FCC SAR Test Report

APPLICANT	:	Xiaomi Communications Co., Ltd.
EQUIPMENT	:	Mobile Phone
BRAND NAME	:	Xiaomi
MODEL NAME	:	2210132G
FCC ID	:	2AFZZ132G
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

ilac-MRA ACCREDITED Cert #5145.02

Sporton International Inc. (Kunshan)
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People's Republic of China

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Revision History

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FA292001	Rev. 01	Initial issue of report.	Nov. 11, 2022

1. Statement of Compliance

The maximum results of Specific Absorption Rate (SAR) found during testing for **Xiaomi Communications Co., Ltd., Mobile Phone, 2210132G,** are as follows.

Highest 1g SAR Summary						
Equipment Class	Frequency Band		Head (Separation 0mm)	Hotspot (Separation 10mm)	Body-worn (Separation 15mm)	Highest Simultaneous Transmission 1g SAR (W/kg)
			1g SAR (W/kg)			
Licensed	GSM	GSM850	0.90	0.60	0.43	1.59
		GSM1900	0.63	0.62	0.15	
	WCDMA	Band II	1.04	0.65	0.39	
		Band IV	1.03	0.95	0.76	
		Band V	0.78	0.47	0.49	
	LTE	Band 7	0.99	0.65	0.66	
		Band 12/17	**1.09**	0.67	0.29	
		Band 13	0.96	0.67	0.52	
		Band 25/2	1.02	0.70	0.51	
		Band 26/5	0.92	0.54	0.46	
		Band 41/38	**1.09**	0.72	0.38	
		Band 42	0.90	0.81	0.66	
		Band 48	0.78	0.77	0.66	
		Band 66/4	1.03	0.92	**1.08**	
	5G NR	n5	0.37	0.38	0.46	
		n7	1.00	0.64	0.69	
		n41/n38	1.01	0.62	0.79	
		n66	0.92	0.95	0.97	
		n71	0.48	0.57	0.29	
		n77	0.99	0.82	0.81	
		n78	**1.09**	0.87	0.98	
DTS	WLAN	2.4GHz WLAN	0.63	**1.06**	0.42	1.59
NII		5GHz WLAN	0.71	0.86	0.42	1.59
DSS	Bluetooth	2.4GHz Bluetooth	0.10	0.49	<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	FR1	n77	2.00	3.96
		n78	**2.48**	
NII	WLAN	5GHz WLAN	1.52	3.96
Date of Testing:			2022/9/27 ~ 2022/10/16	

Remark:

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

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

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

2. Administration Data

Sporton International 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.
	SAR04-KS	CN1257	314309

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

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

3. Guidance Applied

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

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

4. Equipment Under Test (EUT) Information

4.1 General Information

Product Feature & Specification	
Equipment Name	Mobile Phone
Brand Name	Xiaomi
Model Name	2210132G
FCC ID	2AFZZ132G
IMEI Code	SIM1: 862836060030677 SIM2: 862836060030685
Wireless Technology and Frequency Range	GSM850: 824 MHz ~ 849 MHz GSM1900: 1850 MHz ~ 1910 MHz WCDMA Band II: 1850 MHz ~ 1910 MHz WCDMA Band IV: 1710 MHz ~ 1755 MHz WCDMA Band V: 824 MHz ~ 849 MHz LTE Band 2: 1850 MHz ~ 1910 MHz LTE Band 4: 1710 MHz ~ 1755 MHz LTE Band 5: 824 MHz ~ 849 MHz LTE Band 7: 2500 MHz ~ 2570 MHz LTE Band 12: 699 MHz ~ 716 MHz LTE Band 13: 777 MHz ~ 787 MHz LTE Band 17: 704 MHz ~ 716 MHz LTE Band 25: 1850 MHz ~ 1915 MHz LTE Band 26: 814 MHz ~ 849 MHz LTE Band 38: 2570 MHz ~ 2620 MHz LTE Band 41: 2496 MHz ~ 2690 MHz LTE Band 42: 3450 MHz ~ 3550 MHz LTE Band 48: 3550 MHz ~ 3700 MHz LTE Band 66: 1710 MHz ~ 1780 MHz 5G NR n5: 824 MHz ~ 849 MHz 5G NR n7: 2500 MHz ~ 2570 MHz 5G NR n38 : 2570 MHz ~ 2620 MHz 5G NR n41: 2496 MHz ~ 2690 MHz 5G NR n66 : 1710 MHz ~ 1780 MHz 5G NR n71 : 663 MHz ~ 698 MHz 5G NR n77: 3450 MHz ~ 3550 MHz, 3700 MHz ~ 3980 MHz 5G NR n78: 3450 MHz ~ 3550 MHz, 3700 MHz ~ 3800 MHz WLAN 2.4GHz Band: 2412 MHz ~ 2462 MHz WLAN 5.2GHz Band: 5180 MHz ~ 5240 MHz WLAN 5.3GHz Band: 5260 MHz ~ 5320 MHz WLAN 5.5GHz Band: 5500 MHz ~ 5720 MHz WLAN 5.8GHz Band: 5745 MHz ~ 5825 MHz WLAN 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 WPT: 110 kHz~ 148 kHz NFC: 13.56 MHz
Mode	GSM/GPRS/EGPRS RMC/AMR 12.2Kbps HSDPA HSUPA DC-HSDPA HSPA+(16QAM uplink is supported) LTE: QPSK, 16QAM, 64QAM, 256QAM 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/be HE20/HE40/EHT20/EHT40 WLAN 5GHz 802.11a/n HT20/HT40

	WLAN 5GHz 802.11ac VHT20/VHT40/VHT80/VHT160 WLAN 5GHz 802.11ax HE20/HE40/HE80/HE160 WLAN 5GHz 802.11be EHT20/EHT40/EHT80/EHT160 WLAN 6GHz 802.11a/ax HE20/HE40/HE80/HE160 WLAN 6GHz 802.11be EHT20/EHT40/EHT80/EHT160/EHT320 Bluetooth BR/EDR/LE WPT: ASK NFC: ASK
HW Version	P2.0
SW Version	MIUI 14
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 2.4GHz WLAN/5.2GHz WLAN/5.8GHz WLAN support hotspot operation, and 5.2GHz WLAN/5.8GHz WLAN supports WiFi Direct (GC/GO), and 5.3GHz / 5.5GHz supports WiFi Direct (GC only). WLAN6GHz has no hotspot function.
4. This device does not support DTM operation and supports GPRS/EGPRS mode up to multi-slot class 33.
5. 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.
6. 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.
7. There are two samples with different memory capacity: sample 1 is 12+512G, sample 2 is 12+256G. According to the difference, we choose sample 1 to perform full test.
8. 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. It uses the receiver to indicate whether the user is making a call in head scenario or not. The selection between head and body power levels is based on the receiver detection mechanism. It can determine proximity to head or body and set the relevant power level for 2G&3G&4G&5G and Wi-Fi/BT antennas accordingly. 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.
9. For WLAN when transmit simultaneous with WWAN, power reduction will be activated to head, hotspot, body-worn and extremity.
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. 5G NR n77/n78 supports MIMO mode.
16. 5GNR n77/n78 supports HPUE, HPUE power and SAR testing performed separately.
17. 5GNR n77/n78 HPUE with higher power. 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.
18. SAR Power density test report for WLAN6GHz 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.
19. RF exposure report for WPC (Wireless power charging) will be separately submitted.
20. 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.

21. The device support XBS (Extended Band Simultaneous) function, when the device 5GHz low Band (5150~5350MHz) and 5GHz high band (5470~5850MHz) or 6GHz transmit at the same time the module will limit different output power for simultaneous transmission compliance.
22. Bluetooth BR/EDR supports Beamforming mode, and BLE don't supports Beamforming.
23. This device supports 5GNR FR1 bands as following table, including NSA mode and SA mode.

<5G NR>

Mode	Band	Duplex	SCS(KHz)	Bandwidths(BW)
NSA	n5	FDD	15	5, 10, 15, 20
	n7	FDD	15	5, 10, 15, 20, 25, 30, 40
	n66	FDD	15	5, 10, 15, 20, 25, 30, 40
	n38	TDD	30	10, 15, 20, 30, 40
	n41	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	n5	FDD	15	5, 10, 15, 20
	n7	FDD	15	5, 10, 15, 20, 25, 30, 40
	n66	FDD	15	5, 10, 15, 20, 25, 30, 40
	n71	FDD	15	5, 10, 15, 20
	n38	TDD	30	10, 15, 20, 30, 40
	n41	TDD	30	10, 15, 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>2AFZZ132G</td></tr>
<tr><td>Equipment Name</td><td>Mobile 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 ~ 3550 MHz
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 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 4 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 66												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	131979	1710.7	131987	1711.5	131997	1712.5	132022	1715	132047	1717.5	132072	1720
M	132322	1745	132322	1745	132322	1745	132322	1745	132322	1745	132322	1745
H	132665	1779.3	132657	1778.5	132647	1777.5	132622	1775	132597	1772.5	132572	1770

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

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

<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 4	Yes	Yes	Yes	Yes	Yes	Yes
LTE Band 66	Yes	Yes	Yes	Yes	Yes	Yes
LTE Band 5	Yes	Yes	Yes	Yes		
LTE Band 26	Yes	Yes	Yes	Yes	Yes	
LTE Band 12	Yes	Yes	Yes	Yes		
LTE Band 17			Yes	Yes		
LTE Band 38			Yes	Yes	Yes	Yes
LTE Band 41			Yes	Yes	Yes	Yes

2) LTE Bands tune up:

Band	Antenna	Default	DSI-1	DSI-3	DSI-4	DSI-5
		Tune up Limit	Tune up Limit	Tune up Limit	Tune up Limit	Tune up Limit
LTE Band 2	Ant 3	25.70	25.70	23.70	25.70	22.70
LTE Band 25		25.70	25.70	23.70	25.70	23.70
LTE Band 2	Ant 4	25.10	19.10	22.10	25.10	19.10
LTE Band 25		25.40	19.40	21.90	25.40	19.40
LTE Band 4	Ant 3	25.70	25.70	22.70	25.70	22.70
LTE Band 66		25.70	25.70	23.70	25.70	22.70
LTE Band 4	Ant 4	25.60	18.10	21.60	25.60	18.10
LTE Band 66		25.70	18.70	22.20	25.70	18.70
LTE Band 4	Ant 5	25.30	22.30	23.30	23.30	22.30
LTE Band 66		25.40	21.90	23.40	23.40	21.90
LTE Band 4	Ant 6	25.20	20.20	23.20	23.20	20.20
LTE Band 66		25.20	20.20	24.20	24.20	20.20
LTE Band 5	Ant 0	25.50	25.50	25.50	25.50	25.50
LTE Band 26		25.60	25.60	25.60	25.60	25.60
LTE Band 5	Ant 1	25.20	21.20	25.20	25.20	21.20
LTE Band 26		25.20	22.20	25.20	25.20	22.20
LTE Band 12	Ant 0	25.50	25.50	25.50	25.50	25.50
LTE Band 17		25.50	25.50	25.50	25.50	25.50
LTE Band 12	Ant 1	25.50	25.00	25.50	25.50	25.00
LTE Band 17		25.40	24.90	25.40	25.40	24.90
LTE Band 38	Ant 3	25.70	25.70	21.70	25.70	21.70
LTE Band 41		25.70	25.70	22.20	25.70	22.20
LTE Band 38	Ant 4	25.70	21.20	25.70	25.70	21.20
LTE Band 41		25.70	21.70	24.70	25.70	21.70
LTE Band 38	Ant 5	25.70	21.70	22.70	22.70	21.70
LTE Band 41		25.70	20.70	22.70	22.70	20.70
LTE Band 38	Ant 6	25.70	21.70	22.70	22.70	21.70
LTE Band 41		25.70	21.20	22.70	22.70	21.20

Note: For some bands/antennas at some exposure conditions which cannot be covered were fully tested for RF exposure compliance.

4.3 General 5G NR SAR Test and Reporting Considerations

5G NR Information	
Operating Frequency Range of each 5G NR transmission band	5G NR n5: 824 MHz ~ 849 MHz 5G NR n7: 2500 MHz ~ 2570 MHz 5G NR n38 : 2570 MHz ~ 2620 MHz 5G NR n41: 2496 MHz ~ 2690 MHz 5G NR n66 : 1710 MHz ~ 1780 MHz 5G NR n71 : 663 MHz ~ 698 MHz 5G NR n77: 3450 MHz ~ 3550 MHz, 3700 MHz ~ 3980 MHz 5G NR n78: 3450 MHz ~ 3550 MHz, 3700 MHz ~ 3800 MHz
Channel Bandwidth	The detail please refers to section 4.1 5GNR FR1 bands table.
SCS	FDD: SCS15KHz, TDD: SCS30KHz
uplink modulations used	DFT-s-OFDM: PI/2 BPSK / QPSK / 16QAM / 64QAM / 256QAM CP-OFDM: QPSK / 16QAM / 64QAM / 256QAM
A-MPR (Additional MPR) disabled for SAR Testing?	Yes
LTE Anchor Bands for n5	LTE B7
LTE Anchor Bands for n7	LTE B66
LTE Anchor Bands for n38	LTE B66
LTE Anchor Bands for n41	LTE B66
LTE Anchor Bands for n66	LTE B2/5/12
LTE Anchor Bands for n78	LTE B2/5/7/38/41/66

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

NR Band 7														
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 40MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	500500	2502.5	501000	2505	501500	2507.5	502000	2510	502500	2512.5	503000	2515	504000	2520
M	507000	2535	507000	2535	507000	2535	507000	2535	507000	2535	507000	2535	507000	2535
H	513500	2567.5	513000	2565	512500	2562.5	512000	2560	511500	2557.5	511000	2555	510000	2550

NR Band 66														
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 40MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	342500	1712.5	343000	1715	343500	1717.5	344000	1720	344500	1722.5	345000	1725	346000	1730
M	349000	1745	349000	1745	349000	1745	349000	1745	349000	1745	349000	1745	349000	1745
H	355500	1777.5	355000	1775	354500	1772.5	354000	1770	353500	1767.5	353000	1765	352000	1760

NR Band 71								
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	133100	665.5	133600	668	134100	670.5	134600	673
M	136100	680.5	136100	680.5	136100	680.5	136100	680.5
H	139100	695.5	138600	693	138100	690.5	137600	688

NR Band 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 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	500202	2501.01	500700	2503.5	501204	2506.02	502200	2511	503202	2516.01	504204	2521.02	505200	2526	506202	2531.01	507204	2536.02	508200	2541	509202	2546.01
M	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99
H	537000	2685	536496	2682.48	535998	2679.99	534996	2674.98	534000	2670	532998	2664.99	531996	2659.98	531000	2655	529998	2649.99	528996	2644.98	528000	2640

<3700 MHz ~ 3980 MHz>

NR Band 77																						
	Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 50MHz		Bandwidth 60MHz		Bandwidth 70MHz		Bandwidth 80MHz		Bandwidth 90MHz		Bandwidth 100MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	647000	3705	647168	3707.52	647334	3710.01	647668	3715.02	648000	3720	648334	3725.01	648668	3730.02	649000	3735	649334	3740.01	649668	3745.02	650000	3750
M	656000	3840	656000	3850	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840
H	665000	3975	664834	3972.51	664668	3970.02	664334	3965.01	664000	3960	663668	3955.02	663334	3950.01	663000	3945	662668	3940.02	662334	3935.01	662000	3930

NR Band 78																						
	Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 50MHz		Bandwidth 60MHz		Bandwidth 70MHz		Bandwidth 80MHz		Bandwidth 90MHz		Bandwidth 100MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	647000	3705	647168	3707.52	647334	3710.01	647668	3715.02	648000	3720	648334	3725.01	648668	3730.02	649000	3735	649334	3740.01	649668	3745.02		
M	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750
H	653000	3795	652834	3792.51	652668	3790.02	652334	3785.01	652000	3780	651668	3775.02	651334	3770.01	651000	3765	650668	3760.02	650334	3755.01		

<3450 MHz ~ 3550 MHz>

NR Band 77																						
	Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 50MHz		Bandwidth 60MHz		Bandwidth 70MHz		Bandwidth 80MHz		Bandwidth 90MHz		Bandwidth 100MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	630334	3455.01	630500	3457.5	630668	3460.02	631000	3465	631334	3470.01	631668	3475.02	632000	3480	632334	3485.01	632668	3490.02	633000	3495		
M	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01
H	636334	3545.01	636166	3542.52	636000	3540	635668	3535.02	635334	3530.01	635000	3525	634668	3520.02	634334	3515.01	634000	3510	633668	3505.02		

NR Band 78																						
	Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 50MHz		Bandwidth 60MHz		Bandwidth 70MHz		Bandwidth 80MHz		Bandwidth 90MHz		Bandwidth 100MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	630334	3455.01	630500	3457.5	630668	3460.02	631000	3465	631334	3470.01	631668	3475.02	632000	3480	632334	3485.01	632668	3490.02	633000	3495		
M	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01
H	636334	3545.01	636166	3542.52	636000	3540	635668	3535.02	635334	3530.01	635000	3525	634668	3520.02	634334	3515.01	634000	3510	633668	3505.02		

<For NR Overlap Bands Description>

1) NR Bands BW

Band	10 MHz	15 MHz	20 MHz	30 MHz	40 MHz	50 MHz	60 MHz	70 MHz	80 MHz	90 MHz	100 MHz
FR1 n38	Yes	Yes	Yes	Yes	Yes						
FR1 n41	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

2) NR Bands tune up:

Band	Antenna	Default	DSI-1	DSI-3	DSI-4	DSI-5
		Tune up Limit	Tune up Limit	Tune up Limit	Tune up Limit	Tune up Limit
FR1 n38	Ant 3	25.70	25.70	19.70	25.70	19.70
FR1 n41		25.70	25.70	19.70	25.70	19.70
FR1 n38	Ant 4	25.70	18.70	24.70	25.70	18.70
FR1 n41		25.70	18.70	23.70	25.70	18.70
FR1 n38	Ant 5	25.70	18.70	19.70	19.70	18.70
FR1 n41		25.70	18.70	19.70	19.70	18.70
FR1 n38	Ant 6	25.70	18.70	19.70	19.70	18.70
FR1 n41		25.70	19.70	20.70	20.70	19.70

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.

< uncertainty>

Tech	Antenna	Total Uncertainty (dB)	Description	
			Antenna Number	Frequency
GSM	Main	1.00	Ant 0/3	All Frequency
	Aux	1.50	Ant 1/4	All Frequency
WCDMA	Main	1.00	Ant 0/3	All Frequency
	Aux 1	1.00	Ant 4	All Frequency
	Aux 2	1.50	Ant 1/5/6	All Frequency
LTE	Main	0.70	Ant 0/3/10	All Frequency
	Aux 1	1.00	Ant 1	f< 1GHz
		0.70	Ant 4	1GHz < f< 3GHz
		1.50	Ant 1/3/13	f ≥ 3GHz
	Aux 2	1.00	Ant 5	1GHz < f < 3GHz
	Aux 3	1.50	Ant 6	1GHz < f< 3GHz
5GNR	Main	0.70	Ant 0/4	f< 1GHz
		0.70	Ant 0/4	1GHz < f < 3GHz
		1.00	Ant 10	f ≥ 3GHz
	Aux 1	1.00	Ant 1	f < 1GHz
		0.70	Ant 3	1GHz < f < 3GHz
		1.50	Ant 1	f ≥ 3GHz
	Aux 2	1.00	Ant 5	1GHz < f < 3GHz
		1.00	Ant 3	f ≥ 3GHz
		1.50	Ant 3	f ≥ 3GHz only for n77 other PA
	Aux 3	1.50	Ant 6/13	1GHz < f< 3GHz& f≥3GHz

Band	Antenna			
GSM 850	Main Ant0	AuX Ant1	NA	NA
GSM 1900	Main Ant3	AuX Ant4	NA	NA
WCDMA B5	Main Ant0	AuX2 Ant1	NA	NA
WCDMA B2/4	Main Ant3	AuX1 Ant4	AuX2 Ant5/6	NA
LTE B5/12/13/17/26	Main Ant0	AuX1 Ant1	NA	NA
LTE B42/48	Main Ant10	AuX1 Ant1/3/13	NA	NA
LTE B2/4/7/25/38/40/41/66	Main Ant3	AuX1 Ant4	AuX2 Ant5	AuX3 Ant6
5G NR n5/n71	Main Ant0	AuX1 Ant1	NA	NA
5G NR 7/38/41/66	Main Ant4	AuX1 Ant3	AuX2 Ant5	AuX3 Ant6
5G NR n77/78	Main Ant10	AuX1 Ant1	AuX2 Ant3	AuX3 Ant13

Antenna Group:

Antenna Group 0 (AG0)	ANT1 & ANT4& ANT5& ANT6& ANT10 & ANT13
Antenna Group 1 (AG1)	ANT0 & ANT3

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 DSI1	Hotspot DSI5	Body Worn DSI4	Sensor On DSI3	Pmax*
GSM850	Ant 0	31.8	28.4	31.0	24.0	24.0
GSM850	Ant 1	21.1	21.1	28.2	24.1	24.1
GSM1900	Ant 3	34.2	22.9	29.5	20.4	20.4
GSM1900	Ant 4	17.3	17.3	27.8	19.3	19.3
WCDMA II	Ant 3	32.0	21.3	28.8	23.3	24.3
WCDMA II	Ant 4	18.7	18.7	28.3	20.7	23.7
WCDMA IV	Ant 3	31.3	21.8	27.8	21.8	23.8
WCDMA IV	Ant 5	21.4	21.4	21.4	21.4	23.4
WCDMA IV	Ant 4	16.5	16.5	25.1	20.5	23.5
WCDMA IV	Ant 6	17.0	17.0	21.5	21.5	22.0
WCDMA V	Ant 0	30.7	27.8	30.2	23.8	23.8
WCDMA V	Ant 1	20.0	20.0	27.5	24.0	24.0
LTE Band 2	Ant 5	20.7	20.7	30.2	24.7	24.7
LTE Band 4	Ant 5	21.3	21.3	22.3	22.3	24.3
LTE Band 7	Ant 3	31.0	19.0	27.3	19.0	25.0
LTE Band 7	Ant 5	17.6	17.6	19.6	19.6	24.6
LTE Band 7	Ant 4	18.8	18.8	29.7	21.8	24.8
LTE Band 7	Ant 6	19.0	18.0	18.0	18.0	24.0
LTE Band 12(17)	Ant 0	32.6	29.4	31.6	24.8	24.8
LTE Band 12	Ant 1	24.0	24.0	30.3	24.5	24.5
LTE Band 17	Ant 1	23.9	23.9	30.3	24.4	24.4
LTE Band 13	Ant 0	33.1	30.2	32.5	24.7	24.7
LTE Band 13	Ant 1	21.7	21.7	27.5	24.2	24.2
LTE Band 25(2)	Ant 3	33.9	23.0	30.5	23.0	25.0
LTE Band 25	Ant 4	18.7	18.7	28.0	21.2	24.7
LTE Band 2	Ant 4	18.4	18.4	28.0	21.4	24.4
LTE Band 26	Ant 0	32.4	28.1	31.2	24.9	24.9
LTE Band 5	Ant 0	32.4	28.1	31.2	24.8	24.8
LTE Band 26	Ant 1	21.2	21.2	28.0	24.2	24.2
LTE Band 5	Ant 1	20.2	20.2	28.0	24.2	24.2
LTE Band 66(4)	Ant 3	32.3	22.0	28.6	23.0	25.0
LTE Band 66	Ant 5	20.9	20.9	22.4	22.4	24.4
LTE Band 66(4)	Ant 4	18.0	18.0	25.0	21.5	25.0
LTE Band 66(4)	Ant 6	18.7	18.7	22.7	22.7	23.7
LTE Band 38	Ant 5	18.7	18.7	19.7	19.7	22.7
LTE Band 38	Ant 4	18.5	18.5	31.2	25.4	23.0
LTE Band 38	Ant 6	18.2	18.2	19.2	19.2	22.2
LTE Band 41	Ant 3	31.9	19.5	27.6	19.5	23.0
LTE Band 38	Ant 3	31.9	19.0	27.6	19.0	23.0
LTE Band 41	Ant 5	17.7	17.7	19.7	19.7	22.7
LTE Band 41	Ant 4	19.0	19.0	31.2	22.0	23.0
LTE Band 41	Ant 6	17.7	17.7	19.2	19.2	22.2
LTE Band 42	Ant 1	19.0	19.0	20.0	20.0	21.0
LTE Band 42	Ant 3	31.3	20.7	23.0	20.0	19.3
LTE Band 42	Ant 10	14.5	14.5	28.8	21.0	23.0
LTE Band 42	Ant 13	26.7	18.9	23.2	20.9	20.9

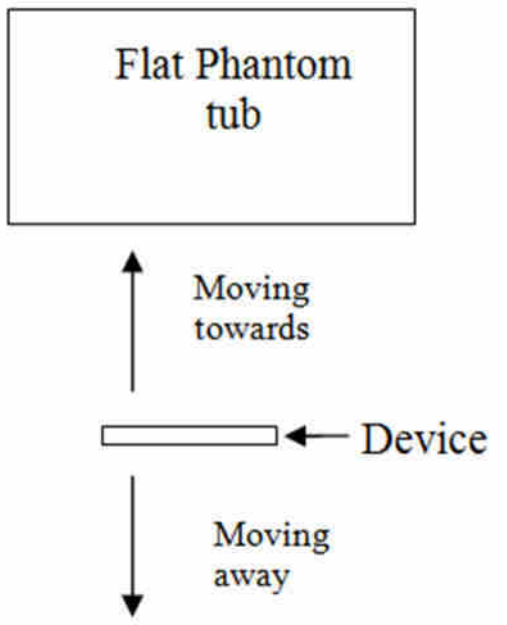
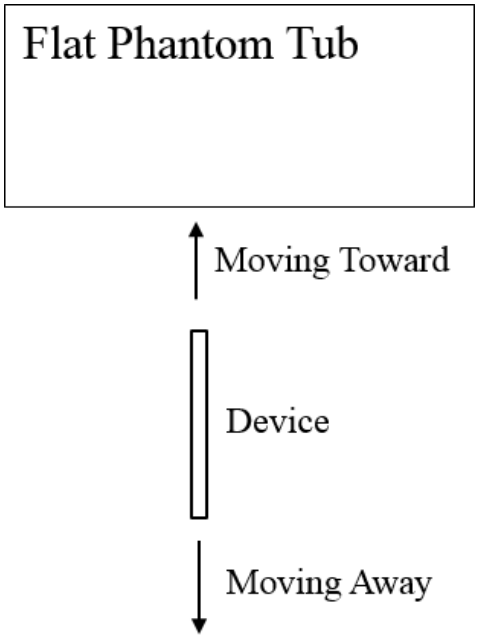
LTE Band 48	Ant 1	16.5	16.5	16.5	16.5	21.0
LTE Band 48	Ant 3	29.6	16.9	24.0	19.4	19.4
LTE Band 48	Ant 10	12.4	12.4	25.2	18.9	22.9
LTE Band 48	Ant 13	25.4	17.2	24.6	21.2	21.2
FR1 n5	Ant 0	32.6	29.5	31.7	29.1	25.0
FR1 n5	Ant 1	19.5	19.5	28.3	26.1	24.5
FR1 n7	Ant 3	31.8	19.0	27.1	19.0	25.0
FR1 n7	Ant 5	16.7	16.7	18.2	18.2	24.7
FR1 n7	Ant 4	18.5	18.5	30.2	22.0	25.0
FR1 n7	Ant 6	17.2	17.2	18.7	18.7	24.2
FR1 n66	Ant 3	31.3	22.0	28.4	23.0	25.0
FR1 n66	Ant 5	20.5	20.5	22.5	22.5	24.5
FR1 n66	Ant 4	17.0	17.0	25.5	20.0	25.0
FR1 n66	Ant 6	16.0	16.0	20.0	20.0	23.0
FR1 n41(38)	Ant 3	32.1	19.0	26.5	19.0	25.0
FR1 n41(38)	Ant 5	17.7	17.7	18.7	18.7	24.7
FR1 n41	Ant 4	18.0	18.0	30.0	23.0	25.0
FR1 n38	Ant 4	18.0	18.0	30.0	24.0	25.0
FR1 n41	Ant 6	18.2	18.2	19.2	19.2	24.2
FR1 n38	Ant 6	18.2	18.2	19.2	19.2	24.2
FR1 n71	Ant 0	33.3	28.4	32.1	25.0	25.0
FR1 n71	Ant 1	22.9	22.9	30.2	24.4	24.4
FR1 n77 PC3	Ant 1	19.5	19.5	20.5	20.5	24.0
FR1 n77 PC2	Ant 1	19.5	19.5	20.5	20.5	23.0
FR1 n77 PC3-other PA	Ant 3	28.3	17.7	21.2	19.2	24.2
FR1 n77 PC3-other PA	Ant 3	28.3	17.7	21.2	19.2	21.4
FR1 n77 PC3-Main PA	Ant 3	28.3	17.7	21.2	19.2	24.7
FR1 n77 PC3-Main PA	Ant 3	28.3	17.7	21.2	19.2	23
FR1 n77 PC3	Ant 10	14.7	14.7	26.0	21.2	24.7
FR1 n77 PC2	Ant 10	14.7	14.7	26.0	21.2	24.0
FR1 n77 PC3	Ant 13	21.2	15.2	19.2	19.2	24.2
FR1 n77 PC2	Ant 13	21.2	15.2	19.2	19.2	23.0
FR1 n78 PC3	Ant 1	19.5	19.0	19.0	19.0	24.0
FR1 n78 PC2	Ant 1	19.5	19.0	19.0	19.0	23.0
FR1 n78 PC3	Ant 3	31.3	18.7	22.7	19.7	24.7
FR1 n78 PC2	Ant 3	31.3	18.7	22.7	19.7	23.0
FR1 n78 PC3	Ant 10	14.2	14.2	21.7	19.7	24.7
FR1 n78 PC2	Ant 10	14.2	14.2	21.7	19.7	24.0
FR1 n78 PC3	Ant 13	23.2	16.2	19.2	19.2	24.2
FR1 n78 PC2	Ant 13	23.2	16.2	19.2	19.2	23.4

Note: 1) *P_{max} is used for RF tune up procedure. The maximum allowed output power is equal to Pmax + Total uncertainty.
2) All P_{limit} power levels entered in the Table correspond to average power levels after accounting for duty cycle in the case TDD modulation schemes (for e.g., GSM & LTE TDD).
3) The max allowed output power is the Plimit + Total uncertainty, and if Plimit is higher than Pmax, the device output power will be Pmax instead.
4) GSM/WCDMA applies force peak method. if force peak is set to 'x' for a given tech/band/antenna/DSI in the EFS, then the Smart Transmit feature limits the maximum instantaneous Tx power to Plimit for the selected tech/band/antenna /DSI. In other words, with force peak set to 'x', under static condition (i.e., fixed tech/band /antenna/DSI) and in single active Tx scenario, Smart Transmit can guarantee Tx power level of Plimit at all times.
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, using FTM to perform SAR with default 100% transmission.

6. Proximity Sensor Triggering Test

6.1 Proximity sensor triggering distances(Per KDB616217§6.2)

1. Proximity sensor triggering distance testing was performed according to the procedures outlined in KDB 616217 D04 section 6.2, and EUT moving further away from the flat phantom and EUT moving toward the flat phantom were both assessed.
2. Proximity sensor triggering distance testing was performed according and EUT moving further away from the flat phantom and EUT moving toward the flat phantom were both assessed and the tissue-equivalent medium for highest frequency (3980MHz) and lowest (1750MHz) frequency was used for proximity sensor triggering testing.
3. Capacitive proximity sensor placed coincident with antenna elements at the top/bottom end of the phone are utilized to determine when the device comes in proximity of the user's body or finger or hand at the front or back or bottom or left or top side of the device. There is no need to do sensor coverage testing for the proximity sensor is designed to support sufficient detection range and sensitivity to cover regions of the sensors in all applicable directions since the proximity sensor entirely covers the antenna.
4. The sensors can use to detect the proximity of the user's body or handheld states at the front or back or bottom or left or top side of the device use a detection threshold distance. When front/back/left /top/bottom sides of body or handheld condition is detected reduced power will be active. The trigger distance shown in the sections below.
5. For verification of compliance of power reduction scheme, additional SAR testing with EUT transmitting at full RF power at a conservative trigger distance -1mm was performed.

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

<P-Sensor>

< Sensor for Ant3 >

Proximity Sensor Triggering Distance (mm)								
Position	Front		Back		Left Side		Bottom Side	
	Moving towards	Moving away	Moving towards	Moving away	Moving towards	Moving away	Moving towards	Moving away
Minimum	11	11	11	11	11	11	11	11

< Sensor for Ant4/Ant10>

Proximity Sensor Triggering Distance (mm)						
Position	Front		Back		Top Side	
	Moving towards	Moving away	Moving towards	Moving away	Moving towards	Moving away
Minimum	6	6	6	6	10	10

7. RF Exposure Limits

7.1 Uncontrolled Environment

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

7.2 Controlled Environment

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

Limits for Occupational/Controlled Exposure (W/kg)

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

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

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

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

8. Specific Absorption Rate (SAR)

8.1 Introduction

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

8.2 SAR Definition

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

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

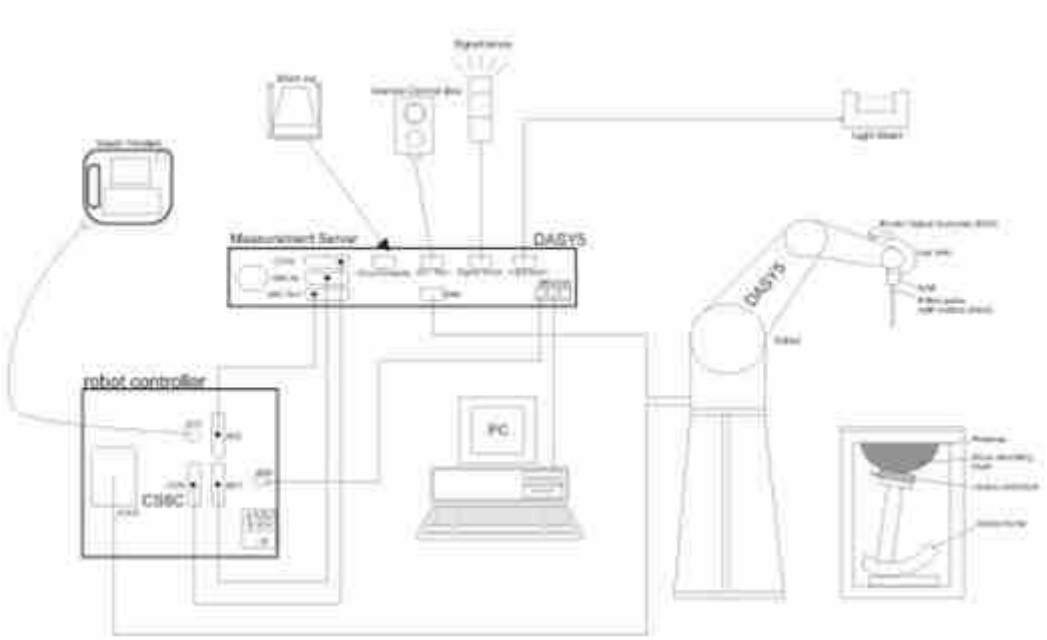
SAR is expressed in units of Watts per kilogram (W/kg)

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

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

9. System Description and Setup

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



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

9.1 E-Field Probe

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

<EX3DV4 Probe>

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

9.2 Data Acquisition Electronics (DAE)

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

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

Photo of DAE

9.3 Phantom

<SAM Twin Phantom>

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

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

<ELI Phantom>

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

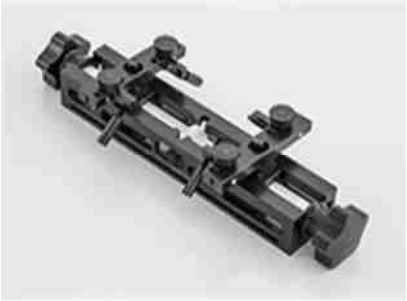
The ELI phantom is intended for compliance testing of handheld and body-mounted wireless devices in the frequency range of 30 MHz to 6 GHz. ELI4 is fully compatible with standard and all known tissue simulating liquids.

9.4 Device Holder

<Mounting Device for Hand-Held Transmitter>

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

Mounting Device for Hand-Held Transmitters



Mounting Device Adaptor for Wide-Phones

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

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

Mounting Device for Laptops

10. Measurement Procedures

The measurement procedures are as follows:

<Conducted power measurement>

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

<SAR measurement>

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

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

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

10.1 Spatial Peak SAR Evaluation

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

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

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

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

10.2 Power Reference Measurement

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

10.3 Area Scan

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

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

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

10.4 Zoom Scan

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

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

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

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

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

10.5 Volume Scan Procedures

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

10.6 Power Drift Monitoring

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

11. Test Equipment List

Manufacturer	Name of Equipment	Type/Model	Serial Number	Calibration	
				Last Cal.	Due Date
SPEAG	750MHz System Validation Kit	D750V3	1087	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	5d118	2022/3/30	2023/3/29
SPEAG	2450MHz System Validation Kit	D2450V2	1040	2020/5/6	2023/5/4
SPEAG	2600MHz System Validation Kit	D2600V2	1061	2020/11/26	2023/11/25
SPEAG	3500MHz System Validation Kit	D3500V2	1037	2020/11/25	2023/11/24
SPEAG	3700MHz System Validation Kit	D3700V2	1008	2020/11/25	2023/11/24
SPEAG	3900MHz System Validation Kit	D3900V2	1048	2020/5/14	2023/5/12
SPEAG	5000MHz System Validation Kit	D5GHzV2	1341	2021/12/13	2022/12/12
SPEAG	Data Acquisition Electronics	DAE4	690	2022/6/15	2023/6/14
SPEAG	Dosimetric E-Field Probe	EX3DV4	7627	2022/6/20	2023/6/19
SPEAG	Dosimetric E-Field Probe	EX3DV4	7706	2022/1/20	2023/1/19
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	1144	2022/8/15	2023/8/14
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
R&S	Spectrum Analyzer	FSV7	101631	2021/10/14	2022/10/13
R&S	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. 12.1. For body SAR testing, the liquid height from the center of the flat phantom to the liquid top surface is larger than 15 cm, which is shown in Fig. 12.2.

Fig 12.1 Photo of Liquid Height for Head SAR

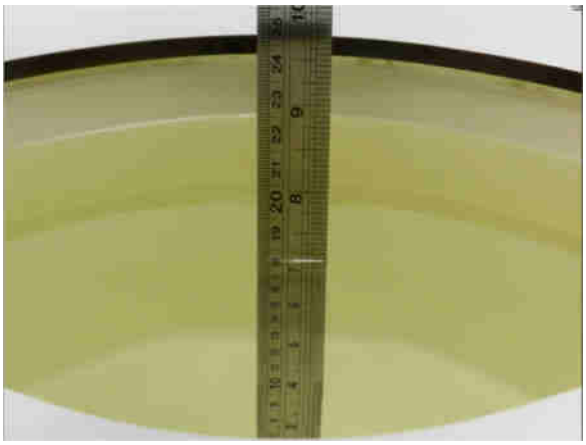


Fig 12.2 Photo of Liquid Height for Body SAR

12.2 Tissue Verification

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

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

Simulating Liquid for 5GHz, Manufactured by SPEAG

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

<Tissue Dielectric Parameter Check Results>

Frequency (MHz)	Tissue Type	Liquid Temp. (℃)	Conductivity (σ)	Permittivity (ε_r)	Conductivity Target (σ)	Permittivity Target (ε_r)	Delta (σ) (%)	Delta (ε_r) (%)	Limit (%)	Date
750	Head	22.8	0.872	41.171	0.89	41.90	-2.02	-1.74	±5	2022/9/28
835	Head	22.7	0.911	42.719	0.90	41.50	1.22	2.94	±5	2022/9/30
1750	Head	22.8	1.343	38.540	1.37	40.10	-1.97	-3.89	±5	2022/9/27
1900	Head	22.8	1.398	41.444	1.40	40.00	-0.14	3.61	±5	2022/10/1
2450	Head	22.7	1.810	38.621	1.80	39.20	0.56	-1.48	±5	2022/10/16
2600	Head	22.6	1.927	38.323	1.96	39.00	-1.68	-1.74	±5	2022/10/3
3500	Head	22.9	2.785	38.965	2.91	37.90	-4.30	2.81	±5	2022/10/5
3700	Head	22.7	3.078	38.038	3.12	37.70	-1.35	0.90	±5	2022/10/7
3900	Head	22.8	3.282	37.613	3.32	37.50	-1.14	0.30	±5	2022/10/14
5250	Head	22.7	4.579	36.302	4.71	35.90	-2.78	1.12	±5	2022/10/8
5600	Head	22.9	4.947	35.742	5.07	35.50	-2.43	0.68	±5	2022/10/9
5750	Head	22.8	5.128	35.554	5.22	35.40	-1.76	0.44	±5	2022/10/10
750	Head	22.7	0.900	41.192	0.89	41.90	1.12	-1.69	±5	2022/9/27
835	Head	22.6	0.902	41.240	0.90	41.50	0.22	-0.63	±5	2022/9/28
1750	Head	22.8	1.409	40.669	1.37	40.10	2.85	1.42	±5	2022/10/9
1900	Head	22.7	1.397	39.035	1.40	40.00	-0.21	-2.41	±5	2022/10/12
2450	Head	22.9	1.806	38.605	1.80	39.20	0.33	-1.52	±5	2022/10/15
2600	Head	22.9	1.926	38.230	1.96	39.00	-1.73	-1.97	±5	2022/10/11
3500	Head	22.8	2.784	38.912	2.91	37.90	-4.33	2.67	±5	2022/10/1
3700	Head	22.6	2.994	38.681	3.12	37.70	-4.04	2.60	±5	2022/10/3
3900	Head	22.7	3.194	38.385	3.32	37.50	-3.80	2.36	±5	2022/10/5
5250	Head	22.8	4.553	36.114	4.71	35.90	-3.33	0.60	±5	2022/10/7
5600	Head	22.9	4.924	35.585	5.07	35.50	-2.88	0.24	±5	2022/10/8
5750	Head	22.8	5.100	35.396	5.22	35.40	-2.30	-0.01	±5	2022/10/9

12.3 System Performance Check Results

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

<1g SAR>

Date	Frequency (MHz)	Tissue Type	Input Power (mW)	Dipole S/N	Probe S/N	DAE S/N	Measured 1g SAR (W/kg)	Targeted 1g SAR (W/kg)	Normalized 1g SAR (W/kg)	Deviation (%)
2022/9/28	750	Head	50	1087	7627	690	0.451	8.58	9.02	5.13
2022/9/30	835	Head	50	4d091	7627	690	0.475	9.45	9.5	0.53
2022/9/27	1750	Head	50	1090	7627	690	1.830	37.00	36.6	-1.08
2022/10/1	1900	Head	50	5d118	7627	690	2.050	39.30	41	4.33
2022/10/16	2450	Head	50	1040	7627	690	2.710	51.80	54.2	4.63
2022/10/3	2600	Head	50	1061	7627	690	2.730	56.60	54.6	-3.53
2022/10/5	3500	Head	50	1037	7627	690	3.390	68.00	67.8	-0.29
2022/10/7	3700	Head	50	1008	7627	690	3.230	67.60	64.6	-4.44
2022/10/14	3900	Head	50	1048	7706	690	3.370	70.20	67.4	-3.99
2022/10/8	5250	Head	50	1341	7627	690	3.780	80.70	75.6	-6.32
2022/10/9	5600	Head	50	1341	7627	690	3.950	84.50	79	-6.51
2022/10/10	5750	Head	50	1341	7627	690	3.770	80.60	75.4	-6.45
2022/9/27	750	Head	50	1087	7627	690	0.415	8.58	8.3	-3.26
2022/9/28	835	Head	50	4d091	7627	690	0.470	9.45	9.4	-0.53
2022/10/9	1750	Head	50	1090	7627	690	1.920	37.00	38.4	3.78
2022/10/12	1900	Head	50	5d118	7627	690	2.060	39.30	41.2	4.83
2022/10/15	2450	Head	50	1040	7627	690	2.700	51.80	54	4.25
2022/10/11	2600	Head	50	1061	7627	690	2.730	56.60	54.6	-3.53
2022/10/1	3500	Head	50	1037	7627	690	3.330	68.00	66.6	-2.06
2022/10/3	3700	Head	50	1008	7627	690	3.450	67.60	69	2.07
2022/10/5	3900	Head	50	1048	7706	690	3.360	70.20	67.2	-4.27
2022/10/7	5250	Head	50	1341	7627	690	3.720	80.70	74.4	-7.81
2022/10/8	5600	Head	50	1341	7627	690	4.010	84.50	80.2	-5.09
2022/10/9	5750	Head	50	1341	7627	690	3.830	80.60	76.6	-4.96

<10g SAR>

Date	Frequency (MHz)	Tissue Type	Input Power (mW)	Dipole S/N	Probe S/N	DAE S/N	Measured 10g SAR (W/kg)	Targeted 10g SAR (W/kg)	Normalized 10g SAR (W/kg)	Deviation (%)
2022/9/28	750	Head	50	1087	7627	690	0.297	5.65	5.94	5.13
2022/9/30	835	Head	50	4d091	7627	690	0.311	6.22	6.22	0.00
2022/9/27	1750	Head	50	1090	7627	690	0.971	19.50	19.42	-0.41
2022/10/1	1900	Head	50	5d118	7627	690	1.060	20.40	21.2	3.92
2022/10/16	2450	Head	50	1040	7627	690	1.250	24.00	25	4.17
2022/10/3	2600	Head	50	1061	7627	690	1.220	25.10	24.4	-2.79
2022/10/5	3500	Head	50	1037	7627	690	1.320	25.40	26.4	3.94
2022/10/7	3700	Head	50	1008	7627	690	1.230	24.40	24.6	0.82
2022/10/14	3900	Head	50	1048	7706	690	1.240	24.40	24.8	1.64
2022/10/8	5250	Head	50	1341	7627	690	1.080	23.10	21.6	-6.49
2022/10/9	5600	Head	50	1341	7627	690	1.120	24.00	22.4	-6.67
2022/10/10	5750	Head	50	1341	7627	690	1.070	22.70	21.4	-5.73
2022/9/27	750	Head	50	1087	7627	690	0.273	5.65	5.46	-3.36
2022/9/28	835	Head	50	4d091	7627	690	0.307	6.22	6.14	-1.29
2022/10/9	1750	Head	50	1090	7627	690	1.020	19.50	20.4	4.62
2022/10/12	1900	Head	50	5d118	7627	690	1.060	20.40	21.2	3.92
2022/10/15	2450	Head	50	1040	7627	690	1.250	24.00	25	4.17
2022/10/11	2600	Head	50	1061	7627	690	1.220	25.10	24.4	-2.79
2022/10/1	3500	Head	50	1037	7627	690	1.270	25.40	25.4	0.00
2022/10/3	3700	Head	50	1008	7627	690	1.290	24.40	25.8	5.74
2022/10/5	3900	Head	50	1048	7706	690	1.200	24.40	24	-1.64
2022/10/7	5250	Head	50	1341	7627	690	1.080	23.10	21.6	-6.49
2022/10/8	5600	Head	50	1341	7627	690	1.130	24.00	22.6	-5.83
2022/10/9	5750	Head	50	1341	7627	690	1.090	22.70	21.8	-3.96

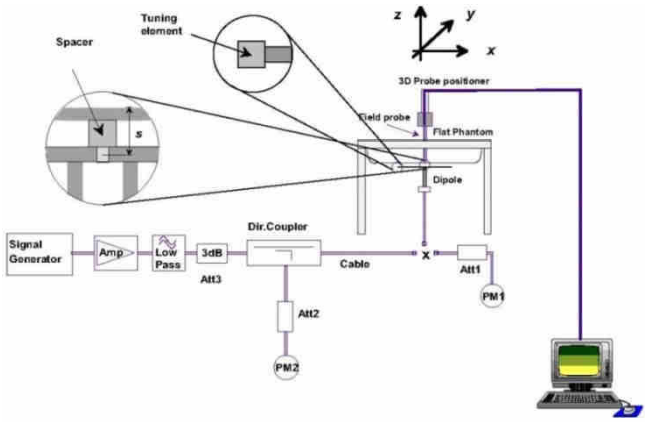


Fig 12.3.1 System Performance Check Setup

Fig 12.3.2 Setup Photo

13. RF Exposure Positions

13.1 Ear and handset reference point

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

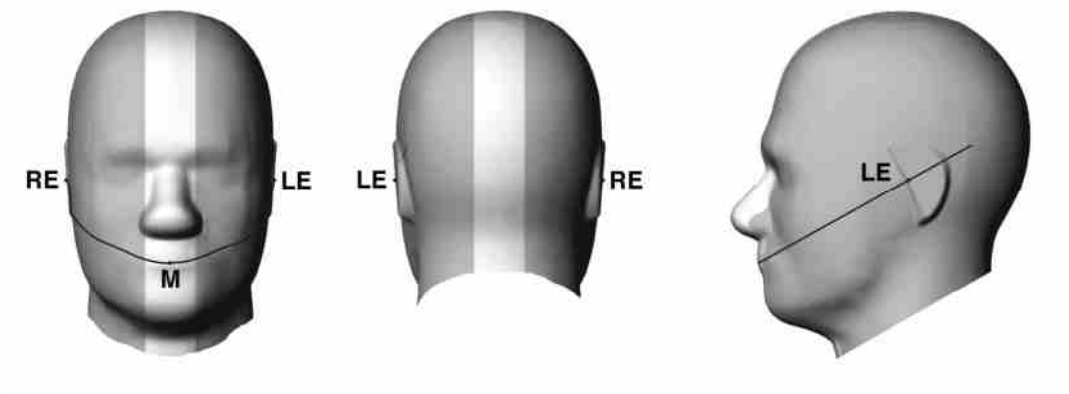


Fig 12.1.1 Front, back, and side views of SAM twin phantom

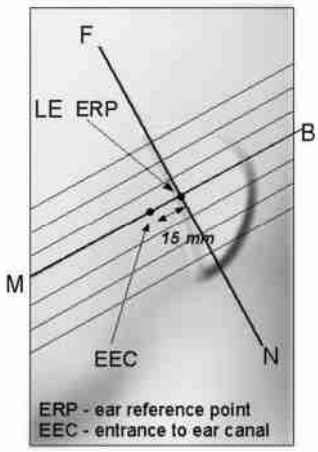


Fig 12.1.2 Close-up side view of phantom showing the ear region.

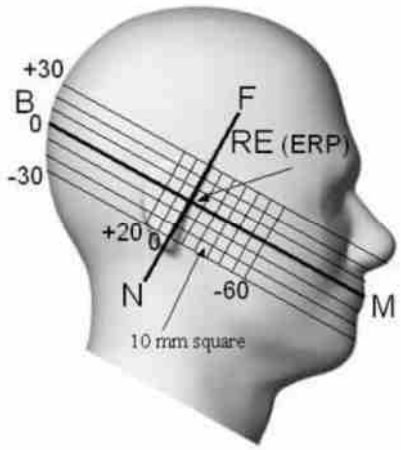


Fig 12.1.3 Side view of the phantom showing relevant markings and seven cross-sectional plane locations

13.2 Definition of the cheek position

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

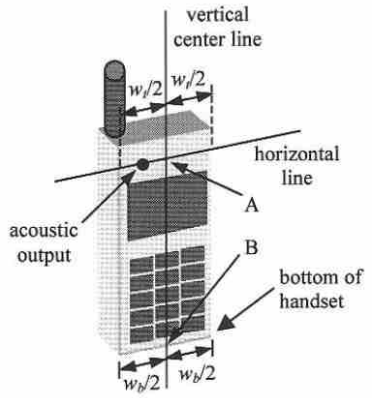


Fig 12.2.1 Handset vertical and horizontal reference lines—"fixed case

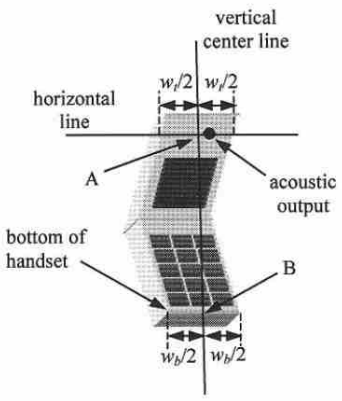


Fig 12.2.2 Handset vertical and horizontal reference lines—"clam-shell case"

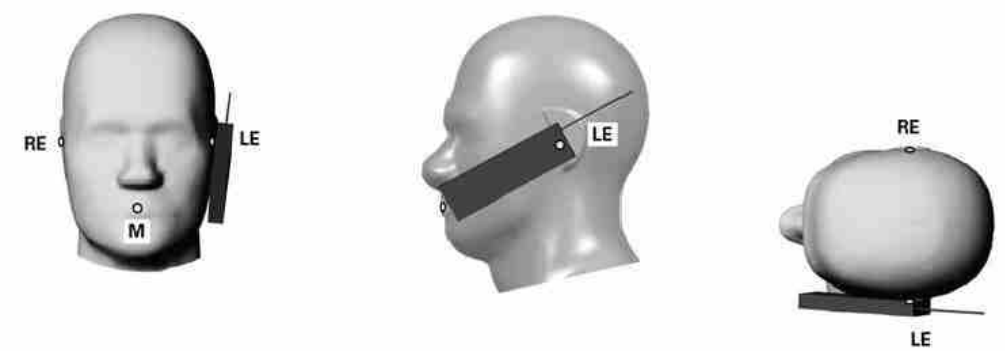


Fig 12.2.3 cheek or touch position. The reference points for the right ear (RE), left ear (LE), and mouth (M), which establish the Reference Plane for handset positioning, are indicated.

13.3 Definition of the tilt position

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

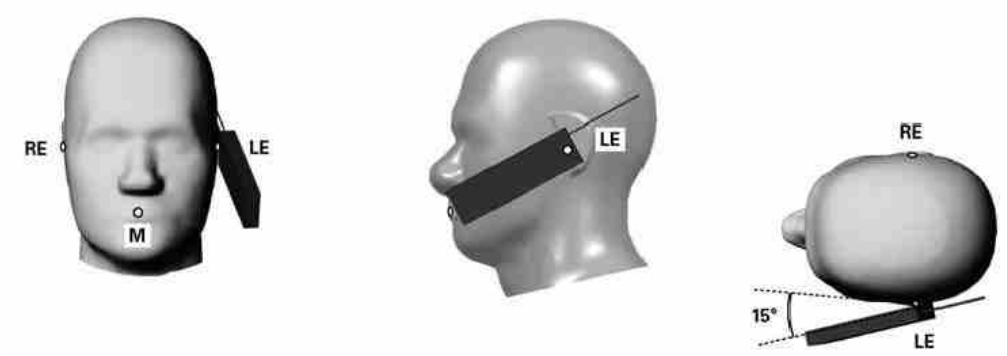


Fig 12.3.1 Tilt position. The reference points for the right ear (RE), left ear (LE), and mouth (M), which define the Reference Plane for handset positioning, are indicated.

13.4 Body Worn Accessory

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

Accessories for body-worn operation configurations are divided into two categories: those that do not contain metallic components and those that do contain metallic components. 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.

