FCC SAR Test Report

APPLICANT	: Xiaomi Communications Co., Ltd.
EQUIPMENT	: Mobile Phone
BRAND NAME	: Xiaomi
MODEL NAME	: 24129PN74G
FCC ID	: 2AFZZPN74G
STANDARD	: FCC 47 CFR Part 2 (2.1093)

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

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

Si Zhang

Approved by: Si Zhang

ACCREDITED
Cert #5145.02

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

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Revision History

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FA482619	Rev. 01	Initial issue of report.	Oct. 17, 2024

1. Statement of Compliance

The maximum results of Specific Absorption Rate (SAR) found during testing for **Xiaomi Communications Co., Ltd., Mobile Phone, 24129PN74G,** 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	0.74	0.48	0.46	1.57
		GSM1900	0.87	0.66	0.32	
	WCDMA	WCDMA II	0.69	0.42	0.79	
		WCDMA IV	0.81	0.38	0.71	
		WCDMA V	0.97	0.83	0.53	
	LTE	LTE Band 2	0.74	0.43	0.71	
		LTE Band 4	0.75	1.02	0.82	
		LTE Band 5	0.77	0.98	0.49	
		LTE Band 7	0.98	1.08	0.91	
		LTE Band 12/17	0.70	0.72	0.35	
		LTE Band 13	0.77	**1.09**	0.48	
		LTE Band 25	0.85	0.31	0.39	
		LTE Band 26	0.65	0.92	0.51	
		LTE Band 66	0.97	0.96	0.76	
		LTE Band 38	1.05	0.89	0.55	
		LTE Band 41	**1.09**	0.99	0.47	
		LTE Band 42	**1.09**	0.49	0.71	
		LTE Band 48	**1.09**	0.42	0.45	
	5G NR	FR1 n2	0.82	0.35	0.79	
		FR1 n5	0.68	0.78	0.57	
		FR1 n7	0.97	0.87	0.97	
		FR1 n12	0.94	**1.09**	0.45	
		FR1 n25	0.88	0.28	0.57	
		FR1 n26	0.83	0.82	0.59	
		FR1 n66	1.01	1.00	0.69	
		FR1 n38	**1.09**	0.68	0.84	
		FR1 n41	1.04	0.61	0.99	
		FR1 n48	0.86	0.45	0.91	
		FR1 n77	1.08	0.62	**1.06**	
		FR1 n78	1.08	0.56	1.04	
DTS	WLAN	2.4GHz WLAN	0.90	1.01	0.32	1.57
NII		5GHz WLAN	**1.09**	0.55	0.33	1.57
DSS	Bluetooth	2.4GHz Bluetooth	0.80	0.36	0.10	1.57

Highest 10g SAR Summary				
Equipment Class	Frequency Band		Product Specific 10g SAR (W/kg) (Separation 0mm)	Highest Simultaneous Transmission 10g SAR (W/kg)
NII	WLAN	5GHz WLAN	**2.46**	2.46
Date of Testing:			2024/8/28~ 2024/10/16	

Remark:

1. This device supports LTE B17 and B12. Since the supported frequency span for LTE B17 falls completely within the supports frequency span for LTE B12, both LTE bands have the same target power, and both LTE bands share the same transmission path; therefore, SAR was only assessed for LTE B12.

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 5145.01.

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		
Test Site No.	Sporton Site No.	FCC Designation No.	FCC Test Firm Registration No.
	SAR02-KS, SAR05-KS, SAR07-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	24129PN74G
FCC ID	2AFZZPN74G
IMEI Code	IMEI1: 864868070042580 IMEI2: 864868070042598
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 n2: 1850 MHz ~ 1910 MHz 5G NR n5: 824 MHz ~ 849 MHz 5G NR n7: 2500 MHz ~ 2570 MHz 5G NR n12: 699 MHz ~ 716 MHz 5G NR n25: 1850 MHz ~ 1915 MHz 5G NR n26: 814 MHz ~ 849 MHz 5G NR n66: 1710 MHz ~ 1780 MHz 5G NR n38: 2570 MHz ~ 2620 MHz 5G NR n41: 2496 MHz ~ 2690 MHz 5G NR n48: 3550 MHz ~ 3700 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 NFC: 13.56 MHz WPT: 111 kHz~144 kHz
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 NFC: ASK WPT: ASK
HW Version	1352000O3
SW Version	Xiaomi HyperOS 2.0
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, LTE and 5GNR (e.g. for 3rd-party VoIP), LTE supports VoLTE operation.
2. This device 2.4GHz WLAN support hotspot operation and Bluetooth support tethering applications.
3. This device 5.2GHz WLAN/5.8GHz WLAN support hotspot operation, and 5.2GHz WLAN/5.8GHz WLAN supports WiFi Direct (GC/GO), and 5.3GHz / 5.5GHz supports WiFi Direct (GC only). WLAN6GHz has no hotspot function.
4. The 2.4GHz/5GHz/6GHz WLAN can transmit in SISO/MIMO antenna mode.
5. This device does not support DTM operation and supports GPRS/EGPRS mode up to multi-slot class 33.
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. The device implements Proximity sensors/receiver detect mechanism/hotspot trigger reduced power for the power management for SAR compliance at different exposure conditions (head, body-worn, hotspot, extremity) and the Qualcomm smart transmit will manage to ensure the power level not exceeding the associated power table. The device will invoke corresponding work scenarios power level base on frequency bands/antennas, which can refer to appendix E. power table.
8. 5GNR n41/n77/n78 supports HPUE mode, HPUE power and SAR testing performed separately.
9. 5GNR n41/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.
10. For 5GNR n41/n77/n78 HPUE, 5GNR n41/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.
11. For 5GNR, the simultaneous transmission analysis is used standalone SAR at total power level to show compliance.
12. 5G NR n7/n38/n41 supports UL MIMO mode.
13. Bluetooth BR/EDR supports Beamforming mode, and BLE don't supports Beamforming.
14. This device has NFC function and the NFC SAR report will be separately submitted.
15. RF exposure report for WPC (Wireless power charging) will be separately submitted.
16. SAR and Power density test report for WLAN 6GHz U-NII-5/6/7/8 will be separately submitted. About co-located SAR with WWAN/Bluetooth always chose higher SAR of WLAN5GHz U-NII-1/2A/2C/3 and WLAN 6GHz U-NII-5/6/7/8.
17. There are two samples. The difference between them is memory capacity: sample 1 with12+256G capacity, Sample 2 with 12+512G capacity. According to the difference, sample 1 was chosen to perform full SAR testing.
18. This device supports 5GNR FR1 bands as following table, including NSA mode and SA mode. NSA and SA mode performed SAR separately.

<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, 35, 40
	n66	FDD	15	5, 10, 15, 20, 25, 30, 35, 40
	n38	TDD	30	10, 15, 20, 25, 30, 40
	n41	TDD	30	10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 80, 90, 100
	n77	TDD	30	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100
	n78	TDD	30	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100
SA	n2	FDD	15	5, 10, 15, 20, 25, 30, 35, 40
	n5	FDD	15	5, 10, 15, 20
	n7	FDD	15	5, 10, 15, 20, 25, 30, 35, 40, 50
	n12	FDD	15	5, 10, 15
	n25	FDD	15	5, 10, 15, 20, 25, 30, 35, 40
	n26	FDD	15	5, 10, 15, 20
	n66	FDD	15	5, 10, 15, 20, 25, 30, 35, 40, 45
	n38	TDD	30	10, 15, 20, 25, 30, 40
	n41	TDD	30	10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 80, 90, 100
	n48	TDD	30	10, 15, 20, 30, 40
	n77	TDD	30	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100
	n78	TDD	30	10, 15, 20, 25, 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>2AFZZPN74G</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>R16</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 3 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 17			Yes	Yes		
LTE Band 12	Yes	Yes	Yes	Yes		

2) LTE Bands tune up:

Band	Antenna	Default	DSI1	DSI3	DSI4	DSI5
		Tune up Limit	Tune up Limit	Tune up Limit	Tune up Limit	Tune up Limit
LTE Band 17	Ant 0	25.5	25.5	25.5	25.5	25.5
LTE Band 12		25.5	25.5	25.5	25.5	25.5
LTE Band 17	Ant 1	25	24	25	24	25
LTE Band 12		25	24	25	24	25

4.3 General 5G NR SAR Test and Reporting Considerations

5G NR Information	
Operating Frequency Range of each 5G NR transmission band	5G NR n2: 1850 MHz ~ 1910 MHz 5G NR n5: 824 MHz ~ 849 MHz 5G NR n7: 2500 MHz ~ 2570 MHz 5G NR n12: 699 MHz ~ 716 MHz 5G NR n25: 1850 MHz ~ 1915 MHz 5G NR n26: 814 MHz ~ 849 MHz 5G NR n66: 1710 MHz ~ 1780 MHz 5G NR n38: 2570 MHz ~ 2620 MHz 5G NR n41: 2496 MHz ~ 2690 MHz 5G NR n48: 3550 MHz ~ 3700 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 B4/5/66
LTE Anchor Bands for n38	LTE B4/66
LTE Anchor Bands for n41	LTE B4/66
LTE Anchor Bands for n66	LTE B2/5/7
LTE Anchor Bands for n77	LTE B2
LTE Anchor Bands for n78	LTE B2/4/5/7/26/38/41/66

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

NR Band 2

	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 35MHz		Bandwidth 40MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	370500	1852.5	371000	1855	371500	1857.5	372000	1860	372500	1862.5	373000	1865	373500	1867.5	374000	1870
M	376000	1880	376000	1880	376000	1880	376000	1880	376000	1880	376000	1880	376000	1880	376000	1880
H	381500	1907.5	381000	1905	380500	1902.5	380000	1900	379500	1897.5	379000	1895	378500	1892.5	378000	1890

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 35MHz		Bandwidth 40MHz		Bandwidth 50MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	500500	2502.5	501000	2505	501500	2507.5	502000	2510	502500	2512.5	503000	2515	503500	2517.5	504000	2520	505000	2525
M	507000	2535	507000	2535	507000	2535	507000	2535	507000	2535	507000	2535	507000	2535	507000	2535	507000	2535
H	513500	2567.5	513000	2565	512500	2562.5	512000	2560	511500	2557.5	511000	2555	510500	2552.5	510000	2550	509000	2545

NR Band 12

	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	140300	701.5	140800	704	141300	706.5
M	141500	707.5	141500	707.5	141500	707.5
H	142700	713.5	142200	711	141700	708.5

NR Band 25 SCS15KHz

	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 35MHz		Bandwidth 40MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	370500	1852.5	371000	1855	371500	1857.5	372000	1860	372500	1862.5	373000	1865	373500	1867.5	374000	1870
M	376500	1882.5	376500	1882.5	376500	1882.5	376500	1882.5	376500	1882.5	376500	1882.5	376500	1882.5	376500	1882.5
H	382500	1912.5	382000	1910	381500	1907.5	381000	1905	380500	1902.5	380000	1900	379500	1897.5	379000	1895

NR Band 26								
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	163300	816.5	163800	819	164300	821.5	164800	824
M	166300	831.5	166300	831.5	166300	831.5	166300	831.5
H	169300	846.5	168800	844	168300	841.5	167800	839

NR Band 66																		
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 35MHz		Bandwidth 40MHz		Bandwidth 45MHz	
	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	342500	1712.5	343000	1715	343500	1717.5	344000	1720	344500	1722.5	345000	1725	345500	1727.5	346000	1730	346500	1732.5
M	349000	1745	349000	1745	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	352500	1762.5	352000	1760	351500	1757.5

NR Band 38												
	Bandwidth10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth40MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	515000	2575	515500	2577.5	516000	2580	516500	2582.5	517000	2585	518000	2590
M	519000	2595	519000	2595	519000	2595	519000	2595	519000	2595	519000	2595
H	523000	2615	522500	2612.5	522000	2610	521500	2607.5	521000	2605	5120000	2600

NR Band 41																												
	Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 35MHz		Bandwidth 40MHz		Bandwidth 45MHz		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)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	500202	2501.01	500700	2503.5	501204	2506.02	501702	2508.51	502200	2511	502704	2513.52	503202	2516.01	503700	2518.5	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	518598	2592.99	518598	2592.99	518598	2592.99
H	537000	2685	536496	2682.48	535998	2679.99	535500	2677.5	534996	2674.98	534498	2672.49	534000	2670	533498	2667.48	532998	2664.99	531996	2659.98	537000	2685	529998	2649.99	528996	2644.98	528000	2640

NR Band 48										
	Bandwidth 10MHz		Bandwidth15MHz		Bandwidth 20MHz		Bandwidth 30MHz		Bandwidth 40MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	637000	3555	637168	3557.52	637334	3560.01	637668	3565.02	638000	3570
M	641666	3624.99	641666	3624.99	641666	3624.99	641666	3624.99	641666	3624.99
H	646332	3694.98	646166	3692.49	646000	3690	645666	3684.99	645332	3679.98

NR Band 77																												
	Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		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)	Ch. #	Freq. (MHz)
L	647000	3705	647168	3707.52	647334	3710.01	647500	3712.5	647668	3715.02	648000	3720	648334	3725.01	648668	3730.02	649000	3735	649334	3740.01	649668	3745.02	650000	3750
M	656000	3840	656000	3840	656000	3840	656000	3840.00	656000	3840.00	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840
H	665000	3975	664832	3972.48	664666	3969.99	664500	3967.50	664332	3964.98	664000	3960	663666	3954.99	663332	3949.98	663000	3945	662666	3939.99	662332	3934.98	662000	3930

NR Band 78																								
	Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		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)	Ch. #	Freq. (MHz)
L	647000	3705	647168	3707.52	647334	3710.01	647500	3712.5	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	650000	3750
H	653000	3795	652834	3792.51	652668	3790.02	652500	3787.5	652334	3785.01	652000	3780	651668	3775.02	651334	3770.01	651000	3765	650668	3760.02	650334	3755.01		

For <3450 MHz ~ 3550 MHz >

NR Band 77																								
	Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		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)	Ch. #	Freq. (MHz)
L	630334	3455.01	630500	3457.5	630668	3460.02	630834	3462.51	631000	3465	631334	3470.01	631668	3475.02	632000	3480	632334	3485.01	632668	3490.02	633000	3495		
M	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98
H	636332	3544.98	636166	3542.49	636000	3540	635832	3537.48	635666	3534.99	635332	3529.98	635000	3525	634666	3519.99	634332	3514.98	634000	3510	633666	3504.99		

NR Band 78																								
	Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		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)	Ch. #	Freq. (MHz)
L	630334	3455.01	630500	3457.5	630668	3460.02	630834	3462.51	631000	3465	631334	3470.01	631668	3475.02	632000	3480	632334	3485.01	632668	3490.02	633000	3495		
M	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98
H	636332	3544.98	636166	3542.49	636000	3540	635832	3537.48	635666	3534.99	635332	3529.98	635000	3525	634666	3519.99	634332	3514.98	634000	3510	633666	3504.99		

5. Smart Transmit feature for RF Exposure compliance

The Qualcomm® Smart Transmit™ 5.0 of Smart Transmit (GEN2) Feature 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 and WLAN/BT transmitter to ensure the product in compliance with RF exposure limit over a defined time window. To control and manage transmitting power in real time and to ensure at all times the time-averaged RF exposure is compliant to the regulation requirement.

This report describes the procedures for the SAR char generation, and the parameters obtained from SAR characterization (referred to as SAR char, respectively) will be used as input for Smart Transmit. SAR char will be entered via the Embedded File System (EFS) version 23 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	Plimit 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 WWAN and WLAN/BT bands. It will then be used as input for Smart Transmit to control and manage RF exposure for WWAN and WLAN/BT bands.

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

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

Antenna Group:

Antenna Group 0 (AG0)	ANT1 & ANT4 & ANT5 & ANT6 & ANT8 & ANT9 & ANT15 & ANT12 & ANT16
Antenna Group 1 (AG1)	ANT0 & ANT3

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	Extremity DSI3	Bodyworn DSI4	Hotspot DSI5	Pmax*	Total Uncertainty dB (k=2)
GSM850	Ant 0	28.2	23.0	31.1	26.7	23.0	1.00
GSM850	Ant 1	18.2	21.7	21.7	18.2	22.7	1.20
GSM1900	Ant 4	19.0	21.5	26.8	19.0	21.5	1.00
GSM1900	Ant 5	18.2	21.2	29.6	18.2	21.2	1.20
WCDMA V	Ant 0	27.1	24.0	29.2	25.2	24.0	1.00
WCDMA V	Ant 1	19.5	22.0	22.0	19.5	23.5	1.20
WCDMA IV	Ant 4	17.0	21.0	25.9	17.0	24.0	1.00
WCDMA IV	Ant 5	17.5	21.5	21.5	17.5	23.5	1.20
WCDMA II	Ant 4	17.0	20.0	25.4	17.0	24.0	1.00
WCDMA II	Ant 5	17.0	21.5	21.5	17.0	23.5	1.20
LTE Band 12	Ant 0	30.4	24.5	29.5	26.3	24.5	1.00
LTE Band 12	Ant 1	23.0	24.0	29.9	23.0	24.0	1.00
LTE Band 13	Ant 0	28.9	25.0	29.2	25.0	25.0	0.70
LTE Band 13	Ant 1	21.0	23.5	23.5	21.0	24.5	1.00
LTE Band 5	Ant 0	27.9	25.0	30.0	25.5	25.0	0.70
LTE Band 5	Ant 1	19.5	22.0	22.0	19.5	24.5	1.00
LTE Band 26	Ant 0	28.3	25.0	29.9	25.8	25.0	0.70
LTE Band 26	Ant 1	19.5	22.5	22.5	19.5	24.5	1.00
LTE Band 4	Ant 4	17.5	22.0	26.7	17.5	25.0	0.70
LTE Band 4	Ant 5	19.0	23.0	23.0	19.0	24.5	1.00
LTE Band 4_Other PA	Ant 3	31.0	22.5	26.3	22.0	25.0	0.70
LTE Band 4_Other PA	Ant 6	15.5	21.0	21.0	15.5	23.5	1.00
LTE Band 66	Ant 4	18.0	21.0	26.3	18.0	24.0	1.00
LTE Band 66	Ant 5	16.0	22.0	22.0	16.0	23.5	1.00
LTE Band 66_Other PA	Ant 3	30.4	22.0	25.6	21.5	24.0	1.00
LTE Band 66_Other PA	Ant 6	17.0	22.0	22.0	17.0	23.5	1.00
LTE Band 2	Ant 4	17.5	21.5	25.9	17.5	24.0	1.00
LTE Band 2	Ant 5	15.6	21.6	21.6	15.6	23.6	1.00
LTE Band 25	Ant 4	18.5	22.0	28.5	18.5	24.0	1.00
LTE Band 25	Ant 5	15.7	20.2	20.2	15.7	23.7	1.00
LTE Band 7	Ant 4	17.0	21.0	25.9	17.0	25.0	0.70
LTE Band 7	Ant 5	19.1	18.6	18.6	18.6	24.6	1.00
LTE Band 7_Other PA	Ant 3	29.9	22.0	26.5	22.0	24.5	1.00
LTE Band 7_Other PA	Ant 6	14.8	19.3	19.3	14.8	22.8	1.00
LTE Band 38	Ant 4	17.5	21.5	26.1	17.5	23.0	0.70
LTE Band 38	Ant 5	18.0	18.5	18.5	18.0	22.5	1.00
LTE Band 38_Other PA	Ant 3	29.2	22.0	26.7	22.9	22.0	1.00
LTE Band 38_Other PA	Ant 6	15.4	20.4	20.4	15.4	21.4	1.00
LTE Band 41	Ant 4	17.5	20.5	26.7	17.5	23.0	0.70
LTE Band 41	Ant 5	18.4	18.4	18.4	18.4	22.4	1.00
LTE Band 41_Other PA	Ant 3	29.3	22.0	26.8	22.5	22.0	1.00
LTE Band 41_Other PA	Ant 6	15.4	20.4	20.4	15.4	21.4	1.00
LTE Band 42	Ant 4	16.0	20.5	26.7	16.0	23.0	0.70
LTE Band 42	Ant 5	17.0	18.5	18.5	17.0	22.5	1.00
LTE Band 42	Ant 9	28.6	16.0	24.4	16.0	22.5	1.00
LTE Band 42	Ant 8	15.6	18.6	18.6	15.6	19.1	1.00
LTE Band 48	Ant 4	15.0	19.5	27.0	15.0	21.5	1.00
LTE Band 48	Ant 5	15.4	16.9	16.9	15.4	21.4	1.00
LTE Band 48	Ant 9	32.4	15.9	25.3	15.9	21.4	1.00
LTE Band 48	Ant 8	14.2	17.7	17.7	14.2	18.2	1.00
FR1 n12	Ant 0	29.9	24.5	28.4	24.5	24.5	1.00
FR1 n12	Ant 1	23.0	24.0	30.2	23.0	24.0	1.00

FR1 n5	Ant 0	27.8	25.0	30.6	26.5	25.0	0.70
FR1 n5	Ant 1	19.0	22.5	22.5	19.0	24.5	1.00
FR1 n26	Ant 0	28.4	25.0	29.6	26.3	25.0	0.70
FR1 n26	Ant 1	20.0	22.0	22.0	20.0	24.5	1.00
FR1 n66	Ant 4	17.5	20.5	26.2	17.5	24.0	1.00
FR1 n66	Ant 5	18.9	28.9	28.9	18.9	23.4	1.00
FR1 n66_Other PA	Ant 3	30.1	21.5	26.0	21.5	24.0	1.00
FR1 n66_Other PA	Ant 6	16.9	21.9	21.9	16.9	23.4	1.00
FR1 n2	Ant 4	17.0	20.0	25.4	17.0	24.0	1.00
FR1 n2	Ant 5	17.8	21.8	21.8	17.8	23.8	1.00
FR1 n25	Ant 4	18.0	23.0	26.8	18.0	24.0	1.00
FR1 n25	Ant 5	15.8	21.8	21.8	15.8	23.8	1.00
FR1 n7	Ant 4	15.5	20.0	25.6	15.5	25.0	0.70
FR1 n7	Ant 5	20.1	19.1	19.1	19.1	24.6	1.00
FR1 n7_Other PA	Ant 3	29.7	21.5	26.8	21.5	24.0	1.00
FR1 n7_Other PA	Ant 6	15.1	21.6	21.6	15.1	23.1	1.00
FR1 n38	Ant 4	17.0	20.5	26.2	17.0	25.0	0.70
FR1 n38	Ant 5	20.0	18.5	18.5	18.5	24.5	1.00
FR1 n38_Other PA	Ant 3	28.3	20.0	27.0	20.0	24.0	1.00
FR1 n38_Other PA	Ant 6	14.8	20.8	20.8	14.8	23.3	1.00
FR1 n41 PC3	Ant 4	16.0	20.0	25.5	16.0	25.0	0.70
FR1 n41 PC2	Ant 4	16.0	20.0	25.5	16.0	23.0	1.00
FR1 n41 PC3	Ant 5	19.7	18.2	18.2	18.2	24.7	1.00
FR1 n41 PC2	Ant 5	19.7	18.2	18.2	18.2	22.7	1.00
FR1 n41_Other PA	Ant 3	28.3	19.5	25.8	19.5	24.0	1.00
FR1 n41_Other PA	Ant 6	14.7	20.7	20.7	14.7	23.2	1.00
FR1 n48	Ant 4	15.5	19.0	26.1	15.5	23.5	1.00
FR1 n48	Ant 5	16.0	17.5	17.5	16.0	23.5	1.00
FR1 n48	Ant 9	32.7	16.2	24.0	16.2	23.2	1.00
FR1 n48	Ant 8	14.2	16.7	16.7	14.2	20.2	1.00
FR1 n77 PC3	Ant 4	14.5	17.5	26.4	14.5	25.0	0.70
FR1 n77 PC2	Ant 4	14.5	17.5	26.4	14.5	25.0	1.00
FR1 n77 PC3	Ant 5	16.0	18.5	18.5	16.0	24.5	1.00
FR1 n77 PC2	Ant 5	16.0	18.5	18.5	16.0	24.5	1.50
FR1 n77 PC3	Ant 9	27.3	16.4	23.4	16.4	24.4	1.00
FR1 n77 PC2	Ant 9	27.3	16.4	23.4	16.4	24.4	1.50
FR1 n77 PC3	Ant 8	15.8	18.8	18.8	15.8	21.8	1.00
FR1 n77 PC2	Ant 8	15.8	18.8	18.8	15.8	21.8	1.50
FR1 n78 PC3	Ant 4	14.5	18.5	26.2	14.5	25.0	0.70
FR1 n78 PC2	Ant 4	14.5	18.5	26.2	14.5	25.0	1.00
FR1 n78 PC3	Ant 5	16.5	19.0	19.0	16.5	24.5	1.00
FR1 n78 PC2	Ant 5	16.5	19.0	19.0	16.5	24.5	1.50
FR1 n78 PC3	Ant 9	27.0	16.4	23.4	16.4	24.4	1.00
FR1 n78 PC2	Ant 9	27.0	16.4	23.4	16.4	24.4	1.50
FR1 n78 PC3	Ant 8	15.7	18.2	18.2	15.7	21.7	1.00
FR1 n78 PC2	Ant 8	15.7	18.2	18.2	15.7	21.7	1.50

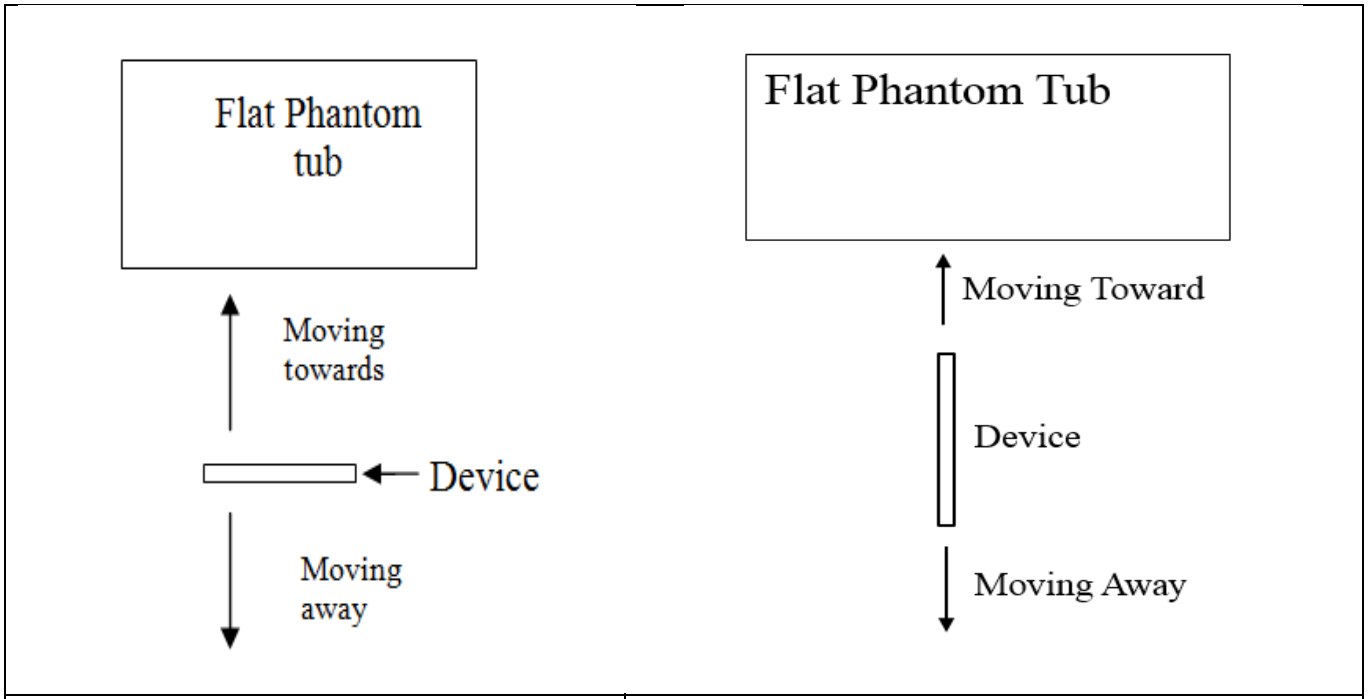
Band	Antenna	Head DSI1	Body worn /Extremity DSI4	Hotspot DSI5	Pmax*	Total Uncertainty dB (k=2)
WLAN2.4GHz	Ant 15	11.90	17.90	18.20	17.90	2.00
WLAN2.4GHz	Ant 5	11.90	17.90	18.20	17.90	2.00
WLAN2.4GHz	Ant 15+8	11.90	17.90	18.20	20.90	2.00
Bluetooth	ANT 8	12.90	14.40	19.50	14.40	2.00
Bluetooth	ANT 15	15.60	13.90	42.50	13.90	2.00
WLAN5GHz(B1)	Ant 16	11.50	17.10	20.50	17.00	2.00
WLAN5GHz(B1)	Ant 12	11.50	17.10	20.50	17.00	2.00
WLAN5GHz(B1)	Ant 16+12	11.50	17.10	20.50	20.00	2.00
WLAN5GHz(B2)	Ant 16	11.50	17.10		17.00	2.00
WLAN5GHz(B2)	Ant 12	11.50	17.10		17.00	2.00
WLAN5GHz(B2)	Ant 16+12	11.50	17.10		20.00	2.00
WLAN5GHz(B3)	Ant 16	11.50	18.40		18.00	2.00
WLAN5GHz(B3)	Ant 12	11.50	18.40		18.00	2.00
WLAN5GHz(B3)	Ant 16+12	11.50	18.40		21.00	2.00
WLAN5GHz(B4)	Ant 16	13.00	18.50	22.80	18.50	2.00
WLAN5GHz(B4)	Ant 12	13.00	18.50	22.80	18.50	2.00
WLAN5GHz(B4)	Ant 16+12	13.00	18.50	22.80	21.50	2.00
WLAN6GHz(B5)	Ant 16	13.50	13.50		13.50	2.00
WLAN6GHz(B5)	Ant 12	13.50	13.50		13.50	2.00
WLAN6GHz(B5)	Ant 16+12	13.50	13.50		16.50	2.00
WLAN6GHz(B6)	Ant 16	14.00	12.50		14.00	2.00
WLAN6GHz(B6)	Ant 12	14.00	12.50		14.00	2.00
WLAN6GHz(B6)	Ant 16+12	14.00	12.50		17.00	2.00
WLAN6GHz(B7)	Ant 16	14.50	13.50		14.50	2.00
WLAN6GHz(B7)	Ant 12	14.50	13.50		14.50	2.00
WLAN6GHz(B7)	Ant 16+12	14.50	13.50		17.50	2.00
WLAN6GHz(B8)	Ant 16	14.50	13.00		14.50	2.00
WLAN6GHz(B8)	Ant 12	14.50	13.00		14.50	2.00
WLAN6GHz(B8)	Ant 16+12	14.50	13.00		17.50	2.00

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 & NR TDD &WLAN/BT).
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, and in single active Tx scenario, Smart Transmit can guarantee Tx power level of Plimit at all times.

