.70	21.00	1.349	99.23	1.008	0.03	0.624	0.848
76	WLAN5.5GHz	802.11a 6Mbps	Front	5mm	Ant 4+5	Standalone	144	5720	19.63	21.00	1.371	99.23	1.008	-0.09	0.656	**0.906**
	WLAN5.5GHz	802.11a 6Mbps	Back	5mm	Ant 4+5	Standalone	140	5700	19.70	21.00	1.349	99.23	1.008	0.03	0.455	0.619
	WLAN5.5GHz	802.11a 6Mbps	Front	5mm	Ant 4+5	DBS only	140	5700	18.64	20.00	1.367	99.23	1.008	0.03	0.543	0.748
	WLAN5.5GHz	802.11a 6Mbps	Back	5mm	Ant 4+5	DBS only	140	5700	18.64	20.00	1.367	99.23	1.008	0.06	0.415	0.572
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Front	5mm	Ant 4+5	WWAN +non DBS	138	5690	14.61	16.00	1.378	99.30	1.007	0.01	0.274	0.380
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Back	5mm	Ant 4+5	WWAN +non DBS	138	5690	14.61	16.00	1.378	99.30	1.007	0.01	0.188	0.261
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Front	5mm	Ant 4+5	WWAN +DBS	138	5690	12.57	14.00	1.390	99.30	1.007	0.03	0.131	0.183
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Back	5mm	Ant 4+5	WWAN +DBS	138	5690	12.57	14.00	1.390	99.30	1.007	0.05	0.098	0.137
	WLAN5.5GHz	802.11a 6Mbps	Front	16mm	Ant 4+5	Full power	144	5720	19.63	21.00	1.371	99.23	1.008	0.08	0.139	0.192
	WLAN5.5GHz	802.11a 6Mbps	Back	18mm	Ant 4+5	Full power	140	5700	19.70	21.00	1.349	99.23	1.008	0.01	0.101	0.137
77	WLAN5.8GHz	802.11a 6Mbps	Front	5mm	Ant 4+5	Standalone	149	5745	19.56	21.00	1.393	99.23	1.008	0.06	0.691	**0.970**
	WLAN5.8GHz	802.11a 6Mbps	Front	5mm	Ant 4+5	Standalone	165	5825	19.50	21.00	1.413	99.23	1.008	0.01	0.657	0.935
	WLAN5.8GHz	802.11a 6Mbps	Back	5mm	Ant 4+5	Standalone	149	5745	19.56	21.00	1.393	99.23	1.008	0.03	0.507	0.712
	WLAN5.8GHz	802.11a 6Mbps	Front	5mm	Ant 4+5	DBS only	149	5745	18.47	20.00	1.421	99.23	1.008	0.01	0.546	0.782
	WLAN5.8GHz	802.11a 6Mbps	Back	5mm	Ant 4+5	DBS only	149	5745	18.47	20.00	1.421	99.23	1.008	0.03	0.409	0.586
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Front	5mm	Ant 4+5	WWAN +non DBS	155	5775	15.04	16.50	1.400	99.30	1.007	0.01	0.256	0.361
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Back	5mm	Ant 4+5	WWAN +non DBS	155	5775	15.04	16.50	1.400	99.30	1.007	0.09	0.186	0.262
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Front	5mm	Ant 4+5	WWAN +DBS	155	5775	12.01	13.50	1.409	99.30	1.007	0.06	0.131	0.186
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Back	5mm	Ant 4+5	WWAN +DBS	155	5775	12.01	13.50	1.409	99.30	1.007	-0.01	0.102	0.145
	WLAN5.8GHz	802.11a 6Mbps	Front	16mm	Ant 4+5	Full power	149	5745	19.56	21.00	1.393	99.23	1.008	0.01	0.101	0.142
	WLAN5.8GHz	802.11a 6Mbps	Back	18mm	Ant 4+5	Full power	149	5745	19.56	21.00	1.393	99.23	1.008	0.13	0.077	0.108

16.4 Product specific 10g SAR

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)
835MHz																				
78	WCDMA V	-	-	-	-	RMC 12.2Kbps	Front	0mm	Ant 0	DSI 6	4182	836.4	23.23	24.00	1.194	-	-	0.04	1.840	**2.197**
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Front	0mm	Ant 0	DSI 6	4132	826.4	23.17	24.00	1.211	-	-	-0.01	1.710	2.070
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Front	0mm	Ant 0	DSI 6	4233	846.6	23.15	24.00	1.216	-	-	0.05	1.750	2.128
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	0mm	Ant 0	DSI 6	4182	836.4	23.23	24.00	1.194	-	-	0.03	1.560	1.863
79	LTE Band 26	15M	QPSK	1	0	-	Front	0mm	Ant 0	DSI 6	26865	831.5	22.87	24.00	1.297	-	-	0.06	1.500	**1.946**
	LTE Band 26	15M	QPSK	36	0	-	Front	0mm	Ant 0	DSI 6	26865	831.5	21.84	23.00	1.306	-	-	0.03	1.290	1.685
	LTE Band 26	15M	QPSK	1	0	-	Back	0mm	Ant 0	DSI 6	26865	831.5	22.87	24.00	1.297	-	-	0.09	1.420	1.842
	LTE Band 26	15M	QPSK	36	0	-	Back	0mm	Ant 0	DSI 6	26865	831.5	21.84	23.00	1.306	-	-	0.01	1.210	1.580
1750MHZ																				
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	0mm	Ant 0	DSI 6	1413	1732.6	20.80	22.00	1.318	-	-	-0.13	2.070	2.729
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	0mm	Ant 0	DSI 6	1312	1712.4	20.62	22.00	1.374	-	-	0.11	1.960	2.693
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	0mm	Ant 0	DSI 6	1513	1752.6	20.66	22.00	1.361	-	-	0.13	1.910	2.600
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	0mm	Ant 0	DSI 6	1413	1732.6	20.80	22.00	1.318	-	-	0.05	1.870	2.465
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	0mm	Ant 0	DSI 6	1312	1712.4	20.62	22.00	1.374	-	-	0.05	1.950	2.679
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	0mm	Ant 0	DSI 6	1513	1752.6	20.66	22.00	1.361	-	-	0.01	1.980	2.696
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Bottom Side	0mm	Ant 0	DSI 6	1413	1732.6	20.80	22.00	1.318	-	-	0.06	1.440	1.898
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	6mm	Ant 0	DSI 4	1413	1732.6	23.13	24.00	1.222	-	-	0.04	1.470	1.796
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	8mm	Ant 0	DSI 4	1513	1752.6	23.09	24.00	1.233	-	-	0.03	1.160	1.430
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Bottom Side	10mm	Ant 0	DSI 4	1413	1732.6	23.13	24.00	1.222	-	-	0.05	1.610	1.967
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	0mm	Ant 1	DSI 6	1413	1732.6	20.96	22.10	1.300	-	-	0.01	1.650	2.145
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	0mm	Ant 1	DSI 6	1312	1712.4	20.94	22.10	1.306	-	-	0.03	1.670	2.181
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	0mm	Ant 1	DSI 6	1513	1752.6	20.84	22.10	1.337	-	-	0.01	1.610	2.152
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	0mm	Ant 1	DSI 6	1413	1732.6	20.96	22.10	1.300	-	-	0.06	1.270	1.651
80	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Top Side	0mm	Ant 1	DSI 6	1413	1732.6	20.96	22.10	1.300	-	-	0.02	2.110	**2.743**
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Top Side	0mm	Ant 1	DSI 6	1312	1712.4	20.94	22.10	1.306	-	-	0.04	1.910	2.495
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Top Side	0mm	Ant 1	DSI 6	1513	1752.6	20.84	22.10	1.337	-	-	-0.06	1.960	2.620
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	5mm	Ant 1	DSI 4	1312	1712.4	23.49	24.00	1.125	-	-	0.01	0.675	0.759
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	6mm	Ant 1	DSI 4	1413	1732.6	23.61	24.00	1.094	-	-	0.01	0.573	0.627
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Top Side	7mm	Ant 1	DSI 4	1413	1732.6	23.61	24.00	1.094	-	-	0.03	0.699	0.765
	LTE Band 66	20M	QPSK	1	0	-	Front	0mm	Ant 0	DSI 6	132322	1745	21.00	22.20	1.318	-	-	0.06	2.080	2.742
	LTE Band 66	20M	QPSK	1	0	-	Front	0mm	Ant 0	DSI 6	132072	1720	20.80	22.20	1.380	-	-	-0.01	1.910	2.637
	LTE Band 66	20M	QPSK	1	0	-	Front	0mm	Ant 0	DSI 6	132572	1770	20.95	22.20	1.334	-	-	0.06	2.000	2.667
	LTE Band 66	20M	QPSK	50	0	-	Front	0mm	Ant 0	DSI 6	132322	1745	20.91	22.20	1.346	-	-	0.02	1.880	2.530
	LTE Band 66	20M	QPSK	50	0	-	Front	0mm	Ant 0	DSI 6	132072	1720	20.84	22.20	1.368	-	-	0.04	1.790	2.448
	LTE Band 66	20M	QPSK	50	0	-	Front	0mm	Ant 0	DSI 6	132572	1770	20.85	22.20	1.365	-	-	-0.06	1.810	2.470
	LTE Band 66	20M	QPSK	100	0	-	Front	0mm	Ant 0	DSI 6	132322	1745	20.88	22.20	1.355	-	-	0.03	1.730	2.344
	LTE Band 66	20M	QPSK	1	0	-	Back	0mm	Ant 0	DSI 6	132322	1745	21.00	22.20	1.318	-	-	0.06	1.800	2.373
	LTE Band 66	20M	QPSK	1	0	-	Back	0mm	Ant 0	DSI 6	132072	1720	20.80	22.20	1.380	-	-	0.01	1.900	2.623
	LTE Band 66	20M	QPSK	1	0	-	Back	0mm	Ant 0	DSI 6	132572	1770	20.95	22.20	1.334	-	-	0.03	1.820	2.427
	LTE Band 66	20M	QPSK	50	0	-	Back	0mm	Ant 0	DSI 6	132322	1745	20.91	22.20	1.346	-	-	0.01	1.690	2.275
	LTE Band 66	20M	QPSK	50	0	-	Back	0mm	Ant 0	DSI 6	132072	1720	20.84	22.20	1.368	-	-	0.06	1.710	2.339
	LTE Band 66	20M	QPSK	50	0	-	Back	0mm	Ant 0	DSI 6	132572	1770	20.85	22.20	1.365	-	-	0.05	1.770	2.415
	LTE Band 66	20M	QPSK	100	0	-	Back	0mm	Ant 0	DSI 6	132322	1745	20.88	22.20	1.355	-	-	0.03	1.690	2.290
	LTE Band 66	20M	QPSK	1	0	-	Bottom Side	0mm	Ant 0	DSI 6	132322	1745	21.00	22.20	1.318	-	-	0.06	1.260	1.661
	LTE Band 66	20M	QPSK	50	0	-	Bottom Side	0mm	Ant 0	DSI 6	132322	1745	20.91	22.20	1.346	-	-	0.03	1.110	1.494
	LTE Band 66	20M	QPSK	1	0	-	Front	6mm	Ant 0	DSI 4	132322	1745	22.94	24.00	1.276	-	-	0.06	1.190	1.519
	LTE Band 66	20M	QPSK	1	0	-	Back	8mm	Ant 0	DSI 4	132072	1720	22.82	24.00	1.312	-	-	-0.01	0.983	1.290
	LTE Band 66	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 0	DSI 4	132322	1745	22.94	24.00	1.276	-	-	0.06	1.440	1.838
	LTE Band 66	20M	QPSK	1	0	-	Front	0mm	Ant 1	DSI 6	132322	1745	20.59	21.90	1.352	-	-	0.09	1.650	2.231
	LTE Band 66	20M	QPSK	1	0	-	Front	0mm	Ant 1	DSI 6	132072	1720	20.52	21.90	1.374	-	-	-0.02	1.600	2.198
	LTE Band 66	20M	QPSK	1	0	-	Front	0mm	Ant 1	DSI 6	132572	1770	20.56	21.90	1.361	-	-	0.04	1.620	2.206
	LTE Band 66	20M	QPSK	50	0	-	Front	0mm	Ant 1	DSI 6	132322	1745	20.54	21.90	1.368	-	-	0.06	1.550	2.120
	LTE Band 66	20M	QPSK	50	0	-	Front	0mm	Ant 1	DSI 6	132072	1720	20.50	21.90	1.380	-	-	-0.01	1.410	1.946