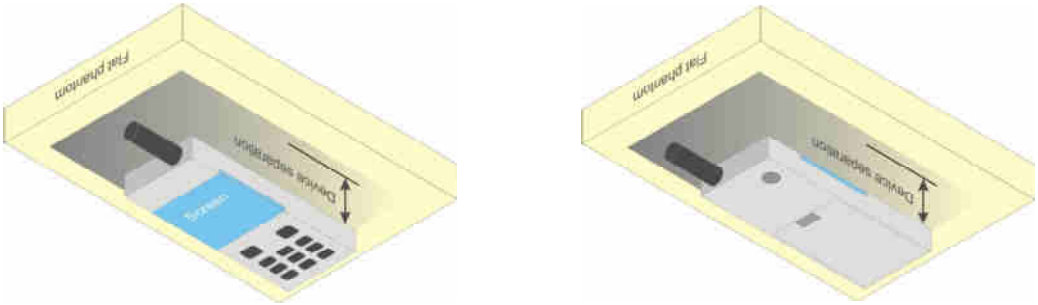


Fig 12.4 Body Worn Position

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

A summary of these settings are illustrated below:

HSDPA Setup Configuration:

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

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

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

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

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

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

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

Setup Configuration

HSUPA Setup Configuration:

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

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

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

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

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

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

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

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

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

Setup Configuration

DC-HSDPA 3GPP release 8 Setup Configuration:

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

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

C.8.1.12 Fixed Reference Channel Definition H-Set 12

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

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

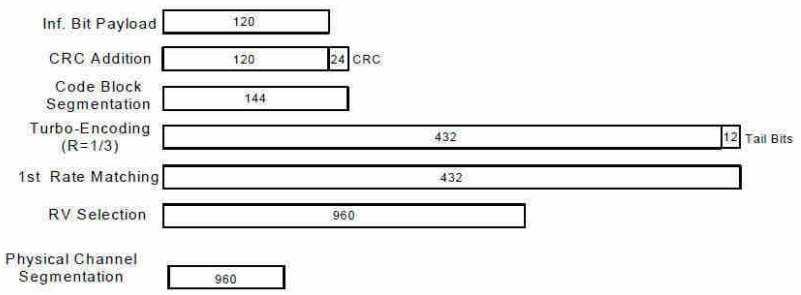


Figure C.8.19: Coding rate for Fixed reference Channel H-Set 12 (QPSK)

Setup Configuration

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

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

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

Sub-test	β_c (Note3)	β_d	β_{HS} (Note1)	β_{ec}	β_{ed} (2xSF2) (Note 4)	β_{ed} (2xSF4) (Note 4)	CM (dB) (Note 2)	MPR (dB) (Note 2)	AG Index (Note 4)	E-TFCI (Note 5)	E-TFCI (boost)
1	1	0	30/15	30/15	β_{ed}1: 30/15 β_{ed}2: 30/15	β_{ed}3: 24/15 β_{ed}4: 24/15	3.5	2.5	14	105	105

Note 1: Δ_{ACK}, Δ_{NACK} and Δ_{CQI} = 30/15 with β_{hs} = 30/15 * β_c.
Note 2: CM = 3.5 and the MPR is based on the relative CM difference, MPR = MAX(CM-1,0).
Note 3: DPDCH is not configured, therefore the β_c is set to 1 and β_d = 0 by default.
Note 4: β_{ed} can not be set directly; it is set by Absolute Grant Value.
Note 5: All the sub-tests require the UE to transmit 2SF2+2SF4 16QAM EDCH and they apply for UE using E-DPDCH category 7. E-DCH TTI is set to 2ms TTI and E-DCH table index = 2. To support these E-DCH configurations DPDCH is not allocated. The UE is signaled to use the extrapolation algorithm.

Setup Configuration

<WCDMA Conducted Power>

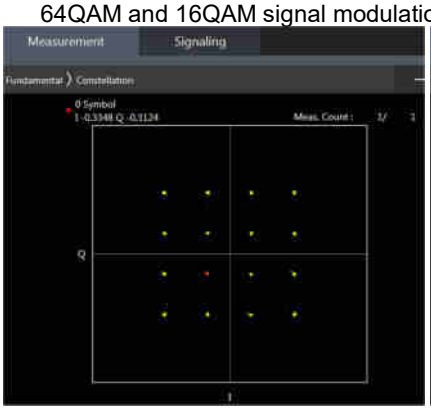
General Note:

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

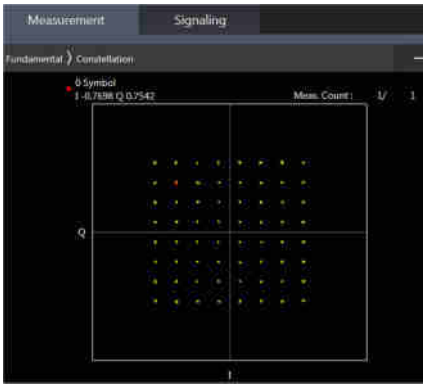
<LTE Conducted Power>

General Note:

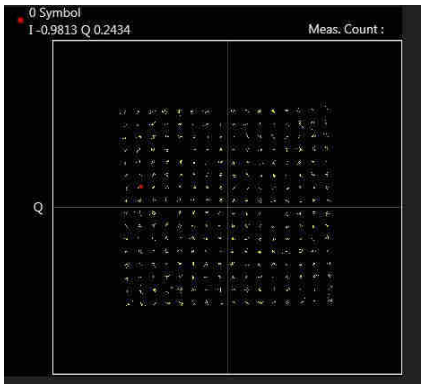
1. Anritsu MT8820C base station simulator was used to setup the connection with EUT; the frequency band, channel bandwidth, RB allocation configuration, modulation type are set in the base station simulator to configure EUT transmitting at maximum power and at different configurations which are requested to be reported to FCC, for conducted power measurement and SAR testing.
2. Per KDB 941225 D05v02r05, when a properly configured base station simulator is used for the SAR and power measurements, spectrum plots for each RB allocation and offset configuration is not required.
3. Per KDB 941225 D05v02r05, start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel.
4. Per KDB 941225 D05v02r05, 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure.
5. Per KDB 941225 D05v02r05, for QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested.
6. Per KDB 941225 D05v02r05, 16QAM/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 SAR test was covered by B25 / B66 / B26 / B12 / B41; according to April 2015 TCB workshop, SAR test for overlapping LTE bands can be reduced if
   a. the maximum output power, including tolerance, for the smaller band is ≤ the larger band to qualify for the SAR test exclusion
   b. the channel bandwidth and other operating parameters for the smaller band are fully supported by the larger band
10. According to 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.

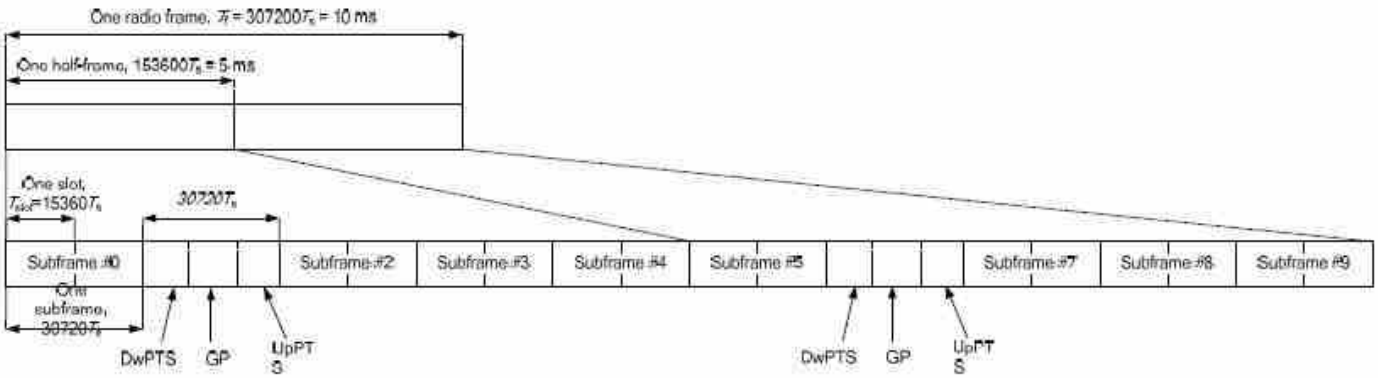


Figure 4.2-1: Frame structure type 2 (for 5 ms switch-point periodicity).

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:

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

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

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

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

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

<LTE Carrier Aggregation>

General Note:

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

2CC Downlink Carrier Aggregation			3CC Downlink Carrier Aggregation			4CC Downlink Carrier Aggregation	
Number	Combination	Covered by Measurement Superset	Number	Combination	Covered by Measurement Superset	Number	Combination
1	CA_2C		1	CA_2A-4A-5A		1	CA_41E
2	CA_2A-4A	1-3CC	2	CA_2A-7A-7A			
3	CA_2A-5A	1-3CC	3	CA_2A-7C			
4	CA_2A-7A	2-3CC	4	CA_4A-7C			
5	CA_4A-5A	1-3CC	5	CA_5A-7A-7A			
6	CA_4A-7A	4-3CC	6	CA_5A-7C			
7	CA_5A-7A	5-3CC	7	CA_5A-7A-66A			
8	CA_7A-7A	5-3CC	8	CA_7A-66A-66A			
9	CA_7C	4-3CC	9	CA_12A-66A-66A			
10	CA_12A-66A		10	CA_41A-41A-41A			
11	CA_38C		11	CA_41D	1-4CC		
12	CA_41A-41A	10-3CC					
13	CA_41C	11-3CC					
14	CA_66A-66A	8-3CC					
15	CA_2A-66A						
16	CA_42C						
17	CA_5A-41A						
18	CA_41A-48A						
19	CA_5A-66A	7-3CC					
20	CA_7A-66A	8-3CC					
21	CA_2A-2A						
22	CA_66B						
23	CA_66C						

LTE Carrier Aggregation Conducted Power (Downlink)

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

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

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

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

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

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

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

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

LTE 4x4 MIMO (Downlink)

This device supports downlink 4x4 MIMO operations for LTE Bands 4/7/66/38/41/42/48 only. Uplink transmission is limited to a single output stream. Power measurements were performed with downlink 4x4 MIMO active for the configuration with highest measured maximum conducted power with 4x4 downlink MIMO inactive measured among the channel bandwidth, modulation, and RB combinations in each frequency band.

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

4X4 MIMO	WWAN Band
	LTE Band: B4/B7/B38/B41/B42/48/B66

LTE Carrier Aggregation Conducted Power (Uplink)

<Intra-band>

2CC Uplink Carrier Aggregation		
Number	Combination	Ant No.
1	7C	ANT3/5/4/6
2	38C	ANT3/5/4/6
3	42C	ANT1/3/10/13

General Note:

i. The device supports intra-band uplink carrier aggregation for LTE B7/B38/B42 with a maximum of two 20MHz component carriers. For intra band contiguous carrier aggregation scenarios, 3GPP 36.101 table 6.2.2A-1 specifies that the aggregate maximum allowed output power is equivalent to the single carrier scenario. 3GPP 36.101 6.2.3A allows for several dB of MPR to be applied when not-contiguous RB allocation is implemented. The conducted power and MPR setting in this device are permanently implemented pre 3GPP requirement.

ii. The device supports uplink carrier aggregation with a maximum of two 20MHz component carriers. For intra band contiguous carrier aggregation scenarios, 3GPP 36.101 table 6.2.2A-1 specifies that the aggregate maximum allowed output power is equivalent to the single carrier scenario. 3GPP 36.101 6.2.3A allows for several dB of MPR to be applied when not-contiguous RB allocation is implemented. The conducted power and MPR setting in this device are permanently implemented pre the 3GPP requirement.

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

iv. Additional SAR measurement for LTE UL CA whit other DL CA combinations active were not required since the maximum output power for this configuration was not > 0.25dB higher than the maximum output power for UL CA active.

<Inter-band uplink carrier aggregation consideration>

LTE Uplink CA	2CC Uplink Carrier Aggregation	
Combination	Band&Ant No.	Band&Ant No.
2A_4A	B2:ANT3/5	B4:ANT4/6
4A-7A	B4:ANT3/5/4/6	B7:ANT3/5/4/6

General Note:

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

5G NR Output Power (Unit: dBm)

General Note:

1. 5G NR n5, n7, n66, n71, n38, n41, n77, n78 supports SA operation.
2. 5G NR n5, n7, n66, n38, n41, n78 supports NSA operation.
3. For 5G NR test procedure was following step similar FCC KDB 941225 D05:
   a. For DFT-OFDM and CP-OFDM output power measurement reduction, according to 38.101 maximum power reduction for power class2 and 3, the CP-OFDM mode will not higher than DFT-OFDM mode, therefore, similar FCC KDB 941225 D05 procedure for other modulation output power for each RB allocation configuration is > not ½ dB higher than the same configuration in DFT-QPSK and the reported SAR for the DFT-QPSK configuration is ≤ 1.45 W/kg; CP-OFDM testing is not required.
   b. For DFT-OFDM output power measurement reduction, according to 38.101 maximum power reduction for power class2 and 3, for 16QAM/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 AM SAR testing are not required.
   g. Smaller bandwidth output power for each RB allocation configuration for this device will not ½ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg, smaller bandwidth SAR testing is not required for this device
4. Due to test setup limitations, SAR testing for NR was performed using Factory Test Mode software to establish the connection and perform SAR with 100% transmission.
5. For DFT-s-OFDM and CP-OFDM output power measurement reduction, according to 38.101 maximum power reduction for the CP-OFDM mode will not higher than DFT-s-OFDM mode, therefore, CP-OFDM measurement is unnecessary.
6. NSA and SA mode should perform SAR separately. For the maximum power of NSA mode is the same as SA total power level, so SA SAR can represent NSA mode SAR.
7. 5GNR NSA mode, the power level is the same as 5GNR SA mode, so 5GNR NSA mode and SA mode power table only show one time.
8. 5G NR supports CP-OFDM and DFT-s-OFDM modulation, for DFT-s-OFDM power is higher than CP-OFDM, so only show DFT-s-OFDM power table and chose DFT-s-OFDM to perform SAR testing.
9. For DFT-s-OFDM and CP-OFDM output power measurement reduction, according to 38.101 maximum power reduction for the CP-OFDM mode will not higher than DFT-s-OFDM mode, therefore, CP-OFDM measurement is unnecessary.
10. 5G NR n77/n78 supports MIMO mode.
11. 5GNR n77/n78 supports HPUE, HPUE power and SAR testing performed separately.
12. 5GNR n77/n78 HPUE with higher power. 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.

<3GPP 38.101 MPR for EN-DC>

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

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

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

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

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

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

ENDC List	LTE Ant No.	NR Ant No.
DC_7A_n5A	Ant3/4/5/6	Ant0/1
DC_66A_n7A	Ant3/4/5/6	Ant3/4/5/6
DC_66A_n38A	Ant3/4/5/6	Ant3/4/5/6
DC_66A_n41A	Ant3/4/5/6	Ant3/4/5/6
DC_2A_n66A	Ant0/1	Ant3/4/5/6
DC_5A_n66A	Ant0/1	Ant3/4/5/6
DC_12A_n66A	Ant0/1	Ant3/4/5/6
DC_2A_n78A	Ant0/1	Ant1/3/10/13
DC_7A_n78A	Ant3/4/5/6	Ant1/3/10/13
DC_38A_n78A	Ant3/4/5/6	Ant1/3/10/13
DC_41A_n78A	Ant3/4/5/6	Ant1/3/10/13
DC_66A_n78A	Ant3/4/5/6	Ant1/3/10/13
DC_5A_n78A	Ant0/1	Ant1/3/10/13

UL MIMO combination:

NR UL MIMO	TX Ant	TX Ant
n77A	Ant1/3/10/13	Ant1/3/10/13
n78A	Ant1/3/10/13	Ant1/3/10/13

<WLAN Conducted Power>

General Note:

1. For each frequency band or when MIMO mode was not performed, due to for each antenna, transmit power in SISO operation is larger than (or equal to) the power in MIMO operation, RF exposure compliance of MIMO mode can be deduced from the compliance simultaneous transmission of antennas operating in SISO mode.
2. Per KDB 248227 D01v02r02, the simultaneous SAR provisions in KDB publication 447498 should be applied to determine simultaneous transmission SAR test exclusion for WiFi MIMO. If the sum of 1g single transmission chain SAR measurements is < 1.6W/kg and SAR peak to location ratio ≤ 0.04, no additional SAR measurements for MIMO.
3. The maximum output power specified for production units are determined for all applicable 802.11 transmission modes in each standalone and aggregated frequency band. Maximum output power is measured for the highest maximum output power configuration(s) in each frequency band according to the default power measurement procedures. For “Not required”, SAR Test reduction was applied from KDB 248227 guidance, Sec. 2.1, b), 1) when the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order 802.11a/g/n/ac mode is used for SAR measurement, on the highest measured output power channel in the initial test configuration. Additional output power measurements were not necessary.
4. Per KDB 248227 D01v02r02, SAR test reduction is determined according to 802.11 transmission mode configurations and certain exposure conditions with multiple test positions. In the 2.4 GHz band, separate SAR procedures are applied to DSSS and OFDM configurations to simplify DSSS test requirements. For OFDM, in both 2.4 and 5 GHz bands, an initial test configuration must be determined for each standalone and aggregated frequency band, according to the transmission mode configuration with the highest maximum output power specified for production units to perform SAR measurements. If the same highest maximum output power applies to different combinations of channel bandwidths, modulations and data rates, additional procedures are applied to determine which test configurations require SAR measurement. When applicable, an initial test position may be applied to reduce the number of SAR measurements required for next to the ear, UMPC mini-tablet or hotspot mode configurations with multiple test positions.
5. For 2.4 GHz 802.11b DSSS, either the initial test position procedure for multiple exposure test positions or the DSSS procedure for fixed exposure position is applied; these are mutually exclusive. For 2.4 GHz and 5 GHz OFDM configurations, the initial test configuration is applied to measure SAR using either the initial test position procedure for multiple exposure test position configurations or the initial test configuration procedures for fixed exposure test conditions. Based on the reported SAR of the measured configurations and maximum output power of the transmission mode configurations that are not included in the initial test configuration, the subsequent test configuration and initial test position procedures are applied to determine if SAR measurements are required for the remaining OFDM transmission configurations. In general, the number of test channels that require SAR measurement is minimized based on maximum output power measured for the test sample(s).
6. For OFDM transmission configurations in the 2.4 GHz and 5 GHz bands, When the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order 802.11a/g/n/ac mode is used for SAR measurement, on the highest measured output power channel for each frequency band.
7. DSSS and OFDM configurations are considered separately according to the required SAR procedures. SAR is measured in the initial test position using the 802.11 transmission mode configuration required by the DSSS procedure or initial test configuration and subsequent test configuration(s) according to the OFDM procedures.18 The initial test position procedure is described in the following:
   a. When the reported SAR of the initial test position is ≤ 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.
8. For full RU and partial tone size output power measurement, after verification for the partial tone size mode power level will not higher than full tone size power level, so chose full tone power to be measured in this report.
9. When multiple transmission modes (802.11a/g/n/ac/ax/be) have the same specified maximum output power, largest channel bandwidth, lowest order modulation and lowest data rate, the lowest order 802.11 mode is selected; i.e., 802.11a is chosen over 802.11n then 802.11ac then 802.11ax then 802.11be or 802.11g is chosen over 802.11n.
10. SISO and MIMO all supported by WLAN2.4GHz/WLAN5GHz, for SISO mode power is less than per chain power

of MIMO mode. For WLAN SISO & MIMO mode, the whole testing has assessed only MIMO mode by referring to their higher conducted power, so only chose MIMO power to perform SAR testing.

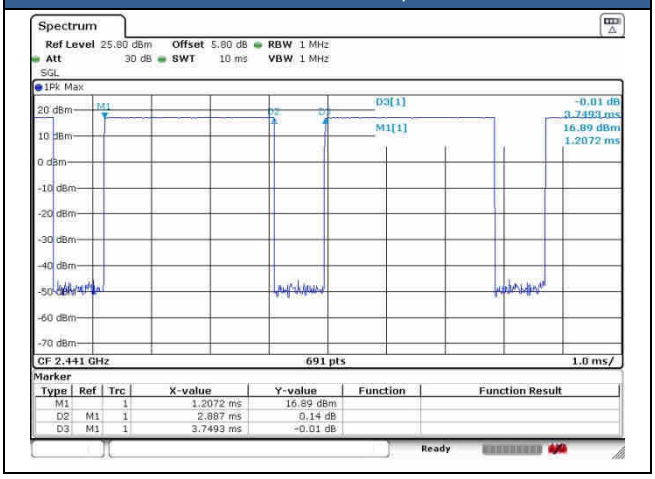
11. For the conducted power measurement is MIMO chains transmitting simultaneously and measured the separately conducted power for both chains and then based on the conducted power of two antennas respectively to calculate sum of the power for MIMO mode.

<2.4GHz Bluetooth>

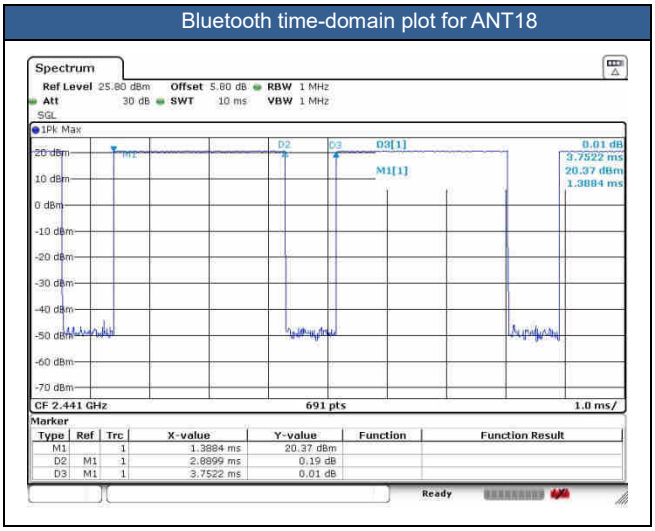
General Note:

1. For 2.4GHz Bluetooth SAR testing was selected 1Mbps, due to its highest average power.
2. The Bluetooth duty cycle is 77 % for ANT15, and 77.02 % for ANT18 as following figure, according to 2016 Oct. TCB workshop for Bluetooth SAR scaling need further consideration and the maximum duty cycle is 100%, therefore the actual duty cycle will be scaled up to100% for Bluetooth reported SAR calculation

Bluetooth time-domain plot for ANT15



Bluetooth time-domain plot for ANT18



15. Antenna Location

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

16. SAR Test Results

General Note:

1. Per KDB 447498 D01v06, the reported SAR is the measured SAR value adjusted for maximum tune-up tolerance.
   a. Tune-up scaling Factor = tune-up limit power (mW) / EUT RF power (mW), where tune-up limit is the maximum rated power among all production units.
   b. For SAR testing of BT/WLAN signal with non-100% duty cycle, the measured SAR is scaled-up by the duty cycle scaling factor which is equal to "1/(duty cycle)"
   c. For WWAN: Reported SAR(W/kg)= Measured SAR(W/kg)*Tune-up Scaling Factor
   d. For BT/WLAN: Reported SAR(W/kg)= Measured SAR(W/kg)* Duty Cycle scaling factor * Tune-up scaling factor
   e. For TDD LTE SAR measurement, the duty cycle 1:1.59 (62.9 %) was used perform testing and considering the theoretical duty cycle of 63.3% for extended cyclic prefix in the uplink, and the theoretical duty cycle of 62.9% for normal cyclic prefix in uplink, a scaling factor of extended cyclic prefix 63.3%/62.9% = 1.006 is applied to scale-up the measured SAR result. The Reported TDD LTE SAR = measured SAR (W/kg)* Tune-up Scaling Factor* scaling factor for extended cyclic prefix.
2. Per KDB 447498 D01v06, for each exposure position, testing of other required channels within the operating mode of a frequency band is not required when the *reported* 1-g or 10-g SAR for the mid-band or highest output power channel is:
   - ≤ 0.8 W/kg or 2.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≤ 100 MHz
   - ≤ 0.6 W/kg or 1.5 W/kg, for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz
   - ≤ 0.4 W/kg or 1.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≥ 200 MHz
3. Per KDB 865664 D01v01r04, for each frequency band, repeated SAR measurement is required when the measured SAR is ≥ 0.8W/kg. Per KDB 865664 D01v01r04, if the extremity repeated SAR is necessary, the same procedures should be adapted for measurements according to extremity and occupational exposure limits by applying a factor of 2.5 for extremity exposure and a factor of 5 for occupational exposure to the corresponding SAR thresholds.
4. For dual SIM card mobile has two SIM slots and supports dual SIM dual standby. The WWAN radio transmission will be enabled by either one SIM at a time (single active). After pre-scan two SIM cards power, we found test result of the SIM1 was the worse, so we chose SIM1 slot to perform all tests.
5. The device implements the power management and proximity sensor /receiver detection/hotspot mode for SAR compliance at different exposure conditions (head, body-worn, hotspot, extremity) and the Qualcomm smart transmit will manage to ensure the power level not exceeding the associated power table. Details about the power management decision and sensor detection are provided in the operational description. And the device will invoke corresponding work scenarios power level base on frequency bands/antennas, which can refer to power table at appendix E.
6. For WLAN when transmit simultaneous with WWAN, power reduction will be activated to head, hotspot, extremity.
7. 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.
8. 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.
9. 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.
10. 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.
11. 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.
12. 5G NR n77/n78 supports MIMO mode.
13. 5GNR n77/n78 supports HPUE, HPUE power and SAR testing performed separately.
14. 5GNR n77/n78 HPUE with higher power. 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.
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. 5GNR n77, n78 are required to be tested.
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. LTE band B4/7/66/38/41 at ant3/4/5/6, 5GNR n7/38/41 at ant3/4/5/6 and n77/78 at ant1/3 support different PAs for some antennas and LTE/NR bands support Other PA only under ENDC & UL CA. For the maximum power of Main PA is higher than and very close to the other PA, for RF exposure, after verification all PAs in a same position, we choose the main PA to perform full SAR tested to ensure the RF exposure is compliance and other PA verify the worst case.
17. LTE Band 48 should be set to NS_01 to measure the conducted power and performed full SAR testing for conservatively evaluation.

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 / HSPA+ 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 / HSPA+ to RMC12.2Kbps and the adjusted SAR is ≤ 1.2 W/kg, SAR measurement is not required for HSDPA / HSUPA / DC-HSDPA / HSPA+, and according to the following RF output power, the output power results of the secondary modes (HSDPA / HSUPA / DC-HSDPA / HSPA+) are less than ¼ dB higher than the primary modes; therefore, SAR measurement is not required for HSDPA / HSUPA / DC-HSDPA / HSPA+.

LTE Note:

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

5G NR Note:

1. For 5G NR test procedure was following step similar FCC KDB 941225 D05:
   a. SAR testing start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel.
   b. 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure
   c. QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested.
   d. PI/2 BPSK /16QAM/64QAM/256QAM output powers according to 3GPP MPR will not ½ dB higher than the same configuration in QPSK, also reported SAR for the QPSK configuration is less than 1.45 W/kg, PI/2 BPSK/16QAM /64QAM/256QAM SAR testing are not required.
   e. Smaller bandwidth output power for each RB allocation configuration for this device will not ½ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg, smaller bandwidth SAR testing is not required for this device
   f. For 5G FR1 n5/n7/n38/n41/n66/n71/n77 the maximum bandwidth does not support three non-overlapping channels, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

WLAN Note:

1. Per KDB 248227 D01v02r02, for 2.4GHz 802.11g/n SAR testing is not required when the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg.
2. Per KDB 248227 D01v02r02, U-NII-1 SAR testing is not required when the U-NII-2A band highest reported SAR for a test configuration is ≤ 1.2 W/kg, SAR is not required for U-NII-1 band.
3. When the reported SAR of the test position is > 0.4 W/kg, SAR is repeated for the 802.11 transmission mode configuration tested in the initial test position to measure the subsequent next closet/smallest test separation distance and maximum coupling test position on the highest maximum output power channel, until the report SAR is ≤ 0.8 W/kg or all required test position are tested.
4. For all positions / configurations, when the reported SAR is > 0.8 W/kg, SAR is measured for these test positions / configurations on the subsequent next highest measured output power channel(s) until the reported SAR is ≤ 1.2 W/kg or all required channels are tested.
5. During SAR testing the WLAN transmission was verified using a spectrum analyzer.
6. For full RU and partial tone size output power measurement, after verification for the partial tone size mode power level will not higher than full tone size power level, so chose full tone power to be measured in this report.
7. When multiple transmission modes (802.11a/g/n/ac/ax/be) have the same specified maximum output power, largest channel bandwidth, lowest order modulation and lowest data rate, the lowest order 802.11 mode is selected; i.e., 802.11a is chosen over 802.11n then 802.11ac then 802.11ax then 802.11be or 802.11g is chosen over 802.11n.
8. SISO and MIMO all supported by WLAN2.4GHz/WLAN5GHz, for SISO mode power is less than per chain power of MIMO mode. For WLAN SISO & MIMO mode, the whole testing has assessed only MIMO mode by referring to their higher conducted power, so only chose MIMO power to perform SAR testing.

DSI status description：

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

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

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

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	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
									750MHz											
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	DSI1	136100	680.5	25.22	25.70	1.117	-	-	-0.12	0.116	0.130
	FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	DSI1	136100	680.5	25.07	25.70	1.156	-	-	0.02	0.112	0.129
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 0	DSI1	136100	680.5	25.22	25.70	1.117	-	-	-0.17	0.063	0.070
	FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Right Tilted	0mm	Ant 0	DSI1	136100	680.5	25.07	25.70	1.156	-	-	-0.09	0.063	0.073
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	DSI1	136100	680.5	25.22	25.70	1.117	-	-	-0.03	0.145	0.162
	FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	DSI1	136100	680.5	25.07	25.70	1.156	-	-	-0.09	0.137	0.158
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 0	DSI1	136100	680.5	25.22	25.70	1.117	-	-	-0.04	0.084	0.094
	FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Left Tilted	0mm	Ant 0	DSI1	136100	680.5	25.07	25.70	1.156	-	-	-0.04	0.082	0.095
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	DSI1	136100	680.5	23.15	23.90	1.189	-	-	0.09	0.212	0.252
	FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	DSI1	136100	680.5	23.13	23.90	1.194	-	-	0.04	0.217	0.259
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	DSI1	136100	680.5	23.15	23.90	1.189	-	-	0.05	0.037	0.044
	FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	DSI1	136100	680.5	23.13	23.90	1.194	-	-	0.04	0.037	0.044
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 1	DSI1	136100	680.5	23.15	23.90	1.189	-	-	0.04	0.303	0.360
01	FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Left Cheek	0mm	Ant 1	DSI1	136100	680.5	23.13	23.90	1.194	-	-	0.16	0.399	**0.476**
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 1	DSI1	136100	680.5	23.15	23.90	1.189	-	-	-0.08	0.045	0.053
	FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Left Tilted	0mm	Ant 1	DSI1	136100	680.5	23.13	23.90	1.194	-	-	-0.19	0.046	0.055
	LTE Band 12	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	DSI1	23095	707.5	25.12	25.50	1.091	-	-	0.14	0.118	0.129
	LTE Band 12	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 0	DSI1	23095	707.5	25.09	25.50	1.099	-	-	-0.01	0.120	0.132
	LTE Band 12	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	DSI1	23095	707.5	25.12	25.50	1.091	-	-	-0.15	0.077	0.084
	LTE Band 12	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 0	DSI1	23095	707.5	25.09	25.50	1.099	-	-	0.02	0.077	0.085
	LTE Band 12	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	DSI1	23095	707.5	25.12	25.50	1.091	-	-	0.02	0.162	0.177
	LTE Band 12	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 0	DSI1	23095	707.5	25.09	25.50	1.099	-	-	-0.08	0.168	0.185
	LTE Band 12	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	DSI1	23095	707.5	25.12	25.50	1.091	-	-	0.08	0.099	0.108
	LTE Band 12	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 0	DSI1	23095	707.5	25.09	25.50	1.099	-	-	0.07	0.101	0.111
	LTE Band 12	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI1	23095	707.5	24.00	25.00	1.259	-	-	0.16	0.534	0.672
	LTE Band 12	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 1	DSI1	23095	707.5	23.97	25.00	1.268	-	-	-0.04	0.600	0.761
	LTE Band 12	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	DSI1	23095	707.5	24.00	25.00	1.259	-	-	0.08	0.091	0.115
	LTE Band 12	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 1	DSI1	23095	707.5	23.97	25.00	1.268	-	-	-0.14	0.104	0.132
	LTE Band 12	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	DSI1	23095	707.5	24.00	25.00	1.259	-	-	0.09	0.775	0.976
02	LTE Band 12	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 1	DSI1	23095	707.5	23.97	25.00	1.268	-	-	-0.06	0.857	**1.086**
	LTE Band 12	10M	QPSK	50	0	-	Left Cheek	0mm	Ant 1	DSI1	23095	707.5	23.90	25.00	1.288	-	-	0.02	0.829	1.068
	LTE Band 12	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	DSI1	23095	707.5	24.00	25.00	1.259	-	-	0.02	0.109	0.137
	LTE Band 12	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 1	DSI1	23095	707.5	23.97	25.00	1.268	-	-	-0.09	0.128	0.162
	LTE Band 13	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	DSI1	23230	782	25.06	25.40	1.081	-	-	0.02	0.119	0.129
	LTE Band 13	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 0	DSI1	23230	782	25.02	25.40	1.091	-	-	0.18	0.109	0.119
	LTE Band 13	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	DSI1	23230	782	25.06	25.40	1.081	-	-	0.06	0.066	0.071
	LTE Band 13	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 0	DSI1	23230	782	25.02	25.40	1.091	-	-	0.03	0.065	0.071
	LTE Band 13	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	DSI1	23230	782	25.06	25.40	1.081	-	-	0.03	0.146	0.158
	LTE Band 13	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 0	DSI1	23230	782	25.02	25.40	1.091	-	-	0.1	0.141	0.154
	LTE Band 13	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	DSI1	23230	782	25.06	25.40	1.081	-	-	0.12	0.094	0.102
	LTE Band 13	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 0	DSI1	23230	782	25.02	25.40	1.091	-	-	0.02	0.090	0.098
	LTE Band 13	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI1	23230	782	21.72	22.70	1.253	-	-	0.06	0.492	0.617
	LTE Band 13	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 1	DSI1	23230	782	21.67	22.70	1.268	-	-	0.09	0.496	0.629
	LTE Band 13	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	DSI1	23230	782	21.72	22.70	1.253	-	-	-0.18	0.088	0.110
	LTE Band 13	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 1	DSI1	23230	782	21.67	22.70	1.268	-	-	0.03	0.088	0.112
	LTE Band 13	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	DSI1	23230	782	21.72	22.70	1.253	-	-	-0.19	0.734	0.920
03	LTE Band 13	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 1	DSI1	23230	782	21.67	22.70	1.268	-	-	0.14	0.753	**0.955**
	LTE Band 13	10M	QPSK	50	0	-	Left Cheek	0mm	Ant 1	DSI1	23230	782	21.62	22.70	1.282	-	-	0.02	0.715	0.917
	LTE Band 13	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	DSI1	23230	782	21.72	22.70	1.253	-	-	0.07	0.110	0.138

	LTE Band 13	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 1	DSI1	23230	782	21.67	22.70	1.268	-	-	-0.14	0.112	0.142
	835MHz																			
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Right Cheek	0mm	Ant 0	DSI1	189	836.4	26.65	28.00	1.365	-	-	-0.04	0.104	0.142
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Right Tilted	0mm	Ant 0	DSI1	189	836.4	26.65	28.00	1.365	-	-	0.08	0.056	0.076
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Left Cheek	0mm	Ant 0	DSI1	189	836.4	26.65	28.00	1.365	-	-	-0.09	0.132	0.180
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Left Tilted	0mm	Ant 0	DSI1	189	836.4	26.65	28.00	1.365	-	-	0.17	0.086	0.117
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Right Cheek	0mm	Ant 1	DSI1	189	836.4	23.92	25.60	1.472	-	-	-0.11	0.386	0.568
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Right Tilted	0mm	Ant 1	DSI1	189	836.4	23.92	25.60	1.472	-	-	-0.15	0.063	0.093
04	GSM850	-	-	-	-	GPRS (4 Tx slots)	Left Cheek	0mm	Ant 1	DSI1	189	836.4	23.92	25.60	1.472	-	-	0.18	0.614	**0.904**
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Left Cheek	0mm	Ant 1	DSI1	128	824.2	23.89	25.60	1.483	-	-	0.08	0.600	0.890
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Left Cheek	0mm	Ant 1	DSI1	251	848.8	23.72	25.60	1.542	-	-	0.09	0.582	0.897
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Left Tilted	0mm	Ant 1	DSI1	189	836.4	23.92	25.60	1.472	-	-	0.03	0.083	0.122
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 0	DSI1	4182	836.4	24.23	24.80	1.140	-	-	-0.09	0.102	0.116
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 0	DSI1	4182	836.4	24.23	24.80	1.140	-	-	0.03	0.067	0.076
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 0	DSI1	4182	836.4	24.23	24.80	1.140	-	-	-0.03	0.198	0.226
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 0	DSI1	4182	836.4	24.23	24.80	1.140	-	-	0.02	0.104	0.119
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 1	DSI1	4182	836.4	20.39	21.50	1.291	-	-	-0.06	0.392	0.506
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 1	DSI1	4182	836.4	20.39	21.50	1.291	-	-	0.04	0.065	0.084
05	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 1	DSI1	4182	836.4	20.39	21.50	1.291	-	-	0.13	0.607	**0.784**
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 1	DSI1	4182	836.4	20.39	21.50	1.291	-	-	0.11	0.079	0.102
	LTE Band 26	15M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	DSI1	26865	831.5	25.04	25.60	1.138	-	-	-0.08	0.137	0.156
	LTE Band 26	15M	QPSK	36	0	-	Right Cheek	0mm	Ant 0	DSI1	26865	831.5	24.96	25.60	1.159	-	-	-0.12	0.137	0.159
	LTE Band 26	15M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	DSI1	26865	831.5	25.04	25.60	1.138	-	-	0.06	0.077	0.088
	LTE Band 26	15M	QPSK	36	0	-	Right Tilted	0mm	Ant 0	DSI1	26865	831.5	24.96	25.60	1.159	-	-	0.07	0.076	0.088
	LTE Band 26	15M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	DSI1	26865	831.5	25.04	25.60	1.138	-	-	0.02	0.161	0.183
	LTE Band 26	15M	QPSK	36	0	-	Left Cheek	0mm	Ant 0	DSI1	26865	831.5	24.96	25.60	1.159	-	-	-0.01	0.168	0.195
	LTE Band 26	15M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	DSI1	26865	831.5	25.04	25.60	1.138	-	-	0.04	0.104	0.118
	LTE Band 26	15M	QPSK	36	0	-	Left Tilted	0mm	Ant 0	DSI1	26865	831.5	24.96	25.60	1.159	-	-	-0.06	0.107	0.124
	LTE Band 26	15M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI1	26865	831.5	21.06	22.20	1.300	-	-	0.17	0.441	0.573
	LTE Band 26	15M	QPSK	36	0	-	Right Cheek	0mm	Ant 1	DSI1	26865	831.5	21.02	22.20	1.312	-	-	0.1	0.459	0.602
	LTE Band 26	15M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	DSI1	26865	831.5	21.06	22.20	1.300	-	-	-0.05	0.067	0.087
	LTE Band 26	15M	QPSK	36	0	-	Right Tilted	0mm	Ant 1	DSI1	26865	831.5	21.02	22.20	1.312	-	-	-0.07	0.075	0.098
	LTE Band 26	15M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	DSI1	26865	831.5	21.06	22.20	1.300	-	-	0.18	0.643	0.836
06	LTE Band 26	15M	QPSK	36	0	-	Left Cheek	0mm	Ant 1	DSI1	26865	831.5	21.02	22.20	1.312	-	-	0.04	0.698	**0.916**
	LTE Band 26	15M	QPSK	75	0	-	Left Cheek	0mm	Ant 1	DSI1	26865	831.5	21.01	22.20	1.315	-	-	0.07	0.670	0.881
	LTE Band 26	15M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	DSI1	26865	831.5	21.06	22.20	1.300	-	-	0.11	0.086	0.112
	LTE Band 26	15M	QPSK	36	0	-	Left Tilted	0mm	Ant 1	DSI1	26865	831.5	21.02	22.20	1.312	-	-	0.07	0.093	0.122
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	DSI1	167300	836.5	25.25	25.70	1.109	-	-	-0.13	0.101	0.112
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	DSI1	167300	836.5	25.10	25.70	1.148	-	-	-0.18	0.080	0.092
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 0	DSI1	167300	836.5	25.25	25.70	1.109	-	-	0.08	0.064	0.071
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Right Tilted	0mm	Ant 0	DSI1	167300	836.5	25.10	25.70	1.148	-	-	0.09	0.051	0.059
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	DSI1	167300	836.5	25.25	25.70	1.109	-	-	-0.14	0.175	0.194
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	DSI1	167300	836.5	25.10	25.70	1.148	-	-	-0.05	0.144	0.165
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 0	DSI1	167300	836.5	25.25	25.70	1.109	-	-	-0.12	0.094	0.104
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Left Tilted	0mm	Ant 0	DSI1	167300	836.5	25.10	25.70	1.148	-	-	0.16	0.070	0.080
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	DSI1	167300	836.5	19.88	20.50	1.153	-	-	0.16	0.183	0.211
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	DSI1	167300	836.5	19.85	20.50	1.161	-	-	0.05	0.208	0.242
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	DSI1	167300	836.5	19.88	20.50	1.153	-	-	0.09	0.000	0.000
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	DSI1	167300	836.5	19.85	20.50	1.161	-	-	0.1	0.035	0.041
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 1	DSI1	167300	836.5	19.88	20.50	1.153	-	-	0.06	0.284	0.328
07	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Left Cheek	0mm	Ant 1	DSI1	167300	836.5	19.85	20.50	1.161	-	-	-0.05	0.316	**0.367**
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 1	DSI1	167300	836.5	19.88	20.50	1.153	-	-	0.13	0.037	0.043
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Left Tilted	0mm	Ant 1	DSI1	167300	836.5	19.85	20.50	1.161	-	-	0.02	0.041	0.048
	1750MHz																			
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 3	DSI1	1413	1732.6	24.35	24.80	1.109	-	-	-0.02	0.122	0.135
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 3	DSI1	1413	1732.6	24.35	24.80	1.109	-	-	-0.09	0.056	0.062

	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 3	DSI1	1413	1732.6	24.35	24.80	1.109	-	-	0.16	0.174	0.193
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 3	DSI1	1413	1732.6	24.35	24.80	1.109	-	-	0.17	0.073	0.081
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 5	DSI1	1413	1732.6	22.14	22.90	1.191	-	-	0.03	0.712	0.848
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 5	DSI1	1312	1712.4	22.03	22.90	1.222	-	-	0.09	0.705	0.861
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 5	DSI1	1513	1752.6	22.04	22.90	1.219	-	-	0.06	0.701	0.855
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 5	DSI1	1413	1732.6	22.14	22.90	1.191	-	-	0.08	0.132	0.157
08	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 5	DSI1	1413	1732.6	22.14	22.90	1.191	-	-	0.06	0.865	**1.030**
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 5	DSI1	1312	1712.4	22.03	22.90	1.222	-	-	0.1	0.798	0.975
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 5	DSI1	1513	1752.6	22.04	22.90	1.219	-	-	0.05	0.837	1.020
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 5	DSI1	1413	1732.6	22.14	22.90	1.191	-	-	0.11	0.205	0.244
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 4	DSI1	1413	1732.6	16.86	17.50	1.159	-	-	0.07	0.711	0.824
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 4	DSI1	1312	1712.4	16.81	17.50	1.172	-	-	0.05	0.688	0.806
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 4	DSI1	1513	1752.6	16.82	17.50	1.169	-	-	0.08	0.695	0.813
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 4	DSI1	1413	1732.6	16.86	17.50	1.159	-	-	-0.09	0.733	0.849
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 4	DSI1	1312	1712.4	16.81	17.50	1.172	-	-	0.1	0.720	0.844
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 4	DSI1	1513	1752.6	16.82	17.50	1.169	-	-	0.02	0.711	0.832
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 4	DSI1	1413	1732.6	16.86	17.50	1.159	-	-	-0.12	0.391	0.453
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 4	DSI1	1413	1732.6	16.86	17.50	1.159	-	-	-0.05	0.508	0.589
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 6	DSI1	1413	1732.6	17.32	18.50	1.312	-	-	0.1	0.600	0.787
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 6	DSI1	1413	1732.6	17.32	18.50	1.312	-	-	0.01	0.276	0.362
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 6	DSI1	1413	1732.6	17.32	18.50	1.312	-	-	0.1	0.173	0.227
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 6	DSI1	1413	1732.6	17.32	18.50	1.312	-	-	-0.12	0.121	0.159
	LTE Band 4	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 5	DSI1	20175	1732.5	21.75	22.30	1.135	-	-	0.02	0.662	0.751
	LTE Band 4	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 5	DSI1	20175	1732.5	21.73	22.30	1.140	-	-	0.15	0.698	0.796
	LTE Band 4	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 5	DSI1	20175	1732.5	21.75	22.30	1.135	-	-	0.08	0.104	0.118
	LTE Band 4	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 5	DSI1	20175	1732.5	21.73	22.30	1.140	-	-	-0.14	0.103	0.117
	LTE Band 4	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	DSI1	20175	1732.5	21.75	22.30	1.135	-	-	0.07	0.775	0.880
09	LTE Band 4	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 5	DSI1	20175	1732.5	21.73	22.30	1.140	-	-	0.06	0.792	**0.903**
	LTE Band 4	20M	QPSK	100	0	-	Left Cheek	0mm	Ant 5	DSI1	20175	1732.5	21.71	22.30	1.146	-	-	-0.03	0.762	0.873
	LTE Band 4	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 5	DSI1	20175	1732.5	21.75	22.30	1.135	-	-	0.05	0.170	0.193
	LTE Band 4	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 5	DSI1	20175	1732.5	21.73	22.30	1.140	-	-	0.02	0.170	0.194
	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	DSI1	132322	1745	25.24	25.70	1.112	-	-	-0.04	0.130	0.145
	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	DSI1	132322	1745	25.18	25.70	1.127	-	-	0.15	0.127	0.143
	LTE Band 66	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 3	DSI1	132322	1745	25.24	25.70	1.112	-	-	0.08	0.071	0.079
	LTE Band 66	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 3	DSI1	132322	1745	25.18	25.70	1.127	-	-	-0.14	0.070	0.079
	LTE Band 66	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	DSI1	132322	1745	25.24	25.70	1.112	-	-	0.06	0.185	0.206
	LTE Band 66	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 3	DSI1	132322	1745	25.18	25.70	1.127	-	-	0.05	0.182	0.205
	LTE Band 66	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 3	DSI1	132322	1745	25.24	25.70	1.112	-	-	-0.03	0.059	0.066
	LTE Band 66	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 3	DSI1	132322	1745	25.18	25.70	1.127	-	-	0.05	0.046	0.052
	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 5	DSI1	132322	1745	21.30	21.90	1.148	-	-	0.04	0.615	0.706
	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 5	DSI1	132322	1745	21.26	21.90	1.159	-	-	-0.14	0.612	0.709
	LTE Band 66	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 5	DSI1	132322	1745	21.30	21.90	1.148	-	-	0.06	0.101	0.116
	LTE Band 66	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 5	DSI1	132322	1745	21.26	21.90	1.159	-	-	-0.04	0.103	0.119
	LTE Band 66	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	DSI1	132322	1745	21.30	21.90	1.148	-	-	-0.02	0.761	0.874
	LTE Band 66	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	DSI1	132072	1720	21.18	21.90	1.180	-	-	0.08	0.679	0.801
	LTE Band 66	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	DSI1	132572	1770	21.25	21.90	1.161	-	-	0.09	0.712	0.827
	LTE Band 66	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 5	DSI1	132322	1745	21.26	21.90	1.159	-	-	0.05	0.751	0.870
	LTE Band 66	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 5	DSI1	132072	1720	21.17	21.90	1.183	-	-	0.03	0.716	0.847
	LTE Band 66	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 5	DSI1	132572	1770	21.21	21.90	1.172	-	-	0.06	0.726	0.851
	LTE Band 66	20M	QPSK	100	0	-	Left Cheek	0mm	Ant 5	DSI1	132322	1745	21.18	21.90	1.180	-	-	0.07	0.715	0.844
	LTE Band 66	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 5	DSI1	132322	1745	21.30	21.90	1.148	-	-	0.03	0.160	0.184
	LTE Band 66	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 5	DSI1	132322	1745	21.26	21.90	1.159	-	-	0.05	0.159	0.184
	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI1	132322	1745	17.78	18.70	1.236	-	-	0.09	0.749	0.926
	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI1	132072	1720	17.75	18.70	1.245	-	-	0.02	0.761	0.947
	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI1	132572	1770	17.69	18.70	1.262	-	-	0.05	0.766	0.967
	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI1	132322	1745	17.72	18.70	1.253	-	-	0.06	0.733	0.919

	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI1	132072	1720	17.68	18.70	1.265	-	-	0.02	0.780	0.986
	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI1	132572	1770	17.67	18.70	1.268	-	-	-0.1	0.715	0.906
	LTE Band 66	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 4	DSI1	132322	1745	17.66	18.70	1.271	-	-	-0.16	0.706	0.897
	LTE Band 66	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI1	132322	1745	17.78	18.70	1.236	-	-	0.07	0.770	0.952
	LTE Band 66	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI1	132072	1720	17.75	18.70	1.245	-	-	0.03	0.785	0.977
	LTE Band 66	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI1	132572	1770	17.69	18.70	1.262	-	-	0.06	0.747	0.943
	LTE Band 66	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	DSI1	132322	1745	17.72	18.70	1.253	-	-	0.03	0.782	0.980
10	LTE Band 66	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	DSI1	132072	1720	17.68	18.70	1.265	-	-	-0.17	0.812	**1.027**
	LTE Band 66	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	DSI1	132572	1770	17.67	18.70	1.268	-	-	-0.06	0.760	0.963
	LTE Band 66	20M	QPSK	100	0	-	Right Tilted	0mm	Ant 4	DSI1	132322	1745	17.66	18.70	1.271	-	-	0.11	0.760	0.966
	LTE Band 66	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	DSI1	132322	1745	17.78	18.70	1.236	-	-	-0.03	0.439	0.543
	LTE Band 66	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 4	DSI1	132322	1745	17.72	18.70	1.253	-	-	0.04	0.436	0.546
	LTE Band 66	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 4	DSI1	132322	1745	17.78	18.70	1.236	-	-	0.02	0.554	0.685
	LTE Band 66	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 4	DSI1	132322	1745	17.72	18.70	1.253	-	-	-0.07	0.554	0.694
	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 6	DSI1	132322	1745	18.70	20.20	1.413	-	-	-0.11	0.420	0.593
	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 6	DSI1	132322	1745	18.67	20.20	1.422	-	-	0.07	0.464	0.660
	LTE Band 66	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 6	DSI1	132322	1745	18.70	20.20	1.413	-	-	-0.05	0.163	0.230
	LTE Band 66	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 6	DSI1	132322	1745	18.67	20.20	1.422	-	-	0.14	0.175	0.249
	LTE Band 66	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 6	DSI1	132322	1745	18.70	20.20	1.413	-	-	0.12	0.120	0.170
	LTE Band 66	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 6	DSI1	132322	1745	18.67	20.20	1.422	-	-	0.1	0.132	0.188
	LTE Band 66	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 6	DSI1	132322	1745	18.70	20.20	1.413	-	-	0.07	0.061	0.086
	LTE Band 66	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 6	DSI1	132322	1745	18.67	20.20	1.422	-	-	0.04	0.067	0.095
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 3	DSI1	349000	1745	25.28	25.70	1.102	-	-	0.01	0.173	0.191
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Right Cheek	0mm	Ant 3	DSI1	349000	1745	25.21	25.70	1.119	-	-	-0.12	0.179	0.200
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 3	DSI1	349000	1745	25.28	25.70	1.102	-	-	0.1	0.081	0.089
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Right Tilted	0mm	Ant 3	DSI1	349000	1745	25.21	25.70	1.119	-	-	-0.1	0.094	0.105
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 3	DSI1	349000	1745	25.28	25.70	1.102	-	-	0.07	0.219	0.241
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Left Cheek	0mm	Ant 3	DSI1	349000	1745	25.21	25.70	1.119	-	-	0.02	0.233	0.261
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 3	DSI1	349000	1745	25.28	25.70	1.102	-	-	0.01	0.083	0.091
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Left Tilted	0mm	Ant 3	DSI1	349000	1745	25.21	25.70	1.119	-	-	0.07	0.081	0.091
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 5	DSI1	349000	1745	21.05	21.50	1.109	-	-	0.02	0.618	0.685
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Right Cheek	0mm	Ant 5	DSI1	349000	1745	21.00	21.50	1.122	-	-	0.04	0.670	0.752
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 5	DSI1	349000	1745	21.05	21.50	1.109	-	-	0.07	0.115	0.128
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Right Tilted	0mm	Ant 5	DSI1	349000	1745	21.00	21.50	1.122	-	-	0.09	0.120	0.135
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 5	DSI1	349000	1745	21.05	21.50	1.109	-	-	0.06	0.810	0.898
11	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Left Cheek	0mm	Ant 5	DSI1	349000	1745	21.00	21.50	1.122	-	-	-0.07	0.816	**0.916**
	FR1 n66	40M	QPSK	216	0	DFT-SCS-15KHz	Left Cheek	0mm	Ant 5	DSI1	349000	1745	20.98	21.50	1.127	-	-	0.03	0.800	0.902
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 5	DSI1	349000	1745	21.05	21.50	1.109	-	-	0.08	0.176	0.195
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Left Tilted	0mm	Ant 5	DSI1	349000	1745	21.00	21.50	1.122	-	-	-0.12	0.180	0.202
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 4	DSI1	349000	1745	17.45	17.70	1.059	-	-	0.16	0.692	0.733
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Right Cheek	0mm	Ant 4	DSI1	349000	1745	17.43	17.70	1.064	-	-	0.02	0.705	0.750
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 4	DSI1	349000	1745	17.45	17.70	1.059	-	-	-0.03	0.735	0.779
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Right Tilted	0mm	Ant 4	DSI1	349000	1745	17.43	17.70	1.064	-	-	0.07	0.724	0.770
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 4	DSI1	349000	1745	17.45	17.70	1.059	-	-	-0.19	0.404	0.428
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Left Cheek	0mm	Ant 4	DSI1	349000	1745	17.43	17.70	1.064	-	-	0.07	0.395	0.420
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 4	DSI1	349000	1745	17.45	17.70	1.059	-	-	0.07	0.510	0.540
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Left Tilted	0mm	Ant 4	DSI1	349000	1745	17.43	17.70	1.064	-	-	0.08	0.493	0.525
	FR1 n66 Other PA	40M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 6	DSI1	349000	1745	16.75	17.50	1.189	-	-	0.06	0.264	0.314
	FR1 n66 Other PA	40M	QPSK	108	54	DFT-SCS-15KHz	Right Cheek	0mm	Ant 6	DSI1	349000	1745	16.73	17.50	1.194	-	-	-0.02	0.328	0.392
	FR1 n66 Other PA	40M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 6	DSI1	349000	1745	16.75	17.50	1.189	-	-	0.19	0.108	0.128
	FR1 n66 Other PA	40M	QPSK	108	54	DFT-SCS-15KHz	Right Tilted	0mm	Ant 6	DSI1	349000	1745	16.73	17.50	1.194	-	-	-0.09	0.148	0.177
	FR1 n66 Other PA	40M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 6	DSI1	349000	1745	16.75	17.50	1.189	-	-	-0.13	0.074	0.088
	FR1 n66 Other PA	40M	QPSK	108	54	DFT-SCS-15KHz	Left Cheek	0mm	Ant 6	DSI1	349000	1745	16.73	17.50	1.194	-	-	-0.13	0.100	0.119
	FR1 n66 Other PA	40M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 6	DSI1	349000	1745	16.75	17.50	1.189	-	-	-0.07	0.046	0.055
	FR1 n66 Other PA	40M	QPSK	108	54	DFT-SCS-15KHz	Left Tilted	0mm	Ant 6	DSI1	349000	1745	16.73	17.50	1.194	-	-	0.09	0.060	0.072
	FR1 n66 Main PA	40M	QPSK	108	54	DFT-SCS-15KHz	Right Cheek	0mm	Ant 6	DSI1	349000	1745	17.47	18.50	1.268	-	-	0.06	0.212	0.269