6. Proximity Sensor Triggering Test

<Proximity Sensor Triggering Distance>:

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



Sensor detection test set-up, Front and Back Sides	Sensor detection test set-up, Right Side, Bottom Side and Top Side

< Sensor for Ant 3>

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

< Sensor for Ant 4/9>

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

7. RF Exposure Limits

7.1 Uncontrolled Environment

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

7.2 Controlled Environment

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

Limits for Occupational/Controlled Exposure (W/kg)

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

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

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

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

8. Specific Absorption Rate (SAR)

8.1 Introduction

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

8.2 SAR Definition

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

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

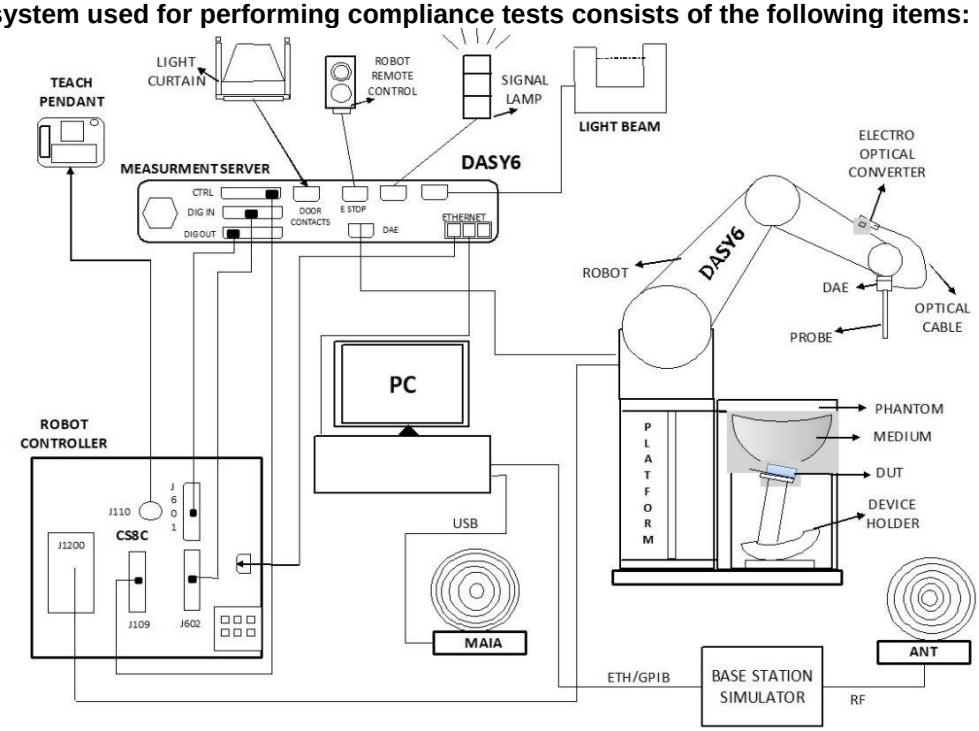
SAR is expressed in units of Watts per kilogram (W/kg)

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

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

9. System Description and Setup

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



- A standard high precision 6-axis robot with controller, teach pendant and software. An arm extension for accommodating the data acquisition electronics (DAE).
- An isotropic Field probe optimized and calibrated for the targeted measurement.
- A data acquisition electronics (DAE) which performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. The unit is battery powered with standard or rechargeable batteries. The signal is optically transmitted to the EOC.
- The Electro-optical converter (EOC) performs the conversion from optical to electrical signals for the digital communication to the DAE. To use optical surface detection, a special version of the EOC is required. The EOC signal is transmitted to the measurement server.
- The function of the measurement server is to perform the time critical tasks such as signal filtering, control of the robot operation and fast movement interrupts.
- The Light Beam used is for probe alignment. This improves the (absolute) accuracy of the probe positioning.
- A computer running Win7 or Win10 and the DASY5 or DASY6/8 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	4 MHz – 10 GHz Linearity: ±0.2 dB (30 MHz – 10 GHz)	
Directivity	±0.3 dB in TSL (rotation around probe axis) ±0.5 dB in TSL (rotation normal to probe axis)	
Dynamic Range	10 µW/g – >100 mW/g Linearity: ±0.2 dB (noise: typically <1 µW/g)	
Dimensions	Overall length: 337 mm (tip: 20 mm) Tip diameter: 2.5 mm (body: 12 mm) Typical distance from probe tip to dipole centers: 1 mm	

9.2 Data Acquisition Electronics (DAE)

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

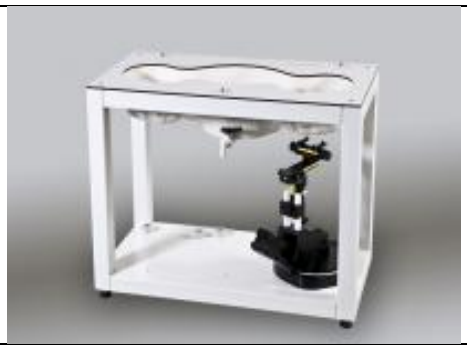
The input impedance of the DAE is 200 MOhm; the inputs are symmetrical and floating. Common mode rejection is above 80 dB.

Photo of DAE

9.3 Phantom

<SAM Twin Phantom>

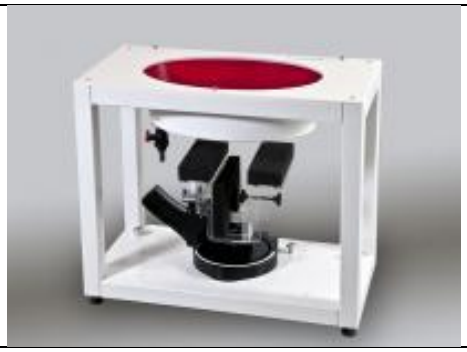
Shell Thickness	2 ± 0.2 mm; Center ear point: 6 ± 0.2 mm
Filling Volume	Approx. 25 liters
Dimensions	Length: 1000 mm; Width: 500 mm; Height: adjustable feet
Measurement Areas	Left Hand, Right Hand, Flat Phantom



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

<ELI Phantom>

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



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

9.4 Device Holder

<Mounting Device for Hand-Held Transmitter>

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

Mounting Device for Hand-Held Transmitters

Mounting Device Adaptor for Wide-Phones

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

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

Mounting Device for Laptops

10. Measurement Procedures

The measurement procedures are as follows:

<Conducted power measurement>

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

<SAR measurement>

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

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

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

10.1 Spatial Peak SAR Evaluation

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

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

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

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

10.2 Power Reference Measurement

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

10.3 Area Scan

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

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

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

10.4 Zoom Scan

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

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

			≤ 3 GHz	> 3 GHz
Maximum zoom scan spatial resolution: Δx_{Zoom}, Δy_{Zoom}			≤ 2 GHz: ≤ 8 mm 2 – 3 GHz: ≤ 5 mm*	3 – 4 GHz: ≤ 5 mm* 4 – 6 GHz: ≤ 4 mm*
Maximum zoom scan spatial resolution, normal to phantom surface	uniform grid: $\Delta z_{Zoom}(n)$		≤ 5 mm	3 – 4 GHz: ≤ 4 mm 4 – 5 GHz: ≤ 3 mm 5 – 6 GHz: ≤ 2 mm
	graded grid	$\Delta z_{Zoom}(1)$: between 1st two points closest to phantom surface	≤ 4 mm	3 – 4 GHz: ≤ 3 mm 4 – 5 GHz: ≤ 2.5 mm 5 – 6 GHz: ≤ 2 mm
		$\Delta z_{Zoom}(n>1)$: between subsequent points	$\leq 1.5 \cdot \Delta z_{Zoom}(n-1)$	
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	2025/2/22
SPEAG	835MHz System Validation Kit	D835V2	4d298	2024/1/26	2025/1/25
SPEAG	1750MHz System Validation Kit	D1750V2	1090	2022/2/24	2025/2/22
SPEAG	1900MHz System Validation Kit	D1900V2	5d118	2022/3/30	2025/3/28
SPEAG	2450MHz System Validation Kit	D2450V2	1095	2024/2/8	2025/2/7
SPEAG	2600MHz System Validation Kit	D2600V2	1112	2023/12/18	2024/12/17
SPEAG	3500MHz System Validation Kit	D3500V2	1037	2023/11/20	2024/11/19
SPEAG	3700MHz System Validation Kit	D3700V2	1008	2023/11/20	2024/11/19
SPEAG	3900MHz System Validation Kit	D3900V2	1048	2023/3/9	2026/3/8
SPEAG	5000MHz System Validation Kit	D5GHzV2	1113	2022/9/23	2025/9/22
SPEAG	Data Acquisition Electronics	DAE4	1650	2023/9/13	2024/9/12
SPEAG	Data Acquisition Electronics	DAE4	1649	2024/7/3	2025/7/2
SPEAG	Data Acquisition Electronics	DAE4	1691	2024/4/19	2025/4/18
SPEAG	Dosimetric E-Field Probe	EX3DV4	3857	2024/1/22	2025/1/21
SPEAG	Dosimetric E-Field Probe	EX3DV4	7706	2024/1/24	2025/1/23
SPEAG	Dosimetric E-Field Probe	EX3DV4	7627	2024/6/3	2025/6/2
SPEAG	Dosimetric E-Field Probe	EX3DV4	7729	2024/1/22	2025/1/21
SPEAG	SAM Twin Phantom	SAM Twin	TP-1842	NCR	NCR
SPEAG	SAM Twin Phantom	SAM Twin	TP-2024	NCR	NCR
SPEAG	SAM Twin Phantom	SAM Twin	TP-1753	NCR	NCR
Testo	Thermo-Hygrometer	HTC-1	55011	2024/1/4	2025/1/3
SPEAG	Phone Positioner	N/A	N/A	NCR	NCR
Anritsu	Radio Communication Analyzer	MT8821C	6262306175	2024/7/4	2025/7/3
Agilent	ENA Series Network Analyzer	E5071C	MY46112129	2024/7/4	2025/7/3
SPEAG	Dielectric Probe Kit	DAK-3.5	1071	2024/2/16	2025/2/15
Anritsu	Vector Signal Generator	MG3710A	6201682672	2024/1/2	2025/1/1
Rohde & Schwarz	Power Meter	NRVD	102081	2024/7/4	2025/7/3
Rohde & Schwarz	Power Sensor	NRV-Z5	100538	2024/7/4	2025/7/3
Rohde & Schwarz	Power Sensor	NRV-Z5	100539	2024/7/4	2025/7/3
R&S	BLUETOOTH TESTER	CBT	101246	2024/7/4	2025/7/3
Rohde & Schwarz	Spectrum Analyzer	FSV7	101631	2023/10/11	2024/10/10
TES	DIGITAC THERMOMETER	TYPE-K	220305411	2024/1/4	2025/1/3
ARRA	Power Divider	A3200-2	N/A	Note 1	
MCL	Attenuation1	BW-S10W5+	N/A	Note 1	
MCL	Attenuation2	BW-S10W5+	N/A	Note 1	
MCL	Attenuation3	BW-S10W5+	N/A	Note 1	
BONN	POWER AMPLIFIER	BLMA 0830-3	087193A	Note 1	
BONN	POWER AMPLIFIER	BLMA 2060-2	087193B	Note 1	
Agilent	Dual Directional Coupler	778D	20500	Note 1	
Agilent	Dual Directional Coupler	11691D	MY48151020	Note 1	

Note:

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

12. System Verification

12.1 Tissue Simulating Liquids

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

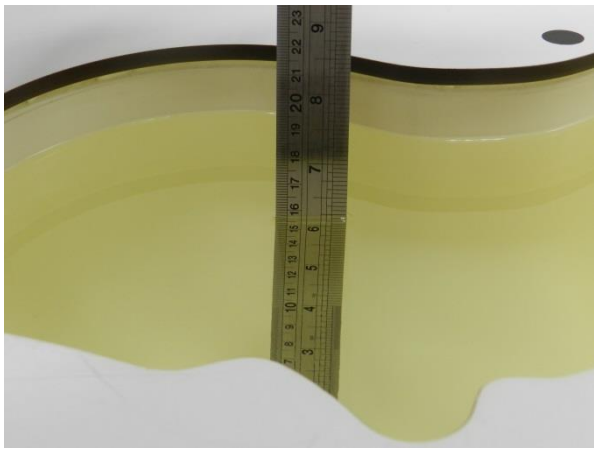


Fig 11.1 Photo of Liquid Height for Head SAR

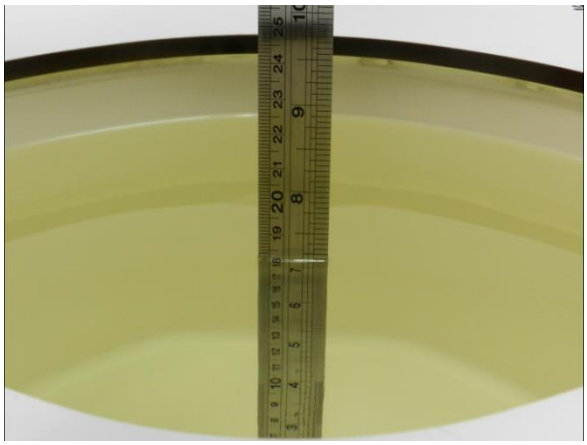


Fig 11.2 Photo of Liquid Height for Body SAR

12.2 Tissue Verification

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

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

Simulating Liquid for 5GHz, Manufactured by SPEAG

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

<Tissue Dielectric Parameter Check Results>

Frequency (MHz)	Tissue Type	Liquid Temp. (℃)	Conductivity (σ)	Permittivity (ε_r)	Conductivity Target (σ)	Permittivity Target (ε_r)	Delta (σ) (%)	Delta (ε_r) (%)	Limit (%)	Date
750	Head	22.6	0.889	42.282	0.89	41.90	-0.11	0.91	±5	2024/9/3
835	Head	22.7	0.912	41.936	0.90	41.50	1.33	1.05	±5	2024/9/4
1750	Head	22.6	1.317	40.225	1.37	40.10	-3.87	0.31	±5	2024/9/5
1900	Head	22.9	1.407	40.215	1.40	40.00	0.50	0.54	±5	2024/9/6
2450	Head	22.8	1.744	39.267	1.80	39.20	-3.11	0.17	±5	2024/9/7
2600	Head	22.7	2.030	40.355	1.96	39.00	3.57	3.47	±5	2024/9/8
3500	Head	22.8	2.813	38.735	2.91	37.90	-3.33	2.20	±5	2024/9/9
3700	Head	22.8	2.991	38.382	3.12	37.70	-4.13	1.81	±5	2024/9/10
3900	Head	22.6	3.175	38.058	3.32	37.50	-4.37	1.49	±5	2024/9/11
5250	Head	22.8	4.573	35.720	4.71	35.90	-2.91	-0.50	±5	2024/9/11
5600	Head	22.7	4.997	35.371	5.07	35.50	-1.44	-0.36	±5	2024/9/12
5750	Head	22.8	5.105	34.869	5.22	35.40	-2.20	-1.50	±5	2024/9/12
750	Head	22.6	0.904	42.7	0.89	41.90	1.57	1.91	±5	2024/8/28
835	Head	22.9	0.924	41.4	0.90	41.50	2.67	-0.24	±5	2024/8/29
1750	Head	22.7	1.35	40.1	1.37	40.10	-1.46	0.00	±5	2024/8/30
1900	Head	22.8	1.43	39.8	1.40	40.00	2.14	-0.50	±5	2024/8/31
2450	Head	22.6	1.86	38.4	1.80	39.20	3.33	-2.04	±5	2024/9/1
2600	Head	22.9	1.96	40.4	1.96	39.00	0.00	3.59	±5	2024/9/3
3500	Head	22.7	2.88	38.5	2.91	37.90	-1.03	1.58	±5	2024/9/5
3700	Head	22.6	3.08	38.0	3.12	37.70	-1.28	0.80	±5	2024/9/7
3900	Head	22.8	3.28	37.6	3.32	37.50	-1.20	0.27	±5	2024/9/9
5250	Head	22.9	4.57	35.4	4.71	35.90	-2.97	-1.39	±5	2024/9/11
5600	Head	22.6	4.95	34.8	5.07	35.50	-2.37	-1.97	±5	2024/9/13
5750	Head	22.8	5.13	34.6	5.22	35.40	-1.72	-2.26	±5	2024/9/15
750	Head	22.7	0.926	42.5	0.89	41.90	4.04	1.43	±5	2024/8/31
835	Head	22.8	0.930	40.9	0.90	41.50	3.33	-1.45	±5	2024/9/1
1750	Head	22.6	1.380	40.3	1.37	40.10	0.73	0.50	±5	2024/9/2
1900	Head	22.9	1.450	40.0	1.40	40.00	3.57	0.00	±5	2024/9/3
2450	Head	22.7	1.840	39.3	1.80	39.20	2.22	0.26	±5	2024/9/4
2600	Head	22.6	1.940	39.1	1.96	39.00	-1.02	0.26	±5	2024/9/5
3500	Head	22.8	2.830	39.0	2.91	37.90	-2.75	2.90	±5	2024/9/7
3700	Head	22.6	3.020	38.7	3.12	37.70	-3.21	2.65	±5	2024/9/9
3900	Head	22.9	3.220	38.4	3.32	37.50	-3.01	2.40	±5	2024/9/11
5250	Head	22.7	4.560	35.0	4.71	35.90	-3.18	-2.51	±5	2024/9/12
5600	Head	22.8	4.950	34.4	5.07	35.50	-2.37	-3.10	±5	2024/9/13
5750	Head	22.7	5.120	34.1	5.22	35.40	-1.92	-3.67	±5	2024/9/14
1900	Head	22.8	1.43	39.8	1.40	40.00	2.14	-0.50	±5	2024/10/16
1900	Head	22.9	1.398	41.444	1.40	40.00	-0.14	3.61	±5	2024/10/16

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 (%)
2024/9/3	750	Head	50	1087	3857	1650	0.462	8.58	9.24	7.69
2024/9/4	835	Head	50	4d298	3857	1650	0.477	9.89	9.54	-3.54
2024/9/5	1750	Head	50	1090	3857	1650	1.770	37.00	35.4	-4.32
2024/9/6	1900	Head	50	5d118	3857	1650	1.850	39.30	37	-5.85
2024/9/7	2450	Head	50	1095	3857	1650	2.670	52.60	53.4	1.52
2024/9/8	2600	Head	50	1112	3857	1650	2.690	55.10	53.8	-2.36
2024/9/9	3500	Head	50	1037	3857	1650	3.120	65.40	62.4	-4.59
2024/9/10	3700	Head	50	1008	3857	1650	3.170	67.20	63.4	-5.65
2024/9/11	3900	Head	50	1048	3857	1650	3.650	69.10	73	5.64
2024/9/11	5250	Head	50	1113	3857	1650	4.170	81.50	83.4	2.33
2024/9/12	5600	Head	50	1113	3857	1650	4.420	82.60	88.4	7.02
2024/9/12	5750	Head	50	1113	3857	1650	4.080	80.80	81.6	0.99
2024/8/28	750	Head	50	1087	7706	1649	0.399	8.58	7.98	-6.99
2024/8/29	835	Head	50	4d298	7706	1649	0.480	9.89	9.6	-2.93
2024/8/30	1750	Head	50	1090	7706	1649	1.88	37.00	37.6	1.62
2024/8/31	1900	Head	50	5d118	7706	1649	2.08	39.30	41.6	5.85
2024/9/1	2450	Head	50	1095	7706	1649	2.76	52.60	55.2	4.94
2024/9/3	2600	Head	50	1112	7706	1649	2.82	55.10	56.4	2.36
2024/9/5	3500	Head	50	1037	7706	1649	3.15	65.40	63	-3.67
2024/9/7	3700	Head	50	1008	7706	1649	3.40	67.20	68	1.19
2024/9/9	3900	Head	50	1048	7706	1649	3.51	69.10	70.2	1.59
2024/9/11	5250	Head	50	1113	7706	1649	3.93	81.50	78.6	-3.56
2024/9/13	5600	Head	50	1113	7706	1649	3.91	82.60	78.2	-5.33
2024/9/15	5750	Head	50	1113	7706	1649	3.84	80.80	76.8	-4.95
2024/8/31	750	Head	50	1087	7627	1691	0.422	8.58	8.44	-1.63
2024/9/1	835	Head	50	4d298	7627	1691	0.495	9.89	9.9	0.10
2024/9/2	1750	Head	50	1090	7627	1691	1.940	37.00	38.8	4.86
2024/9/3	1900	Head	50	5d118	7627	1691	2.110	39.30	42.2	7.38
2024/9/4	2450	Head	50	1095	7627	1691	2.820	52.60	56.4	7.22
2024/9/5	2600	Head	50	1112	7627	1691	2.640	55.10	52.8	-4.17
2024/9/7	3500	Head	50	1037	7729	1691	3.250	65.40	65	-0.61
2024/9/9	3700	Head	50	1008	7729	1691	3.360	67.20	67.2	0.00
2024/9/11	3900	Head	50	1048	7729	1691	3.420	69.10	68.4	-1.01
2024/9/12	5250	Head	50	1113	7627	1691	4.130	81.50	82.6	1.35
2024/9/13	5600	Head	50	1113	7627	1691	4.060	82.60	81.2	-1.69
2024/9/14	5750	Head	50	1113	7627	1691	4.180	80.80	83.6	3.47
2024/10/16	1900	Head	50	5d118	7706	1649	2.07	39.30	41.4	5.34
2024/10/16	1900	Head	50	5d118	3857	1649	2.02	39.30	40.4	2.80

<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 (%)
2024/9/3	750	Head	50	1087	3857	1650	0.298	5.65	5.96	5.49
2024/9/4	835	Head	50	4d298	3857	1650	0.313	6.45	6.26	-2.95
2024/9/5	1750	Head	50	1090	3857	1650	0.946	19.50	18.92	-2.97
2024/9/6	1900	Head	50	5d118	3857	1650	0.956	20.40	19.12	-6.27
2024/9/7	2450	Head	50	1095	3857	1650	1.260	24.70	25.2	2.02
2024/9/8	2600	Head	50	1112	3857	1650	1.240	24.80	24.8	0.00
2024/9/9	3500	Head	50	1037	3857	1650	1.200	24.70	24	-2.83
2024/9/10	3700	Head	50	1008	3857	1650	1.190	24.40	23.8	-2.46
2024/9/11	3900	Head	50	1048	3857	1650	1.230	24.10	24.6	2.07
2024/9/11	5250	Head	50	1113	3857	1650	1.220	23.30	24.4	4.72
2024/9/12	5600	Head	50	1113	3857	1650	1.200	23.70	24	1.27
2024/9/12	5750	Head	50	1113	3857	1650	1.180	23.00	23.6	2.61
2024/8/28	750	Head	50	1087	7706	1649	0.273	5.65	5.46	-3.36
2024/8/29	835	Head	50	4d298	7706	1649	0.321	6.45	6.42	-0.47
2024/8/30	1750	Head	50	1090	7706	1649	1.01	19.50	20.2	3.59
2024/8/31	1900	Head	50	5d118	7706	1649	1.10	20.40	22	7.84
2024/9/1	2450	Head	50	1095	7706	1649	1.31	24.70	26.2	6.07
2024/9/3	2600	Head	50	1112	7706	1649	1.29	24.80	25.8	4.03
2024/9/5	3500	Head	50	1037	7706	1649	1.22	24.70	24.4	-1.21
2024/9/7	3700	Head	50	1008	7706	1649	1.28	24.40	25.6	4.92
2024/9/9	3900	Head	50	1048	7706	1649	1.27	24.10	25.4	5.39
2024/9/11	5250	Head	50	1113	7706	1649	1.16	23.30	23.2	-0.43
2024/9/13	5600	Head	50	1113	7706	1649	1.12	23.70	22.4	-5.49
2024/9/15	5750	Head	50	1113	7706	1649	1.13	23.00	22.6	-1.74
2024/8/31	750	Head	50	1087	7627	1691	0.283	5.65	5.66	0.18
2024/9/1	835	Head	50	4d298	7627	1691	0.330	6.45	6.6	2.33
2024/9/2	1750	Head	50	1090	7627	1691	1.040	19.50	20.8	6.67
2024/9/3	1900	Head	50	5d118	7627	1691	1.090	20.40	21.8	6.86
2024/9/4	2450	Head	50	1095	7627	1691	1.330	24.70	26.6	7.69
2024/9/5	2600	Head	50	1112	7627	1691	1.190	24.80	23.8	-4.03
2024/9/7	3500	Head	50	1037	7729	1691	1.320	24.70	26.4	6.88
2024/9/9	3700	Head	50	1008	7729	1691	1.310	24.40	26.2	7.38
2024/9/11	3900	Head	50	1048	7729	1691	1.270	24.10	25.4	5.39
2024/9/12	5250	Head	50	1113	7627	1691	1.200	23.30	24	3.00
2024/9/13	5600	Head	50	1113	7627	1691	1.150	23.70	23	-2.95
2024/9/14	5750	Head	50	1113	7627	1691	1.210	23.00	24.2	5.22
2024/10/16	1900	Head	50	5d118	7706	1649	1.05	20.40	21	2.94
2024/10/16	1900	Head	50	5d118	3857	1649	1.07	20.40	21.4	4.90

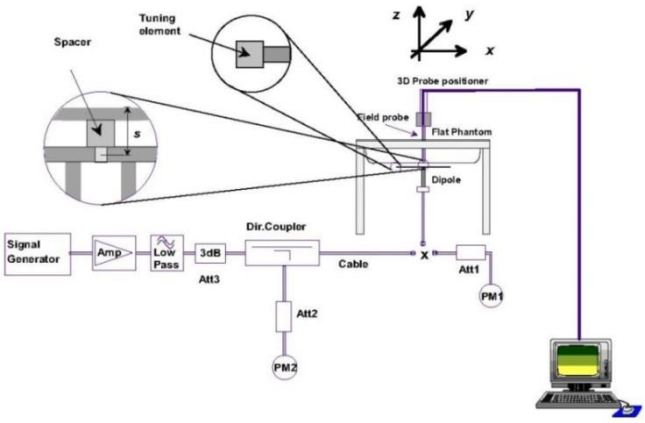


Fig 11.3.1 System Performance Check Setup

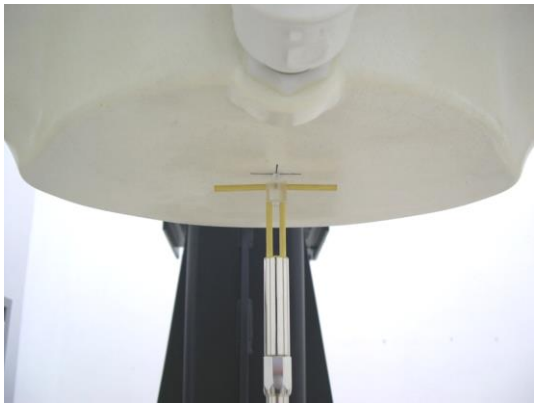


Fig 11.3.2 Setup Photo

13. RF Exposure Positions

13.1 Ear and handset reference point

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

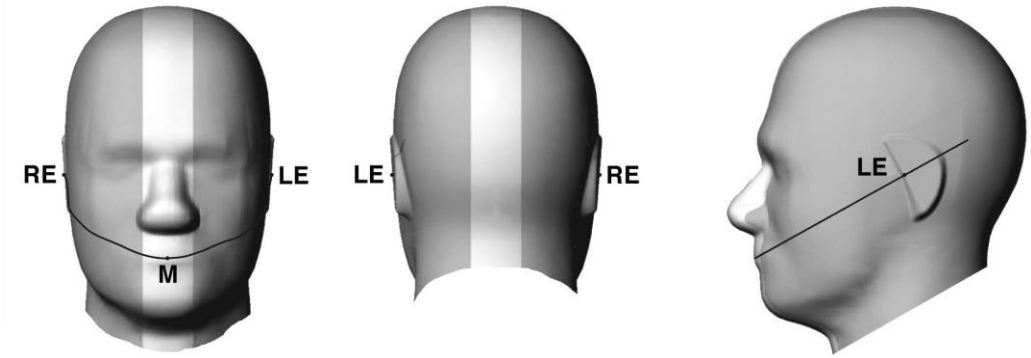


Fig 12.1.1 Front, back, and side views of SAM twin phantom

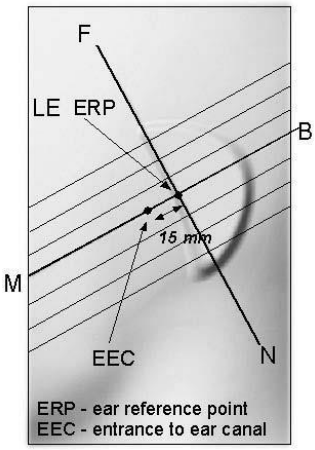


Fig 12.1.2 Close-up side view of phantom showing the ear region.