	LTE Band 66	20M	QPSK	50	0	-	Front	0mm	Ant 1	DSI 6	132572	1770	20.36	21.90	1.426	-	-	0.06	1.490	2.124
	LTE Band 66	20M	QPSK	100	0	-	Front	0mm	Ant 1	DSI 6	132322	1745	20.46	21.90	1.393	-	-	0.02	1.390	1.936
	LTE Band 66	20M	QPSK	1	0	-	Back	0mm	Ant 1	DSI 6	132322	1745	20.59	21.90	1.352	-	-	0.04	1.190	1.609
	LTE Band 66	20M	QPSK	50	0	-	Back	0mm	Ant 1	DSI 6	132322	1745	20.54	21.90	1.368	-	-	0.06	1.010	1.381
81	LTE Band 66	20M	QPSK	1	0	-	Top Side	0mm	Ant 1	DSI 6	132322	1745	20.59	21.90	1.352	-	-	-0.05	2.030	**2.745**
	LTE Band 66	20M	QPSK	1	0	-	Top Side	0mm	Ant 1	DSI 6	132072	1720	20.52	21.90	1.374	-	-	0.03	1.950	2.679
	LTE Band 66	20M	QPSK	1	0	-	Top Side	0mm	Ant 1	DSI 6	132572	1770	20.56	21.90	1.361	-	-	0.01	1.910	2.600
	LTE Band 66	20M	QPSK	50	0	-	Top Side	0mm	Ant 1	DSI 6	132322	1745	20.54	21.90	1.368	-	-	0.06	1.910	2.612
	LTE Band 66	20M	QPSK	50	0	-	Top Side	0mm	Ant 1	DSI 6	132072	1720	20.50	21.90	1.380	-	-	0.05	1.890	2.609
	LTE Band 66	20M	QPSK	50	0	-	Top Side	0mm	Ant 1	DSI 6	132572	1770	20.36	21.90	1.426	-	-	0.01	1.880	2.680
	LTE Band 66	20M	QPSK	100	0		Top Side	0mm	Ant 1	DSI 6	132322	1745	20.46	21.90	1.393	-	-	0.09	1.790	2.494
	LTE Band 66	20M	QPSK	1	0		Front	5mm	Ant 1	DSI 4	132322	1745	21.95	23.00	1.274	-	-	0.03	0.956	1.217
	LTE Band 66	20M	QPSK	1	0		Back	6mm	Ant 1	DSI 4	132322	1745	21.95	23.00	1.274	-	-	0.01	0.863	1.099
	LTE Band 66	20M	QPSK	1	0		Top Side	7mm	Ant 1	DSI 4	132322	1745	21.95	23.00	1.274	-	-	0.06	0.919	1.170
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Front	0mm	Ant 0	DSI 6	349000	1745	19.09	20.20	1.291	-	-	0.05	2.100	2.712
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Front	0mm	Ant 0	DSI 6	349000	1745	19.06	20.20	1.300	-	-	0.01	1.980	2.574
	FR1 n66	40M	QPSK	216	0	DFT-SCS-15KHz	Front	0mm	Ant 0	DSI 6	349000	1745	19.01	20.20	1.315	-	-	-0.06	1.930	2.538
82	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Back	0mm	Ant 0	DSI 6	349000	1745	19.09	20.20	1.291	-	-	0.03	2.110	**2.724**
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Back	0mm	Ant 0	DSI 6	349000	1745	19.06	20.20	1.300	-	-	0.04	1.960	2.548
	FR1 n66	40M	QPSK	216	0	DFT-SCS-15KHz	Back	0mm	Ant 0	DSI 6	349000	1745	19.01	20.20	1.315	-	-	0.06	1.940	2.552
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	0mm	Ant 0	DSI 6	349000	1745	19.09	20.20	1.291	-	-	0.04	0.792	1.023
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Bottom Side	0mm	Ant 0	DSI 6	349000	1745	19.06	20.20	1.300	-	-	0.03	0.790	1.027
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Front	6mm	Ant 0	DSI 4	349000	1745	22.49	24.00	1.416	-	-	0.06	1.230	1.741
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Back	8mm	Ant 0	DSI 4	349000	1745	22.49	24.00	1.416	-	-	0.05	0.984	1.393
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Bottom Side	10mm	Ant 0	DSI 4	349000	1745	22.37	24.00	1.455	-	-	0.01	1.330	1.936
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Front	0mm	Ant 1	DSI 6	349000	1745	21.05	22.50	1.396	-	-	0.01	1.920	2.681
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Front	0mm	Ant 1	DSI 6	349000	1745	21.01	22.50	1.409	-	-	0.03	1.900	2.678
	FR1 n66	40M	QPSK	216	0	DFT-SCS-15KHz	Front	0mm	Ant 1	DSI 6	349000	1745	20.98	22.50	1.419	-	-	0.06	1.840	2.611
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Back	0mm	Ant 1	DSI 6	349000	1745	21.05	22.50	1.396	-	-	0.01	1.320	1.843
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Back	0mm	Ant 1	DSI 6	349000	1745	21.01	22.50	1.409	-	-	0.06	1.280	1.804
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Top Side	0mm	Ant 1	DSI 6	349000	1745	21.05	22.50	1.396	-	-	-0.05	1.680	2.346
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Top Side	0mm	Ant 1	DSI 6	349000	1745	21.01	22.50	1.409	-	-	0.06	1.750	2.466
	FR1 n66	40M	QPSK	216	0	DFT-SCS-15KHz	Top Side	0mm	Ant 1	DSI 6	349000	1745	20.98	22.50	1.419	-	-	-0.03	1.650	2.341
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 1	DSI 4	349000	1745	22.94	24.00	1.276	-	-	0.06	1.120	1.430
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Back	6mm	Ant 1	DSI 4	349000	1745	22.94	24.00	1.276	-	-	-0.01	1.050	1.340
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Top Side	7mm	Ant 1	DSI 4	349000	1745	22.86	24.00	1.300	-	-	0.02	1.040	1.352
1900MHZ																				
	GSM1900	-	-	-	-	GPRS (3 Tx slots)	Front	0mm	Ant 0	DSI 6	661	1880	25.35	26.50	1.303	-	-	0.01	1.760	2.294
	GSM1900	-	-	-	-	GPRS (3 Tx slots)	Front	0mm	Ant 0	DSI 6	512	1850.2	25.27	26.50	1.327	-	-	0.13	1.930	2.562
	GSM1900	-	-	-	-	GPRS (3 Tx slots)	Front	0mm	Ant 0	DSI 6	810	1909.8	25.26	26.50	1.330	-	-	0.01	1.770	2.355
	GSM1900	-	-	-	-	GPRS (3 Tx slots)	Back	0mm	Ant 0	DSI 6	661	1880	25.35	26.50	1.303	-	-	0.06	1.930	2.515
	GSM1900	-	-	-	-	GPRS (3 Tx slots)	Back	0mm	Ant 0	DSI 6	512	1850.2	25.27	26.50	1.327	-	-	0.03	1.980	2.628
	GSM1900	-	-	-	-	GPRS (3 Tx slots)	Back	0mm	Ant 0	DSI 6	810	1909.8	25.26	26.50	1.330	-	-	0.05	1.850	2.461
	GSM1900	-	-	-	-	GPRS (3 Tx slots)	Bottom Side	0mm	Ant 0	DSI 6	661	1880	25.35	26.50	1.303	-	-	0.01	0.990	1.290
	GSM1900	-	-	-	-	GPRS (1 Tx slot)	Front	0mm	Ant 1	DSI 6	661	1880	29.23	30.50	1.340	-	-	0.04	1.890	2.532
	GSM1900	-	-	-	-	GPRS (1 Tx slot)	Front	0mm	Ant 1	DSI 6	512	1850.2	29.12	30.50	1.374	-	-	0.05	1.780	2.446
	GSM1900	-	-	-	-	GPRS (1 Tx slot)	Front	0mm	Ant 1	DSI 6	810	1909.8	29.15	30.50	1.365	-	-	0.02	1.850	2.524
	GSM1900	-	-	-	-	GPRS (1 Tx slot)	Back	0mm	Ant 1	DSI 6	661	1880	29.23	30.50	1.340	-	-	0.01	1.320	1.768
83	GSM1900	-	-	-	-	GPRS (1 Tx slot)	Top Side	0mm	Ant 1	DSI 6	661	1880	29.23	30.50	1.340	-	-	-0.04	2.030	**2.720**
	GSM1900	-	-	-	-	GPRS (1 Tx slot)	Top Side	0mm	Ant 1	DSI 6	512	1850.2	29.12	30.50	1.374	-	-	0.03	1.790	2.460
	GSM1900	-	-	-	-	GPRS (1 Tx slot)	Top Side	0mm	Ant 1	DSI 6	810	1909.8	29.15	30.50	1.365	-	-	0.08	1.910	2.606
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	0mm	Ant 0	DSI 6	9400	1880	21.15	22.20	1.274	-	-	-0.18	2.140	2.725
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	0mm	Ant 0	DSI 6	9262	1852.4	21.12	22.20	1.282	-	-	0.05	2.100	2.693
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	0mm	Ant 0	DSI 6	9538	1907.6	21.07	22.20	1.297	-	-	0.13	1.990	2.581
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	0mm	Ant 0	DSI 6	9400	1880	21.15	22.20	1.274	-	-	0.15	2.080	2.649
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	0mm	Ant 0	DSI 6	9262	1852.4	21.12	22.20	1.282	-	-	0.01	2.000	2.565
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	0mm	Ant 0	DSI 6	9538	1907.6	21.07	22.20	1.297	-	-	0.11	2.050	2.659
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Bottom Side	0mm	Ant 0	DSI 6	9400	1880	21.15	22.20	1.274	-	-	0.13	1.360	1.732
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	6mm	Ant 0	DSI 4	9400	1880	23.06	24.00	1.242	-	-	0.13	1.130	1.403

	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	8mm	Ant 0	DSI 4	9538	1907.6	22.97	24.00	1.268	-	-	0.15	0.888	1.126
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Bottom Side	10mm	Ant 0	DSI 4	9400	1880	23.06	24.00	1.242	-	-	0.01	1.570	1.949
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	0mm	Ant 1	DSI 6	9400	1880	21.07	22.00	1.239	-	-	-0.03	1.670	2.069
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	0mm	Ant 1	DSI 6	9262	1852.4	21.02	22.00	1.253	-	-	0.05	1.710	2.143
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	0mm	Ant 1	DSI 6	9538	1907.6	20.91	22.00	1.285	-	-	0.09	1.600	2.056
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	0mm	Ant 1	DSI 6	9400	1880	21.07	22.00	1.239	-	-	0.01	1.180	1.462
84	WCDMA II	-	-	-	-	RMC 12.2Kbps	Top Side	0mm	Ant 1	DSI 6	9400	1880	21.07	22.00	1.239	-	-	-0.01	2.230	**2.763**
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Top Side	0mm	Ant 1	DSI 6	9262	1852.4	21.02	22.00	1.253	-	-	-0.04	2.160	2.707
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Top Side	0mm	Ant 1	DSI 6	9538	1907.6	20.91	22.00	1.285	-	-	0.02	2.060	2.648
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	5mm	Ant 1	DSI 4	9262	1852.4	23.59	24.00	1.099	-	-	-0.04	0.714	0.785
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	6mm	Ant 1	DSI 4	9400	1880	23.63	24.00	1.089	-	-	0.03	0.701	0.763
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Top Side	7mm	Ant 1	DSI 4	9400	1880	23.63	24.00	1.089	-	-	0.08	0.768	0.836
	LTE Band 25	20M	QPSK	1	0	-	Front	0mm	Ant 0	DSI 6	26340	1880	21.35	22.10	1.189	-	-	0.06	2.260	2.686
	LTE Band 25	20M	QPSK	1	0	-	Front	0mm	Ant 0	DSI 6	26140	1860	21.22	22.10	1.225	-	-	-0.01	2.190	2.682
	LTE Band 25	20M	QPSK	1	0	-	Front	0mm	Ant 0	DSI 6	26590	1905	21.31	22.10	1.199	-	-	0.02	2.130	2.555
	LTE Band 25	20M	QPSK	50	0	-	Front	0mm	Ant 0	DSI 6	26340	1880	21.30	22.10	1.202	-	-	0.03	2.030	2.441
	LTE Band 25	20M	QPSK	50	0	-	Front	0mm	Ant 0	DSI 6	26140	1860	21.20	22.10	1.230	-	-	0.04	1.970	2.424
	LTE Band 25	20M	QPSK	50	0	-	Front	0mm	Ant 0	DSI 6	26590	1905	21.19	22.10	1.233	-	-	0.09	1.910	2.355
	LTE Band 25	20M	QPSK	100	0	-	Front	0mm	Ant 0	DSI 6	26340	1880	21.24	22.10	1.219	-	-	0.05	1.880	2.292
	LTE Band 25	20M	QPSK	1	0	-	Back	0mm	Ant 0	DSI 6	26340	1880	21.35	22.10	1.189	-	-	-0.02	2.280	2.710
	LTE Band 25	20M	QPSK	1	0	-	Back	0mm	Ant 0	DSI 6	26140	1860	21.22	22.10	1.225	-	-	0.03	2.200	2.694
	LTE Band 25	20M	QPSK	1	0	-	Back	0mm	Ant 0	DSI 6	26590	1905	21.31	22.10	1.199	-	-	-0.03	2.170	2.603
	LTE Band 25	20M	QPSK	50	0	-	Back	0mm	Ant 0	DSI 6	26340	1880	21.30	22.10	1.202	-	-	0.02	2.090	2.513
	LTE Band 25	20M	QPSK	50	0	-	Back	0mm	Ant 0	DSI 6	26140	1860	21.20	22.10	1.230	-	-	0.05	2.010	2.473
	LTE Band 25	20M	QPSK	50	0	-	Back	0mm	Ant 0	DSI 6	26590	1905	21.19	22.10	1.233	-	-	0.04	1.970	2.429
	LTE Band 25	20M	QPSK	100	0	-	Back	0mm	Ant 0	DSI 6	26340	1880	21.24	22.10	1.219	-	-	-0.06	1.910	2.328
	LTE Band 25	20M	QPSK	1	0	-	Bottom Side	0mm	Ant 0	DSI 6	26340	1880	21.35	22.10	1.189	-	-	0.02	1.350	1.604
	LTE Band 25	20M	QPSK	50	0	-	Bottom Side	0mm	Ant 0	DSI 6	26340	1880	21.30	22.10	1.202	-	-	0.02	1.210	1.455
	LTE Band 25	20M	QPSK	1	0	-	Front	6mm	Ant 0	DSI 4	26340	1880	22.77	24.00	1.327	-	-	-0.03	0.860	1.142
	LTE Band 25	20M	QPSK	1	0	-	Back	8mm	Ant 0	DSI 4	26340	1880	22.77	24.00	1.327	-	-	0.02	0.690	0.916
	LTE Band 25	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 0	DSI 4	26340	1880	22.77	24.00	1.327	-	-	0.05	1.310	1.739
	LTE Band 25	20M	QPSK	1	0		Front	0mm	Ant 1	DSI 6	26340	1880	20.91	22.00	1.285	-	-	0.05	1.750	2.249
	LTE Band 25	20M	QPSK	1	0		Front	0mm	Ant 1	DSI 6	26140	1860	20.80	22.00	1.318	-	-	0.04	1.660	2.188
	LTE Band 25	20M	QPSK	1	0		Front	0mm	Ant 1	DSI 6	26590	1905	20.88	22.00	1.294	-	-	-0.06	1.590	2.058
	LTE Band 25	20M	QPSK	50	0		Front	0mm	Ant 1	DSI 6	26340	1880	20.85	22.00	1.303	-	-	0.05	1.710	2.228
	LTE Band 25	20M	QPSK	50	0		Front	0mm	Ant 1	DSI 6	26140	1860	20.71	22.00	1.346	-	-	-0.03	1.620	2.180
	LTE Band 25	20M	QPSK	50	0		Front	0mm	Ant 1	DSI 6	26590	1905	20.83	22.00	1.309	-	-	0.01	1.690	2.213
	LTE Band 25	20M	QPSK	100	0		Front	0mm	Ant 1	DSI 6	26340	1880	20.83	22.00	1.309	-	-	0.03	1.660	2.173
	LTE Band 25	20M	QPSK	1	0		Back	0mm	Ant 1	DSI 6	26340	1880	20.91	22.00	1.285	-	-	-0.03	1.160	1.491
	LTE Band 25	20M	QPSK	50	0		Back	0mm	Ant 1	DSI 6	26340	1880	20.85	22.00	1.303	-	-	0.04	1.090	1.420
85	LTE Band 25	20M	QPSK	1	0		Top Side	0mm	Ant 1	DSI 6	26340	1880	20.91	22.00	1.285	-	-	-0.03	2.150	**2.763**
	LTE Band 25	20M	QPSK	1	0		Top Side	0mm	Ant 1	DSI 6	26140	1860	20.80	22.00	1.318	-	-	0.01	2.010	2.650
	LTE Band 25	20M	QPSK	1	0		Top Side	0mm	Ant 1	DSI 6	26590	1905	20.88	22.00	1.294	-	-	0.06	2.060	2.666
	LTE Band 25	20M	QPSK	50	0		Top Side	0mm	Ant 1	DSI 6	26340	1880	20.85	22.00	1.303	-	-	0.02	1.970	2.567
	LTE Band 25	20M	QPSK	50	0		Top Side	0mm	Ant 1	DSI 6	26140	1860	20.71	22.00	1.346	-	-	-0.06	1.920	2.584
	LTE Band 25	20M	QPSK	50	0		Top Side	0mm	Ant 1	DSI 6	26590	1905	20.83	22.00	1.309	-	-	0.09	1.980	2.592
	LTE Band 25	20M	QPSK	100	0		Top Side	0mm	Ant 1	DSI 6	26340	1880	20.83	22.00	1.309	-	-	0.02	1.960	2.566
	LTE Band 25	20M	QPSK	1	0		Front	5mm	Ant 1	DSI 4	26340	1880	21.91	23.00	1.285	-	-	-0.03	0.596	0.766
	LTE Band 25	20M	QPSK	1	0		Back	6mm	Ant 1	DSI 4	26340	1880	21.91	23.00	1.285	-	-	0.02	0.552	0.709
	LTE Band 25	20M	QPSK	1	0		Top Side	7mm	Ant 1	DSI 4	26340	1880	21.91	23.00	1.285	-	-	0.01	0.615	0.790
	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Front	0mm	Ant 1	DSI 6	376000	1880	21.02	22.30	1.343	-	-	-0.02	0.997	1.339
	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Front	0mm	Ant 1	DSI 6	376000	1880	20.99	22.30	1.352	-	-	0.02	1.090	1.474
	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Back	0mm	Ant 1	DSI 6	376000	1880	21.02	22.30	1.343	-	-	-0.02	1.290	1.732
	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Back	0mm	Ant 1	DSI 6	376000	1880	20.99	22.30	1.352	-	-	0.02	1.340	1.812
	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Top Side	0mm	Ant 1	DSI 6	376000	1880	21.02	22.30	1.343	-	-	0.04	1.960	2.632
	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Top Side	0mm	Ant 1	DSI 6	372000	1860	20.96	22.30	1.361	-	-	0.02	1.950	2.655
	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Top Side	0mm	Ant 1	DSI 6	380000	1900	21.00	22.30	1.349	-	-	-0.03	1.920	2.590
86	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Top Side	0mm	Ant 1	DSI 6	376000	1880	20.99	22.30	1.352	-	-	0.06	2.050	**2.772**
	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Top Side	0mm	Ant 1	DSI 6	372000	1860	20.84	22.30	1.400	-	-	0.01	1.950	2.729