											1900MHz									
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Right Cheek	0mm	Ant 3	DSI1	661	1880	23.85	24.40	1.135	-	-	0.08	0.000	0.000
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Right Tilted	0mm	Ant 3	DSI1	661	1880	23.85	24.40	1.135	-	-	0.18	0.000	0.000
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Left Cheek	0mm	Ant 3	DSI1	661	1880	23.85	24.40	1.135	-	-	0.02	0.040	0.045
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Left Tilted	0mm	Ant 3	DSI1	661	1880	23.85	24.40	1.135	-	-	0.03	0.000	0.000
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Right Cheek	0mm	Ant 4	DSI1	661	1880	20.72	21.80	1.282	-	-	-0.14	0.488	0.626
12	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Right Tilted	0mm	Ant 4	DSI1	661	1880	20.72	21.80	1.282	-	-	-0.07	0.494	**0.633**
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Left Cheek	0mm	Ant 4	DSI1	661	1880	20.72	21.80	1.282	-	-	-0.17	0.235	0.301
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Left Tilted	0mm	Ant 4	DSI1	661	1880	20.72	21.80	1.282	-	-	-0.16	0.301	0.386
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 3	DSI1	9400	1880	24.44	25.30	1.219	-	-	-0.12	0.095	0.116
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 3	DSI1	9400	1880	24.44	25.30	1.219	-	-	-0.04	0.062	0.076
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 3	DSI1	9400	1880	24.44	25.30	1.219	-	-	-0.01	0.153	0.187
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 3	DSI1	9400	1880	24.44	25.30	1.219	-	-	0.06	0.051	0.062
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 4	DSI1	9400	1880	18.80	19.70	1.230	-	-	0.1	0.716	0.881
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 4	DSI1	9262	1852.4	18.68	19.70	1.265	-	-	0.05	0.730	0.923
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 4	DSI1	9538	1907.6	18.65	19.70	1.274	-	-	0.07	0.700	0.891
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 4	DSI1	9400	1880	18.80	19.70	1.230	-	-	0.15	0.773	0.951
13	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 4	DSI1	9262	1852.4	18.68	19.70	1.265	-	-	-0.04	0.821	**1.038**
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 4	DSI1	9538	1907.6	18.65	19.70	1.274	-	-	0.04	0.734	0.935
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 4	DSI1	9400	1880	18.80	19.70	1.230	-	-	0.15	0.353	0.434
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 4	DSI1	9400	1880	18.80	19.70	1.230	-	-	0.04	0.453	0.557
	LTE Band 2 Other PA	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 5	DSI1	18900	1880	21.13	21.70	1.140	-	-	0.01	0.644	0.734
	LTE Band 2 Other PA	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 5	DSI1	18900	1880	21.01	21.70	1.172	-	-	0.02	0.694	0.814
	LTE Band 2 Other PA	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 5	DSI1	18700	1860	20.54	21.70	1.306	-	-	-0.05	0.641	0.837
	LTE Band 2 Other PA	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 5	DSI1	19100	1900	20.67	21.70	1.268	-	-	-0.07	0.632	0.801
	LTE Band 2 Other PA	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 5	DSI1	18900	1880	21.08	21.70	1.153	-	-	-0.09	0.672	0.775
	LTE Band 2 Other PA	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 5	DSI1	18900	1880	21.13	21.70	1.140	-	-	0.1	0.125	0.143
	LTE Band 2 Other PA	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 5	DSI1	18900	1880	21.01	21.70	1.172	-	-	-0.08	0.129	0.151
	LTE Band 2 Other PA	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	DSI1	18900	1880	21.13	21.70	1.140	-	-	-0.02	0.738	0.842
	LTE Band 2 Other PA	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	DSI1	18700	1860	20.65	21.70	1.274	-	-	-0.03	0.672	0.856
	LTE Band 2 Other PA	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	DSI1	19100	1900	20.77	21.70	1.239	-	-	0.08	0.669	0.829
14	LTE Band 2 Other PA	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 5	DSI1	18900	1880	21.01	21.70	1.172	-	-	-0.01	0.751	**0.880**
	LTE Band 2 Other PA	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 5	DSI1	18700	1860	20.54	21.70	1.306	-	-	-0.01	0.667	0.871
	LTE Band 2 Other PA	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 5	DSI1	19100	1900	20.67	21.70	1.268	-	-	-0.05	0.658	0.834
	LTE Band 2 Other PA	20M	QPSK	100	0	-	Left Cheek	0mm	Ant 5	DSI1	18900	1880	21.08	21.70	1.153	-	-	0.06	0.655	0.756
	LTE Band 2 Other PA	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 5	DSI1	18900	1880	21.13	21.70	1.140	-	-	0.01	0.177	0.202
	LTE Band 2 Other PA	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 5	DSI1	18900	1880	21.01	21.70	1.172	-	-	0.17	0.182	0.213
	LTE Band 25	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	DSI1	26340	1880	25.21	25.70	1.119	-	-	0.01	0.083	0.093
	LTE Band 25	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	DSI1	26340	1880	25.08	25.70	1.153	-	-	0.02	0.087	0.100
	LTE Band 25	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 3	DSI1	26340	1880	25.21	25.70	1.119	-	-	0.1	0.047	0.053
	LTE Band 25	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 3	DSI1	26340	1880	25.08	25.70	1.153	-	-	-0.08	0.049	0.057
	LTE Band 25	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	DSI1	26340	1880	25.21	25.70	1.119	-	-	-0.02	0.121	0.135
	LTE Band 25	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 3	DSI1	26340	1880	25.08	25.70	1.153	-	-	-0.01	0.122	0.141
	LTE Band 25	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 3	DSI1	26340	1880	25.21	25.70	1.119	-	-	0.01	0.043	0.048
	LTE Band 25	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 3	DSI1	26340	1880	25.08	25.70	1.153	-	-	0.17	0.045	0.052
	LTE Band 25	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI1	26340	1880	18.50	19.40	1.230	-	-	0.06	0.737	0.907
	LTE Band 25	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI1	26140	1860	18.35	19.40	1.274	-	-	0.02	0.720	0.917
	LTE Band 25	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI1	26590	1905	18.46	19.40	1.242	-	-	0.07	0.715	0.888
	LTE Band 25	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI1	26340	1880	18.47	19.40	1.239	-	-	0.03	0.735	0.911
	LTE Band 25	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI1	26140	1860	18.43	19.40	1.250	-	-	0.01	0.730	0.913
	LTE Band 25	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI1	26590	1905	18.39	19.40	1.262	-	-	0.1	0.722	0.911
	LTE Band 25	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 4	DSI1	26340	1880	18.45	19.40	1.245	-	-	0.03	0.700	0.871
	LTE Band 25	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI1	26340	1880	18.50	19.40	1.230	-	-	-0.06	0.809	0.995
	LTE Band 25	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI1	26140	1860	18.35	19.40	1.274	-	-	-0.15	0.789	1.005
	LTE Band 25	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI1	26590	1905	18.46	19.40	1.242	-	-	-0.05	0.757	0.940
	LTE Band 25	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	DSI1	26340	1880	18.47	19.40	1.239	-	-	0.06	0.810	1.003

15	LTE Band 25	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	DSI1	26140	1860	18.43	19.40	1.250	-	-	-0.08	0.812	**1.015**
	LTE Band 25	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	DSI1	26590	1905	18.39	19.40	1.262	-	-	0.07	0.760	0.959
	LTE Band 25	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 4	DSI1	26340	1880	18.45	19.40	1.245	-	-	-0.01	0.801	0.997
	LTE Band 25	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	DSI1	26340	1880	18.50	19.40	1.230	-	-	-0.16	0.373	0.459
	LTE Band 25	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 4	DSI1	26340	1880	18.47	19.40	1.239	-	-	0.05	0.371	0.460
	LTE Band 25	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 4	DSI1	26340	1880	18.50	19.40	1.230	-	-	-0.16	0.474	0.583
	LTE Band 25	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 4	DSI1	26340	1880	18.47	19.40	1.239	-	-	0.17	0.463	0.574
2600MHz																				
	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	DSI1	21100	2535	25.17	25.70	1.130	-	-	0.07	0.235	0.266
	LTE Band 7	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	DSI1	21100	2535	25.08	25.70	1.153	-	-	0.08	0.239	0.276
	LTE Band 7 UL_CA	20M	QPSK	50	50	-	Right Cheek	0mm	Ant 3	DSI1	21100+21298	2535+2554.8	24.12	24.70	1.143	-	-	0.02	0.222	0.254
	LTE Band 7	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 3	DSI1	21100	2535	25.17	25.70	1.130	-	-	-0.08	0.072	0.081
	LTE Band 7	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 3	DSI1	21100	2535	25.08	25.70	1.153	-	-	0.05	0.075	0.087
	LTE Band 7	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	DSI1	21100	2535	25.17	25.70	1.130	-	-	-0.15	0.201	0.227
	LTE Band 7	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 3	DSI1	21100	2535	25.08	25.70	1.153	-	-	-0.16	0.206	0.238
	LTE Band 7	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 3	DSI1	21100	2535	25.17	25.70	1.130	-	-	-0.17	0.141	0.159
	LTE Band 7	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 3	DSI1	21100	2535	25.08	25.70	1.153	-	-	0.17	0.147	0.170
	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 5	DSI1	21100	2535	18.20	18.60	1.096	-	-	0.05	0.558	0.612
	LTE Band 7 UL_CA	20M	QPSK	1	99	-	Right Cheek	0mm	Ant 5	DSI1	21100+21298	2535+2554.8	18.04	18.60	1.138	-	-	0.01	0.528	0.601
	LTE Band 7	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 5	DSI1	21100	2535	18.16	18.60	1.107	-	-	0.16	0.550	0.609
	LTE Band 7	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 5	DSI1	21100	2535	18.20	18.60	1.096	-	-	0.03	0.052	0.057
	LTE Band 7	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 5	DSI1	21100	2535	18.16	18.60	1.107	-	-	-0.09	0.075	0.083
	LTE Band 7	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	DSI1	21100	2535	18.20	18.60	1.096	-	-	-0.15	0.339	0.372
	LTE Band 7	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 5	DSI1	21100	2535	18.16	18.60	1.107	-	-	0.02	0.339	0.375
	LTE Band 7	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 5	DSI1	21100	2535	18.20	18.60	1.096	-	-	0.08	0.089	0.098
	LTE Band 7	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 5	DSI1	21100	2535	18.16	18.60	1.107	-	-	0.11	0.092	0.102
	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI1	21100	2535	19.04	19.50	1.112	-	-	0.09	0.558	0.620
	LTE Band 7 UL_CA	20M	QPSK	1	99	-	Right Cheek	0mm	Ant 4	DSI1	21100+21298	2535+2554.8	18.99	19.50	1.125	-	-	-0.01	0.532	0.598
	LTE Band 7	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI1	21100	2535	18.99	19.50	1.125	-	-	0.04	0.544	0.612
	LTE Band 7	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI1	21100	2535	19.04	19.50	1.112	-	-	0.14	0.499	0.555
	LTE Band 7	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	DSI1	21100	2535	18.99	19.50	1.125	-	-	0.03	0.501	0.563
	LTE Band 7	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	DSI1	21100	2535	19.04	19.50	1.112	-	-	0.17	0.261	0.290
	LTE Band 7	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 4	DSI1	21100	2535	18.99	19.50	1.125	-	-	0.11	0.259	0.291
	LTE Band 7	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 4	DSI1	21100	2535	19.04	19.50	1.112	-	-	0.02	0.306	0.340
	LTE Band 7	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 4	DSI1	21100	2535	18.99	19.50	1.125	-	-	0.13	0.298	0.335
	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 6	DSI1	21100	2535	19.53	20.50	1.250	-	-	0.12	0.730	0.913
	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 6	DSI1	20850	2510	19.40	20.50	1.288	-	-	0.08	0.660	0.850
	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 6	DSI1	21350	2560	19.48	20.50	1.265	-	-	0.17	0.748	0.946
	LTE Band 7	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 6	DSI1	21100	2535	19.49	20.50	1.262	-	-	0.03	0.737	0.930
	LTE Band 7	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 6	DSI1	20850	2510	19.36	20.50	1.300	-	-	0.08	0.675	0.878
16	LTE Band 7	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 6	DSI1	21350	2560	19.34	20.50	1.306	-	-	0.11	0.758	**0.990**
	LTE Band 7 UL_CA	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 6	DSI1	21350+21152	2560+2540.2	19.24	20.50	1.337	-	-	0.01	0.731	0.977
	LTE Band 7	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 6	DSI1	21100	2535	19.46	20.50	1.271	-	-	0.03	0.736	0.935
	LTE Band 7	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 6	DSI1	21100	2535	19.53	20.50	1.250	-	-	0.12	0.439	0.549
	LTE Band 7	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 6	DSI1	21100	2535	19.49	20.50	1.262	-	-	-0.18	0.447	0.564
	LTE Band 7	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 6	DSI1	21100	2535	19.53	20.50	1.250	-	-	-0.14	0.232	0.290
	LTE Band 7	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 6	DSI1	21100	2535	19.49	20.50	1.262	-	-	0.14	0.228	0.288
	LTE Band 7	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 6	DSI1	21100	2535	19.53	20.50	1.250	-	-	0.02	0.173	0.216
	LTE Band 7	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 6	DSI1	21100	2535	19.49	20.50	1.262	-	-	0.03	0.177	0.223
	LTE Band 38	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 5	DSI1	38000	2595	21.21	21.70	1.119	62.9	1.006	0.17	0.718	0.809
	LTE Band 38	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 5	DSI1	37850	2580	21.12	21.70	1.143	62.9	1.006	0.03	0.716	0.823
	LTE Band 38	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 5	DSI1	38150	2610	21.17	21.70	1.130	62.9	1.006	0.08	0.683	0.776
	LTE Band 38	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 5	DSI1	38000	2595	21.19	21.70	1.125	62.9	1.006	0.11	0.715	0.809
	LTE Band 38	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 5	DSI1	37850	2580	21.07	21.70	1.156	62.9	1.006	0.03	0.721	0.839
	LTE Band 38 UL_CA	20M	QPSK	50	50	-	Right Cheek	0mm	Ant 5	DSI1	37850+38048	2580+2599.8	20.86	21.70	1.213	62.9	1.006	0.02	0.678	0.828
	LTE Band 38	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 5	DSI1	38150	2610	21.04	21.70	1.164	62.9	1.006	0.12	0.684	0.801

	LTE Band 38	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 5	DSI1	38000	2595	21.12	21.70	1.143	62.9	1.006	-0.18	0.699	0.804
	LTE Band 38	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 5	DSI1	38000	2595	21.21	21.70	1.119	62.9	1.006	-0.14	0.089	0.100
	LTE Band 38	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 5	DSI1	38000	2595	21.19	21.70	1.125	62.9	1.006	0.02	0.089	0.101
	LTE Band 38	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	DSI1	38000	2595	21.21	21.70	1.119	62.9	1.006	0.03	0.387	0.436
	LTE Band 38	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 5	DSI1	38000	2595	21.19	21.70	1.125	62.9	1.006	0.05	0.387	0.438
	LTE Band 38	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 5	DSI1	38000	2595	21.21	21.70	1.119	62.9	1.006	0.05	0.122	0.137
	LTE Band 38	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 5	DSI1	38000	2595	21.19	21.70	1.125	62.9	1.006	0.09	0.118	0.133
	LTE Band 38	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI1	38000	2595	20.95	21.20	1.059	62.9	1.006	0.02	0.894	0.953
	LTE Band 38	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI1	37850	2580	20.87	21.20	1.079	62.9	1.006	0.07	0.869	0.943
	LTE Band 38	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI1	38150	2610	20.76	21.20	1.107	62.9	1.006	-0.13	0.901	1.003
	LTE Band 38	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI1	38000	2595	20.83	21.20	1.089	62.9	1.006	0.03	0.901	0.987
	LTE Band 38	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI1	37850	2580	20.67	21.20	1.130	62.9	1.006	0.02	0.882	1.002
17	LTE Band 38	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI1	38150	2610	20.82	21.20	1.091	62.9	1.006	0.12	0.933	**1.024**
	LTE Band 38 UL_CA	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI1	38150+37952	2610+2590.2	20.17	21.20	1.268	62.9	1.006	0.1	0.800	1.020
	LTE Band 38	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 4	DSI1	38000	2595	20.80	21.20	1.096	62.9	1.006	0.11	0.888	0.980
	LTE Band 38	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI1	38000	2595	20.95	21.20	1.059	62.9	1.006	0.03	0.746	0.795
	LTE Band 38	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI1	37850	2580	20.87	21.20	1.079	62.9	1.006	0.12	0.753	0.817
	LTE Band 38	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI1	38150	2610	20.76	21.20	1.107	62.9	1.006	-0.18	0.759	0.845
	LTE Band 38	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	DSI1	38000	2595	20.83	21.20	1.089	62.9	1.006	-0.14	0.759	0.831
	LTE Band 38	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	DSI1	37850	2580	20.67	21.20	1.130	62.9	1.006	0.02	0.766	0.871
	LTE Band 38	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	DSI1	38150	2610	20.82	21.20	1.091	62.9	1.006	0.03	0.766	0.841
	LTE Band 38	20M	QPSK	100	0	-	Right Tilted	0mm	Ant 4	DSI1	38000	2595	20.80	21.20	1.096	62.9	1.006	0.05	0.753	0.831
	LTE Band 38	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	DSI1	38000	2595	20.95	21.20	1.059	62.9	1.006	0.02	0.445	0.474
	LTE Band 38	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 4	DSI1	38000	2595	20.83	21.20	1.089	62.9	1.006	0.07	0.452	0.495
	LTE Band 38	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 4	DSI1	38000	2595	20.95	21.20	1.059	62.9	1.006	0.08	0.404	0.431
	LTE Band 38	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 4	DSI1	38000	2595	20.83	21.20	1.089	62.9	1.006	0.05	0.418	0.458
	LTE Band 38	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 6	DSI1	38000	2595	20.64	21.70	1.276	62.9	1.006	-0.04	0.687	0.882
	LTE Band 38 UL_CA	20M	QPSK	1	99	-	Right Cheek	0mm	Ant 6	DSI1	37901+38099	2585.1+2604.9	20.57	21.70	1.297	62.9	1.006	-0.02	0.666	0.869
	LTE Band 38	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 6	DSI1	37850	2580	20.51	21.70	1.315	62.9	1.006	0.03	0.650	0.860
	LTE Band 38	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 6	DSI1	38150	2610	20.57	21.70	1.297	62.9	1.006	0.07	0.666	0.869
	LTE Band 38	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 6	DSI1	38000	2595	20.62	21.70	1.282	62.9	1.006	0.02	0.680	0.877
	LTE Band 38	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 6	DSI1	37850	2580	20.50	21.70	1.318	62.9	1.006	-0.03	0.661	0.877
	LTE Band 38	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 6	DSI1	38150	2610	20.58	21.70	1.294	62.9	1.006	0.04	0.670	0.872
	LTE Band 38	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 6	DSI1	38000	2595	20.57	21.70	1.297	62.9	1.006	0.01	0.659	0.860
	LTE Band 38	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 6	DSI1	38000	2595	20.64	21.70	1.276	62.9	1.006	0.07	0.436	0.560
	LTE Band 38	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 6	DSI1	38000	2595	20.62	21.70	1.282	62.9	1.006	-0.13	0.447	0.577
	LTE Band 38	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 6	DSI1	38000	2595	20.64	21.70	1.276	62.9	1.006	0.04	0.232	0.298
	LTE Band 38	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 6	DSI1	38000	2595	20.62	21.70	1.282	62.9	1.006	0.11	0.239	0.308
	LTE Band 38	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 6	DSI1	38000	2595	20.64	21.70	1.276	62.9	1.006	0.02	0.171	0.220
	LTE Band 38	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 6	DSI1	38000	2595	20.62	21.70	1.282	62.9	1.006	0.07	0.166	0.214
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	DSI1	40620	2593	25.10	25.70	1.148	62.9	1.006	0.01	0.123	0.142
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	DSI1	40620	2593	25.07	25.70	1.156	62.9	1.006	0.17	0.120	0.140
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 3	DSI1	40620	2593	25.10	25.70	1.148	62.9	1.006	0.09	0.047	0.054
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 3	DSI1	40620	2593	25.07	25.70	1.156	62.9	1.006	0.12	0.000	0.000
	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	DSI1	40620	2593	25.10	25.70	1.148	62.9	1.006	-0.13	0.102	0.118
	LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 3	DSI1	40620	2593	25.07	25.70	1.156	62.9	1.006	0.12	0.096	0.112
	LTE Band 41	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 3	DSI1	40620	2593	25.10	25.70	1.148	62.9	1.006	0.16	0.074	0.085
	LTE Band 41	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 3	DSI1	40620	2593	25.07	25.70	1.156	62.9	1.006	0.05	0.070	0.081
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 5	DSI1	40620	2593	20.23	20.70	1.114	62.9	1.006	-0.06	0.531	0.595
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 5	DSI1	40620	2593	20.20	20.70	1.122	62.9	1.006	-0.13	0.517	0.584
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 5	DSI1	40620	2593	20.23	20.70	1.114	62.9	1.006	-0.13	0.060	0.067
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 5	DSI1	40620	2593	20.20	20.70	1.122	62.9	1.006	0.04	0.066	0.074
	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	DSI1	40620	2593	20.23	20.70	1.114	62.9	1.006	0.11	0.295	0.331
	LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 5	DSI1	40620	2593	20.20	20.70	1.122	62.9	1.006	0.09	0.291	0.328
	LTE Band 41	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 5	DSI1	40620	2593	20.23	20.70	1.114	62.9	1.006	0.14	0.084	0.094
	LTE Band 41	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 5	DSI1	40620	2593	20.20	20.70	1.122	62.9	1.006	0.03	0.087	0.098

	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI1	40620	2593	21.20	21.70	1.122	62.9	1.006	-0.13	0.903	1.019
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI1	39750	2506	21.15	21.70	1.135	62.9	1.006	0.12	0.907	1.036
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI1	40185	2549.5	21.17	21.70	1.130	62.9	1.006	0.16	0.860	0.977
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI1	41055	2636.5	21.10	21.70	1.148	62.9	1.006	0.05	0.938	1.083
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI1	41490	2680	21.07	21.70	1.156	62.9	1.006	0.02	0.918	1.068
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI1	40620	2593	21.16	21.70	1.132	62.9	1.006	0.05	0.912	1.039
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI1	39750	2506	21.01	21.70	1.172	62.9	1.006	-0.06	0.857	1.011
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI1	40185	2549.5	21.09	21.70	1.151	62.9	1.006	0.02	0.866	1.003
18	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI1	41055	2636.5	21.07	21.70	1.156	62.9	1.006	0.04	0.939	**1.092**
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI1	41490	2680	21.08	21.70	1.153	62.9	1.006	0.06	0.915	1.062
	LTE Band 41	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 4	DSI1	40620	2593	21.10	21.70	1.148	62.9	1.006	-0.13	0.921	1.064
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI1	40620	2593	21.20	21.70	1.122	62.9	1.006	-0.19	0.733	0.827
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI1	39750	2506	21.15	21.70	1.135	62.9	1.006	0.06	0.810	0.925
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI1	40185	2549.5	21.17	21.70	1.130	62.9	1.006	0.05	0.765	0.869
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI1	41055	2636.5	21.10	21.70	1.148	62.9	1.006	-0.07	0.752	0.869
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI1	41490	2680	21.07	21.70	1.156	62.9	1.006	-0.11	0.704	0.819
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	DSI1	40620	2593	21.16	21.70	1.132	62.9	1.006	0.02	0.771	0.878
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	DSI1	39750	2506	21.01	21.70	1.172	62.9	1.006	-0.19	0.825	0.973
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	DSI1	40185	2549.5	21.09	21.70	1.151	62.9	1.006	0.05	0.769	0.890
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	DSI1	41055	2636.5	21.07	21.70	1.156	62.9	1.006	0.04	0.735	0.855
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	DSI1	41490	2680	21.08	21.70	1.153	62.9	1.006	0.07	0.684	0.794
	LTE Band 41	20M	QPSK	100	0	-	Right Tilted	0mm	Ant 4	DSI1	40620	2593	21.10	21.70	1.148	62.9	1.006	-0.16	0.744	0.859
	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	DSI1	40620	2593	21.20	21.70	1.122	62.9	1.006	-0.16	0.442	0.499
	LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 4	DSI1	40620	2593	21.16	21.70	1.132	62.9	1.006	0.15	0.435	0.496
	LTE Band 41	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 4	DSI1	40620	2593	21.20	21.70	1.122	62.9	1.006	0.02	0.410	0.463
	LTE Band 41	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 4	DSI1	40620	2593	21.16	21.70	1.132	62.9	1.006	0.08	0.397	0.452
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 6	DSI1	40620	2593	20.14	21.20	1.276	62.9	1.006	-0.07	0.616	0.791
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 6	DSI1	39750	2506	20.09	21.20	1.291	62.9	1.006	0.05	0.600	0.779
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 6	DSI1	40185	2549.5	20.07	21.20	1.297	62.9	1.006	-0.03	0.605	0.790
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 6	DSI1	41055	2636.5	20.01	21.20	1.315	62.9	1.006	0.04	0.588	0.778
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 6	DSI1	41490	2680	19.99	21.20	1.321	62.9	1.006	0.08	0.589	0.783
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 6	DSI1	40620	2593	20.11	21.20	1.285	62.9	1.006	0.05	0.601	0.777
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 6	DSI1	39750	2506	20.03	21.20	1.309	62.9	1.006	0.06	0.578	0.761
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 6	DSI1	40185	2549.5	20.07	21.20	1.297	62.9	1.006	-0.15	0.590	0.770
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 6	DSI1	41055	2636.5	19.98	21.20	1.324	62.9	1.006	0.16	0.588	0.783
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 6	DSI1	41490	2680	20.07	21.20	1.297	62.9	1.006	-0.13	0.590	0.770
	LTE Band 41	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 6	DSI1	40620	2593	20.10	21.20	1.288	62.9	1.006	0.02	0.592	0.767
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 6	DSI1	40620	2593	20.14	21.20	1.276	62.9	1.006	0.04	0.421	0.541
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 6	DSI1	40620	2593	20.11	21.20	1.285	62.9	1.006	0.07	0.416	0.538
	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 6	DSI1	40620	2593	20.14	21.20	1.276	62.9	1.006	-0.16	0.220	0.283
	LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 6	DSI1	40620	2593	20.11	21.20	1.285	62.9	1.006	-0.16	0.225	0.291
	LTE Band 41	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 6	DSI1	40620	2593	20.14	21.20	1.276	62.9	1.006	0.15	0.156	0.200
	LTE Band 41	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 6	DSI1	40620	2593	20.11	21.20	1.285	62.9	1.006	0.03	0.155	0.200
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 3	DSI1	507000	2535	25.20	25.70	1.122	-	-	-0.02	0.206	0.231
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Right Cheek	0mm	Ant 3	DSI1	507000	2535	25.16	25.70	1.132	-	-	0.06	0.194	0.220
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 3	DSI1	507000	2535	25.20	25.70	1.122	-	-	-0.15	0.067	0.075
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Right Tilted	0mm	Ant 3	DSI1	507000	2535	25.16	25.70	1.132	-	-	0.16	0.070	0.079
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 3	DSI1	507000	2535	25.20	25.70	1.122	-	-	-0.13	0.167	0.187
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Left Cheek	0mm	Ant 3	DSI1	507000	2535	25.16	25.70	1.132	-	-	-0.14	0.161	0.182
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 3	DSI1	507000	2535	25.20	25.70	1.122	-	-	0.02	0.118	0.132
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Left Tilted	0mm	Ant 3	DSI1	507000	2535	25.16	25.70	1.132	-	-	0.03	0.116	0.131
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 5	DSI1	507000	2535	17.40	17.70	1.072	-	-	-0.12	0.406	0.435
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Right Cheek	0mm	Ant 5	DSI1	507000	2535	17.32	17.70	1.091	-	-	0.03	0.413	0.451
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 5	DSI1	507000	2535	17.40	17.70	1.072	-	-	0.03	0.039	0.042
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Right Tilted	0mm	Ant 5	DSI1	507000	2535	17.32	17.70	1.091	-	-	-0.19	0.047	0.051
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 5	DSI1	507000	2535	17.40	17.70	1.072	-	-	0.05	0.242	0.259

	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Left Cheek	0mm	Ant 5	DSI1	507000	2535	17.32	17.70	1.091	-	-	-0.01	0.237	0.259
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 5	DSI1	507000	2535	17.40	17.70	1.072	-	-	0.08	0.069	0.074
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Left Tilted	0mm	Ant 5	DSI1	507000	2535	17.32	17.70	1.091	-	-	-0.1	0.066	0.072
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 4	DSI1	507000	2535	18.90	19.20	1.072	-	-	0.15	0.924	0.990
19	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Right Cheek	0mm	Ant 4	DSI1	507000	2535	18.88	19.20	1.076	-	-	-0.03	0.932	**1.003**
	FR1 n7	40M	QPSK	216	0	DFT-SCS-15KHz	Right Cheek	0mm	Ant 4	DSI1	507000	2535	18.86	19.20	1.081	-	-	-0.07	0.926	1.001
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 4	DSI1	507000	2535	18.90	19.20	1.072	-	-	0.15	0.847	0.908
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Right Tilted	0mm	Ant 4	DSI1	507000	2535	18.88	19.20	1.076	-	-	0.05	0.804	0.865
	FR1 n7	40M	QPSK	216	0	DFT-SCS-15KHz	Right Tilted	0mm	Ant 4	DSI1	507000	2535	18.86	19.20	1.081	-	-	0.04	0.798	0.863
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 4	DSI1	507000	2535	18.90	19.20	1.072	-	-	0.07	0.525	0.563
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Left Cheek	0mm	Ant 4	DSI1	507000	2535	18.88	19.20	1.076	-	-	-0.16	0.486	0.523
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 4	DSI1	507000	2535	18.90	19.20	1.072	-	-	-0.16	0.472	0.506
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Left Tilted	0mm	Ant 4	DSI1	507000	2535	18.88	19.20	1.076	-	-	0.15	0.457	0.492
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 6	DSI1	507000	2535	17.93	18.70	1.194	-	-	0.04	0.693	0.827
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Right Cheek	0mm	Ant 6	DSI1	507000	2535	17.90	18.70	1.202	-	-	0.02	0.735	0.884
	FR1 n7	40M	QPSK	216	0	DFT-SCS-15KHz	Right Cheek	0mm	Ant 6	DSI1	507000	2535	17.84	18.70	1.219	-	-	0.03	0.723	0.881
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 6	DSI1	507000	2535	17.93	18.70	1.194	-	-	0.15	0.403	0.481
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Right Tilted	0mm	Ant 6	DSI1	507000	2535	17.90	18.70	1.202	-	-	0.11	0.417	0.501
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 6	DSI1	507000	2535	17.93	18.70	1.194	-	-	0.07	0.208	0.248
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Left Cheek	0mm	Ant 6	DSI1	507000	2535	17.90	18.70	1.202	-	-	0.09	0.217	0.261
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 6	DSI1	507000	2535	17.93	18.70	1.194	-	-	0.02	0.163	0.195
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Left Tilted	0mm	Ant 6	DSI1	507000	2535	17.90	18.70	1.202	-	-	0.06	0.163	0.196
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 3	DSI1	518598	2592.99	25.30	25.70	1.096	-	-	0.08	0.175	0.192
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 3	DSI1	518598	2592.99	25.19	25.70	1.125	-	-	-0.03	0.192	0.216
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 3	DSI1	518598	2592.99	25.30	25.70	1.096	-	-	-0.16	0.062	0.068
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 3	DSI1	518598	2592.99	25.19	25.70	1.125	-	-	0.02	0.064	0.072
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 3	DSI1	518598	2592.99	25.30	25.70	1.096	-	-	-0.01	0.165	0.181
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 3	DSI1	518598	2592.99	25.19	25.70	1.125	-	-	-0.11	0.156	0.175
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 3	DSI1	518598	2592.99	25.30	25.70	1.096	-	-	0.02	0.109	0.120
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 3	DSI1	518598	2592.99	25.19	25.70	1.125	-	-	-0.13	0.118	0.133
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 5	DSI1	518598	2592.99	18.46	18.70	1.057	-	-	0.01	0.653	0.690
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 5	DSI1	518598	2592.99	18.38	18.70	1.076	-	-	-0.13	0.591	0.636
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 5	DSI1	518598	2592.99	18.46	18.70	1.057	-	-	-0.11	0.075	0.079
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 5	DSI1	518598	2592.99	18.38	18.70	1.076	-	-	0.11	0.075	0.081
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 5	DSI1	518598	2592.99	18.46	18.70	1.057	-	-	0.02	0.370	0.391
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 5	DSI1	518598	2592.99	18.38	18.70	1.076	-	-	0.01	0.310	0.334
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 5	DSI1	518598	2592.99	18.46	18.70	1.057	-	-	0.09	0.107	0.113
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 5	DSI1	518598	2592.99	18.38	18.70	1.076	-	-	0.08	0.090	0.097
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 4	DSI1	518598	2592.99	18.45	18.70	1.059	-	-	0.14	0.891	0.944
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 4	DSI1	518598	2592.99	18.40	18.70	1.072	-	-	0.17	0.940	1.007
	FR1 n41	100M	QPSK	270	0	DFT-SCS-30KHz	Right Cheek	0mm	Ant 4	DSI1	518598	2592.99	18.38	18.70	1.076	-	-	-0.07	0.926	0.997
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 4	DSI1	518598	2592.99	18.45	18.70	1.059	-	-	0.02	0.773	0.819
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 4	DSI1	518598	2592.99	18.40	18.70	1.072	-	-	0.09	0.724	0.776
	FR1 n41	100M	QPSK	270	0	DFT-SCS-30KHz	Right Tilted	0mm	Ant 4	DSI1	518598	2592.99	18.38	18.70	1.076	-	-	0.08	0.759	0.817
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 4	DSI1	518598	2592.99	18.45	18.70	1.059	-	-	0.04	0.458	0.485
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 4	DSI1	518598	2592.99	18.40	18.70	1.072	-	-	0.02	0.471	0.505
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 4	DSI1	518598	2592.99	18.45	18.70	1.059	-	-	0.14	0.443	0.469
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 4	DSI1	518598	2592.99	18.40	18.70	1.072	-	-	0.02	0.386	0.414
20	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 6	DSI1	518598	2592.99	18.32	19.70	1.374	-	-	0.06	0.738	**1.014**
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 6	DSI1	518598	2592.99	18.26	19.70	1.393	-	-	0.03	0.699	0.974
	FR1 n41	100M	QPSK	270	0	DFT-SCS-30KHz	Right Cheek	0mm	Ant 6	DSI1	518598	2592.99	18.25	19.70	1.396	-	-	0.03	0.711	0.993
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 6	DSI1	518598	2592.99	18.32	19.70	1.374	-	-	0.13	0.465	0.639
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 6	DSI1	518598	2592.99	18.26	19.70	1.393	-	-	-0.17	0.425	0.592
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 6	DSI1	518598	2592.99	18.32	19.70	1.374	-	-	-0.05	0.230	0.316
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 6	DSI1	518598	2592.99	18.26	19.70	1.393	-	-	-0.11	0.231	0.322
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 6	DSI1	518598	2592.99	18.32	19.70	1.374	-	-	0.09	0.160	0.220

	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 6	DSI1	518598	2592.99	18.26	19.70	1.393	-	-	-0.1	0.160	0.223
	3500MHz																			
	LTE Band 42	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI1	42590	3500	21.56	22.50	1.242	62.9	1.006	0.06	0.634	0.792
	LTE Band 42 UL_CA	20M	QPSK	1	99	-	Right Cheek	0mm	Ant 1	DSI1	42590+42788	3500+3519.8	21.53	22.50	1.250	62.9	1.006	0.01	0.625	0.786
	LTE Band 42	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI1	42190	3460	21.47	22.50	1.268	62.9	1.006	-0.12	0.588	0.750
	LTE Band 42	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI1	42990	3540	21.43	22.50	1.279	62.9	1.006	0.01	0.610	0.785
	LTE Band 42	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 1	DSI1	42590	3500	21.53	22.50	1.250	62.9	1.006	0.15	0.627	0.789
	LTE Band 42	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 1	DSI1	42190	3460	21.47	22.50	1.268	62.9	1.006	0.02	0.600	0.765
	LTE Band 42	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 1	DSI1	42990	3540	21.39	22.50	1.291	62.9	1.006	0.05	0.601	0.781
	LTE Band 42	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 1	DSI1	42590	3500	21.46	22.50	1.271	62.9	1.006	-0.08	0.619	0.791
	LTE Band 42	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	DSI1	42590	3500	21.56	22.50	1.242	62.9	1.006	0.03	0.201	0.251
	LTE Band 42	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 1	DSI1	42590	3500	21.53	22.50	1.250	62.9	1.006	-0.09	0.202	0.254
	LTE Band 42	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	DSI1	42590	3500	21.56	22.50	1.242	62.9	1.006	0.02	0.234	0.292
	LTE Band 42	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 1	DSI1	42590	3500	21.53	22.50	1.250	62.9	1.006	0.08	0.238	0.299
	LTE Band 42	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	DSI1	42590	3500	21.56	22.50	1.242	62.9	1.006	0.02	0.089	0.111
	LTE Band 42	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 1	DSI1	42590	3500	21.53	22.50	1.250	62.9	1.006	0.08	0.082	0.103
	LTE Band 42	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	DSI1	42590	3500	21.78	22.80	1.265	62.9	1.006	0.09	0.055	0.070
	LTE Band 42 UL_CA	20M	QPSK	1	99	-	Right Cheek	0mm	Ant 3	DSI1	42590+42788	3500+3519.8	21.74	22.80	1.276	62.9	1.006	0.02	0.042	0.054
	LTE Band 42	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	DSI1	42590	3500	21.73	22.80	1.279	62.9	1.006	0.14	0.000	0.000
	LTE Band 42	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 3	DSI1	42590	3500	21.78	22.80	1.265	62.9	1.006	0.05	0.032	0.041
	LTE Band 42	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 3	DSI1	42590	3500	21.73	22.80	1.279	62.9	1.006	0.08	0.052	0.067
	LTE Band 42	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	DSI1	42590	3500	21.78	22.80	1.265	62.9	1.006	0.08	0.025	0.032
	LTE Band 42	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 3	DSI1	42590	3500	21.73	22.80	1.279	62.9	1.006	0.05	0.000	0.000
	LTE Band 42	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 3	DSI1	42590	3500	21.78	22.80	1.265	62.9	1.006	0.01	0.031	0.039
	LTE Band 42	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 3	DSI1	42590	3500	21.73	22.80	1.279	62.9	1.006	-0.05	0.031	0.040
	LTE Band 42	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 10	DSI1	42590	3500	16.82	17.20	1.091	62.9	1.006	0.03	0.563	0.618
	LTE Band 42	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 10	DSI1	42190	3460	16.74	17.20	1.112	62.9	1.006	0.02	0.550	0.615
	LTE Band 42	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 10	DSI1	42990	3540	16.60	17.20	1.148	62.9	1.006	0.05	0.544	0.628
	LTE Band 42	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 10	DSI1	42590	3500	16.80	17.20	1.096	62.9	1.006	-0.19	0.574	0.633
	LTE Band 42	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 10	DSI1	42190	3460	16.54	17.20	1.164	62.9	1.006	0.06	0.562	0.658
	LTE Band 42	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 10	DSI1	42990	3540	16.54	17.20	1.164	62.9	1.006	-0.03	0.555	0.650
	LTE Band 42	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 10	DSI1	42590	3500	16.73	17.20	1.114	62.9	1.006	0.07	0.570	0.639
	LTE Band 42	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 10	DSI1	42590	3500	16.82	17.20	1.091	62.9	1.006	-0.11	0.700	0.769
	LTE Band 42	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 10	DSI1	42190	3460	16.74	17.20	1.112	62.9	1.006	0.01	0.690	0.772
	LTE Band 42	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 10	DSI1	42990	3540	16.60	17.20	1.148	62.9	1.006	0.02	0.688	0.795
	LTE Band 42	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 10	DSI1	42590	3500	16.80	17.20	1.096	62.9	1.006	0.06	0.733	0.809
	LTE Band 42	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 10	DSI1	42190	3460	16.54	17.20	1.164	62.9	1.006	0.06	0.705	0.826
21	LTE Band 42	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 10	DSI1	42990	3540	16.54	17.20	1.164	62.9	1.006	-0.11	0.767	**0.898**
	LTE Band 42 UL_CA	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 10	DSI1	42990+42792	3540+3520.2	16.52	17.20	1.169	62.9	1.006	-0.02	0.752	0.885
	LTE Band 42	20M	QPSK	100	0	-	Right Tilted	0mm	Ant 10	DSI1	42590	3500	16.73	17.20	1.114	62.9	1.006	0.07	0.645	0.723
	LTE Band 42	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 10	DSI1	42590	3500	16.82	17.20	1.091	62.9	1.006	0.04	0.484	0.531
	LTE Band 42	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 10	DSI1	42590	3500	16.80	17.20	1.096	62.9	1.006	0.03	0.509	0.561
	LTE Band 42	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 10	DSI1	42590	3500	16.82	17.20	1.091	62.9	1.006	-0.04	0.554	0.608
	LTE Band 42	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 10	DSI1	42590	3500	16.80	17.20	1.096	62.9	1.006	-0.14	0.565	0.623
	LTE Band 42	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 13	DSI1	42590	3500	23.06	24.40	1.361	62.9	1.006	-0.02	0.184	0.252
	LTE Band 42	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 13	DSI1	42590	3500	23.02	24.40	1.374	62.9	1.006	-0.11	0.188	0.260
	LTE Band 42	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 13	DSI1	42590	3500	23.06	24.40	1.361	62.9	1.006	0.03	0.216	0.296
	LTE Band 42 UL_CA	20M	QPSK	1	99	-	Right Tilted	0mm	Ant 13	DSI1	42590+42788	3500+3519.8	22.78	24.40	1.452	62.9	1.006	0.03	0.200	0.292
	LTE Band 42	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 13	DSI1	42590	3500	23.02	24.40	1.374	62.9	1.006	-0.09	0.210	0.290
	LTE Band 42	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 13	DSI1	42590	3500	23.06	24.40	1.361	62.9	1.006	-0.05	0.141	0.193
	LTE Band 42	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 13	DSI1	42590	3500	23.02	24.40	1.374	62.9	1.006	-0.07	0.144	0.199
	LTE Band 42	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 13	DSI1	42590	3500	23.06	24.40	1.361	62.9	1.006	0.04	0.178	0.244
	LTE Band 42	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 13	DSI1	42590	3500	23.02	24.40	1.374	62.9	1.006	0.04	0.166	0.229
	LTE Band 48	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI1	55830	3609	18.97	20.00	1.268	62.9	1.006	-0.01	0.457	0.583
	LTE Band 48	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 1	DSI1	55830	3609	18.85	20.00	1.303	62.9	1.006	-0.07	0.442	0.579
	LTE Band 48	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	DSI1	55830	3609	18.97	20.00	1.268	62.9	1.006	0.12	0.168	0.214

	LTE Band 48	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 1	DSI1	55830	3609	18.85	20.00	1.303	62.9	1.006	0.04	0.168	0.220
	LTE Band 48	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	DSI1	55830	3609	18.97	20.00	1.268	62.9	1.006	0.05	0.153	0.195
	LTE Band 48	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 1	DSI1	55830	3609	18.85	20.00	1.303	62.9	1.006	-0.08	0.155	0.203
	LTE Band 48	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	DSI1	55830	3609	18.97	20.00	1.268	62.9	1.006	0.17	0.070	0.089
	LTE Band 48	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 1	DSI1	55830	3609	18.85	20.00	1.303	62.9	1.006	-0.15	0.068	0.089
	LTE Band 48	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	DSI1	55830	3609	21.86	22.90	1.271	62.9	1.006	0.13	0.058	0.074
	LTE Band 48	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	DSI1	55830	3609	21.80	22.90	1.288	62.9	1.006	0.15	0.062	0.080
	LTE Band 48	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 3	DSI1	55830	3609	21.86	22.90	1.271	62.9	1.006	0.09	0.083	0.106
	LTE Band 48	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 3	DSI1	55830	3609	21.80	22.90	1.288	62.9	1.006	0.1	0.076	0.098
	LTE Band 48	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	DSI1	55830	3609	21.86	22.90	1.271	62.9	1.006	0.08	0.048	0.061
	LTE Band 48	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 3	DSI1	55830	3609	21.80	22.90	1.288	62.9	1.006	0.02	0.050	0.065
	LTE Band 48	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 3	DSI1	55830	3609	21.86	22.90	1.271	62.9	1.006	0.03	0.071	0.091
	LTE Band 48	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 3	DSI1	55830	3609	21.80	22.90	1.288	62.9	1.006	0.03	0.075	0.097
	LTE Band 48	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 10	DSI1	55830	3609	14.82	15.10	1.067	62.9	1.006	0.14	0.609	0.653
	LTE Band 48	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 10	DSI1	55340	3560	14.60	15.10	1.122	62.9	1.006	0.02	0.582	0.657
	LTE Band 48	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 10	DSI1	56150	3641	14.74	15.10	1.086	62.9	1.006	0.07	0.600	0.656
	LTE Band 48	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 10	DSI1	56640	3690	14.53	15.10	1.140	62.9	1.006	0.03	0.577	0.662
	LTE Band 48	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 10	DSI1	55830	3609	14.70	15.10	1.096	62.9	1.006	-0.17	0.566	0.624
	LTE Band 48	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 10	DSI1	55340	3560	14.38	15.10	1.180	62.9	1.006	0.01	0.512	0.608
	LTE Band 48	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 10	DSI1	56150	3641	14.66	15.10	1.107	62.9	1.006	-0.02	0.559	0.622
	LTE Band 48	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 10	DSI1	56640	3690	14.47	15.10	1.156	62.9	1.006	0.05	0.522	0.607
	LTE Band 48	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 10	DSI1	55830	3609	14.65	15.10	1.109	62.9	1.006	0.07	0.555	0.619
	LTE Band 48	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 10	DSI1	55830	3609	14.82	15.10	1.067	62.9	1.006	-0.03	0.674	0.723
	LTE Band 48	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 10	DSI1	55340	3560	14.60	15.10	1.122	62.9	1.006	0.01	0.654	0.738
	LTE Band 48	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 10	DSI1	56150	3641	14.74	15.10	1.086	62.9	1.006	0.03	0.659	0.720
22	LTE Band 48	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 10	DSI1	56640	3690	14.53	15.10	1.140	62.9	1.006	-0.14	0.682	**0.782**
	LTE Band 48	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 10	DSI1	55830	3609	14.70	15.10	1.096	62.9	1.006	0.02	0.671	0.740
	LTE Band 48	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 10	DSI1	55340	3560	14.38	15.10	1.180	62.9	1.006	0.01	0.622	0.739
	LTE Band 48	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 10	DSI1	56150	3641	14.66	15.10	1.107	62.9	1.006	0.01	0.672	0.748
	LTE Band 48	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 10	DSI1	56640	3690	14.47	15.10	1.156	62.9	1.006	0.08	0.633	0.736
	LTE Band 48	20M	QPSK	100	0	-	Right Tilted	0mm	Ant 10	DSI1	55830	3609	14.65	15.10	1.109	62.9	1.006	0.07	0.666	0.743
	LTE Band 48	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 10	DSI1	55830	3609	14.82	15.10	1.067	62.9	1.006	-0.1	0.488	0.524
	LTE Band 48	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 10	DSI1	55830	3609	14.70	15.10	1.096	62.9	1.006	-0.04	0.496	0.547
	LTE Band 48	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 10	DSI1	55830	3609	14.82	15.10	1.067	62.9	1.006	-0.17	0.609	0.653
	LTE Band 48	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 10	DSI1	55340	3560	14.60	15.10	1.122	62.9	1.006	0.06	0.574	0.648
	LTE Band 48	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 10	DSI1	56150	3641	14.74	15.10	1.086	62.9	1.006	0.05	0.577	0.631
	LTE Band 48	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 10	DSI1	56640	3690	14.53	15.10	1.140	62.9	1.006	0.07	0.563	0.646
	LTE Band 48	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 10	DSI1	55830	3609	14.70	15.10	1.096	62.9	1.006	-0.05	0.608	0.671
	LTE Band 48	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 10	DSI1	55340	3560	14.38	15.10	1.180	62.9	1.006	-0.03	0.563	0.669
	LTE Band 48	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 10	DSI1	56150	3641	14.66	15.10	1.107	62.9	1.006	-0.09	0.575	0.640
	LTE Band 48	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 10	DSI1	56640	3690	14.47	15.10	1.156	62.9	1.006	-0.08	0.571	0.664
	LTE Band 48	20M	QPSK	100	0	-	Left Tilted	0mm	Ant 10	DSI1	55830	3609	14.65	15.10	1.109	62.9	1.006	-0.04	0.581	0.648
	LTE Band 48	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 13	DSI1	55830	3609	23.26	24.70	1.393	62.9	1.006	-0.07	0.278	0.390
	LTE Band 48	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 13	DSI1	55830	3609	23.24	24.70	1.400	62.9	1.006	0.08	0.290	0.408
	LTE Band 48	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 13	DSI1	55830	3609	23.26	24.70	1.393	62.9	1.006	0.16	0.294	0.412
	LTE Band 48	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 13	DSI1	55830	3609	23.24	24.70	1.400	62.9	1.006	0.04	0.299	0.421
	LTE Band 48	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 13	DSI1	55830	3609	23.26	24.70	1.393	62.9	1.006	0.05	0.222	0.311
	LTE Band 48	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 13	DSI1	55830	3609	23.24	24.70	1.400	62.9	1.006	0.04	0.227	0.320
	LTE Band 48	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 13	DSI1	55830	3609	23.26	24.70	1.393	62.9	1.006	-0.11	0.250	0.350
	LTE Band 48	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 13	DSI1	55830	3609	23.24	24.70	1.400	62.9	1.006	-0.18	0.253	0.356
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 1	DSI1	656000	3840	19.59	21.00	1.384	-	-	0.08	0.647	0.895
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 1	DSI1	656000	3840	19.43	21.00	1.435	-	-	0.06	0.675	0.969
	FR1 n77 PC3	100M	QPSK	270	0	DFT-SCS-30KHz	Right Cheek	0mm	Ant 1	DSI1	656000	3840	19.41	21.00	1.442	-	-	0.09	0.662	0.955
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 1	DSI1	656000	3840	19.59	21.00	1.384	-	-	0.05	0.202	0.279
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 1	DSI1	656000	3840	19.43	21.00	1.435	-	-	0.13	0.225	0.323
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 1	DSI1	656000	3840	19.59	21.00	1.384	-	-	0.05	0.325	0.450

	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 1	DSI1	656000	3840	19.43	21.00	1.435	-	-	-0.16	0.308	0.442
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 1	DSI1	656000	3840	19.59	21.00	1.384	-	-	-0.01	0.087	0.120
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 1	DSI1	656000	3840	19.43	21.00	1.435	-	-	-0.11	0.093	0.134
	FR1 n77 PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 1	DSI1	656000	3840	22.43	24.00	1.435	50	1.000	0.03	0.599	0.860
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 1	DSI1	633334	3500.01	20.20	21.00	1.202	-	-	0.04	0.755	0.908
23	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 1	DSI1	633334	3500.01	20.15	21.00	1.216	-	-	0.01	0.811	**0.986**
	FR1 n77 PC3	100M	QPSK	270	0	DFT-SCS-30KHz	Right Cheek	0mm	Ant 1	DSI1	633334	3500.01	20.10	21.00	1.230	-	-	0.09	0.783	0.963
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 1	DSI1	633334	3500.01	20.20	21.00	1.202	-	-	-0.16	0.184	0.221
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 1	DSI1	633334	3500.01	20.15	21.00	1.216	-	-	0.01	0.207	0.252
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 1	DSI1	633334	3500.01	20.20	21.00	1.202	-	-	0.04	0.400	0.481
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 1	DSI1	633334	3500.01	20.15	21.00	1.216	-	-	0.04	0.381	0.463
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 1	DSI1	633334	3500.01	20.20	21.00	1.202	-	-	0.01	0.085	0.102
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 1	DSI1	633334	3500.01	20.15	21.00	1.216	-	-	0.06	0.081	0.099
	FR1 n77 PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 1	DSI1	633334	3500.01	23.12	24.00	1.225	50	1.000	0.03	0.801	0.981
	FR1 n77 PC3 Other PA	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 3	DSI1	656000	3840	24.14	25.70	1.432	-	-	-0.14	0.178	0.255
	FR1 n77 PC3 Other PA	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 3	DSI1	656000	3840	24.10	25.70	1.445	-	-	0.15	0.199	0.288
	FR1 n77 PC3 Other PA	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 3	DSI1	656000	3840	24.14	25.70	1.432	-	-	-0.06	0.181	0.259
	FR1 n77 PC3 Other PA	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 3	DSI1	656000	3840	24.10	25.70	1.445	-	-	0.17	0.158	0.228
	FR1 n77 PC3 Other PA	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 3	DSI1	656000	3840	24.14	25.70	1.432	-	-	0.02	0.117	0.168
	FR1 n77 PC3 Other PA	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 3	DSI1	656000	3840	24.10	25.70	1.445	-	-	-0.07	0.121	0.175
	FR1 n77 PC3 Other PA	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 3	DSI1	656000	3840	24.14	25.70	1.432	-	-	-0.01	0.187	0.268
	FR1 n77 PC3 Other PA	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 3	DSI1	656000	3840	24.10	25.70	1.445	-	-	-0.16	0.192	0.278
	FR1 n77 PC2 Other PA	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 3	DSI1	656000	3840	24.25	25.90	1.462	50	1.000	-0.07	0.112	0.164
	FR1 n77 PC3 Main PA	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 3	DSI1	656000	3840	25.25	25.70	1.109	-	-	-0.07	0.187	0.207
	FR1 n77 PC3 Other PA	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 3	DSI1	633334	3500.01	24.10	25.70	1.445	-	-	0.05	0.063	0.091
	FR1 n77 PC3 Other PA	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 3	DSI1	633334	3500.01	24.06	25.70	1.459	-	-	-0.05	0.074	0.108
	FR1 n77 PC3 Other PA	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 3	DSI1	633334	3500.01	24.10	25.70	1.445	-	-	0.06	0.059	0.085
	FR1 n77 PC3 Other PA	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 3	DSI1	633334	3500.01	24.06	25.70	1.459	-	-	0.02	0.067	0.098
	FR1 n77 PC3 Other PA	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 3	DSI1	633334	3500.01	24.10	25.70	1.445	-	-	0.04	0.048	0.069
	FR1 n77 PC3 Other PA	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 3	DSI1	633334	3500.01	24.06	25.70	1.459	-	-	0.12	0.054	0.079
	FR1 n77 PC3 Other PA	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 3	DSI1	633334	3500.01	24.10	25.70	1.445	-	-	0.01	0.086	0.124
	FR1 n77 PC3 Other PA	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 3	DSI1	633334	3500.01	24.06	25.70	1.459	-	-	-0.07	0.129	0.188
	FR1 n77 PC2 Other PA	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 3	DSI1	633334	3500.01	24.20	25.90	1.479	50	1.000	-0.14	0.094	0.139
	FR1 n77 PC3 Main PA	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 3	DSI1	633334	3500.01	25.23	25.70	1.114	-	-	-0.14	0.113	0.126
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 10	DSI1	656000	3840	15.34	15.70	1.086	-	-	0.01	0.556	0.604
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 10	DSI1	656000	3840	15.30	15.70	1.096	-	-	0.08	0.390	0.428
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 10	DSI1	656000	3840	15.34	15.70	1.086	-	-	0.13	0.613	0.666
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 10	DSI1	656000	3840	15.30	15.70	1.096	-	-	0.12	0.438	0.480
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 10	DSI1	656000	3840	15.34	15.70	1.086	-	-	0.06	0.641	0.696
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 10	DSI1	656000	3840	15.30	15.70	1.096	-	-	0.05	0.520	0.570
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 10	DSI1	656000	3840	15.34	15.70	1.086	-	-	-0.04	0.651	0.707
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 10	DSI1	656000	3840	15.30	15.70	1.096	-	-	-0.16	0.494	0.542
	FR1 n77 PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 10	DSI1	656000	3840	18.32	18.70	1.091	50	1.000	0.03	0.587	0.641
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 10	DSI1	633334	3500.01	15.55	15.70	1.035	-	-	0.15	0.261	0.270
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 10	DSI1	633334	3500.01	15.52	15.70	1.042	-	-	0.05	0.293	0.305
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 10	DSI1	633334	3500.01	15.55	15.70	1.035	-	-	0.07	0.283	0.293
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 10	DSI1	633334	3500.01	15.52	15.70	1.042	-	-	-0.05	0.327	0.341
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 10	DSI1	633334	3500.01	15.55	15.70	1.035	-	-	-0.13	0.243	0.252
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 10	DSI1	633334	3500.01	15.52	15.70	1.042	-	-	0.04	0.283	0.295
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 10	DSI1	633334	3500.01	15.55	15.70	1.035	-	-	0.08	0.270	0.279
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 10	DSI1	633334	3500.01	15.52	15.70	1.042	-	-	0.02	0.320	0.334
	FR1 n77 PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 10	DSI1	633334	3500.01	18.43	18.70	1.064	50	1.000	0.01	0.410	0.436
	FR1 n77 PC3 Other PA	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 13	DSI1	656000	3840	21.26	22.70	1.393	-	-	0.08	0.375	0.522
	FR1 n77 PC3 Other PA	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 13	DSI1	656000	3840	21.25	22.70	1.396	-	-	-0.11	0.291	0.406
	FR1 n77 PC3 Other PA	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 13	DSI1	656000	3840	21.26	22.70	1.393	-	-	0.02	0.436	0.607
	FR1 n77 PC3 Other PA	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 13	DSI1	656000	3840	21.25	22.70	1.396	-	-	0.02	0.344	0.480