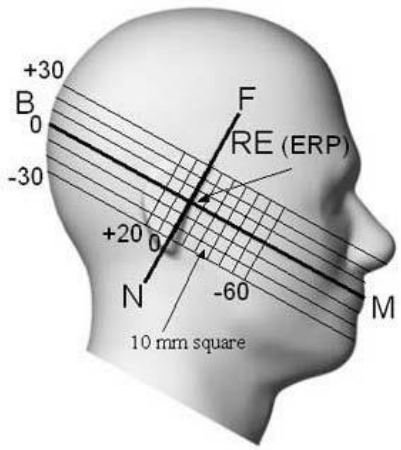


Fig 12.1.3 Side view of the phantom showing relevant markings and seven cross-sectional plane locations

13.2 Definition of the cheek position

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

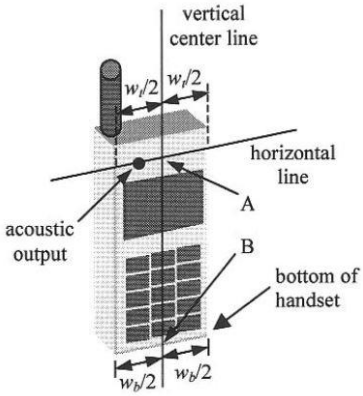


Fig 12.2.1 Handset vertical and horizontal reference lines—"fixed case

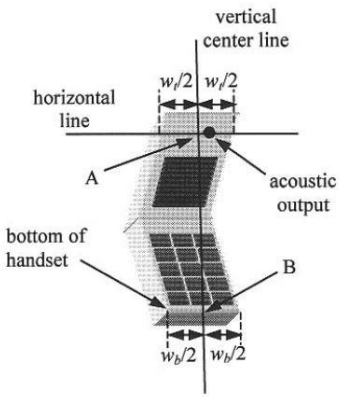


Fig 12.2.2 Handset vertical and horizontal reference lines—"clam-shell case"

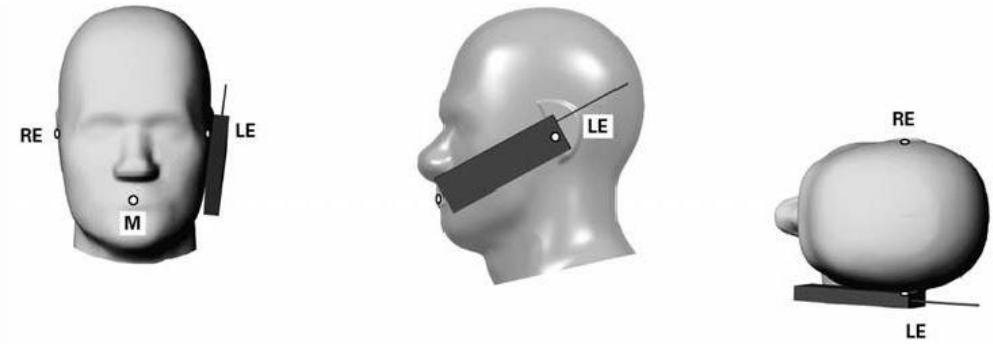


Fig 12.2.3 cheek or touch position. The reference points for the right ear (RE), left ear (LE), and mouth (M), which establish the Reference Plane for handset positioning, are indicated.

13.3 Definition of the tilt position

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

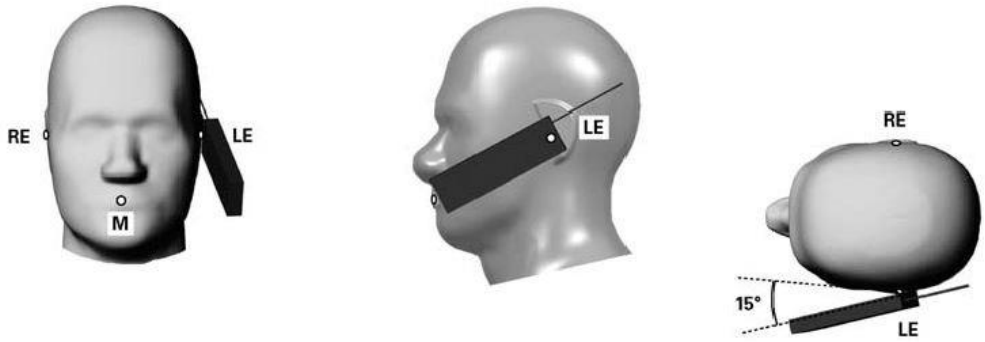


Fig 12.3.1 Tilt position. The reference points for the right ear (RE), left ear (LE), and mouth (M), which define the Reference Plane for handset positioning, are indicated.

13.4 Body Worn Accessory

Body-worn operating configurations are tested with the belt-clips and holsters attached to the device and positioned against a flat phantom in a normal use configuration (see Figure 11.4). Per KDB648474 D04v01r03, body-worn accessory exposure is typically related to voice mode operations when handsets are carried in body-worn accessories. The body-worn accessory procedures in FCC KDB 447498 D01v06 should be used to test for body-worn accessory SAR compliance, without a headset connected to it. This enables the test results for such configuration to be compatible with that required for hotspot mode when the body-worn accessory test separation distance is greater than or equal to that required for hotspot mode, when applicable. When the reported SAR for body-worn accessory, measured without a headset connected to the handset is > 1.2 W/kg, the highest reported SAR configuration for that wireless mode and frequency band should be repeated for that body-worn accessory with a handset attached to the handset.

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

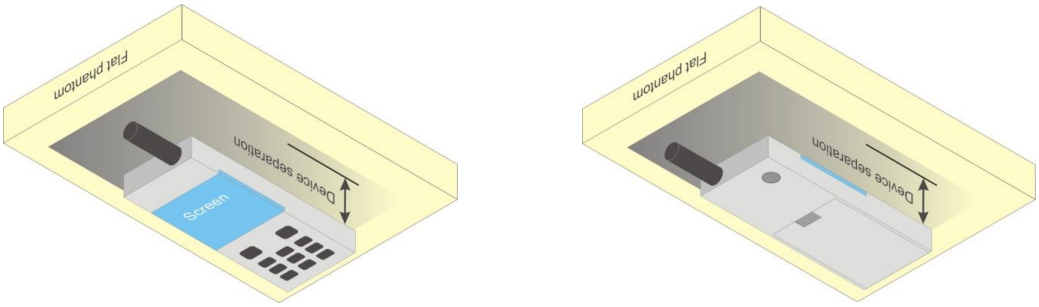


Fig 12.4 Body Worn Position

13.5 Product Specific 10g SAR Exposure

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

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

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

13.6 Wireless Router

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

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

14. Conducted RF Output Power (Unit: dBm)

The detailed conducted power table can refer to Appendix E.

<GSM Conducted Power>

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

<WCDMA Conducted Power>

1. The following tests were conducted according to the test requirements outlines in 3GPP TS 34.121 specification.
2. The procedures in KDB 941225 D01v03r01 are applied for 3GPP Rel. 6 HSPA to configure the device in the required sub-test mode(s) to determine SAR test exclusion.
3. For 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:
   1. Set RMC 12.2Kbps + HSDPA mode.
   2. Set Cell Power = -25 dBm
   3. Set HS-DSCH Configuration Type to FRC (H-set 12, QPSK)
   4. Select HSDPA Uplink Parameters
   5. 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
   6. Set Delta ACK, Delta NACK and Delta CQI = 8
   7. Set Ack-Nack Repetition Factor to 3
   8. Set CQI Feedback Cycle (k) to 4 ms
   9. Set CQI Repetition Factor to 2
   10. 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.		

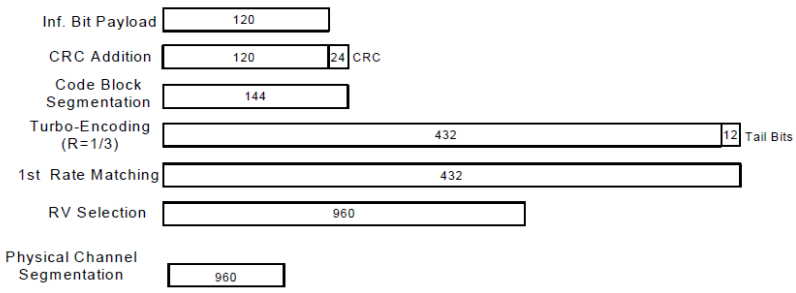


Figure C.8.19: Coding rate for Fixed reference Channel H-Set 12 (QPSK)

Setup Configuration

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

1. The EUT was connected to Base Station Agilent E5515C referred to the Setup Configuration.
2. The RF path losses were compensated into the measurements.
3. 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
4. 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	$\beta_{ed}1$: 30/15 $\beta_{ed}2$: 30/15	$\beta_{ed}3$: 24/15 $\beta_{ed}4$: 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>

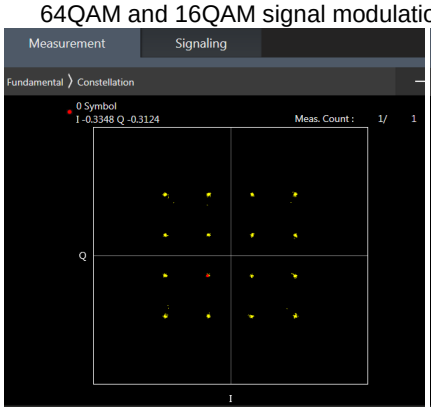
General Note:

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+.

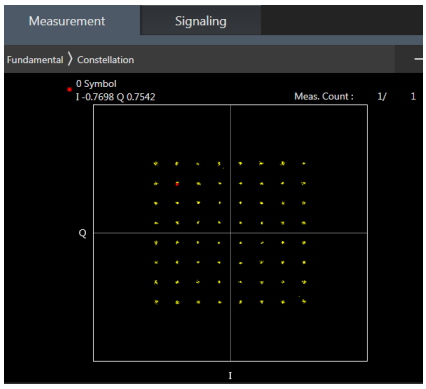
<LTE Conducted Power>

General Note:

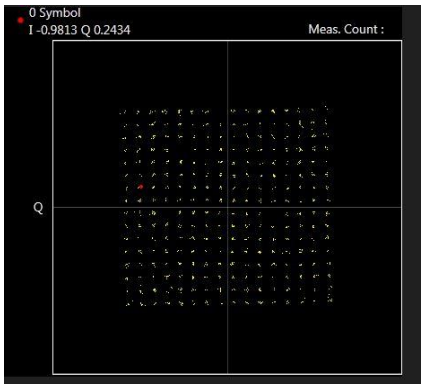
1. Anritsu MT8820C base station simulator was used to setup the connection with EUT; the frequency band, channel bandwidth, RB allocation configuration, modulation type are set in the base station simulator to configure EUT transmitting at maximum power and at different configurations which are requested 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 B17 SAR test was covered by B12; 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.

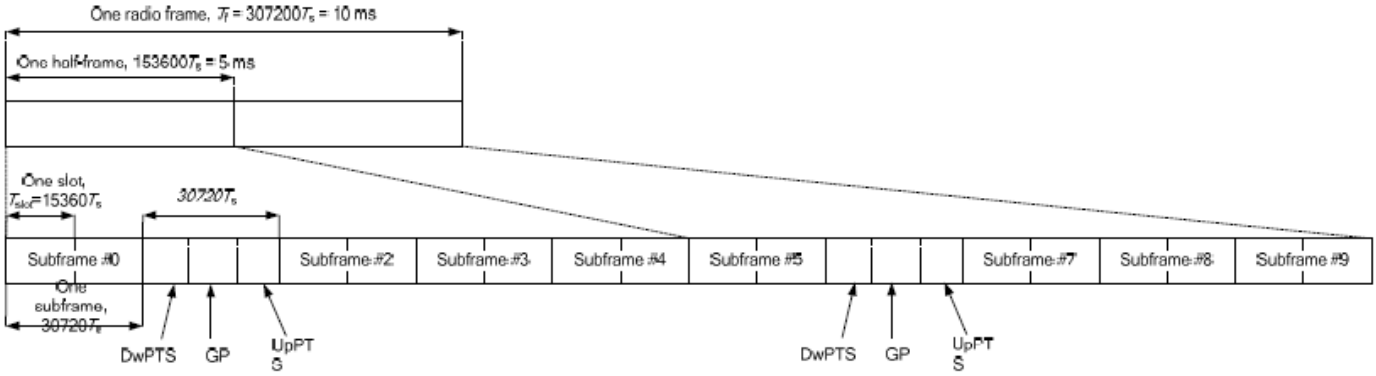


Figure 4.2-1: Frame structure type 2 (for 5 ms switch-point periodicity).

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>

The detailed LTE Carrier Aggregation conducted power table can refer to Appendix F.

General Note:

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

2CC Downlink Carrier Aggregation				3CC Downlink Carrier Aggregation			
Number	Combination	4X4 MIMO	Covered by Measurement Superset	Number	Combination	4X4 MIMO	Covered by Measurement Superset
1	CA_26A-38A	38A		1	CA_2A-4A-5A	2A-4A	
2	CA_26A-41A	41A		2	CA_2A-4A-7A	2A-4A-7A	
3	CA_2A-26A	2A		3	CA_2A-5A-7A	2A-7A	
4	CA_2A-2A	2A-2A		4	CA_2A-7A-66A	2A,7A,66A	
5	CA_2A-4A	2A-4A	3CC-1	5	CA_2A-7A-7A	2A,7A,7A	
6	CA_2A-5A	2A	3CC-1	6	CA_2A-7C	2A,7C	
7	CA_2A-66A	2A-66A	3CC-4	7	CA_41A-41A-41A	41A-41A-41A	
8	CA_2A-7A	2A,7A	3CC-2	8	CA_41D	41D	
9	CA_2C	2C	3CC-6	9	CA_4A-4A-7A	4A-4A-7A	
10	CA_38C	38C		10	CA_4A-7C	4A-7C	
11	CA_41A-41A	41A-41A	3CC-7	11	CA_5A-7A-66A	7A-66A	
12	CA_41C	41C		12	CA_5A-7C	7C	
13	CA_4A-17A	4A		13	CA_7A-66A-66A	7A-66A-66A	
14	CA_4A-4A	4A-4A	3CC-9	14	CA_5A-7A-7A	7A-7A	
15	CA_4A-5A	4A		15	CA_2C-66A	2C-66A	
16	CA_4A-7A	4A-7A	3CC-9	16			
17	CA_5A-66A	66A	3CC-11	17			
18	CA_5A-7A	7A	3CC-11	18			
19	CA_66A-66A	66A-66A	3CC-13	19			
20	CA_66C	66C		20			
21	CA_7A-26A	7A		21			
22	CA_7A-66A	7A-66A	3CC-13	22			
23	CA_7A-7A	7A-7A	3CC-5	23			
24	CA_7C	7C	3CC-12	24			
25	CA_66B	66B		25			
26	CA_2A-38A	2A-38A		26			
27	CA_42C	42C		27			

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

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

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

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

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

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

LTE 4x4 MIMO (Downlink)

This device supports downlink 4x4 MIMO operations for LTE Band LTE Band 2/4/7/25/38/41/42/48/66 only. Uplink transmission is limited to a single output stream. Power measurements were performed with downlink 4x4 MIMO active for the configuration with highest measured maximum conducted power with 4x4 downlink MIMO inactive measured among the channel bandwidth, modulation, and RB combinations in each frequency band.

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

4X4 MIMO	Band
	LTE Band 2/4/7/25/38/41/42/48/66

LTE Carrier Aggregation Conducted Power (Uplink)

LTE Uplink CA	2CC Uplink Carrier Aggregation
Intra-band	Antenna Tx
CA_38C	B38:ANT4/5/3/6
CA_7C	B7:ANT4/5/3/6
CA_42C	B42:ANT4/5/9/8
CA_41C	B41:ANT4/5/3/6

<Intra-band>

General Note:

i. The device supports intra-band uplink carrier aggregation for LTE B7/38/41/42 with a maximum of two uplink component carriers. For intra band contiguous carrier aggregation scenarios, 3GPP 36.101 table 6.2.2A-1 specifies that the aggregate maximum allowed output power is equivalent to the single carrier scenario. 3GPP 36.101 6.2.3A allows for several dB of MPR to be applied when not-contiguous RB allocation is implemented. The conducted power and MPR setting in this device are permanently implemented pre 3GPP requirement.

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

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

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

<Inter-band uplink carrier aggregation consideration>

LTE Uplink CA	2CC Uplink Carrier Aggregation	
Inter-band	Antenna Tx	Antenna Tx
CA_2A-4A	B2 Ant4/5	B4 Ant3/6
CA_4A-5A	B4 Ant3/6	B5 Ant0/1
CA_4A-7A	B4 Ant4/5	B7 Ant3/6

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. 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 band ULCA bands to not exceed FCC limit.

5G NR Output Power (Unit: dBm)

General Note:

1. 5G NR n2/n5/n7/n12/n25/n26/n66/n38/n41/n48/n77/n78 is SA mode.
2. 5G NR n5/n7/n66/n38/n41/n77/n78 is NSA mode.
3. For 5G NR test procedure was following step similar FCC KDB 941225 D05:
   a. For DFT-OFDM and CP-OFDM output power measurement reduction, according to 38.101 maximum power reduction for power class2 and 3, the CP-OFDM mode will not higher than DFT-OFDM mode, therefore, similar FCC KDB 941225 D05 procedure for other modulation output power for each RB allocation configuration is > not ½ dB higher than the same configuration in DFT-s QPSK and the reported SAR for the DFT-s QPSK configuration is ≤ 1.45 W/kg; CP-OFDM testing is not required.
   b. For DFT-OFDM output power measurement reduction, according to 38.101 maximum power reduction for power class2 and 3, for 16QAM/64QAM/256QAM and smaller bandwidth output power will spot check largest channel bandwidth worst RB configuration to ensure the 16QAM/64QAM/256QAM and smaller bandwidth output power will not ½ dB higher than the same configuration in the largest supported bandwidth.
   c. SAR testing start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel
   d. 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure
   e. QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested
   f. PI/2 BPSK/16QAM/64QAM/256QAM output powers according to 3GPP MPR will not ½ dB higher than the same configuration in QPSK, also reported SAR for the QPSK configuration is less than 1.45 W/kg, PI/2 BPSK /16QAM/64QAM/256QAM SAR testing are not required.
   g. Smaller bandwidth output power for each RB allocation configuration for this device will not ½ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg, smaller bandwidth SAR testing is not required for this device
4. For 5GNR n41/n77/n78 HPUE, 5GNR n41/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.
5. 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.
6. 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.
7. 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.
8. 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.
9. When channel bandwidth of SA and NSA is same, the power level is the same as 5GNR SA mode, so 5GNR NSA mode and SA mode power table only show one time. When channel bandwidth of SA and NSA is different, chose the largest channel bandwidth mode among SA and NSA to perform power measurement.
10. For the NR bands, when channel bandwidth of SA and NSA is same, and the maximum power of NSA mode is same as SA total power level, SA SAR can represent NSA mode SAR. For the bands, when channel bandwidth of SA and NSA is different, choose the largest channel bandwidth with maximum power to perform SAR testing, so the largest channel bandwidth SAR can represent the smallest channel bandwidth SAR.
11. 5GNR n41/n77/n78 supports HPUE mode, HPUE power and SAR testing performed separately.
12. 5GNR n41/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.
13. 5GNR n7/n38/n41 supports UL MIMO. Based on Qualcomm Smart Transmit algorithm, the MIMO antennas located in same AGs and the MIMO Plimit is not populated in the EFS file, so additional verification tests need to be added, the more detail UL MIMO analysis results please referred to appendix H.

<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		

<EN-DC combination>

ENDC	LTE TX	NR TX
DC_26A_n78A	ANT0/1	ANT4/5/9/8
DC_2A_n66A	ANT4/5	ANT3/6
DC_2A_n77A	ANT4/5	ANT4/5/9/8
DC_2A_n78A	ANT4/5	ANT4/5/9/8
DC_38A_n78A	ANT4/5	ANT4/5/9/8
DC_41A_n78A	ANT4/5	ANT4/5/9/8
DC_4A_n38A	ANT4/5/3/6	ANT3/6/4/5
DC_4A_n41A	ANT4/5/3/6	ANT3/6/4/5
DC_4A_n78A	ANT4/5	ANT4/5/9/8
DC_4A_n7A	ANT4/5/3/6	ANT3/6/4/5
DC_5A_n66A	ANT0/1	ANT3/6
DC_5A_n78A	ANT0/1	ANT4/5/9/8
DC_5A_n7A	ANT0/1	ANT3/6
DC_66A_n38A	ANT4/5/3/6	ANT3/6/4/5
DC_66A_n41A	ANT4/5/3/6	ANT3/6/4/5
DC_66A_n78A	ANT4/5	ANT4/5/9/8
DC_66A_n7A	ANT4/5	ANT3/6/4/5
DC_7A_n5A	ANT3/6	ANT0/1
DC_7A_n78A	ANT4/5	ANT4/5/9/8
DC_7A_n66A	ANT4/5	ANT3/6

Inter-Band CA Configuration:

FR1 Uplink CA	Antenna Tx	PA	Antenna Tx	PA
CA_n25A-n41A	n25 Ant4/5	Main PA	n41 Ant3/6	Other_PA
CA_n25A-n66A	n25 Ant4/5	Main PA	n66 Ant3/6	Other_PA
CA_n25A-n77A	n25 Ant4/5	Main PA	n77 Ant4/5/9/8	Main PA
CA_n41A-n66A	n41 Ant4/5/3/6	Ant4/5 Main PA Ant3/6 Other PA	n66 Ant3/6/4/5	Ant3/6 Other PA Ant4/5 Main PA
CA_n66A-n77A	n66 Ant4/5	Main PA	n77 Ant4/5/9/8	Main PA
CA_n5A-n78A	n5Ant0/1	Main PA	n78 Ant4/5/9/8	Main PA
CA_n7A-n78A	n7 Ant4/5	Main PA	n78 Ant4/5/9/8	Main PA

UL MIMO combination:

NR UL MIMO	Antenna Tx			
n7	Ant4+Ant3	Ant4+Ant6	Ant5+Ant3	Ant5+Ant6
n38	Ant4+Ant3	Ant4+Ant6	Ant5+Ant3	Ant5+Ant6
n41	Ant4+Ant3	Ant4+Ant6	Ant5+Ant3	Ant5+Ant6

<WLAN Conducted Power>

General Note:

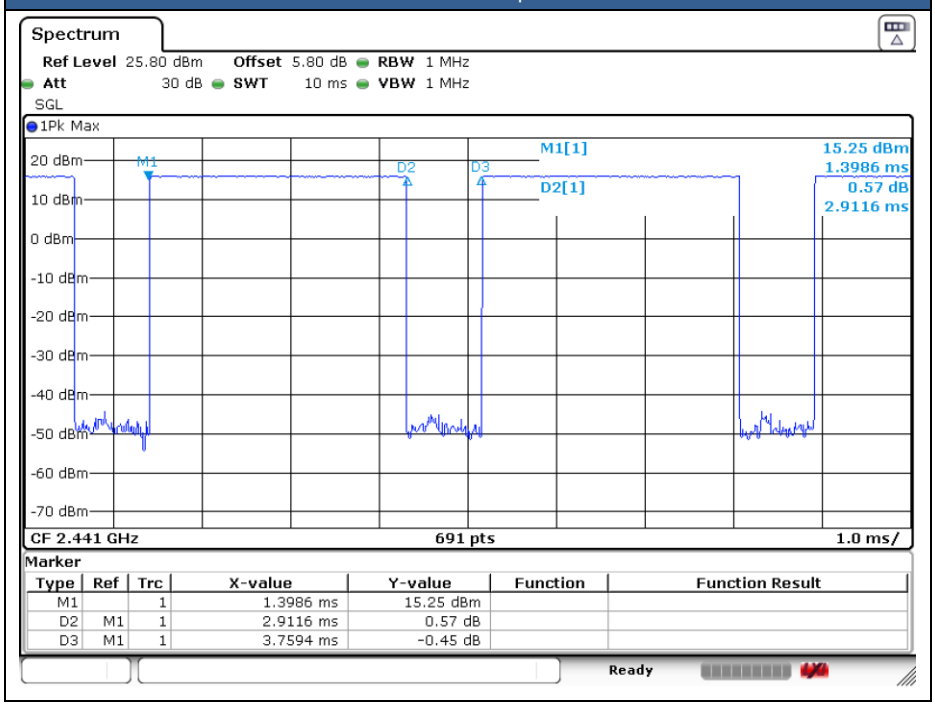
1. The maximum output power specified for production units are determined for all applicable 802.11 transmission modes in each standalone and aggregated frequency band. Maximum output power is measured for the highest maximum output power configuration(s) in each frequency band according to the default 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.
2. 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.
3. 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).
4. 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.
5. 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.
6. 802.11ax/be supports both full tone size mode and partial tone size mode, after verification on partial tone size mode that partial size tone mode power will not be higher than full tone size mode, therefore, full tone mode power was chosen to be measured in this report.
7. 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 mode to perform SAR testing.
8. For the conducted power measurement is MIMO chains transmitting simultaneously and measured the separately conducted power for both chains and then based on the conducted power of two antennas respectively to calculate sum of the power for MIMO mode.

<2.4GHz Bluetooth>

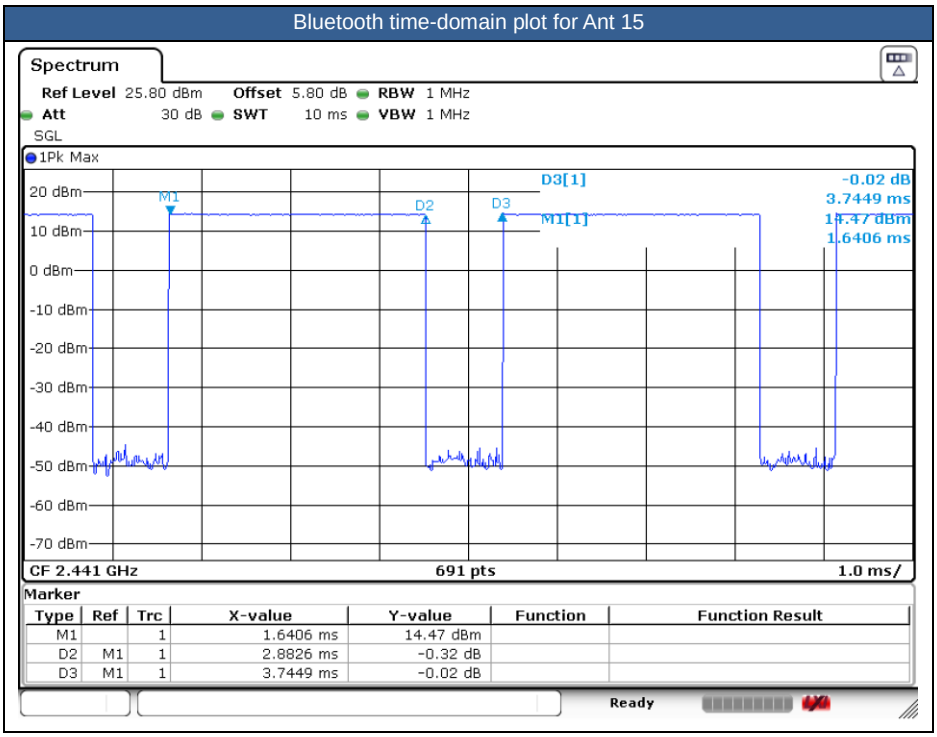
General Note:

1. For 2.4GHz Bluetooth SAR testing was selected 1Mbps, due to its highest average power.
2. The Bluetooth duty cycle are 77.45% for ant 8 and 76.97% for ant 15 as following figure, Bluetooth SAR scaling need further consideration and the theoretical duty cycle is 83.3%, therefore the actual duty cycle will be scaled up to the theoretical value of Bluetooth reported SAR calculation.

Bluetooth time-domain plot for Ant 8



Bluetooth time-domain plot for Ant 15



15. Antenna Location

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

16. SAR Test Results

General Note:

1. Per KDB 447498 D01v06, the reported SAR is the measured SAR value adjusted for maximum tune-up tolerance.
   a. Tune-up scaling Factor = tune-up limit power (mW) / EUT RF power (mW), where tune-up limit is the maximum rated power among all production units.
   b. For SAR testing of WLAN signal with non-100% duty cycle, the measured SAR is scaled-up by the duty cycle scaling factor which is equal to "1/(duty cycle)"
   c. For SAR testing of Bluetooth signal with 83.3% theoretical duty cycle, the measured SAR is scaled-up by the duty cycle scaling factor which is equal to "1/(duty cycle) *83.3%".
   d. For WWAN: Reported SAR(W/kg)= Measured SAR(W/kg)*Tune-up Scaling Factor
   e. For BT/WLAN: Reported SAR(W/kg)= Measured SAR(W/kg)* Duty Cycle scaling factor * Tune-up scaling factor
   f. For TDD LTE SAR measurement of power class 3, the duty cycle 1:1.59 (62.9 %) was used perform testing and considering the theoretical duty cycle of 63.3% for extended cyclic prefix in the uplink, and the theoretical duty cycle of 62.9% for normal cyclic prefix in uplink, a scaling factor of extended cyclic prefix 63.3%/62.9% = 1.006 is applied to scale-up the measured SAR result. The reported TDD LTE SAR (W/kg) = Measured SAR (W/kg)* Tune-up Scaling Factor* scaling factor for extended cyclic prefix.
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. The device implements Proximity sensors/receiver detect mechanism/hotspot trigger reduced power for the power management for SAR compliance at different exposure conditions (head, body-worn, hotspot, extremity), and the Qualcomm smart transmit will manage to ensure the power level not exceeding the associated power table.The device will invoke corresponding work scenarios power level base on frequency bands/antennas, which can refer to appendix E. power table.
5. Per KDB648474 D04v01r03, for smart phones with a display diagonal dimension > 15.0 cm or an overall diagonal dimension > 16.0 cm, when hotspot mode applies, 10-g extremity SAR is required only for the surfaces and edges with hotspot mode 1-g reported SAR > 1.2 W/kg, however, when power reduction applies to hotspot mode the measured SAR must be scaled to the maximum output power (for handheld on state, the maximum full power means reduced power), including tolerance, allowed for phablet modes to compare with the 1.2 W/kg SAR test reduction threshold.
   a. WLAN 5.3/5.5GHz tested the product specific 10g SAR since it has no hotspot mode.
   b. When 10-g product specific 10g SAR is considered, SAR thresholds is specified in the procedures for SAR test reduction and exclusion should be multiplied by 2.5.
6. According to Nov. 2017 TCB workshop, when the reported 1gSAR for UL CA configuration is <1.2 W/kg, UL CA 1gSAR is not required for all required test channels (PCC based).
7. Based on Qualcomm Smart Transmit algorithm, the FR1/BT MIMO antennas located in same AGs and the MIMO Plimit is not populated in the EFS file, so additional verification tests need to be added, the more detail UL MIMO analysis results please referred to appendix H.
8. SAR is not required because the distance from the antenna to the edge is > 25 mm as per KDB 941225 D06 Hotspot SAR.
9. For Phablet devices, when hotspot mode is not supported, Product specific 10-g SAR is required for all surfaces and edges with an antenna located at ≤ 25mm from that surface or edge in direct contact with a flat phantom, to address interactive hand use exposure conditions.
10. The device for LTE Band 48/5GNR n48 SAR testing was configured by the 3GPP MPR implementations and in order to more conservative RF exposure assessment to determine SAR compliance, the actual maximum output power in production unit refer to Part 96 report and tune up document.