	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Top Side	0mm	Ant 1	DSI 6	380000	1900	20.98	22.30	1.355	-	-	0.05	1.930	2.616
	FR1 n2	20M	QPSK	100	0	DFT-SCS-15KHz	Top Side	0mm	Ant 1	DSI 6	376000	1880	20.93	22.30	1.371	-	-	0.06	1.910	2.618
	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Front	5mm	Ant 1	DSI 4	376000	1880	22.37	24.00	1.455	-	-	0.06	0.611	0.889
	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Back	6mm	Ant 1	DSI 4	376000	1880	22.37	24.00	1.455	-	-	0.02	0.629	0.915
	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Top Side	7mm	Ant 1	DSI 4	376000	1880	22.37	24.00	1.455	-	-	-0.06	0.581	0.846
2600MHZ																				
	LTE Band 7	20M	QPSK	1	0	-	Front	0mm	Ant 0	DSI 6	21100	2535	19.73	21.10	1.371	-	-	0.06	1.350	1.851
	LTE Band 7	20M	QPSK	50	0	-	Front	0mm	Ant 0	DSI 6	21100	2535	19.69	21.10	1.384	-	-	0.05	1.290	1.785
	LTE Band 7	20M	QPSK	1	0	-	Back	0mm	Ant 0	DSI 6	21100	2535	19.73	21.10	1.371	-	-	0.16	1.990	2.728
	LTE Band 7	20M	QPSK	1	0	-	Back	0mm	Ant 0	DSI 6	20850	2510	19.61	21.10	1.409	-	-	0.11	1.900	2.678
	LTE Band 7	20M	QPSK	1	0	-	Back	0mm	Ant 0	DSI 6	21350	2560	19.68	21.10	1.387	-	-	0.16	1.920	2.663
	LTE Band 7	20M	QPSK	50	0	-	Back	0mm	Ant 0	DSI 6	21100	2535	19.69	21.10	1.384	-	-	0.01	1.910	2.643
	LTE Band 7	20M	QPSK	50	0	-	Back	0mm	Ant 0	DSI 6	20850	2510	19.66	21.10	1.393	-	-	0.11	1.870	2.605
	LTE Band 7	20M	QPSK	50	0	-	Back	0mm	Ant 0	DSI 6	21350	2560	19.62	21.10	1.406	-	-	0.15	1.880	2.643
	LTE Band 7	20M	QPSK	100	0	-	Back	0mm	Ant 0	DSI 6	21100	2535	19.63	21.10	1.403	-	-	0.13	1.850	2.595
	LTE Band 7	20M	QPSK	1	0	-	Bottom Side	0mm	Ant 0	DSI 6	21100	2535	19.73	21.10	1.371	-	-	0.11	0.940	1.289
	LTE Band 7	20M	QPSK	50	0	-	Bottom Side	0mm	Ant 0	DSI 6	21100	2535	19.69	21.10	1.384	-	-	0.06	0.811	1.122
	LTE Band 7C	20M	QPSK	1	99	-	Back	0mm	Ant 0	DSI 6	21100+ 21298	2535+ 2612.8	19.59	21.10	1.416	-	-	0.02	1.800	2.548
	LTE Band 7	20M	QPSK	1	0	-	Front	6mm	Ant 0	DSI 4	21100	2535	22.77	24.00	1.327	-	-	0.06	0.578	0.767
	LTE Band 7	20M	QPSK	1	0	-	Back	8mm	Ant 0	DSI 4	21100	2535	22.77	24.00	1.327	-	-	0.16	0.606	0.804
	LTE Band 7	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 0	DSI 4	21100	2535	22.77	24.00	1.327	-	-	0.11	1.020	1.354
	LTE Band 7	20M	QPSK	1	0	-	Front	0mm	Ant 1	DSI 6	21100	2535	18.98	20.40	1.387	-	-	0.05	1.350	1.872
	LTE Band 7	20M	QPSK	50	0	-	Front	0mm	Ant 1	DSI 6	21100	2535	18.94	20.40	1.400	-	-	0.04	1.320	1.847
	LTE Band 7	20M	QPSK	1	0	-	Back	0mm	Ant 1	DSI 6	21100	2535	18.98	20.40	1.387	-	-	-0.16	1.280	1.775
	LTE Band 7	20M	QPSK	50	0	-	Back	0mm	Ant 1	DSI 6	21100	2535	18.94	20.40	1.400	-	-	0.06	1.190	1.666
87	LTE Band 7	20M	QPSK	1	0	-	Top Side	0mm	Ant 1	DSI 6	21100	2535	18.98	20.40	1.387	-	-	0.17	1.990	**2.760**
	LTE Band 7	20M	QPSK	1	0	-	Top Side	0mm	Ant 1	DSI 6	20850	2510	18.80	20.40	1.445	-	-	0.04	1.860	2.689
	LTE Band 7	20M	QPSK	1	0	-	Top Side	0mm	Ant 1	DSI 6	21350	2560	18.93	20.40	1.403	-	-	0.02	1.810	2.539
	LTE Band 7	20M	QPSK	50	0	-	Top Side	0mm	Ant 1	DSI 6	21100	2535	18.94	20.40	1.400	-	-	0.03	1.910	2.673
	LTE Band 7	20M	QPSK	50	0	-	Top Side	0mm	Ant 1	DSI 6	20850	2510	18.88	20.40	1.419	-	-	0.11	1.830	2.597
	LTE Band 7	20M	QPSK	50	0	-	Top Side	0mm	Ant 1	DSI 6	21350	2560	18.80	20.40	1.445	-	-	0.04	1.890	2.732
	LTE Band 7	20M	QPSK	100	0	-	Top Side	0mm	Ant 1	DSI 6	21100	2535	18.85	20.40	1.429	-	-	0.01	1.810	2.586
	LTE Band 7C	20M	QPSK	1	99	-	Top Side	0mm	Ant 1	DSI 6	21100+ 21298	2535+ 2612.8	18.90	20.40	1.413	-	-	0.05	1.900	2.684
	LTE Band 7	20M	QPSK	1	0	-	Front	5mm	Ant 1	DSI 4	21100	2535	21.93	23.00	1.279	-	-	0.02	0.822	1.052
	LTE Band 7	20M	QPSK	1	0	-	Back	6mm	Ant 1	DSI 4	21100	2535	21.93	23.00	1.279	-	-	0.03	0.859	1.099
	LTE Band 7	20M	QPSK	1	0	-	Top Side	7mm	Ant 1	DSI 4	21100	2535	21.93	23.00	1.279	-	-	0.11	1.220	1.561
	LTE Band 41	20M	QPSK	1	0	-	Back	0mm	Ant 0	DSI 6	40620	2593	21.95	23.20	1.334	62.9	1.006	0.09	1.860	2.495
	LTE Band 41	20M	QPSK	1	0	-	Back	0mm	Ant 0	DSI 6	39750	2506	21.90	23.20	1.349	62.9	1.006	0.11	1.800	2.443
	LTE Band 41	20M	QPSK	1	0	-	Back	0mm	Ant 0	DSI 6	40185	2549.5	21.81	23.20	1.377	62.9	1.006	0.09	1.850	2.563
	LTE Band 41	20M	QPSK	1	0	-	Back	0mm	Ant 0	DSI 6	41055	2636.5	21.91	23.20	1.346	62.9	1.006	0.02	1.840	2.491
88	LTE Band 41	20M	QPSK	1	0	-	Back	0mm	Ant 0	DSI 6	41490	2680	21.80	23.20	1.380	62.9	1.006	-0.07	2.000	**2.777**
	LTE Band 41	20M	QPSK	50	0	-	Back	0mm	Ant 0	DSI 6	40620	2593	21.91	23.00	1.285	62.9	1.006	0.05	1.910	2.470
	LTE Band 41	20M	QPSK	50	0	-	Back	0mm	Ant 0	DSI 6	39750	2506	21.85	23.00	1.303	62.9	1.006	0.06	1.970	2.583
	LTE Band 41	20M	QPSK	50	0	-	Back	0mm	Ant 0	DSI 6	40185	2549.5	21.86	23.00	1.300	62.9	1.006	0.01	1.860	2.433
	LTE Band 41	20M	QPSK	50	0	-	Back	0mm	Ant 0	DSI 6	41055	2636.5	21.78	23.00	1.324	62.9	1.006	0.06	1.870	2.491
	LTE Band 41	20M	QPSK	50	0	-	Back	0mm	Ant 0	DSI 6	41490	2680	21.78	23.00	1.324	62.9	1.006	0.06	1.940	2.585
	LTE Band 41	20M	QPSK	100	0	-	Back	0mm	Ant 0	DSI 6	40620	2593	21.86	23.00	1.300	62.9	1.006	0.16	1.950	2.551
	LTE Band 41	20M	QPSK	1	0	-	Bottom Side	0mm	Ant 0	DSI 6	40620	2593	21.95	23.20	1.334	62.9	1.006	0.11	0.710	0.952
	LTE Band 41	20M	QPSK	50	0	-	Bottom Side	0mm	Ant 0	DSI 6	40620	2593	21.91	23.00	1.285	62.9	1.006	0.05	0.611	0.790
	LTE Band 41 HPUE	20M	QPSK	1	0	-	Back	0mm	Ant 0	DSI 6	41490	2680	23.80	24.80	1.259	42.9	1.009	-0.05	1.990	2.528
	LTE Band 41C	20M	QPSK	1	0	-	Back	0mm	Ant 0	DSI 6	41490+ 41292	2680+ 2660.2	21.74	23.20	1.400	62.9	1.006	0.02	1.950	2.746
	LTE Band 41	20M	QPSK	1	0	-	Back	8mm	Ant 0	DSI 4	41490	2680	23.23	24.00	1.194	62.9	1.006	0.11	0.463	0.556
	LTE Band 41	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 0	DSI 4	40620	2593	23.35	24.00	1.161	62.9	1.006	0.05	0.558	0.652
	LTE Band 41	20M	QPSK	1	0	-	Front	0mm	Ant 1	DSI 6	40620	2593	22.39	23.00	1.151	62.9	1.006	0.01	1.110	1.285
	LTE Band 41	20M	QPSK	50	0	-	Front	0mm	Ant 1	DSI 6	40620	2593	21.36	22.00	1.159	62.9	1.006	0.01	1.010	1.177
	LTE Band 41	20M	QPSK	1	0	-	Back	0mm	Ant 1	DSI 6	40620	2593	22.39	23.00	1.151	62.9	1.006	0.06	0.866	1.003
	LTE Band 41	20M	QPSK	50	0	-	Back	0mm	Ant 1	DSI 6	40620	2593	21.36	22.00	1.159	62.9	1.006	0.06	0.850	0.991
	LTE Band 41	20M	QPSK	1	0	-	Top Side	0mm	Ant 1	DSI 6	40620	2593	22.39	23.00	1.151	62.9	1.006	-0.09	1.900	2.200

	LTE Band 41	20M	QPSK	1	0	-	Top Side	0mm	Ant 1	DSI 6	39750	2506	22.25	23.00	1.189	62.9	1.006	0.02	1.810	2.164
	LTE Band 41	20M	QPSK	1	0	-	Top Side	0mm	Ant 1	DSI 6	40185	2549.5	22.37	23.00	1.156	62.9	1.006	0.01	1.850	2.152
	LTE Band 41	20M	QPSK	1	0	-	Top Side	0mm	Ant 1	DSI 6	41055	2636.5	22.32	23.00	1.169	62.9	1.006	0.06	1.820	2.141
	LTE Band 41	20M	QPSK	1	0	-	Top Side	0mm	Ant 1	DSI 6	41490	2680	22.28	23.00	1.180	62.9	1.006	0.06	1.800	2.137
	LTE Band 41	20M	QPSK	50	0	-	Top Side	0mm	Ant 1	DSI 6	40620	2593	21.36	22.00	1.159	62.9	1.006	0.05	1.790	2.087
	LTE Band 41	20M	QPSK	50	0	-	Top Side	0mm	Ant 1	DSI 6	39750	2506	21.29	22.00	1.178	62.9	1.006	0.04	1.780	2.109
	LTE Band 41	20M	QPSK	50	0	-	Top Side	0mm	Ant 1	DSI 6	40185	2549.5	21.31	22.00	1.172	62.9	1.006	0.09	1.800	2.123
	LTE Band 41	20M	QPSK	50	0	-	Top Side	0mm	Ant 1	DSI 6	41055	2636.5	21.28	22.00	1.180	62.9	1.006	0.04	1.830	2.173
	LTE Band 41	20M	QPSK	50	0	-	Top Side	0mm	Ant 1	DSI 6	41490	2680	21.33	22.00	1.167	62.9	1.006	0.06	1.860	2.183
	LTE Band 41	20M	QPSK	100	0	-	Top Side	0mm	Ant 1	DSI 6	40620	2593	21.33	22.00	1.167	62.9	1.006	0.04	1.840	2.160
	LTE Band 41 HPUE	20M	QPSK	1	0	-	Top Side	0mm	Ant 1	DSI 6	40620	2593	24.50	24.60	1.023	42.9	1.009	-0.01	1.990	2.055
	LTE Band 41C	20M	QPSK	1	99	-	Top Side	0mm	Ant 1	DSI 6	40620+ 40818	2593+ 2612.8	21.98	23.00	1.265	62.9	1.006	0.06	1.710	2.176
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Front	0mm	Ant 0	DSI 6	507000	2535	20.55	21.70	1.303	-	-	0.02	1.380	1.798
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Front	0mm	Ant 0	DSI 6	507000	2535	20.52	21.70	1.312	-	-	0.01	1.410	1.850
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Back	0mm	Ant 0	DSI 6	507000	2535	20.55	21.70	1.303	-	-	-0.03	1.960	2.554
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Back	0mm	Ant 0	DSI 6	507000	2535	20.52	21.70	1.312	-	-	0.08	2.100	2.756
	FR1 n7	40M	QPSK	216	0	DFT-SCS-15KHz	Back	0mm	Ant 0	DSI 6	507000	2535	20.47	20.70	1.054	-	-	0.04	1.970	2.077
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	0mm	Ant 0	DSI 6	507000	2535	20.55	21.70	1.303	-	-	-0.09	0.914	1.191
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Bottom Side	0mm	Ant 0	DSI 6	507000	2535	20.52	21.70	1.312	-	-	0.02	0.889	1.167
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Front	6mm	Ant 0	DSI 4	507000	2535	23.41	24.00	1.146	-	-	0.01	0.503	0.576
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Back	8mm	Ant 0	DSI 4	507000	2535	23.41	24.00	1.146	-	-	-0.03	0.539	0.617
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	10mm	Ant 0	DSI 4	507000	2535	23.49	24.00	1.125	-	-	0.08	0.806	0.906
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Front	0mm	Ant 1	DSI 6	507000	2535	20.47	21.80	1.358	-	-	0.01	1.370	1.861
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Front	0mm	Ant 1	DSI 6	507000	2535	20.42	21.80	1.374	-	-	0.05	1.400	1.924
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Back	0mm	Ant 1	DSI 6	507000	2535	20.47	21.80	1.358	-	-	0.04	1.440	1.956
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Back	0mm	Ant 1	DSI 6	507000	2535	20.42	21.80	1.374	-	-	0.06	1.330	1.827
89	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Top Side	0mm	Ant 1	DSI 6	507000	2535	20.47	21.80	1.358	-	-	-0.03	2.030	**2.757**
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Top Side	0mm	Ant 1	DSI 6	507000	2535	20.42	21.80	1.374	-	-	0.04	1.930	2.652
	FR1 n7	40M	QPSK	216	0	DFT-SCS-15KHz	Top Side	0mm	Ant 1	DSI 6	507000	2535	20.38	21.80	1.387	-	-	0.08	1.860	2.579
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Front	5mm	Ant 1	DSI 4	507000	2535	22.77	24.00	1.327	-	-	0.02	0.976	1.296
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Back	6mm	Ant 1	DSI 4	507000	2535	22.87	24.00	1.297	-	-	0.01	1.030	1.336
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Top Side	7mm	Ant 1	DSI 4	507000	2535	22.87	24.00	1.297	-	-	0.05	1.350	1.751
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Front	0mm	Ant 0	DSI 6	518598	2592.99	22.27	23.20	1.239	-	-	-0.07	1.350	1.672
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Front	0mm	Ant 0	DSI 6	518598	2592.99	22.22	23.20	1.253	-	-	0.01	1.300	1.629
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Back	0mm	Ant 0	DSI 6	518598	2592.99	22.27	23.20	1.239	-	-	0.06	1.990	2.465
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Back	0mm	Ant 0	DSI 6	518598	2592.99	22.22	23.20	1.253	-	-	-0.08	2.180	2.732
	FR1 n41	100M	QPSK	270	0	DFT-SCS-30KHz	Back	0mm	Ant 0	DSI 6	518598	2592.99	21.98	23.20	1.324	-	-	0.01	1.920	2.543
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Bottom Side	0mm	Ant 0	DSI 6	518598	2592.99	22.27	23.20	1.239	-	-	0.03	0.795	0.985
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Bottom Side	0mm	Ant 0	DSI 6	518598	2592.99	22.22	23.20	1.253	-	-	0.08	0.705	0.883
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Front	6mm	Ant 0	DSI 4	518598	2592.99	23.21	24.00	1.199	-	-	-0.07	0.542	0.650
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Back	8mm	Ant 0	DSI 4	518598	2592.99	23.21	24.00	1.199	-	-	-0.08	0.620	0.744
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Bottom Side	10mm	Ant 0	DSI 4	518598	2592.99	23.21	24.00	1.199	-	-	0.03	0.793	0.951
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Front	0mm	Ant 1	DSI 6	518598	2592.99	19.59	20.90	1.352	-	-	0.01	1.390	1.879
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Front	0mm	Ant 1	DSI 6	518598	2592.99	19.54	20.90	1.368	-	-	-0.16	1.350	1.846
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Back	0mm	Ant 1	DSI 6	518598	2592.99	19.59	20.90	1.352	-	-	0.01	1.310	1.771
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Back	0mm	Ant 1	DSI 6	518598	2592.99	19.54	20.90	1.368	-	-	0.06	1.360	1.860
90	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	0mm	Ant 1	DSI 6	518598	2592.99	19.59	20.90	1.352	-	-	-0.03	2.040	**2.758**
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	0mm	Ant 1	DSI 6	518598	2592.99	19.54	20.90	1.368	-	-	0.06	1.940	2.653
	FR1 n41	100M	QPSK	270	0	DFT-SCS-30KHz	Top Side	0mm	Ant 1	DSI 6	518598	2592.99	19.52	20.90	1.374	-	-	0.01	1.960	2.693
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Front	5mm	Ant 1	DSI 4	518598	2592.99	22.52	24.00	1.406	-	-	0.01	0.867	1.219
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Back	6mm	Ant 1	DSI 4	518598	2592.99	22.46	24.00	1.426	-	-	0.06	0.937	1.336
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	7mm	Ant 1	DSI 4	518598	2592.99	22.52	24.00	1.406	-	-	-0.03	1.230	1.729
3500MHZ~3900NHZ																				
	LTE Band 42	20M	QPSK	1	0	-	Front	0mm	Ant 2	DSI 6	42590	3500	18.95	20.40	1.396	62.9	1.006	0.05	1.050	1.475
	LTE Band 42	20M	QPSK	50	0	-	Front	0mm	Ant 2	DSI 6	42590	3500	18.87	20.40	1.422	62.9	1.006	0.11	0.997	1.427
	LTE Band 42	20M	QPSK	1	0	-	Back	0mm	Ant 2	DSI 6	42590	3500	18.95	20.40	1.396	62.9	1.006	0.05	0.610	0.857
	LTE Band 42	20M	QPSK	50	0	-	Back	0mm	Ant 2	DSI 6	42590	3500	18.87	20.40	1.422	62.9	1.006	0.13	0.519	0.743
	LTE Band 42	20M	QPSK	1	0	-	Left Side	0mm	Ant 2	DSI 6	42590	3500	18.95	20.40	1.396	62.9	1.006	0.05	1.740	2.444
	LTE Band 42	20M	QPSK	1	0	-	Left Side	0mm	Ant 2	DSI 6	42190	3460	18.78	20.40	1.452	62.9	1.006	0.06	1.790	2.615