	FR1 n77 PC3 Other PA	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 13	DSI1	656000	3840	21.26	22.70	1.393	-	-	-0.12	0.377	0.525
	FR1 n77 PC3 Other PA	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 13	DSI1	656000	3840	21.25	22.70	1.396	-	-	0.17	0.274	0.383
	FR1 n77 PC3 Other PA	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 13	DSI1	656000	3840	21.26	22.70	1.393	-	-	-0.1	0.333	0.464
	FR1 n77 PC3 Other PA	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 13	DSI1	656000	3840	21.25	22.70	1.396	-	-	0.06	0.345	0.482
	FR1 n77 PC2 Other PA	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 13	DSI1	656000	3840	24.25	25.70	1.396	50	1.000	0.02	0.465	0.649
	FR1 n77 PC3 Main PA	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 13	DSI1	656000	3840	22.36	22.70	1.081	-	-	-0.07	0.385	0.416
	FR1 n77 PC3 Other PA	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 13	DSI1	633334	3500.01	21.35	22.70	1.365	-	-	0.03	0.170	0.232
	FR1 n77 PC3 Other PA	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 13	DSI1	633334	3500.01	21.30	22.70	1.380	-	-	0.07	0.235	0.324
	FR1 n77 PC3 Other PA	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 13	DSI1	633334	3500.01	21.35	22.70	1.365	-	-	0.01	0.211	0.288
	FR1 n77 PC3 Other PA	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 13	DSI1	633334	3500.01	21.30	22.70	1.380	-	-	0.07	0.265	0.366
	FR1 n77 PC3 Other PA	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 13	DSI1	633334	3500.01	21.35	22.70	1.365	-	-	0.02	0.110	0.150
	FR1 n77 PC3 Other PA	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 13	DSI1	633334	3500.01	21.30	22.70	1.380	-	-	0.05	0.170	0.235
	FR1 n77 PC3 Other PA	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 13	DSI1	633334	3500.01	21.35	22.70	1.365	-	-	0.03	0.140	0.191
	FR1 n77 PC3 Other PA	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 13	DSI1	633334	3500.01	21.30	22.70	1.380	-	-	0.01	0.199	0.275
	FR1 n77 PC2 Other PA	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 13	DSI1	633334	3500.01	24.18	25.70	1.419	50	1.000	0.03	0.257	0.365
	FR1 n77 PC3 Main PA	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 13	DSI1	633334	3500.01	22.30	22.70	1.096	-	-	-0.11	0.256	0.281
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 1	DSI1	650000	3750	19.50	21.00	1.413	-	-	0.01	0.523	0.739
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 1	DSI1	650000	3750	19.40	21.00	1.445	-	-	0.02	0.485	0.701
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 1	DSI1	650000	3750	19.50	21.00	1.413	-	-	-0.19	0.249	0.352
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 1	DSI1	650000	3750	19.40	21.00	1.445	-	-	0.06	0.199	0.288
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 1	DSI1	650000	3750	19.50	21.00	1.413	-	-	0.1	0.283	0.400
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 1	DSI1	650000	3750	19.40	21.00	1.445	-	-	-0.1	0.243	0.351
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 1	DSI1	650000	3750	19.50	21.00	1.413	-	-	-0.11	0.091	0.129
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 1	DSI1	650000	3750	19.40	21.00	1.445	-	-	-0.01	0.080	0.116
	FR1 n78 PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 1	DSI1	650000	3750	22.52	24.00	1.406	50	1.000	0.01	0.480	0.675
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 1	DSI1	633334	3500.01	20.12	21.00	1.225	-	-	0.09	0.595	0.729
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 1	DSI1	633334	3500.01	20.08	21.00	1.236	-	-	-0.15	0.588	0.727
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 1	DSI1	633334	3500.01	20.12	21.00	1.225	-	-	0.09	0.183	0.224
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 1	DSI1	633334	3500.01	20.08	21.00	1.236	-	-	-0.13	0.193	0.239
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 1	DSI1	633334	3500.01	20.12	21.00	1.225	-	-	0.06	0.298	0.365
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 1	DSI1	633334	3500.01	20.08	21.00	1.236	-	-	-0.16	0.279	0.345
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 1	DSI1	633334	3500.01	20.12	21.00	1.225	-	-	0.05	0.093	0.114
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 1	DSI1	633334	3500.01	20.08	21.00	1.236	-	-	0.03	0.096	0.119
	FR1 n78 PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 1	DSI1	633334	3500.01	23.02	24.00	1.253	50	1.000	0.03	0.564	0.707
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 3	DSI1	650000	3750	25.25	25.70	1.109	-	-	0.08	0.196	0.217
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 3	DSI1	650000	3750	25.15	25.70	1.135	-	-	0.07	0.201	0.228
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 3	DSI1	650000	3750	25.25	25.70	1.109	-	-	0.06	0.188	0.209
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 3	DSI1	650000	3750	25.15	25.70	1.135	-	-	0.12	0.193	0.219
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 3	DSI1	650000	3750	25.25	25.70	1.109	-	-	0.01	0.133	0.148
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 3	DSI1	650000	3750	25.15	25.70	1.135	-	-	-0.09	0.126	0.143
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 3	DSI1	650000	3750	25.25	25.70	1.109	-	-	-0.07	0.217	0.241
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 3	DSI1	650000	3750	25.15	25.70	1.135	-	-	0.08	0.209	0.237
	FR1 n78 PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 3	DSI1	650000	3750	26.25	27.00	1.189	50	1.000	0.14	0.133	0.158
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 3	DSI1	633334	3500.01	25.45	25.70	1.059	-	-	0.02	0.111	0.118
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 3	DSI1	633334	3500.01	25.35	25.70	1.084	-	-	0.03	0.115	0.125
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 3	DSI1	633334	3500.01	25.45	25.70	1.059	-	-	-0.01	0.111	0.118
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 3	DSI1	633334	3500.01	25.35	25.70	1.084	-	-	0.06	0.106	0.115
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 3	DSI1	633334	3500.01	25.45	25.70	1.059	-	-	-0.08	0.082	0.087
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 3	DSI1	633334	3500.01	25.35	25.70	1.084	-	-	0.07	0.078	0.085
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 3	DSI1	633334	3500.01	25.45	25.70	1.059	-	-	0.06	0.125	0.132
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 3	DSI1	633334	3500.01	25.35	25.70	1.084	-	-	0.1	0.138	0.150
	FR1 n78 PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 3	DSI1	633334	3500.01	26.32	27.00	1.169	50	1.000	-0.02	0.062	0.073
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 10	DSI1	650000	3750	14.70	15.20	1.122	-	-	0.18	0.707	0.793
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 10	DSI1	650000	3750	14.54	15.20	1.164	-	-	-0.11	0.557	0.648
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 10	DSI1	650000	3750	14.70	15.20	1.122	-	-	0.17	0.762	0.855
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 10	DSI1	650000	3750	14.54	15.20	1.164	-	-	-0.11	0.522	0.608

	FR1 n78 PC3	100M	QPSK	270	0	DFT-SCS-30KHz	Right Tilted	0mm	Ant 10	DSI1	650000	3750	14.52	15.20	1.169	-	-	0.11	0.615	0.719
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 10	DSI1	650000	3750	14.70	15.20	1.122	-	-	0.05	0.752	0.844
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 10	DSI1	650000	3750	14.54	15.20	1.164	-	-	0.04	0.617	0.718
	FR1 n78 PC3	100M	QPSK	270	0	DFT-SCS-30KHz	Left Cheek	0mm	Ant 10	DSI1	650000	3750	14.52	15.20	1.169	-	-	0.18	0.635	0.743
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 10	DSI1	650000	3750	14.70	15.20	1.122	-	-	-0.18	0.825	0.926
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 10	DSI1	650000	3750	14.54	15.20	1.164	-	-	0.03	0.626	0.729
	FR1 n78 PC3	100M	QPSK	270	0	DFT-SCS-30KHz	Left Tilted	0mm	Ant 10	DSI1	650000	3750	14.52	15.20	1.169	-	-	0.13	0.654	0.765
	FR1 n78 PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 10	DSI1	650000	3750	17.72	18.20	1.117	50	1.000	0.03	0.770	0.860
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 10	DSI1	633334	3500.01	15.01	15.20	1.045	-	-	0.08	0.149	0.156
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 10	DSI1	633334	3500.01	14.77	15.20	1.104	-	-	-0.11	0.219	0.242
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 10	DSI1	633334	3500.01	15.01	15.20	1.045	-	-	0.17	0.164	0.171
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 10	DSI1	633334	3500.01	14.77	15.20	1.104	-	-	-0.09	0.188	0.208
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 10	DSI1	633334	3500.01	15.01	15.20	1.045	-	-	0.02	0.142	0.148
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 10	DSI1	633334	3500.01	14.77	15.20	1.104	-	-	0.01	0.168	0.185
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 10	DSI1	633334	3500.01	15.01	15.20	1.045	-	-	0.11	0.155	0.162
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 10	DSI1	633334	3500.01	14.77	15.20	1.104	-	-	-0.02	0.189	0.209
	FR1 n78 PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 10	DSI1	633334	3500.01	17.95	18.20	1.059	50	1.000	0.02	0.212	0.225
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 13	DSI1	650000	3750	23.83	24.70	1.222	-	-	-0.12	0.746	0.911
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 13	DSI1	650000	3750	23.75	24.70	1.245	-	-	0.07	0.635	0.790
	FR1 n78 PC3	100M	QPSK	270	0	DFT-SCS-30KHz	Right Cheek	0mm	Ant 13	DSI1	650000	3750	23.71	24.70	1.256	-	-	0.02	0.620	0.779
24	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 13	DSI1	650000	3750	23.83	24.70	1.222	-	-	0.05	0.894	1.092
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 13	DSI1	650000	3750	23.75	24.70	1.245	-	-	0.1	0.720	0.896
	FR1 n78 PC3	100M	QPSK	270	0	DFT-SCS-30KHz	Right Tilted	0mm	Ant 13	DSI1	650000	3750	23.71	24.70	1.256	-	-	0.06	0.848	1.065
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 13	DSI1	650000	3750	23.83	24.70	1.222	-	-	-0.08	0.757	0.925
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 13	DSI1	650000	3750	23.75	24.70	1.245	-	-	-0.17	0.640	0.796
	FR1 n78 PC3	100M	QPSK	270	0	DFT-SCS-30KHz	Left Cheek	0mm	Ant 13	DSI1	650000	3750	23.71	24.70	1.256	-	-	0.03	0.745	0.936
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 13	DSI1	650000	3750	23.83	24.70	1.222	-	-	0.13	0.825	1.008
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 13	DSI1	650000	3750	23.75	24.70	1.245	-	-	0.08	0.700	0.871
	FR1 n78 PC3	100M	QPSK	270	0	DFT-SCS-30KHz	Left Tilted	0mm	Ant 13	DSI1	650000	3750	23.71	24.70	1.256	-	-	0.07	0.796	1.000
	FR1 n78 PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 13	DSI1	650000	3750	26.23	27.70	1.403	50	1.000	0.03	0.742	1.041
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 13	DSI1	633334	3500.01	24.29	24.70	1.099	-	-	0.01	0.387	0.425
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 13	DSI1	633334	3500.01	24.20	24.70	1.122	-	-	-0.08	0.502	0.563
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 13	DSI1	633334	3500.01	24.29	24.70	1.099	-	-	0.03	0.452	0.497
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 13	DSI1	633334	3500.01	24.20	24.70	1.122	-	-	0.06	0.552	0.619
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 13	DSI1	633334	3500.01	24.29	24.70	1.099	-	-	0.13	0.291	0.320
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 13	DSI1	633334	3500.01	24.20	24.70	1.122	-	-	-0.14	0.446	0.500
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 13	DSI1	633334	3500.01	24.29	24.70	1.099	-	-	0.17	0.349	0.384
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 13	DSI1	633334	3500.01	24.20	24.70	1.122	-	-	-0.1	0.489	0.549
	FR1 n78 PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 13	DSI1	633334	3500.01	26.19	27.70	1.416	50	1.000	0.05	0.403	0.571

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
						2450MHz										
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 15+18	Standalone	6	2437	17.32	18.00	1.169	97.46	1.026	0.08	0.164	0.197
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 15+18	Standalone	6	2437	17.32	18.00	1.169	97.46	1.026	-0.07	0.167	0.200
25	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 15+18	Standalone	6	2437	17.32	18.00	1.169	97.46	1.026	0.08	0.524	**0.629**
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 15+18	Standalone	6	2437	17.32	18.00	1.169	97.46	1.026	0.08	0.389	0.467
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 15+18	Simultaneous	6	2437	16.34	17.00	1.163	97.46	1.026	0.02	0.117	0.140
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 15+18	Simultaneous	6	2437	16.34	17.00	1.163	97.46	1.026	0.01	0.119	0.142
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 15+18	Simultaneous	6	2437	16.34	17.00	1.163	97.46	1.026	0.02	0.373	0.445
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 15+18	Simultaneous	6	2437	16.34	17.00	1.163	97.46	1.026	0.05	0.277	0.331
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 15+18	DBS Simultaneous	6	2437	13.32	14.00	1.169	97.46	1.026	0.01	0.057	0.068
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 15+18	DBS Simultaneous	6	2437	13.32	14.00	1.169	97.46	1.026	-0.03	0.058	0.070
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 15+18	DBS Simultaneous	6	2437	13.32	14.00	1.169	97.46	1.026	0.04	0.182	0.218
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 15+18	DBS Simultaneous	6	2437	13.32	14.00	1.169	97.46	1.026	0.01	0.135	0.162
	Bluetooth	1Mbps	Right Cheek	0mm	Ant 18	Receiver on	39	2441	7.68	9.50	1.521	77.02	1.082	0.04	0.033	0.054
	Bluetooth	1Mbps	Right Tilted	0mm	Ant 18	Receiver on	39	2441	7.68	9.50	1.521	77.02	1.082	0.02	0.032	0.053
26	Bluetooth	1Mbps	Left Cheek	0mm	Ant 18	Receiver on	39	2441	7.68	9.50	1.521	77.02	1.082	0.01	0.062	**0.102**
	Bluetooth	1Mbps	Left Tilted	0mm	Ant 18	Receiver on	39	2441	7.68	9.50	1.521	77.02	1.082	-0.04	0.045	0.074
	Bluetooth	1Mbps	Right Cheek	0mm	Ant 15	Receiver on	39	2441	8.02	9.50	1.406	77.00	1.082	0.06	0.021	0.032
	Bluetooth	1Mbps	Right Tilted	0mm	Ant 15	Receiver on	39	2441	8.02	9.50	1.406	77.00	1.082	0.02	0.026	0.040
	Bluetooth	1Mbps	Left Cheek	0mm	Ant 15	Receiver on	39	2441	8.02	9.50	1.406	77.00	1.082	-0.07	0.046	0.070
	Bluetooth	1Mbps	Left Tilted	0mm	Ant 15	Receiver on	39	2441	8.02	9.50	1.406	77.00	1.082	-0.01	0.039	0.059
						5000MHz										
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 17+18	Standalone	58	5290	16.98	18.00	1.265	100	1.000	-0.03	0.233	0.295
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 17+18	Standalone	58	5290	16.98	18.00	1.265	100	1.000	0.06	0.229	0.290
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 17+18	Standalone	58	5290	16.98	18.00	1.265	100	1.000	-0.11	0.533	0.674
27	WLAN5.3GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 17+18	Standalone	58	5290	16.98	18.00	1.265	100	1.000	-0.09	0.560	**0.708**
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 17+18	Simultaneous&XBS Standalone	58	5290	16.55	17.50	1.245	100	1.000	0.02	0.157	0.195
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 17+18	Simultaneous&XBS Standalone	58	5290	16.55	17.50	1.245	100	1.000	0.04	0.154	0.192
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 17+18	Simultaneous&XBS Standalone	58	5290	16.55	17.50	1.245	100	1.000	0.01	0.359	0.447
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 17+18	Simultaneous&XBS Standalone	58	5290	16.55	17.50	1.245	100	1.000	0.07	0.370	0.460
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 17+18	DBS Simultaneous	58	5290	13.56	14.50	1.242	100	1.000	-0.02	0.092	0.114
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 17+18	DBS Simultaneous	58	5290	13.56	14.50	1.242	100	1.000	-0.01	0.090	0.112
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 17+18	DBS Simultaneous	58	5290	13.56	14.50	1.242	100	1.000	0.05	0.185	0.230
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 17+18	DBS Simultaneous	58	5290	13.56	14.50	1.242	100	1.000	0.02	0.198	0.246
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 17+18	XBS Simultaneous	58	5290	11.04	12.00	1.247	100	1.000	0.04	0.048	0.060
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 17+18	XBS Simultaneous	58	5290	11.04	12.00	1.247	100	1.000	-0.01	0.055	0.069
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 17+18	XBS Simultaneous	58	5290	11.04	12.00	1.247	100	1.000	0.06	0.106	0.132
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 17+18	XBS Simultaneous	58	5290	11.04	12.00	1.247	100	1.000	0.1	0.125	0.156
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 17+18	Standalone	138	5690	17.33	18.00	1.167	100	1.000	0.03	0.219	0.256
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 17+18	Standalone	138	5690	17.33	18.00	1.167	100	1.000	0.09	0.251	0.293
28	WLAN5.5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 17+18	Standalone	138	5690	17.33	18.00	1.167	100	1.000	-0.01	0.571	**0.666**
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 17+18	Standalone	138	5690	17.33	18.00	1.167	100	1.000	-0.19	0.456	0.532
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 17+18	Simultaneous&XBS Standalone	138	5690	15.40	16.00	1.148	100	1.000	0.07	0.154	0.177
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 17+18	Simultaneous&XBS Standalone	138	5690	15.40	16.00	1.148	100	1.000	0.01	0.177	0.203
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 17+18	Simultaneous&XBS Standalone	138	5690	15.40	16.00	1.148	100	1.000	0.02	0.402	0.462
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 17+18	Simultaneous&XBS Standalone	138	5690	15.40	16.00	1.148	100	1.000	0.02	0.321	0.369
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 17+18	DBS Simultaneous	138	5690	12.81	13.50	1.172	100	1.000	0.03	0.079	0.093
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 17+18	DBS Simultaneous	138	5690	12.81	13.50	1.172	100	1.000	0.01	0.090	0.105
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 17+18	DBS Simultaneous	138	5690	12.81	13.50	1.172	100	1.000	0.05	0.205	0.240
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 17+18	DBS Simultaneous	138	5690	12.81	13.50	1.172	100	1.000	-0.01	0.164	0.192
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 17+18	XBS Simultaneous	138	5690	10.80	11.50	1.175	100	1.000	0.02	0.046	0.054
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 17+18	XBS Simultaneous	138	5690	10.80	11.50	1.175	100	1.000	-0.02	0.059	0.069

	WLAN5.5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 17+18	XBS Simultaneous	138	5690	10.80	11.50	1.175	100	1.000	0.02	0.128	0.150
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 17+18	XBS Simultaneous	138	5690	10.80	11.50	1.175	100	1.000	0.03	0.105	0.123
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 17+18	Standalone	155	5775	18.08	18.50	1.102	100	1.000	-0.1	0.152	0.167
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 17+18	Standalone	155	5775	18.08	18.50	1.102	100	1.000	-0.16	0.159	0.175
29	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 17+18	Standalone	155	5775	18.08	18.50	1.102	100	1.000	0.15	0.500	**0.551**
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 17+18	Standalone	155	5775	18.08	18.50	1.102	100	1.000	0.06	0.314	0.346
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 17+18	Simultaneous&XBS Standalone	155	5775	16.08	16.50	1.102	100	1.000	0.03	0.109	0.120
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 17+18	Simultaneous&XBS Standalone	155	5775	16.08	16.50	1.102	100	1.000	0.01	0.114	0.126
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 17+18	Simultaneous&XBS Standalone	155	5775	16.08	16.50	1.102	100	1.000	-0.08	0.360	0.397
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 17+18	Simultaneous&XBS Standalone	155	5775	16.08	16.50	1.102	100	1.000	0.05	0.226	0.249
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 17+18	DBS Simultaneous	155	5775	14.58	15.00	1.102	100	1.000	0.05	0.068	0.075
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 17+18	DBS Simultaneous	155	5775	14.58	15.00	1.102	100	1.000	0.05	0.071	0.078
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 17+18	DBS Simultaneous	155	5775	14.58	15.00	1.102	100	1.000	0.05	0.223	0.246
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 17+18	DBS Simultaneous	155	5775	14.58	15.00	1.102	100	1.000	0.05	0.140	0.154
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 17+18	XBS Simultaneous	155	5775	12.58	13.00	1.102	100	1.000	0.02	0.042	0.046
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 17+18	XBS Simultaneous	155	5775	12.58	13.00	1.102	100	1.000	-0.01	0.051	0.056
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 17+18	XBS Simultaneous	155	5775	12.58	13.00	1.102	100	1.000	0.02	0.141	0.155
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 17+18	XBS Simultaneous	155	5775	12.58	13.00	1.102	100	1.000	0.04	0.091	0.100

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	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measure 1g SAR (W/kg)	Reported 1g SAR (W/kg)
									750MHz											
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Front	10mm	Ant 0	DSI5	136100	680.5	25.22	25.70	1.117	-	-	0.01	0.189	0.211
	FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Front	10mm	Ant 0	DSI5	136100	680.5	25.07	25.70	1.156	-	-	0.03	0.191	0.221
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Back	10mm	Ant 0	DSI5	136100	680.5	25.22	25.70	1.117	-	-	0.03	0.230	0.257
	FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Back	10mm	Ant 0	DSI5	136100	680.5	25.07	25.70	1.156	-	-	0.12	0.236	0.273
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Left Side	10mm	Ant 0	DSI5	136100	680.5	25.22	25.70	1.117	-	-	0.06	0.402	0.449
	FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Left Side	10mm	Ant 0	DSI5	136100	680.5	25.07	25.70	1.156	-	-	-0.01	0.436	0.504
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	10mm	Ant 0	DSI5	136100	680.5	25.22	25.70	1.117	-	-	0.13	0.148	0.165
	FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Bottom Side	10mm	Ant 0	DSI5	136100	680.5	25.07	25.70	1.156	-	-	0.16	0.137	0.158
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Front	10mm	Ant 1	DSI5	136100	680.5	23.15	23.90	1.189	-	-	-0.1	0.254	0.302
	FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Front	10mm	Ant 1	DSI5	136100	680.5	23.13	23.90	1.194	-	-	0.06	0.260	0.310
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Back	10mm	Ant 1	DSI5	136100	680.5	23.15	23.90	1.189	-	-	-0.07	0.355	0.422
	FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Back	10mm	Ant 1	DSI5	136100	680.5	23.13	23.90	1.194	-	-	0.14	0.343	0.410
30	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Left Side	10mm	Ant 1	DSI5	136100	680.5	23.15	23.90	1.189	-	-	-0.01	0.477	**0.567**
	FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Left Side	10mm	Ant 1	DSI5	136100	680.5	23.13	23.90	1.194	-	-	0.06	0.458	0.547
	LTE Band 12	10M	QPSK	1	0	-	Front	10mm	Ant 0	DSI5	23095	707.5	25.12	25.50	1.091	-	-	0.07	0.212	0.231
	LTE Band 12	10M	QPSK	25	0	-	Front	10mm	Ant 0	DSI5	23095	707.5	25.09	25.50	1.099	-	-	-0.13	0.210	0.231
	LTE Band 12	10M	QPSK	1	0	-	Back	10mm	Ant 0	DSI5	23095	707.5	25.12	25.50	1.091	-	-	-0.09	0.271	0.296
	LTE Band 12	10M	QPSK	25	0	-	Back	10mm	Ant 0	DSI5	23095	707.5	25.09	25.50	1.099	-	-	0.05	0.266	0.292
	LTE Band 12	10M	QPSK	1	0	-	Left Side	10mm	Ant 0	DSI5	23095	707.5	25.12	25.50	1.091	-	-	-0.12	0.347	0.379
	LTE Band 12	10M	QPSK	25	0	-	Left Side	10mm	Ant 0	DSI5	23095	707.5	25.09	25.50	1.099	-	-	0.14	0.342	0.376
	LTE Band 12	10M	QPSK	1	0	-	Bottom Side	10mm	Ant 0	DSI5	23095	707.5	25.12	25.50	1.091	-	-	0.08	0.156	0.170
	LTE Band 12	10M	QPSK	25	0	-	Bottom Side	10mm	Ant 0	DSI5	23095	707.5	25.09	25.50	1.099	-	-	-0.09	0.154	0.169
	LTE Band 12	10M	QPSK	1	0	-	Front	10mm	Ant 1	DSI5	23095	707.5	23.78	25.00	1.324	-	-	0.11	0.244	0.323
	LTE Band 12	10M	QPSK	25	0	-	Front	10mm	Ant 1	DSI5	23095	707.5	23.75	25.00	1.334	-	-	0.03	0.244	0.325
	LTE Band 12	10M	QPSK	1	0	-	Back	10mm	Ant 1	DSI5	23095	707.5	23.78	25.00	1.324	-	-	0.03	0.326	0.432
	LTE Band 12	10M	QPSK	25	0	-	Back	10mm	Ant 1	DSI5	23095	707.5	23.75	25.00	1.334	-	-	0.08	0.323	0.431
	LTE Band 12	10M	QPSK	1	0	-	Left Side	10mm	Ant 1	DSI5	23095	707.5	23.78	25.00	1.324	-	-	-0.11	0.498	0.660
31	LTE Band 12	10M	QPSK	25	0	-	Left Side	10mm	Ant 1	DSI5	23095	707.5	23.75	25.00	1.334	-	-	0.04	0.505	**0.673**
	LTE Band 13	10M	QPSK	1	0	-	Front	10mm	Ant 0	DSI5	23230	782	25.06	25.40	1.081	-	-	-0.12	0.208	0.225
	LTE Band 13	10M	QPSK	25	0	-	Front	10mm	Ant 0	DSI5	23230	782	25.02	25.40	1.091	-	-	-0.16	0.209	0.228
	LTE Band 13	10M	QPSK	1	0	-	Back	10mm	Ant 0	DSI5	23230	782	25.06	25.40	1.081	-	-	0.06	0.289	0.313
	LTE Band 13	10M	QPSK	25	0	-	Back	10mm	Ant 0	DSI5	23230	782	25.02	25.40	1.091	-	-	-0.03	0.285	0.311
	LTE Band 13	10M	QPSK	1	0	-	Left Side	10mm	Ant 0	DSI5	23230	782	25.06	25.40	1.081	-	-	0.06	0.228	0.247
	LTE Band 13	10M	QPSK	25	0	-	Left Side	10mm	Ant 0	DSI5	23230	782	25.02	25.40	1.091	-	-	-0.15	0.226	0.247
	LTE Band 13	10M	QPSK	1	0	-	Bottom Side	10mm	Ant 0	DSI5	23230	782	25.06	25.40	1.081	-	-	0.05	0.148	0.160
	LTE Band 13	10M	QPSK	25	0	-	Bottom Side	10mm	Ant 0	DSI5	23230	782	25.02	25.40	1.091	-	-	-0.15	0.145	0.158
	LTE Band 13	10M	QPSK	1	0	-	Front	10mm	Ant 1	DSI5	23230	782	21.72	22.70	1.253	-	-	0.15	0.308	0.386
	LTE Band 13	10M	QPSK	25	0	-	Front	10mm	Ant 1	DSI5	23230	782	21.67	22.70	1.268	-	-	-0.01	0.320	0.406
	LTE Band 13	10M	QPSK	1	0	-	Back	10mm	Ant 1	DSI5	23230	782	21.72	22.70	1.253	-	-	0.09	0.390	0.489
	LTE Band 13	10M	QPSK	25	0	-	Back	10mm	Ant 1	DSI5	23230	782	21.67	22.70	1.268	-	-	0.02	0.391	0.496
32	LTE Band 13	10M	QPSK	1	0	-	Left Side	10mm	Ant 1	DSI5	23230	782	21.72	22.70	1.253	-	-	0.04	0.533	**0.668**
	LTE Band 13	10M	QPSK	25	0	-	Left Side	10mm	Ant 1	DSI5	23230	782	21.67	22.70	1.268	-	-	0.09	0.521	0.660
									835MHz											
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Front	10mm	Ant 0	DSI5	189	836.4	26.65	28.00	1.365	-	-	-0.07	0.212	0.289
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Back	10mm	Ant 0	DSI5	189	836.4	26.65	28.00	1.365	-	-	-0.03	0.288	0.393
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Left Side	10mm	Ant 0	DSI5	189	836.4	26.65	28.00	1.365	-	-	0.04	0.230	0.314
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Bottom Side	10mm	Ant 0	DSI5	189	836.4	26.65	28.00	1.365	-	-	0.06	0.173	0.236
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Front	10mm	Ant 1	DSI5	189	836.4	23.92	25.60	1.472	-	-	-0.19	0.318	0.468
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Back	10mm	Ant 1	DSI5	189	836.4	23.92	25.60	1.472	-	-	0.06	0.363	0.534

33	GSM850	-	-	-	-	GPRS (4 Tx slots)	Left Side	10mm	Ant 1	DSI5	189	836.4	23.92	25.60	1.472	-	-	-0.08	0.406	**0.598**
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 0	DSI5	4182	836.4	24.23	24.80	1.140	-	-	0.12	0.242	0.276
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 0	DSI5	4182	836.4	24.23	24.80	1.140	-	-	0.08	0.379	0.432
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 0	DSI5	4182	836.4	24.23	24.80	1.140	-	-	0.05	0.190	0.217
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Bottom Side	10mm	Ant 0	DSI5	4182	836.4	24.23	24.80	1.140	-	-	0.09	0.216	0.246
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 1	DSI5	4182	836.4	20.39	21.50	1.291	-	-	0.1	0.262	0.338
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 1	DSI5	4182	836.4	20.39	21.50	1.291	-	-	0.15	0.292	0.377
34	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 1	DSI5	4182	836.4	20.39	21.50	1.291	-	-	0.02	0.361	**0.466**
	LTE Band 26	15M	QPSK	1	0	-	Front	10mm	Ant 0	DSI5	26865	831.5	25.04	25.60	1.138	-	-	0.08	0.308	0.350
	LTE Band 26	15M	QPSK	36	0	-	Front	10mm	Ant 0	DSI5	26865	831.5	24.96	25.60	1.159	-	-	0.13	0.308	0.357
35	LTE Band 26	15M	QPSK	1	0	-	Back	10mm	Ant 0	DSI5	26865	831.5	25.04	25.60	1.138	-	-	-0.09	0.470	**0.535**
	LTE Band 26	15M	QPSK	36	0	-	Back	10mm	Ant 0	DSI5	26865	831.5	24.96	25.60	1.159	-	-	0.04	0.460	0.533
	LTE Band 26	15M	QPSK	1	0	-	Left Side	10mm	Ant 0	DSI5	26865	831.5	25.04	25.60	1.138	-	-	0.05	0.385	0.438
	LTE Band 26	15M	QPSK	36	0	-	Left Side	10mm	Ant 0	DSI5	26865	831.5	24.96	25.60	1.159	-	-	-0.03	0.376	0.436
	LTE Band 26	15M	QPSK	1	0	-	Bottom Side	10mm	Ant 0	DSI5	26865	831.5	25.04	25.60	1.138	-	-	0.15	0.278	0.316
	LTE Band 26	15M	QPSK	36	0	-	Bottom Side	10mm	Ant 0	DSI5	26865	831.5	24.96	25.60	1.159	-	-	0.01	0.276	0.320
	LTE Band 26	15M	QPSK	1	0	-	Front	10mm	Ant 1	DSI5	26865	831.5	21.06	22.20	1.300	-	-	0.03	0.252	0.328
	LTE Band 26	15M	QPSK	36	0	-	Front	10mm	Ant 1	DSI5	26865	831.5	21.02	22.20	1.312	-	-	-0.1	0.247	0.324
	LTE Band 26	15M	QPSK	1	0	-	Back	10mm	Ant 1	DSI5	26865	831.5	21.06	22.20	1.300	-	-	0.07	0.296	0.385
	LTE Band 26	15M	QPSK	36	0	-	Back	10mm	Ant 1	DSI5	26865	831.5	21.02	22.20	1.312	-	-	-0.11	0.290	0.381
	LTE Band 26	15M	QPSK	1	0	-	Left Side	10mm	Ant 1	DSI5	26865	831.5	21.06	22.20	1.300	-	-	-0.05	0.378	0.491
	LTE Band 26	15M	QPSK	36	0	-	Left Side	10mm	Ant 1	DSI5	26865	831.5	21.02	22.20	1.312	-	-	0.04	0.387	0.508
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Front	10mm	Ant 0	DSI5	167300	836.5	25.25	25.70	1.109	-	-	-0.02	0.234	0.260
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Front	10mm	Ant 0	DSI5	167300	836.5	25.10	25.70	1.148	-	-	0.14	0.200	0.230
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Back	10mm	Ant 0	DSI5	167300	836.5	25.25	25.70	1.109	-	-	-0.05	0.341	0.378
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Back	10mm	Ant 0	DSI5	167300	836.5	25.10	25.70	1.148	-	-	0.09	0.306	0.351
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Left Side	10mm	Ant 0	DSI5	167300	836.5	25.25	25.70	1.109	-	-	0.07	0.251	0.278
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Left Side	10mm	Ant 0	DSI5	167300	836.5	25.10	25.70	1.148	-	-	0.07	0.222	0.255
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	10mm	Ant 0	DSI5	167300	836.5	25.25	25.70	1.109	-	-	0.15	0.215	0.238
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Bottom Side	10mm	Ant 0	DSI5	167300	836.5	25.10	25.70	1.148	-	-	0.17	0.161	0.185
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Front	10mm	Ant 1	DSI5	167300	836.5	19.88	20.50	1.153	-	-	-0.07	0.217	0.250
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Front	10mm	Ant 1	DSI5	167300	836.5	19.85	20.50	1.161	-	-	0.04	0.230	0.267
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Back	10mm	Ant 1	DSI5	167300	836.5	19.88	20.50	1.153	-	-	-0.08	0.240	0.277
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Back	10mm	Ant 1	DSI5	167300	836.5	19.85	20.50	1.161	-	-	-0.07	0.271	0.315
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Left Side	10mm	Ant 1	DSI5	167300	836.5	19.88	20.50	1.153	-	-	0.02	0.314	0.362
36	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Left Side	10mm	Ant 1	DSI5	167300	836.5	19.85	20.50	1.161	-	-	0.01	0.326	**0.379**
									1750MHz											
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 3	DSI5	1413	1732.6	22.41	22.80	1.094	-	-	-0.16	0.488	0.534
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 3	DSI5	1413	1732.6	22.41	22.80	1.094	-	-	0.02	0.455	0.498
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Side	10mm	Ant 3	DSI5	1413	1732.6	22.41	22.80	1.094	-	-	0.08	0.241	0.264
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Bottom Side	10mm	Ant 3	DSI5	1413	1732.6	22.41	22.80	1.094	-	-	0.05	0.844	0.923
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Bottom Side	10mm	Ant 3	DSI5	1312	1712.4	22.29	22.80	1.125	-	-	-0.09	0.775	0.872
37	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Bottom Side	10mm	Ant 3	DSI5	1513	1752.6	22.38	22.80	1.102	-	-	0.08	0.860	**0.947**
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 5	DSI5	1413	1732.6	22.14	22.90	1.191	-	-	0.02	0.295	0.351
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 5	DSI5	1413	1732.6	22.14	22.90	1.191	-	-	0.03	0.457	0.544
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Side	10mm	Ant 5	DSI5	1413	1732.6	22.14	22.90	1.191	-	-	0.06	0.648	0.772
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 4	DSI5	1413	1732.6	16.86	17.50	1.159	-	-	0.01	0.125	0.145
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 4	DSI5	1413	1732.6	16.86	17.50	1.159	-	-	0.02	0.219	0.254
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 4	DSI5	1413	1732.6	16.86	17.50	1.159	-	-	-0.13	0.073	0.085
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Top Side	10mm	Ant 4	DSI5	1413	1732.6	16.86	17.50	1.159	-	-	0.01	0.252	0.292
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 6	DSI5	1413	1732.6	17.32	18.50	1.312	-	-	-0.11	0.094	0.123
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 6	DSI5	1413	1732.6	17.32	18.50	1.312	-	-	0.08	0.142	0.186
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 6	DSI5	1413	1732.6	17.32	18.50	1.312	-	-	0.08	0.175	0.230
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Top Side	10mm	Ant 6	DSI5	1413	1732.6	17.32	18.50	1.312	-	-	0.05	0.008	0.010
	LTE Band 4	20M	QPSK	1	0	-	Front	10mm	Ant 5	DSI5	20175	1732.5	21.75	22.30	1.135	-	-	0.02	0.306	0.347
	LTE Band 4	20M	QPSK	50	0	-	Front	10mm	Ant 5	DSI5	20175	1732.5	21.73	22.30	1.140	-	-	0.05	0.306	0.349

	LTE Band 4	20M	QPSK	1	0	-	Back	10mm	Ant 5	DSI5	20175	1732.5	21.75	22.30	1.135	-	-	0.04	0.451	0.512
	LTE Band 4	20M	QPSK	50	0	-	Back	10mm	Ant 5	DSI5	20175	1732.5	21.73	22.30	1.140	-	-	0.04	0.452	0.515
	LTE Band 4	20M	QPSK	1	0	-	Right Side	10mm	Ant 5	DSI5	20175	1732.5	21.75	22.30	1.135	-	-	0.07	0.643	0.730
38	LTE Band 4	20M	QPSK	50	0	-	Right Side	10mm	Ant 5	DSI5	20175	1732.5	21.73	22.30	1.140	-	-	-0.01	0.671	**0.765**
	LTE Band 66	20M	QPSK	1	0	-	Front	10mm	Ant 3	DSI5	132322	1745	22.18	22.70	1.127	-	-	-0.05	0.405	0.457
	LTE Band 66	20M	QPSK	50	0	-	Front	10mm	Ant 3	DSI5	132322	1745	22.15	22.70	1.135	-	-	0.06	0.414	0.470
	LTE Band 66	20M	QPSK	1	0	-	Back	10mm	Ant 3	DSI5	132322	1745	22.18	22.70	1.127	-	-	0.06	0.386	0.435
	LTE Band 66	20M	QPSK	50	0	-	Back	10mm	Ant 3	DSI5	132322	1745	22.15	22.70	1.135	-	-	0.02	0.388	0.440
	LTE Band 66	20M	QPSK	1	0	-	Right Side	10mm	Ant 3	DSI5	132322	1745	22.18	22.70	1.127	-	-	0.14	0.274	0.309
	LTE Band 66	20M	QPSK	50	0	-	Right Side	10mm	Ant 3	DSI5	132322	1745	22.15	22.70	1.135	-	-	0.14	0.276	0.313
	LTE Band 66	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 3	DSI5	132322	1745	22.18	22.70	1.127	-	-	0.08	0.789	0.889
	LTE Band 66	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 3	DSI5	132072	1720	22.15	22.70	1.135	-	-	-0.17	0.762	0.865
	LTE Band 66	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 3	DSI5	132572	1770	22.12	22.70	1.143	-	-	0.11	0.791	0.904
	LTE Band 66	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 3	DSI5	132322	1745	22.15	22.70	1.135	-	-	-0.1	0.790	0.897
	LTE Band 66	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 3	DSI5	132072	1720	22.03	22.70	1.167	-	-	-0.13	0.755	0.881
39	LTE Band 66	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 3	DSI5	132572	1770	22.08	22.70	1.153	-	-	0.04	0.794	**0.916**
	LTE Band 66	20M	QPSK	100	0	-	Bottom Side	10mm	Ant 3	DSI5	132322	1745	22.13	22.70	1.140	-	-	-0.16	0.770	0.878
	LTE Band 66	20M	QPSK	1	0	-	Front	10mm	Ant 5	DSI5	132322	1745	21.30	21.90	1.148	-	-	0.05	0.301	0.346
	LTE Band 66	20M	QPSK	50	0	-	Front	10mm	Ant 5	DSI5	132322	1745	21.26	21.90	1.159	-	-	-0.18	0.315	0.365
	LTE Band 66	20M	QPSK	1	0	-	Back	10mm	Ant 5	DSI5	132322	1745	21.30	21.90	1.148	-	-	0.05	0.449	0.516
	LTE Band 66	20M	QPSK	50	0	-	Back	10mm	Ant 5	DSI5	132322	1745	21.26	21.90	1.159	-	-	0.06	0.461	0.534
	LTE Band 66	20M	QPSK	1	0	-	Right Side	10mm	Ant 5	DSI5	132322	1745	21.30	21.90	1.148	-	-	0.16	0.701	0.805
	LTE Band 66	20M	QPSK	1	0	-	Right Side	10mm	Ant 5	DSI5	132072	1720	21.18	21.90	1.180	-	-	0.09	0.611	0.721
	LTE Band 66	20M	QPSK	1	0	-	Right Side	10mm	Ant 5	DSI5	132572	1770	21.25	21.90	1.161	-	-	0.07	0.697	0.810
	LTE Band 66	20M	QPSK	50	0	-	Right Side	10mm	Ant 5	DSI5	132322	1745	21.26	21.90	1.159	-	-	-0.17	0.733	0.849
	LTE Band 66	20M	QPSK	50	0	-	Right Side	10mm	Ant 5	DSI5	132072	1720	21.17	21.90	1.183	-	-	0.05	0.644	0.762
	LTE Band 66	20M	QPSK	50	0	-	Right Side	10mm	Ant 5	DSI5	132572	1770	21.21	21.90	1.172	-	-	0.06	0.714	0.837
	LTE Band 66	20M	QPSK	100	0	-	Right Side	10mm	Ant 5	DSI5	132322	1745	21.18	21.90	1.180	-	-	-0.05	0.668	0.788
	LTE Band 66	20M	QPSK	1	0	-	Front	10mm	Ant 4	DSI5	132322	1745	17.78	18.70	1.236	-	-	0.07	0.127	0.157
	LTE Band 66	20M	QPSK	50	0	-	Front	10mm	Ant 4	DSI5	132322	1745	17.72	18.70	1.253	-	-	0.07	0.132	0.165
	LTE Band 66	20M	QPSK	1	0	-	Back	10mm	Ant 4	DSI5	132322	1745	17.78	18.70	1.236	-	-	0.14	0.252	0.311
	LTE Band 66	20M	QPSK	50	0	-	Back	10mm	Ant 4	DSI5	132322	1745	17.72	18.70	1.253	-	-	0.16	0.254	0.318
	LTE Band 66	20M	QPSK	1	0	-	Left Side	10mm	Ant 4	DSI5	132322	1745	17.78	18.70	1.236	-	-	0.05	0.040	0.049
	LTE Band 66	20M	QPSK	50	0	-	Left Side	10mm	Ant 4	DSI5	132322	1745	17.72	18.70	1.253	-	-	-0.03	0.008	0.010
	LTE Band 66	20M	QPSK	1	0	-	Top Side	10mm	Ant 4	DSI5	132322	1745	17.78	18.70	1.236	-	-	0.04	0.266	0.329
	LTE Band 66	20M	QPSK	50	0	-	Top Side	10mm	Ant 4	DSI5	132322	1745	17.72	18.70	1.253	-	-	-0.04	0.280	0.351
	LTE Band 66	20M	QPSK	1	0	-	Front	10mm	Ant 6	DSI5	132322	1745	18.70	20.20	1.413	-	-	0.18	0.159	0.225
	LTE Band 66	20M	QPSK	50	0	-	Front	10mm	Ant 6	DSI5	132322	1745	18.67	20.20	1.422	-	-	0.13	0.169	0.240
	LTE Band 66	20M	QPSK	1	0	-	Back	10mm	Ant 6	DSI5	132322	1745	18.70	20.20	1.413	-	-	-0.12	0.237	0.335
	LTE Band 66	20M	QPSK	50	0	-	Back	10mm	Ant 6	DSI5	132322	1745	18.67	20.20	1.422	-	-	-0.18	0.247	0.351
	LTE Band 66	20M	QPSK	1	0	-	Left Side	10mm	Ant 6	DSI5	132322	1745	18.70	20.20	1.413	-	-	-0.04	0.300	0.424
	LTE Band 66	20M	QPSK	50	0	-	Left Side	10mm	Ant 6	DSI5	132322	1745	18.67	20.20	1.422	-	-	0.08	0.304	0.432
	LTE Band 66	20M	QPSK	1	0	-	Top Side	10mm	Ant 6	DSI5	132322	1745	18.70	20.20	1.413	-	-	0.06	0.017	0.024
	LTE Band 66	20M	QPSK	50	0	-	Top Side	10mm	Ant 6	DSI5	132322	1745	18.67	20.20	1.422	-	-	-0.14	0.015	0.021
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Front	10mm	Ant 3	DSI5	349000	1745	22.40	22.70	1.072	-	-	0.13	0.519	0.556
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Front	10mm	Ant 3	DSI5	349000	1745	22.33	22.70	1.089	-	-	0.02	0.535	0.583
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Back	10mm	Ant 3	DSI5	349000	1745	22.40	22.70	1.072	-	-	0.05	0.483	0.518
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Back	10mm	Ant 3	DSI5	349000	1745	22.33	22.70	1.089	-	-	0.06	0.500	0.544
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Right Side	10mm	Ant 3	DSI5	349000	1745	22.40	22.70	1.072	-	-	-0.02	0.337	0.361
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Right Side	10mm	Ant 3	DSI5	349000	1745	22.33	22.70	1.089	-	-	-0.09	0.415	0.452
40	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	10mm	Ant 3	DSI5	349000	1745	22.40	22.70	1.072	-	-	0.02	0.888	**0.952**
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Bottom Side	10mm	Ant 3	DSI5	349000	1745	22.33	22.70	1.089	-	-	0.08	0.871	0.948
	FR1 n66	40M	QPSK	216	0	DFT-SCS-15KHz	Bottom Side	10mm	Ant 3	DSI5	349000	1745	22.30	22.70	1.096	-	-	-0.13	0.864	0.947
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Front	10mm	Ant 5	DSI5	349000	1745	21.05	21.50	1.109	-	-	0.08	0.226	0.251
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Front	10mm	Ant 5	DSI5	349000	1745	21.00	21.50	1.122	-	-	0.06	0.246	0.276
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Back	10mm	Ant 5	DSI5	349000	1745	21.05	21.50	1.109	-	-	-0.06	0.355	0.394

	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Back	10mm	Ant 5	DSI5	349000	1745	21.00	21.50	1.122	-	-	0.16	0.323	0.362
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Right Side	10mm	Ant 5	DSI5	349000	1745	21.05	21.50	1.109	-	-	0.03	0.455	0.505
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Right Side	10mm	Ant 5	DSI5	349000	1745	21.00	21.50	1.122	-	-	0.14	0.506	0.568
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Front	10mm	Ant 4	DSI5	349000	1745	17.45	17.70	1.059	-	-	0.06	0.125	0.132
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Front	10mm	Ant 4	DSI5	349000	1745	17.43	17.70	1.064	-	-	-0.03	0.120	0.128
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Back	10mm	Ant 4	DSI5	349000	1745	17.45	17.70	1.059	-	-	-0.05	0.219	0.232
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Back	10mm	Ant 4	DSI5	349000	1745	17.43	17.70	1.064	-	-	0.05	0.189	0.201
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Left Side	10mm	Ant 4	DSI5	349000	1745	17.45	17.70	1.059	-	-	0.16	0.049	0.052
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Left Side	10mm	Ant 4	DSI5	349000	1745	17.43	17.70	1.064	-	-	0.03	0.050	0.053
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Top Side	10mm	Ant 4	DSI5	349000	1745	17.45	17.70	1.059	-	-	-0.14	0.247	0.262
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Top Side	10mm	Ant 4	DSI5	349000	1745	17.43	17.70	1.064	-	-	-0.08	0.258	0.275
	FR1 n66 Other PA	40M	QPSK	1	1	DFT-SCS-15KHz	Front	10mm	Ant 6	DSI5	349000	1745	16.75	17.50	1.189	-	-	-0.05	0.043	0.051
	FR1 n66 Other PA	40M	QPSK	108	54	DFT-SCS-15KHz	Front	10mm	Ant 6	DSI5	349000	1745	16.73	17.50	1.194	-	-	0.05	0.057	0.068
	FR1 n66 Other PA	40M	QPSK	1	1	DFT-SCS-15KHz	Back	10mm	Ant 6	DSI5	349000	1745	16.75	17.50	1.189	-	-	0.16	0.066	0.078
	FR1 n66 Other PA	40M	QPSK	108	54	DFT-SCS-15KHz	Back	10mm	Ant 6	DSI5	349000	1745	16.73	17.50	1.194	-	-	0.08	0.091	0.109
	FR1 n66 Other PA	40M	QPSK	1	1	DFT-SCS-15KHz	Left Side	10mm	Ant 6	DSI5	349000	1745	16.75	17.50	1.189	-	-	-0.04	0.097	0.115
	FR1 n66 Other PA	40M	QPSK	108	54	DFT-SCS-15KHz	Left Side	10mm	Ant 6	DSI5	349000	1745	16.73	17.50	1.194	-	-	0.13	0.140	0.167
	FR1 n66 Other PA	40M	QPSK	1	1	DFT-SCS-15KHz	Top Side	10mm	Ant 6	DSI5	349000	1745	16.75	17.50	1.189	-	-	0.02	0.007	0.008
	FR1 n66 Other PA	40M	QPSK	108	54	DFT-SCS-15KHz	Top Side	10mm	Ant 6	DSI5	349000	1745	16.73	17.50	1.194	-	-	0.07	0.009	0.011
	FR1 n66 Main PA	40M	QPSK	108	54	DFT-SCS-15KHz	Left Side	10mm	Ant 6	DSI5	349000	1745	17.47	18.50	1.268	-	-	0.09	0.079	0.100
1900MHz																				
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Front	10mm	Ant 3	DSI5	661	1880	23.85	24.40	1.135	-	-	0.1	0.259	0.294
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Back	10mm	Ant 3	DSI5	661	1880	23.85	24.40	1.135	-	-	0.06	0.281	0.319
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Right Side	10mm	Ant 3	DSI5	661	1880	23.85	24.40	1.135	-	-	0.06	0.128	0.145
41	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Bottom Side	10mm	Ant 3	DSI5	661	1880	23.85	24.40	1.135	-	-	0.07	0.544	**0.617**
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Front	10mm	Ant 4	DSI5	661	1880	20.72	21.80	1.282	-	-	0.02	0.122	0.156
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Back	10mm	Ant 4	DSI5	661	1880	20.72	21.80	1.282	-	-	0.09	0.172	0.221
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Left Side	10mm	Ant 4	DSI5	661	1880	20.72	21.80	1.282	-	-	0.07	0.062	0.080
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Top Side	10mm	Ant 4	DSI5	661	1880	20.72	21.80	1.282	-	-	0.05	0.308	0.395
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 3	DSI5	9400	1880	21.38	22.30	1.236	-	-	-0.17	0.265	0.328
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 3	DSI5	9400	1880	21.38	22.30	1.236	-	-	0.1	0.261	0.323
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Side	10mm	Ant 3	DSI5	9400	1880	21.38	22.30	1.236	-	-	0.03	0.205	0.253
42	WCDMA II	-	-	-	-	RMC 12.2Kbps	Bottom Side	10mm	Ant 3	DSI5	9400	1880	21.38	22.30	1.236	-	-	0.01	0.528	**0.653**
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 4	DSI5	9400	1880	18.80	19.70	1.230	-	-	-0.04	0.143	0.176
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 4	DSI5	9400	1880	18.80	19.70	1.230	-	-	-0.13	0.101	0.124
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 4	DSI5	9400	1880	18.80	19.70	1.230	-	-	-0.06	0.051	0.063
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Top Side	10mm	Ant 4	DSI5	9400	1880	18.80	19.70	1.230	-	-	0.06	0.281	0.346
	LTE Band 2 Other PA	20M	QPSK	1	0	-	Front	10mm	Ant 5	DSI5	18900	1880	21.13	21.70	1.140	-	-	-0.15	0.183	0.209
	LTE Band 2 Other PA	20M	QPSK	50	0	-	Front	10mm	Ant 5	DSI5	18900	1880	21.01	21.70	1.172	-	-	0.01	0.173	0.203
	LTE Band 2 Other PA	20M	QPSK	1	0	-	Back	10mm	Ant 5	DSI5	18900	1880	21.13	21.70	1.140	-	-	0.06	0.251	0.286
	LTE Band 2 Other PA	20M	QPSK	50	0	-	Back	10mm	Ant 5	DSI5	18900	1880	21.01	21.70	1.172	-	-	0.09	0.242	0.284
43	LTE Band 2 Other PA	20M	QPSK	1	0	-	Right Side	10mm	Ant 5	DSI5	18900	1880	21.13	21.70	1.140	-	-	-0.12	0.415	**0.473**
	LTE Band 2 Other PA	20M	QPSK	50	0	-	Right Side	10mm	Ant 5	DSI5	18900	1880	21.01	21.70	1.172	-	-	0.05	0.389	0.456
	LTE Band 25	20M	QPSK	1	0	-	Front	10mm	Ant 3	DSI5	26340	1880	23.11	23.70	1.146	-	-	-0.15	0.330	0.378
	LTE Band 25	20M	QPSK	50	0	-	Front	10mm	Ant 3	DSI5	26340	1880	23.02	23.70	1.169	-	-	0.01	0.337	0.394
	LTE Band 25	20M	QPSK	1	0	-	Back	10mm	Ant 3	DSI5	26340	1880	23.11	23.70	1.146	-	-	0.06	0.332	0.380
	LTE Band 25	20M	QPSK	50	0	-	Back	10mm	Ant 3	DSI5	26340	1880	23.02	23.70	1.169	-	-	0.09	0.333	0.389
	LTE Band 25	20M	QPSK	1	0	-	Right Side	10mm	Ant 3	DSI5	26340	1880	23.11	23.70	1.146	-	-	-0.12	0.197	0.226
	LTE Band 25	20M	QPSK	50	0	-	Right Side	10mm	Ant 3	DSI5	26340	1880	23.02	23.70	1.169	-	-	0.05	0.190	0.222
	LTE Band 25	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 3	DSI5	26340	1880	23.11	23.70	1.146	-	-	0.19	0.590	0.676
44	LTE Band 25	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 3	DSI5	26340	1880	23.02	23.70	1.169	-	-	0.09	0.600	**0.702**
	LTE Band 25	20M	QPSK	1	0	-	Front	10mm	Ant 4	DSI5	26340	1880	18.50	19.40	1.230	-	-	0.07	0.112	0.138
	LTE Band 25	20M	QPSK	50	0	-	Front	10mm	Ant 4	DSI5	26340	1880	18.47	19.40	1.239	-	-	0.07	0.119	0.147
	LTE Band 25	20M	QPSK	1	0	-	Back	10mm	Ant 4	DSI5	26340	1880	18.50	19.40	1.230	-	-	0.03	0.196	0.241
	LTE Band 25	20M	QPSK	50	0	-	Back	10mm	Ant 4	DSI5	26340	1880	18.47	19.40	1.239	-	-	-0.08	0.193	0.239
	LTE Band 25	20M	QPSK	1	0	-	Left Side	10mm	Ant 4	DSI5	26340	1880	18.50	19.40	1.230	-	-	-0.1	0.008	0.010