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 B17 SAR test was covered by B12; 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 n2/n5/n7/n12/n25/n26/n66/n38/n41/n77 the maximum bandwidth does not support three non-overlapping channels, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

WLAN/Bluetooth Note:

1. Per KDB 248227 D01v02r02, for 2.4GHz 802.11g/n SAR testing is not required when the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg.
2. Per KDB 248227 D01v02r02, U-NII-1 SAR testing is not required when the U-NII-2A band highest reported SAR for a test configuration is ≤ 1.2 W/kg, SAR is not required for U-NII-1 band.
3. Per KDB 248227 D01v02r02, when SAR measurement is required for at least one of the two U-NII bands and the highest reported SAR adjusted by the ratio of specified maximum output power of aggregated to standalone band is < 1.2 W/kg, SAR is not required for the 160 MHz channel.
4. 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.
5. 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.
6. During SAR testing the WLAN transmission was verified using a spectrum analyzer.
7. 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 mode to perform SAR testing.
8. For determination of the scaling factor for report SAR of MIMO mode, if the hot spots are separated the scaling factors are individually determined from each transmit chain. Further simplification chose the worse SAR value and the worst scaling factor from each transmit chain perform reported SAR calculation conservatively. If the hot spots are not spatially separated, the scaling factor is determined from the worst number of each transmit chain.

DSI status description:

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

This WWAN and WLAN/BT 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 conditions	Trigger Conditions	DSI
Head	Receiver on	DSI1
Body Worn (15mm)	Sensor Off / Receiver off	DSI4
Hotspot (10mm)	Hotspot On	DSI5
Extremity (Handheld)	Sensor On	DSI3
	Sensor Off / Receiver off	DSI4

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											
	LTE Band 12	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	DSI 1	23095	707.5	24.78	25.50	1.180	-	-	0.08	0.239	0.282
	LTE Band 12	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 0	DSI 1	23095	707.5	23.82	24.50	1.169	-	-	0.01	0.190	0.222
	LTE Band 12	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	DSI 1	23095	707.5	24.78	25.50	1.180	-	-	0.03	0.110	0.130
	LTE Band 12	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 0	DSI 1	23095	707.5	23.82	24.50	1.169	-	-	-0.08	0.083	0.097
	LTE Band 12	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	DSI 1	23095	707.5	24.78	25.50	1.180	-	-	-0.08	0.134	0.158
	LTE Band 12	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 0	DSI 1	23095	707.5	23.82	24.50	1.169	-	-	0.1	0.107	0.125
	LTE Band 12	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	DSI 1	23095	707.5	24.78	25.50	1.180	-	-	-0.18	0.087	0.103
	LTE Band 12	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 0	DSI 1	23095	707.5	23.82	24.50	1.169	-	-	0.1	0.069	0.081
	LTE Band 12	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 1	23095	707.5	23.21	24.00	1.199	-	-	0.12	0.543	0.651
	LTE Band 12	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 1	DSI 1	23095	707.5	23.15	24.00	1.216	-	-	0.08	0.544	0.662
	LTE Band 12	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	DSI 1	23095	707.5	23.21	24.00	1.199	-	-	-0.03	0.100	0.120
	LTE Band 12	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 1	DSI 1	23095	707.5	23.15	24.00	1.216	-	-	0.14	0.100	0.122
01	LTE Band 12	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	DSI 1	23095	707.5	23.21	24.00	1.199	-	-	0.07	0.581	**0.697**
	LTE Band 12	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 1	DSI 1	23095	707.5	23.15	24.00	1.216	-	-	0.11	0.564	0.686
	LTE Band 12	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	DSI 1	23095	707.5	23.21	24.00	1.199	-	-	0.18	0.092	0.110
	LTE Band 12	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 1	DSI 1	23095	707.5	23.15	24.00	1.216	-	-	0.14	0.092	0.112
	LTE Band 13	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	DSI 1	23230	782	25.14	25.70	1.138	-	-	-0.17	0.392	0.446
	LTE Band 13	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 0	DSI 1	23230	782	24.10	24.70	1.148	-	-	0.17	0.306	0.351
	LTE Band 13	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	DSI 1	23230	782	25.14	25.70	1.138	-	-	-0.05	0.167	0.190
	LTE Band 13	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 0	DSI 1	23230	782	24.10	24.70	1.148	-	-	0.01	0.125	0.144
	LTE Band 13	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	DSI 1	23230	782	25.14	25.70	1.138	-	-	0.1	0.190	0.216
	LTE Band 13	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 0	DSI 1	23230	782	24.10	24.70	1.148	-	-	-0.17	0.147	0.169
	LTE Band 13	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	DSI 1	23230	782	25.14	25.70	1.138	-	-	0.04	0.136	0.155
	LTE Band 13	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 0	DSI 1	23230	782	24.10	24.70	1.148	-	-	-0.01	0.107	0.123
	LTE Band 13	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 1	23230	782	21.11	22.00	1.227	-	-	-0.08	0.537	0.659
	LTE Band 13	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 1	DSI 1	23230	782	21.05	22.00	1.245	-	-	0.05	0.532	0.662
	LTE Band 13	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	DSI 1	23230	782	21.11	22.00	1.227	-	-	-0.09	0.111	0.136
	LTE Band 13	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 1	DSI 1	23230	782	21.05	22.00	1.245	-	-	-0.08	0.111	0.138
02	LTE Band 13	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	DSI 1	23230	782	21.11	22.00	1.227	-	-	0.06	0.629	**0.772**
	LTE Band 13	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 1	DSI 1	23230	782	21.05	22.00	1.245	-	-	0.13	0.609	0.758
	LTE Band 13	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	DSI 1	23230	782	21.11	22.00	1.227	-	-	0.03	0.104	0.128
	LTE Band 13	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 1	DSI 1	23230	782	21.05	22.00	1.245	-	-	0.18	0.102	0.127
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	DSI 1	141500	707.5	24.63	25.50	1.222	-	-	-0.06	0.230	0.281
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	DSI 1	141500	707.5	24.57	25.50	1.239	-	-	0.02	0.253	0.313
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 0	DSI 1	141500	707.5	24.63	25.50	1.222	-	-	0.18	0.128	0.156
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Right Tilted	0mm	Ant 0	DSI 1	141500	707.5	24.57	25.50	1.239	-	-	0.01	0.139	0.172
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	DSI 1	141500	707.5	24.63	25.50	1.222	-	-	0.03	0.145	0.177
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	DSI 1	141500	707.5	24.57	25.50	1.239	-	-	-0.01	0.146	0.181
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 0	DSI 1	141500	707.5	24.63	25.50	1.222	-	-	-0.18	0.093	0.114
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Left Tilted	0mm	Ant 0	DSI 1	141500	707.5	24.57	25.50	1.239	-	-	-0.05	0.105	0.130
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	DSI 1	141500	707.5	23.37	24.00	1.156	-	-	-0.17	0.592	0.684
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	DSI 1	141500	707.5	23.34	24.00	1.164	-	-	-0.05	0.764	0.889
	FR1 n12	15M	QPSK	75	0	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	DSI 1	141500	707.5	23.28	24.00	1.180	-	-	-0.02	0.704	0.831
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	DSI 1	141500	707.5	23.37	24.00	1.156	-	-	-0.08	0.113	0.131
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	DSI 1	141500	707.5	23.34	24.00	1.164	-	-	0.18	0.143	0.166
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 1	DSI 1	141500	707.5	23.37	24.00	1.156	-	-	-0.19	0.667	0.771
03	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Left Cheek	0mm	Ant 1	DSI 1	141500	707.5	23.34	24.00	1.164	-	-	0.18	0.808	**0.941**
	FR1 n12	15M	QPSK	75	0	DFT-SCS-15KHz	Left Cheek	0mm	Ant 1	DSI 1	141500	707.5	23.28	24.00	1.180	-	-	0.06	0.764	0.902
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 1	DSI 1	141500	707.5	23.37	24.00	1.156	-	-	0.04	0.110	0.127
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Left Tilted	0mm	Ant 1	DSI 1	141500	707.5	23.34	24.00	1.164	-	-	0.01	0.133	0.155

								850MHz												
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Right Cheek	0mm	Ant 0	DSI 1	189	836.4	26.11	27.00	1.227	-	-	0.16	0.268	0.329
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Right Tilted	0mm	Ant 0	DSI 1	189	836.4	26.11	27.00	1.227	-	-	-0.1	0.099	0.122
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Left Cheek	0mm	Ant 0	DSI 1	189	836.4	26.11	27.00	1.227	-	-	0.07	0.113	0.139
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Left Tilted	0mm	Ant 0	DSI 1	189	836.4	26.11	27.00	1.227	-	-	0.18	0.079	0.097
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Right Cheek	0mm	Ant 1	DSI 1	189	836.4	20.95	22.40	1.396	-	-	-0.1	0.434	0.606
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Right Tilted	0mm	Ant 1	DSI 1	189	836.4	20.95	22.40	1.396	-	-	0.01	0.087	0.121
04	GSM850	-	-	-	-	GPRS (4 Tx slots)	Left Cheek	0mm	Ant 1	DSI 1	189	836.4	20.95	22.40	1.396	-	-	-0.09	0.528	**0.737**
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Left Tilted	0mm	Ant 1	DSI 1	189	836.4	20.95	22.40	1.396	-	-	-0.15	0.078	0.109
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 0	DSI 1	4182	836.4	24.35	25.00	1.161	-	-	0.19	0.463	0.538
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 0	DSI 1	4182	836.4	24.35	25.00	1.161	-	-	0.07	0.163	0.189
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 0	DSI 1	4182	836.4	24.35	25.00	1.161	-	-	-0.18	0.192	0.223
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 0	DSI 1	4182	836.4	24.35	25.00	1.161	-	-	0.03	0.129	0.150
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 1	DSI 1	4182	836.4	19.36	20.70	1.361	-	-	-0.15	0.609	0.829
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 1	DSI 1	4132	826.4	19.32	20.70	1.374	-	-	-0.15	0.583	0.801
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 1	DSI 1	4233	846.6	19.33	20.70	1.371	-	-	0.11	0.536	0.735
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 1	DSI 1	4182	836.4	19.36	20.70	1.361	-	-	-0.08	0.126	0.172
05	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 1	DSI 1	4182	836.4	19.36	20.70	1.361	-	-	0.19	0.711	**0.968**
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 1	DSI 1	4132	826.4	19.32	20.70	1.374	-	-	-0.17	0.666	0.915
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 1	DSI 1	4233	846.6	19.33	20.70	1.371	-	-	-0.08	0.659	0.903
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 1	DSI 1	4182	836.4	19.36	20.70	1.361	-	-	-0.04	0.119	0.162
	LTE Band 5	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	DSI 1	20525	836.5	25.21	25.70	1.119	-	-	0.16	0.506	0.566
	LTE Band 5	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 0	DSI 1	20525	836.5	24.23	24.70	1.114	-	-	0.11	0.406	0.452
	LTE Band 5	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	DSI 1	20525	836.5	25.21	25.70	1.119	-	-	-0.07	0.162	0.181
	LTE Band 5	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 0	DSI 1	20525	836.5	24.23	24.70	1.114	-	-	0.18	0.125	0.139
	LTE Band 5	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	DSI 1	20525	836.5	25.21	25.70	1.119	-	-	0.12	0.213	0.238
	LTE Band 5	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 0	DSI 1	20525	836.5	24.23	24.70	1.114	-	-	0.07	0.177	0.197
	LTE Band 5	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	DSI 1	20525	836.5	25.21	25.70	1.119	-	-	0.15	0.128	0.143
	LTE Band 5	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 0	DSI 1	20525	836.5	24.23	24.70	1.114	-	-	0.14	0.105	0.117
	LTE Band 5	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 1	20525	836.5	19.41	20.50	1.285	-	-	-0.08	0.503	0.646
	LTE Band 5	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 1	DSI 1	20525	836.5	19.37	20.50	1.297	-	-	0.17	0.510	0.662
	LTE Band 5	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	DSI 1	20525	836.5	19.41	20.50	1.285	-	-	-0.04	0.107	0.138
	LTE Band 5	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 1	DSI 1	20525	836.5	19.37	20.50	1.297	-	-	-0.08	0.108	0.140
06	LTE Band 5	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	DSI 1	20525	836.5	19.41	20.50	1.285	-	-	0.19	0.599	**0.770**
	LTE Band 5	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 1	DSI 1	20525	836.5	19.37	20.50	1.297	-	-	-0.13	0.587	0.761
	LTE Band 5	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	DSI 1	20525	836.5	19.41	20.50	1.285	-	-	0.06	0.098	0.126
	LTE Band 5	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 1	DSI 1	20525	836.5	19.37	20.50	1.297	-	-	-0.03	0.101	0.131
	LTE Band 26	15M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	DSI 1	26865	831.5	25.20	25.70	1.122	-	-	0.05	0.461	0.517
	LTE Band 26	15M	QPSK	36	0	-	Right Cheek	0mm	Ant 0	DSI 1	26865	831.5	24.20	24.70	1.122	-	-	-0.03	0.362	0.406
	LTE Band 26	15M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	DSI 1	26865	831.5	25.20	25.70	1.122	-	-	-0.14	0.147	0.165
	LTE Band 26	15M	QPSK	36	0	-	Right Tilted	0mm	Ant 0	DSI 1	26865	831.5	24.20	24.70	1.122	-	-	0.17	0.116	0.130
	LTE Band 26	15M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	DSI 1	26865	831.5	25.20	25.70	1.122	-	-	0.11	0.202	0.227
	LTE Band 26	15M	QPSK	36	0	-	Left Cheek	0mm	Ant 0	DSI 1	26865	831.5	24.20	24.70	1.122	-	-	0.07	0.161	0.181
	LTE Band 26	15M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	DSI 1	26865	831.5	25.20	25.70	1.122	-	-	-0.04	0.120	0.135
	LTE Band 26	15M	QPSK	36	0	-	Left Tilted	0mm	Ant 0	DSI 1	26865	831.5	24.20	24.70	1.122	-	-	-0.18	0.095	0.107
	LTE Band 26	15M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 1	26865	831.5	19.66	20.50	1.213	-	-	-0.02	0.469	0.569
	LTE Band 26	15M	QPSK	36	0	-	Right Cheek	0mm	Ant 1	DSI 1	26865	831.5	19.62	20.50	1.225	-	-	-0.03	0.470	0.576
	LTE Band 26	15M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	DSI 1	26865	831.5	19.66	20.50	1.213	-	-	-0.07	0.099	0.120
	LTE Band 26	15M	QPSK	36	0	-	Right Tilted	0mm	Ant 1	DSI 1	26865	831.5	19.62	20.50	1.225	-	-	0.05	0.097	0.119
07	LTE Band 26	15M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	DSI 1	26865	831.5	19.66	20.50	1.213	-	-	-0.11	0.537	**0.652**
	LTE Band 26	15M	QPSK	36	0	-	Left Cheek	0mm	Ant 1	DSI 1	26865	831.5	19.62	20.50	1.225	-	-	0.1	0.530	0.649
	LTE Band 26	15M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	DSI 1	26865	831.5	19.66	20.50	1.213	-	-	0.03	0.092	0.112
	LTE Band 26	15M	QPSK	36	0	-	Left Tilted	0mm	Ant 1	DSI 1	26865	831.5	19.62	20.50	1.225	-	-	-0.16	0.091	0.111
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	DSI 1	167300	836.5	25.37	25.70	1.079	-	-	-0.13	0.487	0.525
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	DSI 1	167300	836.5	25.35	25.70	1.084	-	-	0.1	0.535	0.580
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 0	DSI 1	167300	836.5	25.37	25.70	1.079	-	-	-0.13	0.190	0.205

	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Right Tilted	0mm	Ant 0	DSI 1	167300	836.5	25.35	25.70	1.084	-	-	0	0.197	0.214
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	DSI 1	167300	836.5	25.37	25.70	1.079	-	-	-0.04	0.262	0.283
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	DSI 1	167300	836.5	25.35	25.70	1.084	-	-	-0.15	0.286	0.310
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 0	DSI 1	167300	836.5	25.37	25.70	1.079	-	-	-0.09	0.163	0.176
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Left Tilted	0mm	Ant 0	DSI 1	167300	836.5	25.35	25.70	1.084	-	-	0.05	0.162	0.176
08	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	DSI 1	167300	836.5	19.34	20.00	1.164	-	-	0.14	0.581	**0.676**
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	DSI 1	167300	836.5	19.29	20.00	1.178	-	-	0.13	0.550	0.648
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	DSI 1	167300	836.5	19.34	20.00	1.164	-	-	-0.12	0.113	0.132
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	DSI 1	167300	836.5	19.29	20.00	1.178	-	-	0.15	0.099	0.117
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 1	DSI 1	167300	836.5	19.34	20.00	1.164	-	-	-0.05	0.501	0.583
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Left Cheek	0mm	Ant 1	DSI 1	167300	836.5	19.29	20.00	1.178	-	-	-0.07	0.422	0.497
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 1	DSI 1	167300	836.5	19.34	20.00	1.164	-	-	-0.11	0.095	0.111
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Left Tilted	0mm	Ant 1	DSI 1	167300	836.5	19.29	20.00	1.178	-	-	-0.02	0.091	0.107
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	DSI 1	166300	831.5	25.26	25.70	1.107	-	-	0.01	0.451	0.499
	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	DSI 1	166300	831.5	25.21	25.70	1.119	-	-	-0.1	0.438	0.490
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 0	DSI 1	166300	831.5	25.26	25.70	1.107	-	-	0.14	0.150	0.166
	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Right Tilted	0mm	Ant 0	DSI 1	166300	831.5	25.21	25.70	1.119	-	-	0.04	0.142	0.159
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	DSI 1	166300	831.5	25.26	25.70	1.107	-	-	-0.05	0.191	0.211
	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	DSI 1	166300	831.5	25.21	25.70	1.119	-	-	-0.04	0.199	0.223
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 0	DSI 1	166300	831.5	25.26	25.70	1.107	-	-	0.14	0.118	0.131
	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Left Tilted	0mm	Ant 0	DSI 1	166300	831.5	25.21	25.70	1.119	-	-	0.03	0.125	0.140
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	DSI 1	166300	831.5	20.39	21.00	1.151	-	-	0.16	0.698	0.803
	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	DSI 1	166300	831.5	20.36	21.00	1.159	-	-	0.01	0.690	0.800
09	FR1 n26	20M	QPSK	100	0	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	DSI 1	166300	831.5	20.29	21.00	1.178	-	-	0.05	0.701	**0.826**
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	DSI 1	166300	831.5	20.39	21.00	1.151	-	-	-0.06	0.164	0.189
	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	DSI 1	166300	831.5	20.36	21.00	1.159	-	-	0.14	0.167	0.194
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 1	DSI 1	166300	831.5	20.39	21.00	1.151	-	-	-0.09	0.596	0.686
	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Left Cheek	0mm	Ant 1	DSI 1	166300	831.5	20.36	21.00	1.159	-	-	-0.09	0.582	0.674
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 1	DSI 1	166300	831.5	20.39	21.00	1.151	-	-	-0.12	0.132	0.152
	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Left Tilted	0mm	Ant 1	DSI 1	166300	831.5	20.36	21.00	1.159	-	-	-0.06	0.137	0.159
1750MHz																				
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 4	DSI 1	1413	1732.6	17.13	18.00	1.222	-	-	-0.19	0.655	0.800
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 4	DSI 1	1312	1712.4	17.08	18.00	1.236	-	-	0.09	0.541	0.669
10	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 4	DSI 1	1513	1752.6	17.07	18.00	1.239	-	-	-0.06	0.656	**0.813**
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 4	DSI 1	1413	1732.6	17.13	18.00	1.222	-	-	0.13	0.585	0.715
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 4	DSI 1	1413	1732.6	17.13	18.00	1.222	-	-	-0.04	0.347	0.424
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 4	DSI 1	1413	1732.6	17.13	18.00	1.222	-	-	0.12	0.470	0.574
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 5	DSI 1	1413	1732.6	17.53	18.70	1.309	-	-	0.15	0.375	0.491
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 5	DSI 1	1413	1732.6	17.53	18.70	1.309	-	-	-0.09	0.065	0.085
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 5	DSI 1	1413	1732.6	17.53	18.70	1.309	-	-	0.08	0.441	0.577
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 5	DSI 1	1413	1732.6	17.53	18.70	1.309	-	-	0.11	0.076	0.099
	LTE Band 4	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 1	20175	1732.5	17.49	18.20	1.178	-	-	-0.03	0.580	0.683
	LTE Band 4	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI 1	20175	1732.5	17.41	18.20	1.199	-	-	0.09	0.576	0.691
	LTE Band 4	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 1	20175	1732.5	17.49	18.20	1.178	-	-	-0.16	0.560	0.659
	LTE Band 4	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	DSI 1	20175	1732.5	17.41	18.20	1.199	-	-	-0.03	0.562	0.674
	LTE Band 4	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	DSI 1	20175	1732.5	17.49	18.20	1.178	-	-	0.08	0.322	0.379
	LTE Band 4	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 4	DSI 1	20175	1732.5	17.41	18.20	1.199	-	-	-0.07	0.327	0.392
	LTE Band 4	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 4	DSI 1	20175	1732.5	17.49	18.20	1.178	-	-	0.11	0.464	0.546
	LTE Band 4	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 4	DSI 1	20175	1732.5	17.41	18.20	1.199	-	-	-0.13	0.468	0.561
	LTE Band 4	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 5	DSI 1	20175	1732.5	18.99	20.00	1.262	-	-	-0.05	0.464	0.585
	LTE Band 4	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 5	DSI 1	20175	1732.5	18.97	20.00	1.268	-	-	-0.08	0.472	0.598
	LTE Band 4	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 5	DSI 1	20175	1732.5	18.99	20.00	1.262	-	-	0.16	0.085	0.107
	LTE Band 4	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 5	DSI 1	20175	1732.5	18.97	20.00	1.268	-	-	0.05	0.084	0.106
	LTE Band 4	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	DSI 1	20175	1732.5	18.99	20.00	1.262	-	-	0.04	0.570	0.719
	LTE Band 4	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 5	DSI 1	20175	1732.5	18.97	20.00	1.268	-	-	0.05	0.563	0.714
	LTE Band 4	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 5	DSI 1	20175	1732.5	18.99	20.00	1.262	-	-	-0.15	0.099	0.125

	LTE Band 4	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 5	DSI 1	20175	1732.5	18.97	20.00	1.268	-	-	0.02	0.100	0.127
	LTE Band 4 Other PA	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	DSI 1	20175	1732.5	24.95	25.70	1.189	-	-	0.04	0.225	0.267
	LTE Band 4 Other PA	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	DSI 1	20175	1732.5	23.99	24.70	1.178	-	-	0.17	0.174	0.205
	LTE Band 4 Other PA	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 3	DSI 1	20175	1732.5	24.95	25.70	1.189	-	-	-0.1	0.106	0.126
	LTE Band 4 Other PA	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 3	DSI 1	20175	1732.5	23.99	24.70	1.178	-	-	0.17	0.091	0.107
	LTE Band 4 Other PA	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	DSI 1	20175	1732.5	24.95	25.70	1.189	-	-	-0.15	0.232	0.276
	LTE Band 4 Other PA	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 3	DSI 1	20175	1732.5	23.99	24.70	1.178	-	-	0.18	0.179	0.211
	LTE Band 4 Other PA	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 3	DSI 1	20175	1732.5	24.95	25.70	1.189	-	-	0.05	0.089	0.106
	LTE Band 4 Other PA	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 3	DSI 1	20175	1732.5	23.99	24.70	1.178	-	-	0.04	0.069	0.081
	LTE Band 4 Other PA	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 6	DSI 1	20175	1732.5	15.41	16.50	1.285	-	-	0.15	0.565	0.726
11	LTE Band 4 Other PA	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 6	DSI 1	20175	1732.5	15.35	16.50	1.303	-	-	0.03	0.572	**0.745**
	LTE Band 4 Other PA	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 6	DSI 1	20175	1732.5	15.41	16.50	1.285	-	-	-0.1	0.195	0.251
	LTE Band 4 Other PA	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 6	DSI 1	20175	1732.5	15.35	16.50	1.303	-	-	0.14	0.197	0.257
	LTE Band 4 Other PA	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 6	DSI 1	20175	1732.5	15.41	16.50	1.285	-	-	-0.16	0.181	0.233
	LTE Band 4 Other PA	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 6	DSI 1	20175	1732.5	15.35	16.50	1.303	-	-	-0.02	0.182	0.237
	LTE Band 4 Other PA	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 6	DSI 1	20175	1732.5	15.41	16.50	1.285	-	-	0.1	0.107	0.138
	LTE Band 4 Other PA	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 6	DSI 1	20175	1732.5	15.35	16.50	1.303	-	-	-0.1	0.106	0.138
	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 1	132322	1745	18.05	19.00	1.245	-	-	-0.05	0.740	0.921
	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 1	132072	1720	17.92	19.00	1.282	-	-	-0.04	0.636	0.816
	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 1	132572	1770	17.86	19.00	1.300	-	-	0.01	0.739	0.961
	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI 1	132322	1745	17.98	19.00	1.265	-	-	-0.09	0.718	0.908
	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI 1	132072	1720	17.87	19.00	1.297	-	-	0.03	0.649	0.842
12	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI 1	132572	1770	17.90	19.00	1.288	-	-	-0.03	0.753	**0.970**
	LTE Band 66	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 4	DSI 1	132322	1745	17.94	19.00	1.276	-	-	-0.11	0.716	0.914
	LTE Band 66	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 1	132322	1745	18.05	19.00	1.245	-	-	-0.16	0.742	0.923
	LTE Band 66	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 1	132072	1720	17.92	19.00	1.282	-	-	0.15	0.675	0.866
	LTE Band 66	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 1	132572	1770	17.86	19.00	1.300	-	-	-0.15	0.733	0.953
	LTE Band 66	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	DSI 1	132322	1745	17.98	19.00	1.265	-	-	0.06	0.716	0.906
	LTE Band 66	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	DSI 1	132072	1720	17.87	19.00	1.297	-	-	0.15	0.685	0.889
	LTE Band 66	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	DSI 1	132572	1770	17.90	19.00	1.288	-	-	-0.1	0.734	0.946
	LTE Band 66	20M	QPSK	100	0	-	Right Tilted	0mm	Ant 4	DSI 1	132322	1745	17.94	19.00	1.276	-	-	0.17	0.719	0.918
	LTE Band 66	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	DSI 1	132322	1745	18.05	19.00	1.245	-	-	0.13	0.442	0.550
	LTE Band 66	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 4	DSI 1	132322	1745	17.98	19.00	1.265	-	-	-0.02	0.422	0.534
	LTE Band 66	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 4	DSI 1	132322	1745	18.05	19.00	1.245	-	-	0	0.602	0.749
	LTE Band 66	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 4	DSI 1	132322	1745	17.98	19.00	1.265	-	-	-0.04	0.585	0.740
	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 5	DSI 1	132322	1745	16.19	17.00	1.205	-	-	-0.13	0.288	0.347
	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 5	DSI 1	132322	1745	16.15	17.00	1.216	-	-	0.05	0.290	0.353
	LTE Band 66	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 5	DSI 1	132322	1745	16.19	17.00	1.205	-	-	-0.15	0.051	0.061
	LTE Band 66	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 5	DSI 1	132322	1745	16.15	17.00	1.216	-	-	-0.11	0.051	0.062
	LTE Band 66	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	DSI 1	132322	1745	16.19	17.00	1.205	-	-	0.07	0.368	0.443
	LTE Band 66	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 5	DSI 1	132322	1745	16.15	17.00	1.216	-	-	0	0.353	0.429
	LTE Band 66	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 5	DSI 1	132322	1745	16.19	17.00	1.205	-	-	-0.12	0.062	0.075
	LTE Band 66	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 5	DSI 1	132322	1745	16.15	17.00	1.216	-	-	0.19	0.063	0.077
	LTE Band 66 Other PA	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	DSI 1	132322	1745	24.13	25.00	1.222	-	-	-0.01	0.194	0.237
	LTE Band 66 Other PA	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	DSI 1	132322	1745	23.18	24.00	1.208	-	-	-0.19	0.152	0.184
	LTE Band 66 Other PA	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 3	DSI 1	132322	1745	24.13	25.00	1.222	-	-	-0.03	0.101	0.123
	LTE Band 66 Other PA	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 3	DSI 1	132322	1745	23.18	24.00	1.208	-	-	-0.08	0.082	0.099
	LTE Band 66 Other PA	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	DSI 1	132322	1745	24.13	25.00	1.222	-	-	0.1	0.204	0.249
	LTE Band 66 Other PA	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 3	DSI 1	132322	1745	23.18	24.00	1.208	-	-	0.15	0.161	0.194