91	LTE Band 42	20M	QPSK	1	0	-	Left Side	0mm	Ant 2	DSI 6	42990	3540	18.85	20.40	1.429	62.9	1.006	-0.07	1.880	**2.702**
	LTE Band 42	20M	QPSK	50	0	-	Left Side	0mm	Ant 2	DSI 6	42590	3500	18.87	20.40	1.422	62.9	1.006	0.04	1.790	2.561
	LTE Band 42	20M	QPSK	50	0	-	Left Side	0mm	Ant 2	DSI 6	42190	3460	18.80	20.40	1.445	62.9	1.006	0.05	1.810	2.632
	LTE Band 42	20M	QPSK	50	0	-	Left Side	0mm	Ant 2	DSI 6	42990	3540	18.74	20.40	1.466	62.9	1.006	0.01	1.800	2.654
	LTE Band 42	20M	QPSK	100	0	-	Left Side	0mm	Ant 2	DSI 6	42590	3500	18.75	20.40	1.462	62.9	1.006	0.06	1.830	2.692
	LTE Band 42	20M	QPSK	1	0	-	Front	5mm	Ant 2	DSI 4	42590	3500	23.41	24.00	1.146	62.9	1.006	0.05	0.641	0.739
	LTE Band 42	20M	QPSK	1	0	-	Back	7mm	Ant 2	DSI 4	42590	3500	23.41	24.00	1.146	62.9	1.006	0.05	0.495	0.570
	LTE Band 42	20M	QPSK	1	0	-	Left Side	9mm	Ant 2	DSI 4	42990	3540	23.38	24.00	1.153	62.9	1.006	-0.07	0.773	0.897
	LTE Band 48	20M	QPSK	1	0	-	Front	0mm	Ant 2	DSI 6	55830	3609	18.99	20.40	1.384	62.9	1.006	0.06	1.490	2.074
	LTE Band 48	20M	QPSK	1	0	-	Front	0mm	Ant 2	DSI 6	55340	3560	18.84	20.40	1.432	62.9	1.006	0.05	1.330	1.916
	LTE Band 48	20M	QPSK	1	0	-	Front	0mm	Ant 2	DSI 6	56150	3641	18.93	20.40	1.403	62.9	1.006	0.04	1.310	1.849
	LTE Band 48	20M	QPSK	1	0	-	Front	0mm	Ant 2	DSI 6	56640	3690	18.90	20.40	1.413	62.9	1.006	0.01	1.410	2.004
	LTE Band 48	20M	QPSK	50	0	-	Front	0mm	Ant 2	DSI 6	55830	3609	18.91	20.40	1.409	62.9	1.006	-0.03	1.310	1.857
	LTE Band 48	20M	QPSK	50	0	-	Front	0mm	Ant 2	DSI 6	55340	3560	18.88	20.40	1.419	62.9	1.006	0.05	1.390	1.984
	LTE Band 48	20M	QPSK	50	0	-	Front	0mm	Ant 2	DSI 6	56150	3641	18.82	20.40	1.439	62.9	1.006	0.03	1.370	1.983
	LTE Band 48	20M	QPSK	50	0	-	Front	0mm	Ant 2	DSI 6	56640	3690	18.86	20.40	1.426	62.9	1.006	0.08	1.330	1.907
	LTE Band 48	20M	QPSK	100	0	-	Front	0mm	Ant 2	DSI 6	55830	3609	18.80	20.40	1.445	62.9	1.006	-0.03	1.390	2.021
	LTE Band 48	20M	QPSK	1	0	-	Back	0mm	Ant 2	DSI 6	55830	3609	18.99	20.40	1.384	62.9	1.006	0.02	0.500	0.696
	LTE Band 48	20M	QPSK	50	0	-	Back	0mm	Ant 2	DSI 6	55830	3609	18.91	20.40	1.409	62.9	1.006	-0.03	0.430	0.610
	LTE Band 48	20M	QPSK	1	0	-	Left Side	0mm	Ant 2	DSI 6	55830	3609	18.99	20.40	1.384	62.9	1.006	0.06	1.920	2.672
	LTE Band 48	20M	QPSK	1	0	-	Left Side	0mm	Ant 2	DSI 6	55340	3560	18.84	20.40	1.432	62.9	1.006	0.04	1.850	2.665
	LTE Band 48	20M	QPSK	1	0	-	Left Side	0mm	Ant 2	DSI 6	56150	3641	18.93	20.40	1.403	62.9	1.006	-0.03	1.880	2.653
92	LTE Band 48	20M	QPSK	1	0	-	Left Side	0mm	Ant 2	DSI 6	56640	3690	18.90	20.40	1.413	62.9	1.006	0.08	1.940	**2.757**
	LTE Band 48	20M	QPSK	50	0	-	Left Side	0mm	Ant 2	DSI 6	55830	3609	18.91	20.40	1.409	62.9	1.006	0.05	1.870	2.651
	LTE Band 48	20M	QPSK	50	0	-	Left Side	0mm	Ant 2	DSI 6	55340	3560	18.88	20.40	1.419	62.9	1.006	0.03	1.910	2.727
	LTE Band 48	20M	QPSK	50	0	-	Left Side	0mm	Ant 2	DSI 6	56150	3641	18.82	20.40	1.439	62.9	1.006	-0.16	1.870	2.707
	LTE Band 48	20M	QPSK	50	0	-	Left Side	0mm	Ant 2	DSI 6	56640	3690	18.86	20.40	1.426	62.9	1.006	0.02	1.900	2.725
	LTE Band 48	20M	QPSK	100	0	-	Left Side	0mm	Ant 2	DSI 6	55830	3609	18.80	20.40	1.445	62.9	1.006	0.01	1.850	2.690
	LTE Band 48	20M	QPSK	1	0	-	Front	5mm	Ant 2	DSI 4	55830	3609	23.42	24.00	1.143	62.9	1.006	0.06	0.811	0.932
	LTE Band 48	20M	QPSK	1	0	-	Back	7mm	Ant 2	DSI 4	55830	3609	23.42	24.00	1.143	62.9	1.006	0.02	0.550	0.632
	LTE Band 48	20M	QPSK	1	0	-	Left Side	9mm	Ant 2	DSI 4	56640	3690	23.30	24.00	1.175	62.9	1.006	0.08	0.913	1.079
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Front	0mm	Ant 2	DSI 6	656000	3840	16.08	17.20	1.294	-	-	0.1	1.390	1.799
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Front	0mm	Ant 2	DSI 6	656000	3840	16.04	17.20	1.306	-	-	0.06	1.230	1.607
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Back	0mm	Ant 2	DSI 6	656000	3840	16.08	17.20	1.294	-	-	0.02	0.518	0.670
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Back	0mm	Ant 2	DSI 6	656000	3840	16.04	17.20	1.306	-	-	0.1	0.520	0.679
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	0mm	Ant 2	DSI 6	656000	3840	16.08	17.20	1.294	-	-	0.05	2.100	2.718
93	FR1 n77 Part27O HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	0mm	Ant 2	DSI 6	656000	3840	18.97	20.20	1.327	50	1.000	0.03	2.070	**2.748**
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Left Side	0mm	Ant 2	DSI 6	656000	3840	16.04	17.20	1.306	-	-	-0.03	1.910	2.495
	FR1 n77 Part27O	100M	QPSK	270	0	DFT-SCS-30KHz	Left Side	0mm	Ant 2	DSI 6	656000	3840	15.99	17.20	1.321	-	-	0.01	1.960	2.590
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Front	5mm	Ant 2	DSI 4	656000	3840	22.57	24.00	1.390	-	-	0.06	0.803	1.116
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Back	7mm	Ant 2	DSI 4	656000	3840	22.51	24.00	1.409	-	-	0.05	0.541	0.762
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	9mm	Ant 2	DSI 4	656000	3840	22.57	24.00	1.390	-	-	0.03	0.879	1.222
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Front	0mm	Ant 4	DSI 6	656000	3840	19.53	20.60	1.279	-	-	0.03	1.870	2.392
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Front	0mm	Ant 4	DSI 6	656000	3840	19.47	20.60	1.297	-	-	-0.02	1.890	2.452
	FR1 n77 Part27O	100M	QPSK	270	0	DFT-SCS-30KHz	Front	0mm	Ant 4	DSI 6	656000	3840	19.45	20.50	1.274	-	-	0.02	1.860	2.369
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Back	0mm	Ant 4	DSI 6	656000	3840	19.53	20.60	1.279	-	-	0.1	1.060	1.356
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Back	0mm	Ant 4	DSI 6	656000	3840	19.47	20.60	1.297	-	-	0.06	1.050	1.362
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	0mm	Ant 4	DSI 6	656000	3840	19.53	20.60	1.279	-	-	0.02	1.940	2.482
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	0mm	Ant 4	DSI 6	656000	3840	19.47	20.60	1.297	-	-	0.01	2.100	2.724
	FR1 n77 Part27O HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	0mm	Ant 4	DSI 6	656000	3840	22.36	23.60	1.330	50	1.000	0.06	2.050	2.727
	FR1 n77 Part27O	100M	QPSK	270	0	DFT-SCS-30KHz	Top Side	0mm	Ant 4	DSI 6	656000	3840	19.45	20.50	1.274	-	-	0.05	1.900	2.420
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Front	0mm	Ant 5	DSI 6	656000	3840	20.19	20.50	1.074	-	-	0.05	1.740	1.869
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Front	0mm	Ant 5	DSI 6	656000	3840	19.80	20.50	1.175	-	-	-0.03	1.700	1.997
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Back	0mm	Ant 5	DSI 6	656000	3840	20.19	20.50	1.074	-	-	0.06	0.769	0.826
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Back	0mm	Ant 5	DSI 6	656000	3840	19.80	20.50	1.175	-	-	0.04	0.697	0.819
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Right Side	0mm	Ant 5	DSI 6	656000	3840	20.19	20.50	1.074	-	-	-0.03	1.170	1.257
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Right Side	0mm	Ant 5	DSI 6	656000	3840	19.80	20.50	1.175	-	-	0.06	1.020	1.198
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	0mm	Ant 5	DSI 6	656000	3840	20.19	20.50	1.074	-	-	0.03	1.770	1.901
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	0mm	Ant 5	DSI 6	656000	3840	19.80	20.50	1.175	-	-	-0.02	1.780	2.091

	FR1 n77 Part27O HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	0mm	Ant 5	DSI 6	656000	3840	22.83	23.50	1.167	50	1.000	0.06	1.740	2.030
	FR1 n77 Part27O	100M	QPSK	270	0	DFT-SCS-30KHz	Top Side	0mm	Ant 5	DSI 6	656000	3840	19.36	20.00	1.159	-	-	0.02	1.680	1.947
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Front	5mm	Ant 5	DSI 4	656000	3840	19.80	21.00	1.318	-	-	-0.03	0.611	0.805
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Back	9mm	Ant 5	DSI 4	656000	3840	20.19	21.00	1.205	-	-	0.06	0.201	0.242
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Right Side	6mm	Ant 5	DSI 4	656000	3840	20.19	21.00	1.205	-	-	-0.03	0.401	0.483
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	6mm	Ant 5	DSI 4	656000	3840	19.80	21.00	1.318	-	-	-0.02	0.611	0.805
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Front	0mm	Ant 7	DSI 6	656000	3840	18.21	19.20	1.256	-	-	0.04	1.330	1.671
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Front	0mm	Ant 7	DSI 6	656000	3840	18.17	19.20	1.268	-	-	-0.03	1.250	1.585
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Back	0mm	Ant 7	DSI 6	656000	3840	18.21	19.20	1.256	-	-	0.05	0.802	1.007
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Back	0mm	Ant 7	DSI 6	656000	3840	18.17	19.20	1.268	-	-	0.03	0.771	0.977
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	0mm	Ant 7	DSI 6	656000	3840	18.21	19.20	1.256	-	-	-0.03	2.180	2.738
	FR1 n77 Part27O HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	0mm	Ant 7	DSI 6	656000	3840	21.12	22.20	1.282	50	1.000	0.05	2.140	2.744
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Left Side	0mm	Ant 7	DSI 6	656000	3840	18.17	19.20	1.268	-	-	0.02	2.040	2.586
	FR1 n77 Part27O	100M	QPSK	270	0	DFT-SCS-30KHz	Left Side	0mm	Ant 7	DSI 6	656000	3840	18.14	19.20	1.276	-	-	0.01	1.910	2.438
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Bottom Side	0mm	Ant 7	DSI 6	656000	3840	18.21	19.20	1.256	-	-	0.05	0.370	0.465
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Bottom Side	0mm	Ant 7	DSI 6	656000	3840	18.17	19.20	1.268	-	-	0.06	0.320	0.406
94	FR1 n78 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Front	0mm	Ant 4	DSI 6	650000	3750	19.23	20.50	1.340	-	-	0.01	2.060	**2.760**
	FR1 n78 Part27O HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Front	0mm	Ant 4	DSI 6	650000	3750	22.15	23.50	1.365	50	1.000	0.05	2.010	2.743
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Front	0mm	Ant 4	DSI 6	650000	3750	19.18	20.50	1.355	-	-	0.07	2.010	2.724
	FR1 n78 Part27O	100M	QPSK	270	0	DFT-SCS-30KHz	Front	0mm	Ant 4	DSI 6	650000	3750	19.15	20.50	1.365	-	-	-0.14	1.970	2.688
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Back	0mm	Ant 4	DSI 6	650000	3750	19.23	20.50	1.340	-	-	-0.03	0.870	1.166
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Back	0mm	Ant 4	DSI 6	650000	3750	19.18	20.50	1.355	-	-	0.07	0.840	1.138
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	0mm	Ant 4	DSI 6	650000	3750	19.23	20.50	1.340	-	-	0.06	1.510	2.023
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	0mm	Ant 4	DSI 6	650000	3750	19.18	20.50	1.355	-	-	0.07	1.600	2.168
	FR1 n78 Part27O	100M	QPSK	270	0	DFT-SCS-30KHz	Top Side	0mm	Ant 4	DSI 6	650000	3750	19.15	20.50	1.365	-	-	0.07	1.510	2.061
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Front	0mm	Ant 5	DSI 6	650000	3750	19.45	20.50	1.274	-	-	0.04	2.130	2.713
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Front	0mm	Ant 5	DSI 6	650000	3750	19.42	20.50	1.282	-	-	0.01	2.140	2.744
	FR1 n78 Part27O HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Front	0mm	Ant 5	DSI 6	650000	3750	22.35	23.50	1.303	50	1.000	0.05	2.110	2.750
	FR1 n78 Part27O	100M	QPSK	270	0	DFT-SCS-30KHz	Front	0mm	Ant 5	DSI 6	650000	3750	19.40	20.50	1.288	-	-	-0.14	2.070	2.667
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Back	0mm	Ant 5	DSI 6	650000	3750	19.45	20.50	1.274	-	-	-0.03	0.870	1.108
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Back	0mm	Ant 5	DSI 6	650000	3750	19.42	20.50	1.282	-	-	0.07	0.870	1.116
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Right Side	0mm	Ant 5	DSI 6	650000	3750	19.45	20.50	1.274	-	-	-0.18	1.340	1.706
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Right Side	0mm	Ant 5	DSI 6	650000	3750	19.42	20.50	1.282	-	-	-0.18	1.250	1.603
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	0mm	Ant 5	DSI 6	650000	3750	19.45	20.50	1.274	-	-	0.06	2.070	2.636
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	0mm	Ant 5	DSI 6	650000	3750	19.42	20.50	1.282	-	-	0.07	2.110	2.706
	FR1 n78 Part27O	100M	QPSK	270	0	DFT-SCS-30KHz	Top Side	0mm	Ant 5	DSI 6	650000	3750	19.40	20.50	1.288	-	-	0.07	2.050	2.641
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Front	5mm	Ant 5	DSI 4	650000	3750	23.09	24.00	1.233	-	-	-0.03	0.726	0.895
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Back	9mm	Ant 5	DSI 4	650000	3750	23.09	24.00	1.233	-	-	0.07	0.211	0.260
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Right Side	6mm	Ant 5	DSI 4	650000	3750	23.19	24.00	1.205	-	-	-0.18	0.414	0.499
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	6mm	Ant 5	DSI 4	650000	3750	23.09	24.00	1.233	-	-	-0.18	0.682	0.841
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Front	0mm	Ant 7	DSI 6	650000	3750	18.93	19.80	1.222	-	-	0.06	1.090	1.332
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Front	0mm	Ant 7	DSI 6	650000	3750	18.87	19.80	1.239	-	-	0.03	1.010	1.251
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Back	0mm	Ant 7	DSI 6	650000	3750	18.93	19.80	1.222	-	-	0.09	0.993	1.213
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Back	0mm	Ant 7	DSI 6	650000	3750	18.87	19.80	1.239	-	-	0.01	0.911	1.129
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	0mm	Ant 7	DSI 6	650000	3750	18.93	19.80	1.222	-	-	0.07	2.060	2.517
	FR1 n78 Part27O HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	0mm	Ant 7	DSI 6	650000	3750	21.77	22.80	1.268	50	1.000	0.04	1.990	2.523
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Left Side	0mm	Ant 7	DSI 6	650000	3750	18.87	19.80	1.239	-	-	0.04	1.920	2.378
	FR1 n78 Part27O	100M	QPSK	270	0	DFT-SCS-30KHz	Left Side	0mm	Ant 7	DSI 6	650000	3750	18.86	19.80	1.242	-	-	-0.03	1.930	2.396