	LTE Band 25	20M	QPSK	50	0	-	Left Side	10mm	Ant 4	DSI5	26340	1880	18.47	19.40	1.239	-	-	-0.15	0.007	0.009
	LTE Band 25	20M	QPSK	1	0	-	Top Side	10mm	Ant 4	DSI5	26340	1880	18.50	19.40	1.230	-	-	-0.11	0.297	0.365
	LTE Band 25	20M	QPSK	50	0	-	Top Side	10mm	Ant 4	DSI5	26340	1880	18.47	19.40	1.239	-	-	0.05	0.304	0.377
2600MHz																				
	LTE Band 7	20M	QPSK	1	0	-	Front	10mm	Ant 3	DSI5	21100	2535	19.21	19.70	1.119	-	-	0.07	0.212	0.237
	LTE Band 7	20M	QPSK	50	0	-	Front	10mm	Ant 3	DSI5	21100	2535	19.19	19.70	1.125	-	-	0.18	0.214	0.241
	LTE Band 7	20M	QPSK	1	0	-	Back	10mm	Ant 3	DSI5	21100	2535	19.21	19.70	1.119	-	-	0.05	0.282	0.316
	LTE Band 7	20M	QPSK	50	0	-	Back	10mm	Ant 3	DSI5	21100	2535	19.19	19.70	1.125	-	-	0.09	0.282	0.317
	LTE Band 7	20M	QPSK	1	0	-	Right Side	10mm	Ant 3	DSI5	21100	2535	19.21	19.70	1.119	-	-	-0.1	0.283	0.317
	LTE Band 7	20M	QPSK	50	0	-	Right Side	10mm	Ant 3	DSI5	21100	2535	19.19	19.70	1.125	-	-	-0.03	0.288	0.324
	LTE Band 7	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 3	DSI5	21100	2535	19.21	19.70	1.119	-	-	0.04	0.526	0.589
	LTE Band 7	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 3	DSI5	21100	2535	19.19	19.70	1.125	-	-	0.02	0.500	0.562
	LTE Band 7 UL_CA	20M	QPSK	1	99	-	Bottom Side	10mm	Ant 3	DSI5	21100+21298	2535+2554.8	19.13	19.70	1.140	-	-	0.02	0.500	0.570
	LTE Band 7	20M	QPSK	1	0	-	Front	10mm	Ant 5	DSI5	21100	2535	18.20	18.60	1.096	-	-	-0.07	0.178	0.195
	LTE Band 7	20M	QPSK	50	0	-	Front	10mm	Ant 5	DSI5	21100	2535	18.16	18.60	1.107	-	-	0.09	0.183	0.203
	LTE Band 7	20M	QPSK	1	0	-	Back	10mm	Ant 5	DSI5	21100	2535	18.20	18.60	1.096	-	-	0.09	0.306	0.336
	LTE Band 7	20M	QPSK	50	0	-	Back	10mm	Ant 5	DSI5	21100	2535	18.16	18.60	1.107	-	-	-0.09	0.308	0.341
45	LTE Band 7	20M	QPSK	1	0	-	Right Side	10mm	Ant 5	DSI5	21100	2535	18.20	18.60	1.096	-	-	0.02	0.588	**0.645**
	LTE Band 7	20M	QPSK	50	0	-	Right Side	10mm	Ant 5	DSI5	21100	2535	18.16	18.60	1.107	-	-	0.05	0.582	0.644
	LTE Band 7 UL_CA	20M	QPSK	1	99	-	Right Side	10mm	Ant 5	DSI5	21100+21298	2535+2554.8	18.04	18.60	1.138	-	-	0.07	0.560	0.637
	LTE Band 7	20M	QPSK	1	0	-	Front	10mm	Ant 4	DSI5	21100	2535	19.04	19.50	1.112	-	-	0.13	0.099	0.110
	LTE Band 7	20M	QPSK	50	0	-	Front	10mm	Ant 4	DSI5	21100	2535	18.99	19.50	1.125	-	-	-0.07	0.100	0.112
	LTE Band 7	20M	QPSK	1	0	-	Back	10mm	Ant 4	DSI5	21100	2535	19.04	19.50	1.112	-	-	0.08	0.098	0.109
	LTE Band 7	20M	QPSK	50	0	-	Back	10mm	Ant 4	DSI5	21100	2535	18.99	19.50	1.125	-	-	0.05	0.099	0.111
	LTE Band 7	20M	QPSK	1	0	-	Left Side	10mm	Ant 4	DSI5	21100	2535	19.04	19.50	1.112	-	-	0.05	0.004	0.004
	LTE Band 7	20M	QPSK	50	0	-	Left Side	10mm	Ant 4	DSI5	21100	2535	18.99	19.50	1.125	-	-	0.01	0.004	0.004
	LTE Band 7	20M	QPSK	1	0	-	Top Side	10mm	Ant 4	DSI5	21100	2535	19.04	19.50	1.112	-	-	-0.02	0.195	0.217
	LTE Band 7 UL_CA	20M	QPSK	1	99	-	Top Side	10mm	Ant 4	DSI5	21100+21298	2535+2554.8	18.99	19.50	1.125	-	-	-0.03	0.180	0.202
	LTE Band 7	20M	QPSK	50	0	-	Top Side	10mm	Ant 4	DSI5	21100	2535	18.99	19.50	1.125	-	-	0.13	0.190	0.214
	LTE Band 7	20M	QPSK	1	0	-	Front	10mm	Ant 6	DSI5	21100	2535	18.43	19.50	1.279	-	-	0.13	0.125	0.160
	LTE Band 7	20M	QPSK	50	0	-	Front	10mm	Ant 6	DSI5	21100	2535	18.39	19.50	1.291	-	-	-0.1	0.125	0.161
	LTE Band 7	20M	QPSK	1	0	-	Back	10mm	Ant 6	DSI5	21100	2535	18.43	19.50	1.279	-	-	0.17	0.169	0.216
	LTE Band 7	20M	QPSK	50	0	-	Back	10mm	Ant 6	DSI5	21100	2535	18.39	19.50	1.291	-	-	0.04	0.169	0.218
	LTE Band 7	20M	QPSK	1	0	-	Left Side	10mm	Ant 6	DSI5	21100	2535	18.43	19.50	1.279	-	-	-0.02	0.299	0.383
	LTE Band 7 UL_CA	20M	QPSK	1	99	-	Left Side	10mm	Ant 6	DSI5	21100+21298	2535+2554.8	18.36	19.50	1.300	-	-	-0.02	0.278	0.361
	LTE Band 7	20M	QPSK	50	0	-	Left Side	10mm	Ant 6	DSI5	21100	2535	18.39	19.50	1.291	-	-	-0.13	0.295	0.381
	LTE Band 7	20M	QPSK	1	0	-	Top Side	10mm	Ant 6	DSI5	21100	2535	18.43	19.50	1.279	-	-	-0.06	0.075	0.096
	LTE Band 7	20M	QPSK	50	0	-	Top Side	10mm	Ant 6	DSI5	21100	2535	18.39	19.50	1.291	-	-	0.02	0.076	0.098
	LTE Band 38	20M	QPSK	1	0	-	Front	10mm	Ant 5	DSI5	38000	2595	21.21	21.70	1.119	62.9	1.006	-0.1	0.240	0.270
	LTE Band 38	20M	QPSK	50	0	-	Front	10mm	Ant 5	DSI5	38000	2595	21.19	21.70	1.125	62.9	1.006	0.17	0.243	0.275
	LTE Band 38	20M	QPSK	1	0	-	Back	10mm	Ant 5	DSI5	38000	2595	21.21	21.70	1.119	62.9	1.006	0.04	0.368	0.414
	LTE Band 38	20M	QPSK	50	0	-	Back	10mm	Ant 5	DSI5	38000	2595	21.19	21.70	1.125	62.9	1.006	-0.02	0.372	0.421
	LTE Band 38	20M	QPSK	1	0	-	Right Side	10mm	Ant 5	DSI5	38000	2595	21.21	21.70	1.119	62.9	1.006	0.02	0.624	0.703
	LTE Band 38	20M	QPSK	1	0	-	Right Side	10mm	Ant 5	DSI5	37850	2580	21.12	21.70	1.143	62.9	1.006	0.02	0.600	0.690
	LTE Band 38	20M	QPSK	1	0	-	Right Side	10mm	Ant 5	DSI5	38150	2610	21.17	21.70	1.130	62.9	1.006	0.08	0.611	0.694
46	LTE Band 38	20M	QPSK	50	0	-	Right Side	10mm	Ant 5	DSI5	38000	2595	21.19	21.70	1.125	62.9	1.006	0.09	0.636	**0.720**
	LTE Band 38 UL_CA	20M	QPSK	50	50	-	Right Side	10mm	Ant 5	DSI5	37901+38099	2585.1+2604.9	21.14	21.70	1.138	62.9	1.006	0.01	0.621	0.711
	LTE Band 38	20M	QPSK	50	0	-	Right Side	10mm	Ant 5	DSI5	37850	2580	21.07	21.70	1.156	62.9	1.006	0.01	0.612	0.712
	LTE Band 38	20M	QPSK	50	0	-	Right Side	10mm	Ant 5	DSI5	38150	2610	21.04	21.70	1.164	62.9	1.006	0.07	0.602	0.705
	LTE Band 38	20M	QPSK	100	0	-	Right Side	10mm	Ant 5	DSI5	38000	2595	21.12	21.70	1.143	62.9	1.006	0.01	0.620	0.713
	LTE Band 38	20M	QPSK	1	0	-	Front	10mm	Ant 4	DSI5	38000	2595	20.95	21.20	1.059	62.9	1.006	0.05	0.126	0.134
	LTE Band 38	20M	QPSK	50	0	-	Front	10mm	Ant 4	DSI5	38000	2595	20.83	21.20	1.089	62.9	1.006	0.09	0.133	0.146
	LTE Band 38	20M	QPSK	1	0	-	Back	10mm	Ant 4	DSI5	38000	2595	20.95	21.20	1.059	62.9	1.006	-0.07	0.094	0.100
	LTE Band 38	20M	QPSK	50	0	-	Back	10mm	Ant 4	DSI5	38000	2595	20.83	21.20	1.089	62.9	1.006	0.16	0.098	0.107
	LTE Band 38	20M	QPSK	1	0	-	Left Side	10mm	Ant 4	DSI5	38000	2595	20.95	21.20	1.059	62.9	1.006	0.03	0.024	0.026
	LTE Band 38	20M	QPSK	50	0	-	Left Side	10mm	Ant 4	DSI5	38000	2595	20.83	21.20	1.089	62.9	1.006	0.06	0.027	0.030

	LTE Band 38	20M	QPSK	1	0	-	Top Side	10mm	Ant 4	DSI5	38000	2595	20.95	21.20	1.059	62.9	1.006	-0.08	0.180	0.192
	LTE Band 38 UL_CA	20M	QPSK	1	99	-	Top Side	10mm	Ant 4	DSI5	37901+38099	2585.1+2604.9	20.47	21.20	1.183	62.9	1.006	-0.08	0.155	0.184
	LTE Band 38	20M	QPSK	50	0	-	Top Side	10mm	Ant 4	DSI5	38000	2595	20.83	21.20	1.089	62.9	1.006	-0.05	0.173	0.190
	LTE Band 38	20M	QPSK	1	0	-	Front	10mm	Ant 6	DSI5	38000	2595	20.64	21.70	1.276	62.9	1.006	0.07	0.182	0.234
	LTE Band 38	20M	QPSK	50	0	-	Front	10mm	Ant 6	DSI5	38000	2595	20.62	21.70	1.282	62.9	1.006	-0.1	0.178	0.230
	LTE Band 38	20M	QPSK	1	0	-	Back	10mm	Ant 6	DSI5	38000	2595	20.64	21.70	1.276	62.9	1.006	0.05	0.269	0.345
	LTE Band 38	20M	QPSK	50	0	-	Back	10mm	Ant 6	DSI5	38000	2595	20.62	21.70	1.282	62.9	1.006	0.09	0.257	0.332
	LTE Band 38	20M	QPSK	1	0	-	Left Side	10mm	Ant 6	DSI5	38000	2595	20.64	21.70	1.276	62.9	1.006	-0.01	0.491	0.630
	LTE Band 38 UL_CA	20M	QPSK	1	99	-	Left Side	10mm	Ant 6	DSI5	37901+38099	2585.1+2604.9	20.57	21.70	1.297	62.9	1.006	0.02	0.472	0.616
	LTE Band 38	20M	QPSK	1	0	-	Left Side	10mm	Ant 6	DSI5	37850	2580	20.51	21.70	1.315	62.9	1.006	0.02	0.470	0.622
	LTE Band 38	20M	QPSK	1	0	-	Left Side	10mm	Ant 6	DSI5	38150	2610	20.57	21.70	1.297	62.9	1.006	0.05	0.466	0.608
	LTE Band 38	20M	QPSK	50	0	-	Left Side	10mm	Ant 6	DSI5	38000	2595	20.62	21.70	1.282	62.9	1.006	0.02	0.449	0.579
	LTE Band 38	20M	QPSK	100	0	-	Left Side	10mm	Ant 6	DSI5	38000	2595	20.57	21.70	1.297	62.9	1.006	0.07	0.444	0.579
	LTE Band 38	20M	QPSK	1	0	-	Top Side	10mm	Ant 6	DSI5	38000	2595	20.64	21.70	1.276	62.9	1.006	0.05	0.132	0.170
	LTE Band 38	20M	QPSK	50	0	-	Top Side	10mm	Ant 6	DSI5	38000	2595	20.62	21.70	1.282	62.9	1.006	0.01	0.135	0.174
	LTE Band 41	20M	QPSK	1	0	-	Front	10mm	Ant 3	DSI5	40620	2593	21.67	22.20	1.130	62.9	1.006	0.16	0.234	0.266
	LTE Band 41	20M	QPSK	50	0	-	Front	10mm	Ant 3	DSI5	40620	2593	21.62	22.20	1.143	62.9	1.006	0.03	0.245	0.282
	LTE Band 41	20M	QPSK	1	0	-	Back	10mm	Ant 3	DSI5	40620	2593	21.67	22.20	1.130	62.9	1.006	0.05	0.313	0.356
	LTE Band 41	20M	QPSK	50	0	-	Back	10mm	Ant 3	DSI5	40620	2593	21.62	22.20	1.143	62.9	1.006	0.09	0.322	0.370
	LTE Band 41	20M	QPSK	1	0	-	Right Side	10mm	Ant 3	DSI5	40620	2593	21.67	22.20	1.130	62.9	1.006	-0.07	0.149	0.169
	LTE Band 41	20M	QPSK	50	0	-	Right Side	10mm	Ant 3	DSI5	40620	2593	21.62	22.20	1.143	62.9	1.006	0.16	0.153	0.176
	LTE Band 41	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 3	DSI5	40620	2593	21.67	22.20	1.130	62.9	1.006	-0.08	0.572	0.650
	LTE Band 41	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 3	DSI5	39750	2506	21.57	22.20	1.156	62.9	1.006	0.07	0.566	0.658
	LTE Band 41	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 3	DSI5	40185	2549.5	21.64	22.20	1.138	62.9	1.006	0.01	0.570	0.652
	LTE Band 41	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 3	DSI5	41055	2636.5	21.61	22.20	1.146	62.9	1.006	0.1	0.562	0.648
	LTE Band 41	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 3	DSI5	41490	2680	21.55	22.20	1.161	62.9	1.006	0.02	0.560	0.654
47	LTE Band 41	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 3	DSI5	40620	2593	21.62	22.20	1.143	62.9	1.006	0.09	0.586	**0.674**
	LTE Band 41	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 3	DSI5	39750	2506	21.53	22.20	1.167	62.9	1.006	0.17	0.561	0.659
	LTE Band 41	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 3	DSI5	40185	2549.5	21.48	22.20	1.180	62.9	1.006	0.07	0.544	0.646
	LTE Band 41	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 3	DSI5	41055	2636.5	21.53	22.20	1.167	62.9	1.006	-0.1	0.551	0.647
	LTE Band 41	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 3	DSI5	41490	2680	21.50	22.20	1.175	62.9	1.006	0.05	0.550	0.650
	LTE Band 41	20M	QPSK	100	0	-	Bottom Side	10mm	Ant 3	DSI5	40620	2593	21.54	22.20	1.164	62.9	1.006	0.02	0.553	0.648
	LTE Band 41	20M	QPSK	1	0	-	Front	10mm	Ant 5	DSI5	40620	2593	20.23	20.70	1.114	62.9	1.006	-0.13	0.157	0.176
	LTE Band 41	20M	QPSK	50	0	-	Front	10mm	Ant 5	DSI5	40620	2593	20.20	20.70	1.122	62.9	1.006	-0.17	0.170	0.192
	LTE Band 41	20M	QPSK	1	0	-	Back	10mm	Ant 5	DSI5	40620	2593	20.23	20.70	1.114	62.9	1.006	-0.11	0.257	0.288
	LTE Band 41	20M	QPSK	50	0	-	Back	10mm	Ant 5	DSI5	40620	2593	20.20	20.70	1.122	62.9	1.006	0.13	0.264	0.298
	LTE Band 41	20M	QPSK	1	0	-	Right Side	10mm	Ant 5	DSI5	40620	2593	20.23	20.70	1.114	62.9	1.006	0.12	0.488	0.547
	LTE Band 41	20M	QPSK	50	0	-	Right Side	10mm	Ant 5	DSI5	40620	2593	20.20	20.70	1.122	62.9	1.006	0.01	0.504	0.569
	LTE Band 41	20M	QPSK	1	0	-	Front	10mm	Ant 4	DSI5	40620	2593	21.20	21.70	1.122	62.9	1.006	-0.14	0.093	0.105
	LTE Band 41	20M	QPSK	50	0	-	Front	10mm	Ant 4	DSI5	40620	2593	21.16	21.70	1.132	62.9	1.006	0.03	0.095	0.108
	LTE Band 41	20M	QPSK	1	0	-	Back	10mm	Ant 4	DSI5	40620	2593	21.20	21.70	1.122	62.9	1.006	0.17	0.077	0.087
	LTE Band 41	20M	QPSK	50	0	-	Back	10mm	Ant 4	DSI5	40620	2593	21.16	21.70	1.132	62.9	1.006	0.07	0.079	0.090
	LTE Band 41	20M	QPSK	1	0	-	Left Side	10mm	Ant 4	DSI5	40620	2593	21.20	21.70	1.122	62.9	1.006	-0.1	0.004	0.005
	LTE Band 41	20M	QPSK	50	0	-	Left Side	10mm	Ant 4	DSI5	40620	2593	21.16	21.70	1.132	62.9	1.006	0.05	0.003	0.003
	LTE Band 41	20M	QPSK	1	0	-	Top Side	10mm	Ant 4	DSI5	40620	2593	21.20	21.70	1.122	62.9	1.006	0.09	0.127	0.143
	LTE Band 41	20M	QPSK	50	0	-	Top Side	10mm	Ant 4	DSI5	40620	2593	21.16	21.70	1.132	62.9	1.006	-0.03	0.131	0.149
	LTE Band 41	20M	QPSK	1	0	-	Front	10mm	Ant 6	DSI5	40620	2593	20.14	21.20	1.276	62.9	1.006	0.02	0.189	0.243
	LTE Band 41	20M	QPSK	50	0	-	Front	10mm	Ant 6	DSI5	40620	2593	20.11	21.20	1.285	62.9	1.006	0.09	0.193	0.250
	LTE Band 41	20M	QPSK	1	0	-	Back	10mm	Ant 6	DSI5	40620	2593	20.14	21.20	1.276	62.9	1.006	0.13	0.278	0.357
	LTE Band 41	20M	QPSK	50	0	-	Back	10mm	Ant 6	DSI5	40620	2593	20.11	21.20	1.285	62.9	1.006	0.05	0.284	0.367
	LTE Band 41	20M	QPSK	1	0	-	Left Side	10mm	Ant 6	DSI5	40620	2593	20.14	21.20	1.276	62.9	1.006	0.16	0.506	0.650
	LTE Band 41	20M	QPSK	1	0	-	Left Side	10mm	Ant 6	DSI5	39750	2506	20.09	21.20	1.291	62.9	1.006	0.17	0.498	0.647
	LTE Band 41	20M	QPSK	1	0	-	Left Side	10mm	Ant 6	DSI5	40185	2549.5	20.07	21.20	1.297	62.9	1.006	0.07	0.489	0.638
	LTE Band 41	20M	QPSK	1	0	-	Left Side	10mm	Ant 6	DSI5	41055	2636.5	20.01	21.20	1.315	62.9	1.006	-0.1	0.499	0.660
	LTE Band 41	20M	QPSK	1	0	-	Left Side	10mm	Ant 6	DSI5	41490	2680	19.99	21.20	1.321	62.9	1.006	0.05	0.502	0.667
	LTE Band 41	20M	QPSK	50	0	-	Left Side	10mm	Ant 6	DSI5	40620	2593	20.11	21.20	1.285	62.9	1.006	0.09	0.519	0.671

	LTE Band 41	20M	QPSK	50	0	-	Left Side	10mm	Ant 6	DSI5	39750	2506	20.03	21.20	1.309	62.9	1.006	-0.11	0.500	0.659
	LTE Band 41	20M	QPSK	50	0	-	Left Side	10mm	Ant 6	DSI5	40185	2549.5	20.07	21.20	1.297	62.9	1.006	-0.11	0.505	0.659
	LTE Band 41	20M	QPSK	50	0	-	Left Side	10mm	Ant 6	DSI5	41055	2636.5	19.98	21.20	1.324	62.9	1.006	-0.12	0.498	0.663
	LTE Band 41	20M	QPSK	50	0	-	Left Side	10mm	Ant 6	DSI5	41490	2680	20.07	21.20	1.297	62.9	1.006	0.02	0.507	0.662
	LTE Band 41	20M	QPSK	100	0	-	Left Side	10mm	Ant 6	DSI5	40620	2593	20.10	21.20	1.288	62.9	1.006	0.07	0.510	0.661
	LTE Band 41	20M	QPSK	1	0	-	Top Side	10mm	Ant 6	DSI5	40620	2593	20.14	21.20	1.276	62.9	1.006	-0.15	0.123	0.158
	LTE Band 41	20M	QPSK	50	0	-	Top Side	10mm	Ant 6	DSI5	40620	2593	20.11	21.20	1.285	62.9	1.006	0.19	0.125	0.162
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Front	10mm	Ant 3	DSI5	507000	2535	19.22	19.70	1.117	-	-	-0.07	0.233	0.260
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Front	10mm	Ant 3	DSI5	507000	2535	19.20	19.70	1.122	-	-	0.06	0.230	0.258
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Back	10mm	Ant 3	DSI5	507000	2535	19.22	19.70	1.117	-	-	-0.1	0.292	0.326
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Back	10mm	Ant 3	DSI5	507000	2535	19.20	19.70	1.122	-	-	-0.08	0.318	0.357
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Right Side	10mm	Ant 3	DSI5	507000	2535	19.22	19.70	1.117	-	-	-0.11	0.243	0.271
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Right Side	10mm	Ant 3	DSI5	507000	2535	19.20	19.70	1.122	-	-	-0.11	0.208	0.233
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	10mm	Ant 3	DSI5	507000	2535	19.22	19.70	1.117	-	-	-0.12	0.557	0.622
48	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Bottom Side	10mm	Ant 3	DSI5	507000	2535	19.20	19.70	1.122	-	-	0.04	0.571	**0.641**
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Front	10mm	Ant 5	DSI5	507000	2535	17.40	17.70	1.072	-	-	-0.07	0.138	0.148
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Front	10mm	Ant 5	DSI5	507000	2535	17.32	17.70	1.091	-	-	0.1	0.131	0.143
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Back	10mm	Ant 5	DSI5	507000	2535	17.40	17.70	1.072	-	-	0.03	0.234	0.251
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Back	10mm	Ant 5	DSI5	507000	2535	17.32	17.70	1.091	-	-	0.13	0.229	0.250
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Right Side	10mm	Ant 5	DSI5	507000	2535	17.40	17.70	1.072	-	-	0.14	0.404	0.433
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Right Side	10mm	Ant 5	DSI5	507000	2535	17.32	17.70	1.091	-	-	0.12	0.415	0.453
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Front	10mm	Ant 4	DSI5	507000	2535	18.90	19.20	1.072	-	-	-0.07	0.151	0.162
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Front	10mm	Ant 4	DSI5	507000	2535	18.88	19.20	1.076	-	-	0.07	0.136	0.146
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Back	10mm	Ant 4	DSI5	507000	2535	18.90	19.20	1.072	-	-	-0.18	0.170	0.182
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Back	10mm	Ant 4	DSI5	507000	2535	18.88	19.20	1.076	-	-	0.06	0.162	0.174
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Left Side	10mm	Ant 4	DSI5	507000	2535	18.90	19.20	1.072	-	-	0.15	0.005	0.005
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Left Side	10mm	Ant 4	DSI5	507000	2535	18.88	19.20	1.076	-	-	0.15	0.004	0.004
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Top Side	10mm	Ant 4	DSI5	507000	2535	18.90	19.20	1.072	-	-	0.07	0.257	0.275
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Top Side	10mm	Ant 4	DSI5	507000	2535	18.88	19.20	1.076	-	-	-0.07	0.251	0.270
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Front	10mm	Ant 6	DSI5	507000	2535	17.93	18.70	1.194	-	-	0.07	0.138	0.165
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Front	10mm	Ant 6	DSI5	507000	2535	17.90	18.70	1.202	-	-	-0.18	0.143	0.172
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Back	10mm	Ant 6	DSI5	507000	2535	17.93	18.70	1.194	-	-	0.02	0.197	0.235
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Back	10mm	Ant 6	DSI5	507000	2535	17.90	18.70	1.202	-	-	0.05	0.198	0.238
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Left Side	10mm	Ant 6	DSI5	507000	2535	17.93	18.70	1.194	-	-	0.02	0.343	0.410
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Left Side	10mm	Ant 6	DSI5	507000	2535	17.90	18.70	1.202	-	-	-0.03	0.366	0.440
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Top Side	10mm	Ant 6	DSI5	507000	2535	17.93	18.70	1.194	-	-	0.06	0.085	0.101
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Top Side	10mm	Ant 6	DSI5	507000	2535	17.90	18.70	1.202	-	-	0.12	0.090	0.108
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 3	DSI5	518598	2592.99	19.36	19.70	1.081	-	-	0.13	0.231	0.250
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Front	10mm	Ant 3	DSI5	518598	2592.99	19.33	19.70	1.089	-	-	0.04	0.208	0.226
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 3	DSI5	518598	2592.99	19.36	19.70	1.081	-	-	0.05	0.295	0.319
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 3	DSI5	518598	2592.99	19.33	19.70	1.089	-	-	0.12	0.276	0.301
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Right Side	10mm	Ant 3	DSI5	518598	2592.99	19.36	19.70	1.081	-	-	-0.16	0.300	0.324
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Right Side	10mm	Ant 3	DSI5	518598	2592.99	19.33	19.70	1.089	-	-	-0.06	0.285	0.310
49	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Bottom Side	10mm	Ant 3	DSI5	518598	2592.99	19.36	19.70	1.081	-	-	0.04	0.572	**0.619**
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Bottom Side	10mm	Ant 3	DSI5	518598	2592.99	19.33	19.70	1.089	-	-	-0.16	0.521	0.567
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 5	DSI5	518598	2592.99	18.46	18.70	1.057	-	-	0.13	0.143	0.151
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Front	10mm	Ant 5	DSI5	518598	2592.99	18.38	18.70	1.076	-	-	-0.08	0.127	0.137
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 5	DSI5	518598	2592.99	18.46	18.70	1.057	-	-	-0.03	0.236	0.249
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 5	DSI5	518598	2592.99	18.38	18.70	1.076	-	-	-0.07	0.206	0.222
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Right Side	10mm	Ant 5	DSI5	518598	2592.99	18.46	18.70	1.057	-	-	-0.16	0.445	0.470
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Right Side	10mm	Ant 5	DSI5	518598	2592.99	18.38	18.70	1.076	-	-	-0.16	0.331	0.356
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 4	DSI5	518598	2592.99	18.45	18.70	1.059	-	-	-0.02	0.105	0.111
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Front	10mm	Ant 4	DSI5	518598	2592.99	18.40	18.70	1.072	-	-	0.03	0.100	0.107
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 4	DSI5	518598	2592.99	18.45	18.70	1.059	-	-	0.01	0.127	0.135
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 4	DSI5	518598	2592.99	18.40	18.70	1.072	-	-	0.06	0.095	0.102
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	10mm	Ant 4	DSI5	518598	2592.99	18.45	18.70	1.059	-	-	-0.15	0.022	0.023

	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Left Side	10mm	Ant 4	DSI5	518598	2592.99	18.40	18.70	1.072	-	-	0.08	0.022	0.024
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 4	DSI5	518598	2592.99	18.45	18.70	1.059	-	-	0.04	0.194	0.205
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	10mm	Ant 4	DSI5	518598	2592.99	18.40	18.70	1.072	-	-	-0.01	0.126	0.135
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 6	DSI5	518598	2592.99	18.32	19.70	1.374	-	-	0.09	0.149	0.205
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Front	10mm	Ant 6	DSI5	518598	2592.99	18.26	19.70	1.393	-	-	0.18	0.138	0.192
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 6	DSI5	518598	2592.99	18.32	19.70	1.374	-	-	0.18	0.209	0.287
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 6	DSI5	518598	2592.99	18.26	19.70	1.393	-	-	0.06	0.222	0.309
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	10mm	Ant 6	DSI5	518598	2592.99	18.32	19.70	1.374	-	-	0.02	0.346	0.475
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Left Side	10mm	Ant 6	DSI5	518598	2592.99	18.26	19.70	1.393	-	-	0.08	0.097	0.135
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 6	DSI5	518598	2592.99	18.32	19.70	1.374	-	-	0.09	0.088	0.121
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	10mm	Ant 6	DSI5	518598	2592.99	18.26	19.70	1.393	-	-	0.01	0.092	0.128
3500MHz																				
	LTE Band 42	20M	QPSK	1	0	-	Front	10mm	Ant 1	DSI5	42590	3500	21.56	22.50	1.242	62.9	1.006	-0.02	0.092	0.115
	LTE Band 42	20M	QPSK	50	0	-	Front	10mm	Ant 1	DSI5	42590	3500	21.53	22.50	1.250	62.9	1.006	0.05	0.057	0.072
	LTE Band 42	20M	QPSK	1	0	-	Back	10mm	Ant 1	DSI5	42590	3500	21.56	22.50	1.242	62.9	1.006	0.08	0.192	0.240
	LTE Band 42	20M	QPSK	50	0	-	Back	10mm	Ant 1	DSI5	42590	3500	21.53	22.50	1.250	62.9	1.006	0.06	0.116	0.146
	LTE Band 42	20M	QPSK	1	0	-	Left Side	10mm	Ant 1	DSI5	42590	3500	21.56	22.50	1.242	62.9	1.006	0.06	0.316	0.395
	LTE Band 42 UL_CA	20M	QPSK	1	99	-	Left Side	10mm	Ant 1	DSI5	42590+42788	3500+3519.8	21.53	22.50	1.250	62.9	1.006	0.02	0.300	0.377
	LTE Band 42	20M	QPSK	50	0	-	Left Side	10mm	Ant 1	DSI5	42590	3500	21.53	22.50	1.250	62.9	1.006	0.03	0.192	0.241
	LTE Band 42	20M	QPSK	1	0	-	Front	10mm	Ant 3	DSI5	42590	3500	21.78	22.80	1.265	62.9	1.006	0.02	0.169	0.215
	LTE Band 42	20M	QPSK	50	0	-	Front	10mm	Ant 3	DSI5	42590	3500	21.73	22.80	1.279	62.9	1.006	0.02	0.163	0.210
	LTE Band 42	20M	QPSK	1	0	-	Back	10mm	Ant 3	DSI5	42590	3500	21.78	22.80	1.265	62.9	1.006	0.09	0.550	0.700
	LTE Band 42	20M	QPSK	1	0	-	Back	10mm	Ant 3	DSI5	42190	3460	21.68	22.80	1.294	62.9	1.006	0.02	0.541	0.704
	LTE Band 42	20M	QPSK	1	0	-	Back	10mm	Ant 3	DSI5	42990	3540	21.64	22.80	1.306	62.9	1.006	0.07	0.539	0.708
	LTE Band 42	20M	QPSK	50	0	-	Back	10mm	Ant 3	DSI5	42590	3500	21.73	22.80	1.279	62.9	1.006	0.13	0.623	0.802
50	LTE Band 42	20M	QPSK	50	0	-	Back	10mm	Ant 3	DSI5	42190	3460	21.60	22.80	1.318	62.9	1.006	0.05	0.614	**0.814**
	LTE Band 42 UL_CA	20M	QPSK	50	50	-	Back	10mm	Ant 3	DSI5	42190+42388	3460+3479.8	21.58	22.80	1.324	62.9	1.006	0.02	0.600	0.799
	LTE Band 42	20M	QPSK	50	0	-	Back	10mm	Ant 3	DSI5	42990	3540	21.71	22.80	1.285	62.9	1.006	0.04	0.534	0.690
	LTE Band 42	20M	QPSK	100	0	-	Back	10mm	Ant 3	DSI5	42590	3500	21.71	22.80	1.285	62.9	1.006	-0.07	0.524	0.678
	LTE Band 42	20M	QPSK	1	0	-	Right Side	10mm	Ant 3	DSI5	42590	3500	21.78	22.80	1.265	62.9	1.006	-0.03	0.089	0.113
	LTE Band 42	20M	QPSK	50	0	-	Right Side	10mm	Ant 3	DSI5	42590	3500	21.73	22.80	1.279	62.9	1.006	-0.06	0.093	0.120
	LTE Band 42	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 3	DSI5	42590	3500	21.78	22.80	1.265	62.9	1.006	0.02	0.220	0.280
	LTE Band 42	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 3	DSI5	42590	3500	21.73	22.80	1.279	62.9	1.006	0.18	0.225	0.290
	LTE Band 42	20M	QPSK	1	0	-	Front	10mm	Ant 10	DSI5	42590	3500	16.82	17.20	1.091	62.9	1.006	0.06	0.054	0.059
	LTE Band 42	20M	QPSK	50	0	-	Front	10mm	Ant 10	DSI5	42590	3500	16.80	17.20	1.096	62.9	1.006	0.05	0.055	0.061
	LTE Band 42	20M	QPSK	1	0	-	Back	10mm	Ant 10	DSI5	42590	3500	16.82	17.20	1.091	62.9	1.006	0.06	0.073	0.080
	LTE Band 42	20M	QPSK	50	0	-	Back	10mm	Ant 10	DSI5	42590	3500	16.80	17.20	1.096	62.9	1.006	0.09	0.073	0.081
	LTE Band 42	20M	QPSK	1	0	-	Left Side	10mm	Ant 10	DSI5	42590	3500	16.82	17.20	1.091	62.9	1.006	-0.14	0.006	0.007
	LTE Band 42	20M	QPSK	50	0	-	Left Side	10mm	Ant 10	DSI5	42590	3500	16.80	17.20	1.096	62.9	1.006	0.07	0.012	0.013
	LTE Band 42	20M	QPSK	1	0	-	Top Side	10mm	Ant 10	DSI5	42590	3500	16.82	17.20	1.091	62.9	1.006	0.06	0.133	0.146
	LTE Band 42	20M	QPSK	50	0	-	Top Side	10mm	Ant 10	DSI5	42590	3500	16.80	17.20	1.096	62.9	1.006	0.01	0.135	0.149
	LTE Band 42 UL_CA	20M	QPSK	50	50	-	Top Side	10mm	Ant 10	DSI5	42590+42788	3500+3519.8	16.65	17.20	1.135	62.9	1.006	0.05	0.120	0.137
	LTE Band 42	20M	QPSK	1	0	-	Front	10mm	Ant 13	DSI5	42590	3500	21.23	22.40	1.309	62.9	1.006	0.05	0.012	0.016
	LTE Band 42	20M	QPSK	50	0	-	Front	10mm	Ant 13	DSI5	42590	3500	21.20	22.40	1.318	62.9	1.006	0.12	0.035	0.046
	LTE Band 42	20M	QPSK	1	0	-	Back	10mm	Ant 13	DSI5	42590	3500	21.23	22.40	1.309	62.9	1.006	-0.12	0.561	0.739
	LTE Band 42	20M	QPSK	1	0	-	Back	10mm	Ant 13	DSI5	42190	3460	21.13	22.40	1.340	62.9	1.006	0.07	0.551	0.743
	LTE Band 42	20M	QPSK	1	0	-	Back	10mm	Ant 13	DSI5	42990	3540	21.08	22.40	1.355	62.9	1.006	0.01	0.548	0.747
	LTE Band 42	20M	QPSK	50	0	-	Back	10mm	Ant 13	DSI5	42590	3500	21.20	22.40	1.318	62.9	1.006	0.05	0.567	0.752
	LTE Band 42 UL_CA	20M	QPSK	50	50	-	Back	10mm	Ant 13	DSI5	42590+42788	3500+3519.8	21.03	22.40	1.371	62.9	1.006	0.1	0.525	0.724
	LTE Band 42	20M	QPSK	50	0	-	Back	10mm	Ant 13	DSI5	42190	3460	21.09	22.40	1.352	62.9	1.006	0.02	0.551	0.749
	LTE Band 42	20M	QPSK	50	0	-	Back	10mm	Ant 13	DSI5	42990	3540	21.10	22.40	1.349	62.9	1.006	0.09	0.551	0.748
	LTE Band 42	20M	QPSK	100	0	-	Back	10mm	Ant 13	DSI5	42590	3500	21.10	22.40	1.349	62.9	1.006	0.1	0.550	0.746
	LTE Band 42	20M	QPSK	1	0	-	Left Side	10mm	Ant 13	DSI5	42590	3500	21.23	22.40	1.309	62.9	1.006	0.1	0.095	0.125
	LTE Band 42	20M	QPSK	50	0	-	Left Side	10mm	Ant 13	DSI5	42590	3500	21.20	22.40	1.318	62.9	1.006	0.06	0.096	0.127
	LTE Band 42	20M	QPSK	1	0	-	Top Side	10mm	Ant 13	DSI5	42590	3500	21.23	22.40	1.309	62.9	1.006	0.08	0.085	0.112
	LTE Band 42	20M	QPSK	50	0	-	Top Side	10mm	Ant 13	DSI5	42590	3500	21.20	22.40	1.318	62.9	1.006	-0.11	0.073	0.097

	LTE Band 48	20M	QPSK	1	0	-	Front	10mm	Ant 1	DSI5	55830	3609	18.97	20.00	1.268	62.9	1.006	0.03	0.062	0.079
	LTE Band 48	20M	QPSK	50	0	-	Front	10mm	Ant 1	DSI5	55830	3609	18.85	20.00	1.303	62.9	1.006	0.02	0.062	0.081
	LTE Band 48	20M	QPSK	1	0	-	Back	10mm	Ant 1	DSI5	55830	3609	18.97	20.00	1.268	62.9	1.006	-0.02	0.117	0.149
	LTE Band 48	20M	QPSK	50	0	-	Back	10mm	Ant 1	DSI5	55830	3609	18.85	20.00	1.303	62.9	1.006	-0.17	0.121	0.159
	LTE Band 48	20M	QPSK	1	0	-	Left Side	10mm	Ant 1	DSI5	55830	3609	18.97	20.00	1.268	62.9	1.006	0.04	0.207	0.264
	LTE Band 48	20M	QPSK	50	0	-	Left Side	10mm	Ant 1	DSI5	55830	3609	18.85	20.00	1.303	62.9	1.006	0.09	0.216	0.283
	LTE Band 48	20M	QPSK	1	0	-	Front	10mm	Ant 3	DSI5	55830	3609	19.34	20.40	1.276	62.9	1.006	0.04	0.183	0.235
	LTE Band 48	20M	QPSK	50	0	-	Front	10mm	Ant 3	DSI5	55830	3609	19.26	20.40	1.300	62.9	1.006	0.01	0.193	0.252
	LTE Band 48	20M	QPSK	1	0	-	Back	10mm	Ant 3	DSI5	55830	3609	19.34	20.40	1.276	62.9	1.006	0.13	0.543	0.697
	LTE Band 48	20M	QPSK	1	0	-	Back	10mm	Ant 3	DSI5	55340	3560	19.28	20.40	1.294	62.9	1.006	0.02	0.533	0.694
	LTE Band 48	20M	QPSK	1	0	-	Back	10mm	Ant 3	DSI5	56150	3641	19.24	20.40	1.306	62.9	1.006	0.02	0.530	0.696
	LTE Band 48	20M	QPSK	1	0	-	Back	10mm	Ant 3	DSI5	56640	3690	19.21	20.40	1.315	62.9	1.006	0.1	0.540	0.714
51	LTE Band 48	20M	QPSK	50	0	-	Back	10mm	Ant 3	DSI5	55830	3609	19.26	20.40	1.300	62.9	1.006	0.07	0.585	**0.765**
	LTE Band 48	20M	QPSK	50	0	-	Back	10mm	Ant 3	DSI5	55340	3560	19.14	20.40	1.337	62.9	1.006	0.01	0.566	0.761
	LTE Band 48	20M	QPSK	50	0	-	Back	10mm	Ant 3	DSI5	56150	3641	19.24	20.40	1.306	62.9	1.006	0.08	0.557	0.732
	LTE Band 48	20M	QPSK	50	0	-	Back	10mm	Ant 3	DSI5	56640	3690	19.04	20.40	1.368	62.9	1.006	0.01	0.550	0.757
	LTE Band 48	20M	QPSK	100	0	-	Back	10mm	Ant 3	DSI5	55830	3609	19.25	20.40	1.303	62.9	1.006	-0.03	0.566	0.742
	LTE Band 48	20M	QPSK	1	0	-	Right Side	10mm	Ant 3	DSI5	55830	3609	19.34	20.40	1.276	62.9	1.006	-0.07	0.093	0.119
	LTE Band 48	20M	QPSK	50	0	-	Right Side	10mm	Ant 3	DSI5	55830	3609	19.26	20.40	1.300	62.9	1.006	0.09	0.094	0.123
	LTE Band 48	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 3	DSI5	55830	3609	19.34	20.40	1.276	62.9	1.006	0.11	0.188	0.241
	LTE Band 48	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 3	DSI5	55830	3609	19.26	20.40	1.300	62.9	1.006	0.15	0.197	0.258
	LTE Band 48	20M	QPSK	1	0	-	Front	10mm	Ant 10	DSI5	55830	3609	14.82	15.10	1.067	62.9	1.006	-0.16	0.085	0.091
	LTE Band 48	20M	QPSK	50	0	-	Front	10mm	Ant 10	DSI5	55830	3609	14.70	15.10	1.096	62.9	1.006	-0.13	0.085	0.094
	LTE Band 48	20M	QPSK	1	0	-	Back	10mm	Ant 10	DSI5	55830	3609	14.82	15.10	1.067	62.9	1.006	0.03	0.107	0.115
	LTE Band 48	20M	QPSK	50	0	-	Back	10mm	Ant 10	DSI5	55830	3609	14.70	15.10	1.096	62.9	1.006	-0.09	0.112	0.124
	LTE Band 48	20M	QPSK	1	0	-	Left Side	10mm	Ant 10	DSI5	55830	3609	14.82	15.10	1.067	62.9	1.006	-0.04	0.005	0.005
	LTE Band 48	20M	QPSK	50	0	-	Left Side	10mm	Ant 10	DSI5	55830	3609	14.70	15.10	1.096	62.9	1.006	0.03	0.005	0.006
	LTE Band 48	20M	QPSK	1	0	-	Top Side	10mm	Ant 10	DSI5	55830	3609	14.82	15.10	1.067	62.9	1.006	0.03	0.208	0.223
	LTE Band 48	20M	QPSK	50	0	-	Top Side	10mm	Ant 10	DSI5	55830	3609	14.70	15.10	1.096	62.9	1.006	0.06	0.201	0.222
	LTE Band 48	20M	QPSK	1	0	-	Front	10mm	Ant 13	DSI5	55830	3609	19.33	20.70	1.371	62.9	1.006	-0.03	0.022	0.030
	LTE Band 48	20M	QPSK	50	0	-	Front	10mm	Ant 13	DSI5	55830	3609	19.26	20.70	1.393	62.9	1.006	0.01	0.038	0.053
	LTE Band 48	20M	QPSK	1	0	-	Back	10mm	Ant 13	DSI5	55830	3609	19.33	20.70	1.371	62.9	1.006	-0.13	0.326	0.450
	LTE Band 48	20M	QPSK	50	0	-	Back	10mm	Ant 13	DSI5	55830	3609	19.26	20.70	1.393	62.9	1.006	0.01	0.332	0.465
	LTE Band 48	20M	QPSK	1	0	-	Left Side	10mm	Ant 13	DSI5	55830	3609	19.33	20.70	1.371	62.9	1.006	0.05	0.059	0.081
	LTE Band 48	20M	QPSK	50	0	-	Left Side	10mm	Ant 13	DSI5	55830	3609	19.26	20.70	1.393	62.9	1.006	0.06	0.058	0.081
	LTE Band 48	20M	QPSK	1	0	-	Top Side	10mm	Ant 13	DSI5	55830	3609	19.33	20.70	1.371	62.9	1.006	0.06	0.089	0.123
	LTE Band 48	20M	QPSK	50	0	-	Top Side	10mm	Ant 13	DSI5	55830	3609	19.26	20.70	1.393	62.9	1.006	0.16	0.092	0.129
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 1	DSI5	656000	3840	19.59	21.00	1.384	-	-	-0.03	0.098	0.136
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Front	10mm	Ant 1	DSI5	656000	3840	19.43	21.00	1.435	-	-	0.06	0.094	0.135
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 1	DSI5	656000	3840	19.59	21.00	1.384	-	-	0.08	0.192	0.266
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 1	DSI5	656000	3840	19.43	21.00	1.435	-	-	0.03	0.175	0.251
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	10mm	Ant 1	DSI5	656000	3840	19.59	21.00	1.384	-	-	0.18	0.281	0.389
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Left Side	10mm	Ant 1	DSI5	656000	3840	19.43	21.00	1.435	-	-	0.15	0.269	0.386
	FR1 n77 PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	10mm	Ant 1	DSI5	656000	3840	22.70	24.00	1.349	50	1.000	-0.01	0.314	0.424
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 1	DSI5	633334	3500.01	20.20	21.00	1.202	-	-	0.19	0.141	0.170
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Front	10mm	Ant 1	DSI5	633334	3500.01	20.15	21.00	1.216	-	-	0.18	0.128	0.156
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 1	DSI5	633334	3500.01	20.20	21.00	1.202	-	-	-0.06	0.260	0.313
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 1	DSI5	633334	3500.01	20.15	21.00	1.216	-	-	-0.14	0.252	0.306
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	10mm	Ant 1	DSI5	633334	3500.01	20.20	21.00	1.202	-	-	0.17	0.364	0.438
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Left Side	10mm	Ant 1	DSI5	633334	3500.01	20.15	21.00	1.216	-	-	0.07	0.350	0.426
	FR1 n77 PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	10mm	Ant 1	DSI5	633334	3500.01	23.25	24.00	1.189	50	1.000	-0.05	0.338	0.402
	FR1 n77 PC3 Other PA	100M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 3	DSI5	656000	3840	17.76	19.20	1.393	-	-	-0.03	0.112	0.156
	FR1 n77 PC3 Other PA	100M	QPSK	135	69	DFT-SCS-30KHz	Front	10mm	Ant 3	DSI5	656000	3840	17.73	19.20	1.403	-	-	0.06	0.098	0.137
	FR1 n77 PC3 Other PA	100M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 3	DSI5	656000	3840	17.76	19.20	1.393	-	-	0.04	0.364	0.507
	FR1 n77 PC3 Other PA	100M	QPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 3	DSI5	656000	3840	17.73	19.20	1.403	-	-	0.1	0.286	0.401
	FR1 n77 PC3 Other PA	100M	QPSK	1	1	DFT-SCS-30KHz	Right Side	10mm	Ant 3	DSI5	656000	3840	17.76	19.20	1.393	-	-	-0.02	0.061	0.085

	FR1 n77 PC3 Other PA	100M	QPSK	135	69	DFT-SCS-30KHz	Right Side	10mm	Ant 3	DSI5	656000	3840	17.73	19.20	1.403	-	-	0.02	0.058	0.081
	FR1 n77 PC3 Other PA	100M	QPSK	1	1	DFT-SCS-30KHz	Bottom Side	10mm	Ant 3	DSI5	656000	3840	17.76	19.20	1.393	-	-	-0.09	0.121	0.169
	FR1 n77 PC3 Other PA	100M	QPSK	135	69	DFT-SCS-30KHz	Bottom Side	10mm	Ant 3	DSI5	656000	3840	17.73	19.20	1.403	-	-	0.1	0.084	0.118
	FR1 n77 PC2 Other PA	100M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 3	DSI5	656000	3840	21.17	22.20	1.268	50	1.000	0.03	0.422	0.535
	FR1 n77 PC3 Main PA	100M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 3	DSI5	656000	3840	18.13	18.70	1.140	-	-	-0.07	0.274	0.312
	FR1 n77 PC3 Other PA	100M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 3	DSI5	633334	3500.01	17.59	19.20	1.449	-	-	-0.12	0.158	0.229
	FR1 n77 PC3 Other PA	100M	QPSK	135	69	DFT-SCS-30KHz	Front	10mm	Ant 3	DSI5	633334	3500.01	17.57	19.20	1.455	-	-	0.06	0.145	0.211
52	FR1 n77 PC3 Other PA	100M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 3	DSI5	633334	3500.01	17.59	19.20	1.449	-	-	-0.09	0.567	**0.821**
	FR1 n77 PC3 Other PA	100M	QPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 3	DSI5	633334	3500.01	17.57	19.20	1.455	-	-	0.12	0.553	0.805
	FR1 n77 PC3 Other PA	100M	QPSK	1	1	DFT-SCS-30KHz	Right Side	10mm	Ant 3	DSI5	633334	3500.01	17.59	19.20	1.449	-	-	0.01	0.083	0.120
	FR1 n77 PC3 Other PA	100M	QPSK	135	69	DFT-SCS-30KHz	Right Side	10mm	Ant 3	DSI5	633334	3500.01	17.57	19.20	1.455	-	-	0.07	0.086	0.125
	FR1 n77 PC3 Other PA	100M	QPSK	1	1	DFT-SCS-30KHz	Bottom Side	10mm	Ant 3	DSI5	633334	3500.01	17.59	19.20	1.449	-	-	0.1	0.271	0.393
	FR1 n77 PC3 Other PA	100M	QPSK	135	69	DFT-SCS-30KHz	Bottom Side	10mm	Ant 3	DSI5	633334	3500.01	17.57	19.20	1.455	-	-	0.07	0.165	0.240
	FR1 n77 PC2 Other PA	100M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 3	DSI5	633334	3500.01	21.04	22.20	1.306	50	1.000	0.01	0.566	0.739
	FR1 n77 PC3 Main PA	100M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 3	DSI5	633334	3500.01	18.50	18.70	1.047	-	-	-0.06	0.413	0.432
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 10	DSI5	656000	3840	15.34	15.70	1.086	-	-	-0.07	0.178	0.193
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Front	10mm	Ant 10	DSI5	656000	3840	15.30	15.70	1.096	-	-	0.04	0.136	0.149
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 10	DSI5	656000	3840	15.34	15.70	1.086	-	-	0.08	0.211	0.229
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 10	DSI5	656000	3840	15.30	15.70	1.096	-	-	-0.16	0.143	0.157
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	10mm	Ant 10	DSI5	656000	3840	15.34	15.70	1.086	-	-	0.11	0.001	0.001
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Left Side	10mm	Ant 10	DSI5	656000	3840	15.30	15.70	1.096	-	-	0.03	0.001	0.001
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 10	DSI5	656000	3840	15.34	15.70	1.086	-	-	-0.01	0.356	0.387
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	10mm	Ant 10	DSI5	656000	3840	15.30	15.70	1.096	-	-	0.06	0.251	0.275
	FR1 n77 PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 10	DSI5	656000	3840	18.32	18.70	1.091	50	1.000	0.01	0.330	0.360
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 10	DSI5	633334	3500.01	15.55	15.70	1.035	-	-	0.06	0.073	0.076
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Front	10mm	Ant 10	DSI5	633334	3500.01	15.52	15.70	1.042	-	-	-0.15	0.081	0.084
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 10	DSI5	633334	3500.01	15.55	15.70	1.035	-	-	-0.14	0.092	0.095
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 10	DSI5	633334	3500.01	15.52	15.70	1.042	-	-	-0.05	0.114	0.119
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	10mm	Ant 10	DSI5	633334	3500.01	15.55	15.70	1.035	-	-	0.08	0.001	0.001
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Left Side	10mm	Ant 10	DSI5	633334	3500.01	15.52	15.70	1.042	-	-	0.09	0.001	0.001
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 10	DSI5	633334	3500.01	15.55	15.70	1.035	-	-	-0.17	0.147	0.152
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	10mm	Ant 10	DSI5	633334	3500.01	15.52	15.70	1.042	-	-	-0.04	0.181	0.189
	FR1 n77 PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	10mm	Ant 10	DSI5	633334	3500.01	18.50	18.70	1.047	50	1.000	0.02	0.161	0.169
	FR1 n77 PC3 Other PA	100M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 13	DSI5	656000	3840	15.35	16.70	1.365	-	-	0.02	0.062	0.085
	FR1 n77 PC3 Other PA	100M	QPSK	135	69	DFT-SCS-30KHz	Front	10mm	Ant 13	DSI5	656000	3840	15.28	16.70	1.387	-	-	-0.18	0.100	0.139
	FR1 n77 PC3 Other PA	100M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 13	DSI5	656000	3840	15.35	16.70	1.365	-	-	0.04	0.270	0.368
	FR1 n77 PC3 Other PA	100M	QPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 13	DSI5	656000	3840	15.28	16.70	1.387	-	-	0.01	0.308	0.427
	FR1 n77 PC3 Other PA	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	10mm	Ant 13	DSI5	656000	3840	15.35	16.70	1.365	-	-	0.14	0.112	0.153
	FR1 n77 PC3 Other PA	100M	QPSK	135	69	DFT-SCS-30KHz	Left Side	10mm	Ant 13	DSI5	656000	3840	15.28	16.70	1.387	-	-	-0.04	0.092	0.128
	FR1 n77 PC3 Other PA	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 13	DSI5	656000	3840	15.35	16.70	1.365	-	-	0.16	0.085	0.116
	FR1 n77 PC3 Other PA	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	10mm	Ant 13	DSI5	656000	3840	15.28	16.70	1.387	-	-	0.06	0.092	0.128
	FR1 n77 PC2 Other PA	100M	QPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 13	DSI5	656000	3840	18.23	19.70	1.403	50	1.000	0.03	0.246	0.345
	FR1 n77 PC3 Main PA	100M	QPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 13	DSI5	656000	3840	16.25	16.70	1.109	-	-	0.05	0.201	0.223
	FR1 n77 PC3 Other PA	100M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 13	DSI5	633334	3500.01	15.27	16.70	1.390	-	-	-0.06	0.053	0.074
	FR1 n77 PC3 Other PA	100M	QPSK	135	69	DFT-SCS-30KHz	Front	10mm	Ant 13	DSI5	633334	3500.01	15.21	16.70	1.409	-	-	-0.1	0.070	0.099
	FR1 n77 PC3 Other PA	100M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 13	DSI5	633334	3500.01	15.27	16.70	1.390	-	-	0.1	0.289	0.402
	FR1 n77 PC3 Other PA	100M	QPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 13	DSI5	633334	3500.01	15.21	16.70	1.409	-	-	-0.01	0.328	0.462
	FR1 n77 PC3 Other PA	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	10mm	Ant 13	DSI5	633334	3500.01	15.27	16.70	1.390	-	-	0.09	0.056	0.078
	FR1 n77 PC3 Other PA	100M	QPSK	135	69	DFT-SCS-30KHz	Left Side	10mm	Ant 13	DSI5	633334	3500.01	15.21	16.70	1.409	-	-	-0.05	0.053	0.075
	FR1 n77 PC3 Other PA	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 13	DSI5	633334	3500.01	15.27	16.70	1.390	-	-	-0.12	0.044	0.061
	FR1 n77 PC3 Other PA	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	10mm	Ant 13	DSI5	633334	3500.01	15.21	16.70	1.409	-	-	-0.11	0.070	0.099
	FR1 n77 PC2 Other PA	100M	QPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 13	DSI5	633334	3500.01	18.21	19.70	1.409	50	1.000	0.03	0.327	0.461
	FR1 n77 PC3 Main PA	100M	QPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 13	DSI5	633334	3500.01	16.33	16.70	1.089	-	-	0.03	0.245	0.267
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 1	DSI5	650000	3750	19.45	20.50	1.274	-	-	0.07	0.101	0.129
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Front	10mm	Ant 1	DSI5	650000	3750	19.42	20.50	1.282	-	-	0.06	0.088	0.113
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 1	DSI5	650000	3750	19.45	20.50	1.274	-	-	-0.02	0.157	0.200