	LTE Band 66 Other PA	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 3	DSI 1	132322	1745	24.13	25.00	1.222	-	-	0.12	0.085	0.104
	LTE Band 66 Other PA	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 3	DSI 1	132322	1745	23.18	24.00	1.208	-	-	-0.12	0.071	0.086
	LTE Band 66 Other PA	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 6	DSI 1	132322	1745	17.05	18.00	1.245	-	-	-0.15	0.706	0.879
	LTE Band 66 Other PA	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 6	DSI 1	132072	1720	16.87	18.00	1.297	-	-	-0.19	0.662	0.859
	LTE Band 66 Other PA	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 6	DSI 1	132572	1770	16.92	18.00	1.282	-	-	-0.13	0.710	0.910
	LTE Band 66 Other PA	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 6	DSI 1	132322	1745	16.96	18.00	1.271	-	-	-0.05	0.716	0.910
	LTE Band 66 Other PA	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 6	DSI 1	132072	1720	16.90	18.00	1.288	-	-	-0.12	0.666	0.858
	LTE Band 66 Other PA	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 6	DSI 1	132572	1770	16.91	18.00	1.285	-	-	0.18	0.738	0.949
	LTE Band 66 Other PA	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 6	DSI 1	132322	1745	16.92	18.00	1.282	-	-	0.18	0.716	0.918
	LTE Band 66 Other PA	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 6	DSI 1	132322	1745	17.05	18.00	1.245	-	-	0.14	0.244	0.304
	LTE Band 66 Other PA	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 6	DSI 1	132322	1745	16.96	18.00	1.271	-	-	0.03	0.248	0.315
	LTE Band 66 Other PA	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 6	DSI 1	132322	1745	17.05	18.00	1.245	-	-	0.09	0.229	0.285
	LTE Band 66 Other PA	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 6	DSI 1	132322	1745	16.96	18.00	1.271	-	-	-0.13	0.230	0.292
	LTE Band 66 Other PA	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 6	DSI 1	132322	1745	17.05	18.00	1.245	-	-	-0.09	0.137	0.170
	LTE Band 66 Other PA	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 6	DSI 1	132322	1745	16.96	18.00	1.271	-	-	-0.18	0.134	0.170
	FR1 n66	45M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 4	DSI 1	349000	1745	18.02	18.50	1.117	-	-	0.12	0.580	0.648
	FR1 n66	45M	QPSK	120	60	DFT-SCS-15KHz	Right Cheek	0mm	Ant 4	DSI 1	349000	1745	17.99	18.50	1.125	-	-	0.11	0.706	0.794
	FR1 n66	45M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 4	DSI 1	349000	1745	18.02	18.50	1.117	-	-	-0.06	0.796	0.889
	FR1 n66	45M	QPSK	120	60	DFT-SCS-15KHz	Right Tilted	0mm	Ant 4	DSI 1	349000	1745	17.99	18.50	1.125	-	-	-0.04	0.807	0.908
	FR1 n66	45M	QPSK	240	0	DFT-SCS-15KHz	Right Tilted	0mm	Ant 4	DSI 1	349000	1745	17.97	18.30	1.079	-	-	-0.02	0.638	0.688
	FR1 n66	45M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 4	DSI 1	349000	1745	18.02	18.50	1.117	-	-	0.02	0.363	0.405
	FR1 n66	45M	QPSK	120	60	DFT-SCS-15KHz	Left Cheek	0mm	Ant 4	DSI 1	349000	1745	17.99	18.50	1.125	-	-	0.12	0.376	0.423
	FR1 n66	45M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 4	DSI 1	349000	1745	18.02	18.50	1.117	-	-	0.02	0.562	0.628
	FR1 n66	45M	QPSK	120	60	DFT-SCS-15KHz	Left Tilted	0mm	Ant 4	DSI 1	349000	1745	17.99	18.50	1.125	-	-	-0.11	0.566	0.637
	FR1 n66	45M	QPSK	240	0	DFT-SCS-15KHz	Left Tilted	0mm	Ant 4	DSI 1	349000	1745	17.97	18.30	1.079	-	-	-0.11	0.531	0.573
	FR1 n66	45M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 5	DSI 1	349000	1745	19.16	19.90	1.186	-	-	0.12	0.638	0.757
	FR1 n66	45M	QPSK	120	60	DFT-SCS-15KHz	Right Cheek	0mm	Ant 5	DSI 1	349000	1745	19.11	19.90	1.199	-	-	0.08	0.699	0.838
	FR1 n66	45M	QPSK	240	0	DFT-SCS-15KHz	Right Cheek	0mm	Ant 5	DSI 1	349000	1745	19.11	19.90	1.199	-	-	-0.17	0.624	0.748
	FR1 n66	45M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 5	DSI 1	349000	1745	19.16	19.90	1.186	-	-	-0.03	0.111	0.132
	FR1 n66	45M	QPSK	120	60	DFT-SCS-15KHz	Right Tilted	0mm	Ant 5	DSI 1	349000	1745	19.11	19.90	1.199	-	-	0.14	0.112	0.134
	FR1 n66	45M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 5	DSI 1	349000	1745	19.16	19.90	1.186	-	-	0.11	0.761	0.902
13	FR1 n66	45M	QPSK	120	60	DFT-SCS-15KHz	Left Cheek	0mm	Ant 5	DSI 1	349000	1745	19.11	19.90	1.199	-	-	0.05	0.845	**1.014**
	FR1 n66	45M	QPSK	240	0	DFT-SCS-15KHz	Left Cheek	0mm	Ant 5	DSI 1	349000	1745	19.11	19.90	1.199	-	-	-0.05	0.823	0.987
	FR1 n66	45M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 5	DSI 1	349000	1745	19.16	19.90	1.186	-	-	0.18	0.135	0.160
	FR1 n66	45M	QPSK	120	60	DFT-SCS-15KHz	Left Tilted	0mm	Ant 5	DSI 1	349000	1745	19.11	19.90	1.199	-	-	0.14	0.150	0.180
	FR1 n66 Other PA	45M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 3	DSI 1	349000	1745	24.19	25.00	1.205	-	-	-0.11	0.205	0.247
	FR1 n66 Other PA	45M	QPSK	120	60	DFT-SCS-15KHz	Right Cheek	0mm	Ant 3	DSI 1	349000	1745	23.93	25.00	1.279	-	-	0.18	0.195	0.249
	FR1 n66 Other PA	45M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 3	DSI 1	349000	1745	24.19	25.00	1.205	-	-	0.16	0.090	0.108
	FR1 n66 Other PA	45M	QPSK	120	60	DFT-SCS-15KHz	Right Tilted	0mm	Ant 3	DSI 1	349000	1745	23.93	25.00	1.279	-	-	0.19	0.085	0.109
	FR1 n66 Other PA	45M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 3	DSI 1	349000	1745	24.19	25.00	1.205	-	-	0.13	0.192	0.231
	FR1 n66 Other PA	45M	QPSK	120	60	DFT-SCS-15KHz	Left Cheek	0mm	Ant 3	DSI 1	349000	1745	23.93	25.00	1.279	-	-	-0.03	0.211	0.270
	FR1 n66 Other PA	45M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 3	DSI 1	349000	1745	24.19	25.00	1.205	-	-	0.12	0.074	0.089
	FR1 n66 Other PA	45M	QPSK	120	60	DFT-SCS-15KHz	Left Tilted	0mm	Ant 3	DSI 1	349000	1745	23.93	25.00	1.279	-	-	0.19	0.078	0.100
	FR1 n66 Other PA	45M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 6	DSI 1	349000	1745	17.15	17.90	1.189	-	-	-0.05	0.794	0.944
	FR1 n66 Other PA	45M	QPSK	120	60	DFT-SCS-15KHz	Right Cheek	0mm	Ant 6	DSI 1	349000	1745	17.12	17.90	1.197	-	-	0.16	0.820	0.981
	FR1 n66 Other PA	45M	QPSK	240	0	DFT-SCS-15KHz	Right Cheek	0mm	Ant 6	DSI 1	349000	1745	17.11	17.90	1.199	-	-	0.03	0.806	0.967
	FR1 n66 Other PA	45M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 6	DSI 1	349000	1745	17.15	17.90	1.189	-	-	-0.06	0.271	0.322
	FR1 n66 Other PA	45M	QPSK	120	60	DFT-SCS-15KHz	Right Tilted	0mm	Ant 6	DSI 1	349000	1745	17.12	17.90	1.197	-	-	0.01	0.283	0.339

	FR1 n66 Other PA	45M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 6	DSI 1	349000	1745	17.15	17.90	1.189	-	-	-0.03	0.206	0.245
	FR1 n66 Other PA	45M	QPSK	120	60	DFT-SCS-15KHz	Left Cheek	0mm	Ant 6	DSI 1	349000	1745	17.12	17.90	1.197	-	-	0.03	0.226	0.270
	FR1 n66 Other PA	45M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 6	DSI 1	349000	1745	17.15	17.90	1.189	-	-	-0.17	0.101	0.120
	FR1 n66 Other PA	45M	QPSK	120	60	DFT-SCS-15KHz	Left Tilted	0mm	Ant 6	DSI 1	349000	1745	17.12	17.90	1.197	-	-	0.02	0.106	0.127
1900MHz																				
14	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Right Cheek	0mm	Ant 4	DSI 1	661	1880	21.45	23.00	1.429	-	-	0.19	0.611	**0.873**
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Right Cheek	0mm	Ant 4	DSI 1	512	1850.2	21.36	23.00	1.459	-	-	-0.08	0.545	0.795
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Right Cheek	0mm	Ant 4	DSI 1	810	1909.8	21.38	23.00	1.452	-	-	-0.1	0.559	0.812
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Right Tilted	0mm	Ant 4	DSI 1	661	1880	21.45	23.00	1.429	-	-	-0.01	0.605	0.864
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Right Tilted	0mm	Ant 4	DSI 1	512	1850.2	21.36	23.00	1.459	-	-	-0.09	0.554	0.808
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Right Tilted	0mm	Ant 4	DSI 1	810	1909.8	21.38	23.00	1.452	-	-	-0.06	0.547	0.794
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Left Cheek	0mm	Ant 4	DSI 1	661	1880	21.45	23.00	1.429	-	-	-0.17	0.354	0.506
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Left Tilted	0mm	Ant 4	DSI 1	661	1880	21.45	23.00	1.429	-	-	-0.01	0.448	0.640
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Right Cheek	0mm	Ant 5	DSI 1	661	1880	21.09	22.40	1.352	-	-	0.07	0.325	0.439
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Right Tilted	0mm	Ant 5	DSI 1	661	1880	21.09	22.40	1.352	-	-	0.16	0.056	0.076
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Left Cheek	0mm	Ant 5	DSI 1	661	1880	21.09	22.40	1.352	-	-	0.05	0.402	0.544
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Left Tilted	0mm	Ant 5	DSI 1	661	1880	21.09	22.40	1.352	-	-	0.13	0.069	0.093
15	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 4	DSI 1	9400	1880	17.20	18.00	1.202	-	-	-0.09	0.576	**0.693**
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 4	DSI 1	9400	1880	17.20	18.00	1.202	-	-	0.07	0.556	0.668
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 4	DSI 1	9400	1880	17.20	18.00	1.202	-	-	0.07	0.360	0.433
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 4	DSI 1	9400	1880	17.20	18.00	1.202	-	-	-0.15	0.439	0.528
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 5	DSI 1	9400	1880	17.02	18.20	1.312	-	-	-0.18	0.434	0.569
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 5	DSI 1	9400	1880	17.02	18.20	1.312	-	-	0.02	0.069	0.091
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 5	DSI 1	9400	1880	17.02	18.20	1.312	-	-	0.04	0.523	0.686
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 5	DSI 1	9400	1880	17.02	18.20	1.312	-	-	0.16	0.093	0.122
16	LTE Band 2	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 1	18900	1880	17.53	18.50	1.250	-	-	-0.15	0.592	**0.740**
	LTE Band 2	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI 1	18900	1880	17.48	18.50	1.265	-	-	0.02	0.581	0.735
	LTE Band 2	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 1	18900	1880	17.53	18.50	1.250	-	-	0.12	0.590	0.738
	LTE Band 2	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	DSI 1	18900	1880	17.48	18.50	1.265	-	-	-0.04	0.563	0.712
	LTE Band 2	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	DSI 1	18900	1880	17.53	18.50	1.250	-	-	0.06	0.360	0.450
	LTE Band 2	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 4	DSI 1	18900	1880	17.48	18.50	1.265	-	-	-0.04	0.359	0.454
	LTE Band 2	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 4	DSI 1	18900	1880	17.53	18.50	1.250	-	-	0.17	0.443	0.554
	LTE Band 2	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 4	DSI 1	18900	1880	17.48	18.50	1.265	-	-	0.06	0.441	0.558
	LTE Band 2	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 5	DSI 1	18900	1880	15.65	16.60	1.245	-	-	0.13	0.315	0.392
	LTE Band 2	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 5	DSI 1	18900	1880	15.62	16.60	1.253	-	-	-0.18	0.306	0.383
	LTE Band 2	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 5	DSI 1	18900	1880	15.65	16.60	1.245	-	-	-0.11	0.049	0.061
	LTE Band 2	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 5	DSI 1	18900	1880	15.62	16.60	1.253	-	-	-0.16	0.052	0.065
	LTE Band 2	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	DSI 1	18900	1880	15.65	16.60	1.245	-	-	-0.15	0.375	0.467
	LTE Band 2	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 5	DSI 1	18900	1880	15.62	16.60	1.253	-	-	-0.06	0.368	0.461
	LTE Band 2	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 5	DSI 1	18900	1880	15.65	16.60	1.245	-	-	-0.14	0.067	0.083
	LTE Band 2	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 5	DSI 1	18900	1880	15.62	16.60	1.253	-	-	-0.19	0.069	0.086
	LTE Band 25	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 1	26340	1880	18.59	19.50	1.233	-	-	0.01	0.660	0.814
	LTE Band 25	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 1	26140	1860	18.39	19.50	1.291	-	-	0.06	0.622	0.803
	LTE Band 25	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 1	26590	1905	18.43	19.50	1.279	-	-	0.01	0.615	0.787
	LTE Band 25	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI 1	26340	1880	18.58	19.50	1.236	-	-	0.03	0.678	0.838
	LTE Band 25	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI 1	26140	1860	18.42	19.50	1.282	-	-	0.09	0.662	0.849
	LTE Band 25	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI 1	26590	1905	18.49	19.50	1.262	-	-	-0.02	0.657	0.829
	LTE Band 25	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 4	DSI 1	26340	1880	18.50	19.50	1.259	-	-	0.01	0.644	0.811
17	LTE Band 25	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 1	26340	1880	18.59	19.50	1.233	-	-	-0.08	0.690	**0.851**
	LTE Band 25	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 1	26140	1860	18.39	19.50	1.291	-	-	0.08	0.622	0.803
	LTE Band 25	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 1	26590	1905	18.43	19.50	1.279	-	-	0.01	0.602	0.770
	LTE Band 25	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	DSI 1	26340	1880	18.58	19.50	1.236	-	-	-0.08	0.687	0.849
	LTE Band 25	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	DSI 1	26140	1860	18.42	19.50	1.282	-	-	0.03	0.605	0.776
	LTE Band 25	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	DSI 1	26590	1905	18.49	19.50	1.262	-	-	-0.08	0.633	0.799
	LTE Band 25	20M	QPSK	100	0	-	Right Tilted	0mm	Ant 4	DSI 1	26340	1880	18.50	19.50	1.259	-	-	-0.08	0.651	0.820

	LTE Band 25	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	DSI 1	26340	1880	18.59	19.50	1.233	-	-	0.18	0.427	0.527
	LTE Band 25	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 4	DSI 1	26340	1880	18.58	19.50	1.236	-	-	0.1	0.444	0.549
	LTE Band 25	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 4	DSI 1	26340	1880	18.59	19.50	1.233	-	-	0.03	0.537	0.662
	LTE Band 25	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 4	DSI 1	26340	1880	18.58	19.50	1.236	-	-	0.04	0.544	0.672
	LTE Band 25	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 5	DSI 1	26340	1880	15.68	16.70	1.265	-	-	0.01	0.316	0.400
	LTE Band 25	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 5	DSI 1	26340	1880	15.62	16.70	1.282	-	-	0.06	0.315	0.404
	LTE Band 25	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 5	DSI 1	26340	1880	15.68	16.70	1.265	-	-	0.02	0.051	0.065
	LTE Band 25	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 5	DSI 1	26340	1880	15.62	16.70	1.282	-	-	0.12	0.055	0.071
	LTE Band 25	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	DSI 1	26340	1880	15.68	16.70	1.265	-	-	-0.16	0.383	0.484
	LTE Band 25	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 5	DSI 1	26340	1880	15.62	16.70	1.282	-	-	-0.12	0.376	0.482
	LTE Band 25	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 5	DSI 1	26340	1880	15.68	16.70	1.265	-	-	0.07	0.070	0.089
	LTE Band 25	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 5	DSI 1	26340	1880	15.62	16.70	1.282	-	-	-0.02	0.072	0.092
	FR1 n2	40M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 4	DSI 1	376000	1880	17.50	18.00	1.122	-	-	-0.09	0.604	0.678
	FR1 n2	40M	QPSK	108	54	DFT-SCS-15KHz	Right Cheek	0mm	Ant 4	DSI 1	376000	1880	17.45	18.00	1.135	-	-	0	0.591	0.671
	FR1 n2	40M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 4	DSI 1	376000	1880	17.50	18.00	1.122	-	-	-0.03	0.611	0.686
	FR1 n2	40M	QPSK	108	54	DFT-SCS-15KHz	Right Tilted	0mm	Ant 4	DSI 1	376000	1880	17.45	18.00	1.135	-	-	0.14	0.569	0.646
	FR1 n2	40M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 4	DSI 1	376000	1880	17.50	18.00	1.122	-	-	0.02	0.358	0.402
	FR1 n2	40M	QPSK	108	54	DFT-SCS-15KHz	Left Cheek	0mm	Ant 4	DSI 1	376000	1880	17.45	18.00	1.135	-	-	-0.03	0.357	0.405
	FR1 n2	40M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 4	DSI 1	376000	1880	17.50	18.00	1.122	-	-	-0.16	0.456	0.512
	FR1 n2	40M	QPSK	108	54	DFT-SCS-15KHz	Left Tilted	0mm	Ant 4	DSI 1	376000	1880	17.45	18.00	1.135	-	-	-0.02	0.446	0.506
	FR1 n2	40M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 5	DSI 1	376000	1880	18.25	18.80	1.135	-	-	-0.18	0.524	0.595
	FR1 n2	40M	QPSK	108	54	DFT-SCS-15KHz	Right Cheek	0mm	Ant 5	DSI 1	376000	1880	18.21	18.80	1.146	-	-	0.08	0.504	0.577
	FR1 n2	40M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 5	DSI 1	376000	1880	18.25	18.80	1.135	-	-	-0.07	0.098	0.111
	FR1 n2	40M	QPSK	108	54	DFT-SCS-15KHz	Right Tilted	0mm	Ant 5	DSI 1	376000	1880	18.21	18.80	1.146	-	-	0.18	0.094	0.108
	FR1 n2	40M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 5	DSI 1	376000	1880	18.25	18.80	1.135	-	-	-0.08	0.639	0.725
18	FR1 n2	40M	QPSK	108	54	DFT-SCS-15KHz	Left Cheek	0mm	Ant 5	DSI 1	376000	1880	18.21	18.80	1.146	-	-	0.09	0.714	**0.818**
	FR1 n2	40M	QPSK	216	0	DFT-SCS-15KHz	Left Cheek	0mm	Ant 5	DSI 1	376000	1880	18.18	18.80	1.153	-	-	-0.05	0.693	0.799
	FR1 n2	40M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 5	DSI 1	376000	1880	18.25	18.80	1.135	-	-	-0.07	0.125	0.142
	FR1 n2	40M	QPSK	108	54	DFT-SCS-15KHz	Left Tilted	0mm	Ant 5	DSI 1	376000	1880	18.21	18.80	1.146	-	-	-0.06	0.134	0.153
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 4	DSI 1	376500	1882.5	18.45	19.00	1.135	-	-	-0.17	0.510	0.579
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Right Cheek	0mm	Ant 4	DSI 1	376500	1882.5	18.43	19.00	1.140	-	-	-0.04	0.543	0.619
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 4	DSI 1	376500	1882.5	18.45	19.00	1.135	-	-	-0.17	0.584	0.663
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Right Tilted	0mm	Ant 4	DSI 1	376500	1882.5	18.43	19.00	1.140	-	-	-0.08	0.587	0.669
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 4	DSI 1	376500	1882.5	18.45	19.00	1.135	-	-	-0.07	0.326	0.370
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Left Cheek	0mm	Ant 4	DSI 1	376500	1882.5	18.43	19.00	1.140	-	-	0.04	0.347	0.396
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 4	DSI 1	376500	1882.5	18.45	19.00	1.135	-	-	0.01	0.440	0.499
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Left Tilted	0mm	Ant 4	DSI 1	376500	1882.5	18.43	19.00	1.140	-	-	0.04	0.459	0.523
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 5	DSI 1	376500	1882.5	16.41	16.80	1.094	-	-	-0.17	0.616	0.674
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Right Cheek	0mm	Ant 5	DSI 1	376500	1882.5	16.38	16.80	1.102	-	-	0.17	0.506	0.557
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 5	DSI 1	376500	1882.5	16.41	16.80	1.094	-	-	0.01	0.103	0.113
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Right Tilted	0mm	Ant 5	DSI 1	376500	1882.5	16.38	16.80	1.102	-	-	0.1	0.087	0.096
19	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 5	DSI 1	376500	1882.5	16.41	16.80	1.094	-	-	0.03	0.807	**0.883**
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Left Cheek	0mm	Ant 5	DSI 1	376500	1882.5	16.38	16.80	1.102	-	-	-0.17	0.643	0.708
	FR1 n25	40M	QPSK	216	0	DFT-SCS-15KHz	Left Cheek	0mm	Ant 5	DSI 1	376500	1882.5	16.36	16.80	1.107	-	-	0.04	0.649	0.718
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 5	DSI 1	376500	1882.5	16.41	16.80	1.094	-	-	-0.01	0.141	0.154
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Left Tilted	0mm	Ant 5	DSI 1	376500	1882.5	16.38	16.80	1.102	-	-	-0.08	0.120	0.132
2600MHz																				
	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 1	21100	2535	17.11	17.70	1.146	-	-	0.16	0.806	0.923
	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 1	20850	2510	16.94	17.70	1.191	-	-	0.1	0.787	0.938
	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 1	21350	2560	16.94	17.70	1.191	-	-	0.03	0.762	0.908
	LTE Band 7	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI 1	21100	2535	17.06	17.70	1.159	-	-	-0.03	0.798	0.925
	LTE Band 7	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI 1	20850	2510	16.98	17.70	1.180	-	-	-0.03	0.789	0.931
	LTE Band 7	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI 1	21350	2560	16.96	17.70	1.186	-	-	0.09	0.784	0.930
	LTE Band 7	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 4	DSI 1	21100	2535	16.99	17.70	1.178	-	-	-0.13	0.792	0.933
	LTE Band 7	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 1	21100	2535	17.11	17.70	1.146	-	-	-0.17	0.823	0.943
	LTE Band 7C	20M	QPSK	1	99	-	Right Tilted	0mm	Ant 4	DSI 1	21100+ 21298	2535+ 2554.8	16.30	16.70	1.096	-	-	0.01	0.801	0.878

	LTE Band 7	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 1	20850	2510	16.94	17.70	1.191	-	-	-0.1	0.788	0.939
	LTE Band 7	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 1	21350	2560	16.94	17.70	1.191	-	-	0.1	0.716	0.853
	LTE Band 7	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	DSI 1	21100	2535	17.06	17.70	1.159	-	-	0.17	0.779	0.903
	LTE Band 7	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	DSI 1	20850	2510	16.98	17.70	1.180	-	-	-0.06	0.795	0.938
	LTE Band 7	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	DSI 1	21350	2560	16.96	17.70	1.186	-	-	0.07	0.753	0.893
	LTE Band 7	20M	QPSK	100	0	-	Right Tilted	0mm	Ant 4	DSI 1	21100	2535	16.99	17.70	1.178	-	-	0.11	0.773	0.910
	LTE Band 7	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	DSI 1	21100	2535	17.11	17.70	1.146	-	-	-0.18	0.413	0.473
	LTE Band 7	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 4	DSI 1	21100	2535	17.06	17.70	1.159	-	-	0.11	0.422	0.489
	LTE Band 7	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 4	DSI 1	21100	2535	17.11	17.70	1.146	-	-	-0.01	0.480	0.550
	LTE Band 7	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 4	DSI 1	21100	2535	17.06	17.70	1.159	-	-	-0.11	0.475	0.550
	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 5	DSI 1	21100	2535	19.32	20.10	1.197	-	-	-0.06	0.616	0.737
	LTE Band 7C	20M	QPSK	1	99	-	Right Cheek	0mm	Ant 5	DSI 1	21100+ 21298	2535+ 2554.8	18.22	19.10	1.225	-	-	0.02	0.601	0.736
	LTE Band 7	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 5	DSI 1	21100	2535	19.28	20.10	1.208	-	-	0.03	0.594	0.717
	LTE Band 7	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 5	DSI 1	21100	2535	19.32	20.10	1.197	-	-	-0.02	0.089	0.107
	LTE Band 7	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 5	DSI 1	21100	2535	19.28	20.10	1.208	-	-	-0.09	0.080	0.097
	LTE Band 7	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	DSI 1	21100	2535	19.32	20.10	1.197	-	-	0.14	0.572	0.685
	LTE Band 7	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 5	DSI 1	21100	2535	19.28	20.10	1.208	-	-	0.07	0.547	0.661
	LTE Band 7	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 5	DSI 1	21100	2535	19.32	20.10	1.197	-	-	-0.07	0.094	0.112
	LTE Band 7	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 5	DSI 1	21100	2535	19.28	20.10	1.208	-	-	0.11	0.097	0.117
	LTE Band 7 Other PA	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	DSI 1	21100	2535	23.87	25.50	1.455	-	-	-0.14	0.217	0.316
	LTE Band 7C Other PA	20M	QPSK	1	99	-	Right Cheek	0mm	Ant 3	DSI 1	21100+ 21298	2535+ 2554.8	22.44	24.00	1.432	-	-	0.02	0.205	0.294
	LTE Band 7 Other PA	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	DSI 1	21100	2535	22.82	24.50	1.472	-	-	-0.07	0.167	0.246
	LTE Band 7 Other PA	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 3	DSI 1	21100	2535	23.87	25.50	1.455	-	-	0.1	0.083	0.121
	LTE Band 7 Other PA	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 3	DSI 1	21100	2535	22.82	24.50	1.472	-	-	0.05	0.069	0.102
	LTE Band 7 Other PA	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	DSI 1	21100	2535	23.87	25.50	1.455	-	-	0.18	0.165	0.240
	LTE Band 7 Other PA	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 3	DSI 1	21100	2535	22.82	24.50	1.472	-	-	0.12	0.130	0.191
	LTE Band 7 Other PA	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 3	DSI 1	21100	2535	23.87	25.50	1.455	-	-	0.02	0.048	0.070
	LTE Band 7 Other PA	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 3	DSI 1	21100	2535	22.82	24.50	1.472	-	-	0.04	0.041	0.060
	LTE Band 7 Other PA	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 6	DSI 1	21100	2535	15.12	15.80	1.169	-	-	0.08	0.743	0.869
	LTE Band 7 Other PA	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 6	DSI 1	20850	2510	14.93	15.80	1.222	-	-	0.01	0.704	0.860
20	LTE Band 7 Other PA	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 6	DSI 1	21350	2560	14.89	15.80	1.233	-	-	0.02	0.794	**0.979**
	LTE Band 7C Other PA	20M	QPSK	1	99	-	Right Cheek	0mm	Ant 6	DSI 1	21350+ 21152	2560+ 2540.2	14.64	15.80	1.306	-	-	0.01	0.701	0.916
	LTE Band 7 Other PA	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 6	DSI 1	21100	2535	15.03	15.80	1.194	-	-	0.03	0.749	0.894
	LTE Band 7 Other PA	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 6	DSI 1	20850	2510	15.00	15.80	1.202	-	-	-0.08	0.705	0.848
	LTE Band 7 Other PA	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 6	DSI 1	21350	2560	14.95	15.80	1.216	-	-	-0.08	0.791	0.962
	LTE Band 7 Other PA	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 6	DSI 1	21100	2535	14.99	15.80	1.205	-	-	0.1	0.733	0.883
	LTE Band 7 Other PA	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 6	DSI 1	21100	2535	15.12	15.80	1.169	-	-	-0.18	0.345	0.403
	LTE Band 7 Other PA	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 6	DSI 1	21100	2535	15.03	15.80	1.194	-	-	0.1	0.331	0.395
	LTE Band 7 Other PA	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 6	DSI 1	21100	2535	15.12	15.80	1.169	-	-	0.12	0.179	0.209
	LTE Band 7 Other PA	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 6	DSI 1	21100	2535	15.03	15.80	1.194	-	-	0.08	0.174	0.208
	LTE Band 7 Other PA	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 6	DSI 1	21100	2535	15.12	15.80	1.169	-	-	-0.17	0.116	0.136
	LTE Band 7 Other PA	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 6	DSI 1	21100	2535	15.03	15.80	1.194	-	-	-0.03	0.114	0.136
	LTE Band 38	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 1	38000	2595	19.69	20.20	1.125	62.9	1.006	0.04	0.796	0.901
	LTE Band 38	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 1	37850	2580	19.57	20.20	1.156	62.9	1.006	0.16	0.813	0.946
	LTE Band 38	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 1	38150	2610	19.60	20.20	1.148	62.9	1.006	-0.01	0.833	0.962
	LTE Band 38C	20M	QPSK	1	99	-	Right Cheek	0mm	Ant 4	DSI 1	38150+ 37952	2610+ 5290.2	18.73	19.20	1.114	62.9	1.006	0.01	0.801	0.898
	LTE Band 38	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI 1	38000	2595	19.61	20.20	1.146	62.9	1.006	0.17	0.786	0.906
	LTE Band 38	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI 1	37850	2580	19.59	20.20	1.151	62.9	1.006	0.06	0.784	0.908