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)
WLAN/BT																
95	WLAN5.3GHz	802.11a 6Mbps	Front	0mm	Ant 4+5	Standalone	64	5320	19.93	21.00	1.279	99.23	1.008	0.03	1.550	**1.999**
	WLAN5.3GHz	802.11a 6Mbps	Back	0mm	Ant 4+5	Standalone	64	5320	19.93	21.00	1.279	99.23	1.008	0.01	0.350	0.451
	WLAN5.3GHz	802.11a 6Mbps	Left Side	0mm	Ant 4+5	Standalone	64	5320	19.93	21.00	1.279	99.23	1.008	0.05	0.030	0.039
	WLAN5.3GHz	802.11a 6Mbps	Right Side	0mm	Ant 4+5	Standalone	64	5320	19.93	21.00	1.279	99.23	1.008	0.01	0.290	0.374
	WLAN5.3GHz	802.11a 6Mbps	Top Side	0mm	Ant 4+5	Standalone	64	5320	19.93	21.00	1.279	99.23	1.008	0.03	1.480	1.909
	WLAN5.3GHz	802.11a 6Mbps	Front	0mm	Ant 4+5	DBS only	64	5320	19.37	20.50	1.297	99.23	1.008	0.06	1.360	1.778
	WLAN5.3GHz	802.11a 6Mbps	Back	0mm	Ant 4+5	DBS only	64	5320	19.37	20.50	1.297	99.23	1.008	0.01	0.310	0.405
	WLAN5.3GHz	802.11a 6Mbps	Left Side	0mm	Ant 4+5	DBS only	64	5320	19.37	20.50	1.297	99.23	1.008	0.03	0.030	0.039
	WLAN5.3GHz	802.11a 6Mbps	Right Side	0mm	Ant 4+5	DBS only	64	5320	19.37	20.50	1.297	99.23	1.008	-0.02	0.250	0.327
	WLAN5.3GHz	802.11a 6Mbps	Top Side	0mm	Ant 4+5	DBS only	64	5320	19.37	20.50	1.297	99.23	1.008	0.03	1.270	1.661
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Front	0mm	Ant 4+5	WWAN +non DBS	58	5290	15.86	17.00	1.300	99.30	1.007	-0.02	0.546	0.715
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Back	0mm	Ant 4+5	WWAN +non DBS	58	5290	15.86	17.00	1.300	99.30	1.007	0.06	0.144	0.189
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Right Side	0mm	Ant 4+5	WWAN +non DBS	58	5290	15.86	17.00	1.300	99.30	1.007	0.02	0.033	0.043
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Top Side	0mm	Ant 4+5	WWAN +non DBS	58	5290	15.86	17.00	1.300	99.30	1.007	0.03	0.485	0.635
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Front	0mm	Ant 4+5	WWAN +DBS	58	5290	12.77	14.00	1.327	99.30	1.007	0.01	0.267	0.357
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Back	0mm	Ant 4+5	WWAN +DBS	58	5290	12.77	14.00	1.327	99.30	1.007	0.06	0.060	0.080
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Right Side	0mm	Ant 4+5	WWAN +DBS	58	5290	12.77	14.00	1.327	99.30	1.007	0.01	0.049	0.065
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Top Side	0mm	Ant 4+5	WWAN +DBS	58	5290	12.77	14.00	1.327	99.30	1.007	0.02	0.254	0.340
	WLAN5.3GHz	802.11a 6Mbps	Front	5mm	Ant 4+5	Full power	64	5320	19.93	21.00	1.279	99.23	1.008	0.08	0.499	0.644
	WLAN5.3GHz	802.11a 6Mbps	Back	9mm	Ant 4+5	Full power	64	5320	19.93	21.00	1.279	99.23	1.008	0.02	0.099	0.128
	WLAN5.3GHz	802.11a 6Mbps	Right Side	6mm	Ant 4+5	Full power	64	5320	19.93	21.00	1.279	99.23	1.008	-0.06	0.378	0.487
	WLAN5.3GHz	802.11a 6Mbps	Top Side	6mm	Ant 4+5	Full power	64	5320	19.93	21.00	1.279	99.23	1.008	0.01	0.478	0.616
96	WLAN5.5GHz	802.11a 6Mbps	Front	0mm	Ant 4+5	Standalone	140	5700	19.70	21.00	1.349	99.23	1.008	0.02	1.410	**1.917**
	WLAN5.5GHz	802.11a 6Mbps	Back	0mm	Ant 4+5	Standalone	140	5700	19.70	21.00	1.349	99.23	1.008	0.03	0.392	0.533
	WLAN5.5GHz	802.11a 6Mbps	Left Side	0mm	Ant 4+5	Standalone	140	5700	19.70	21.00	1.349	99.23	1.008	-0.02	0.027	0.037
	WLAN5.5GHz	802.11a 6Mbps	Right Side	0mm	Ant 4+5	Standalone	140	5700	19.70	21.00	1.349	99.23	1.008	0.01	0.114	0.155
	WLAN5.5GHz	802.11a 6Mbps	Top Side	0mm	Ant 4+5	Standalone	140	5700	19.70	21.00	1.349	99.23	1.008	0.03	1.270	1.727
	WLAN5.5GHz	802.11a 6Mbps	Front	0mm	Ant 4+5	DBS only	140	5700	19.14	20.50	1.368	99.23	1.008	0.04	1.300	1.793
	WLAN5.5GHz	802.11a 6Mbps	Back	0mm	Ant 4+5	DBS only	140	5700	19.14	20.50	1.368	99.23	1.008	0.03	0.299	0.412
	WLAN5.5GHz	802.11a 6Mbps	Right Side	0mm	Ant 4+5	DBS only	140	5700	19.14	20.50	1.368	99.23	1.008	0.01	0.244	0.337
	WLAN5.5GHz	802.11a 6Mbps	Top Side	0mm	Ant 4+5	DBS only	140	5700	19.14	20.50	1.368	99.23	1.008	0.03	1.250	1.724
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Front	0mm	Ant 4+5	WWAN +non DBS	138	5690	15.47	17.00	1.422	99.30	1.007	0.05	0.531	0.761
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Back	0mm	Ant 4+5	WWAN +non DBS	138	5690	15.47	17.00	1.422	99.30	1.007	0.06	0.144	0.206
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Right Side	0mm	Ant 4+5	WWAN +non DBS	138	5690	15.47	17.00	1.422	99.30	1.007	0.01	0.041	0.059
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Top Side	0mm	Ant 4+5	WWAN +non DBS	138	5690	15.47	17.00	1.422	99.30	1.007	0.04	0.471	0.675
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Front	0mm	Ant 4+5	WWAN +DBS	138	5690	12.57	14.00	1.390	99.30	1.007	0.03	0.253	0.354
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Back	0mm	Ant 4+5	WWAN +DBS	138	5690	12.57	14.00	1.390	99.30	1.007	0.03	0.050	0.070
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Right Side	0mm	Ant 4+5	WWAN +DBS	138	5690	12.57	14.00	1.390	99.30	1.007	0.05	0.039	0.055
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Top Side	0mm	Ant 4+5	WWAN +DBS	138	5690	12.57	14.00	1.390	99.30	1.007	0.01	0.232	0.325
	WLAN5.5GHz	802.11a 6Mbps	Front	5mm	Ant 4+5	Full power	140	5700	19.70	21.00	1.349	99.23	1.008	0.01	0.531	0.722
	WLAN5.5GHz	802.11a 6Mbps	Back	9mm	Ant 4+5	Full power	140	5700	19.70	21.00	1.349	99.23	1.008	0.05	0.177	0.241
	WLAN5.5GHz	802.11a 6Mbps	Right Side	6mm	Ant 4+5	Full power	140	5700	19.70	21.00	1.349	99.23	1.008	0.01	0.410	0.557
	WLAN5.5GHz	802.11a 6Mbps	Top Side	6mm	Ant 4+5	Full power	140	5700	19.70	21.00	1.349	99.23	1.008	0.03	0.509	0.692

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	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Ratio	Reported 1g SAR (W/kg)
1st	WLAN2.4GHz	-	-	-	-	802.11b 1Mbps	Left Tilted	0mm	Ant 3+6	Standalone	6	2437	18.22	19.50	1.343	97.94	1.021	-0.03	1.020	1	1.398
2nd	WLAN2.4GHz	-	-	-	-	802.11b 1Mbps	Left Tilted	0mm	Ant 3+6	Standalone	6	2437	18.22	19.50	1.343	97.94	1.021	0.06	0.999	1.021	1.370
1st	WLAN5.3GHz					802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 4+5	Standalone	58	5290	16.23	17.50	1.340	99.30	1.007	-0.02	0.885	1	1.194
2nd	WLAN5.3GHz					802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 4+5	Standalone	58	5290	16.23	17.50	1.340	99.30	1.007	0.05	0.856	1.034	1.155
1st	WLAN5.5GHz					802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 4+5	Standalone	138	5690	16.05	17.50	1.395	99.30	1.007	-0.05	0.840	1	1.180
2nd	WLAN5.5GHz					802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 4+5	Standalone	138	5690	16.05	17.50	1.395	99.30	1.007	0.03	0.823	1.021	1.156
1st	WLAN5.8GHz					802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 4+5	Standalone	155	5775	15.58	17.00	1.387	99.30	1.007	-0.06	0.844	1	1.179
2nd	WLAN5.8GHz					802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 4+5	Standalone	155	5775	15.58	17.00	1.387	99.30	1.007	0.06	0.830	1.017	1.159
1st	LTE Band 66	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 0	DSI 3	132572	1770	15.25	16.00	1.189	-	-	-0.01	1.040	1	1.236
2nd	LTE Band 66	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 0	DSI 3	132572	1770	15.25	16.00	1.189	-	-	0.06	1.010	1.030	1.200
1st	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Bottom Side	5mm	Ant 0	DSI 3	512	1850.2	17.82	18.90	1.282	-	-	0.08	0.996	1	1.277
2nd	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Bottom Side	5mm	Ant 0	DSI 3	512	1850.2	17.82	18.90	1.282	-	-	0.06	0.991	1.005	1.271
1st	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	5mm	Ant 7	DSI 3	656000	3840	18.21	19.20	1.256	-	-	0.06	0.981	1	1.232
2nd	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	5mm	Ant 7	DSI 3	656000	3840	18.21	19.20	1.256	-	-	0.02	0.970	1.011	1.218
1st	FR1 n78 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Left Side	5mm	Ant 7	DSI 3	650000	3750	18.87	19.80	1.239	-	-	0.17	1.040	1	1.288
2nd	FR1 n78 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Left Side	5mm	Ant 7	DSI 3	650000	3750	18.87	19.80	1.239	-	-	0.03	1.010	1.030	1.251
1st	LTE Band 13	10M	QPSK	1	0	-	Back	5mm	Ant 0	DSI 3	23230	782	22.97	24.00	1.268	-	-	-0.05	0.896	1	1.136
2nd	LTE Band 13	10M	QPSK	1	0	-	Back	5mm	Ant 0	DSI 3	23230	782	22.97	24.00	1.268	-	-	0.09	0.891	1.006	1.129
1st	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 0	DSI 3	4132	826.4	23.17	24.00	1.211	-	-	-0.08	1.060	1	1.283
2nd	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 0	DSI 3	4132	826.4	23.17	24.00	1.211	-	-	0.09	1.030	1.029	1.247
1st	LTE Band 41 HPUE	20M	QPSK	1	0	-	Back	5mm	Ant 0	DSI 3	41490	2680	22.02	22.30	1.067	42.9	1.009	0.1	1.070	1	1.152
2nd	LTE Band 41 HPUE	20M	QPSK	1	0	-	Back	5mm	Ant 0	DSI 3	41490	2680	22.02	22.30	1.067	42.9	1.009	0.03	1.040	1.029	1.119

<10g>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Ratio	Reported 10g SAR (W/kg)
1st	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Top Side	0mm	Ant 1	DSI 6	1413	1732.6	20.96	22.10	1.300	0.02	2.110	1	2.743
2nd	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Top Side	0mm	Ant 1	DSI 6	1413	1732.6	20.96	22.10	1.300	0.03	2.070	1.019	2.691
1st	LTE Band 25	20M	QPSK	1	0	-	Back	0mm	Ant 0	DSI 6	26340	1880	21.35	22.10	1.189	-0.02	2.280	1	2.710
2nd	LTE Band 25	20M	QPSK	1	0	-	Back	0mm	Ant 0	DSI 6	26340	1880	21.35	22.10	1.189	0.03	2.230	1.022	2.650
1st	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Back	0mm	Ant 0	DSI 6	518598	2592.99	22.22	23.20	1.253	-0.08	2.180	1	2.732
2nd	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Back	0mm	Ant 0	DSI 6	518598	2592.99	22.22	23.20	1.253	0.07	2.160	1.009	2.707
1st	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	0mm	Ant 7	DSI 6	656000	3840	18.21	19.20	1.256	-0.03	2.180	1	2.738
2nd	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	0mm	Ant 7	DSI 6	656000	3840	18.21	19.20	1.256	0.06	2.150	1.014	2.700
1st	FR1 n78 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Front	0mm	Ant 5	DSI 6	650000	3750	19.42	20.50	1.282	0.01	2.140	1	2.744
2nd	FR1 n78 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Front	0mm	Ant 5	DSI 6	650000	3750	19.42	20.50	1.282	0.01	2.110	1.014	2.706

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.

16.6 TDD LTE and NR Linearity Data Analysis

General Note:
This device support Power Class 2 and Power Class 3 operations for LTE Band 41/5GNR n77/n78. The highest available duty cycle for Power Class 2 operation is 43.3% using UL-DL configuration 1. Per FCC Guidance based on the device behavior, all SAR tests were performed using Power Class 3. Power Class 2 is tested using the highest SAR test configuration in Power Class 3 for each LTE configuration and exposure condition combination, according to the highest time averaged power for all applicable uplink-downlink configurations in Power Class 2. When the reported SAR vs. output power is linearly scaled with < 10% discrepancy between power classes and all reported SAR are < 1.4 W/kg for 1g and < 3.5 W/kg for 10g, Separate SAR testing for Power Class 2 is not required.