	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 1	DSI5	650000	3750	19.42	20.50	1.282	-	-	0.07	0.143	0.183
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	10mm	Ant 1	DSI5	650000	3750	19.45	20.50	1.274	-	-	-0.03	0.312	0.397
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Left Side	10mm	Ant 1	DSI5	650000	3750	19.42	20.50	1.282	-	-	0.06	0.258	0.331
	FR1 n78 PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	10mm	Ant 1	DSI5	650000	3750	22.45	23.50	1.274	50	1.000	0.02	0.294	0.374
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 1	DSI5	633334	3500.01	19.72	20.50	1.197	-	-	0.08	0.133	0.159
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Front	10mm	Ant 1	DSI5	633334	3500.01	19.68	20.50	1.208	-	-	0.07	0.113	0.136
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 1	DSI5	633334	3500.01	19.72	20.50	1.197	-	-	0.18	0.258	0.309
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 1	DSI5	633334	3500.01	19.68	20.50	1.208	-	-	0.01	0.216	0.261
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	10mm	Ant 1	DSI5	633334	3500.01	19.72	20.50	1.197	-	-	0.13	0.412	0.493
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Left Side	10mm	Ant 1	DSI5	633334	3500.01	19.68	20.50	1.208	-	-	0.09	0.379	0.458
	FR1 n78 PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	10mm	Ant 1	DSI5	633334	3500.01	22.51	23.50	1.256	50	1.000	0.01	0.385	0.484
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 3	DSI5	650000	3750	19.17	19.70	1.130	-	-	-0.01	0.259	0.293
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Front	10mm	Ant 3	DSI5	650000	3750	19.11	19.70	1.146	-	-	0.08	0.242	0.277
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 3	DSI5	650000	3750	19.17	19.70	1.130	-	-	-0.01	0.633	0.715
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 3	DSI5	650000	3750	19.11	19.70	1.146	-	-	0.08	0.578	0.662
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Right Side	10mm	Ant 3	DSI5	650000	3750	19.17	19.70	1.130	-	-	0.03	0.098	0.111
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Right Side	10mm	Ant 3	DSI5	650000	3750	19.11	19.70	1.146	-	-	0.01	0.075	0.086
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Bottom Side	10mm	Ant 3	DSI5	650000	3750	19.17	19.70	1.130	-	-	0.16	0.147	0.166
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Bottom Side	10mm	Ant 3	DSI5	650000	3750	19.11	19.70	1.146	-	-	0.05	0.206	0.236
	FR1 n78 PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 3	DSI5	650000	3750	22.16	22.70	1.132	50	1.000	-0.03	0.624	0.707
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 3	DSI5	633334	3500.01	19.20	19.70	1.122	-	-	-0.13	0.191	0.214
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Front	10mm	Ant 3	DSI5	633334	3500.01	19.11	19.70	1.146	-	-	0.01	0.231	0.265
53	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 3	DSI5	633334	3500.01	19.20	19.70	1.122	-	-	-0.17	0.778	**0.873**
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 3	DSI5	633334	3500.01	19.11	19.70	1.146	-	-	-0.12	0.693	0.794
	FR1 n78 PC3	100M	QPSK	270	0	DFT-SCS-30KHz	Back	10mm	Ant 3	DSI5	633334	3500.01	19.07	19.70	1.156	-	-	0.02	0.698	0.807
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Right Side	10mm	Ant 3	DSI5	633334	3500.01	19.20	19.70	1.122	-	-	0.02	0.102	0.114
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Right Side	10mm	Ant 3	DSI5	633334	3500.01	19.11	19.70	1.146	-	-	0.03	0.097	0.111
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Bottom Side	10mm	Ant 3	DSI5	633334	3500.01	19.20	19.70	1.122	-	-	0.18	0.299	0.335
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Bottom Side	10mm	Ant 3	DSI5	633334	3500.01	19.11	19.70	1.146	-	-	0.07	0.294	0.337
	FR1 n78 PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 3	DSI5	633334	3500.01	22.17	22.70	1.130	50	1.000	0.01	0.747	0.844
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 10	DSI5	650000	3750	14.70	15.20	1.122	-	-	-0.18	0.192	0.215
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Front	10mm	Ant 10	DSI5	650000	3750	14.54	15.20	1.164	-	-	0.04	0.182	0.212
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 10	DSI5	650000	3750	14.70	15.20	1.122	-	-	0.12	0.235	0.264
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 10	DSI5	650000	3750	14.54	15.20	1.164	-	-	0.04	0.225	0.262
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	10mm	Ant 10	DSI5	650000	3750	14.70	15.20	1.122	-	-	0.02	0.024	0.027
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Left Side	10mm	Ant 10	DSI5	650000	3750	14.54	15.20	1.164	-	-	0.07	0.019	0.022
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 10	DSI5	650000	3750	14.70	15.20	1.122	-	-	-0.09	0.464	0.521
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	10mm	Ant 10	DSI5	650000	3750	14.54	15.20	1.164	-	-	0.07	0.353	0.411
	FR1 n78 PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 10	DSI5	650000	3750	17.70	18.20	1.122	50	1.000	0.01	0.426	0.478
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 10	DSI5	633334	3500.01	15.01	15.20	1.045	-	-	-0.06	0.069	0.072
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Front	10mm	Ant 10	DSI5	633334	3500.01	14.77	15.20	1.104	-	-	-0.08	0.080	0.088
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 10	DSI5	633334	3500.01	15.01	15.20	1.045	-	-	-0.03	0.096	0.100
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 10	DSI5	633334	3500.01	14.77	15.20	1.104	-	-	0.18	0.107	0.118
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	10mm	Ant 10	DSI5	633334	3500.01	15.01	15.20	1.045	-	-	0.06	0.001	0.001
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Left Side	10mm	Ant 10	DSI5	633334	3500.01	14.77	15.20	1.104	-	-	0.09	0.001	0.001
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 10	DSI5	633334	3500.01	15.01	15.20	1.045	-	-	-0.17	0.153	0.160
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	10mm	Ant 10	DSI5	633334	3500.01	14.77	15.20	1.104	-	-	-0.01	0.176	0.194
	FR1 n78 PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	10mm	Ant 10	DSI5	633334	3500.01	17.95	18.20	1.059	50	1.000	0.02	0.144	0.153
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 13	DSI5	650000	3750	17.16	17.70	1.132	-	-	0.1	0.001	0.001
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Front	10mm	Ant 13	DSI5	650000	3750	17.11	17.70	1.146	-	-	-0.02	0.001	0.001
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 13	DSI5	650000	3750	17.16	17.70	1.132	-	-	0.01	0.373	0.422
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 13	DSI5	650000	3750	17.11	17.70	1.146	-	-	0.03	0.359	0.411
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	10mm	Ant 13	DSI5	650000	3750	17.16	17.70	1.132	-	-	0.06	0.069	0.078
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Left Side	10mm	Ant 13	DSI5	650000	3750	17.11	17.70	1.146	-	-	0.03	0.067	0.077
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 13	DSI5	650000	3750	17.16	17.70	1.132	-	-	0.03	0.130	0.147
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	10mm	Ant 13	DSI5	650000	3750	17.11	17.70	1.146	-	-	0.05	0.094	0.108

	FR1 n78 PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 13	DSI5	650000	3750	19.20	20.70	1.413	50	1.000	0.01	0.332	0.469
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 13	DSI5	633334	3500.01	17.17	17.70	1.130	-	-	-0.14	0.106	0.120
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Front	10mm	Ant 13	DSI5	633334	3500.01	17.08	17.70	1.153	-	-	0.04	0.052	0.060
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 13	DSI5	633334	3500.01	17.17	17.70	1.130	-	-	0.02	0.532	0.601
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 13	DSI5	633334	3500.01	17.08	17.70	1.153	-	-	-0.16	0.520	0.600
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	10mm	Ant 13	DSI5	633334	3500.01	17.17	17.70	1.130	-	-	-0.17	0.091	0.103
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Left Side	10mm	Ant 13	DSI5	633334	3500.01	17.08	17.70	1.153	-	-	0.13	0.104	0.120
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 13	DSI5	633334	3500.01	17.17	17.70	1.130	-	-	0.07	0.064	0.072
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	10mm	Ant 13	DSI5	633334	3500.01	17.08	17.70	1.153	-	-	0.08	0.074	0.085
	FR1 n78 PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 13	DSI5	633334	3500.01	19.37	20.70	1.358	50	1.000	0.05	0.414	0.562

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
						2450MHz										
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 15+18	Standalone	6	2437	20.83	21.50	1.166	97.46	1.026	-0.11	0.311	0.372
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 15+18	Standalone	6	2437	20.83	21.50	1.166	97.46	1.026	0.09	0.472	0.565
54	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	Ant 15+18	Standalone	6	2437	20.83	21.50	1.166	97.46	1.026	-0.06	0.886	**1.060**
	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	Ant 15+18	Standalone	1	2412	20.78	21.50	1.181	97.46	1.026	-0.18	0.576	0.698
	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	Ant 15+18	Standalone	6	2437	20.83	21.50	1.166	97.46	1.026	0.13	0.171	0.205
	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	Ant 15+18	DBS Standalone	6	2437	19.35	20.00	1.162	97.46	1.026	0.02	0.638	0.761
	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	Ant 15+18	Simultaneous	6	2437	18.84	19.50	1.163	97.46	1.026	0.03	0.401	0.479
	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	Ant 15+18	DBS Simultaneous	6	2437	15.84	16.50	1.163	97.46	1.026	0.04	0.206	0.246
	Bluetooth	1Mbps	Front	10mm	Ant 18	Full	0	2402	16.07	17.50	1.389	77.02	1.082	0.01	0.152	0.228
	Bluetooth	1Mbps	Back	10mm	Ant 18	Full	0	2402	16.07	17.50	1.389	77.02	1.082	-0.12	0.281	0.422
55	Bluetooth	1Mbps	Right Side	10mm	Ant 18	Full	0	2402	16.07	17.50	1.389	77.02	1.082	-0.03	0.324	**0.487**
	Bluetooth	1Mbps	Top Side	10mm	Ant 18	Full	0	2402	16.07	17.50	1.389	77.02	1.082	-0.01	0.001	0.002
	Bluetooth	1Mbps	Right Side	10mm	Ant 18	Simultaneous	78	2480	7.68	9.50	1.521	77.02	1.082	0.02	0.042	0.069
	Bluetooth	1Mbps	Front	10mm	Ant 15	Full	0	2402	16.21	17.50	1.347	77.00	1.082	0.12	0.063	0.092
	Bluetooth	1Mbps	Back	10mm	Ant 15	Full	0	2402	16.21	17.50	1.347	77.00	1.082	0.04	0.066	0.096
	Bluetooth	1Mbps	Right Side	10mm	Ant 15	Full	0	2402	16.21	17.50	1.347	77.00	1.082	0.03	0.216	0.315
	Bluetooth	1Mbps	Top Side	10mm	Ant 15	Full	0	2402	16.21	17.50	1.347	77.00	1.082	0.02	0.001	0.001
	Bluetooth	1Mbps	Right Side	10mm	Ant 15	Simultaneous	39	2441	8.02	9.50	1.406	77.00	1.082	0.02	0.005	0.008
						5000MHz										
	WLAN5.2GHz	802.11n-HT40 MCS0	Front	10mm	Ant 17+18	Standalone&DBS Standalone&Simultaneous&XBS Standalone	38	5190	18.16	19.00	1.213	100	1.000	-0.05	0.165	0.200
	WLAN5.2GHz	802.11n-HT40 MCS0	Back	10mm	Ant 17+18	Standalone&DBS Standalone&Simultaneous&XBS Standalone	38	5190	18.16	19.00	1.213	100	1.000	0.19	0.247	0.300
56	WLAN5.2GHz	802.11n-HT40 MCS0	Right Side	10mm	Ant 17+18	Standalone&DBS Standalone&Simultaneous&XBS Standalone	38	5190	18.16	19.00	1.213	100	1.000	-0.01	0.334	**0.405**
	WLAN5.2GHz	802.11n-HT40 MCS0	Top Side	10mm	Ant 17+18	Standalone&DBS Standalone&Simultaneous&XBS Standalone	38	5190	18.16	19.00	1.213	100	1.000	0.15	0.165	0.200
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Right Side	10mm	Ant 17+18	DBS Simultaneous	42	5210	15.93	16.50	1.140	100	1.000	0.06	0.175	0.200
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Right Side	10mm	Ant 17+18	XBS Simultaneous	42	5210	14.47	15.00	1.130	100	1.000	-0.01	0.126	0.142
	WLAN5.8GHz	802.11a 6Mbps	Front	10mm	Ant 17+18	Standalone	149	5745	20.63	21.50	1.222	98.97	1.010	0.09	0.319	0.394
	WLAN5.8GHz	802.11a 6Mbps	Back	10mm	Ant 17+18	Standalone	149	5745	20.63	21.50	1.222	98.97	1.010	-0.12	0.621	0.766
57	WLAN5.8GHz	802.11a 6Mbps	Right Side	10mm	Ant 17+18	Standalone	149	5745	20.63	21.50	1.222	98.97	1.010	0.01	0.693	**0.855**
	WLAN5.8GHz	802.11a 6Mbps	Right Side	10mm	Ant 17+18	Standalone	165	5825	20.60	21.50	1.230	98.97	1.010	0.03	0.642	0.798
	WLAN5.8GHz	802.11a 6Mbps	Top Side	10mm	Ant 17+18	Standalone	149	5745	20.63	21.50	1.222	98.97	1.010	-0.02	0.450	0.555
	WLAN5.8GHz	802.11n-HT40 MCS0	Right Side	10mm	Ant 17+18	DBS Standalone	151	5755	20.08	21.00	1.236	100	1.000	0.07	0.624	0.771
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Side	10mm	Ant 17+18	DBS Simultaneous	155	5775	15.51	16.00	1.119	100	1.000	0.05	0.185	0.207
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Side	10mm	Ant 17+18	Simultaneous&XBS Standalone	155	5775	18.51	19.00	1.119	100	1.000	0.02	0.377	0.422
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Side	10mm	Ant 17+18	XBS Simultaneous	155	5775	14.01	14.50	1.119	100	1.000	-0.05	0.129	0.144

16.3 Body Worn Accessory SAR

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
750MHz																				
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Front	15mm	Ant 0	DSI4	136100	680.5	25.22	25.70	1.117	-	-	0.04	0.167	0.187
	FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Front	15mm	Ant 0	DSI4	136100	680.5	25.07	25.70	1.156	-	-	0.17	0.165	0.191
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Back	15mm	Ant 0	DSI4	136100	680.5	25.22	25.70	1.117	-	-	-0.02	0.193	0.216
	FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Back	15mm	Ant 0	DSI4	136100	680.5	25.07	25.70	1.156	-	-	0.03	0.186	0.215
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Front	15mm	Ant 1	DSI4	136100	680.5	24.60	25.40	1.202	-	-	-0.03	0.169	0.203
	FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Front	15mm	Ant 1	DSI4	136100	680.5	24.53	25.40	1.222	-	-	0.08	0.179	0.219
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Back	15mm	Ant 1	DSI4	136100	680.5	24.60	25.40	1.202	-	-	0.14	0.226	0.272
58	FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Back	15mm	Ant 1	DSI4	136100	680.5	24.53	25.40	1.222	-	-	-0.09	0.237	**0.290**
	LTE Band 12	10M	QPSK	1	0	-	Front	15mm	Ant 0	DSI4	23095	707.5	25.12	25.50	1.091	-	-	0.04	0.197	0.215
	LTE Band 12	10M	QPSK	25	0	-	Front	15mm	Ant 0	DSI4	23095	707.5	25.09	25.50	1.099	-	-	0.05	0.196	0.215
	LTE Band 12	10M	QPSK	1	0	-	Back	15mm	Ant 0	DSI4	23095	707.5	25.12	25.50	1.091	-	-	0.04	0.213	0.232
	LTE Band 12	10M	QPSK	25	0	-	Back	15mm	Ant 0	DSI4	23095	707.5	25.09	25.50	1.099	-	-	0.18	0.205	0.225
	LTE Band 12	10M	QPSK	1	0	-	Front	15mm	Ant 1	DSI4	23095	707.5	24.37	25.50	1.297	-	-	0.02	0.148	0.192
	LTE Band 12	10M	QPSK	25	0	-	Front	15mm	Ant 1	DSI4	23095	707.5	24.29	25.50	1.321	-	-	0.13	0.171	0.226
	LTE Band 12	10M	QPSK	1	0	-	Back	15mm	Ant 1	DSI4	23095	707.5	24.37	25.50	1.297	-	-	-0.14	0.194	0.252
59	LTE Band 12	10M	QPSK	25	0	-	Back	15mm	Ant 1	DSI4	23095	707.5	24.29	25.50	1.321	-	-	-0.14	0.217	**0.287**
	LTE Band 13	10M	QPSK	1	0	-	Front	15mm	Ant 0	DSI4	23230	782	25.06	25.40	1.081	-	-	0.08	0.171	0.185
	LTE Band 13	10M	QPSK	25	0	-	Front	15mm	Ant 0	DSI4	23230	782	25.02	25.40	1.091	-	-	-0.05	0.158	0.172
	LTE Band 13	10M	QPSK	1	0	-	Back	15mm	Ant 0	DSI4	23230	782	25.06	25.40	1.081	-	-	-0.15	0.167	0.181
	LTE Band 13	10M	QPSK	25	0	-	Back	15mm	Ant 0	DSI4	23230	782	25.02	25.40	1.091	-	-	-0.13	0.160	0.175
	LTE Band 13	10M	QPSK	1	0	-	Front	15mm	Ant 1	DSI4	23230	782	24.36	25.20	1.213	-	-	0.02	0.323	0.392
	LTE Band 13	10M	QPSK	25	0	-	Front	15mm	Ant 1	DSI4	23230	782	24.22	25.20	1.253	-	-	0.1	0.335	0.420
	LTE Band 13	10M	QPSK	1	0	-	Back	15mm	Ant 1	DSI4	23230	782	24.36	25.20	1.213	-	-	-0.17	0.388	0.471
60	LTE Band 13	10M	QPSK	25	0	-	Back	15mm	Ant 1	DSI4	23230	782	24.22	25.20	1.253	-	-	-0.06	0.411	**0.515**
835MHz																				
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Front	15mm	Ant 0	DSI4	189	836.4	26.65	28.00	1.365	-	-	-0.04	0.108	0.147
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Back	15mm	Ant 0	DSI4	189	836.4	26.65	28.00	1.365	-	-	0.04	0.160	0.218
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Front	15mm	Ant 1	DSI4	189	836.4	26.92	28.60	1.472	-	-	0.16	0.251	0.370
61	GSM850	-	-	-	-	GPRS (4 Tx slots)	Back	15mm	Ant 1	DSI4	189	836.4	26.92	28.60	1.472	-	-	-0.08	0.289	**0.425**
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 0	DSI4	4182	836.4	24.23	24.80	1.140	-	-	-0.1	0.142	0.162
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 0	DSI4	4182	836.4	24.23	24.80	1.140	-	-	0.05	0.219	0.250
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 1	DSI4	4182	836.4	24.51	25.50	1.256	-	-	0.05	0.316	0.397
62	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 1	DSI4	4182	836.4	24.51	25.50	1.256	-	-	-0.03	0.393	**0.494**
	LTE Band 26	15M	QPSK	1	0	-	Front	15mm	Ant 0	DSI4	26865	831.5	25.04	25.60	1.138	-	-	0.17	0.153	0.174
	LTE Band 26	15M	QPSK	36	0	-	Front	15mm	Ant 0	DSI4	26865	831.5	24.96	25.60	1.159	-	-	0.13	0.159	0.184
	LTE Band 26	15M	QPSK	1	0	-	Back	15mm	Ant 0	DSI4	26865	831.5	25.04	25.60	1.138	-	-	0.02	0.215	0.245
	LTE Band 26	15M	QPSK	36	0	-	Back	15mm	Ant 0	DSI4	26865	831.5	24.96	25.60	1.159	-	-	0.05	0.224	0.260
	LTE Band 26	15M	QPSK	1	0	-	Front	15mm	Ant 1	DSI4	26865	831.5	24.15	25.20	1.274	-	-	-0.05	0.284	0.362
	LTE Band 26	15M	QPSK	36	0	-	Front	15mm	Ant 1	DSI4	26865	831.5	24.08	25.20	1.294	-	-	0.08	0.315	0.408
	LTE Band 26	15M	QPSK	1	0	-	Back	15mm	Ant 1	DSI4	26865	831.5	24.15	25.20	1.274	-	-	0.09	0.326	0.415
63	LTE Band 26	15M	QPSK	36	0	-	Back	15mm	Ant 1	DSI4	26865	831.5	24.08	25.20	1.294	-	-	-0.06	0.356	**0.461**
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Front	15mm	Ant 0	DSI4	167300	836.5	25.25	25.70	1.109	-	-	-0.07	0.143	0.159
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Front	15mm	Ant 0	DSI4	167300	836.5	25.10	25.70	1.148	-	-	-0.09	0.132	0.152
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Back	15mm	Ant 0	DSI4	167300	836.5	25.25	25.70	1.109	-	-	-0.03	0.213	0.236
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Back	15mm	Ant 0	DSI4	167300	836.5	25.10	25.70	1.148	-	-	0.03	0.196	0.225
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Front	15mm	Ant 1	DSI4	167300	836.5	24.80	25.50	1.175	-	-	0.03	0.303	0.356
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Front	15mm	Ant 1	DSI4	167300	836.5	24.77	25.50	1.183	-	-	0.09	0.341	0.403
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Back	15mm	Ant 1	DSI4	167300	836.5	24.80	25.50	1.175	-	-	0.04	0.377	0.443

64	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Back	15mm	Ant 1	DSI4	167300	836.5	24.77	25.50	1.183	-	-	-0.09	0.388	**0.459**
1750MHz																				
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 3	DSI4	1413	1732.6	24.35	24.80	1.109	-	-	0.01	0.389	0.431
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 3	DSI4	1413	1732.6	24.35	24.80	1.109	-	-	0.02	0.335	0.372
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 5	DSI4	1413	1732.6	22.14	22.90	1.191	-	-	0.03	0.144	0.172
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 5	DSI4	1413	1732.6	22.14	22.90	1.191	-	-	0.07	0.244	0.291
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 4	DSI4	1413	1732.6	23.88	24.50	1.153	-	-	0.01	0.346	0.399
65	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 4	DSI4	1413	1732.6	23.88	24.50	1.153	-	-	0.03	0.659	**0.760**
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 6	DSI4	1413	1732.6	21.84	23.00	1.306	-	-	0.14	0.127	0.166
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 6	DSI4	1413	1732.6	21.84	23.00	1.306	-	-	0.03	0.185	0.242
	LTE Band 66	20M	QPSK	1	0	-	Front	15mm	Ant 3	DSI4	132322	1745	25.24	25.70	1.112	-	-	0.09	0.430	0.478
	LTE Band 66	20M	QPSK	50	0	-	Front	15mm	Ant 3	DSI4	132322	1745	25.18	25.70	1.127	-	-	0.09	0.398	0.449
	LTE Band 66	20M	QPSK	1	0	-	Back	15mm	Ant 3	DSI4	132322	1745	25.24	25.70	1.112	-	-	-0.05	0.373	0.415
	LTE Band 66	20M	QPSK	50	0	-	Back	15mm	Ant 3	DSI4	132322	1745	25.18	25.70	1.127	-	-	0.08	0.365	0.411
	LTE Band 66	20M	QPSK	1	0	-	Front	15mm	Ant 5	DSI4	132322	1745	22.84	23.40	1.138	-	-	0.06	0.181	0.206
	LTE Band 66	20M	QPSK	50	0	-	Front	15mm	Ant 5	DSI4	132322	1745	22.82	23.40	1.143	-	-	0.06	0.186	0.213
	LTE Band 66	20M	QPSK	1	0	-	Back	15mm	Ant 5	DSI4	132322	1745	22.84	23.40	1.138	-	-	0.05	0.293	0.333
	LTE Band 66	20M	QPSK	50	0	-	Back	15mm	Ant 5	DSI4	132322	1745	22.82	23.40	1.143	-	-	-0.08	0.281	0.321
	LTE Band 66	20M	QPSK	1	0	-	Front	15mm	Ant 4	DSI4	132322	1745	24.96	25.70	1.186	-	-	0.05	0.422	0.500
	LTE Band 66	20M	QPSK	50	0	-	Front	15mm	Ant 4	DSI4	132322	1745	24.67	25.70	1.268	-	-	0.03	0.434	0.550
	LTE Band 66	20M	QPSK	1	0	-	Back	15mm	Ant 4	DSI4	132322	1745	24.96	25.70	1.186	-	-	0.12	0.844	1.001
	LTE Band 66	20M	QPSK	1	0	-	Back	15mm	Ant 4	DSI4	132072	1720	24.87	25.70	1.211	-	-	-0.1	0.861	1.042
	LTE Band 66	20M	QPSK	1	0	-	Back	15mm	Ant 4	DSI4	132572	1770	24.76	25.70	1.242	-	-	0.04	0.810	1.006
66	LTE Band 66	20M	QPSK	50	0	-	Back	15mm	Ant 4	DSI4	132322	1745	24.67	25.70	1.268	-	-	-0.06	0.852	**1.080**
	LTE Band 66	20M	QPSK	50	0	-	Back	15mm	Ant 4	DSI4	132072	1720	24.59	25.70	1.291	-	-	0.06	0.831	1.073
	LTE Band 66	20M	QPSK	50	0	-	Back	15mm	Ant 4	DSI4	132572	1770	24.62	25.70	1.282	-	-	-0.15	0.743	0.953
	LTE Band 66	20M	QPSK	100	0	-	Back	15mm	Ant 4	DSI4	132322	1745	24.64	25.70	1.276	-	-	0.02	0.840	1.072
	LTE Band 66	20M	QPSK	1	0	-	Front	15mm	Ant 6	DSI4	132322	1745	22.64	24.20	1.432	-	-	0.03	0.157	0.225
	LTE Band 66	20M	QPSK	50	0	-	Front	15mm	Ant 6	DSI4	132322	1745	22.62	24.20	1.439	-	-	0.06	0.171	0.246
	LTE Band 66	20M	QPSK	1	0	-	Back	15mm	Ant 6	DSI4	132322	1745	22.64	24.20	1.432	-	-	0.02	0.228	0.327
	LTE Band 66	20M	QPSK	50	0	-	Back	15mm	Ant 6	DSI4	132322	1745	22.62	24.20	1.439	-	-	-0.04	0.255	0.367
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Front	15mm	Ant 3	DSI4	349000	1745	25.28	25.70	1.102	-	-	0.03	0.439	0.484
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Front	15mm	Ant 3	DSI4	349000	1745	25.21	25.70	1.119	-	-	0.03	0.447	0.500
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Back	15mm	Ant 3	DSI4	349000	1745	25.28	25.70	1.102	-	-	0.06	0.402	0.443
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Back	15mm	Ant 3	DSI4	349000	1745	25.21	25.70	1.119	-	-	0.03	0.416	0.466
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Front	15mm	Ant 5	DSI4	349000	1745	23.40	23.50	1.023	-	-	0.09	0.214	0.219
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Front	15mm	Ant 5	DSI4	349000	1745	23.38	23.50	1.028	-	-	-0.06	0.211	0.217
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Back	15mm	Ant 5	DSI4	349000	1745	23.40	23.50	1.023	-	-	-0.04	0.359	0.367
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Back	15mm	Ant 5	DSI4	349000	1745	23.38	23.50	1.028	-	-	0.18	0.344	0.354
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Front	15mm	Ant 4	DSI4	349000	1745	25.32	25.70	1.091	-	-	-0.1	0.510	0.557
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Front	15mm	Ant 4	DSI4	349000	1745	25.25	25.70	1.109	-	-	0.07	0.470	0.521
67	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Back	15mm	Ant 4	DSI4	349000	1745	25.32	25.70	1.091	-	-	-0.05	0.892	**0.974**
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Back	15mm	Ant 4	DSI4	349000	1745	25.25	25.70	1.109	-	-	-0.13	0.786	0.872
	FR1 n66	40M	QPSK	216	0	DFT-SCS-15KHz	Back	15mm	Ant 4	DSI4	349000	1745	24.23	24.70	1.114	-	-	-0.16	0.630	0.702
	FR1 n66 Other PA	40M	QPSK	1	1	DFT-SCS-15KHz	Front	15mm	Ant 6	DSI4	349000	1745	20.74	21.50	1.191	-	-	-0.19	0.083	0.099
	FR1 n66 Other PA	40M	QPSK	108	54	DFT-SCS-15KHz	Front	15mm	Ant 6	DSI4	349000	1745	20.61	21.50	1.227	-	-	-0.08	0.116	0.142
	FR1 n66 Other PA	40M	QPSK	1	1	DFT-SCS-15KHz	Back	15mm	Ant 6	DSI4	349000	1745	20.74	21.50	1.191	-	-	-0.13	0.127	0.151
	FR1 n66 Other PA	40M	QPSK	108	54	DFT-SCS-15KHz	Back	15mm	Ant 6	DSI4	349000	1745	20.61	21.50	1.227	-	-	-0.05	0.135	0.166
	FR1 n66 Main PA	40M	QPSK	108	54	DFT-SCS-15KHz	Back	15mm	Ant 6	DSI4	349000	1745	21.48	22.50	1.265	-	-	-0.08	0.088	0.111
1900MHz																				
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Front	15mm	Ant 3	DSI4	661	1880	23.85	24.40	1.135	-	-	0.06	0.104	0.118
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Back	15mm	Ant 3	DSI4	661	1880	23.85	24.40	1.135	-	-	0.01	0.118	0.134
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Front	15mm	Ant 4	DSI4	661	1880	23.08	23.80	1.180	-	-	0.06	0.085	0.100
68	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Back	15mm	Ant 4	DSI4	661	1880	23.08	23.80	1.180	-	-	-0.09	0.127	**0.150**
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 3	DSI4	9400	1880	24.44	25.30	1.219	-	-	0.02	0.262	0.319
69	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 3	DSI4	9400	1880	24.44	25.30	1.219	-	-	-0.03	0.318	**0.388**

	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 4	DSI4	9400	1880	23.91	24.70	1.199	-	-	-0.15	0.220	0.264
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 4	DSI4	9400	1880	23.91	24.70	1.199	-	-	-0.04	0.316	0.379
	LTE Band 2 Other PA	20M	QPSK	1	0	-	Front	15mm	Ant 5	DSI4	18900	1880	25.08	25.70	1.153	-	-	-0.19	0.147	0.170
	LTE Band 2 Other PA	20M	QPSK	50	0	-	Front	15mm	Ant 5	DSI4	18900	1880	24.27	24.70	1.104	-	-	-0.1	0.163	0.180
70	LTE Band 2 Other PA	20M	QPSK	1	0	-	Back	15mm	Ant 5	DSI4	18900	1880	25.08	25.70	1.153	-	-	0.11	0.238	**0.275**
	LTE Band 2 Other PA	20M	QPSK	50	0	-	Back	15mm	Ant 5	DSI4	18900	1880	24.27	24.70	1.104	-	-	-0.09	0.233	0.257
	LTE Band 25	20M	QPSK	1	0	-	Front	15mm	Ant 3	DSI4	26340	1880	25.21	25.70	1.119	-	-	-0.19	0.129	0.144
	LTE Band 25	20M	QPSK	50	0	-	Front	15mm	Ant 3	DSI4	26340	1880	25.08	25.70	1.153	-	-	-0.1	0.260	0.300
	LTE Band 25	20M	QPSK	1	0	-	Back	15mm	Ant 3	DSI4	26340	1880	25.21	25.70	1.119	-	-	-0.07	0.258	0.289
	LTE Band 25	20M	QPSK	50	0	-	Back	15mm	Ant 3	DSI4	26340	1880	25.08	25.70	1.153	-	-	-0.09	0.272	0.314
	LTE Band 25	20M	QPSK	1	0	-	Front	15mm	Ant 4	DSI4	26340	1880	24.68	25.40	1.180	-	-	0.09	0.279	0.329
	LTE Band 25	20M	QPSK	50	0	-	Front	15mm	Ant 4	DSI4	26340	1880	24.62	25.40	1.197	-	-	0.08	0.273	0.327
71	LTE Band 25	20M	QPSK	1	0	-	Back	15mm	Ant 4	DSI4	26340	1880	24.68	25.40	1.180	-	-	0.04	0.433	**0.511**
	LTE Band 25	20M	QPSK	50	0	-	Back	15mm	Ant 4	DSI4	26340	1880	24.62	25.40	1.197	-	-	-0.01	0.423	0.506
									2600MHz											
	LTE Band 7	20M	QPSK	1	0	-	Front	15mm	Ant 3	DSI4	21100	2535	25.17	25.70	1.130	-	-	0.17	0.458	0.517
	LTE Band 7	20M	QPSK	50	0	-	Front	15mm	Ant 3	DSI4	21100	2535	25.08	25.70	1.153	-	-	0.05	0.474	0.547
	LTE Band 7	20M	QPSK	1	0	-	Back	15mm	Ant 3	DSI4	21100	2535	25.17	25.70	1.130	-	-	0.07	0.556	0.628
72	LTE Band 7	20M	QPSK	50	0	-	Back	15mm	Ant 3	DSI4	21100	2535	25.08	25.70	1.153	-	-	-0.07	0.569	**0.656**
	LTE Band 7 UL_CA	20M	QPSK	50	50	-	Back	15mm	Ant 3	DSI4	21100+21298	2535+2554.8	24.12	24.70	1.143	-	-	0.02	0.555	0.634
	LTE Band 7	20M	QPSK	1	0	-	Front	15mm	Ant 5	DSI4	21100	2535	20.23	20.60	1.089	-	-	0.08	0.127	0.138
	LTE Band 7	20M	QPSK	50	0	-	Front	15mm	Ant 5	DSI4	21100	2535	20.19	20.60	1.099	-	-	0.03	0.126	0.138
	LTE Band 7	20M	QPSK	1	0	-	Back	15mm	Ant 5	DSI4	21100	2535	20.23	20.60	1.089	-	-	0.02	0.214	0.233
	LTE Band 7 UL_CA	20M	QPSK	1	99	-	Back	15mm	Ant 5	DSI4	21100+21298	2535+2554.8	20.06	20.60	1.132	-	-	0.01	0.200	0.226
	LTE Band 7	20M	QPSK	50	0	-	Back	15mm	Ant 5	DSI4	21100	2535	20.19	20.60	1.099	-	-	0.14	0.206	0.226
	LTE Band 7	20M	QPSK	1	0	-	Front	15mm	Ant 4	DSI4	21100	2535	25.10	25.50	1.096	-	-	-0.02	0.268	0.294
	LTE Band 7 UL_CA	20M	QPSK	1	99	-	Front	15mm	Ant 4	DSI4	21100+21298	2535+2554.8	23.99	24.50	1.125	-	-	-0.02	0.222	0.250
	LTE Band 7	20M	QPSK	50	0	-	Front	15mm	Ant 4	DSI4	21100	2535	24.77	25.50	1.183	-	-	0.12	0.241	0.285
	LTE Band 7	20M	QPSK	1	0	-	Back	15mm	Ant 4	DSI4	21100	2535	25.10	25.50	1.096	-	-	0.18	0.237	0.260
	LTE Band 7	20M	QPSK	50	0	-	Back	15mm	Ant 4	DSI4	21100	2535	24.77	25.50	1.183	-	-	0.15	0.217	0.257
	LTE Band 7	20M	QPSK	1	0	-	Front	15mm	Ant 6	DSI4	21100	2535	18.43	19.50	1.279	-	-	-0.06	0.062	0.079
	LTE Band 7	20M	QPSK	50	0	-	Front	15mm	Ant 6	DSI4	21100	2535	18.39	19.50	1.291	-	-	0.02	0.063	0.081
	LTE Band 7	20M	QPSK	1	0	-	Back	15mm	Ant 6	DSI4	21100	2535	18.43	19.50	1.279	-	-	-0.09	0.093	0.119
	LTE Band 7	20M	QPSK	50	0	-	Back	15mm	Ant 6	DSI4	21100	2535	18.39	19.50	1.291	-	-	0.02	0.095	0.122
	LTE Band 7 UL_CA	20M	QPSK	50	50	-	Back	15mm	Ant 6	DSI4	21100+21298	2535+2554.8	18.32	19.50	1.312	-	-	0.05	0.088	0.115
	LTE Band 41	20M	QPSK	1	0	-	Front	15mm	Ant 3	DSI4	40620	2593	25.10	25.70	1.148	62.9	1.006	-0.13	0.247	0.285
	LTE Band 41	20M	QPSK	50	0	-	Front	15mm	Ant 3	DSI4	40620	2593	25.07	25.70	1.156	62.9	1.006	0.01	0.244	0.284
73	LTE Band 41	20M	QPSK	1	0	-	Back	15mm	Ant 3	DSI4	40620	2593	25.10	25.70	1.148	62.9	1.006	-0.07	0.332	**0.383**
	LTE Band 41	20M	QPSK	50	0	-	Back	15mm	Ant 3	DSI4	40620	2593	25.07	25.70	1.156	62.9	1.006	0.06	0.320	0.372
	LTE Band 41	20M	QPSK	1	0	-	Front	15mm	Ant 5	DSI4	40620	2593	22.25	22.70	1.109	62.9	1.006	0.02	0.117	0.131
	LTE Band 41	20M	QPSK	50	0	-	Front	15mm	Ant 5	DSI4	40620	2593	22.20	22.70	1.122	62.9	1.006	0.02	0.115	0.130
	LTE Band 41	20M	QPSK	1	0	-	Back	15mm	Ant 5	DSI4	40620	2593	22.25	22.70	1.109	62.9	1.006	0.01	0.189	0.211
	LTE Band 41	20M	QPSK	50	0	-	Back	15mm	Ant 5	DSI4	40620	2593	22.20	22.70	1.122	62.9	1.006	-0.06	0.178	0.201
	LTE Band 41	20M	QPSK	1	0	-	Front	15mm	Ant 4	DSI4	40620	2593	25.23	25.70	1.114	62.9	1.006	0.03	0.152	0.170
	LTE Band 41	20M	QPSK	50	0	-	Front	15mm	Ant 4	DSI4	40620	2593	25.13	25.70	1.140	62.9	1.006	-0.07	0.147	0.169
	LTE Band 41	20M	QPSK	1	0	-	Back	15mm	Ant 4	DSI4	40620	2593	25.23	25.70	1.114	62.9	1.006	-0.1	0.116	0.130
	LTE Band 41	20M	QPSK	50	0	-	Back	15mm	Ant 4	DSI4	40620	2593	25.13	25.70	1.140	62.9	1.006	-0.02	0.112	0.128
	LTE Band 41	20M	QPSK	1	0	-	Front	15mm	Ant 6	DSI4	40620	2593	21.66	22.70	1.271	62.9	1.006	0.02	0.104	0.133
	LTE Band 41	20M	QPSK	50	0	-	Front	15mm	Ant 6	DSI4	40620	2593	21.59	22.70	1.291	62.9	1.006	0.07	0.100	0.130
	LTE Band 41	20M	QPSK	1	0	-	Back	15mm	Ant 6	DSI4	40620	2593	21.66	22.70	1.271	62.9	1.006	0.02	0.161	0.206
	LTE Band 41	20M	QPSK	50	0	-	Back	15mm	Ant 6	DSI4	40620	2593	21.59	22.70	1.291	62.9	1.006	-0.13	0.151	0.196
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Front	15mm	Ant 3	DSI4	507000	2535	25.20	25.70	1.122	-	-	-0.12	0.497	0.558
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Front	15mm	Ant 3	DSI4	507000	2535	25.16	25.70	1.132	-	-	0.03	0.383	0.434
74	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Back	15mm	Ant 3	DSI4	507000	2535	25.20	25.70	1.122	-	-	-0.08	0.611	**0.686**
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Back	15mm	Ant 3	DSI4	507000	2535	25.16	25.70	1.132	-	-	-0.18	0.508	0.575
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Front	15mm	Ant 5	DSI4	507000	2535	18.90	19.20	1.072	-	-	-0.08	0.111	0.119

	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Front	15mm	Ant 5	DSI4	507000	2535	18.85	19.20	1.084	-	-	0.14	0.109	0.118
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Back	15mm	Ant 5	DSI4	507000	2535	18.90	19.20	1.072	-	-	0.08	0.189	0.203
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Back	15mm	Ant 5	DSI4	507000	2535	18.85	19.20	1.084	-	-	0.1	0.183	0.198
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Front	15mm	Ant 4	DSI4	507000	2535	25.29	25.70	1.099	-	-	-0.05	0.302	0.332
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Front	15mm	Ant 4	DSI4	507000	2535	25.07	25.70	1.156	-	-	0.12	0.222	0.257
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Back	15mm	Ant 4	DSI4	507000	2535	25.29	25.70	1.099	-	-	-0.01	0.305	0.335
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Back	15mm	Ant 4	DSI4	507000	2535	25.07	25.70	1.156	-	-	0.04	0.229	0.265
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Front	15mm	Ant 6	DSI4	507000	2535	19.42	20.20	1.197	-	-	-0.06	0.112	0.134
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Front	15mm	Ant 6	DSI4	507000	2535	19.33	20.20	1.222	-	-	0.05	0.122	0.149
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Back	15mm	Ant 6	DSI4	507000	2535	19.42	20.20	1.197	-	-	-0.16	0.170	0.203
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Back	15mm	Ant 6	DSI4	507000	2535	19.33	20.20	1.222	-	-	0.07	0.176	0.215
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Front	15mm	Ant 3	DSI4	518598	2592.99	25.30	25.70	1.096	-	-	0.03	0.534	0.586
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Front	15mm	Ant 3	DSI4	518598	2592.99	25.19	25.70	1.125	-	-	0.01	0.532	0.598
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 3	DSI4	518598	2592.99	25.30	25.70	1.096	-	-	0.02	0.685	0.751
75	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 3	DSI4	518598	2592.99	25.19	25.70	1.125	-	-	-0.04	0.698	**0.785**
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Front	15mm	Ant 5	DSI4	518598	2592.99	19.20	19.70	1.122	-	-	-0.01	0.114	0.128
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Front	15mm	Ant 5	DSI4	518598	2592.99	19.16	19.70	1.132	-	-	0.03	0.097	0.110
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 5	DSI4	518598	2592.99	19.20	19.70	1.122	-	-	0.01	0.178	0.200
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 5	DSI4	518598	2592.99	19.16	19.70	1.132	-	-	0.03	0.145	0.164
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Front	15mm	Ant 4	DSI4	518598	2592.99	25.33	25.70	1.089	-	-	0.09	0.232	0.253
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Front	15mm	Ant 4	DSI4	518598	2592.99	24.26	25.70	1.393	-	-	-0.08	0.248	0.346
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 4	DSI4	518598	2592.99	25.33	25.70	1.089	-	-	-0.08	0.246	0.268
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 4	DSI4	518598	2592.99	24.26	25.70	1.393	-	-	-0.05	0.207	0.288
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Front	15mm	Ant 6	DSI4	518598	2592.99	19.22	20.70	1.406	-	-	-0.01	0.115	0.162
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Front	15mm	Ant 6	DSI4	518598	2592.99	19.20	20.70	1.413	-	-	0.03	0.113	0.160
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 6	DSI4	518598	2592.99	19.22	20.70	1.406	-	-	0.08	0.177	0.249
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 6	DSI4	518598	2592.99	19.20	20.70	1.413	-	-	-0.01	0.171	0.242
3500MHz																				
	LTE Band 42	20M	QPSK	1	0	-	Front	15mm	Ant 1	DSI4	42590	3500	22.54	23.50	1.247	62.9	1.006	0.01	0.086	0.108
	LTE Band 42	20M	QPSK	50	0	-	Front	15mm	Ant 1	DSI4	42590	3500	22.52	23.50	1.253	62.9	1.006	0.1	0.087	0.110
	LTE Band 42	20M	QPSK	1	0	-	Back	15mm	Ant 1	DSI4	42590	3500	22.54	23.50	1.247	62.9	1.006	0.16	0.177	0.222
	LTE Band 42	20M	QPSK	50	0	-	Back	15mm	Ant 1	DSI4	42590	3500	22.52	23.50	1.253	62.9	1.006	-0.05	0.182	0.229
	LTE Band 42 UL_CA	20M	QPSK	50	50	-	Back	15mm	Ant 1	DSI4	42590+42788	3500+3519.8	22.47	23.50	1.268	62.9	1.006	0.01	0.177	0.226
	LTE Band 42	20M	QPSK	1	0	-	Front	15mm	Ant 3	DSI4	42590	3500	21.78	22.80	1.265	62.9	1.006	-0.04	0.087	0.111
	LTE Band 42	20M	QPSK	50	0	-	Front	15mm	Ant 3	DSI4	42590	3500	21.73	22.80	1.279	62.9	1.006	-0.11	0.085	0.109
	LTE Band 42	20M	QPSK	1	0	-	Back	15mm	Ant 3	DSI4	42590	3500	21.78	22.80	1.265	62.9	1.006	-0.03	0.371	0.472
	LTE Band 42 UL_CA	20M	QPSK	1	99	-	Back	15mm	Ant 3	DSI4	42590+42788	3500+3519.8	21.74	22.80	1.276	62.9	1.006	0.07	0.366	0.470
	LTE Band 42	20M	QPSK	50	0	-	Back	15mm	Ant 3	DSI4	42590	3500	21.73	22.80	1.279	62.9	1.006	-0.08	0.366	0.471
	LTE Band 42	20M	QPSK	1	0	-	Front	15mm	Ant 10	DSI4	42590	3500	25.19	25.70	1.125	62.9	1.006	0.06	0.190	0.215
	LTE Band 42	20M	QPSK	50	0	-	Front	15mm	Ant 10	DSI4	42590	3500	25.15	25.70	1.135	62.9	1.006	0.06	0.200	0.228
	LTE Band 42	20M	QPSK	1	0	-	Back	15mm	Ant 10	DSI4	42590	3500	25.19	25.70	1.125	62.9	1.006	0.01	0.250	0.283
	LTE Band 42	20M	QPSK	50	0	-	Back	15mm	Ant 10	DSI4	42590	3500	25.15	25.70	1.135	62.9	1.006	0.03	0.259	0.296
	LTE Band 42 UL_CA	20M	QPSK	50	50	-	Back	15mm	Ant 10	DSI4	42590+42788	3500+3519.8	24.87	25.70	1.211	62.9	1.006	-0.02	0.240	0.292
	LTE Band 42	20M	QPSK	1	0	-	Front	15mm	Ant 13	DSI4	42590	3500	23.06	24.40	1.361	62.9	1.006	0.17	0.048	0.066
	LTE Band 42	20M	QPSK	50	0	-	Front	15mm	Ant 13	DSI4	42590	3500	23.02	24.40	1.374	62.9	1.006	0.17	0.045	0.062
76	LTE Band 42	20M	QPSK	1	0	-	Back	15mm	Ant 13	DSI4	42590	3500	23.06	24.40	1.361	62.9	1.006	0.03	0.478	**0.655**
	LTE Band 42 UL_CA	20M	QPSK	1	99	-	Back	15mm	Ant 13	DSI4	42590+42788	3500+3519.8	22.78	24.40	1.452	62.9	1.006	0.01	0.444	0.649
	LTE Band 42	20M	QPSK	1	0	-	Back	15mm	Ant 13	DSI4	42190	3460	22.86	24.40	1.426	62.9	1.006	0.05	0.449	0.644
	LTE Band 42	20M	QPSK	1	0	-	Back	15mm	Ant 13	DSI4	42990	3540	22.93	24.40	1.403	62.9	1.006	0.1	0.453	0.639
	LTE Band 42	20M	QPSK	50	0	-	Back	15mm	Ant 13	DSI4	42590	3500	23.02	24.40	1.374	62.9	1.006	0.08	0.462	0.639
	LTE Band 42	20M	QPSK	50	0	-	Back	15mm	Ant 13	DSI4	42190	3460	22.88	24.40	1.419	62.9	1.006	0.07	0.442	0.631
	LTE Band 42	20M	QPSK	50	0	-	Back	15mm	Ant 13	DSI4	42990	3540	22.93	24.40	1.403	62.9	1.006	0.03	0.450	0.635
	LTE Band 42	20M	QPSK	100	0	-	Back	15mm	Ant 13	DSI4	42590	3500	22.94	24.40	1.400	62.9	1.006	0.02	0.457	0.643
	LTE Band 48	20M	QPSK	1	0	-	Front	15mm	Ant 1	DSI4	55830	3609	18.97	20.00	1.268	62.9	1.006	0.03	0.036	0.046
	LTE Band 48	20M	QPSK	50	0	-	Front	15mm	Ant 1	DSI4	55830	3609	18.85	20.00	1.303	62.9	1.006	-0.03	0.037	0.049
	LTE Band 48	20M	QPSK	1	0	-	Back	15mm	Ant 1	DSI4	55830	3609	18.97	20.00	1.268	62.9	1.006	0.01	0.066	0.084

	LTE Band 48	20M	QPSK	50	0	-	Back	15mm	Ant 1	DSI4	55830	3609	18.85	20.00	1.303	62.9	1.006	0.08	0.067	0.088
	LTE Band 48	20M	QPSK	1	0	-	Front	15mm	Ant 3	DSI4	55830	3609	21.86	22.90	1.271	62.9	1.006	0.02	0.088	0.112
	LTE Band 48	20M	QPSK	50	0	-	Front	15mm	Ant 3	DSI4	55830	3609	21.80	22.90	1.288	62.9	1.006	0.03	0.086	0.111
	LTE Band 48	20M	QPSK	1	0	-	Back	15mm	Ant 3	DSI4	55830	3609	21.86	22.90	1.271	62.9	1.006	-0.05	0.301	0.385
	LTE Band 48	20M	QPSK	50	0	-	Back	15mm	Ant 3	DSI4	55830	3609	21.80	22.90	1.288	62.9	1.006	-0.01	0.295	0.382
	LTE Band 48	20M	QPSK	1	0	-	Front	15mm	Ant 10	DSI4	55830	3609	25.21	25.60	1.094	62.9	1.006	-0.07	0.486	0.535
	LTE Band 48	20M	QPSK	50	0	-	Front	15mm	Ant 10	DSI4	55830	3609	25.18	25.60	1.102	62.9	1.006	-0.04	0.500	0.554
	LTE Band 48	20M	QPSK	1	0	-	Back	15mm	Ant 10	DSI4	55830	3609	25.21	25.60	1.094	62.9	1.006	0.05	0.590	0.649
	LTE Band 48	20M	QPSK	1	0	-	Back	15mm	Ant 10	DSI4	55340	3560	25.20	25.60	1.096	62.9	1.006	0.07	0.579	0.639
	LTE Band 48	20M	QPSK	1	0	-	Back	15mm	Ant 10	DSI4	56150	3641	25.15	25.60	1.109	62.9	1.006	0.01	0.570	0.636
	LTE Band 48	20M	QPSK	1	0	-	Back	15mm	Ant 10	DSI4	56640	3690	25.08	25.60	1.127	62.9	1.006	0.09	0.561	0.636
77	LTE Band 48	20M	QPSK	50	0	-	Back	15mm	Ant 10	DSI4	55830	3609	25.18	25.60	1.102	62.9	1.006	0.09	0.599	**0.664**
	LTE Band 48	20M	QPSK	50	0	-	Back	15mm	Ant 10	DSI4	55340	3560	25.06	25.60	1.132	62.9	1.006	0.02	0.571	0.650
	LTE Band 48	20M	QPSK	50	0	-	Back	15mm	Ant 10	DSI4	56150	3641	25.15	25.60	1.109	62.9	1.006	0.01	0.575	0.642
	LTE Band 48	20M	QPSK	50	0	-	Back	15mm	Ant 10	DSI4	56640	3690	25.04	25.60	1.138	62.9	1.006	0.07	0.566	0.648
	LTE Band 48	20M	QPSK	100	0	-	Back	15mm	Ant 10	DSI4	55830	3609	25.20	25.60	1.096	62.9	1.006	0.1	0.580	0.640
	LTE Band 48	20M	QPSK	1	0	-	Front	15mm	Ant 13	DSI4	55830	3609	23.26	24.70	1.393	62.9	1.006	0.03	0.079	0.111
	LTE Band 48	20M	QPSK	50	0	-	Front	15mm	Ant 13	DSI4	55830	3609	23.24	24.70	1.400	62.9	1.006	0.01	0.052	0.073
	LTE Band 48	20M	QPSK	1	0	-	Back	15mm	Ant 13	DSI4	55830	3609	23.26	24.70	1.393	62.9	1.006	0.01	0.366	0.513
	LTE Band 48	20M	QPSK	50	0	-	Back	15mm	Ant 13	DSI4	55830	3609	23.24	24.70	1.400	62.9	1.006	-0.02	0.352	0.496
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Front	15mm	Ant 1	DSI4	656000	3840	20.50	22.00	1.413	-	-	-0.18	0.068	0.096
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Front	15mm	Ant 1	DSI4	656000	3840	20.47	22.00	1.422	-	-	-0.05	0.065	0.092
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 1	DSI4	656000	3840	20.50	22.00	1.413	-	-	0.07	0.134	0.189
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 1	DSI4	656000	3840	20.47	22.00	1.422	-	-	-0.09	0.137	0.195
	FR1 n77 PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 1	DSI4	656000	3840	23.44	25.00	1.432	50	1.000	0.01	0.135	0.193
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Front	15mm	Ant 1	DSI4	633334	3500.01	21.05	22.00	1.245	-	-	0.08	0.086	0.107
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Front	15mm	Ant 1	DSI4	633334	3500.01	21.02	22.00	1.253	-	-	-0.18	0.082	0.103
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 1	DSI4	633334	3500.01	21.05	22.00	1.245	-	-	0.14	0.170	0.212
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 1	DSI4	633334	3500.01	21.02	22.00	1.253	-	-	0.07	0.167	0.209
	FR1 n77 PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 1	DSI4	633334	3500.01	23.91	25.00	1.285	50	1.000	0.04	0.164	0.211
	FR1 n77 PC3 Other PA	100M	QPSK	1	1	DFT-SCS-30KHz	Front	15mm	Ant 3	DSI4	656000	3840	20.78	22.70	1.556	-	-	0.16	0.377	0.587
	FR1 n77 PC3 Other PA	100M	QPSK	135	69	DFT-SCS-30KHz	Front	15mm	Ant 3	DSI4	656000	3840	20.76	22.70	1.563	-	-	0.04	0.380	0.594
	FR1 n77 PC3 Other PA	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 3	DSI4	656000	3840	20.78	22.70	1.556	-	-	0.07	0.455	0.708
	FR1 n77 PC3 Other PA	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 3	DSI4	656000	3840	20.76	22.70	1.563	-	-	-0.18	0.458	0.716
	FR1 n77 PC2 Other PA	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 3	DSI4	656000	3840	24.00	25.70	1.479	50	1.000	0.02	0.511	0.756
	FR1 n77 PC3 Main PA	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 3	DSI4	656000	3840	21.80	22.20	1.096	-	-	0.01	0.276	0.303
	FR1 n77 PC3 Other PA	100M	QPSK	1	1	DFT-SCS-30KHz	Front	15mm	Ant 3	DSI4	633334	3500.01	20.76	22.70	1.563	-	-	0.09	0.371	0.580
	FR1 n77 PC3 Other PA	100M	QPSK	135	69	DFT-SCS-30KHz	Front	15mm	Ant 3	DSI4	633334	3500.01	20.72	22.70	1.578	-	-	0.15	0.378	0.596
	FR1 n77 PC3 Other PA	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 3	DSI4	633334	3500.01	20.76	22.70	1.563	-	-	-0.07	0.451	0.705
	FR1 n77 PC3 Other PA	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 3	DSI4	633334	3500.01	20.72	22.70	1.578	-	-	-0.03	0.465	0.734
	FR1 n77 PC2 Other PA	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 3	DSI4	633334	3500.01	24.02	25.70	1.472	50	1.000	0.03	0.543	0.799
	FR1 n77 PC3 Main PA	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 3	DSI4	633334	3500.01	21.67	22.20	1.130	-	-	0.01	0.278	0.314
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Front	15mm	Ant 10	DSI4	656000	3840	25.22	25.70	1.117	-	-	0.18	0.702	0.784
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Front	15mm	Ant 10	DSI4	656000	3840	25.18	25.70	1.127	-	-	0.08	0.551	0.621
	FR1 n77 PC3	100M	QPSK	270	0	DFT-SCS-30KHz	Front	15mm	Ant 10	DSI4	656000	3840	25.13	25.70	1.140	-	-	0.02	0.544	0.620
78	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 10	DSI4	656000	3840	25.22	25.70	1.117	-	-	-0.01	0.722	**0.806**
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 10	DSI4	656000	3840	25.18	25.70	1.127	-	-	0.05	0.569	0.641
	FR1 n77 PC3	100M	QPSK	270	0	DFT-SCS-30KHz	Back	15mm	Ant 10	DSI4	656000	3840	25.13	25.70	1.140	-	-	0.07	0.559	0.637
	FR1 n77 PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 10	DSI4	656000	3840	27.20	28.00	1.202	50	1.000	-0.13	0.545	0.655
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Front	15mm	Ant 10	DSI4	633334	3500.01	25.33	25.70	1.089	-	-	0.02	0.281	0.306
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Front	15mm	Ant 10	DSI4	633334	3500.01	25.26	25.70	1.107	-	-	0.05	0.331	0.366
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 10	DSI4	633334	3500.01	25.33	25.70	1.089	-	-	0.11	0.369	0.402
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 10	DSI4	633334	3500.01	25.26	25.70	1.107	-	-	-0.08	0.423	0.468
	FR1 n77 PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 10	DSI4	633334	3500.01	27.37	28.00	1.156	50	1.000	0.07	0.296	0.342
	FR1 n77 PC3 Other PA	100M	QPSK	1	1	DFT-SCS-30KHz	Front	15mm	Ant 13	DSI4	656000	3840	19.33	20.70	1.371	-	-	0.08	0.061	0.084
	FR1 n77 PC3 Other PA	100M	QPSK	135	69	DFT-SCS-30KHz	Front	15mm	Ant 13	DSI4	656000	3840	19.29	20.70	1.384	-	-	-0.16	0.077	0.107