	LTE Band 38	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI 1	38150	2610	19.54	20.20	1.164	62.9	1.006	-0.18	0.788	0.923
	LTE Band 38	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 4	DSI 1	38000	2595	19.64	20.20	1.138	62.9	1.006	0.06	0.782	0.895
	LTE Band 38	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 1	38000	2595	19.69	20.20	1.125	62.9	1.006	0.18	0.744	0.842
	LTE Band 38	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 1	37850	2580	19.57	20.20	1.156	62.9	1.006	-0.19	0.731	0.850
	LTE Band 38	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 1	38150	2610	19.60	20.20	1.148	62.9	1.006	0.17	0.734	0.848
	LTE Band 38	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	DSI 1	38000	2595	19.61	20.20	1.146	62.9	1.006	-0.16	0.459	0.529
	LTE Band 38	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	DSI 1	37850	2580	19.59	20.20	1.151	62.9	1.006	-0.08	0.757	0.876
	LTE Band 38	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	DSI 1	38150	2610	19.54	20.20	1.164	62.9	1.006	0.03	0.743	0.870
	LTE Band 38	20M	QPSK	100	0	-	Right Tilted	0mm	Ant 4	DSI 1	38000	2595	19.64	20.20	1.138	62.9	1.006	0.12	0.772	0.884
	LTE Band 38	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	DSI 1	38000	2595	19.69	20.20	1.125	62.9	1.006	-0.17	0.381	0.431
	LTE Band 38	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 4	DSI 1	38000	2595	19.61	20.20	1.146	62.9	1.006	-0.17	0.376	0.433
	LTE Band 38	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 4	DSI 1	38000	2595	19.69	20.20	1.125	62.9	1.006	0.02	0.422	0.477
	LTE Band 38	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 4	DSI 1	38000	2595	19.61	20.20	1.146	62.9	1.006	-0.07	0.418	0.482
	LTE Band 38	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 5	DSI 1	38000	2595	20.21	21.00	1.199	62.9	1.006	-0.03	0.424	0.512
	LTE Band 38C	20M	QPSK	1	99	-	Right Cheek	0mm	Ant 5	DSI 1	37901+ 38099	2585.1+ 2604.9	18.91	20.00	1.285	62.9	1.006	0.01	0.388	0.502
	LTE Band 38	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 5	DSI 1	38000	2595	20.19	21.00	1.205	62.9	1.006	0.05	0.413	0.501
	LTE Band 38	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 5	DSI 1	38000	2595	20.21	21.00	1.199	62.9	1.006	0.07	0.055	0.066
	LTE Band 38	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 5	DSI 1	38000	2595	20.19	21.00	1.205	62.9	1.006	0	0.055	0.067
	LTE Band 38	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	DSI 1	38000	2595	20.21	21.00	1.199	62.9	1.006	0.01	0.419	0.506
	LTE Band 38	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 5	DSI 1	38000	2595	20.19	21.00	1.205	62.9	1.006	-0.01	0.409	0.496
	LTE Band 38	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 5	DSI 1	38000	2595	20.21	21.00	1.199	62.9	1.006	-0.06	0.064	0.077
	LTE Band 38	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 5	DSI 1	38000	2595	20.19	21.00	1.205	62.9	1.006	-0.04	0.059	0.072
	LTE Band 38 Other PA	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	DSI 1	38000	2595	24.11	25.00	1.227	62.9	1.006	0.08	0.169	0.209
	LTE Band 38C Other PA	20M	QPSK	1	99	-	Right Cheek	0mm	Ant 3	DSI 1	37901+ 38099	2585.1+ 2604.9	22.73	24.00	1.340	62.9	1.006	0.01	0.135	0.182
	LTE Band 38 Other PA	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	DSI 1	38000	2595	23.12	24.00	1.225	62.9	1.006	0	0.133	0.164
	LTE Band 38 Other PA	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 3	DSI 1	38000	2595	24.11	25.00	1.227	62.9	1.006	-0.12	0.056	0.069
	LTE Band 38 Other PA	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 3	DSI 1	38000	2595	23.12	24.00	1.225	62.9	1.006	-0.08	0.042	0.052
	LTE Band 38 Other PA	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	DSI 1	38000	2595	24.11	25.00	1.227	62.9	1.006	-0.16	0.119	0.147
	LTE Band 38 Other PA	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 3	DSI 1	38000	2595	23.12	24.00	1.225	62.9	1.006	0.18	0.098	0.121
	LTE Band 38 Other PA	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 3	DSI 1	38000	2595	24.11	25.00	1.227	62.9	1.006	-0.08	0.000	0.000
	LTE Band 38 Other PA	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 3	DSI 1	38000	2595	23.12	24.00	1.225	62.9	1.006	0.04	0.000	0.000
	LTE Band 38 Other PA	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 6	DSI 1	38000	2595	17.55	18.40	1.216	62.9	1.006	-0.07	0.752	0.920
	LTE Band 38 Other PA	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 6	DSI 1	37850	2580	17.37	18.40	1.268	62.9	1.006	0.13	0.724	0.923
21	LTE Band 38 Other PA	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 6	DSI 1	38150	2610	17.34	18.40	1.276	62.9	1.006	0.06	0.814	**1.045**
	LTE Band 38C Other PA	20M	QPSK	1	99	-	Right Cheek	0mm	Ant 6	DSI 1	38150+ 37952	2610+ 5290.2	15.48	16.40	1.236	62.9	1.006	0.01	0.758	0.942
	LTE Band 38 Other PA	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 6	DSI 1	38000	2595	17.49	18.40	1.233	62.9	1.006	-0.07	0.736	0.913
	LTE Band 38 Other PA	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 6	DSI 1	37850	2580	17.42	18.40	1.253	62.9	1.006	0.11	0.732	0.923
	LTE Band 38 Other PA	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 6	DSI 1	38150	2610	17.43	18.40	1.250	62.9	1.006	-0.12	0.810	1.019
	LTE Band 38 Other PA	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 6	DSI 1	38000	2595	17.42	18.40	1.253	62.9	1.006	-0.08	0.719	0.906
	LTE Band 38 Other PA	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 6	DSI 1	38000	2595	17.55	18.40	1.216	62.9	1.006	-0.16	0.324	0.396
	LTE Band 38 Other PA	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 6	DSI 1	38000	2595	17.49	18.40	1.233	62.9	1.006	0	0.318	0.394
	LTE Band 38 Other PA	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 6	DSI 1	38000	2595	17.55	18.40	1.216	62.9	1.006	-0.02	0.190	0.232
	LTE Band 38 Other PA	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 6	DSI 1	38000	2595	17.49	18.40	1.233	62.9	1.006	0.04	0.185	0.229
	LTE Band 38 Other PA	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 6	DSI 1	38000	2595	17.55	18.40	1.216	62.9	1.006	-0.18	0.107	0.131
	LTE Band 38 Other PA	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 6	DSI 1	38000	2595	17.49	18.40	1.233	62.9	1.006	-0.07	0.106	0.131
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 1	40620	2593	19.75	20.20	1.109	62.9	1.006	-0.03	0.870	0.971
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 1	39750	2506	19.55	20.20	1.161	62.9	1.006	0	0.921	1.076
22	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 1	40185	2549.5	19.53	20.20	1.167	62.9	1.006	-0.05	0.932	**1.094**
	LTE Band 41C	20M	QPSK	1	99	-	Right Cheek	0mm	Ant 4	DSI 1	40185+	2549.5+	18.59	19.20	1.151	62.9	1.006	0.01	0.859	0.994

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	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 1	41055	2636.5	19.57	20.20	1.156	62.9	1.006	0.09	0.674	0.784
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 1	41490	2680	19.55	20.20	1.161	62.9	1.006	-0.02	0.552	0.645
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI 1	40620	2593	19.69	20.20	1.125	62.9	1.006	-0.07	0.866	0.980
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI 1	39750	2506	19.57	20.20	1.156	62.9	1.006	-0.16	0.894	1.040
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI 1	40185	2549.5	19.53	20.20	1.167	62.9	1.006	-0.03	0.926	1.087
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI 1	41055	2636.5	19.63	20.20	1.140	62.9	1.006	0.03	0.670	0.769
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI 1	41490	2680	19.60	20.20	1.148	62.9	1.006	0.1	0.560	0.647
	LTE Band 41	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 4	DSI 1	40620	2593	19.68	20.20	1.127	62.9	1.006	0.03	0.849	0.963
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 1	40620	2593	19.75	20.20	1.109	62.9	1.006	0.06	0.806	0.899
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 1	39750	2506	19.55	20.20	1.161	62.9	1.006	0.12	0.896	1.047
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 1	40185	2549.5	19.53	20.20	1.167	62.9	1.006	-0.03	0.856	1.005
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 1	41055	2636.5	19.57	20.20	1.156	62.9	1.006	0.11	0.641	0.746
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 1	41490	2680	19.55	20.20	1.161	62.9	1.006	0.08	0.510	0.596
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	DSI 1	40620	2593	19.69	20.20	1.125	62.9	1.006	0.07	0.827	0.936
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	DSI 1	39750	2506	19.57	20.20	1.156	62.9	1.006	0.09	0.918	1.068
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	DSI 1	40185	2549.5	19.53	20.20	1.167	62.9	1.006	-0.12	0.883	1.036
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	DSI 1	41055	2636.5	19.63	20.20	1.140	62.9	1.006	0.1	0.661	0.758
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	DSI 1	41490	2680	19.60	20.20	1.148	62.9	1.006	-0.16	0.528	0.610
	LTE Band 41	20M	QPSK	100	0	-	Right Tilted	0mm	Ant 4	DSI 1	40620	2593	19.68	20.20	1.127	62.9	1.006	-0.1	0.811	0.920
	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	DSI 1	40620	2593	19.75	20.20	1.109	62.9	1.006	0.17	0.418	0.466
	LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 4	DSI 1	40620	2593	19.69	20.20	1.125	62.9	1.006	0.12	0.412	0.466
	LTE Band 41	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 4	DSI 1	40620	2593	19.75	20.20	1.109	62.9	1.006	-0.11	0.461	0.514
	LTE Band 41	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 4	DSI 1	40620	2593	19.69	20.20	1.125	62.9	1.006	-0.12	0.462	0.523
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 5	DSI 1	40620	2593	20.49	21.40	1.233	62.9	1.006	-0.09	0.473	0.587
	LTE Band 41C	20M	QPSK	1	99	-	Right Cheek	0mm	Ant 5	DSI 1	40620+ 40818	2593+ 2612.8	19.55	20.40	1.216	62.9	1.006	0.01	0.456	0.558
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 5	DSI 1	40620	2593	20.46	21.40	1.242	62.9	1.006	-0.17	0.469	0.586
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 5	DSI 1	40620	2593	20.49	21.40	1.233	62.9	1.006	-0.1	0.063	0.078
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 5	DSI 1	40620	2593	20.46	21.40	1.242	62.9	1.006	0.18	0.060	0.075
	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	DSI 1	40620	2593	20.49	21.40	1.233	62.9	1.006	-0.17	0.449	0.557
	LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 5	DSI 1	40620	2593	20.46	21.40	1.242	62.9	1.006	-0.04	0.463	0.578
	LTE Band 41	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 5	DSI 1	40620	2593	20.49	21.40	1.233	62.9	1.006	-0.05	0.063	0.078
	LTE Band 41	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 5	DSI 1	40620	2593	20.46	21.40	1.242	62.9	1.006	0	0.069	0.086
	LTE Band 41 Other PA	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	DSI 1	40620	2593	24.10	25.00	1.230	62.9	1.006	0.15	0.167	0.207
	LTE Band 41C Other PA	20M	QPSK	1	99	-	Right Cheek	0mm	Ant 3	DSI 1	40620+ 40818	2593+ 2612.8	22.97	24.00	1.268	62.9	1.006	0.01	0.135	0.172
	LTE Band 41 Other PA	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	DSI 1	40620	2593	23.14	24.00	1.219	62.9	1.006	-0.06	0.135	0.166
	LTE Band 41 Other PA	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 3	DSI 1	40620	2593	24.10	25.00	1.230	62.9	1.006	-0.15	0.063	0.078
	LTE Band 41 Other PA	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 3	DSI 1	40620	2593	23.14	24.00	1.219	62.9	1.006	-0.03	0.055	0.067
	LTE Band 41 Other PA	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	DSI 1	40620	2593	24.10	25.00	1.230	62.9	1.006	0.1	0.126	0.156
	LTE Band 41 Other PA	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 3	DSI 1	40620	2593	23.14	24.00	1.219	62.9	1.006	-0.05	0.101	0.124
	LTE Band 41 Other PA	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 3	DSI 1	40620	2593	24.10	25.00	1.230	62.9	1.006	-0.03	0.000	0.000
	LTE Band 41 Other PA	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 3	DSI 1	40620	2593	23.14	24.00	1.219	62.9	1.006	0.09	0.000	0.000
	LTE Band 41 Other PA	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 6	DSI 1	40620	2593	17.59	18.40	1.205	62.9	1.006	0.16	0.775	0.940
	LTE Band 41 Other PA	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 6	DSI 1	39750	2506	17.42	18.40	1.253	62.9	1.006	-0.09	0.688	0.867
	LTE Band 41 Other PA	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 6	DSI 1	40185	2549.5	17.50	18.40	1.230	62.9	1.006	-0.09	0.816	1.010
	LTE Band 41C Other PA	20M	QPSK	1	99	-	Right Cheek	0mm	Ant 6	DSI 1	40185+ 40383	2549.5+ 2569.3	15.39	16.40	1.262	62.9	1.006	0.02	0.756	0.960
	LTE Band 41 Other PA	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 6	DSI 1	41055	2636.5	17.36	18.40	1.271	62.9	1.006	0.08	0.760	0.971
	LTE Band 41 Other PA	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 6	DSI 1	41490	2680	17.48	18.40	1.236	62.9	1.006	0.06	0.640	0.796
	LTE Band 41 Other PA	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 6	DSI 1	40620	2593	17.56	18.40	1.213	62.9	1.006	0.1	0.775	0.946
	LTE Band 41 Other PA	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 6	DSI 1	39750	2506	17.40	18.40	1.259	62.9	1.006	0.1	0.700	0.887
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 6	DSI 1	40185	2549.5	17.47	18.40	1.239	62.9	1.006	-0.07	0.804	1.002

	Other PA																			
	LTE Band 41 Other PA	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 6	DSI 1	41055	2636.5	17.43	18.40	1.250	62.9	1.006	0.12	0.751	0.945
	LTE Band 41 Other PA	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 6	DSI 1	41490	2680	17.45	18.40	1.245	62.9	1.006	0.08	0.631	0.790
	LTE Band 41 Other PA	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 6	DSI 1	40620	2593	17.50	18.40	1.230	62.9	1.006	0.15	0.777	0.962
	LTE Band 41 Other PA	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 6	DSI 1	40620	2593	17.59	18.40	1.205	62.9	1.006	-0.11	0.327	0.396
	LTE Band 41 Other PA	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 6	DSI 1	40620	2593	17.56	18.40	1.213	62.9	1.006	-0.05	0.328	0.400
	LTE Band 41 Other PA	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 6	DSI 1	40620	2593	17.59	18.40	1.205	62.9	1.006	0.02	0.203	0.246
	LTE Band 41 Other PA	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 6	DSI 1	40620	2593	17.56	18.40	1.213	62.9	1.006	-0.05	0.203	0.248
	LTE Band 41 Other PA	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 6	DSI 1	40620	2593	17.59	18.40	1.205	62.9	1.006	-0.11	0.108	0.131
	LTE Band 41 Other PA	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 6	DSI 1	40620	2593	17.56	18.40	1.213	62.9	1.006	0.03	0.112	0.137
	FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 4	DSI 1	507000	2535	16.04	16.20	1.038	-	-	0	0.755	0.783
	FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Right Cheek	0mm	Ant 4	DSI 1	507000	2535	16.02	16.20	1.042	-	-	0.18	0.675	0.704
	FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 4	DSI 1	507000	2535	16.04	16.20	1.038	-	-	-0.09	0.751	0.779
	FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Right Tilted	0mm	Ant 4	DSI 1	507000	2535	16.02	16.20	1.042	-	-	-0.05	0.670	0.698
	FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 4	DSI 1	507000	2535	16.04	16.20	1.038	-	-	0.02	0.321	0.333
	FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Left Cheek	0mm	Ant 4	DSI 1	507000	2535	16.02	16.20	1.042	-	-	0.07	0.294	0.306
	FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 4	DSI 1	507000	2535	16.04	16.20	1.038	-	-	-0.18	0.382	0.396
	FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Left Tilted	0mm	Ant 4	DSI 1	507000	2535	16.02	16.20	1.042	-	-	0.06	0.347	0.362
	FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 5	DSI 1	507000	2535	20.72	21.10	1.091	-	-	0.16	0.726	0.792
	FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Right Cheek	0mm	Ant 5	DSI 1	507000	2535	20.68	21.10	1.102	-	-	-0.12	0.698	0.769
	FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 5	DSI 1	507000	2535	20.72	21.10	1.091	-	-	-0.07	0.107	0.117
	FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Right Tilted	0mm	Ant 5	DSI 1	507000	2535	20.68	21.10	1.102	-	-	0.04	0.109	0.120
	FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 5	DSI 1	507000	2535	20.72	21.10	1.091	-	-	0.04	0.686	0.749
	FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Left Cheek	0mm	Ant 5	DSI 1	507000	2535	20.68	21.10	1.102	-	-	0.1	0.723	0.796
	FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 5	DSI 1	507000	2535	20.72	21.10	1.091	-	-	0.07	0.145	0.158
	FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Left Tilted	0mm	Ant 5	DSI 1	507000	2535	20.68	21.10	1.102	-	-	0.1	0.115	0.127
	FR1 n7 Other PA	50M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 3	DSI 1	507000	2535	24.37	25.00	1.156	-	-	-0.12	0.253	0.292
	FR1 n7 Other PA	50M	QPSK	135	68	DFT-SCS-15KHz	Right Cheek	0mm	Ant 3	DSI 1	507000	2535	24.14	25.00	1.219	-	-	-0.08	0.252	0.307
	FR1 n7 Other PA	50M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 3	DSI 1	507000	2535	24.37	25.00	1.156	-	-	-0.18	0.090	0.104
	FR1 n7 Other PA	50M	QPSK	135	68	DFT-SCS-15KHz	Right Tilted	0mm	Ant 3	DSI 1	507000	2535	24.14	25.00	1.219	-	-	-0.13	0.100	0.122
	FR1 n7 Other PA	50M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 3	DSI 1	507000	2535	24.37	25.00	1.156	-	-	-0.03	0.185	0.214
	FR1 n7 Other PA	50M	QPSK	135	68	DFT-SCS-15KHz	Left Cheek	0mm	Ant 3	DSI 1	507000	2535	24.14	25.00	1.219	-	-	0.02	0.207	0.252
	FR1 n7 Other PA	50M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 3	DSI 1	507000	2535	24.37	25.00	1.156	-	-	0.02	0.053	0.061
	FR1 n7 Other PA	50M	QPSK	135	68	DFT-SCS-15KHz	Left Tilted	0mm	Ant 3	DSI 1	507000	2535	24.14	25.00	1.219	-	-	0.11	0.061	0.074
23	FR1 n7 Other PA	50M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 6	DSI 1	507000	2535	15.49	16.10	1.151	-	-	-0.14	0.842	**0.969**
	FR1 n7 Other PA	50M	QPSK	135	68	DFT-SCS-15KHz	Right Cheek	0mm	Ant 6	DSI 1	507000	2535	15.47	16.10	1.156	-	-	0.08	0.834	0.964
	FR1 n7 Other PA	50M	QPSK	270	0	DFT-SCS-15KHz	Right Cheek	0mm	Ant 6	DSI 1	507000	2535	15.44	16.10	1.164	-	-	0.01	0.824	0.959
	FR1 n7 Other PA	50M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 6	DSI 1	507000	2535	15.49	16.10	1.151	-	-	0.03	0.339	0.390
	FR1 n7 Other PA	50M	QPSK	135	68	DFT-SCS-15KHz	Right Tilted	0mm	Ant 6	DSI 1	507000	2535	15.47	16.10	1.156	-	-	-0.08	0.341	0.394
	FR1 n7 Other PA	50M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 6	DSI 1	507000	2535	15.49	16.10	1.151	-	-	-0.08	0.187	0.215
	FR1 n7 Other PA	50M	QPSK	135	68	DFT-SCS-15KHz	Left Cheek	0mm	Ant 6	DSI 1	507000	2535	15.47	16.10	1.156	-	-	0.1	0.220	0.254
	FR1 n7 Other PA	50M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 6	DSI 1	507000	2535	15.49	16.10	1.151	-	-	-0.18	0.108	0.124
	FR1 n7 Other PA	50M	QPSK	135	68	DFT-SCS-15KHz	Left Tilted	0mm	Ant 6	DSI 1	507000	2535	15.47	16.10	1.156	-	-	0.1	0.111	0.128
	FR1 n38	40M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 4	DSI 1	519000	2595	17.37	17.70	1.079	-	-	0.01	0.929	1.002
	FR1 n38	40M	QPSK	50	28	DFT-SCS-30KHz	Right Cheek	0mm	Ant 4	DSI 1	519000	2595	17.33	17.70	1.089	-	-	0.05	0.776	0.845
	FR1 n38	40M	QPSK	100	0	DFT-SCS-30KHz	Right Cheek	0mm	Ant 4	DSI 1	519000	2595	17.27	17.70	1.104	-	-	0.06	0.802	0.885
	FR1 n38	40M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 4	DSI 1	519000	2595	17.37	17.70	1.079	-	-	-0.09	0.903	0.974
	FR1 n38	40M	QPSK	50	28	DFT-SCS-30KHz	Right Tilted	0mm	Ant 4	DSI 1	519000	2595	17.33	17.70	1.089	-	-	-0.08	0.764	0.832
	FR1 n38	40M	QPSK	100	0	DFT-SCS-30KHz	Right Tilted	0mm	Ant 4	DSI 1	519000	2595	17.27	17.70	1.104	-	-	0.13	0.741	0.818
	FR1 n38	40M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 4	DSI 1	519000	2595	17.37	17.70	1.079	-	-	0.12	0.381	0.411
	FR1 n38	40M	QPSK	50	28	DFT-SCS-30KHz	Left Cheek	0mm	Ant 4	DSI 1	519000	2595	17.33	17.70	1.089	-	-	0.03	0.347	0.378
	FR1 n38	40M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 4	DSI 1	519000	2595	17.37	17.70	1.079	-	-	0.18	0.473	0.510
	FR1 n38	40M	QPSK	50	28	DFT-SCS-30KHz	Left Tilted	0mm	Ant 4	DSI 1	519000	2595	17.33	17.70	1.089	-	-	0.16	0.446	0.486

	FR1 n38	40M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 5	DSI 1	519000	2595	20.06	21.00	1.242	-	-	-0.1	0.843	1.047
	FR1 n38	40M	QPSK	50	28	DFT-SCS-30KHz	Right Cheek	0mm	Ant 5	DSI 1	519000	2595	20.03	21.00	1.250	-	-	0.07	0.726	0.908
	FR1 n38	40M	QPSK	100	0	DFT-SCS-30KHz	Right Cheek	0mm	Ant 5	DSI 1	519000	2595	20.02	21.00	1.253	-	-	0.18	0.708	0.887
	FR1 n38	40M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 5	DSI 1	519000	2595	20.06	21.00	1.242	-	-	-0.1	0.113	0.140
	FR1 n38	40M	QPSK	50	28	DFT-SCS-30KHz	Right Tilted	0mm	Ant 5	DSI 1	519000	2595	20.03	21.00	1.250	-	-	0.01	0.117	0.146
24	FR1 n38	40M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 5	DSI 1	519000	2595	20.06	21.00	1.242	-	-	-0.06	0.877	**1.089**
	FR1 n38	40M	QPSK	50	28	DFT-SCS-30KHz	Left Cheek	0mm	Ant 5	DSI 1	519000	2595	20.03	21.00	1.250	-	-	-0.15	0.838	1.048
	FR1 n38	40M	QPSK	100	0	DFT-SCS-30KHz	Left Cheek	0mm	Ant 5	DSI 1	519000	2595	20.02	21.00	1.253	-	-	0.19	0.862	1.080
	FR1 n38	40M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 5	DSI 1	519000	2595	20.06	21.00	1.242	-	-	0.07	0.134	0.166
	FR1 n38	40M	QPSK	50	28	DFT-SCS-30KHz	Left Tilted	0mm	Ant 5	DSI 1	519000	2595	20.03	21.00	1.250	-	-	-0.18	0.126	0.158
	FR1 n38 Other PA	40M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 3	DSI 1	519000	2595	24.02	25.00	1.253	-	-	0.12	0.277	0.347
	FR1 n38 Other PA	40M	QPSK	50	28	DFT-SCS-30KHz	Right Cheek	0mm	Ant 3	DSI 1	519000	2595	23.70	25.00	1.349	-	-	0.1	0.305	0.411
	FR1 n38 Other PA	40M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 3	DSI 1	519000	2595	24.02	25.00	1.253	-	-	-0.04	0.119	0.149
	FR1 n38 Other PA	40M	QPSK	50	28	DFT-SCS-30KHz	Right Tilted	0mm	Ant 3	DSI 1	519000	2595	23.70	25.00	1.349	-	-	0.05	0.108	0.146
	FR1 n38 Other PA	40M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 3	DSI 1	519000	2595	24.02	25.00	1.253	-	-	0	0.206	0.258
	FR1 n38 Other PA	40M	QPSK	50	28	DFT-SCS-30KHz	Left Cheek	0mm	Ant 3	DSI 1	519000	2595	23.70	25.00	1.349	-	-	0	0.212	0.286
	FR1 n38 Other PA	40M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 3	DSI 1	519000	2595	24.02	25.00	1.253	-	-	-0.14	0.073	0.091
	FR1 n38 Other PA	40M	QPSK	50	28	DFT-SCS-30KHz	Left Tilted	0mm	Ant 3	DSI 1	519000	2595	23.70	25.00	1.349	-	-	0.18	0.068	0.092
	FR1 n38 Other PA	40M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 6	DSI 1	519000	2595	14.58	15.80	1.324	-	-	0.03	0.803	1.063
	FR1 n38 Other PA	40M	QPSK	50	28	DFT-SCS-30KHz	Right Cheek	0mm	Ant 6	DSI 1	519000	2595	14.53	15.80	1.340	-	-	-0.15	0.808	1.082
	FR1 n38 Other PA	40M	QPSK	100	0	DFT-SCS-30KHz	Right Cheek	0mm	Ant 6	DSI 1	519000	2595	14.52	15.80	1.343	-	-	0.01	0.809	1.086
	FR1 n38 Other PA	40M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 6	DSI 1	519000	2595	14.58	15.80	1.324	-	-	-0.15	0.349	0.462
	FR1 n38 Other PA	40M	QPSK	50	28	DFT-SCS-30KHz	Right Tilted	0mm	Ant 6	DSI 1	519000	2595	14.53	15.80	1.340	-	-	0.11	0.346	0.464
	FR1 n38 Other PA	40M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 6	DSI 1	519000	2595	14.58	15.80	1.324	-	-	-0.08	0.235	0.311
	FR1 n38 Other PA	40M	QPSK	50	28	DFT-SCS-30KHz	Left Cheek	0mm	Ant 6	DSI 1	519000	2595	14.53	15.80	1.340	-	-	-0.17	0.240	0.322
	FR1 n38 Other PA	40M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 6	DSI 1	519000	2595	14.58	15.80	1.324	-	-	-0.08	0.129	0.171
	FR1 n38 Other PA	40M	QPSK	50	28	DFT-SCS-30KHz	Left Tilted	0mm	Ant 6	DSI 1	519000	2595	14.53	15.80	1.340	-	-	-0.04	0.128	0.171
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 4	DSI 1	518598	2592.99	16.56	16.70	1.033	-	-	-0.08	0.901	0.931
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 4	DSI 1	518598	2592.99	16.41	16.70	1.069	-	-	0.17	0.670	0.716
	FR1 n41	100M	QPSK	270	0	DFT-SCS-30KHz	Right Cheek	0mm	Ant 4	DSI 1	518598	2592.99	16.46	16.70	1.057	-	-	0.18	0.689	0.728
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 4	DSI 1	518598	2592.99	16.56	16.70	1.033	-	-	-0.04	0.870	0.899
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 4	DSI 1	518598	2592.99	16.41	16.70	1.069	-	-	-0.08	0.649	0.694
	FR1 n41	100M	QPSK	270	0	DFT-SCS-30KHz	Right Tilted	0mm	Ant 4	DSI 1	518598	2592.99	16.46	16.70	1.057	-	-	-0.13	0.703	0.743
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 4	DSI 1	518598	2592.99	16.56	16.70	1.033	-	-	-0.13	0.403	0.416
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 4	DSI 1	518598	2592.99	16.41	16.70	1.069	-	-	0.06	0.305	0.326
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 4	DSI 1	518598	2592.99	16.56	16.70	1.033	-	-	-0.03	0.482	0.498
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 4	DSI 1	518598	2592.99	16.41	16.70	1.069	-	-	-0.03	0.373	0.399
	FR1 n41 PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 4	DSI 1	518598	2592.99	19.54	20.00	1.112	50	1.000	-0.06	0.908	1.009
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 5	DSI 1	518598	2592.99	19.82	20.70	1.225	-	-	0.05	0.779	0.954
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 5	DSI 1	518598	2592.99	19.80	20.70	1.230	-	-	0.06	0.823	1.013
	FR1 n41	100M	QPSK	270	0	DFT-SCS-30KHz	Right Cheek	0mm	Ant 5	DSI 1	518598	2592.99	19.79	20.70	1.233	-	-	-0.09	0.748	0.922
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 5	DSI 1	518598	2592.99	19.82	20.70	1.225	-	-	-0.08	0.123	0.151
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 5	DSI 1	518598	2592.99	19.80	20.70	1.230	-	-	0.13	0.123	0.151
25	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 5	DSI 1	518598	2592.99	19.82	20.70	1.225	-	-	0.08	0.847	**1.037**
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 5	DSI 1	518598	2592.99	19.80	20.70	1.230	-	-	0.03	0.815	1.003
	FR1 n41	100M	QPSK	270	0	DFT-SCS-30KHz	Left Cheek	0mm	Ant 5	DSI 1	518598	2592.99	19.79	20.70	1.233	-	-	0.18	0.839	1.035
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 5	DSI 1	518598	2592.99	19.82	20.70	1.225	-	-	0.16	0.135	0.165
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 5	DSI 1	518598	2592.99	19.80	20.70	1.230	-	-	-0.1	0.127	0.156
	FR1 n41 PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 5	DSI 1	518598	2592.99	22.84	23.70	1.219	50	1.000	0.07	0.837	1.020
	FR1 n41 Other PA	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 3	DSI 1	518598	2592.99	24.32	25.00	1.169	-	-	-0.1	0.274	0.320
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 3	DSI 1	518598	2592.99	24.28	25.00	1.180	-	-	0.04	0.344	0.406