LTE Band 41(HPUE) Ant 0-Linearity Data for Head		
	LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	24.00	27.00
Reported 1g SAR (W/kg)	0.060	0.077
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	159.00	217.01
Linearity SAR (W/kg)	0.082	
% deviation from expected linearity		-5.97%

LTE Band 41(HPUE) Ant 1-Linearity Data for Head		
	LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	18.60	20.20
Reported 1g SAR (W/kg)	0.989	0.919
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	45.86	45.34
Linearity SAR (W/kg)	0.978	
% deviation from expected linearity		-6.02%

LTE Band 41(HPUE) Ant 0-Linearity Data for Body-worn		
	LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	20.70	22.30
Reported 1g SAR (W/kg)	1.252	1.152
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	74.37	73.53
Linearity SAR (W/kg)	1.238	
% deviation from expected linearity		-6.94%

LTE Band 41(HPUE) Ant 1-Linearity Data for Body-worn		
	LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	19.30	20.90
Reported 1g SAR (W/kg)	0.587	0.540
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	53.88	53.27
Linearity SAR (W/kg)	0.580	
% deviation from expected linearity		-6.96%

LTE Band 41(HPUE) Ant 0-Linearity Data for Hotspot		
	LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	20.70	22.30
Reported 1g SAR (W/kg)	1.252	1.152
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	74.37	73.53
Linearity SAR (W/kg)	1.238	
% deviation from expected linearity		-6.94%

LTE Band 41(HPUE) Ant 1-Linearity Data for Hotspot		
	LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	19.30	20.90
Reported 1g SAR (W/kg)	0.996	0.896
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	53.88	53.27
Linearity SAR (W/kg)	0.985	
% deviation from expected linearity		-9.02%

LTE Band 41(HPUE) Ant 0-Linearity Data for Extremity SAR		
	LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	23.20	24.80
Reported 10g SAR (W/kg)	2.777	2.528
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	132.25	130.76
Linearity SAR (W/kg)	2.746	
% deviation from expected linearity		-7.93%

LTE Band 41(HPUE) Ant 1-Linearity Data for Extremity SAR		
	LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	23.00	24.60
Reported 10g SAR (W/kg)	2.200	2.055
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	126.30	124.88
Linearity SAR (W/kg)	2.175	
% deviation from expected linearity		-5.53%

FR1 N77O(HPUE) Ant 2-Linearity Data for Head		
	FR1 N77 (Power Class 3)	FR1 N77 (Power Class 2)
Maximum Tune up Power (dBm)	11.60	14.60
Reported 1g SAR (W/kg)	0.978	0.979
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	14.45	14.42
Linearity SAR (W/kg)	0.976	
% deviation from expected linearity		0.34%

FR1 N77O(HPUE) Ant 4-Linearity Data for Head		
	FR1 N77 (Power Class 3)	FR1 N77 (Power Class 2)
Maximum Tune up Power (dBm)	14.70	17.70
Reported 1g SAR (W/kg)	0.973	0.975
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	29.51	29.44
Linearity SAR (W/kg)	0.971	
% deviation from expected linearity		0.44%

FR1 N77O(HPUE) Ant 2-Linearity Data for Body-worn		
	FR1 N77 (Power Class 3)	FR1 N77 (Power Class 2)
Maximum Tune up Power (dBm)	12.50	15.50
Reported 1g SAR (W/kg)	0.402	0.402
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	17.78	17.74
Linearity SAR (W/kg)	0.401	
% deviation from expected linearity		0.24%

FR1 N77O(HPUE) Ant 4-Linearity Data for Body-worn		
	FR1 N77 (Power Class 3)	FR1 N77 (Power Class 2)
Maximum Tune up Power (dBm)	16.30	19.30
Reported 1g SAR (W/kg)	0.466	0.470
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	42.66	42.56
Linearity SAR (W/kg)	0.465	
% deviation from expected linearity		1.10%

FR1 N77O(HPUE) Ant 2-Linearity Data for Hotspot		
	FR1 N77 (Power Class 3)	FR1 N77 (Power Class 2)
Maximum Tune up Power (dBm)	12.50	15.50
Reported 1g SAR (W/kg)	0.957	0.979
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	17.78	17.74
Linearity SAR (W/kg)	0.955	
% deviation from expected linearity		2.54%

FR1 N77O(HPUE) Ant 4-Linearity Data for Hotspot		
	FR1 N77 (Power Class 3)	FR1 N77 (Power Class 2)
Maximum Tune up Power (dBm)	16.30	19.30
Reported 1g SAR (W/kg)	0.975	0.985
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	42.66	42.56
Linearity SAR (W/kg)	0.973	
% deviation from expected linearity		1.27%

FR1 N77O(HPUE) Ant 2-Linearity Data for Extremity SAR		
	FR1 N77 (Power Class 3)	FR1 N77 (Power Class 2)
Maximum Tune up Power (dBm)	17.20	20.20
Reported 10g SAR (W/kg)	2.718	2.748
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	52.48	52.36
Linearity SAR (W/kg)	2.712	
% deviation from expected linearity		1.34%

FR1 N77O(HPUE) Ant 4-Linearity Data for Extremity SAR		
	FR1 N77 (Power Class 3)	FR1 N77 (Power Class 2)
Maximum Tune up Power (dBm)	20.60	23.60
Reported 10g SAR (W/kg)	2.724	2.727
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	114.82	114.54
Linearity SAR (W/kg)	2.718	
% deviation from expected linearity		0.35%

FR1 N77O(HPUE) Ant 5-Linearity Data for Head		
	FR1 N77 (Power Class 3)	FR1 N77 (Power Class 2)
Maximum Tune up Power (dBm)	15.10	18.10
Reported 1g SAR (W/kg)	0.974	0.984
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	32.36	32.28
Linearity SAR (W/kg)	0.972	
% deviation from expected linearity		1.27%

FR1 N77O(HPUE) Ant 7-Linearity Data for Head		
	FR1 N77 (Power Class 3)	FR1 N77 (Power Class 2)
Maximum Tune up Power (dBm)	23.00	26.00
Reported 1g SAR (W/kg)	0.274	0.281
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	199.53	199.05
Linearity SAR (W/kg)	0.273	
% deviation from expected linearity		2.80%

FR1 N77O(HPUE) Ant 5-Linearity Data for Body-worn		
	FR1 N77 (Power Class 3)	FR1 N77 (Power Class 2)
Maximum Tune up Power (dBm)	18.30	21.30
Reported 1g SAR (W/kg)	0.911	0.928
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	67.61	67.45
Linearity SAR (W/kg)	0.909	
% deviation from expected linearity		2.11%

FR1 N77O(HPUE) Ant 7-Linearity Data for Body-worn		
	FR1 N77 (Power Class 3)	FR1 N77 (Power Class 2)
Maximum Tune up Power (dBm)	19.20	22.20
Reported 1g SAR (W/kg)	0.897	0.912
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	83.18	82.98
Linearity SAR (W/kg)	0.895	
% deviation from expected linearity		1.91%

FR1 N77O(HPUE) Ant 5-Linearity Data for Hotspot		
	FR1 N77 (Power Class 3)	FR1 N77 (Power Class 2)
Maximum Tune up Power (dBm)	18.30	21.30
Reported 1g SAR (W/kg)	0.970	0.990
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	67.61	67.45
Linearity SAR (W/kg)	0.968	
% deviation from expected linearity		2.30%

FR1 N77O(HPUE) Ant 7-Linearity Data for Hotspot		
	FR1 N77 (Power Class 3)	FR1 N77 (Power Class 2)
Maximum Tune up Power (dBm)	19.20	22.20
Reported 1g SAR (W/kg)	1.232	1.253
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	83.18	82.98
Linearity SAR (W/kg)	1.229	
% deviation from expected linearity		1.95%

FR1 N77O(HPUE) Ant 5-Linearity Data for Extremity SAR		
	FR1 N77 (Power Class 3)	FR1 N77 (Power Class 2)
Maximum Tune up Power (dBm)	20.50	23.50
Reported 10g SAR (W/kg)	2.091	2.030
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	112.20	111.94
Linearity SAR (W/kg)	2.086	
% deviation from expected linearity		-2.69%

FR1 N77O(HPUE) Ant 7-Linearity Data for Extremity SAR		
	FR1 N77 (Power Class 3)	FR1 N77 (Power Class 2)
Maximum Tune up Power (dBm)	19.200	22.20
Reported 10g SAR (W/kg)	2.738	2.744
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	83.18	82.98
Linearity SAR (W/kg)	2.732	
% deviation from expected linearity		0.46%

FR1 N78O(HPUE) Ant 4-Linearity Data for Head		
	FR1 N78 (Power Class 3)	FR1 N78 (Power Class 2)
Maximum Tune up Power (dBm)	14.90	17.90
Reported 1g SAR (W/kg)	0.904	0.963
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	30.90	30.83
Linearity SAR (W/kg)	0.902	
% deviation from expected linearity		6.78%

FR1 N78O(HPUE) Ant 5-Linearity Data for Head		
	FR1 N78 (Power Class 3)	FR1 N78 (Power Class 2)
Maximum Tune up Power (dBm)	14.70	17.70
Reported 1g SAR (W/kg)	0.956	0.973
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	29.51	29.44
Linearity SAR (W/kg)	0.954	
% deviation from expected linearity		2.02%

FR1 N78O(HPUE) Ant 4-Linearity Data for Body-worn		
	FR1 N78 (Power Class 3)	FR1 N78 (Power Class 2)
Maximum Tune up Power (dBm)	16.00	19.00
Reported 1g SAR (W/kg)	0.497	0.522
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	39.81	39.72
Linearity SAR (W/kg)	0.496	
% deviation from expected linearity		5.28%

FR1 N78O(HPUE) Ant 5-Linearity Data for Body-worn		
	FR1 N78 (Power Class 3)	FR1 N78 (Power Class 2)
Maximum Tune up Power (dBm)	18.00	21.00
Reported 1g SAR (W/kg)	0.717	0.724
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	63.10	62.95
Linearity SAR (W/kg)	0.715	
% deviation from expected linearity		1.22%

FR1 N78O(HPUE) Ant 4-Linearity Data for Hotspot		
	FR1 N78 (Power Class 3)	FR1 N78 (Power Class 2)
Maximum Tune up Power (dBm)	16.00	19.00
Reported 1g SAR (W/kg)	0.945	0.991
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	39.81	39.72
Linearity SAR (W/kg)	0.943	
% deviation from expected linearity		5.12%

FR1 N78O(HPUE) Ant 5-Linearity Data for Hotspot		
	FR1 N78 (Power Class 3)	FR1 N78 (Power Class 2)
Maximum Tune up Power (dBm)	18.00	21.00
Reported 1g SAR (W/kg)	0.962	0.974
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	63.10	62.95
Linearity SAR (W/kg)	0.960	
% deviation from expected linearity		1.49%

FR1 N78O(HPUE) Ant 4-Linearity Data for Extremity SAR		
	FR1 N78 (Power Class 3)	FR1 N78 (Power Class 2)
Maximum Tune up Power (dBm)	20.50	23.50
Reported 10g SAR (W/kg)	2.760	2.743
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	112.20	111.94
Linearity SAR (W/kg)	2.753	
% deviation from expected linearity		-0.38%

FR1 N78O(HPUE) Ant 5-Linearity Data for Extremity SAR		
	FR1 N78 (Power Class 3)	FR1 N78 (Power Class 2)
Maximum Tune up Power (dBm)	20.50	23.50
Reported 10g SAR (W/kg)	2.744	2.750
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	112.20	111.94
Linearity SAR (W/kg)	2.737	
% deviation from expected linearity		0.46%

FR1 N78O(HPUE) Ant 7-Linearity Data for Head		
	FR1 N78 (Power Class 3)	FR1 N78 (Power Class 2)
Maximum Tune up Power (dBm)	24.00	27.00
Reported 1g SAR (W/kg)	0.212	0.207
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	251.19	250.59
Linearity SAR (W/kg)	0.211	
% deviation from expected linearity		-2.13%
FR1 N78O(HPUE) Ant 7-Linearity Data for Body-worn		
	FR1 N78 (Power Class 3)	FR1 N78 (Power Class 2)
Maximum Tune up Power (dBm)	19.80	22.80
Reported 1g SAR (W/kg)	0.944	0.979
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	95.50	95.27
Linearity SAR (W/kg)	0.942	
% deviation from expected linearity		3.95%
FR1 N78O(HPUE) Ant 7-Linearity Data for Hotspot		
	FR1 N78 (Power Class 3)	FR1 N78 (Power Class 2)
Maximum Tune up Power (dBm)	19.80	22.80
Reported 1g SAR (W/kg)	1.288	1.280
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	95.50	95.27
Linearity SAR (W/kg)	1.285	
% deviation from expected linearity		-0.39%
FR1 N78O(HPUE) Ant 7-Linearity Data for Extremity SAR		
	FR1 N78 (Power Class 3)	FR1 N78 (Power Class 2)
Maximum Tune up Power (dBm)	19.80	22.80
Reported 10g SAR (W/kg)	2.517	2.523
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	95.50	95.27
Linearity SAR (W/kg)	2.511	
		0.48%

17. Simultaneous Transmission Analysis

No.	Simultaneous Transmission Configurations	Portable Handset			
		Head	Body-worn	Hotspot	Product specific 10g SAR
1.	WWAN + WLAN2.4GHz	Yes	Yes	Yes	Yes
2.	WWAN + WLAN5GHz	Yes	Yes	Yes	Yes
3.	WWAN + WLAN6GHz	Yes	Yes	Yes	Yes
4.	WWAN + Bluetooth	Yes	Yes	Yes	Yes
5.	WLAN2.4GHz + WLAN5GHz	Yes	Yes	Yes	Yes
6.	WLAN2.4GHz + WLAN6GHz	Yes	Yes	Yes	Yes
7.	WLAN5GHz+ Bluetooth	Yes	Yes	Yes	Yes
8.	WLAN6GHz+ Bluetooth	Yes	Yes	Yes	Yes
9.	WWAN + WLAN2.4GHz + WLAN5GHz	Yes	Yes	Yes	Yes
10.	WWAN + WLAN2.4GHz + WLAN6GHz	Yes	Yes	Yes	Yes
11.	WWAN + WLAN5GHz+ Bluetooth	Yes	Yes	Yes	Yes
12.	WWAN + WLAN6GHz+ Bluetooth	Yes	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. The 2.4GHz/5GHz/6GHz WLAN can transmit in MIMO antenna mode only and it has no SISO antenna mode.
4. EUT will choose each GSM, WCDMA, LTE and 5GNR according to the network signal condition; therefore, they will not operate simultaneously at any moment.
5. 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.
6. This device 2.4GHz WLAN support hotspot operation and Bluetooth support tethering applications.
7. This device 5.2GHz WLAN/5.8GHz WLAN support hotspot operation, and 5.2GHz WLAN/5.8GHz WLAN supports WLAN Direct (GC/GO), and 5.3GHz / 5.5GHz supports WLAN Direct (GC only). WIFI 6E has no hotspot function.
8. The worst case 5 GHz WLAN SAR for each configuration was used for SAR summation.
9. WLAN 2.4GHz and Bluetooth share the same antenna, and they cannot transmit simultaneously each other.
10. According to the EUT characteristic, WLAN 5GHz/6GHz and Bluetooth can transmit simultaneously.
11. According to the EUT characteristic, WLAN 5GHz/6GHz and WLAN 2.4GHz can transmit simultaneously.
12. According to the EUT characteristic, WLAN 5GHz and WLAN 6GHz can't transmit simultaneously.
13. According to the EUT characteristic, WLAN 2.4GHz and Bluetooth can't transmit simultaneously.
14. According to the EUT characteristic, two Bluetooth antennas cannot transmit simultaneously with each other.
15. The maximum SAR summation is calculated based on the same configuration and test position.
16. 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.
17. For standalone WWAN, always choose the highest SAR among the selected WWAN bands within the selected antenna for each exposure position to perform simultaneous transmission analysis with WLAN/BT. This is the worst co-located analysis and can represent each bands.
18. For distance SAR and non-distance SAR always chose higher SAR to do co-located analysis.
19. Per KDB 447498 D01v06, simultaneous transmission SAR is compliant if,
    i) 1g Scalar SAR summation < 1.6W/kg and 10g Scalar SAR summation < 4.0W/kg.
    ii) SPLSR = (SAR1 + SAR2)^1.5 / (min. separation distance, mm), and the peak separation distance is determined from the square root of [(x1-x2)2 + (y1-y2)2 + (z1-z2)2], where (x1, y1, z1) and (x2, y2, z2) are the coordinates of the extrapolated peak SAR locations in the zoom scan.
    iii) If SPLSR ≤ 0.04 for 1g SAR and SPLSR≤ 0.10 for 10g SAR , simultaneously transmission SAR measurement is not necessary.
    iv) Simultaneously transmission SAR measurement, and the reported multi-band 1g SAR < 1.6W/kg and 10g SAR < 4.0W/kg.
    v) The SPLSR calculated results please refer to section 17.7.

20. The WiFi 6E Sim-Tx analysis guidance with other transmitters was based on SAR test results. The simultaneous transmission and test exemption analysis per KDB 447498 D01, and the device does not support FR2 or another MPE field measurement, therefore SAR report in section 17 has include TER analysis requirement according to KDB 987594.

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 ≤ 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 ≤ 1.0* (1)

x% * A + (100-x)% * B ≤ x% * max(A, B) + (100-x)% * max(A, B) ≤ max(A, B)

*x% * A + (100-x)% * B + C ≤ max(A, B) + C ≤ 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 uplink CA no need to do additional simultaneously analysis again. Only required comply with total exposure ratio (TER) of LTE + WLAN + BT < 1.

17.2 Sub6 Antenna Groups

The 2nd generation of Smart Transmit (GEN2) operates based on pre-defined sub6 antenna groups (AG). Sub6 Tx antennas in the device are grouped based on spatial variation of RF exposure distributions, where the RF exposure of one AG is mutually exclusive from other AG. This is accomplished by demonstrating below conditions for all exposure positions under each DSI for a given exposure category.

1) Case 1: Sum of SAR of one antenna from each of the sub6 AGs and the RF exposure from radios outside Smart Transmit is less than regulatory limits for each supported DSI. This condition must be demonstrated for all antenna combinations of sub6 AGs.
   i. For a given DSI, obtain the highest *reported* SAR for each antenna out of all supported technologies and frequency bands. Obtain the maximum *reported* SAR for each AG by taking the maximum out of *reported* SAR for all antennas belonging to each AG.
   ii. Demonstrate that the sum of maximum reported SAR (normalized to regulatory limit) from each of the sub6 AGs and the sum of reported SAR (normalized to regulatory limit) from all supported radios outside of Smart Transmit should be less than 1.0
2) Case 2: If the Case 1 is NOT met, then for a given antenna grouping scheme plus external radios/antennas (ERs) (referred to as 'configuration'), demonstrate all AG pairs, all ER pairs and all (AG, ER) pairs in the configuration meet SPLSR criteria (Section 4.3.2 (c) in FCC KDB 447498 D01 v06) for each exposure position under each supported DSI. For a given exposure position under a given DSI, prove all AG pairs, all ER pairs and all (AG, ER) pairs (if there are external radios outside Smart Transmit) in the configuration meet SPLSR.