	FR1 n77 PC3 Other PA	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 13	DSI4	656000	3840	19.33	20.70	1.371	-	-	-0.15	0.158	0.217
	FR1 n77 PC3 Other PA	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 13	DSI4	656000	3840	19.29	20.70	1.384	-	-	-0.14	0.161	0.223
	FR1 n77 PC2 Other PA	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 13	DSI4	656000	3840	22.22	23.70	1.406	50	1.000	-0.02	0.216	0.304
	FR1 n77 PC3 Main PA	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 13	DSI4	656000	3840	20.31	20.70	1.094	-	-	0.06	0.151	0.165
	FR1 n77 PC3 Other PA	100M	QPSK	1	1	DFT-SCS-30KHz	Front	15mm	Ant 13	DSI4	633334	3500.01	19.31	20.70	1.377	-	-	0.03	0.132	0.182
	FR1 n77 PC3 Other PA	100M	QPSK	135	69	DFT-SCS-30KHz	Front	15mm	Ant 13	DSI4	633334	3500.01	19.22	20.70	1.406	-	-	-0.13	0.156	0.219
	FR1 n77 PC3 Other PA	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 13	DSI4	633334	3500.01	19.31	20.70	1.377	-	-	0.02	0.246	0.339
	FR1 n77 PC3 Other PA	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 13	DSI4	633334	3500.01	19.22	20.70	1.406	-	-	-0.06	0.284	0.399
	FR1 n77 PC2 Other PA	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 13	DSI4	633334	3500.01	22.16	23.70	1.426	50	1.000	0.01	0.306	0.436
	FR1 n77 PC3 Main PA	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 13	DSI4	633334	3500.01	20.04	20.70	1.164	-	-	-0.16	0.241	0.281
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Front	15mm	Ant 1	DSI4	650000	3750	19.45	20.50	1.274	-	-	0.05	0.054	0.069
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Front	15mm	Ant 1	DSI4	650000	3750	19.42	20.50	1.282	-	-	0.04	0.047	0.060
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 1	DSI4	650000	3750	19.45	20.50	1.274	-	-	0.11	0.087	0.111
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 1	DSI4	650000	3750	19.42	20.50	1.282	-	-	-0.07	0.071	0.091
	FR1 n78 PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 1	DSI4	650000	3750	22.45	23.50	1.274	50	1.000	-0.03	0.085	0.108
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Front	15mm	Ant 1	DSI4	633334	3500.01	19.72	20.50	1.197	-	-	0.05	0.061	0.073
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Front	15mm	Ant 1	DSI4	633334	3500.01	19.68	20.50	1.208	-	-	0.09	0.057	0.069
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 1	DSI4	633334	3500.01	19.72	20.50	1.197	-	-	0.18	0.126	0.151
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 1	DSI4	633334	3500.01	19.68	20.50	1.208	-	-	0.07	0.121	0.146
	FR1 n78 PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 1	DSI4	633334	3500.01	22.51	23.50	1.256	50	1.000	0.04	0.124	0.156
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Front	15mm	Ant 3	DSI4	650000	3750	23.18	23.70	1.127	-	-	0.08	0.239	0.269
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Front	15mm	Ant 3	DSI4	650000	3750	23.16	23.70	1.132	-	-	0.03	0.223	0.253
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 3	DSI4	650000	3750	23.18	23.70	1.127	-	-	-0.15	0.682	0.769
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 3	DSI4	650000	3750	23.16	23.70	1.132	-	-	-0.12	0.668	0.756
	FR1 n78 PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 3	DSI4	650000	3750	25.15	26.70	1.429	50	1.000	0.05	0.524	0.749
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Front	15mm	Ant 3	DSI4	633334	3500.01	23.28	23.70	1.102	-	-	-0.06	0.214	0.236
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Front	15mm	Ant 3	DSI4	633334	3500.01	23.26	23.70	1.107	-	-	0.1	0.190	0.210
79	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 3	DSI4	633334	3500.01	23.28	23.70	1.102	-	-	-0.01	0.892	**0.983**
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 3	DSI4	633334	3500.01	23.26	23.70	1.107	-	-	0.14	0.861	0.953
	FR1 n78 PC3	100M	QPSK	270	0	DFT-SCS-30KHz	Back	15mm	Ant 3	DSI4	633334	3500.01	23.13	23.70	1.140	-	-	0.08	0.843	0.961
	FR1 n78 PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 3	DSI4	633334	3500.01	25.28	26.70	1.387	50	1.000	0.01	0.706	0.979
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Front	15mm	Ant 10	DSI4	650000	3750	22.08	22.70	1.153	-	-	0.11	0.288	0.332
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Front	15mm	Ant 10	DSI4	650000	3750	22.05	22.70	1.161	-	-	0.04	0.276	0.321
	FR1 n78 PC3	100M	QPSK	270	0	DFT-SCS-30KHz	Front	15mm	Ant 10	DSI4	650000	3750	21.91	22.70	1.199	-	-	0.04	0.281	0.337
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 10	DSI4	650000	3750	22.08	22.70	1.153	-	-	0.1	0.342	0.394
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 10	DSI4	650000	3750	22.05	22.70	1.161	-	-	0.06	0.319	0.371
	FR1 n78 PC3	100M	QPSK	270	0	DFT-SCS-30KHz	Back	15mm	Ant 10	DSI4	650000	3750	21.91	22.70	1.199	-	-	0.04	0.298	0.357
	FR1 n78 PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 10	DSI4	650000	3750	25.06	25.70	1.159	50	1.000	0.02	0.366	0.424
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Front	15mm	Ant 10	DSI4	633334	3500.01	22.38	22.70	1.076	-	-	0.03	0.187	0.201
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Front	15mm	Ant 10	DSI4	633334	3500.01	22.33	22.70	1.089	-	-	-0.18	0.198	0.216
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 10	DSI4	633334	3500.01	22.38	22.70	1.076	-	-	0.08	0.226	0.243
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 10	DSI4	633334	3500.01	22.33	22.70	1.089	-	-	-0.16	0.258	0.281
	FR1 n78 PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 10	DSI4	633334	3500.01	25.33	25.70	1.089	50	1.000	-0.09	0.285	0.310
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Front	15mm	Ant 13	DSI4	650000	3750	20.21	20.70	1.119	-	-	0.11	0.034	0.038
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Front	15mm	Ant 13	DSI4	650000	3750	20.11	20.70	1.146	-	-	0.03	0.062	0.071
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 13	DSI4	650000	3750	20.21	20.70	1.119	-	-	0.14	0.290	0.325
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 13	DSI4	650000	3750	20.11	20.70	1.146	-	-	-0.05	0.279	0.320
	FR1 n78 PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 13	DSI4	650000	3750	23.20	23.70	1.122	50	1.000	0.02	0.274	0.307
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Front	15mm	Ant 13	DSI4	633334	3500.01	20.24	20.70	1.112	-	-	0.09	0.044	0.049
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Front	15mm	Ant 13	DSI4	633334	3500.01	20.12	20.70	1.143	-	-	-0.19	0.078	0.089
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 13	DSI4	633334	3500.01	20.24	20.70	1.112	-	-	0.18	0.366	0.407
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 13	DSI4	633334	3500.01	20.12	20.70	1.143	-	-	-0.05	0.379	0.433
	FR1 n78 PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 13	DSI4	633334	3500.01	23.21	23.70	1.119	50	1.000	0.02	0.357	0.400

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
2450MHz																
	WLAN2.4GHz	802.11b 1Mbps	Front	15mm	Ant 15+18	Standalone	6	2437	22.28	23.00	1.180	97.46	1.026	0.02	0.255	0.309
80	WLAN2.4GHz	802.11b 1Mbps	Back	15mm	Ant 15+18	Standalone	6	2437	22.28	23.00	1.180	97.46	1.026	0.01	0.348	**0.421**
	WLAN2.4GHz	802.11b 1Mbps	Back	15mm	Ant 15+18	DBS Simultaneous	6	2437	20.38	21.00	1.154	97.46	1.026	0.02	0.200	0.237
	Bluetooth	1Mbps	Front	15mm	Ant 18	Full	0	2402	16.07	17.50	1.389	77.02	1.082	0.01	0.034	0.051
	Bluetooth	1Mbps	Back	15mm	Ant 18	Full	0	2402	16.07	17.50	1.389	77.02	1.082	0.07	0.031	0.047
	Bluetooth	1Mbps	Front	15mm	Ant 15	Full	0	2402	16.21	17.50	1.347	77.00	1.082	-0.05	0.032	0.047
81	Bluetooth	1Mbps	Back	15mm	Ant 15	Full	0	2402	16.21	17.50	1.347	77.00	1.082	0.01	0.051	**0.074**
5000MHz																
	WLAN5.3GHz	802.11a 6Mbps	Front	15mm	Ant 17+18	Standalone&DBS Standalone&Simultaneous&XBS Standalone	64	5320	19.39	20.00	1.151	98.97	1.010	0.02	0.179	0.208
82	WLAN5.3GHz	802.11a 6Mbps	Back	15mm	Ant 17+18	Standalone&DBS Standalone&Simultaneous&XBS Standalone	64	5320	19.39	20.00	1.151	98.97	1.010	-0.08	0.359	**0.417**
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Back	15mm	Ant 17+18	DBS Simultaneous	58	5290	16.98	18.00	1.265	100	1.000	0.02	0.192	0.243
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Back	15mm	Ant 17+18	XBS Simultaneous	58	5290	15.06	16.00	1.242	100	1.000	0.03	0.126	0.156
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Front	15mm	Ant 17+18	Standalone&DBS Standalone&Simultaneous&XBS Standalone	138	5690	18.73	19.50	1.194	100	1.000	-0.16	0.108	0.129
83	WLAN5.5GHz	802.11ac-VHT80 MCS0	Back	15mm	Ant 17+18	Standalone&DBS Standalone&Simultaneous&XBS Standalone	138	5690	18.73	19.50	1.194	100	1.000	0.09	0.273	**0.326**
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Back	15mm	Ant 17+18	DBS Simultaneous	138	5690	17.33	18.00	1.167	100	1.000	0.02	0.204	0.238
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Back	15mm	Ant 17+18	XBS Simultaneous	138	5690	15.40	16.00	1.148	100	1.000	0.07	0.132	0.152
84	WLAN5.8GHz	802.11a 6Mbps	Front	15mm	Ant 17+18	Standalone&DBS Standalone&Simultaneous&XBS Standalone&DBS Simultaneous	149	5745	20.63	21.50	1.222	98.97	1.010	-0.06	0.157	**0.194**
	WLAN5.8GHz	802.11a 6Mbps	Back	15mm	Ant 17+18	Standalone&DBS Standalone&Simultaneous&XBS Standalone&DBS Simultaneous	149	5745	20.63	21.50	1.222	98.97	1.010	0.04	0.094	0.116
	WLAN5.8GHz	802.11n-HT40 MCS0	Front	15mm	Ant 17+18	XBS Simultaneous	151	5755	20.08	21.00	1.236	100	1.000	0.05	0.125	0.154

16.4 Product Specific 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)
3500MHz																				
85	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	0mm	Ant 10	DSI3	656000	3840	21.84	22.20	1.086	-	-	0.02	1.84	**1.999**
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	0mm	Ant 10	DSI3	656000	3840	21.71	22.20	1.119	-	-	0.07	1.52	1.702
	FR1 n77 PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	0mm	Ant 10	DSI3	656000	3840	24.59	25.20	1.151	50	1.000	0.02	1.58	1.818
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	9mm	Ant 10	DSI4	656000	3840	25.22	25.70	1.117	-	-	0.08	1.48	1.653
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	0mm	Ant 10	DSI3	650000	3750	20.25	20.70	1.109	-	-	0.01	1.17	1.298
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	0mm	Ant 10	DSI3	650000	3750	20.12	20.70	1.143	-	-	-0.15	1.08	1.234
	FR1 n78 PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	0mm	Ant 10	DSI3	650000	3750	23.04	23.70	1.164	50	1.000	0.06	1.16	1.350
86	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	9mm	Ant 10	DSI4	650000	3750	22.08	22.70	1.153	-	-	0.15	2.15	**2.480**
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	9mm	Ant 10	DSI4	650000	3750	22.05	22.70	1.161	-	-	0.12	2.10	2.439
	FR1 n78 PC3	100M	QPSK	270	0	DFT-SCS-30KHz	Top Side	9mm	Ant 10	DSI4	650000	3750	21.91	22.70	1.199	-	-	0.03	1.98	2.375
5000MHz																				
	WLAN5.3GHz	-	-	-	-	802.11a 6Mbps	Front	0mm	Ant 17+18	Full	64	5320	19.39	20.00	1.151	98.97	1.010	0.09	0.694	0.807
	WLAN5.3GHz	-	-	-	-	802.11a 6Mbps	Back	0mm	Ant 17+18	Full	64	5320	19.39	20.00	1.151	98.97	1.010	0.08	0.314	0.365
87	WLAN5.3GHz	-	-	-	-	802.11a 6Mbps	Right Side	0mm	Ant 17+18	Full	64	5320	19.39	20.00	1.151	98.97	1.010	0.09	1.14	**1.325**
	WLAN5.3GHz	-	-	-	-	802.11a 6Mbps	Top Side	0mm	Ant 17+18	Full	64	5320	19.39	20.00	1.151	98.97	1.010	0.09	0.430	0.500
	WLAN5.5GHz	-	-	-	-	802.11ac-VHT80 MCS0	Front	0mm	Ant 17+18	Full	138	5690	18.73	19.50	1.194	100	1.000	-0.14	1.13	1.349
	WLAN5.5GHz	-	-	-	-	802.11ac-VHT80 MCS0	Back	0mm	Ant 17+18	Full	138	5690	18.73	19.50	1.194	100	1.000	0.08	0.850	1.015
88	WLAN5.5GHz	-	-	-	-	802.11ac-VHT80 MCS0	Right Side	0mm	Ant 17+18	Full	138	5690	18.73	19.50	1.194	100	1.000	-0.07	1.27	**1.516**
	WLAN5.5GHz	-	-	-	-	802.11ac-VHT80 MCS0	Top Side	0mm	Ant 17+18	Full	138	5690	18.73	19.50	1.194	100	1.000	0.08	0.820	0.979

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	LTE Band 12	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 1	DSI1	23095	707.5	23.97	25.00	1.268	-	-	-0.06	0.857	1	1.086
2nd	LTE Band 12	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 1	DSI1	23095	707.5	23.97	25.00	1.268	-	-	-0.05	0.843	1.017	1.069
1st	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 4	DSI1	9262	1852.4	18.68	19.70	1.265	-	-	-0.04	0.821	1	1.038
2nd	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 4	DSI1	9262	1852.4	18.68	19.70	1.265	-	-	0.06	0.803	1.022	1.016
1st	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 4	DSI1	518598	2592.99	18.40	18.70	1.072	-	-	0.17	0.940	1	1.007
2nd	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 4	DSI1	518598	2592.99	18.40	18.70	1.072	-	-	0.02	0.933	1.008	1.000
1st	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 13	DSI1	650000	3750	23.83	24.70	1.222	-	-	0.05	0.894	1	1.092
2nd	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 13	DSI1	650000	3750	23.83	24.70	1.222	-	-	0.03	0.864	1.035	1.056
1st	WLAN2.4GHz	-	-	-	-	802.11b 1Mbps	Right Side	10mm	Ant 15+18	Standalone	6	2437	20.83	21.50	1.166	97.46	1.026	-0.06	0.886	1	1.060
2nd	WLAN2.4GHz	-	-	-	-	802.11b 1Mbps	Right Side	10mm	Ant 15+18	Standalone	6	2437	20.83	21.50	1.166	97.46	1.026	0.04	0.851	1.041	1.018
1st	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Back	15mm	Ant 4	DSI4	349000	1745	25.32	25.70	1.091	-	-	-0.05	0.892	1	0.974
2nd	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Back	15mm	Ant 4	DSI4	349000	1745	25.32	25.70	1.091	-	-	0.02	0.888	1.005	0.969
1st	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 3	DSI4	633334	3500.01	23.28	23.70	1.102	-	-	-0.01	0.892	1	0.983
2nd	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 3	DSI4	633334	3500.01	23.28	23.70	1.102	-	-	0.03	0.851	1.048	0.937

<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	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	9mm	Ant 10	DSI4	650000	3750	22.08	22.70	1.153	0.15	2.15	1	2.480
2nd	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	9mm	Ant 10	DSI4	650000	3750	22.08	22.70	1.153	0.15	2.08	1.034	2.399

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 NR Linearity Data Analysis

General Note:
This device support Power Class 2 and Power Class 3 operations for 5GNR n77/n78. The highest available duty cycle for Power Class 2 operation is 50% 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 NR 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.

NR n77(HPUE)-Linearity Data for Head Ant1		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	21.00	24.00
Reported 1g SAR (W/kg)	0.986	0.981
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	125.89	125.59
Linearity SAR (W/kg)	0.984	
% deviation from expected linearity		-0.27%

NR n77(HPUE)-Linearity Data for Head Ant3		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	25.70	25.90
Reported 1g SAR (W/kg)	0.288	0.164
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	371.54	194.52
Linearity SAR (W/kg)	0.151	
% deviation from expected linearity		8.76%

NR n77(HPUE)-Linearity Data for Body-worn Ant1		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	22.00	25.00
Reported 1g SAR (W/kg)	0.212	0.211
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	158.49	158.11
Linearity SAR (W/kg)	0.211	
% deviation from expected linearity		-0.24%

NR n77(HPUE)-Linearity Data for Body-worn Ant3		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	22.70	25.70
Reported 1g SAR (W/kg)	0.734	0.799
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	186.21	185.77
Linearity SAR (W/kg)	0.732	
% deviation from expected linearity		9.11%

NR n77(HPUE)-Linearity Data for Hotspot Ant1		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	21.00	24.00
Reported 1g SAR (W/kg)	0.438	0.402
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	125.89	125.59
Linearity SAR (W/kg)	0.437	
% deviation from expected linearity		-8.00%

NR n77(HPUE)-Linearity Data for Hotspot Ant3		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	19.20	22.20
Reported 1g SAR (W/kg)	0.821	0.739
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	83.18	82.98
Linearity SAR (W/kg)	0.819	
% deviation from expected linearity		-9.77%

NR n77(HPUE)-Linearity Data for Extremity Ant10		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	22.20	25.20
Reported 10g SAR (W/kg)	1.999	1.818
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	165.96	165.57
Linearity SAR (W/kg)	1.994	
% deviation from expected linearity		-8.84%

NR n78(HPUE)-Linearity Data for Extremity Ant10		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	20.70	23.70
Reported 10g SAR (W/kg)	1.298	1.350
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	117.49	117.21
Linearity SAR (W/kg)	1.295	
% deviation from expected linearity		4.25%

NR n77(HPUE)-Linearity Data for Head Ant10		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	15.70	18.70
Reported 1g SAR (W/kg)	0.707	0.641
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	37.15	37.07
Linearity SAR (W/kg)	0.705	
% deviation from expected linearity		-9.12%

NR n77(HPUE)-Linearity Data for Head Ant13		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	22.70	25.70
Reported 1g SAR (W/kg)	0.607	0.649
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	186.21	185.77
Linearity SAR (W/kg)	0.606	
% deviation from expected linearity		7.17%

NR n77(HPUE)-Linearity Data for Body-worn Ant10		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	25.70	28.00
Reported 1g SAR (W/kg)	0.806	0.655
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	371.54	315.48
Linearity SAR (W/kg)	0.684	
% deviation from expected linearity		-4.29%

NR n77(HPUE)-Linearity Data for Body-worn Ant13		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	20.70	23.70
Reported 1g SAR (W/kg)	0.399	0.436
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	117.49	117.21
Linearity SAR (W/kg)	0.398	
% deviation from expected linearity		9.53%

NR n77(HPUE)-Linearity Data for Hotspot Ant10		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	15.70	18.70
Reported 1g SAR (W/kg)	0.387	0.360
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	37.15	37.07
Linearity SAR (W/kg)	0.386	
% deviation from expected linearity		-6.76%

NR n77(HPUE)-Linearity Data for Hotspot Ant13		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	16.70	19.70
Reported 1g SAR (W/kg)	0.462	0.461
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	46.77	46.66
Linearity SAR (W/kg)	0.461	
% deviation from expected linearity		0.02%

NR n78(HPUE)-Linearity Data for Head Ant1		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	21.00	24.00
Reported 1g SAR (W/kg)	0.739	0.675
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	125.89	125.59
Linearity SAR (W/kg)	0.737	
% deviation from expected linearity		-8.44%

NR n78(HPUE)-Linearity Data for Head Ant3		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	25.70	27.00
Reported 1g SAR (W/kg)	0.241	0.158
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	371.54	250.59
Linearity SAR (W/kg)	0.163	
% deviation from expected linearity		-2.80%

NR n78(HPUE)-Linearity Data for Body-worn Ant1		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	20.50	23.50
Reported 1g SAR (W/kg)	0.151	0.156
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	112.20	111.94
Linearity SAR (W/kg)	0.151	
% deviation from expected linearity		3.56%

NR n78(HPUE)-Linearity Data for Body-worn Ant3		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	23.70	26.70
Reported 1g SAR (W/kg)	0.983	0.979
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	234.42	233.87
Linearity SAR (W/kg)	0.981	
% deviation from expected linearity		-0.17%

NR n78(HPUE)-Linearity Data for Hotspot Ant1		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	20.50	23.50
Reported 1g SAR (W/kg)	0.493	0.484
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	112.20	111.94
Linearity SAR (W/kg)	0.492	
% deviation from expected linearity		-1.59%

NR n78(HPUE)-Linearity Data for Hotspot Ant3		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	19.70	22.70
Reported 1g SAR (W/kg)	0.873	0.844
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	93.33	93.10
Linearity SAR (W/kg)	0.871	
% deviation from expected linearity		-3.09%

NR n78(HPUE)-Linearity Data for Head Ant10		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	15.20	18.20
Reported 1g SAR (W/kg)	0.926	0.860
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	33.11	33.03
Linearity SAR (W/kg)	0.924	
% deviation from expected linearity		-6.91%

NR n78(HPUE)-Linearity Data for Head Ant13		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	24.70	27.70
Reported 1g SAR (W/kg)	1.092	1.041
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	295.12	294.42
Linearity SAR (W/kg)	1.089	
% deviation from expected linearity		-4.44%

NR n78(HPUE)-Linearity Data for Body-worn Ant10		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	22.70	25.70
Reported 1g SAR (W/kg)	0.394	0.424
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	186.21	185.77
Linearity SAR (W/kg)	0.393	
% deviation from expected linearity		7.87%

NR n78(HPUE)-Linearity Data for Body-worn Ant13		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	20.70	23.70
Reported 1g SAR (W/kg)	0.433	0.400
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	117.49	117.21
Linearity SAR (W/kg)	0.432	
% deviation from expected linearity		-7.40%

NR n78(HPUE)-Linearity Data for Hotspot Ant10		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	15.20	18.20
Reported 1g SAR (W/kg)	0.521	0.478
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	33.11	33.03
Linearity SAR (W/kg)	0.520	
% deviation from expected linearity		-8.04%

NR n78(HPUE)-Linearity Data for Hotspot Ant13		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	17.70	20.70
Reported 1g SAR (W/kg)	0.601	0.562
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	58.88	58.74
Linearity SAR (W/kg)	0.600	
% deviation from expected linearity		-6.27%

17. Simultaneous Transmission Analysis

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

General Note:

1. This device supports VoIP in GPRS, EGPRS, WCDMA and LTE (e.g. for 3rd-party VoIP), LTE supports VoLTE operation.
2. WWAN above includes 5G NR bands.
3. EUT will choose each GSM, WCDMA, LTE and 5GNR according to the network signal condition; therefore, they will not operate simultaneously at any moment.
4. For EN-DC mode, Qualcomm Smart Transmit algorithm in WWAN adds directly the time-averaged RF exposure from 4G(LTE) and time-averaged RF exposure from 5G NR. Smart Transmit algorithm controls the total RF exposure from both 4G and 5G NR to not exceed FCC limit. Therefore, simultaneous transmission compliance between 4G+5G NR operation is demonstrated in the Part 2 Report during algorithm validation. In Part 1 Report, simultaneous transmission compliance was evaluated individually with other Radios (WLAN or BT) using one of 4G or 5G NR.
5. This device 2.4GHz WLAN support hotspot operation and Bluetooth support tethering applications.
6. This device 2.4GHz WLAN/ 5.2GHz WLAN/5.8GHz WLAN support hotspot operation, and 5.2GHz WLAN/5.8GHz WLAN supports WLAN Direct (GC/GO), and 5.3GHz / 5.5GHz supports WLAN Direct (GC only). WIFI 6GHz has no hotspot function.
7. WLAN2.4GHz/WLAN5GHz/WLAN6GHz MIMO SAR can represent SISO SAR to do co-located SAR analysis.
8. Bluetooth BR/EDR two standalone SAR summed together as Bluetooth BR/EDR Beamforming SAR.
9. According to the EUT characteristic, WLAN 2.4GHz and Bluetooth cannot transmit simultaneously.
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. For simultaneously analysis, since the SAR summation of 3 transmitters can cover others combination of 2 transmitters, therefore in this section did not additional to evaluate 2TX combination of simultaneously transmission.
13. The worst case 5 GHz WLAN SAR for each configuration was used for SAR summation.
14. Chose the worst zoom scan SAR of WLAN correspondingly for co-located with WWAN analysis.
15. The reported SAR summation is calculated based on the same configuration and test position.
16. SAR Power density test report for WLAN6GHz U-NII-5/6/7/8 will be separately submitted. About co-located SAR with WWAN/Bluetooth, always chose higher SAR of WLAN5G U-NII-1/2A/2C/3 and U-NII-5/6/7/8.
17. Per KDB 447498 D01v06, simultaneous transmission SAR is compliant if,
    i) 1g Scalar SAR summation < 1.6W/kg and 10g Scalar SAR summation < 4.0W/kg.
    ii) SPLSR = (SAR1 + SAR2)^1.5 / (min. separation distance, mm), and the peak separation distance is determined from the square root of [(x1-x2)2 + (y1-y2)2 + (z1-z2)2], where (x1, y1, z1) and (x2, y2, z2) are the coordinates of the extrapolated peak SAR locations in the zoom scan.
    iii) If SPLSR ≤ 0.04 for 1g SAR and SPLSR≤ 0.10 for 10g SAR , simultaneously transmission SAR measurement is not necessary.
    iv) Simultaneously transmission SAR measurement, and the reported multi-band 1g SAR < 1.6W/kg and 10g SAR < 4.0W/kg.
    v) The SPLSR calculated results please refer to section 17.7.

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

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

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

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

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

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

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

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

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

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

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

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

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

Else, if A + C > 1.0 and/or B + C > 1.0, then the followings need to hold true for compliance:

i. A and C are decoupled based on the SPLSR criteria, and

ii. (100-x)% * B + C ≤ 1.0, and

iii. x% * A + (100-x)% * B ≤ 1.0

Note iii. is covered in Part 2 report; i. and ii. should be addressed in Part 2 report.

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

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

17.2 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 & ANT4& ANT5& ANT6& ANT10 & ANT13
Antenna Group 1 (AG1)	ANT0 & ANT3

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

<AG0 maximum report SAR>:

Test Position	Ant4	Ant1	Ant5	Ant6	Ant10	Ant13	MAX
Right Cheek	1.092	0.986	0.861	1.014	0.793	0.911	**1.092**
Right Tilted	1.038	0.352	0.157	0.639	0.898	1.092	**1.092**
Left Cheek	0.563	1.086	1.030	0.322	0.844	0.936	1.086
Left Tilted	0.694	0.162	0.244	0.223	0.926	1.008	1.008

<AG1 maximum report SAR>:

Test Position	Ant3	Ant0	MAX
Right Cheek	0.288	0.159	**0.288**
Right Tilted	0.259	0.088	0.259
Left Cheek	0.261	0.226	0.261
Left Tilted	0.278	0.124	0.278

<WLAN+BT Worse-case SAR>:

NO	1	2	3	4	5	6	7	8	9	10	14	15	16	2+6	7+9+3+4	2+15	9+16+3+4	
Test Position	WLAN2.4GHz Ant 15+18 (No DBS Simultaneous)	WLAN2.4GHz Ant 15+18 (DBS Simultaneous)	Bluetooth Ant18	Bluetooth Ant15	WLAN5GHz Ant 15+18 (No DBS Simultaneous)	WLAN5GHz Ant 15+18 (DBS Simultaneous)	WLAN5GHz High Ant 15+18 (XBS Simultaneous)	WLAN5GHz High Ant 15+18 (XBS Standalone)	WLAN5GHz LOW Ant 15+18 (XBS Simultaneous)	WLAN5GHz LOW Ant 15+18 (XBS Standalone)	WLAN6GHz Ant 15+18 (Standalone)	WLAN6GHz Ant 15+18 (DBS Simultaneous)	WLAN6GHz Ant 15+18 (XBS Simultaneous)	Summed 1g (W/kg)	Summed 1g (W/kg)	Summed 1g (W/kg)	Summed 1g (W/kg)	Wlan+BT worse case
Right Cheek	0.140	0.068	0.051	0.032	0.054	0.032	0.054	0.120	0.060	0.195	0.092	0.098	0.002	0.100	0.197	0.166	0.148	0.197
Right Tilted	0.142	0.070	0.050	0.040	0.053	0.040	0.069	0.126	0.069	0.203	0.081	0.086	0.002	0.110	0.228	0.156	0.164	0.228
Left Cheek	0.445	0.218	0.096	0.070	0.102	0.070	0.155	0.397	0.132	0.462	0.241	0.208	0.038	0.288	0.453	0.426	0.342	0.462
Left Tilted	0.331	0.162	0.070	0.060	0.074	0.059	0.123	0.249	0.156	0.460	0.459	0.242	0.028	0.221	0.409	0.404	0.317	0.460

<AG0 + AG1 + WLAN+BT Worse-case>:

Test Position	AG0	AG1	Wlan/BT worst case	AG0+AG1+wlan +BT worse case(DBS/XBS)
Right Cheek	1.092	0.288	0.197	1.58
Right Tilted	1.092	0.259	0.228	1.58
Left Cheek	1.086	0.261	0.464	**1.81**
Left Tilted	1.008	0.278	0.460	**1.75**

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

Left Cheek					
Ant combination	AG1	AG0	Wlan+BT worst case	AG0+AG1+wlan +BT worst case(DBS/XBS)	Note
	SAR	SAR			
Ant0-Ant4	0.226	0.563	0.464	1.25	-
Ant0-Ant1	0.226	1.086	0.464	**1.78**	Case 1
Ant0-Ant5	0.226	1.030	0.464	**1.72**	Case 2
Ant0-Ant6	0.226	0.322	0.464	1.01	-
Ant0-Ant10	0.226	0.844	0.464	1.53	-
Ant0-Ant13	0.226	0.936	0.464	**1.63**	Case 3
Ant3-Ant4	0.261	0.563	0.464	1.29	-
Ant3-Ant1	0.261	1.086	0.464	**1.81**	Case 4
Ant3-Ant5	0.261	1.030	0.464	**1.76**	Case 5
Ant3-Ant6	0.261	0.322	0.464	1.05	-
Ant3-Ant10	0.261	0.844	0.464	1.57	-
Ant3-Ant13	0.261	0.936	0.464	**1.66**	Case 6

Left Tilted					
Ant combination	AG1	AG0	Wlan+BT worst case	AG0+AG1+wlan +BT worst case(DBS/XBS)	Note
	SAR	SAR			
Ant0-Ant4	0.124	0.694	0.460	1.28	-
Ant0-Ant1	0.124	0.162	0.460	0.75	-
Ant0-Ant5	0.124	0.244	0.460	0.83	-
Ant0-Ant6	0.124	0.223	0.460	0.81	-
Ant0-Ant10	0.124	0.926	0.460	1.51	-
Ant0-Ant13	0.124	1.008	0.460	**1.59**	-
Ant3-Ant4	0.241	0.694	0.460	1.40	-
Ant3-Ant1	0.241	0.162	0.460	0.86	-
Ant3-Ant5	0.241	0.244	0.460	0.95	-
Ant3-Ant6	0.241	0.223	0.460	0.92	-
Ant3-Ant10	0.241	0.926	0.460	**1.63**	Case 7
Ant3-Ant13	0.241	1.008	0.460	**1.71**	Case 8

<AG0 + WLAN/BT SAR>

NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Test Position	WWAN AG0	WLAN2.4GHz Ant 15+18 (No DBS Simultaneous)	WLAN2.4GHz Ant 15+18 (DBS Simultaneous)	WLAN2.4GHz Ant 15+18 (DBS Standalone)	Bluetooth Ant18	Bluetooth Ant15	WLAN5GHz Ant 17+18 (No DBS Simultaneous)	WLAN5GHz Ant 17+18 (DBS Simultaneous)	WLAN5GHz Ant 17+18 (DBS Standalone)	WLAN5GHz High Ant 17+18 (XBS Simultaneous)	WLAN5GHz High Ant 17+18 (XBS Standalone)	WLAN5GHz LOW Ant 17+18 (XBS Simultaneous)	WLAN5GHz LOW Ant 17+18 (XBS Standalone)	WLAN6GHz Ant 17+18 (Standalone)	WLAN6GHz Ant 17+18 (DBS Simultaneous)	WLAN6GHz Ant 17+18 (XBS Simultaneous)
Right Cheek	0.195	0.140	0.068	0.197	0.054	0.032	0.195	0.114	0.295	0.054	0.120	0.060	0.195	0.092	0.098	0.002
Right Tilted	1.092	0.142	0.070	0.200	0.053	0.040	0.203	0.112	0.293	0.069	0.126	0.069	0.203	0.081	0.086	0.002
Left Cheek	1.086	0.445	0.218	0.629	0.102	0.070	0.462	0.246	0.674	0.155	0.397	0.132	0.462	0.241	0.208	0.038
Left Tilted	1.008	0.331	0.162	0.467	0.074	0.059	0.460	0.246	0.708	0.123	0.249	0.156	0.460	0.459	0.242	0.028

4+9	1+3+15	11+13+5+6	1+2	1+7	1+3+8	1+8+5+6	1+10+12+5+6	4+14	14+13+5+6	1+14	1+3+15	1+16+12+5+6
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)	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)
0.49	0.36	0.40	0.34	0.39	0.38	0.40	0.40	0.29	0.37	0.29	0.36	0.34
0.49	1.25	0.42	1.23	1.30	1.27	1.30	1.32	0.28	0.38	1.17	1.25	1.26
1.30	1.51	1.03	1.53	1.55	1.55	1.50	1.55	0.87	0.88	1.33	1.51	1.43
1.18	1.41	0.84	1.34	1.47	1.42	1.39	1.42	0.93	1.05	1.47	1.41	1.33

<AG1 + WLAN/BT SAR>

NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Test Position	WWAN AG1	WLAN2.4GHz Ant 15+18 (No DBS Simultaneous)	WLAN2.4GHz Ant 15+18 (DBS Simultaneous)	WLAN2.4GHz Ant 15+18 (DBS Standalone)	Bluetooth Ant18	Bluetooth Ant15	WLAN5GHz Ant 17+18 (No DBS Simultaneous)	WLAN5GHz Ant 17+18 (DBS Simultaneous)	WLAN5GHz Ant 17+18 (DBS Standalone)	WLAN5GHz High Ant 17+18 (XBS Simultaneous)	WLAN5GHz High Ant 17+18 (XBS Standalone)	WLAN5GHz LOW Ant 17+18 (XBS Simultaneous)	WLAN5GHz LOW Ant 17+18 (XBS Standalone)	WLAN6GHz Ant 17+18 (Standalone)	WLAN6GHz Ant 17+18 (DBS Simultaneous)	WLAN6GHz Ant 17+18 (XBS Simultaneous)
Right Cheek	0.288	0.140	0.068	0.197	0.054	0.032	0.195	0.114	0.295	0.054	0.120	0.060	0.195	0.092	0.098	0.002
Right Tilted	0.259	0.142	0.070	0.200	0.053	0.040	0.203	0.112	0.293	0.069	0.126	0.069	0.203	0.081	0.086	0.002
Left Cheek	0.261	0.445	0.218	0.629	0.102	0.070	0.462	0.246	0.674	0.155	0.397	0.132	0.462	0.241	0.208	0.038
Left Tilted	0.278	0.331	0.162	0.467	0.074	0.059	0.460	0.246	0.708	0.123	0.249	0.156	0.460	0.459	0.242	0.028

4+9	11+13+5+6	1+2	1+7	1+3+8	1+8+5+6	1+10+12+5+6	4+14	14+13+5+6	1+14	1+3+15	1+16+12+5+6	1+3+15
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)	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)
0.49	0.40	0.43	0.48	0.47	0.49	0.49	0.29	0.37	0.38	0.45	0.44	0.45
0.49	0.42	0.40	0.46	0.44	0.46	0.49	0.28	0.38	0.34	0.42	0.42	0.42
1.30	1.03	0.71	0.72	0.73	0.68	0.72	0.87	0.88	0.50	0.69	0.60	0.69
1.18	0.84	0.61	0.74	0.69	0.66	0.69	0.93	1.05	0.74	0.68	0.60	0.68

17.4 Hotspot Exposure Conditions

<AG0 maximum report SAR>:

Test Position	Ant4	Ant1	Ant5	Ant6	Ant10	Ant13	MAX
Front	0.176	0.468	0.365	0.250	0.215	0.139	0.468
Back	0.318	0.534	0.544	0.367	0.264	0.752	0.752
Left Side	0.085	0.673		0.671	0.027	0.153	0.673
Right Side			0.849				**0.849**
Top Side	0.395			0.174	0.521	0.147	0.521
Bottom Side							

<AG1 maximum report SAR>:

Test Position	Ant3	Ant0	MAX
Front	0.583	0.357	0.583
Back	0.873	0.535	0.873
Left Side		0.504	0.504
Right Side	0.452		0.452
Top Side			
Bottom Side	0.952	0.320	**0.952**

<WLAN+BT Worse-case SAR>:

NO	1	2	3	4	5	6	7	8	9	10	2+6	7+9+3+4	Wlan+BT worse case
Test Position	WLAN2.4GHz Ant 15+18 (No DBS Simultaneous)	WLAN2.4GHz Ant 15+18 (DBS Simultaneous)	Bluetooth Ant18	Bluetooth Ant15	WLAN5GHz Ant 15+18 (No DBS Simultaneous)	WLAN5GHz Ant 15+18 (DBS Simultaneous)	WLAN5GHz High Ant 15+18 (XBS Simultaneous)	WLAN5GHz High Ant 15+18 (XBS Standalone)	WLAN5GHz LOW Ant 15+18 (XBS Simultaneous)	WLAN5GHz LOW Ant 15+18 (XBS Standalone)	Summed 1g (W/kg)	Summed 1g (W/kg)	
Front	0.479	0.246	0.069	0.008	0.422	0.207	0.144	0.422	0.142	0.405	0.453	0.363	0.479
Back	0.479	0.246	0.069	0.008	0.422	0.207	0.144	0.422	0.142	0.405	0.453	0.363	0.479
Left Side	0.479	0.246	0.069	0.008	0.422	0.207	0.144	0.422	0.142	0.405	0.453	0.363	0.479
Right Side	0.479	0.246	0.069	0.008	0.422	0.207	0.144	0.422	0.142	0.405	0.453	0.363	0.479
Top Side	0.479	0.246	0.069	0.008	0.422	0.207	0.144	0.422	0.142	0.405	0.453	0.363	0.479
Bottom Side	0.479	0.246	0.069	0.008	0.422	0.207	0.144	0.422	0.142	0.405	0.453	0.363	0.479

<AG0 + AG1 + WLAN+BT Worse-case>:

Test Position	AG0	AG1	Wlan+BT worst case	AG0+AG1+wlan +BT worse case(DBS/XBS)
Front	0.468	0.583	0.479	1.53
Back	0.752	0.873	0.479	**2.10**
Left Side	0.673	0.504	0.479	**1.66**
Right Side	0.849	0.452	0.479	**1.78**
Top Side	0.521		0.479	1.00
Bottom Side		0.952	0.479	1.43

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

Back Side					
Ant combination	AG1 SAR	AG0 SAR	Wlan+BT worst case	AG0+AG1+wlan +BT worst case(DBS/XBS)	Note
Ant0-Ant4	0.535	0.318	0.479	1.33	-
Ant0-Ant1	0.535	0.534	0.479	1.55	-
Ant0-Ant5	0.535	0.544	0.479	1.56	-
Ant0-Ant6	0.535	0.367	0.479	1.38	-
Ant0-Ant10	0.535	0.264	0.479	1.28	-
Ant0-Ant13	0.535	0.752	0.479	**1.77**	Case 9
Ant3-Ant4	0.873	0.318	0.479	**1.67**	Case 10
Ant3-Ant1	0.873	0.534	0.479	**1.89**	Case 11
Ant3-Ant5	0.873	0.544	0.479	**1.90**	Case 12
Ant3-Ant6	0.873	0.367	0.479	**1.72**	Case 13
Ant3-Ant10	0.873	0.264	0.479	**1.62**	Case 14
Ant3-Ant13	0.873	0.752	0.479	**2.10**	Case 15

Left side					
Ant combination	AG1 SAR	AG0 SAR	Wlan+BT worst case	AG0+AG1+wlan +BT worst case(DBS/XBS)	Note
Ant0-Ant4	0.504	0.085	0.479	1.07	-
Ant0-Ant1	0.504	0.673	0.479	**1.66**	Case 16
Ant0-Ant5	0.504		0.479	0.98	-
Ant0-Ant6	0.504	0.671	0.479	**1.65**	Case 17
Ant0-Ant10	0.504	0.027	0.479	1.01	-
Ant0-Ant13	0.504	0.153	0.479	1.14	-
Ant3-Ant4	0.154	0.085	0.479	0.72	-
Ant3-Ant1	0.154	0.673	0.479	1.31	-
Ant3-Ant5	0.154		0.479	0.63	-
Ant3-Ant6	0.154	0.671	0.479	1.30	-
Ant3-Ant10	0.154	0.027	0.479	0.66	-
Ant3-Ant13	0.154	0.153	0.479	0.79	-

Right side					
Ant combination	AG1 SAR	AG0 SAR	Wlan+BT worst case	AG0+AG1+wlan +BT worst case(DBS/XBS)	Note
Ant0-Ant4			0.479	0.48	-
Ant0-Ant1			0.479	0.48	-
Ant0-Ant5		0.849	0.479	1.33	-
Ant0-Ant6			0.479	0.48	-
Ant0-Ant10			0.479	0.48	-
Ant0-Ant13			0.479	0.48	-
Ant3-Ant4	0.452		0.479	0.93	-
Ant3-Ant1	0.452		0.479	0.93	-
Ant3-Ant5	0.452	0.849	0.479	**1.78**	Case 18
Ant3-Ant6	0.452		0.479	0.93	-
Ant3-Ant10	0.452		0.479	0.93	-
Ant3-Ant13	0.452		0.479	0.93	-

<AG0 + WLAN/BT SAR>

NO	1	2	3	4	5	6	7	8	9	10	11	12	13
Test Position	WWAN AG0	WLAN2.4GHz Ant 15+18 (No DBS Simultaneous)	WLAN2.4GHz Ant 15+18 (DBS Simultaneous)	WLAN2.4GHz Ant 15+18 (DBS Standalone)	Bluetooth Ant18	Bluetooth Ant15	WLAN5GHz Ant 17+18 (No DBS Simultaneous)	WLAN5GHz Ant 17+18 (DBS Simultaneous)	WLAN5GHz Ant 17+18 (DBS Standalone)	WLAN5GHz High Ant 17+18 (XBS Simultaneous)	WLAN5GHz High Ant 17+18 (XBS Standalone)	WLAN5GHz LOW Ant 17+18 (XBS Simultaneous)	WLAN5GHz LOW Ant 17+18 (XBS Standalone)
Front	0.468	0.479	0.246	0.761	0.083	0.009	0.422	0.207	0.771	0.144	0.422	0.142	0.405
Back	0.752	0.479	0.246	0.761	0.083	0.009	0.422	0.207	0.771	0.144	0.422	0.142	0.405
Left Side	0.673	0.479	0.246	0.761	0.083	0.009	0.422	0.207	0.771	0.144	0.422	0.142	0.405
Right Side	0.849	0.479	0.246	0.761	0.083	0.009	0.422	0.207	0.771	0.144	0.422	0.142	0.405
Top Side	0.521	0.479	0.246	0.761	0.083	0.009	0.422	0.207	0.771	0.144	0.422	0.142	0.405
Bottom Side		0.479	0.246	0.761	0.083	0.009	0.422	0.207	0.771	0.144	0.422	0.142	0.405

4+9	11+13+5+6	1+2	1+7	1+3+8	1+8+5+6	1+10+12+5+6
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)
1.53	0.92	0.95	0.89	0.92	0.77	0.85
1.53	0.92	1.23	1.17	1.21	1.05	1.13
1.53	0.92	1.15	1.10	1.13	0.97	1.05
1.53	0.92	1.33	1.27	1.30	1.15	1.23
1.53	0.92	1.00	0.94	0.97	0.82	0.90
1.53	0.92	0.48	0.42	0.45	0.30	0.38

<AG1 + WLAN/BT SAR>

NO	1	2	3	4	5	6	7	8	9	10	11	12	13
Test Position	WWAN AG1	WLAN2.4GHz Ant 15+18 (No DBS Simultaneous)	WLAN2.4GHz Ant 15+18 (DBS Simultaneous)	WLAN2.4GHz Ant 15+18 (DBS Standalone)	Bluetooth Ant18	Bluetooth Ant15	WLAN5GHz Ant 17+18 (No DBS Simultaneous)	WLAN5GHz Ant 17+18 (DBS Simultaneous)	WLAN5GHz Ant 17+18 (DBS Standalone)	WLAN5GHz High Ant 17+18 (XBS Simultaneous)	WLAN5GHz High Ant 17+18 (XBS Standalone)	WLAN5GHz LOW Ant 17+18 (XBS Simultaneous)	WLAN5GHz LOW Ant 17+18 (XBS Standalone)
Front	0.583	0.479	0.246	0.761	0.083	0.009	0.422	0.207	0.771	0.144	0.422	0.142	0.405
Back	0.873	0.479	0.246	0.761	0.083	0.009	0.422	0.207	0.771	0.144	0.422	0.142	0.405
Left Side	0.504	0.479	0.246	0.761	0.083	0.009	0.422	0.207	0.771	0.144	0.422	0.142	0.405
Right Side	0.452	0.479	0.246	0.761	0.083	0.009	0.422	0.207	0.771	0.144	0.422	0.142	0.405
Top Side		0.479	0.246	0.761	0.083	0.009	0.422	0.207	0.771	0.144	0.422	0.142	0.405
Bottom Side	0.952	0.479	0.246	0.761	0.083	0.009	0.422	0.207	0.771	0.144	0.422	0.142	0.405

4+9	11+13+5+6	1+2	1+7	1+3+8	1+8+5+6	1+10+12+5+6
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)
1.53	0.92	1.06	1.01	1.04	0.88	0.96
1.53	0.92	1.35	1.30	1.33	1.17	1.25
1.53	0.92	0.98	0.93	0.96	0.80	0.88
1.53	0.92	0.93	0.87	0.91	0.75	0.83
1.53	0.92	0.48	0.42	0.45	0.30	0.38
1.53	0.92	1.43	1.37	1.41	1.25	1.33

17.5 Body-Worn Accessory Exposure Conditions

<AG0 maximum report SAR>:

Test Position	Ant4	Ant1	Ant5	Ant6	Ant10	Ant13	MAX
Front	0.557	0.420	0.219	0.246	0.784	0.177	0.784
Back	1.080	0.515	0.367	0.367	0.806	0.655	**1.080**

<AG0 maximum report SAR>:

Test Position	Ant3	Ant0	MAX
Front	0.598	0.215	0.598
Back	0.983	0.260	**0.983**

<WLAN+BT Worse-case SAR>:

NO	1	2	3	4	5	6	7	8	9	10	11	2+6	7+9+3+4	2+11+3+4	
Test Position	WLAN2.4GHz Ant 15+18 (No DBS Simultaneous)	WLAN2.4GHz Ant 15+18 (DBS Simultaneous)	Bluetooth Ant18	Bluetooth Ant15	WLAN5GHz Ant 15+18 (No DBS Simultaneous)	WLAN5GHz Ant 15+18 (DBS Simultaneous)	WLAN5GHz High Ant 15+18 (XBS Simultaneous)	WLAN5GHz High Ant 15+18 (XBS Standalone)	WLAN5GHz LOW Ant 15+18 (XBS Simultaneous)	WLAN5GHz LOW Ant 15+18 (XBS Standalone)	WLAN6GHz Ant 15+18 (Standalone)	Summed 1g (W/kg)	Summed 1g (W/kg)	Summed 1g (W/kg)	Wlan+BT worse case
Front	0.309	0.237	0.051	0.047	0.208	0.243	0.154	0.194	0.156	0.208	0.052	0.480	0.408	0.387	0.480
Back	0.421	0.237	0.047	0.074	0.417	0.243	0.154	0.116	0.156	0.417	0.155	0.480	0.431	0.513	0.513

<AG0 + AG1 + WLAN+BT Worse-case>:

Test Position	AG0	AG1	Wlan+BT worst case	AG0+AG1+wlan +BT worse case(DBS/XBS)
Front	0.784	0.598	0.480	**1.86**
Back	1.080	0.983	0.513	**2.58**

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

Front Side					
Ant combination	AG1 SAR	AG0 SAR	Wlan+BT worst case	AG0+AG1+wlan +BT worst case(DBS/XBS)	Note
Ant0-Ant4	0.215	0.557	0.480	1.25	-
Ant0-Ant1	0.215	0.420	0.480	1.12	-
Ant0-Ant5	0.215	0.219	0.480	0.91	-
Ant0-Ant6	0.215	0.246	0.480	0.94	-
Ant0-Ant10	0.215	0.784	0.480	1.48	-
Ant0-Ant13	0.215	0.177	0.480	0.87	
Ant3-Ant4	0.598	0.557	0.480	**1.64**	Case 19
Ant3-Ant1	0.598	0.420	0.480	1.50	
Ant3-Ant5	0.598	0.219	0.480	1.30	
Ant3-Ant6	0.598	0.246	0.480	1.32	
Ant3-Ant10	0.598	0.784	0.480	**1.86**	Case 20
Ant3-Ant13	0.598	0.177	0.480	1.26	

Back Side					
Ant combination	AG1 SAR	AG0 SAR	Wlan+BT worst case	AG0+AG1+wlan +BT worst case(DBS/XBS)	Note
Ant0-Ant4	0.260	1.080	0.513	**1.85**	Case 21
Ant0-Ant1	0.260	0.515	0.513	1.29	-
Ant0-Ant5	0.260	0.367	0.513	1.14	-
Ant0-Ant6	0.260	0.367	0.513	1.14	-
Ant0-Ant10	0.260	0.806	0.513	1.58	-
Ant0-Ant13	0.260	0.655	0.513	1.43	
Ant3-Ant4	0.983	1.080	0.513	**2.58**	Case 22
Ant3-Ant1	0.983	0.515	0.513	**2.01**	Case 23
Ant3-Ant5	0.983	0.367	0.513	**1.86**	Case 24
Ant3-Ant6	0.983	0.367	0.513	**1.86**	Case 25

Ant3-Ant10	0.983	0.806	0.513	2.30	Case 26
Ant3-Ant13	0.983	0.655	0.513	2.15	Case 27

<AG0 + WLAN/BT SAR>

NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Test Position	WWAN AG0	WLAN2.4GHz Ant 15+18 (No DBS Simultaneous)	WLAN2.4GHz Ant 15+18 (DBS Simultaneous)	WLAN2.4GHz Ant 15+18 (DBS Standalone)	Bluetooth Ant18	Bluetooth Ant15	WLAN5GHz Ant 17+18 (No DBS Simultaneous)	WLAN5GHz Ant 17+18 (DBS Simultaneous)	WLAN5GHz Ant 17+18 (DBS Standalone)	WLAN5GHz High Ant 17+18 (XBS Simultaneous)	WLAN5GHz High Ant 17+18 (XBS Standalone)	WLAN5GHz LOW Ant 17+18 (XBS Simultaneous)	WLAN5GHz LOW Ant 17+18 (XBS Standalone)	WLAN6GHz Ant 17+18 (Standalone)
Front	0.784	0.309	0.237	0.309	0.050	0.048	0.208	0.243	0.208	0.154	0.194	0.156	0.208	0.052
Back	1.080	0.421	0.237	0.421	0.045	0.077	0.417	0.243	0.417	0.154	0.116	0.156	0.417	0.155

4+9	11+13+5+6	1+2	1+7	1+3+8	1+8+5+6	1+10+12+5+6	4+14	3+14+5+6	1+3+14+5+6
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)	Summed 1g SAR (W/kg)	Summed 1g SAR (W/kg)	Summed 1g SAR (W/kg)
0.52	0.50	1.09	0.99	1.26	1.13	1.19	0.36	0.39	1.17
0.84	0.66	1.50	1.50	1.56	1.45	1.51	0.58	0.51	1.59

<AG1 + WLAN/BT SAR>

NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Test Position	WWAN AG1	WLAN2.4GHz Ant 15+18 (No DBS Simultaneous)	WLAN2.4GHz Ant 15+18 (DBS Simultaneous)	WLAN2.4GHz Ant 15+18 (DBS Standalone)	Bluetooth Ant18	Bluetooth Ant15	WLAN5GHz Ant 17+18 (No DBS Simultaneous)	WLAN5GHz Ant 17+18 (DBS Simultaneous)	WLAN5GHz Ant 17+18 (DBS Standalone)	WLAN5GHz High Ant 17+18 (XBS Simultaneous)	WLAN5GHz High Ant 17+18 (XBS Standalone)	WLAN5GHz LOW Ant 17+18 (XBS Simultaneous)	WLAN5GHz LOW Ant 17+18 (XBS Standalone)	WLAN6GHz Ant 17+18 (Standalone)
Front	0.598	0.309	0.237	0.309	0.050	0.048	0.208	0.243	0.208	0.154	0.194	0.156	0.208	0.052
Back	0.983	0.421	0.237	0.421	0.045	0.077	0.417	0.243	0.417	0.154	0.116	0.156	0.417	0.155

4+9	11+13+5+6	1+2	1+7	1+3+8	1+8+5+6	1+10+12+5+6	4+14	3+14+5+6	1+3+14+5+6
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)	Summed 1g SAR (W/kg)	Summed 1g SAR (W/kg)	Summed 1g SAR (W/kg)
0.52	0.50	0.91	0.81	1.08	0.94	1.01	0.36	0.39	0.99
0.84	0.66	1.40	1.40	1.46	1.35	1.42	0.58	0.51	1.50

17.6 Product Specific 10g SAR Exposure Conditions

<AG0 + WLAN SAR>

NO	1	2	3	4	1+2+3	1+3+4
Test Position	WWAN	WLAN5GHz High Ant 17+18	WLAN5GHz LOW Ant 17+18	WLAN6GHz Ant 17+18	Summed 10g SAR (W/kg)	Summed 10g SAR (W/kg)
Front		1.349	0.807	0.313	2.16	1.12
Back		1.015	0.365	0.193	1.38	0.56
Left Side				0.002	0.00	0.00
Right Side		1.516	1.325	0.609	2.84	1.93
Top Side	2.480	0.979	0.500	0.174	3.96	3.15
Bottom Side				0.008	0.00	0.01

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 15/17/18 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.