	Other PA																			
	FR1 n41 Other PA	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 3	DSI 1	518598	2592.99	24.32	25.00	1.169	-	-	0.08	0.145	0.170
	FR1 n41 Other PA	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 3	DSI 1	518598	2592.99	24.28	25.00	1.180	-	-	-0.09	0.128	0.151
	FR1 n41 Other PA	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 3	DSI 1	518598	2592.99	24.32	25.00	1.169	-	-	0.03	0.227	0.265
	FR1 n41 Other PA	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 3	DSI 1	518598	2592.99	24.28	25.00	1.180	-	-	0.03	0.238	0.281
	FR1 n41 Other PA	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 3	DSI 1	518598	2592.99	24.32	25.00	1.169	-	-	0.19	0.109	0.127
	FR1 n41 Other PA	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 3	DSI 1	518598	2592.99	24.28	25.00	1.180	-	-	0.16	0.077	0.091
	FR1 n41 Other PA	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 6	DSI 1	518598	2592.99	14.86	15.70	1.213	-	-	0.08	0.841	1.020
	FR1 n41 Other PA	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 6	DSI 1	518598	2592.99	14.82	15.70	1.225	-	-	-0.03	0.842	1.031
	FR1 n41 Other PA	100M	QPSK	270	0	DFT-SCS-30KHz	Right Cheek	0mm	Ant 6	DSI 1	518598	2592.99	14.81	15.70	1.227	-	-	-0.07	0.836	1.026
	FR1 n41 Other PA	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 6	DSI 1	518598	2592.99	14.86	15.70	1.213	-	-	0.05	0.364	0.442
	FR1 n41 Other PA	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 6	DSI 1	518598	2592.99	14.82	15.70	1.225	-	-	-0.11	0.342	0.419
	FR1 n41 Other PA	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 6	DSI 1	518598	2592.99	14.86	15.70	1.213	-	-	-0.12	0.225	0.273
	FR1 n41 Other PA	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 6	DSI 1	518598	2592.99	14.82	15.70	1.225	-	-	0.03	0.242	0.296
	FR1 n41 Other PA	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 6	DSI 1	518598	2592.99	14.86	15.70	1.213	-	-	-0.16	0.131	0.159
	FR1 n41 Other PA	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 6	DSI 1	518598	2592.99	14.82	15.70	1.225	-	-	-0.02	0.128	0.157
	3500MHz																			
	LTE Band 42	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 1	42590	3500	18.34	18.70	1.086	62.9	1.006	0.08	0.864	0.944
	LTE Band 42	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 1	42190	3460	18.07	18.70	1.156	62.9	1.006	0.01	0.851	0.990
	LTE Band 42	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 1	42990	3540	18.14	18.70	1.138	62.9	1.006	0.03	0.857	0.981
	LTE Band 42	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI 1	42590	3500	18.30	18.70	1.096	62.9	1.006	-0.08	0.883	0.974
	LTE Band 42	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI 1	42190	3460	18.15	18.70	1.135	62.9	1.006	-0.08	0.883	1.008
	LTE Band 42	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI 1	42990	3540	18.13	18.70	1.140	62.9	1.006	0.1	0.876	1.005
	LTE Band 42	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 4	DSI 1	42590	3500	18.23	18.70	1.114	62.9	1.006	-0.18	0.889	0.997
	LTE Band 42	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 1	42590	3500	18.34	18.70	1.086	62.9	1.006	0.1	0.883	0.965
	LTE Band 42	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 1	42190	3460	18.07	18.70	1.156	62.9	1.006	0.12	0.886	1.030
26	LTE Band 42	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 1	42990	3540	18.14	18.70	1.138	62.9	1.006	0.09	0.953	**1.091**
	LTE Band 42C	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 1	42990+ 42792	3540+ 3520.2	17.03	17.70	1.167	62.9	1.006	0.01	0.856	1.005
	LTE Band 42	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	DSI 1	42590	3500	18.30	18.70	1.096	62.9	1.006	-0.17	0.870	0.960
	LTE Band 42	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	DSI 1	42190	3460	18.15	18.70	1.135	62.9	1.006	-0.03	0.851	0.972
	LTE Band 42	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	DSI 1	42990	3540	18.13	18.70	1.140	62.9	1.006	0.14	0.864	0.991
	LTE Band 42	20M	QPSK	100	0	-	Right Tilted	0mm	Ant 4	DSI 1	42590	3500	18.23	18.70	1.114	62.9	1.006	0.11	0.864	0.969
	LTE Band 42	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	DSI 1	42590	3500	18.34	18.70	1.086	62.9	1.006	-0.05	0.458	0.501
	LTE Band 42	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 4	DSI 1	42590	3500	18.30	18.70	1.096	62.9	1.006	-0.17	0.457	0.504
	LTE Band 42	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 4	DSI 1	42590	3500	18.34	18.70	1.086	62.9	1.006	0.1	0.558	0.610
	LTE Band 42	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 4	DSI 1	42590	3500	18.30	18.70	1.096	62.9	1.006	-0.01	0.539	0.595
	LTE Band 42	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 5	DSI 1	42590	3500	19.39	20.00	1.151	62.9	1.006	0.14	0.425	0.492
	LTE Band 42C	20M	QPSK	1	99	-	Right Cheek	0mm	Ant 5	DSI 1	42590+ 42788	3500+ 3519.8	18.45	19.00	1.135	62.9	1.006	0.01	0.413	0.472
	LTE Band 42	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 5	DSI 1	42590	3500	19.29	20.00	1.178	62.9	1.006	-0.05	0.408	0.483
	LTE Band 42	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 5	DSI 1	42590	3500	19.39	20.00	1.151	62.9	1.006	0.17	0.035	0.041
	LTE Band 42	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 5	DSI 1	42590	3500	19.29	20.00	1.178	62.9	1.006	-0.05	0.033	0.039
	LTE Band 42	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	DSI 1	42590	3500	19.39	20.00	1.151	62.9	1.006	0.01	0.226	0.262
	LTE Band 42	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 5	DSI 1	42590	3500	19.29	20.00	1.178	62.9	1.006	0.1	0.224	0.265
	LTE Band 42	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 5	DSI 1	42590	3500	19.39	20.00	1.151	62.9	1.006	-0.17	0.060	0.069
	LTE Band 42	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 5	DSI 1	42590	3500	19.29	20.00	1.178	62.9	1.006	0.04	0.061	0.072
	LTE Band 42	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 9	DSI 1	42590	3500	24.39	25.50	1.291	62.9	1.006	-0.02	0.207	0.269
	LTE Band 42C	20M	QPSK	1	99	-	Right Cheek	0mm	Ant 9	DSI 1	42590+ 42788	3500+ 3519.8	23.89	25.00	1.291	62.9	1.006	0.01	0.156	0.203
	LTE Band 42	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 9	DSI 1	42590	3500	23.41	24.50	1.285	62.9	1.006	-0.13	0.162	0.209
	LTE Band 42	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 9	DSI 1	42590	3500	24.39	25.50	1.291	62.9	1.006	0.05	0.044	0.057
	LTE Band 42	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 9	DSI 1	42590	3500	23.41	24.50	1.285	62.9	1.006	0.04	0.000	0.000
	LTE Band 42	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 9	DSI 1	42590	3500	24.39	25.50	1.291	62.9	1.006	0.13	0.126	0.164

	LTE Band 42	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 9	DSI 1	42590	3500	23.41	24.50	1.285	62.9	1.006	-0.05	0.099	0.128
	LTE Band 42	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 9	DSI 1	42590	3500	24.39	25.50	1.291	62.9	1.006	-0.17	0.000	0.000
	LTE Band 42	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 9	DSI 1	42590	3500	23.41	24.50	1.285	62.9	1.006	0	0.000	0.000
	LTE Band 42	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 8	DSI 1	42590	3500	17.66	18.60	1.242	62.9	1.006	0.08	0.193	0.241
	LTE Band 42	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 8	DSI 1	42590	3500	17.65	18.60	1.245	62.9	1.006	0.01	0.192	0.240
	LTE Band 42	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 8	DSI 1	42590	3500	17.66	18.60	1.242	62.9	1.006	0.03	0.160	0.200
	LTE Band 42	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 8	DSI 1	42590	3500	17.65	18.60	1.245	62.9	1.006	-0.08	0.168	0.210
	LTE Band 42	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 8	DSI 1	42590	3500	17.66	18.60	1.242	62.9	1.006	-0.08	0.708	0.884
	LTE Band 42	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 8	DSI 1	42190	3460	17.60	18.60	1.259	62.9	1.006	0.1	0.578	0.732
	LTE Band 42	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 8	DSI 1	42990	3540	17.47	18.60	1.297	62.9	1.006	-0.18	0.797	1.040
	LTE Band 42C	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 8	DSI 1	42990+ 42792	3540+ 3520.2	17.21	18.10	1.227	62.9	1.006	0.01	0.735	0.908
	LTE Band 42	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 8	DSI 1	42590	3500	17.65	18.60	1.245	62.9	1.006	0.1	0.720	0.901
	LTE Band 42	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 8	DSI 1	42190	3460	17.56	18.60	1.271	62.9	1.006	0.12	0.612	0.782
	LTE Band 42	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 8	DSI 1	42990	3540	17.45	18.60	1.303	62.9	1.006	-0.02	0.788	1.033
	LTE Band 42	20M	QPSK	100	0	-	Left Cheek	0mm	Ant 8	DSI 1	42590	3500	17.54	18.60	1.276	62.9	1.006	0.08	0.739	0.949
	LTE Band 42	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 8	DSI 1	42590	3500	17.66	18.60	1.242	62.9	1.006	-0.17	0.375	0.468
	LTE Band 42	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 8	DSI 1	42590	3500	17.65	18.60	1.245	62.9	1.006	-0.03	0.385	0.482
	LTE Band 48	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 1	55830	3609	16.95	18.00	1.274	62.9	1.006	-0.09	0.738	0.945
	LTE Band 48	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 1	55340	3560	16.80	18.00	1.318	62.9	1.006	-0.08	0.739	0.980
	LTE Band 48	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 1	56150	3641	16.70	18.00	1.349	62.9	1.006	0.13	0.718	0.974
	LTE Band 48	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 1	56640	3690	16.73	18.00	1.340	62.9	1.006	0.12	0.656	0.884
	LTE Band 48	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI 1	55830	3609	16.86	18.00	1.300	62.9	1.006	0.03	0.729	0.954
	LTE Band 48	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI 1	55340	3560	16.75	18.00	1.334	62.9	1.006	0.18	0.742	0.995
	LTE Band 48	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI 1	56150	3641	16.65	18.00	1.365	62.9	1.006	0.16	0.700	0.961
	LTE Band 48	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI 1	56640	3690	16.73	18.00	1.340	62.9	1.006	-0.1	0.635	0.856
	LTE Band 48	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 4	DSI 1	55830	3609	16.82	18.00	1.312	62.9	1.006	0.07	0.729	0.962
	LTE Band 48	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 1	55830	3609	16.95	18.00	1.274	62.9	1.006	0.18	0.774	0.992
27	LTE Band 48	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 1	55340	3560	16.80	18.00	1.318	62.9	1.006	0.01	0.825	**1.094**
	LTE Band 48	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 1	56150	3641	16.70	18.00	1.349	62.9	1.006	-0.1	0.738	1.002
	LTE Band 48	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 1	56640	3690	16.73	18.00	1.340	62.9	1.006	0.01	0.694	0.935
	LTE Band 48	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	DSI 1	55830	3609	16.86	18.00	1.300	62.9	1.006	-0.15	0.768	1.005
	LTE Band 48	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	DSI 1	55340	3560	16.75	18.00	1.334	62.9	1.006	0.19	0.757	1.016
	LTE Band 48	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	DSI 1	56150	3641	16.65	18.00	1.365	62.9	1.006	0.07	0.757	1.039
	LTE Band 48	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	DSI 1	56640	3690	16.73	18.00	1.340	62.9	1.006	-0.18	0.694	0.935
	LTE Band 48	20M	QPSK	100	0	-	Right Tilted	0mm	Ant 4	DSI 1	55830	3609	16.82	18.00	1.312	62.9	1.006	0.03	0.788	1.040
	LTE Band 48	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	DSI 1	55830	3609	16.95	18.00	1.274	62.9	1.006	-0.15	0.403	0.516
	LTE Band 48	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 4	DSI 1	55830	3609	16.86	18.00	1.300	62.9	1.006	-0.15	0.401	0.524
	LTE Band 48	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 4	DSI 1	55830	3609	16.95	18.00	1.274	62.9	1.006	0.11	0.461	0.591
	LTE Band 48	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 4	DSI 1	55830	3609	16.86	18.00	1.300	62.9	1.006	-0.08	0.455	0.595
	LTE Band 48	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 5	DSI 1	55830	3609	17.45	18.40	1.245	62.9	1.006	-0.14	0.423	0.530
	LTE Band 48	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 5	DSI 1	55830	3609	17.41	18.40	1.256	62.9	1.006	0.03	0.440	0.556
	LTE Band 48	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 5	DSI 1	55830	3609	17.45	18.40	1.245	62.9	1.006	0.04	0.041	0.051
	LTE Band 48	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 5	DSI 1	55830	3609	17.41	18.40	1.256	62.9	1.006	0.04	0.040	0.051
	LTE Band 48	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	DSI 1	55830	3609	17.45	18.40	1.245	62.9	1.006	0.07	0.226	0.283
	LTE Band 48	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 5	DSI 1	55830	3609	17.41	18.40	1.256	62.9	1.006	0.13	0.230	0.291
	LTE Band 48	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 5	DSI 1	55830	3609	17.45	18.40	1.245	62.9	1.006	-0.15	0.050	0.063
	LTE Band 48	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 5	DSI 1	55830	3609	17.41	18.40	1.256	62.9	1.006	-0.04	0.051	0.064
	LTE Band 48	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 9	DSI 1	55830	3609	23.35	24.40	1.274	62.9	1.006	0.12	0.069	0.088
	LTE Band 48	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 9	DSI 1	55830	3609	22.38	23.40	1.265	62.9	1.006	-0.09	0.050	0.064
	LTE Band 48	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 9	DSI 1	55830	3609	23.35	24.40	1.274	62.9	1.006	0.07	0.040	0.051
	LTE Band 48	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 9	DSI 1	55830	3609	22.38	23.40	1.265	62.9	1.006	-0.04	0.000	0.000
	LTE Band 48	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 9	DSI 1	55830	3609	23.35	24.40	1.274	62.9	1.006	0.13	0.042	0.054
	LTE Band 48	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 9	DSI 1	55830	3609	22.38	23.40	1.265	62.9	1.006	-0.03	0.000	0.000
	LTE Band 48	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 9	DSI 1	55830	3609	23.35	24.40	1.274	62.9	1.006	0.13	0.035	0.045
	LTE Band 48	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 9	DSI 1	55830	3609	22.38	23.40	1.265	62.9	1.006	-0.11	0.000	0.000
	LTE Band 48	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 8	DSI 1	55830	3609	16.21	17.20	1.256	62.9	1.006	0.09	0.134	0.169

	LTE Band 48	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 8	DSI 1	55830	3609	16.13	17.20	1.279	62.9	1.006	0.15	0.140	0.180
	LTE Band 48	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 8	DSI 1	55830	3609	16.21	17.20	1.256	62.9	1.006	-0.11	0.112	0.142
	LTE Band 48	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 8	DSI 1	55830	3609	16.13	17.20	1.279	62.9	1.006	0.18	0.111	0.143
	LTE Band 48	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 8	DSI 1	55830	3609	16.21	17.20	1.256	62.9	1.006	0.18	0.488	0.617
	LTE Band 48	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 8	DSI 1	55340	3560	16.13	17.20	1.279	62.9	1.006	0.1	0.423	0.544
	LTE Band 48	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 8	DSI 1	56150	3641	16.06	17.20	1.300	62.9	1.006	-0.18	0.411	0.538
	LTE Band 48	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 8	DSI 1	56640	3690	16.07	17.20	1.297	62.9	1.006	0.1	0.445	0.581
	LTE Band 48	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 8	DSI 1	55830	3609	16.13	17.20	1.279	62.9	1.006	0.14	0.493	0.635
	LTE Band 48	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 8	DSI 1	55340	3560	16.08	17.20	1.294	62.9	1.006	0.12	0.441	0.574
	LTE Band 48	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 8	DSI 1	56150	3641	16.11	17.20	1.285	62.9	1.006	0.08	0.432	0.559
	LTE Band 48	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 8	DSI 1	56640	3690	16.07	17.20	1.297	62.9	1.006	-0.17	0.429	0.560
	LTE Band 48	20M	QPSK	100	0	-	Left Cheek	0mm	Ant 8	DSI 1	55830	3609	16.09	17.20	1.291	62.9	1.006	0.06	0.471	0.612
	LTE Band 48	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 8	DSI 1	55830	3609	16.21	17.20	1.256	62.9	1.006	0.01	0.284	0.359
	LTE Band 48	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 8	DSI 1	55830	3609	16.13	17.20	1.279	62.9	1.006	0.06	0.269	0.346
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 4	DSI 1	641666	3624.99	15.79	16.50	1.178	-	-	0.01	0.580	0.683
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Right Cheek	0mm	Ant 4	DSI 1	641666	3624.99	15.71	16.50	1.199	-	-	-0.08	0.565	0.678
28	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 4	DSI 1	641666	3624.99	15.79	16.50	1.178	-	-	-0.04	0.733	**0.863**
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 4	DSI 1	638000	3570	15.67	16.50	1.211	-	-	0.12	0.702	0.850
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 4	DSI 1	645332	3679.98	15.63	16.50	1.222	-	-	0.08	0.612	0.748
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Right Tilted	0mm	Ant 4	DSI 1	641666	3624.99	15.71	16.50	1.199	-	-	-0.17	0.665	0.798
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Right Tilted	0mm	Ant 4	DSI 1	638000	3570	15.64	16.50	1.219	-	-	-0.03	0.706	0.861
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Right Tilted	0mm	Ant 4	DSI 1	645332	3679.98	15.65	16.50	1.216	-	-	0.14	0.603	0.733
	FR1 n48	40M	QPSK	100	0	DFT-SCS-30KHz	Right Tilted	0mm	Ant 4	DSI 1	641666	3624.99	15.69	16.50	1.205	-	-	0.11	0.647	0.780
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 4	DSI 1	641666	3624.99	15.79	16.50	1.178	-	-	-0.05	0.322	0.379
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Left Cheek	0mm	Ant 4	DSI 1	641666	3624.99	15.71	16.50	1.199	-	-	0.18	0.294	0.353
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 4	DSI 1	641666	3624.99	15.79	16.50	1.178	-	-	0.14	0.386	0.455
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Left Tilted	0mm	Ant 4	DSI 1	641666	3624.99	15.71	16.50	1.199	-	-	-0.17	0.344	0.413
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 5	DSI 1	641666	3624.99	15.95	17.00	1.274	-	-	0.01	0.451	0.574
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Right Cheek	0mm	Ant 5	DSI 1	641666	3624.99	15.91	17.00	1.285	-	-	0.05	0.471	0.605
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 5	DSI 1	641666	3624.99	15.95	17.00	1.274	-	-	-0.16	0.042	0.053
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Right Tilted	0mm	Ant 5	DSI 1	641666	3624.99	15.91	17.00	1.285	-	-	0.1	0.063	0.081
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 5	DSI 1	641666	3624.99	15.95	17.00	1.274	-	-	-0.04	0.257	0.327
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Left Cheek	0mm	Ant 5	DSI 1	641666	3624.99	15.91	17.00	1.285	-	-	-0.01	0.267	0.343
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 5	DSI 1	641666	3624.99	15.95	17.00	1.274	-	-	0	0.056	0.071
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Left Tilted	0mm	Ant 5	DSI 1	641666	3624.99	15.91	17.00	1.285	-	-	-0.11	0.050	0.064
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 9	DSI 1	641666	3624.99	23.31	24.20	1.227	-	-	-0.14	0.095	0.117
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Right Cheek	0mm	Ant 9	DSI 1	641666	3624.99	23.29	24.20	1.233	-	-	0.06	0.099	0.122
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 9	DSI 1	641666	3624.99	23.31	24.20	1.227	-	-	-0.13	0.084	0.103
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Right Tilted	0mm	Ant 9	DSI 1	641666	3624.99	23.29	24.20	1.233	-	-	-0.11	0.083	0.102
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 9	DSI 1	641666	3624.99	23.31	24.20	1.227	-	-	-0.05	0.056	0.069
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Left Cheek	0mm	Ant 9	DSI 1	641666	3624.99	23.29	24.20	1.233	-	-	-0.15	0.059	0.073
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 9	DSI 1	641666	3624.99	23.31	24.20	1.227	-	-	0.04	0.095	0.117
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Left Tilted	0mm	Ant 9	DSI 1	641666	3624.99	23.29	24.20	1.233	-	-	0.08	0.077	0.095
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 8	DSI 1	641666	3624.99	14.63	15.20	1.140	-	-	-0.02	0.129	0.147
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Right Cheek	0mm	Ant 8	DSI 1	641666	3624.99	14.56	15.20	1.159	-	-	-0.03	0.122	0.141
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 8	DSI 1	641666	3624.99	14.63	15.20	1.140	-	-	-0.06	0.109	0.124
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Right Tilted	0mm	Ant 8	DSI 1	641666	3624.99	14.56	15.20	1.159	-	-	0.08	0.119	0.138
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 8	DSI 1	641666	3624.99	14.63	15.20	1.140	-	-	-0.11	0.483	0.551
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Left Cheek	0mm	Ant 8	DSI 1	641666	3624.99	14.56	15.20	1.159	-	-	-0.17	0.466	0.540
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 8	DSI 1	641666	3624.99	14.63	15.20	1.140	-	-	0.15	0.265	0.302
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Left Tilted	0mm	Ant 8	DSI 1	641666	3624.99	14.56	15.20	1.159	-	-	-0.17	0.250	0.290
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 4	DSI 1	656000	3840	14.85	15.20	1.084	-	-	-0.09	0.381	0.413
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 4	DSI 1	656000	3840	14.79	15.20	1.099	-	-	-0.17	0.308	0.338
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 4	DSI 1	656000	3840	14.85	15.20	1.084	-	-	-0.09	0.438	0.475
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 4	DSI 1	656000	3840	14.79	15.20	1.099	-	-	0.18	0.368	0.404
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 4	DSI 1	656000	3840	14.85	15.20	1.084	-	-	-0.07	0.195	0.211

	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 4	DSI 1	656000	3840	14.79	15.20	1.099	-	-	0.06	0.168	0.185
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 4	DSI 1	656000	3840	14.85	15.20	1.084	-	-	-0.05	0.250	0.271
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 4	DSI 1	656000	3840	14.79	15.20	1.099	-	-	-0.05	0.222	0.244
	FR1 n77 PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 4	DSI 1	656000	3840	17.72	18.50	1.197	50	1.000	-0.07	0.461	0.552
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 4	DSI 1	633332	3499.98	15.15	15.20	1.012	-	-	0.02	0.662	0.670
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 4	DSI 1	633332	3499.98	15.07	15.20	1.030	-	-	0.12	0.630	0.649
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 4	DSI 1	633332	3499.98	15.15	15.20	1.012	-	-	-0.06	0.786	0.795
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 4	DSI 1	633332	3499.98	15.07	15.20	1.030	-	-	-0.12	0.698	0.719
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 4	DSI 1	633332	3499.98	15.15	15.20	1.012	-	-	-0.02	0.354	0.358
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 4	DSI 1	633332	3499.98	15.07	15.20	1.030	-	-	-0.05	0.338	0.348
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 4	DSI 1	633332	3499.98	15.15	15.20	1.012	-	-	-0.13	0.435	0.440
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 4	DSI 1	633332	3499.98	15.07	15.20	1.030	-	-	0.08	0.405	0.417
	FR1 n77 PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 4	DSI 1	633332	3499.98	18.05	18.50	1.109	50	1.000	0.16	0.747	0.829
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 5	DSI 1	656000	3840	16.12	17.00	1.225	-	-	-0.11	0.469	0.574
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 5	DSI 1	656000	3840	16.09	17.00	1.233	-	-	-0.11	0.391	0.482
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 5	DSI 1	656000	3840	16.12	17.00	1.225	-	-	-0.03	0.050	0.061
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 5	DSI 1	656000	3840	16.09	17.00	1.233	-	-	0.04	0.000	0.000
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 5	DSI 1	656000	3840	16.12	17.00	1.225	-	-	-0.1	0.301	0.369
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 5	DSI 1	656000	3840	16.09	17.00	1.233	-	-	0.07	0.283	0.349
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 5	DSI 1	656000	3840	16.12	17.00	1.225	-	-	0.03	0.053	0.065
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 5	DSI 1	656000	3840	16.09	17.00	1.233	-	-	0.04	0.041	0.051
	FR1 n77 PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 5	DSI 1	656000	3840	19.15	20.50	1.365	50	1.000	-0.16	0.479	0.654
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 5	DSI 1	633332	3499.98	16.56	17.00	1.107	-	-	-0.11	0.466	0.516
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 5	DSI 1	633332	3499.98	16.53	17.00	1.114	-	-	-0.07	0.488	0.544
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 5	DSI 1	633332	3499.98	16.56	17.00	1.107	-	-	-0.16	0.049	0.054
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 5	DSI 1	633332	3499.98	16.53	17.00	1.114	-	-	-0.15	0.043	0.048
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 5	DSI 1	633332	3499.98	16.56	17.00	1.107	-	-	-0.06	0.282	0.312
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 5	DSI 1	633332	3499.98	16.53	17.00	1.114	-	-	-0.14	0.290	0.323
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 5	DSI 1	633332	3499.98	16.56	17.00	1.107	-	-	-0.19	0.071	0.079
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 5	DSI 1	633332	3499.98	16.53	17.00	1.114	-	-	0.01	0.064	0.071
	FR1 n77 PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 5	DSI 1	633332	3499.98	19.56	20.50	1.242	50	1.000	0.06	0.472	0.586
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 9	DSI 1	656000	3840	24.34	25.40	1.276	-	-	-0.17	0.112	0.143
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 9	DSI 1	656000	3840	24.27	25.40	1.297	-	-	-0.13	0.088	0.114
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 9	DSI 1	656000	3840	24.34	25.40	1.276	-	-	-0.1	0.107	0.137
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 9	DSI 1	656000	3840	24.27	25.40	1.297	-	-	-0.04	0.105	0.136
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 9	DSI 1	656000	3840	24.34	25.40	1.276	-	-	0.03	0.072	0.092
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 9	DSI 1	656000	3840	24.27	25.40	1.297	-	-	-0.08	0.075	0.097
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 9	DSI 1	656000	3840	24.34	25.40	1.276	-	-	0.13	0.104	0.133
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 9	DSI 1	656000	3840	24.27	25.40	1.297	-	-	0.15	0.099	0.128
	FR1 n77 PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 9	DSI 1	656000	3840	27.33	28.90	1.435	50	1.000	0.01	0.101	0.145
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 9	DSI 1	633332	3499.98	24.52	25.40	1.225	-	-	-0.04	0.449	0.550
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 9	DSI 1	633332	3499.98	24.42	25.40	1.253	-	-	-0.19	0.321	0.402
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 9	DSI 1	633332	3499.98	24.52	25.40	1.225	-	-	-0.09	0.150	0.184
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 9	DSI 1	633332	3499.98	24.42	25.40	1.253	-	-	-0.13	0.103	0.129
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 9	DSI 1	633332	3499.98	24.52	25.40	1.225	-	-	0.06	0.232	0.284
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 9	DSI 1	633332	3499.98	24.42	25.40	1.253	-	-	0.18	0.166	0.208
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 9	DSI 1	633332	3499.98	24.52	25.40	1.225	-	-	-0.07	0.073	0.089
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 9	DSI 1	633332	3499.98	24.42	25.40	1.253	-	-	-0.1	0.086	0.108
	FR1 n77 PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 9	DSI 1	633332	3499.98	27.56	28.90	1.361	50	1.000	0.14	0.413	0.562
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 8	DSI 1	656000	3840	16.15	16.80	1.161	-	-	0	0.142	0.165
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 8	DSI 1	656000	3840	16.13	16.80	1.167	-	-	-0.13	0.115	0.134
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 8	DSI 1	656000	3840	16.15	16.80	1.161	-	-	-0.01	0.130	0.151
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 8	DSI 1	656000	3840	16.13	16.80	1.167	-	-	-0.09	0.091	0.106
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 8	DSI 1	656000	3840	16.15	16.80	1.161	-	-	-0.02	0.583	0.677
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 8	DSI 1	656000	3840	16.13	16.80	1.167	-	-	0.05	0.446	0.520
	FR1 n77	100M	QPSK	270	0	DFT-SCS-30KHz	Left Cheek	0mm	Ant 8	DSI 1	656000	3840	16.14	16.80	1.164	-	-	0.02	0.420	0.489