This device supports two sub6 AG: AG0 and AG1, the detailed please refer to the below table:

Antenna Group 0 (AG0)	ANT1 & ANT2 & ANT4 & ANT5
Antenna Group 1 (AG1)	ANT0 & ANT7

The conditions are verified through the following criterias:

i) (SAR1 + SAR2 criteria): If SPLSR criteria is not used, then the highest reported SAR at *Plimit* for each antenna should be obtained out of all supported technologies and frequency bands for each DSI. Demonstrate that the sum of reported SAR of one antenna from each of the sub6 AGs and the sum of RF exposure from all supported radios outside of Smart Transmit should be less than the regulatory limit as given below for each DSI.

1. Obtain the worst-case reported SAR for each antenna group (i.e., maximum *reported* SAR at *Plimit* out of all supported technologies, frequency bands and antennas in AG0 and AG1), denoted as max.SAR.AG0 and max.SAR.AG1, and obtain the worst-case RF exposure for each external radio, and demonstrate that the sum of these RF exposures meets: { [max.SAR.AG0+ max.SAR.AG1] + WIFI/BT worst-case reported SAR} ≤ 1.6 (for 1g, or 4.0 for 10g). (WIFI/BT worst-case reported SAR is the worst SAR in all combinations of WIFI and BT simultaneous transmission)

ii) (SPLSR criteria): For each antenna, obtain the highest reported SAR value at *Plimit* out of all supported technologies for each frequency band. Using these values, demonstrate for a given DSI that every antenna from one sub6 AG meets SPLSR criteria with every antenna in another sub6 AG for all frequency bands. This criteria must be demonstrated for all antenna pair combinations irrespective of supported simultaneous transmission scenarios as given below for each DSI:

a. SPLSR criteria should be met for all antenna pair combinations of AG0 and AG1. As it can be seen, these include all combinations of antenna groups, antennas, and frequency bands.
b. Obtain combined SAR per AG: Obtain the worst-case conservative combined SAR and its peak location for each AG.
c. Use the 'closest' peak location out of all antennas of AGj to evaluate SPLSR with other AGs in the configuration. Note, by 'closest', select the peak location out of all antennas (ϵ AGj) that is closest to the peak location of other AG where SPLSR is evaluated.

iii) (combination of SPLSR & SAR1+SAR2 criteria): If SPLSR criteria for all the combinations of sub6 antenna groups in (i) is demonstrated to show that each AG is mutually exclusive from other AGs, and if the WIFI/BT antennas supported outside of Smart Transmit do not meet SPLSR criteria, then the condition in (ii) reduces to: {max.SAR.AG0 + worst-case reported SAR} ≤ 1.6 and {max.SAR.AG1+ worst-case reported SAR } ≤ 1.6 for compliance demonstration (for 1g, or 4.0 for 10g).

For summed SAR results and SPLSR detailed analysis, please refer to section 17.3 / 17.4 / 17.5 / 17.6 /17.7 of this report. All of the combinations of sub6 antenna groups are sufficient to show that AG0 is mutually exclusive from AG1 and that simultaneous transmission cases will not exceed the SAR limit and therefore no measured volumetric simultaneous SAR summation is required per FCC KDB Publication 447498 D01v06 and IEEE 1528- 2013 Section 6.3.4.1.

17.3 Head Exposure Conditions

General Note: The unit of SAR evaluation is W/kg.
Simultaneous Transmission Evaluation of WWAN+WLAN+BT:
<AG0 maximum report SAR>:

Test Position	Ant1	Ant2	Ant4	Ant5	MAX
Right Cheek	1.044	0.985	0.644	0.272	1.044
Right Tilted	1.006	0.127	0.721	0.263	1.006
Left Cheek	0.614	0.300	0.963	0.984	0.984
Left Tilted	0.703	0.050	0.975	0.906	0.975

<AG1 maximum report SAR>:

Test Position	Ant0	Ant7	MAX
Right Cheek	0.292	0.171	0.292
Right Tilted	0.153	0.235	0.235
Left Cheek	0.189	0.281	0.281
Left Tilted	0.115	0.171	0.171

<WLAN+BT Worse-case SAR>:

NO	1	2	3	4	5	6	7	8							
Test Position	WLAN2.4GHz Ant 3+6 WWAN+non DBS	WLAN2.4GHz Ant 3+6 WWAN+DBS	WLAN5GHz Ant 4+5 WWAN+non DBS	WLAN5GHz Ant 4+5 WWAN+DBS	Bluetooth Ant 6	Bluetooth Ant 3	WLAN6GHz Ant 4+5	WLAN6GHz Ant 4+5 WWAN+DBS	3+5	3+6	5+7	6+7	2+4	2+8	Wlan+BT worse case
Right Cheek	0.273	0.123	0.163	0.112	0.066	0.111	0.161	0.073	0.229	0.274	0.227	0.272	0.235	0.196	0.274
Right Tilted	0.295	0.134	0.167	0.125	0.017	0.119	0.171	0.078	0.184	0.286	0.188	0.290	0.259	0.212	0.295
Left Cheek	0.354	0.160	0.368	0.198	0.194	0.188	0.395	0.179	0.562	0.556	0.589	0.583	0.358	0.339	0.589
Left Tilted	0.372	0.185	0.263	0.163	0.043	0.182	0.327	0.148	0.306	0.445	0.370	0.509	0.348	0.333	0.509

Simultaneous Transmission analysis of AG0 + AG1 + WLAN+BT Worse-case:

Test Position	AG0	AG1	Wlan/BT worst case	AG0+AG1+wlan +BT worse case
	1g SAR (W/kg)	1g SAR (W/kg)	Summed 1g SAR (W/kg)	Summed 1g SAR (W/kg)
Right Cheek	1.044	0.292	0.274	**1.61**
Right Tilted	1.006	0.235	0.295	1.54
Left Cheek	0.984	0.281	0.589	**1.85**
Left Tilted	0.975	0.171	0.509	**1.66**

Note: The results marked yellow in above table refers to the detailed analysis corresponding to each position below tables.

Right Cheek					
Ant combination	AG1	AG0	Wlan+BT worst case	AG0+AG1+wlan +BT worst case	Note
	1g SAR (W/kg)	1g SAR (W/kg)	Summed 1g SAR (W/kg)	Summed 1g SAR (W/kg)	
Ant0-Ant1	0.292	1.044	0.274	**1.61**	**Case 1**
Ant0-Ant2	0.292	0.985	0.274	1.55	-
Ant0-Ant4	0.292	0.644	0.274	1.21	-
Ant0-Ant5	0.292	0.272	0.274	0.84	-
Ant7-Ant1	0.171	1.044	0.274	1.49	-
Ant7-Ant2	0.171	0.985	0.274	1.43	-
Ant7-Ant4	0.171	0.644	0.274	1.09	-
Ant7-Ant5	0.171	0.272	0.274	0.72	-

Left Cheek					
Ant combination	AG1	AG0	Wlan+BT worst case	AG0+AG1+wlan +BT worst case	Note
	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	
Ant0-Ant1	0.189	0.614	0.589	1.39	-
Ant0-Ant2	0.189	0.300	0.589	1.08	-
Ant0-Ant4	0.189	0.963	0.589	**1.74**	**Case 2**
Ant0-Ant5	0.189	0.984	0.589	**1.76**	**Case 3**
Ant7-Ant1	0.281	0.614	0.589	1.48	-
Ant7-Ant2	0.281	0.300	0.589	1.17	-
Ant7-Ant4	0.281	0.963	0.589	**1.83**	**Case 4**
Ant7-Ant5	0.281	0.984	0.589	**1.85**	**Case 5**

Left Tilted					
Ant combination	AG1	AG0	Wlan+BT worst case	AG0+AG1+wlan +BT worst case	Note
	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	
Ant0-Ant1	0.115	0.703	0.509	1.33	-
Ant0-Ant2	0.115	0.050	0.509	0.67	-
Ant0-Ant4	0.115	0.975	0.509	**1.60**	**Case 6**
Ant0-Ant5	0.115	0.906	0.509	1.53	-
Ant7-Ant1	0.171	0.703	0.509	1.38	-
Ant7-Ant2	0.171	0.050	0.509	0.73	-
Ant7-Ant4	0.171	0.975	0.509	**1.66**	**Case 7**
Ant7-Ant5	0.171	0.906	0.509	**1.59**	-

<Simultaneous Transmission analysis of WLAN/BT only without WWAN>:

NO	1	2	3	4	5	6	7	8	2+4	2+8	3+5	3+6	5+7	6+7
Test Position	WLAN2.4GHz Ant 3+6 Without WWAN Non DBS	WLAN2.4GHz Ant 3+6 Without WWAN DBS only	WLAN5GHz Ant 4+5 Without WWAN Non DBS	WLAN5GHz Ant 4+5 Without WWAN DBS only	Bluetooth Ant 6	Bluetooth Ant 3	WLAN6GHz Ant 4+5 Without WWAN Non DBS	WLAN6GHz Ant 4+5 Without WWAN DBS Only						
	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)	Summed 1g SAR (W/kg)	Summed 1g SAR (W/kg)	Summed 1g SAR (W/kg)	Summed 1g SAR (W/kg)	Summed 1g SAR (W/kg)	Summed 1g SAR (W/kg)
Right Cheek	0.834	0.727	0.496	0.797	0.066	0.111	0.161	0.161	1.52	0.89	0.56	0.61	0.23	0.27
Right Tilted	0.894	0.727	0.504	0.797	0.017	0.119	0.171	0.171	1.52	0.90	0.52	0.62	0.19	0.29
Left Cheek	1.383	0.727	1.194	0.797	0.194	0.188	0.395	0.395	1.52	1.12	1.39	1.38	0.59	0.58
Left Tilted	1.398	0.727	1.121	0.797	0.043	0.182	0.327	0.327	1.52	1.05	1.16	1.30	0.37	0.51

17.4 Hotspot Exposure Conditions

General Note: The unit of SAR evaluation is W/kg.
Simultaneous Transmission Evaluation of WWAN+WLAN+BT:
<AG0 maximum report SAR>:

Test Position	Ant1	Ant2	Ant4	Ant5	MAX
Front	0.709	0.452	0.497	0.911	0.911
Back	0.861	0.343	0.434	0.734	0.861
Left Side	0.608	1.004	0.072	0.027	1.004
Right Side	0.187	0.006	0.166	0.614	0.614
Top Side	0.996	0.088	0.991	0.990	0.996
Bottom Side					

<AG1 maximum report SAR>:

Test Position	Ant0	Ant7	MAX
Front	1.208	0.944	1.208
Back	1.283	0.605	1.283
Left Side	0.259	1.288	1.288
Right Side	0.475	0.040	0.475
Top Side			
Bottom Side	1.277	0.579	1.277

<WLAN+BT Worse-case SAR>:

NO	1	2	3	4	5	6				
Test Position	WLAN2.4GHz Ant 3+6 WWAN+non DBS	WLAN2.4GHz Ant 3+6 WWAN+DBS	WLAN5GHz Ant 4+5 WWAN+non DBS	WLAN5GHz Ant 4+5 WWAN+DBS	Bluetooth Ant 6	Bluetooth Ant 3	3+5	3+6	2+4	Wlan+BT worse case
Front	0.261	0.100	0.386	0.184	0.091	0.050	0.477	0.436	0.284	0.477
Back	0.256	0.098	0.284	0.137	0.072	0.057	0.356	0.341	0.235	0.356
Left Side	0.013	0.005	0.041	0.020	0.010	0.003	0.051	0.044	0.025	0.051
Right Side	0.046	0.017	0.165	0.079	0.132	0.001	0.297	0.166	0.096	0.297
Top Side	0.371	0.194	0.396	0.188	0.009	0.154	0.405	0.550	0.382	0.550
Bottom Side							0.000	0.000	0.000	0.000

<Simultaneous Transmission analysis of AG0 + AG1 + WLAN+BT Worse-case>:

Test Position	AG0	AG1	Wlan+BT worst case	AG0+AG1+wlan +BT worse case
	1g SAR (W/kg)	1g SAR (W/kg)	Summed 1g SAR (W/kg)	Summed 1g SAR (W/kg)
Front	0.911	1.208	0.477	**2.60**
Back	0.861	1.283	0.356	**2.50**
Left Side	1.004	1.288	0.051	**2.34**
Right Side	0.614	0.475	0.297	1.39
Top Side	0.996		0.550	1.55
Bottom Side		1.277	0.000	1.28

Note: The results marked yellow in above table refers to the detailed analysis corresponding to each position below tables.

Front					
Ant combination	AG1	AG0	Wlan+BT worst case	AG0+AG1+wlan +BT worse case	Note
	1g SAR (W/kg)	1g SAR (W/kg)	Summed 1g SAR (W/kg)	Summed 1g SAR (W/kg)	
Ant0-Ant1	1.208	0.709	0.477	**2.39**	**Case 1**
Ant0-Ant2	1.208	0.452	0.477	**2.14**	**Case 2**
Ant0-Ant4	1.208	0.497	0.477	**2.18**	**Case 3**
Ant0-Ant5	1.208	0.911	0.477	**2.60**	**Case 4**
Ant7-Ant1	0.944	0.709	0.477	**2.13**	**Case 5**
Ant7-Ant2	0.944	0.452	0.477	**1.87**	**Case 6**
Ant7-Ant4	0.944	0.497	0.477	**1.92**	**Case 7**
Ant7-Ant5	0.944	0.911	0.477	**2.33**	**Case 8**

Back					
Ant combination	AG1	AG0	Wlan+BT worst case	AG0+AG1+wlan +BT worse case	Note
	1g SAR (W/kg)	1g SAR (W/kg)	Summed 1g SAR (W/kg)	Summed 1g SAR (W/kg)	
Ant0-Ant1	1.283	0.861	0.356	**2.50**	**Case 9**
Ant0-Ant2	1.283	0.343	0.356	**1.98**	**Case 10**
Ant0-Ant4	1.283	0.434	0.356	**2.07**	**Case 11**
Ant0-Ant5	1.283	0.734	0.356	**2.37**	**Case 12**
Ant7-Ant1	0.605	0.861	0.356	**1.82**	**Case 13**
Ant7-Ant2	0.605	0.343	0.356	1.30	-
Ant7-Ant4	0.605	0.434	0.356	1.40	-
Ant7-Ant5	0.605	0.734	0.356	**1.70**	**Case 14**

Left side					
Ant combination	AG1	AG0	Wlan+BT worst case	AG0+AG1+wlan +BT worse case	Note
	1g SAR (W/kg)	1g SAR (W/kg)	Summed 1g SAR (W/kg)	Summed 1g SAR (W/kg)	
Ant0-Ant1	0.259	0.608	0.051	0.92	-
Ant0-Ant2	0.259	1.004	0.051	1.31	-
Ant0-Ant4	0.259	0.072	0.051	0.38	-
Ant0-Ant5	0.259	0.027	0.051	0.34	-
Ant7-Ant1	1.288	0.608	0.051	**1.95**	**Case 15**
Ant7-Ant2	1.288	1.004	0.051	**2.34**	**Case 16**
Ant7-Ant4	1.288	0.072	0.051	1.41	-
Ant7-Ant5	1.288	0.027	0.051	1.37	-

17.5 Body-Worn Accessory Exposure Conditions

General Note: The unit of SAR evaluation is W/kg.
Simultaneous Transmission Evaluation of WWAN+WLAN+BT:
<AG0 maximum report SAR>:

Test Position	Ant1	Ant2	Ant4	Ant5	MAX
Front	0.709	0.452	0.522	0.928	0.928
Back	0.861	0.343	0.434	0.734	0.861

<AG1 maximum report SAR>:

Test Position	Ant0	Ant7	MAX
Front	1.208	0.979	1.208
Back	1.283	0.605	1.283

<WLAN+BT Worse-case SAR>:

NO	1	2	3	4	5	6	7
Test Position	WLAN2.4GHz Ant 3+6 WWAN+non DBS	WLAN2.4GHz Ant 3+6 WWAN+DBS	WLAN5GHz Ant 4+5 WWAN+non DBS	WLAN5GHz Ant 4+5 WWAN+DBS	Bluetooth Ant 6	Bluetooth Ant 3	WLAN6GHz Ant 4+5
Front	0.376	0.182	0.380	0.194	0.091	0.050	0.118
Back	0.366	0.168	0.264	0.174	0.072	0.057	0.113

3+5	3+6	5+7	6+7	2+4	2+7	Wlan+BT worse case
Summed 1g SAR (W/kg)	Summed 1g SAR (W/kg)	Summed 1g SAR (W/kg)	Summed 1g SAR (W/kg)	Summed 1g SAR (W/kg)	Summed 1g SAR (W/kg)	Summed 1g SAR (W/kg)
0.471	0.430	0.209	0.168	0.376	0.300	0.471
0.336	0.321	0.185	0.170	0.342	0.281	0.366

<Simultaneous Transmission analysis of AG0 + AG1 + WLAN+BT Worse-case>:

Test Position	AG0	AG1	Wlan+BT worst case	AG0+AG1+wlan +BT worse case
	1g SAR (W/kg)	1g SAR (W/kg)	Summed 1g SAR (W/kg)	Summed 1g SAR (W/kg)
Front	0.928	1.208	0.471	**2.61**
Back	0.861	1.283	0.366	**2.51**

Note: The results marked yellow in above table refers to the detailed analysis corresponding to each position below tables.