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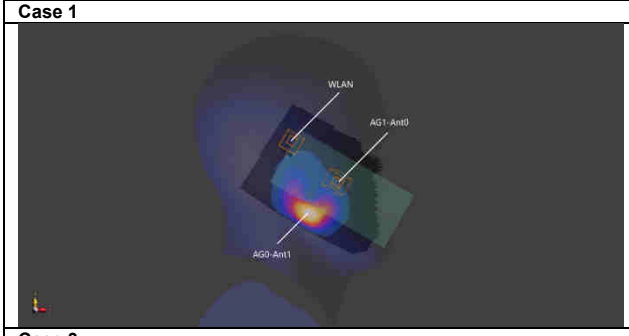	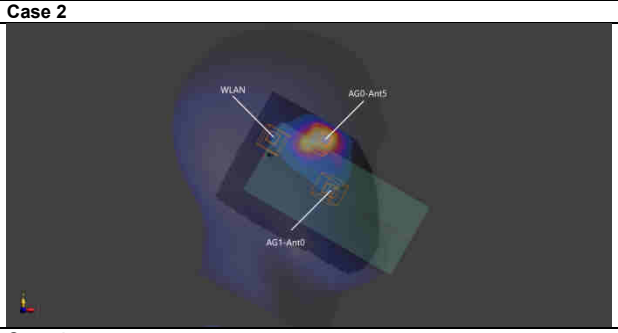
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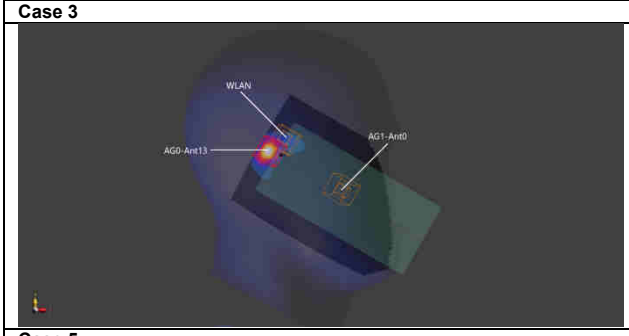	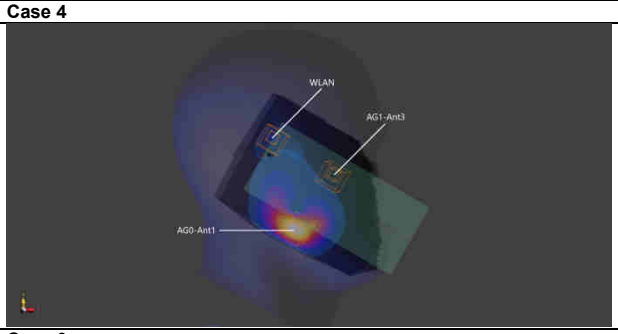
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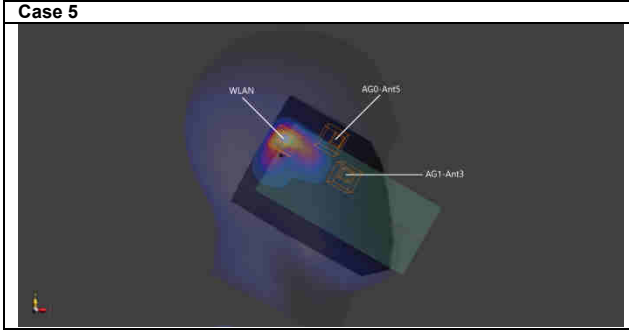	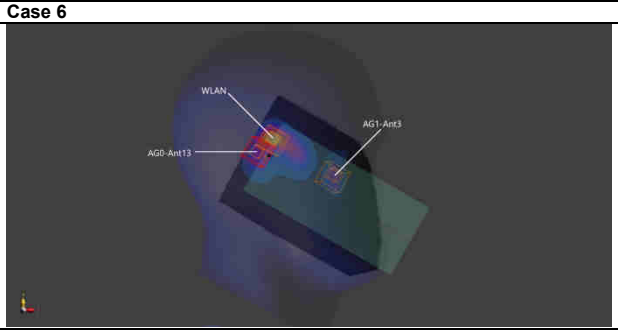

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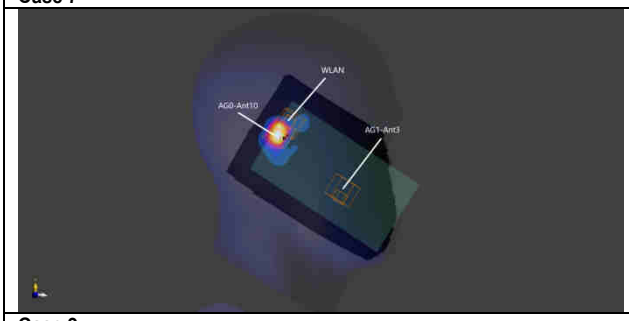

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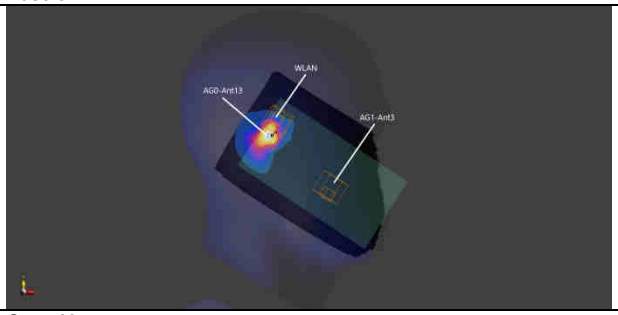

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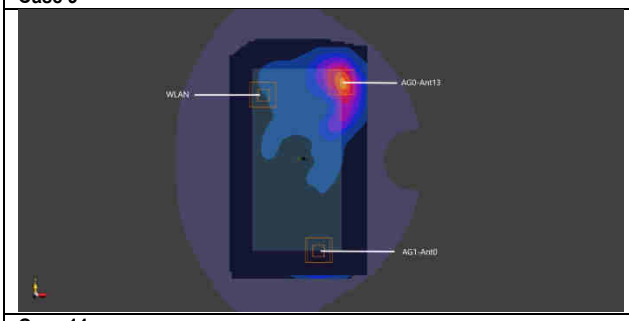

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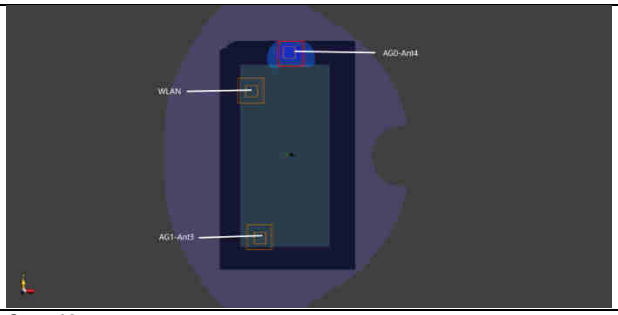

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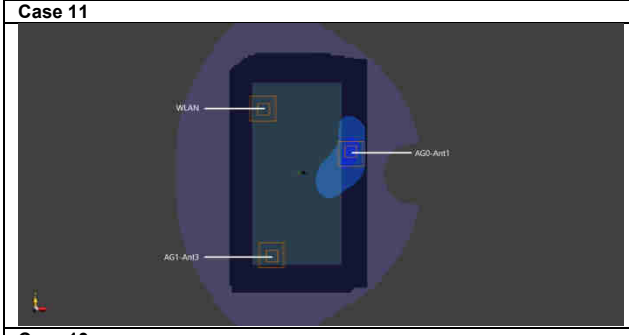

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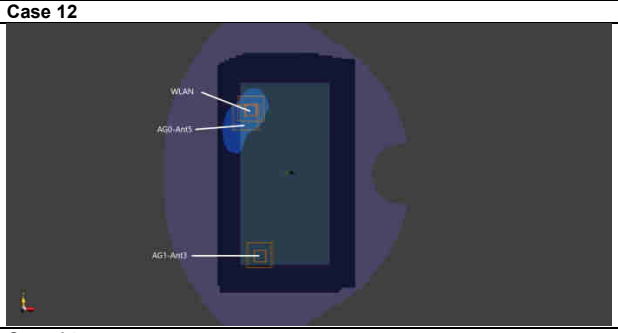

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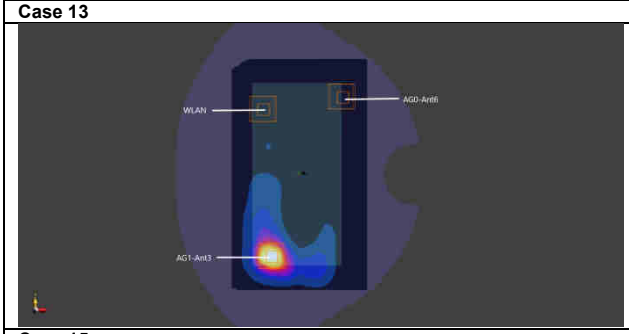

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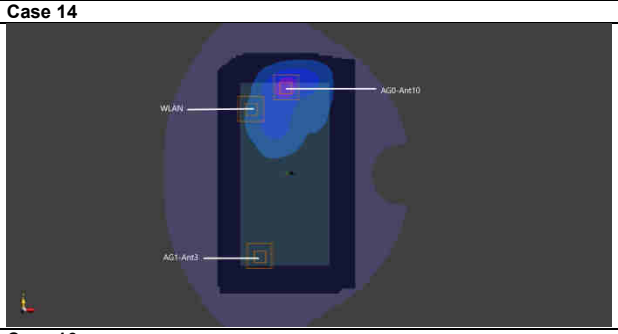

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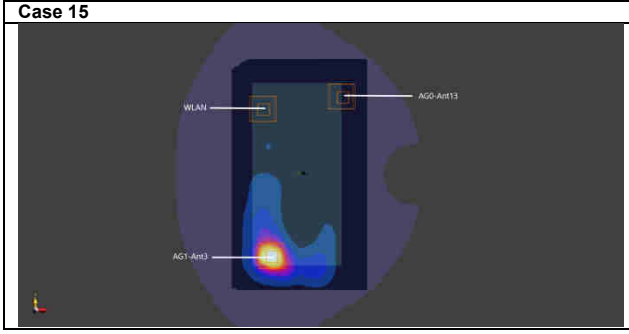

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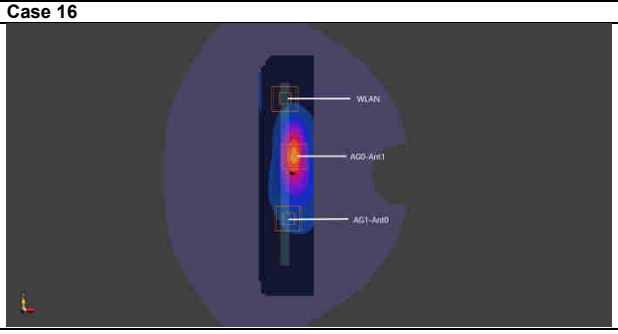

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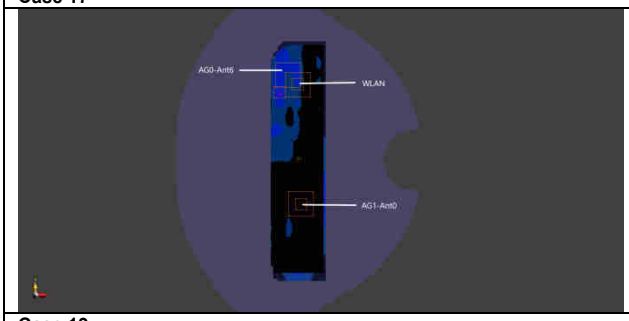

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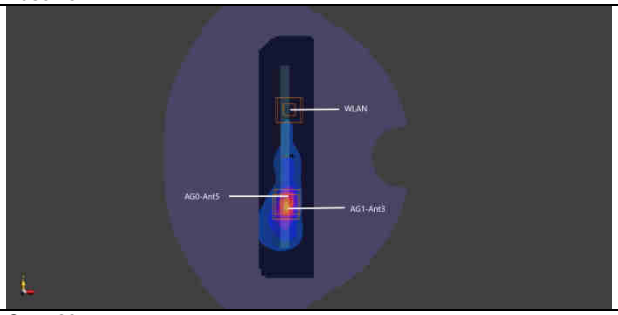

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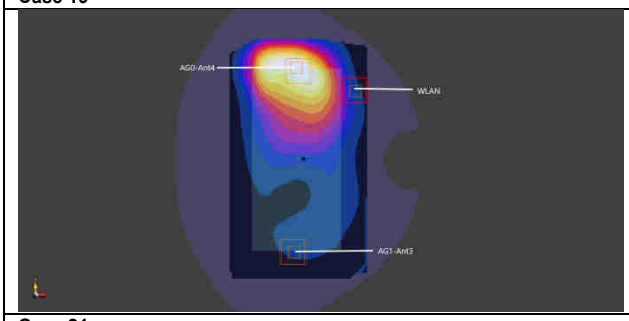

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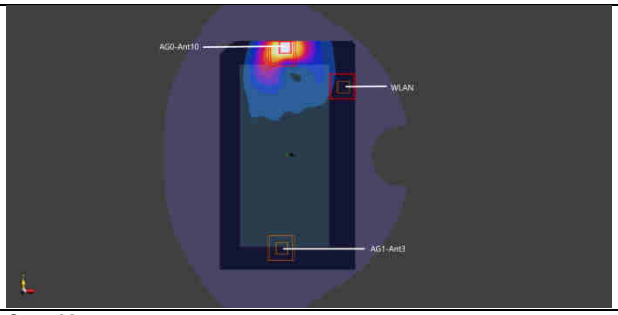

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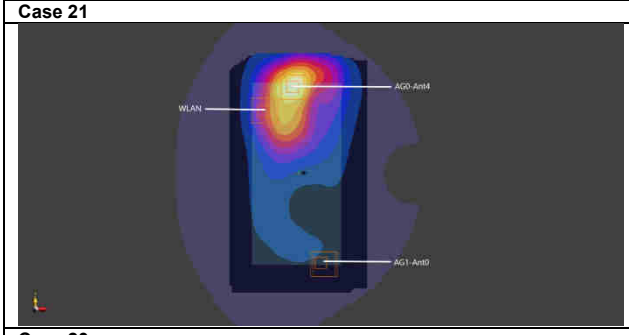

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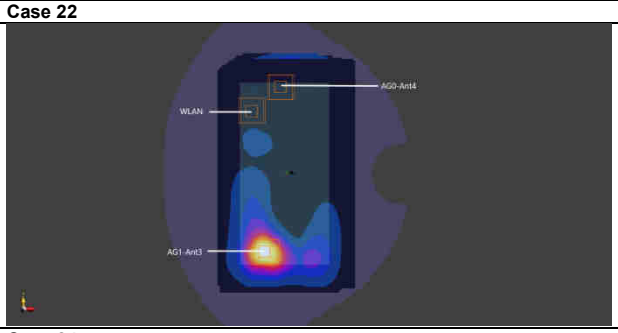

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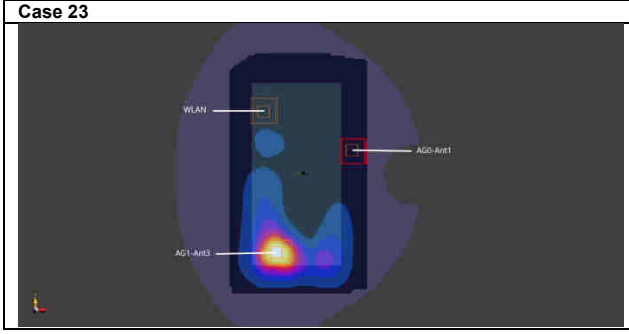

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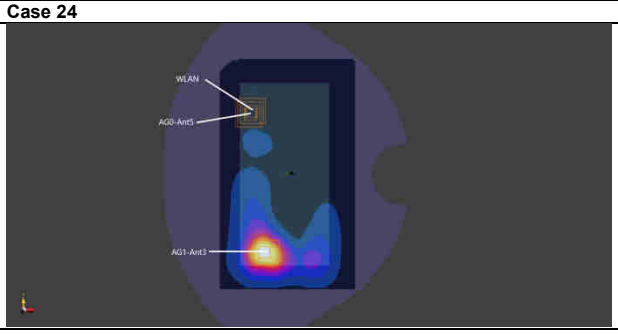

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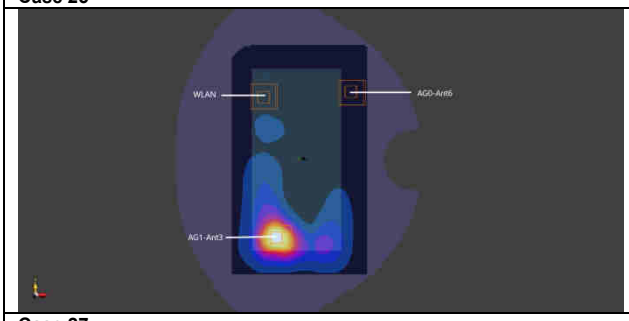	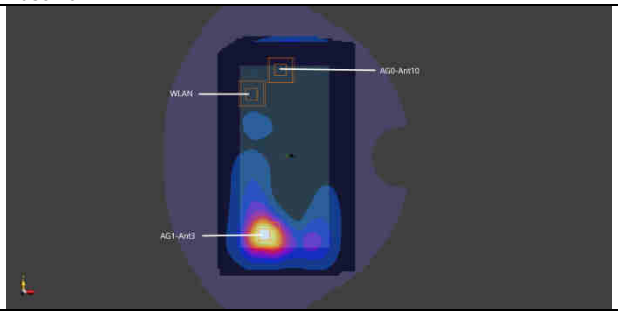
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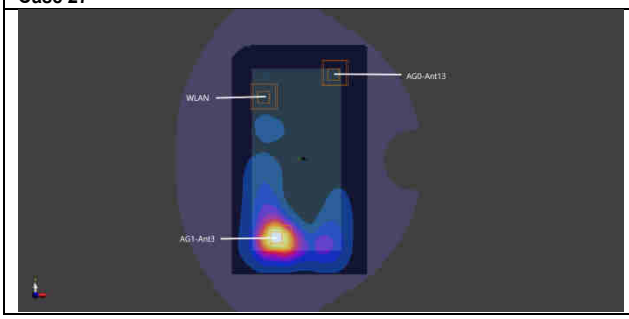	

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Case No	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
Case 1	AG1-Ant0	Left Cheek	0.226	0mm	88.2	268.7	-172	59.3	1.78	0.04	Not required
	AG0-Ant1		1.086	0mm	36	241	-167				
	WLAN		0.464	0mm	13.4	327.8	-170.6				
Case 2	AG1-Ant0	Left Cheek	0.226	0mm	88.2	268.7	-172	80.3	1.72	0.03	Not required
	AG0-Ant5		1.030	0mm	55.1	341.8	-169.1				
	WLAN		0.464	0mm	13.4	327.8	-170.6				
Case 3	AG1-Ant0	Left Cheek	0.226	0mm	88.2	268.7	-172	95.3	1.63	0.02	Not required
	AG0-Ant13		0.936	0mm	-2.4	302.7	-167.5				
	WLAN		0.464	0mm	13.4	327.8	-170.6				
Case 4	AG1-Ant3	Left Cheek	0.261	0mm	75	286.9	-171.1	60.4	1.81	0.04	Not required
	AG0-Ant1		1.086	0mm	36	241	-167				
	WLAN		0.464	0mm	13.4	327.8	-170.6				
Case 5	AG1-Ant3	Left Cheek	0.261	0mm	75	286.9	-171.1	58.4	1.76	0.04	Not required
	AG0-Ant5		1.030	0mm	55.1	341.8	-169.1				
	WLAN		0.464	0mm	13.4	327.8	-170.6				
Case 6	AG1-Ant3	Left Cheek	0.261	0mm	75	286.9	-171.1	73.9	1.66	0.03	Not required
	AG0-Ant13		0.936	0mm	-2.4	302.7	-167.5				
	WLAN		0.464	0mm	13.4	327.8	-170.6				

Case No	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
Case 7	AG1-Ant3	Left Tilted	0.241	0mm	65.2	251.5	-168.1	88.8	1.63	0.02	Not required
	AG0-Ant10		0.926	0mm	0.6	312.4	-168.7				
	WLAN		0.460	0mm	12.4	328.4	-170.4				
Case 8	AG1-Ant3	Left Tilted	0.241	0mm	65.2	251.5	-168.1	88.9	1.71	0.03	Not required
	AG0-Ant13		1.008	0mm	0.5	312.4	-168.7				
	WLAN		0.460	0mm	12.4	328.4	-170.4				

<Hotspot>

Case No	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
Case 9	AG1-Ant0	Back Side	0.535	10mm	-10	-69.3	-203.4	130.9	1.77	0.02	Not required
	AG0-Ant13		0.752	10mm	15	68.3	-203.4				
	WLAN		0.479	10mm	-55	53.6	-203.4				
Case 10	AG1-Ant3	Back Side	0.873	10mm	-45	-65.7	-203.4	119.7	1.67	0.02	Not required
	AG0-Ant4		0.318	10mm	-25	72.8	-203.4				
	WLAN		0.479	10mm	-55	53.6	-203.4				
Case 11	AG1-Ant3	Back Side	0.873	10mm	-45	-65.7	-203.4	83.7	1.89	0.03	Not required
	AG0-Ant1		0.534	10mm	-20	14.2	-203.4				
	WLAN		0.479	10mm	-55	53.6	-203.4				
Case 12	AG1-Ant3	Back Side	0.873	10mm	-45	-65.7	-203.4	72.8	1.90	0.04	Not required
	AG0-Ant5		0.544	10mm	-65	4.3	-203.4				
	WLAN		0.479	10mm	-55	53.6	-203.4				
Case 13	AG1-Ant3	Back Side	0.873	10mm	-45	-65.7	-203.4	119.7	1.72	0.02	Not required
	AG0-Ant6		0.367	10mm	15	63.5	-203.4				
	WLAN		0.479	10mm	-55	53.6	-203.4				
Case 14	AG1-Ant3	Back Side	0.873	10mm	-45	-65.7	-203.4	119.7	1.62	0.02	Not required
	AG0-Ant10		0.264	10mm	-25	85	-203.4				
	WLAN		0.479	10mm	-55	53.6	-203.4				
Case 15	AG1-Ant3	Back Side	0.873	10mm	-45	-65.7	-203.4	119.7	2.10	0.03	Not required
	AG0-Ant13		0.752	10mm	15	68.3	-203.4				
	WLAN		0.479	10mm	-55	53.6	-203.4				

Case No	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
Case 16	AG1-Ant0	Left Side	0.504	10mm	-17	-31.6	-203.4	65.7	1.66	0.03	Not required
	AG0-Ant1		0.673	10mm	31	13.2	-203.5				
	WLAN		0.479	10mm	-35	66.2	-203.2				
Case 17	AG1-Ant0	Left Side	0.504	10mm	-17	-31.6	-203.4	92.1	1.65	0.02	Not required
	AG0-Ant6		0.671	10mm	-33	59.1	-203.4				
	WLAN		0.479	10mm	-35	66.2	-203.2				

Case No	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
Case 18	AG1-Ant3	Right Side	0.452	10mm	-33	33.8	-203.4	63.9	1.78	0.04	Not required
	AG0-Ant5		0.849	10mm	-33	-30.1	-203.4				
	WLAN		0.479	10mm	-25	-34.6	-203.4				

<Body-worn>

Case No	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
Case 19	AG1-Ant3	Front Side	0.598	15mm	-5	-64.8	-203.4	133.0	1.64	0.02	Not required
	AG0-Ant4		0.557	15mm	-45	74.7	-203.4				
	WLAN		0.480	15mm	15	66.7	-203.4				
Case 20	AG1-Ant3	Front Side	0.598	15mm	-5	-64.8	-203.4	133.0	1.86	0.02	Not required
	AG0-Ant10		0.784	15mm	-25	88.6	-203.4				
	WLAN		0.480	15mm	15	66.7	-203.4				

Case No	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
Case 21	AG1-Ant0	Back Side	0.260	15mm	-25	-0.1	-203.4	65.0	1.85	0.04	Not required
	AG0-Ant4		1.080	15mm	-25	76.4	-203.4				
	WLAN		0.513	15mm	-55	57.6	-203.4				
Case 22	AG1-Ant3	Back Side	0.983	15mm	-45	-65.4	-203.4	123.4	2.58	0.03	Not required
	AG0-Ant4		1.080	15mm	-25	76.4	-203.4				
	WLAN		0.513	15mm	-55	57.6	-203.4				
Case 23	AG1-Ant3	Back Side	0.983	15mm	-45	-65.4	-203.4	103.2	2.01	0.03	Not required
	AG0-Ant1		0.515	15mm	20	14.7	-203.4				
	WLAN		0.513	15mm	-55	57.6	-203.4				
Case 24	AG1-Ant3	Back Side	0.983	15mm	-45	-65.4	-203.4	71.6	1.86	0.04	Not required
	AG0-Ant5		0.367	15mm	-65	3.4	-203.4				
	WLAN		0.513	15mm	-55	57.6	-203.4				
Case 25	AG1-Ant3	Back Side	0.983	15mm	-45	-65.4	-203.4	123.4	1.86	0.02	Not required
	AG0-Ant6		0.367	15mm	15	63.7	-203.4				
	WLAN		0.513	15mm	-55	57.6	-203.4				
Case 26	AG1-Ant3	Back Side	0.983	15mm	-45	-65.4	-203.4	123.4	2.30	0.03	Not required
	AG0-Ant10		0.806	15mm	-35	88.6	-203.4				
	WLAN		0.513	15mm	-55	57.6	-203.4				
Case 27	AG1-Ant3	Back Side	0.983	15mm	-45	-65.4	-203.4	123.4	2.15	0.03	Not required
	AG0-Ant13		0.655	15mm	5	69.2	-203.4				
	WLAN		0.513	15mm	-55	57.6	-203.4				

17.8 Maximum Report SAR And SAR Peak Locations

General Note:

1. The maximum report SAR and SAR Peak Locations corresponding to each position of each frequency band of each antenna in the below tables are as follows.
2. The unit of SAR evaluation is W/kg. The unit of x, y, z with Axis evaluation is mm.

<Head>

Left Cheek											
BT Ant15	SAR	0.07	WLAN2.4G MIMO	SAR	0.445				WLAN5G Low MIMO	SAR	0.462
	Axis	X:13.4Y:327.8Z:-170.6		Axis	X:20.6Y:335.1Z:-170.5					Axis	X:30.1Y:330.1Z:-170.1
BT Ant18	SAR	0.096	WLAN5G MIMO	SAR	0.102	WLAN6E MIMO	SAR	0.241	WLAN5G High MIMO	SAR	0.397
	Axis	X:26Y:331.8Z:-171.1		Axis	X:35Y:330.6Z:-171.6		Axis	X:31.4Y:329.6Z:-170.6		Axis	X:30.1Y:331.6Z:-171.6
Left Tilted											
BT Ant15	SAR	0.06	WLAN2.4G MIMO	SAR	0.331				WLAN5G Low MIMO	SAR	0.46
	Axis	X:12.4Y:328.4Z:-170.4		Axis	X:22.6Y:333.9Z:-170.8					Axis	X:24.9Y:337.1Z:-171.4
BT Ant18	SAR	0.07	WLAN5G MIMO	SAR	0.074	WLAN6E MIMO	SAR	0.459	WLAN5G High MIMO	SAR	0.249
	Axis	X:31.1Y:332.6Z:-170.4		Axis	X:23.9Y:333.1Z:-170.4		Axis	X:29.9Y:330.1Z:-167.4		Axis	X:25Y:336.1Z:-170.1

Left Cheek									
Band		Ant0	Ant3	Ant4	Ant1	Ant5	Ant6	Ant10	Ant13
GSM850 4TX	SAR	0.18			0.904				
	Axis	X:82.1Y:262.2Z:-172.8			X:33.9Y:241.1Z:-166.7				
GSM1900 4TX	SAR		0.045	N/A					
	Axis		X:76.6Y:278.3Z:-168.2	N/A					
WCDMA II	SAR		0.187	N/A					
	Axis		X:75.6Y:276.3Z:-169.9	N/A					
WCDMA IV	SAR		0.193	N/A		1.03	N/A		
	Axis		X:75.3Y:275.8Z:-169.7	N/A		X:65.5Y:345.6Z:-167.5	N/A		
WCDMA V	SAR	0.226			0.784				
	Axis	X:88.6Y:265.9Z:-172.7			X:36Y:241Z:-167				
LTE Band 2	SAR					0.88			
	Axis					X:61.7Y:344.1Z:-167.8			
LTE Band 4	SAR					0.903			
	Axis					X:63Y:327.1Z:-168			
LTE Band 7	SAR		0.238	N/A		0.375	N/A		
	Axis		X:78.3Y:276.5Z:-171.4	N/A		X:57.5Y:343.3Z:-171.1	N/A		
LTE Band 12	SAR	0.185			1.086				
	Axis	X:87.7Y:264.7Z:-172			X:34.4Y:241.9Z:-166.7				
LTE Band 13	SAR	0.158			0.955				
	Axis	X:88.3Y:268.5Z:-171.9			X:35.7Y:241.1Z:-167				
LTE Band 25	SAR		0.141	N/A					
	Axis		X:73.3Y:274.9Z:-171.2	N/A					
LTE Band 26	SAR	0.195			0.916				
	Axis	X:88.2Y:268.7Z:-172			X:35Y:241.5Z:-166.9				
LTE Band 66	SAR		0.206	N/A		0.898	N/A		
	Axis		X:76.1Y:275.2Z:-169.5	N/A		X:63Y:347.2Z:-168	N/A		
LTE Band 38	SAR			N/A		0.438	N/A		
	Axis			N/A		X:57.8Y:343.1Z:-171	N/A		
LTE Band 41	SAR		0.118	N/A		0.331	N/A		
	Axis		X:72.4Y:277.5Z:-170.4	N/A		X:57.8Y:343.9Z:-170.7	N/A		
LTE Band 42	SAR		0.032		0.299			N/A	0.199
	Axis		X:77.4Y:276.5Z:-168.4		X:30.7Y:260.8:-169.6			N/A	X:3.2Y:310.9:-169.1
LTE Band 48	SAR		0.065		0.203			N/A	0.32
	Axis		X:79.4Y:257.5Z:-170.1		X:29.3Y:261.6:-169.3			N/A	X:-2.4Y:302.7:-167.5
FR1 n5	SAR	0.194			0.367				
	Axis	X:89.2Y:264.3Z:-171.9			X:33.5Y:248.1:-170.5				
FR1 n7	SAR		0.187	N/A		0.259	N/A		
	Axis		X:75.2Y:277.4Z:-171.2	N/A		X:58.3Y:342.8Z:-170.9	N/A		

FR1 n66	SAR		0.261	N/A		0.916	N/A		
	Axis		X:79.8Y:276.4Z:-170.7	N/A		X:55.1Y:341.8Z:-169.1	N/A		
FR1 n41	SAR		0.181	N/A		0.322	N/A		
	Axis		X:76.3Y:276.8Z:-171	N/A		X:64.3.1Y:345.6Z:-168.6	N/A		
FR1 n71	SAR	0.162			0.476				
	Axis	X:89.6Y:267.7Z:-171.7			X:34.9Y:241.5Z:-166.8				
FR1 n77	SAR		0.175		0.481			N/A	0.525
	Axis		X:73Y:282.2Z:-171.4		X:30.4Y:261Z:-169.5			N/A	X:0.9Y:312.2Z:-168.8
FR1 n78	SAR		0.148		0.4			N/A	0.936
	Axis		X:75Y:286.9Z:-171.1		X:32.5Y:259.8Z:-169.9			N/A	X:1.9Y:311.62Z:-168.9

Left Tilted									
Band		Ant0	Ant3	Ant4	Ant1	Ant5	Ant6	Ant10	Ant13
GSM850 4TX	SAR	N/A			N/A				
	Axis	N/A			N/A				
GSM1900 4TX	SAR		0.004	N/A					
	Axis		X:61.1Y:259.6Z:-170	N/A					
WCDMA II	SAR		0.062	N/A					
	Axis		X:61.4Y:259.5Z:-169.9	N/A					
WCDMA IV	SAR		0.081	N/A		N/A	N/A		
	Axis		X:60.9Y:259.8Z:-170.1	N/A		N/A	N/A		
WCDMA V	SAR	N/A			N/A				
	Axis	N/A			N/A				
LTE Band 2	SAR					N/A			
	Axis					N/A			
LTE Band 4	SAR					N/A			
	Axis					N/A			
LTE Band 7	SAR		0.17	N/A		N/A	N/A		
	Axis		X:56.4Y:256.8Z:-170.7	N/A		N/A	N/A		
LTE Band 12	SAR	N/A			N/A				
	Axis	N/A			N/A				
LTE Band 13	SAR	N/A			N/A				
	Axis	N/A			N/A				
LTE Band 25	SAR		0.052	N/A					
	Axis		X:62.1Y:259Z:-169.7	N/A					
LTE Band 26	SAR	N/A			N/A				
	Axis	N/A			N/A				
LTE Band 66	SAR		0.066	N/A		N/A	N/A		
	Axis		X:62.9Y:258.6Z:-169.5	N/A		N/A	N/A		
LTE Band 38	SAR			N/A		N/A	N/A		
	Axis			N/A		N/A	N/A		
LTE Band 41	SAR		0.085	N/A		N/A	N/A		
	Axis		X:54.9Y:246.3Z:-169.8	N/A		N/A	N/A		
LTE Band 42	SAR		0.04		N/A			0.623	0.244
	Axis		X:56.3Y:245.4Z:-169.4		N/A			X:0.1Y:312.7Z:-168.7	X:0.5 Y:312.4Z:-168.8
LTE Band 48	SAR		0.097		N/A			0.671	0.356
	Axis		X:54.9Y:24.63Z:-169.8		N/A			X:0.6Y:312.4Z:-168.7	X:0.4 Y:312.5Z:-168.7
FR1 n5	SAR	N/A			N/A				
	Axis	N/A			N/A				
FR1 n7	SAR		0.132	N/A		N/A	N/A		
	Axis		X:50.9Y:248.7Z:-170.5	N/A		N/A	N/A		
FR1 n66	SAR		0.091	N/A		N/A	N/A		
	Axis		X:63.8Y:258Z:-169.2	N/A		N/A	N/A		
FR1 n41	SAR		0.133	N/A		N/A	N/A		
	Axis		X:45.5Y:241Z:-169.4	N/A		N/A	N/A		
FR1 n71	SAR	N/A			N/A				
	Axis	N/A			N/A				
FR1 n77	SAR		0.205		N/A			0.707	0.482

	Axis		X:50.5Y:249.6Z:-161.2		N/A			X:-0.6Y:313.1Z:-168.6	X:0.8 Y:313.Z:-168.5
FR1 n78	SAR		0.241		N/A			0.926	1.008
	Axis		X:65.2Y:251.5Z:-168.1		N/A			X:0.6Y:312.4Z:-168.7	X:0.5 Y:312.4Z:-168.7

<Hotspot>

Back Side											
BT Ant15	SAR	0.008	WLAN2.4G MIMO	SAR	0.479				WLAN5G Low MIMO	SAR	0.405
	Axis	X:-35 Y:85.3 Z:-203.2		Axis	X-65Y:60.1Z:-203.4					Axis	X:-54Y:53.9Z:-202.3
BT Ant18	SAR	0.069	WLAN5G MIMO	SAR	0.422	WLAN6E MIMO	SAR		WLAN5G High MIMO	SAR	0.422
	Axis	X:-65 Y:67 Z:-203.2		Axis	X:-55Y:53.6Z:-203.4		Axis	X:-51Y:55.1Z:-202.1		Axis	X:-53Y:54.1Z:-203.3
Left side											
BT Ant15	SAR	0.008	WLAN2.4G MIMO	SAR	0.479				WLAN5G Low MIMO	SAR	0.405
	Axis	X:-25 Y:74.8 Z:-203.2		Axis	X:-33.1Y:99.7Z:-203.4					Axis	X:-24.1Y:88.7Z:-202.4
BT Ant18	SAR	0.069	WLAN5G MIMO	SAR	0.422	WLAN6E MIMO	SAR		WLAN5G High MIMO	SAR	0.422
	Axis	X:-35 Y:66.2 Z:-203.2		Axis	X:-25Y:87.4Z:-203.4		Axis	X:-22Y:89.1Z:-203.1		Axis	X:-23Y:88.8Z:-202.1
Right side											
BT Ant15	SAR	0.008	WLAN2.4G MIMO	SAR	0.479				WLAN5G Low MIMO	SAR	0.405
	Axis	X:-33Y:-39.8Z:-203.4		Axis	X:-33Y:-74.8Z:-203.4					Axis	X:-23.4Y:-55.1Z:-202.1
BT Ant18	SAR	0.069	WLAN5G MIMO	SAR	0.422	WLAN6E MIMO	SAR		WLAN5G High MIMO	SAR	0.422
	Axis	X:-25Y:-34.6Z:-203.4		Axis	X:-25Y:-54.4Z:-203.4		Axis	X:-24Y:-55.1Z:-203.4		Axis	X:-22Y:-55.7Z:-202.7

Back Side									
Band		Ant0	Ant3	Ant4	Ant1	Ant5	Ant6	Ant10	Ant13
GSM850 4TX	SAR	0.393			0.534				
	Axis	X:-10 Y:-75.5 Z:-203.4			X:20 Y:21.5 Z:-203.4				
GSM1900 4TX	SAR		0.319	0.221					
	Axis		X:-25 Y:-79.3 Z:-203.4	X:-25 Y:76.1 Z:-203.4					
WCDMA II	SAR		0.323	0.124					
	Axis		X:-25 Y:-77.2 Z:-203.4	X:-25 Y:72.8 Z:-203.4					
WCDMA IV	SAR		0.498	0.254		0.544	0.186		
	Axis		X:-40 Y:-81.5 Z:-203.4	X:-25 Y:72.8 Z:-203.4		X:-55 Y:56.9 Z:-203.4	X:15 Y:65.3 Z:-203.4		
WCDMA V	SAR	0.432			0.377				
	Axis	X:-10 Y:-79.5 Z:-203.4			X:20 Y:22.3 Z:-203.4				
LTE Band 2	SAR					0.286			
	Axis					X:-25 Y:76.4 Z:-203.4			
LTE Band 4	SAR					0.515			
	Axis					X:-25 Y:55.1 Z:-203.4			
LTE Band 7	SAR		0.317	0.111		0.341	0.218		
	Axis		X:-15 Y:-80.9 Z:-203.4	X:-5 Y:81 Z:-203.4		X:-65 Y:6.7 Z:-203.4	X:15 Y:66.4 Z:-203.4		
LTE Band 12	SAR	0.296			0.432				
	Axis	X:-10 Y:-70.1 Z:-203.4			X:20 Y:21.3 Z:-203.4				
LTE Band 13	SAR	0.313			0.496				
	Axis	X:-10 Y:-68.1 Z:-203.4			X:20 Y:20.8 Z:-203.4				
LTE Band 25	SAR		0.389	0.241					
	Axis		X:-25 Y:-76 Z:-203.4	X:-10 Y:83.4 Z:-203.4					
LTE Band 26	SAR	0.535			0.385				
	Axis	X:-10 Y:-75.8 Z:-203.4			X:20 Y:22.4 Z:-203.4				
LTE Band 66	SAR		0.440	0.318		0.534	0.351		
	Axis		X:-40 Y:-79 Z:-203.4	X:-25 Y:75.2 Z:-203.4		X:-55 Y:52.7 Z:-203.4	X:20 Y:64.2 Z:-203.4		
LTE Band 38	SAR			0.107		0.421	0.345		
	Axis			X:-5 Y:79.3 Z:-203.4		X:-65 Y:6.4 Z:-203.4	X:15 Y:63.5 Z:-203.4		
LTE Band 41	SAR		0.370	0.090		0.298	0.367		
	Axis		X:-15 Y:-77 Z:-203.4	X:-5 Y:79.8 Z:-203.4		X:-65 Y:4.3 Z:-203.4	X:15 Y:63.7 Z:-203.4		
LTE Band 42	SAR		0.814		0.240			0.081	0.752
	Axis		X:-45 Y:-66.6 Z:-203.4		X:15 Y:54.7 Z:-203.4			X:-5 Y:88.8 Z:-203.4	X:5 Y:69.3 Z:-203.4
LTE Band 48	SAR		0.765		0.159			0.124	0.465
	Axis		X:-45 Y:-68.4 Z:-203.4		X:15 Y:61.2 Z:-203.4			X:-15 Y:85.8 Z:-203.4	X:5 Y:70.2 Z:-203.4
FR1 n5	SAR	0.378			0.315				
	Axis	X:-10 Y:-76.1 Z:-203.4			X:20 Y:21.4 Z:-203.4				

FR1 n7	SAR		0.357	0.182		0.251	0.238		
	Axis		X:-25 Y:-78.4 Z:-203.4	X:-5 Y:80.7 Z:-203.4		X:-65 Y:4.9 Z:-203.4	X:5 Y:65.1 Z:-203.4		
FR1 n66	SAR		0.544	0.232		0.394	0.109		
	Axis		X:-40 Y:-82.7 Z:-203.4	X:-25 Y:76.7 Z:-203.4		X:-55 Y:50 Z:-203.4	X:20 Y:68.5 Z:-203.4		
FR1 n41	SAR		0.319	0.135		0.249	0.309		
	Axis		X:-15 Y:-74.5 Z:-203.4	X:5 Y:77.7 Z:-203.4		X:-65 Y:6.1 Z:-203.4	X:15 Y:68 Z:-203.4		
FR1 n71	SAR	0.273			0.422				
	Axis	X:-10 Y:-69.3 Z:-203.4			X:20 Y:14.2 Z:-203.4				
FR1 n77	SAR		0.732		0.313			0.229	0.462
	Axis		X:-45 Y:-76.5 Z:-203.4		X:-5 Y:42.9 Z:-203.4			X:-25 Y:85 Z:-203.4	X:15 Y:68.3 Z:-203.4
FR1 n78	SAR		0.873		0.309			0.264	0.601
	Axis		X:-45 Y:-65.7 Z:-203.4		X:15 Y:60.1 Z:-203.4			X:-25 Y:90.1 Z:-203.4	X:5 Y:70.2 Z:-203.4

Left Side									
Band		Ant0	Ant3	Ant4	Ant1	Ant5	Ant6	Ant10	Ant13
GSM850 4TX	SAR	0.314			0.598				
	Axis	X:-33 Y:-56.8 Z:-203.4			X:23 Y:22.3 Z:-203.4				
GSM1900 4TX	SAR		N/A	N/A					
	Axis		N/A	N/A					
WCDMA II	SAR		N/A	N/A					
	Axis		N/A	N/A					
WCDMA IV	SAR		N/A	N/A		N/A	0.230		
	Axis		N/A	N/A		N/A	X:-33 Y:61.6 Z:-203.4		
WCDMA V	SAR	0.217			0.466				
	Axis	X:-33 Y:-58.3 Z:-203.4			X:23 Y:23.6 Z:-203.4				
LTE Band 2	SAR					N/A			
	Axis					N/A			
LTE Band 4	SAR					N/A			
	Axis					N/A			
LTE Band 7	SAR		N/A	N/A		N/A	0.383		
	Axis		N/A	N/A		N/A	X:-33 Y:59.1 Z:-203.4		
LTE Band 12	SAR	0.379			0.673				
	Axis	X:-17 Y:-31.6 Z:-203.4			X:23 Y:19.7 Z:-203.4				
LTE Band 13	SAR	0.247			0.668				
	Axis	X:-25 Y:-39.2 Z:-203.4			X:23 Y:24.5 Z:-203.4				
LTE Band 25	SAR		N/A	N/A					
	Axis		N/A	N/A					
LTE Band 26	SAR	0.438			0.508				
	Axis	X:-25 Y:-63.3 Z:-203.4			X:23 Y:19.1 Z:-203.4				
LTE Band 66	SAR		N/A	N/A		N/A	0.432		
	Axis		N/A	N/A		N/A	X:-33 Y:64.1 Z:-203.4		
LTE Band 38	SAR			N/A		N/A	0.63		
	Axis			N/A		N/A	X:-33 Y:62.4 Z:-203.4		
LTE Band 41	SAR		N/A	N/A		N/A	0.671		
	Axis		N/A	N/A		N/A	X:-33 Y:61.8 Z:-203.4		
LTE Band 42	SAR		N/A		0.395			N/A	N/A
	Axis		N/A		X:25 Y:59.3 Z:-203.4			N/A	N/A
LTE Band 48	SAR		N/A		0.283			N/A	N/A
	Axis		N/A		X:25 Y:62.7 Z:-203.4			N/A	N/A
FR1 n5	SAR	0.278			0.379				
	Axis	X:-33 Y:-59.2 Z:-203.4			X:33 Y:18.8 Z:-203.4				
FR1 n7	SAR		N/A	N/A		N/A	0.44		
	Axis		N/A	N/A		N/A	X:-33 Y:60.9 Z:-203.4		
FR1 n66	SAR		N/A	N/A		N/A	0.167		
	Axis		N/A	N/A		N/A	X:-33 Y:61.1 Z:-203.4		
FR1 n41	SAR		N/A	N/A		N/A	0.475		
	Axis		N/A	N/A		N/A	X:-33 Y:61.5 Z:-203.4		
FR1 n71	SAR	0.504			0.567				
	Axis	X:-33 Y:-31.9 Z:-203.4			X:31 Y:13.2 Z:-203.5				

FR1 n77	SAR		N/A		0.438			N/A	N/A
	Axis		N/A		X:23 Y:53.8 Z:-203.4			N/A	N/A
FR1 n78	SAR		N/A		0.493			N/A	N/A
	Axis		N/A		X:23 Y:66.8 Z:-203.4			N/A	N/A

Right Side									
Band		Ant0	Ant3	Ant4	Ant1	Ant5	Ant6	Ant10	Ant13
GSM850 4TX	SAR	N/A			N/A				
	Axis	N/A			N/A				
GSM1900 4TX	SAR		0.145	N/A					
	Axis		X:-25 Y:55.7 Z:-203.4	N/A					
WCDMA II	SAR		0.253	N/A					
	Axis		X:-25 Y:66.7 Z:-203.4	N/A					
WCDMA IV	SAR		0.264	N/A		0.772	N/A		
	Axis		X:-25 Y:66.1 Z:-203.4	N/A		X:-25 Y:-33.8 Z:-203.4	N/A		
WCDMA V	SAR	N/A							
	Axis	N/A			X:-25 Y:30.9 Z:-203.4				
LTE Band 2	SAR					0.473			
	Axis					X:-33 Y:-40.6 Z:-203.4			
LTE Band 4	SAR					0.765			
	Axis					X:-33 Y:-30.7 Z:-203.4			
LTE Band 7	SAR		0.324	N/A		0.651	N/A		
	Axis		X:-25 Y:59 Z:-203.4	N/A		X:-33 Y:-30.7 Z:-203.4	N/A		
LTE Band 12	SAR	N/A			N/A				
	Axis	N/A			N/A				
LTE Band 13	SAR	N/A			N/A				
	Axis	N/A			N/A				
LTE Band 25	SAR		0.226	N/A					
	Axis		X:-25 Y:58.9 Z:-203.4	N/A					
LTE Band 26	SAR	N/A			N/A				
	Axis	N/A			N/A				
LTE Band 66	SAR		0.313	N/A		0.849	N/A		
	Axis		X:-25 Y:46.9 Z:-203.4	N/A		X:-33 Y:-30.1 Z:-203.4	N/A		
LTE Band 38	SAR			N/A		0.720	N/A		
	Axis			N/A		X:-33 Y:-31.5 Z:-203.4	N/A		
LTE Band 41	SAR		0.176	N/A		0.569	N/A		
	Axis		X:-25 Y:59.5 Z:-203.4	N/A		X:-33 Y:-30.2 Z:-203.4	N/A		
LTE Band 42	SAR		0.120		N/A			N/A	N/A
	Axis		X:-41 Y:70 Z:-203.4		N/A			N/A	N/A
LTE Band 48	SAR		0.123		N/A			N/A	N/A
	Axis		X:-41 Y:73.9 Z:-203.4		N/A			N/A	N/A
FR1 n5	SAR	N/A			N/A				
	Axis	N/A			N/A				
FR1 n7	SAR		0.271	N/A		0.453	N/A		
	Axis		X:-25 Y:56.8 Z:-203.4	N/A		X:-65 Y:-30.5 Z:-203.4	N/A		
FR1 n66	SAR		0.452	N/A		0.568	N/A		
	Axis		X:-33 Y:33.8 Z:-203.4	N/A		X:-33 Y:-32.5 Z:-203.4	N/A		
FR1 n41	SAR		0.324	N/A		0.470	N/A		
	Axis		X:-33 Y:64.8 Z:-203.4	N/A		X:-33 Y:-30.6 Z:-203.4	N/A		
FR1 n71	SAR	N/A			N/A				
	Axis	N/A			N/A				
FR1 n77	SAR		0.112		N/A			N/A	N/A
	Axis		X:-49 Y:50.2 Z:-203.4		N/A			N/A	N/A
FR1 n78	SAR		0.114		N/A			N/A	N/A
	Axis		X:-49 Y:49 Z:-203.4		N/A			N/A	N/A

<Body-worn>

Front Side											
BT Ant15	SAR	0.047	WLAN2.4G MIMO	SAR	0.237				WLAN5G Low MIMO	SAR	0.208
	Axis	X:-15 Y:84.1 Z:-203.2		Axis	X:15Y:66.7Z:-203.4					Axis	X:14.4Y:68.1Z:-202.1
BT Ant18	SAR	0.051	WLAN5G MIMO	SAR	0.243	WLAN6E MIMO	SAR	0.052	WLAN5G High MIMO	SAR	0.194
	Axis	X:15 Y:68.9 Z:-203.2		Axis	X:15Y:66.9Z:-203.4		Axis	X:13Y:68.1Z:-202.4		Axis	X:14.1Y:69.1Z:-202.1
Back Side											
BT Ant15	SAR	0.074	WLAN2.4G MIMO	SAR	0.331				WLAN5G Low MIMO	SAR	0.417
	Axis	X:-25 Y:82.3 Z:-203.2		Axis	X:-65Y:60.4Z:-203.4					Axis	X:-56Y:58.6Z:-202.4
BT Ant18	SAR	0.047	WLAN5G MIMO	SAR	0.417	WLAN6E MIMO	SAR	0.155	WLAN5G High MIMO	SAR	0.154
	Axis	X:-65 Y:64.6 Z:-203.2		Axis	X:-55Y:57.6Z:-203.4		Axis	X:-55.5Y:58.1Z:-203.4		Axis	X:-56.6Y:58.1Z:-202.4

Front Side									
Band		Ant0	Ant3	Ant4	Ant1	Ant5	Ant6	Ant10	Ant13
GSM850 4TX	SAR	0.147			N/A				
	Axis	X:-70 Y:-62.3 Z:-203.4			N/A				
GSM1900 4TX	SAR		0.118	0.103					
	Axis		X:-10 Y:-82.5 Z:-203.4	X:-25 Y:81.6 Z:-203.4					
WCDMA II	SAR		0.319	0.264					
	Axis		X:-10 Y:-83.3 Z:-203.4	X:-25 Y:84.2 Z:-203.4					
WCDMA IV	SAR		0.431	0.399		N/A	N/A		
	Axis		X:-40 Y:-68 Z:-203.4	X:-55 Y:85.4 Z:-203.4		N/A	N/A		
WCDMA V	SAR	0.162			N/A				
	Axis	X:-55 Y:-78.4 Z:-203.4			N/A				
LTE Band 2	SAR					N/A			
	Axis					N/A			
LTE Band 4	SAR					N/A			
	Axis					N/A			
LTE Band 7	SAR		0.547	0.294		N/A	N/A		
	Axis		X:-35 Y:-80.6 Z:-203.4	X:-45 Y:86.7 Z:-203.4		N/A	N/A		
LTE Band 12	SAR	0.215			N/A				
	Axis	X:-25 Y:9.2 Z:-203.4			N/A				
LTE Band 13	SAR	0.185			N/A				
	Axis	X:-25 Y:14.6 Z:-203.4			N/A				
LTE Band 25	SAR		0.300	0.329					
	Axis		X:-10 Y:-84.1 Z:-203.4	X:-40 Y:90 Z:-203.4					
LTE Band 26	SAR	0.184			N/A				
	Axis	X:-55 Y:-79.7 Z:-203.4			N/A				
LTE Band 66	SAR		0.478	0.550		N/A	N/A		
	Axis		X:-10 Y:-84.7 Z:-203.4	X:-25 Y:80.3 Z:-203.4		N/A	N/A		
LTE Band 38	SAR			0.170		N/A	N/A		
	Axis			X:-45 Y:88.2 Z:-203.4		N/A	N/A		
LTE Band 41	SAR		0.285	0.170		N/A	N/A		
	Axis		X:-25 Y:-84.5 Z:-203.4	X:-45 Y:74.7 Z:-203.4		N/A	N/A		
LTE Band 42	SAR		0.111		N/A			0.228	N/A
	Axis		X:-5 Y:-64.8 Z:-203.4		N/A			X:-35 Y:88.9 Z:-203.4	N/A
LTE Band 48	SAR		0.112		N/A			0.554	N/A
	Axis		X:-5 Y:-65.7 Z:-203.4		N/A			X:-25 Y:88.6 Z:-203.4	N/A
FR1 n5	SAR	0.159			N/A				
	Axis	X:-55 Y:-78.5 Z:-203.4			N/A				
FR1 n7	SAR		0.558	0.332		N/A	N/A		
	Axis		X:-35 Y:-78.2 Z:-203.4	X:-45 Y:86.4 Z:-203.4		N/A	N/A		
FR1 n66	SAR		0.500	0.557		N/A	N/A		
	Axis		X:-10 Y:-78.8 Z:-203.4	X:-25 Y:81.8 Z:-203.4		N/A	N/A		
FR1 n41	SAR		0.598	0.346		N/A	N/A		
	Axis		X:-35 Y:-77.6 Z:-203.4	X:-45 Y:83.1 Z:-203.4		N/A	N/A		
FR1 n71	SAR	0.191			N/A				
	Axis	X:-25 Y:3.1 Z:-203.4			N/A				

FR1 n77	SAR		0.114		N/A			0.784	N/A
	Axis		X:-5 Y:-79.4 Z:-203.4		N/A			X:-25 Y:94 Z:-203.4	N/A
FR1 n78	SAR		0.269		N/A			0.242	N/A
	Axis		X:-5 Y:-70.2 Z:-203.4		N/A			X:-35 Y:93.8 Z:-203.4	N/A

Back Side									
Band		Ant0	Ant3	Ant4	Ant1	Ant5	Ant6	Ant10	Ant13
GSM850 4TX	SAR	0.218			0.425				
	Axis	X:-10 Y:-71.5 Z:-203.4			X:20 Y:18.1 Z:-203.4				
GSM1900 4TX	SAR		0.134	0.154					
	Axis		X:-25 Y:-77.7 Z:-203.4	X:-25 Y79.6 Z:-203.4					
WCDMA II	SAR		0.388	0.379					
	Axis		X:-25 Y:-78.4 Z:-203.4	X:-25 Y:76.4 Z:-203.4					
WCDMA IV	SAR		0.372	0.760		0.291	0.242		
	Axis		X:-25 Y:-78.1 Z:-203.4	X:-25 Y:76.7 Z:-203.4		X:-55 Y:60 Z:-203.4	X:15 Y:63.8 Z:-203.4		
WCDMA V	SAR	0.250			0.494				
	Axis	X:-10 Y:-80.4 Z:-203.4			X:20 Y:14.7 Z:-203.4				
LTE Band 2	SAR					0.275			
	Axis					X:-25 Y:76.8 Z:-203.4			
LTE Band 4	SAR					0.335			
	Axis					X:-55 Y:59.5 Z:-203.4			
LTE Band 7	SAR		0.656	0.260		0.233	0.119		
	Axis		X:-15 Y:-80.5 Z:-203.4	X:-5 Y:83.1 Z:-203.4		X:-65 Y:7.5 Z:-203.4	X:-5 Y:83.1 Z:-203.4		
LTE Band 12	SAR	0.232			0.287				
	Axis	X:-25 Y:-0.1 Z:-203.4			X:20 Y:18.7 Z:-203.4				
LTE Band 13	SAR	0.181			0.515				
	Axis	X:-10 Y:-72.4 Z:-203.4			X:20 Y:24.9 Z:-203.4				
LTE Band 25	SAR		0.314	0.511					
	Axis		X:-25 Y:-80.9 Z:-203.4	X:-25 Y:77.0 Z:-203.4					
LTE Band 26	SAR	0.260			0.461				
	Axis	X:-10 Y:-79.2 Z:-203.4			X:20 Y:16.6 Z:-203.4				
LTE Band 66	SAR		0.415	1.080		0.335	0.367		
	Axis		X:-25 Y:-81.5 Z:-203.4	X:-25 Y:76.7 Z:-203.4		X:-55 Y:55.1 Z:-203.4	X:20 Y:65.7 Z:-203.4		
LTE Band 38	SAR			0.130		0.211	0.206		
	Axis			X:-5 Y:83.2 Z:-203.4		X:-55 Y:58.2 Z:-203.4	X:15 Y:67.5 Z:-203.4		
LTE Band 41	SAR		0.383	0.130		0.211	0.206		
	Axis		X:-15 Y:-83.2 Z:-203.4	X:-5 Y:82 Z:-203.4		X:-65 Y:10.6 Z:-203.4	X:15 Y:63.7 Z:-203.4		
LTE Band 42	SAR		0.472		0.229			0.296	0.655
	Axis		X:-45 Y:-65.4 Z:-203.4		X:15 Y:60.7 Z:-203.4			X:-35 Y:88.6 Z:-203.4	X:5 Y:75 Z:-203.4
LTE Band 48	SAR		0.385		0.088			0.664	0.513
	Axis		X:-45 Y:-66.6 Z:-203.4		X:15 Y:64.2 Z:-203.4			X:-35 Y:88.9 Z:-203.4	X:5 Y:74.1 Z:-203.4
FR1 n5	SAR	0.236			0.459				
	Axis	X:-10 Y:-75.9 Z:-203.4			X:20 Y:18.1 Z:-203.4				
FR1 n7	SAR		0.686	0.335		0.203	0.215		
	Axis		X:-15 Y:-74.1 Z:-203.4	X:-5 Y:84.1 Z:-203.4		X:-65 Y:4.3 Z:-203.4	X:5 Y:66.3 Z:-203.4		
FR1 n66	SAR		0.466	0.974		0.367	0.166		
	Axis		X:-25 Y:-70.6 Z:-203.4	X:-25 Y:81.8 Z:-203.4		X:-55 Y:56.5 Z:-203.4	X:20 Y:64.9 Z:-203.4		
FR1 n41	SAR		0.785	0.288		0.200	0.249		
	Axis		X:-15 Y:-75.5 Z:-203.4	X:-5 Y:86.6 Z:-203.4		X:-65 Y:3.4 Z:-203.4	X:15 Y:71.3 Z:-203.4		
FR1 n71	SAR	0.216			0.290				
	Axis	X:-25 Y:5.9 Z:-203.4			X:20 Y:14.7 Z:-203.4				
FR1 n77	SAR		0.537		0.212			0.806	0.367
	Axis		X:-45 Y:-78.9 Z:-203.4		X:15 Y:47.8 Z:-203.4			X:-35 Y:88.6 Z:-203.4	X:5 Y:69.2 Z:-203.4
FR1 n78	SAR		0.983		0.151			0.420	0.433
	Axis		X:-45 Y:-72.3 Z:-203.4		X:15 Y:63.6 Z:-203.4			X:-25 Y:92.2 Z:-203.4	X:5 Y:73.2 Z:-203.4

Test Engineer : Martin Li, Varus Wang, Light Wang, Ricky Gu

18. Uncertainty Assessment

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

19. References

[1] FCC 47 CFR Part 2 “Frequency Allocations and Radio Treaty Matters; General Rules and Regulations”

[2] ANSI/IEEE Std. C95.1-1992, “IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz”, September 1992

[3] IEEE Std. 1528-2013, “IEEE Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques”, Sep 2013

[4] SPEAG DASY System Handbook

[5] FCC KDB 865664 D01 v01r04, "SAR Measurement Requirements for 100 MHz to 6 GHz", Aug 2015.

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

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

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

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

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

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

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

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

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

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