Front					
Ant combination	AG1	AG0	Wlan+BT worst case	AG0+AG1+wlan +BT worse case	Note
	1g SAR (W/kg)	1g SAR (W/kg)	Summed 1g SAR (W/kg)	Summed 1g SAR (W/kg)	
Ant0-Ant1	1.208	0.709	0.471	**2.39**	Case 1
Ant0-Ant2	1.208	0.452	0.471	**2.13**	Case 2
Ant0-Ant4	1.208	0.522	0.471	**2.20**	Case 3
Ant0-Ant5	1.208	0.928	0.471	**2.61**	Case 4
Ant7-Ant1	0.979	0.709	0.471	**2.16**	Case 5
Ant7-Ant2	0.979	0.452	0.471	**1.90**	Case 6
Ant7-Ant4	0.979	0.522	0.471	**1.97**	Case 7
Ant7-Ant5	0.979	0.928	0.471	**2.38**	Case 8

Back					
Ant combination	AG1	AG0	Wlan+BT worst case	AG0+AG1+wlan +BT worse case	Note
	1g SAR (W/kg)	1g SAR (W/kg)	Summed 1g SAR (W/kg)	Summed 1g SAR (W/kg)	
Ant0-Ant1	1.283	0.861	0.366	**2.51**	Case 9
Ant0-Ant2	1.283	0.385	0.366	**2.03**	Case 10
Ant0-Ant4	1.283	0.434	0.366	**2.08**	Case 11
Ant0-Ant5	1.283	0.734	0.366	**2.38**	Case 12
Ant7-Ant1	0.605	0.861	0.366	**1.83**	Case 13
Ant7-Ant2	0.605	0.385	0.366	1.36	-
Ant7-Ant4	0.605	0.434	0.366	1.41	-
Ant7-Ant5	0.605	0.734	0.366	**1.71**	Case 14

<Simultaneous Transmission analysis of WLAN/BT only without WWAN>:

NO	1	2	3	4	5	6	7	8	2+4	2+8	3+5	3+6	5+7	6+7
Test Position	WLAN2.4GHz Ant 3+6 Without WWAN Non DBS	WLAN2.4GHz Ant 3+6 Without WWAN DBS only	WLAN5GHz Ant 4+5 Without WWAN Non DBS	WLAN5GHz Ant 4+5 Without WWAN DBS only	Bluetooth Ant 6	Bluetooth Ant 3	WLAN6GHz Ant 4+5 Without WWAN Non DBS	WLAN6GHz Ant 4+5 Without WWAN DBS Only						
	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)	Summed 1g SAR (W/kg)	Summed 1g SAR (W/kg)	Summed 1g SAR (W/kg)	Summed 1g SAR (W/kg)	Summed 1g SAR (W/kg)	Summed 1g SAR (W/kg)
Front	1.120	0.774	0.970	0.782	0.091	0.050	0.118	0.118	1.56	0.89	1.06	1.02	0.21	0.17
Back	1.003	0.689	0.788	0.586	0.072	0.057	0.113	0.113	1.28	0.80	0.86	0.85	0.19	0.17

17.6 Product specific 10g SAR Exposure Conditions

General Note: The unit of SAR evaluation is W/kg.
Simultaneous Transmission Evaluation of WWAN+WLAN+BT:
<AG0 maximum report SAR>:

Test Position	Ant1	Ant2	Ant4	Ant5	MAX
Front	2.681	2.074	2.760	2.750	2.760
Back	1.956	0.857	1.362	1.116	1.956
Left Side		2.757			2.757
Right Side				1.706	1.706
Top Side	2.772		2.727	2.706	2.772
Bottom Side					

<AG1 maximum report SAR>:

Test Position	Ant0	Ant7	MAX
Front	2.742	1.671	2.742
Back	2.777	1.213	2.777
Left Side		2.744	2.744
Right Side			
Top Side			
Bottom Side	1.898	0.465	1.898

<WLAN+BT Worse-case SAR>:

NO	1	2	3	Wlan+BT worse case
Test Position	WLAN5GHz Ant 4+5 WWAN+non DBS	WLAN5GHz Ant 4+5 WWAN+DBS	WLAN6GHz Ant 4+5	
Front	0.761	0.357	0.304	0.761
Back	0.206	0.080	0.117	0.206
Left Side	0.039	0.039	0.003	0.039
Right Side	0.059	0.065	0.056	0.065
Top Side	0.675	0.340	0.409	0.675
Bottom Side				0.000

<Simultaneous Transmission analysis of AG0 + AG1 + WLAN+BT Worse-case>:

Test Position	AG0	AG1	Wlan+BT worst case	AG0+AG1+wlan +BT worse case
	10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)	Summed 10g SAR (W/kg)
Front	2.760	2.742	0.761	**6.26**
Back	1.956	2.777	0.206	**4.94**
Left Side	2.757	2.744	0.039	**5.54**
Right Side	1.706		0.065	1.77
Top Side	2.772		0.675	3.45
Bottom Side		1.898		1.90

Note: The results marked yellow in above table refers to the detailed analysis corresponding to each position below tables.

Front					
Ant combination	AG1	AG0	Wlan+BT worst case	AG0+AG1+wlan +BT worse case	Note
	10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)	Summed 10g SAR (W/kg)	
Ant0-Ant1	2.742	2.681	0.761	**6.18**	**Case 1**
Ant0-Ant2	2.742	2.074	0.761	**5.58**	**Case 2**
Ant0-Ant4	2.742	2.760	0.761	**6.26**	**Case 3**
Ant0-Ant5	2.742	2.750	0.761	**6.25**	**Case 4**
Ant7-Ant1	1.671	2.681	0.761	**5.11**	**Case 5**
Ant7-Ant2	1.671	2.074	0.761	**4.51**	**Case 6**
Ant7-Ant4	1.671	2.760	0.761	**5.19**	**Case 7**
Ant7-Ant5	1.671	2.750	0.761	**5.18**	**Case 8**

Back					
Ant combination	AG1	AG0	Wlan+BT worst case	AG0+AG1+wlan +BT worse case	Note
	10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)	Summed 10g SAR (W/kg)	
Ant0-Ant1	2.777	1.956	0.206	**4.94**	**Case 9**
Ant0-Ant2	2.777	0.857	0.206	**3.84**	-
Ant0-Ant4	2.777	1.362	0.206	**4.35**	**Case 11**
Ant0-Ant5	2.777	1.116	0.206	**4.10**	**Case 12**
Ant7-Ant1	1.213	1.956	0.206	3.38	-
Ant7-Ant2	1.213	0.857	0.206	2.28	-
Ant7-Ant4	1.213	1.362	0.206	2.78	-
Ant7-Ant5	1.213	1.116	0.206	2.54	-

Left side					
Ant combination	AG1	AG0	Wlan+BT worst case	AG0+AG1+wlan +BT worse case	Note
	10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)	Summed 10g SAR (W/kg)	
Ant0-Ant1			0.039	0.04	-
Ant0-Ant2			0.039	0.04	-
Ant0-Ant4			0.039	0.04	-
Ant0-Ant5			0.039	0.04	-
Ant7-Ant1	2.744		0.039	2.78	-
Ant7-Ant2	2.744	2.757	0.039	**5.54**	**Case 13**
Ant7-Ant4	2.744		0.039	2.78	-
Ant7-Ant5	2.744		0.039	2.78	-

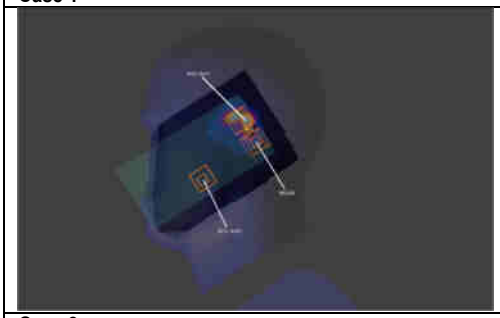
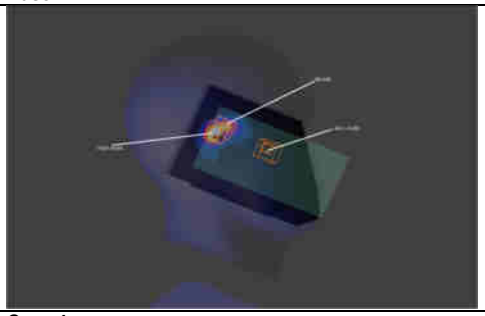
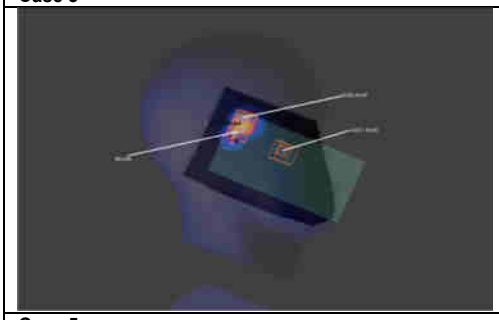
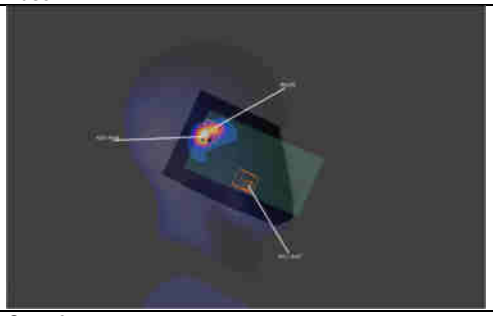
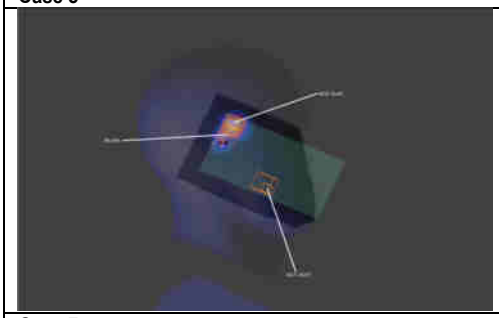
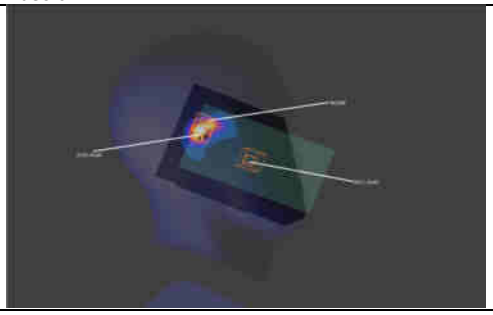
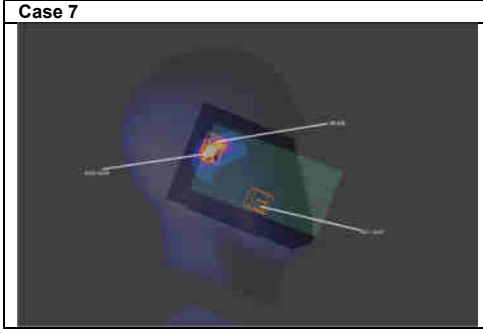
Remark:
1. For Bluetooth Product specific 10g stand-alone SAR is not required for a transmitter or antenna, due to 1g hotspot SAR is <1.2W/kg.

17.7 SPLSR Evaluation and Analysis

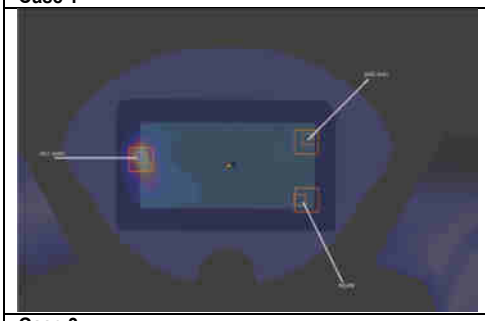
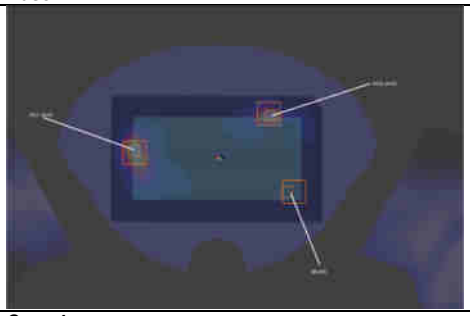
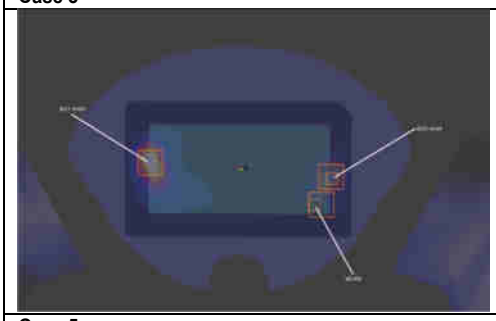
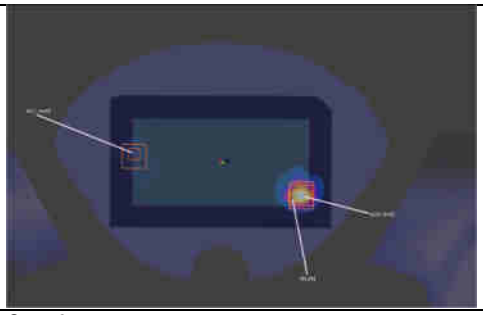
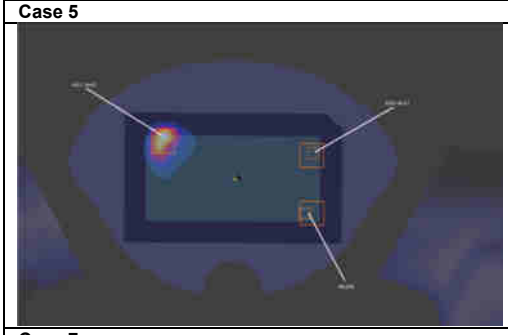
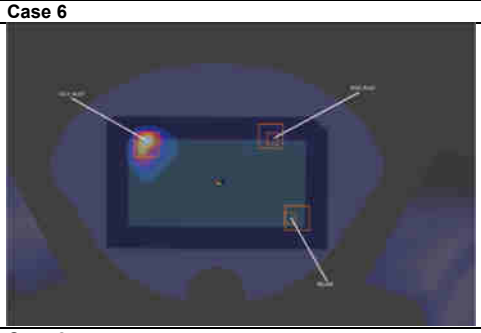
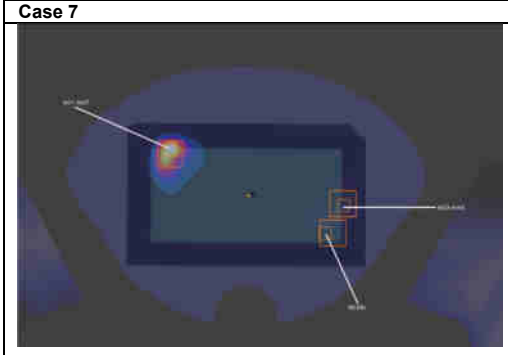
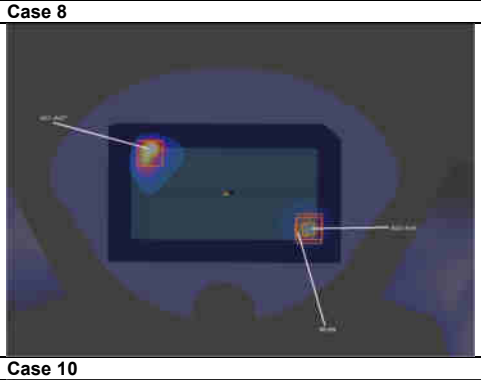
General Note:

1. When standalone SAR is measured for both antennas in the pair, the peak location separation distance is computed by the square root of [(x1−x2)2 + (y1−y2)2 + (z1−z2)2], where (x1, y1, z1) and (x2, y2, z2) are the coordinates in the area scans or extrapolated peak SAR locations in the zoom scans, as appropriate.
2. SPLSR = (SAR1 + SAR2)1.5 / (min. separation distance, mm). If SPLSR ≤ 0.04 for 1g SAR, simultaneously transmission SAR measurement is not necessary.
3. Per April 2022 TCB Workshop Notes, AG0 was summed algebraically with the BT/WIFI Antenna 3/4/5/6 for the purposes of hybrid SPLSR combination and they are located at the Top of the device.
4. Per April 2022 TCB Workshop, instead of doing a small volume scan over a co-located antenna pair, used summing the SAR values of the co-located pair and using that value in SPLSR calculation. In the calculation used the minimum distance between the spatially separated antenna and the closest antenna of the co-located antenna pair to be conservative.
5. The axis peak locations refer to Section 17.8.

For Head:

Case 1	Case 2
	
Case 3	**Case 4**
	
Case 5	**Case 6**
	
Case 7	
	

For Hotspot:

Case 1	**Case 2**
	
Case 3	**Case 4**
	
Case 5	**Case 6**
	
Case 7	**Case 8**
	
Case 9	**Case 10**