	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 8	DSI 1	656000	3840	16.15	16.80	1.161	-	-	-0.13	0.281	0.326
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 8	DSI 1	656000	3840	16.13	16.80	1.167	-	-	0.17	0.228	0.266
	FR1 n77 PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 8	DSI 1	656000	3840	19.18	20.30	1.294	50	1.000	0.06	0.575	0.744
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 8	DSI 1	633332	3499.98	15.55	16.80	1.334	-	-	0	0.159	0.212
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 8	DSI 1	633332	3499.98	15.53	16.80	1.340	-	-	-0.04	0.168	0.225
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 8	DSI 1	633332	3499.98	15.55	16.80	1.334	-	-	-0.15	0.138	0.184
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 8	DSI 1	633332	3499.98	15.53	16.80	1.340	-	-	0.11	0.140	0.188
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 8	DSI 1	633332	3499.98	15.55	16.80	1.334	-	-	-0.02	0.672	0.896
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 8	DSI 1	633332	3499.98	15.53	16.80	1.340	-	-	0.1	0.706	0.946
	FR1 n77	100M	QPSK	270	0	DFT-SCS-30KHz	Left Cheek	0mm	Ant 8	DSI 1	633332	3499.98	15.50	16.80	1.349	-	-	0.04	0.708	0.955
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 8	DSI 1	633332	3499.98	15.55	16.80	1.334	-	-	0.13	0.327	0.436
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 8	DSI 1	633332	3499.98	15.53	16.80	1.340	-	-	-0.18	0.361	0.484
29	FR1 n77 PC2	100M	QPSK	270	0	DFT-SCS-30KHz	Left Cheek	0mm	Ant 8	DSI 1	633332	3499.98	18.52	20.30	1.507	50	1.000	0.01	0.718	**1.082**
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 4	DSI 1	650000	3750	14.85	15.20	1.084	-	-	0.13	0.519	0.563
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 4	DSI 1	650000	3750	14.74	15.20	1.112	-	-	-0.18	0.433	0.481
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 4	DSI 1	650000	3750	14.85	15.20	1.084	-	-	-0.02	0.584	0.633
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 4	DSI 1	650000	3750	14.74	15.20	1.112	-	-	0.02	0.472	0.525
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 4	DSI 1	650000	3750	14.85	15.20	1.084	-	-	0.16	0.267	0.289
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 4	DSI 1	650000	3750	14.74	15.20	1.112	-	-	-0.03	0.211	0.235
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 4	DSI 1	650000	3750	14.85	15.20	1.084	-	-	0.07	0.345	0.374
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 4	DSI 1	650000	3750	14.74	15.20	1.112	-	-	0	0.273	0.304
	FR1 n78 PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 4	DSI 1	650000	3750	17.85	18.50	1.161	50	1.000	0.01	0.629	0.731
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 4	DSI 1	633332	3499.98	14.98	15.20	1.052	-	-	-0.01	0.625	0.657
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 4	DSI 1	633332	3499.98	14.91	15.20	1.069	-	-	-0.06	0.583	0.623
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 4	DSI 1	633332	3499.98	14.98	15.20	1.052	-	-	-0.07	0.763	0.803
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 4	DSI 1	633332	3499.98	14.91	15.20	1.069	-	-	-0.09	0.677	0.724
	FR1 n78	100M	QPSK	270	0	DFT-SCS-30KHz	Right Tilted	0mm	Ant 4	DSI 1	633332	3499.98	14.94	15.20	1.062	-	-	-0.17	0.689	0.732
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 4	DSI 1	633332	3499.98	14.98	15.20	1.052	-	-	-0.1	0.342	0.360
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 4	DSI 1	633332	3499.98	14.91	15.20	1.069	-	-	0.18	0.308	0.329
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 4	DSI 1	633332	3499.98	14.98	15.20	1.052	-	-	-0.17	0.416	0.438
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 4	DSI 1	633332	3499.98	14.91	15.20	1.069	-	-	-0.04	0.382	0.408
	FR1 n78 PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 4	DSI 1	633332	3499.98	18.05	18.50	1.109	50	1.000	-0.05	0.757	0.840
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 5	DSI 1	650000	3750	16.71	17.50	1.199	-	-	-0.04	0.669	0.802
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 5	DSI 1	650000	3750	16.65	17.50	1.216	-	-	-0.08	0.625	0.760
	FR1 n78	100M	QPSK	270	0	DFT-SCS-30KHz	Right Cheek	0mm	Ant 5	DSI 1	650000	3750	16.60	17.50	1.230	-	-	-0.13	0.636	0.782
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 5	DSI 1	650000	3750	16.71	17.50	1.199	-	-	-0.13	0.051	0.061
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 5	DSI 1	650000	3750	16.65	17.50	1.216	-	-	0.06	0.047	0.057
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 5	DSI 1	650000	3750	16.71	17.50	1.199	-	-	-0.03	0.447	0.536
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 5	DSI 1	650000	3750	16.65	17.50	1.216	-	-	-0.03	0.418	0.508
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 5	DSI 1	650000	3750	16.71	17.50	1.199	-	-	0.08	0.079	0.095
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 5	DSI 1	650000	3750	16.65	17.50	1.216	-	-	-0.07	0.071	0.086
	FR1 n78 PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 5	DSI 1	650000	3750	19.69	21.00	1.352	50	1.000	0.01	0.709	0.959
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 5	DSI 1	633332	3499.98	16.73	17.50	1.194	-	-	-0.11	0.653	0.780
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 5	DSI 1	633332	3499.98	16.66	17.50	1.213	-	-	-0.12	0.664	0.806
	FR1 n78	100M	QPSK	270	0	DFT-SCS-30KHz	Right Cheek	0mm	Ant 5	DSI 1	633332	3499.98	16.66	17.50	1.213	-	-	0.03	0.651	0.790
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 5	DSI 1	633332	3499.98	16.73	17.50	1.194	-	-	-0.16	0.066	0.079
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 5	DSI 1	633332	3499.98	16.66	17.50	1.213	-	-	-0.02	0.073	0.089
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 5	DSI 1	633332	3499.98	16.73	17.50	1.194	-	-	0.15	0.389	0.464
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 5	DSI 1	633332	3499.98	16.66	17.50	1.213	-	-	-0.09	0.421	0.511
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 5	DSI 1	633332	3499.98	16.73	17.50	1.194	-	-	0.11	0.104	0.124
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 5	DSI 1	633332	3499.98	16.66	17.50	1.213	-	-	-0.05	0.098	0.119
	FR1 n78 PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 5	DSI 1	633332	3499.98	19.68	21.00	1.355	50	1.000	-0.01	0.606	0.821
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 9	DSI 1	650000	3750	24.51	25.40	1.227	-	-	-0.02	0.117	0.144
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 9	DSI 1	650000	3750	24.45	25.40	1.245	-	-	0.09	0.099	0.123
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 9	DSI 1	650000	3750	24.51	25.40	1.227	-	-	0.1	0.104	0.128
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 9	DSI 1	650000	3750	24.45	25.40	1.245	-	-	0.12	0.095	0.118

	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 9	DSI 1	650000	3750	24.51	25.40	1.227	-	-	-0.11	0.076	0.093
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 9	DSI 1	650000	3750	24.45	25.40	1.245	-	-	-0.01	0.060	0.075
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 9	DSI 1	650000	3750	24.51	25.40	1.227	-	-	0.14	0.110	0.135
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 9	DSI 1	650000	3750	24.45	25.40	1.245	-	-	0.12	0.085	0.106
	FR1 n78 PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 9	DSI 1	650000	3750	27.41	28.90	1.409	50	1.000	-0.03	0.111	0.156
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 9	DSI 1	633332	3499.98	24.31	25.40	1.285	-	-	-0.01	0.435	0.559
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 9	DSI 1	633332	3499.98	24.21	25.40	1.315	-	-	-0.06	0.323	0.425
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 9	DSI 1	633332	3499.98	24.31	25.40	1.285	-	-	-0.1	0.142	0.183
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 9	DSI 1	633332	3499.98	24.21	25.40	1.315	-	-	0.12	0.109	0.143
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 9	DSI 1	633332	3499.98	24.31	25.40	1.285	-	-	0.02	0.225	0.289
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 9	DSI 1	633332	3499.98	24.21	25.40	1.315	-	-	0.01	0.153	0.201
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 9	DSI 1	633332	3499.98	24.31	25.40	1.285	-	-	0.05	0.072	0.093
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 9	DSI 1	633332	3499.98	24.21	25.40	1.315	-	-	-0.16	0.079	0.104
	FR1 n78 PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 9	DSI 1	633332	3499.98	27.26	28.90	1.459	50	1.000	0.08	0.418	0.610
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 8	DSI 1	650000	3750	16.21	16.70	1.119	-	-	0.18	0.215	0.241
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 8	DSI 1	650000	3750	16.18	16.70	1.127	-	-	-0.1	0.149	0.168
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 8	DSI 1	650000	3750	16.21	16.70	1.119	-	-	0.01	0.169	0.189
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 8	DSI 1	650000	3750	16.18	16.70	1.127	-	-	-0.15	0.145	0.163
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 8	DSI 1	650000	3750	16.21	16.70	1.119	-	-	-0.04	0.744	0.833
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 8	DSI 1	650000	3750	16.18	16.70	1.127	-	-	0.19	0.614	0.692
	FR1 n78	100M	QPSK	270	0	DFT-SCS-30KHz	Left Cheek	0mm	Ant 8	DSI 1	650000	3750	16.12	16.70	1.143	-	-	0.07	0.612	0.699
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 8	DSI 1	650000	3750	16.21	16.70	1.119	-	-	-0.18	0.398	0.446
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 8	DSI 1	650000	3750	16.18	16.70	1.127	-	-	0.03	0.315	0.355
	FR1 n78 PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 8	DSI 1	650000	3750	19.25	20.20	1.245	50	1.000	-0.15	0.716	0.891
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 8	DSI 1	633332	3499.98	15.59	16.70	1.291	-	-	-0.15	0.174	0.225
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 8	DSI 1	633332	3499.98	15.54	16.70	1.306	-	-	0.11	0.186	0.243
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 8	DSI 1	633332	3499.98	15.59	16.70	1.291	-	-	-0.08	0.135	0.174
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 8	DSI 1	633332	3499.98	15.54	16.70	1.306	-	-	-0.17	0.145	0.189
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 8	DSI 1	633332	3499.98	15.59	16.70	1.291	-	-	-0.08	0.713	0.921
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 8	DSI 1	633332	3499.98	15.54	16.70	1.306	-	-	0.01	**0.761**	0.994
	FR1 n78	100M	QPSK	270	0	DFT-SCS-30KHz	Left Cheek	0mm	Ant 8	DSI 1	633332	3499.98	15.52	16.70	1.312	-	-	-0.04	0.743	0.975
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 8	DSI 1	633332	3499.98	15.59	16.70	1.291	-	-	-0.08	0.341	0.440
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 8	DSI 1	633332	3499.98	15.54	16.70	1.306	-	-	0.17	0.370	0.483
30	FR1 n78 PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 8	DSI 1	633332	3499.98	18.50	20.20	1.479	50	1.000	0.18	0.733	**1.084**

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+8(8)	Standalone	1	2412	12.17	13.00	1.211	97.05	1.030	0.04	0.223	0.278
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 15+8(8)	Standalone	1	2412	12.17	13.00	1.211	97.05	1.030	-0.01	0.241	0.301
31	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 15+8(8)	Standalone	1	2412	12.17	13.00	1.211	97.05	1.030	-0.01	0.725	**0.904**
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 15+8(8)	Standalone	6	2437	12.10	13.00	1.230	97.05	1.030	0.05	0.638	0.808
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 15+8(8)	Standalone	1	2412	12.17	13.00	1.211	97.05	1.030	-0.08	0.443	0.552
	Bluetooth	1Mbps	Right Cheek	0mm	Ant 8	Standalone	78	2480	11.95	13.50	1.429	77.45	1.076	0.14	0.078	0.120
	Bluetooth	1Mbps	Right Tilted	0mm	Ant 8	Standalone	78	2480	11.95	13.50	1.429	77.45	1.076	-0.17	0.056	0.086
	Bluetooth	1Mbps	Left Cheek	0mm	Ant 8	Standalone	78	2480	11.95	13.50	1.429	77.45	1.076	-0.14	0.430	0.661
	Bluetooth	1Mbps	Left Tilted	0mm	Ant 8	Standalone	78	2480	11.95	13.50	1.429	77.45	1.076	-0.05	0.181	0.278
	Bluetooth	1Mbps	Right Cheek	0mm	Ant 15	Full power	0	2402	15.29	17.00	1.483	76.97	1.082	0.01	0.210	0.337
	Bluetooth	1Mbps	Right Tilted	0mm	Ant 15	Full power	0	2402	15.29	17.00	1.483	76.97	1.082	0.1	0.300	0.481
	Bluetooth	1Mbps	Left Cheek	0mm	Ant 15	Full power	0	2402	15.29	17.00	1.483	76.97	1.082	-0.17	0.341	0.547
32	Bluetooth	1Mbps	Left Tilted	0mm	Ant 15	Full power	0	2402	15.29	17.00	1.483	76.97	1.082	0.03	0.499	**0.800**
	Bluetooth	1Mbps	Left Tilted	0mm	Ant 15	Full power	39	2441	15.28	17.00	1.486	76.97	1.082	0.09	0.481	0.773
5000MHz																
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Right Cheek	0mm	Ant 16+12(16)	Standalone	50	5250	12.68	13.50	1.208	100	1.000	-0.09	0.292	0.353
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Right Tilted	0mm	Ant 16+12(16)	Standalone	50	5250	12.68	13.50	1.208	100	1.000	-0.08	0.300	0.362
33	WLAN5.3GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	Ant 16+12(16)	Standalone	50	5250	12.68	13.50	1.208	100	1.000	-0.07	0.903	**1.091**
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Left Tilted	0mm	Ant 16+12(16)	Standalone	50	5250	12.68	13.50	1.208	100	1.000	0.13	0.661	0.798
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Right Cheek	0mm	Ant 16+12(16)	Standalone	114	5570	13.35	14.00	1.161	100	1.000	0.12	0.238	0.276
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Right Tilted	0mm	Ant 16+12(16)	Standalone	114	5570	13.35	14.00	1.161	100	1.000	0.03	0.232	0.269
34	WLAN5.5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	Ant 16+12(16)	Standalone	114	5570	13.35	14.00	1.161	100	1.000	-0.06	0.848	**0.985**
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Left Tilted	0mm	Ant 16+12(16)	Standalone	114	5570	13.35	14.00	1.161	100	1.000	0.18	0.514	0.597
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 16+12(12)	Standalone	155	5775	14.19	15.00	1.205	100	1.000	0.01	0.242	0.292
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 16+12(12)	Standalone	155	5775	14.19	15.00	1.205	100	1.000	-0.15	0.232	0.280
35	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 16+12(12)	Standalone	155	5775	14.19	15.00	1.205	100	1.000	0.06	0.857	**1.033**
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 16+12(12)	Standalone	155	5775	14.19	15.00	1.205	100	1.000	0.19	0.643	0.775

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)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
									750MHz											
	LTE Band 12	10M	QPSK	1	0	-	Front	10mm	Ant 0	DSI 5	23095	707.5	24.78	25.50	1.180	-	-	0.08	0.223	0.263
	LTE Band 12	10M	QPSK	25	0	-	Front	10mm	Ant 0	DSI 5	23095	707.5	23.82	24.50	1.169	-	-	0.01	0.190	0.222
	LTE Band 12	10M	QPSK	1	0	-	Back	10mm	Ant 0	DSI 5	23095	707.5	24.78	25.50	1.180	-	-	0.03	0.321	0.379
	LTE Band 12	10M	QPSK	25	0	-	Back	10mm	Ant 0	DSI 5	23095	707.5	23.82	24.50	1.169	-	-	-0.08	0.264	0.309
36	LTE Band 12	10M	QPSK	1	0	-	Right Side	10mm	Ant 0	DSI 5	23095	707.5	24.78	25.50	1.180	-	-	-0.05	0.609	**0.719**
	LTE Band 12	10M	QPSK	25	0	-	Right Side	10mm	Ant 0	DSI 5	23095	707.5	23.82	24.50	1.169	-	-	-0.08	0.509	0.595
	LTE Band 12	10M	QPSK	1	0	-	Bottom Side	10mm	Ant 0	DSI 5	23095	707.5	24.78	25.50	1.180	-	-	0.1	0.177	0.209
	LTE Band 12	10M	QPSK	25	0	-	Bottom Side	10mm	Ant 0	DSI 5	23095	707.5	23.82	24.50	1.169	-	-	-0.18	0.149	0.174
	LTE Band 12	10M	QPSK	1	0	-	Front	10mm	Ant 1	DSI 5	23095	707.5	23.21	24.00	1.199	-	-	0.05	0.233	0.279
	LTE Band 12	10M	QPSK	25	0	-	Front	10mm	Ant 1	DSI 5	23095	707.5	23.15	24.00	1.216	-	-	0.06	0.261	0.317
	LTE Band 12	10M	QPSK	1	0	-	Back	10mm	Ant 1	DSI 5	23095	707.5	23.21	24.00	1.199	-	-	-0.09	0.298	0.357
	LTE Band 12	10M	QPSK	25	0	-	Back	10mm	Ant 1	DSI 5	23095	707.5	23.15	24.00	1.216	-	-	-0.08	0.320	0.389
	LTE Band 12	10M	QPSK	1	0	-	Left Side	10mm	Ant 1	DSI 5	23095	707.5	23.21	24.00	1.199	-	-	-0.13	0.445	0.534
	LTE Band 12	10M	QPSK	25	0	-	Left Side	10mm	Ant 1	DSI 5	23095	707.5	23.15	24.00	1.216	-	-	0.13	0.437	0.531
	LTE Band 13	10M	QPSK	1	0	-	Front	10mm	Ant 0	DSI 5	23230	782	25.14	25.70	1.138	-	-	0.1	0.308	0.350
	LTE Band 13	10M	QPSK	25	0	-	Front	10mm	Ant 0	DSI 5	23230	782	24.10	24.70	1.148	-	-	0.12	0.243	0.279
	LTE Band 13	10M	QPSK	1	0	-	Back	10mm	Ant 0	DSI 5	23230	782	25.14	25.70	1.138	-	-	0.08	0.423	0.481
	LTE Band 13	10M	QPSK	25	0	-	Back	10mm	Ant 0	DSI 5	23230	782	24.10	24.70	1.148	-	-	-0.17	0.338	0.388
37	LTE Band 13	10M	QPSK	1	0	-	Right Side	10mm	Ant 0	DSI 5	23230	782	25.14	25.70	1.138	-	-	0.03	0.961	**1.093**
	LTE Band 13	10M	QPSK	25	0	-	Right Side	10mm	Ant 0	DSI 5	23230	782	24.10	24.70	1.148	-	-	-0.03	0.779	0.894
	LTE Band 13	10M	QPSK	50	0	-	Right Side	10mm	Ant 0	DSI 5	23230	782	24.08	24.70	1.153	-	-	0.02	0.756	0.872
	LTE Band 13	10M	QPSK	1	0	-	Bottom Side	10mm	Ant 0	DSI 5	23230	782	25.14	25.70	1.138	-	-	0.14	0.212	0.241
	LTE Band 13	10M	QPSK	25	0	-	Bottom Side	10mm	Ant 0	DSI 5	23230	782	24.10	24.70	1.148	-	-	0.11	0.168	0.193
	LTE Band 13	10M	QPSK	1	0	-	Front	10mm	Ant 1	DSI 5	23230	782	21.11	22.00	1.227	-	-	0.12	0.346	0.425
	LTE Band 13	10M	QPSK	25	0	-	Front	10mm	Ant 1	DSI 5	23230	782	21.05	22.00	1.245	-	-	0.03	0.350	0.436
	LTE Band 13	10M	QPSK	1	0	-	Back	10mm	Ant 1	DSI 5	23230	782	21.11	22.00	1.227	-	-	0.18	0.431	0.529
	LTE Band 13	10M	QPSK	25	0	-	Back	10mm	Ant 1	DSI 5	23230	782	21.05	22.00	1.245	-	-	0.16	0.409	0.509
	LTE Band 13	10M	QPSK	1	0	-	Left Side	10mm	Ant 1	DSI 5	23230	782	21.11	22.00	1.227	-	-	-0.04	0.476	0.584
	LTE Band 13	10M	QPSK	25	0	-	Left Side	10mm	Ant 1	DSI 5	23230	782	21.05	22.00	1.245	-	-	-0.1	0.460	0.572
	FR1 n12	15M	QPSK	1	1	-	Front	10mm	Ant 0	DSI 5	141500	707.5	24.63	25.50	1.222	-	-	0.08	0.315	0.385
	FR1 n12	15M	QPSK	36	22	-	Front	10mm	Ant 0	DSI 5	141500	707.5	24.57	25.50	1.239	-	-	0.01	0.341	0.422
	FR1 n12	15M	QPSK	1	1	-	Back	10mm	Ant 0	DSI 5	141500	707.5	24.63	25.50	1.222	-	-	0.03	0.470	0.574
	FR1 n12	15M	QPSK	36	22	-	Back	10mm	Ant 0	DSI 5	141500	707.5	24.57	25.50	1.239	-	-	-0.08	0.475	0.588
	FR1 n12	15M	QPSK	1	1	-	Right Side	10mm	Ant 0	DSI 5	141500	707.5	24.63	25.50	1.222	-	-	-0.08	0.854	1.043
38	FR1 n12	15M	QPSK	36	22	-	Right Side	10mm	Ant 0	DSI 5	141500	707.5	24.57	25.50	1.239	-	-	0.06	0.883	**1.094**
	FR1 n12	15M	QPSK	75	0	-	Right Side	10mm	Ant 0	DSI 5	141500	707.5	23.56	24.50	1.242	-	-	0.1	0.665	0.826
	FR1 n12	15M	QPSK	1	1	-	Bottom Side	10mm	Ant 0	DSI 5	141500	707.5	24.63	25.50	1.222	-	-	-0.18	0.297	0.363
	FR1 n12	15M	QPSK	36	22	-	Bottom Side	10mm	Ant 0	DSI 5	141500	707.5	24.57	25.50	1.239	-	-	0.1	0.325	0.403
	FR1 n12	15M	QPSK	1	1	-	Front	10mm	Ant 1	DSI 5	141500	707.5	23.37	24.00	1.156	-	-	0.12	0.294	0.340
	FR1 n12	15M	QPSK	36	22	-	Front	10mm	Ant 1	DSI 5	141500	707.5	23.34	24.00	1.164	-	-	0.08	0.354	0.412
	FR1 n12	15M	QPSK	1	1	-	Back	10mm	Ant 1	DSI 5	141500	707.5	23.37	24.00	1.156	-	-	-0.17	0.375	0.434
	FR1 n12	15M	QPSK	36	22	-	Back	10mm	Ant 1	DSI 5	141500	707.5	23.34	24.00	1.164	-	-	-0.03	0.446	0.519
	FR1 n12	15M	QPSK	1	1	-	Left Side	10mm	Ant 1	DSI 5	141500	707.5	23.37	24.00	1.156	-	-	0.14	0.547	0.632
	FR1 n12	15M	QPSK	36	22	-	Left Side	10mm	Ant 1	DSI 5	141500	707.5	23.34	24.00	1.164	-	-	0.11	0.601	0.700
									850MHz											
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Front	10mm	Ant 0	DSI 5	189	836.4	26.11	27.00	1.227	-	-	0.13	0.138	0.169
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Back	10mm	Ant 0	DSI 5	189	836.4	26.11	27.00	1.227	-	-	0.12	0.161	0.198
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Right Side	10mm	Ant 0	DSI 5	189	836.4	26.11	27.00	1.227	-	-	0.01	0.380	0.466
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Bottom Side	10mm	Ant 0	DSI 5	189	836.4	26.11	27.00	1.227	-	-	0.03	0.067	0.082
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Front	10mm	Ant 1	DSI 5	189	836.4	20.95	22.40	1.396	-	-	-0.09	0.287	0.401

	GSM850	-	-	-	-	GPRS (4 Tx slots)	Back	10mm	Ant 1	DSI 5	189	836.4	20.95	22.40	1.396	-	-	-0.08	0.322	0.450
39	GSM850	-	-	-	-	GPRS (4 Tx slots)	Left Side	10mm	Ant 1	DSI 5	189	836.4	20.95	22.40	1.396	-	-	0.01	0.346	**0.483**
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 0	DSI 5	4182	836.4	24.35	25.00	1.161	-	-	-0.05	0.260	0.302
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 0	DSI 5	4182	836.4	24.35	25.00	1.161	-	-	0.18	0.320	0.372
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Side	10mm	Ant 0	DSI 5	4182	836.4	24.35	25.00	1.161	-	-	0.14	0.692	0.804
40	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Side	10mm	Ant 0	DSI 5	4132	826.4	24.26	25.00	1.186	-	-	0.01	0.698	**0.828**
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Side	10mm	Ant 0	DSI 5	4233	846.6	24.22	25.00	1.197	-	-	-0.17	0.687	0.822
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Bottom Side	10mm	Ant 0	DSI 5	4182	836.4	24.35	25.00	1.161	-	-	0.17	0.162	0.188
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 1	DSI 5	4182	836.4	19.36	20.70	1.361	-	-	0.01	0.380	0.517
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 1	DSI 5	4182	836.4	19.36	20.70	1.361	-	-	0.1	0.457	0.622
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 1	DSI 5	4182	836.4	19.36	20.70	1.361	-	-	-0.01	0.491	0.668
	LTE Band 5	10M	QPSK	1	0	-	Front	10mm	Ant 0	DSI 5	20525	836.5	25.21	25.70	1.119	-	-	0.08	0.342	0.383
	LTE Band 5	10M	QPSK	25	0	-	Front	10mm	Ant 0	DSI 5	20525	836.5	24.23	24.70	1.114	-	-	0.01	0.263	0.293
	LTE Band 5	10M	QPSK	1	0	-	Back	10mm	Ant 0	DSI 5	20525	836.5	25.21	25.70	1.119	-	-	0.03	0.416	0.466
	LTE Band 5	10M	QPSK	25	0	-	Back	10mm	Ant 0	DSI 5	20525	836.5	24.23	24.70	1.114	-	-	-0.08	0.338	0.377
41	LTE Band 5	10M	QPSK	1	0	-	Right Side	10mm	Ant 0	DSI 5	20525	836.5	25.21	25.70	1.119	-	-	-0.01	0.879	**0.984**
	LTE Band 5	10M	QPSK	25	0	-	Right Side	10mm	Ant 0	DSI 5	20525	836.5	24.23	24.70	1.114	-	-	-0.08	0.705	0.786
	LTE Band 5	10M	QPSK	50	0	-	Right Side	10mm	Ant 0	DSI 5	20525	836.5	24.25	24.70	1.109	-	-	0.02	0.689	0.764
	LTE Band 5	10M	QPSK	1	0	-	Bottom Side	10mm	Ant 0	DSI 5	20525	836.5	25.21	25.70	1.119	-	-	0.1	0.191	0.214
	LTE Band 5	10M	QPSK	25	0	-	Bottom Side	10mm	Ant 0	DSI 5	20525	836.5	24.23	24.70	1.114	-	-	-0.18	0.156	0.174
	LTE Band 5	10M	QPSK	1	0	-	Front	10mm	Ant 1	DSI 5	20525	836.5	19.41	20.50	1.285	-	-	0.07	0.327	0.420
	LTE Band 5	10M	QPSK	25	0	-	Front	10mm	Ant 1	DSI 5	20525	836.5	19.37	20.50	1.297	-	-	0.18	0.333	0.432
	LTE Band 5	10M	QPSK	1	0	-	Back	10mm	Ant 1	DSI 5	20525	836.5	19.41	20.50	1.285	-	-	-0.1	0.390	0.501
	LTE Band 5	10M	QPSK	25	0	-	Back	10mm	Ant 1	DSI 5	20525	836.5	19.37	20.50	1.297	-	-	0.01	0.391	0.507
	LTE Band 5	10M	QPSK	1	0	-	Left Side	10mm	Ant 1	DSI 5	20525	836.5	19.41	20.50	1.285	-	-	-0.04	0.442	0.568
	LTE Band 5	10M	QPSK	25	0	-	Left Side	10mm	Ant 1	DSI 5	20525	836.5	19.37	20.50	1.297	-	-	-0.15	0.428	0.555
	LTE Band 26	15M	QPSK	1	0	-	Front	10mm	Ant 0	DSI 5	26865	831.5	25.20	25.70	1.122	-	-	0.1	0.310	0.348
	LTE Band 26	15M	QPSK	36	0	-	Front	10mm	Ant 0	DSI 5	26865	831.5	24.20	24.70	1.122	-	-	0.12	0.252	0.283
	LTE Band 26	15M	QPSK	1	0	-	Back	10mm	Ant 0	DSI 5	26865	831.5	25.20	25.70	1.122	-	-	0.08	0.373	0.419
	LTE Band 26	15M	QPSK	36	0	-	Back	10mm	Ant 0	DSI 5	26865	831.5	24.20	24.70	1.122	-	-	-0.17	0.303	0.340
42	LTE Band 26	15M	QPSK	1	0	-	Right Side	10mm	Ant 0	DSI 5	26865	831.5	25.20	25.70	1.122	-	-	0.01	0.816	**0.916**
	LTE Band 26	15M	QPSK	36	0	-	Right Side	10mm	Ant 0	DSI 5	26865	831.5	24.20	24.70	1.122	-	-	-0.03	0.667	0.748
	LTE Band 26	15M	QPSK	75	0	-	Right Side	10mm	Ant 0	DSI 5	26865	831.5	24.16	24.70	1.132	-	-	0.05	0.659	0.746
	LTE Band 26	15M	QPSK	1	0	-	Bottom Side	10mm	Ant 0	DSI 5	26865	831.5	25.20	25.70	1.122	-	-	0.14	0.169	0.190
	LTE Band 26	15M	QPSK	36	0	-	Bottom Side	10mm	Ant 0	DSI 5	26865	831.5	24.20	24.70	1.122	-	-	0.11	0.146	0.164
	LTE Band 26	15M	QPSK	1	0	-	Front	10mm	Ant 1	DSI 5	26865	831.5	19.66	20.50	1.213	-	-	0.19	0.265	0.322
	LTE Band 26	15M	QPSK	36	0	-	Front	10mm	Ant 1	DSI 5	26865	831.5	19.62	20.50	1.225	-	-	0.07	0.293	0.359
	LTE Band 26	15M	QPSK	1	0	-	Back	10mm	Ant 1	DSI 5	26865	831.5	19.66	20.50	1.213	-	-	-0.18	0.327	0.397
	LTE Band 26	15M	QPSK	36	0	-	Back	10mm	Ant 1	DSI 5	26865	831.5	19.62	20.50	1.225	-	-	0.03	0.349	0.427
	LTE Band 26	15M	QPSK	1	0	-	Left Side	10mm	Ant 1	DSI 5	26865	831.5	19.66	20.50	1.213	-	-	-0.01	0.409	0.496
	LTE Band 26	15M	QPSK	36	0	-	Left Side	10mm	Ant 1	DSI 5	26865	831.5	19.62	20.50	1.225	-	-	-0.15	0.404	0.495
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Front	10mm	Ant 0	DSI 5	167300	836.5	25.37	25.70	1.079	-	-	-0.05	0.321	0.346
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Front	10mm	Ant 0	DSI 5	167300	836.5	25.35	25.70	1.084	-	-	0.18	0.312	0.338
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Back	10mm	Ant 0	DSI 5	167300	836.5	25.37	25.70	1.079	-	-	0.14	0.392	0.423
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Back	10mm	Ant 0	DSI 5	167300	836.5	25.35	25.70	1.084	-	-	-0.17	0.398	0.431
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Right Side	10mm	Ant 0	DSI 5	167300	836.5	25.37	25.70	1.079	-	-	0.17	0.689	0.743
43	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Right Side	10mm	Ant 0	DSI 5	167300	836.5	25.35	25.70	1.084	-	-	-0.05	0.723	**0.784**
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	10mm	Ant 0	DSI 5	167300	836.5	25.37	25.70	1.079	-	-	0.01	0.186	0.201
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Bottom Side	10mm	Ant 0	DSI 5	167300	836.5	25.35	25.70	1.084	-	-	0.1	0.189	0.205
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Front	10mm	Ant 1	DSI 5	167300	836.5	19.34	20.00	1.164	-	-	0.08	0.286	0.333
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Front	10mm	Ant 1	DSI 5	167300	836.5	19.29	20.00	1.178	-	-	0.01	0.279	0.329
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Back	10mm	Ant 1	DSI 5	167300	836.5	19.34	20.00	1.164	-	-	0.03	0.355	0.413
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Back	10mm	Ant 1	DSI 5	167300	836.5	19.29	20.00	1.178	-	-	-0.08	0.340	0.400
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Left Side	10mm	Ant 1	DSI 5	167300	836.5	19.34	20.00	1.164	-	-	0.06	0.383	0.446
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Left Side	10mm	Ant 1	DSI 5	167300	836.5	19.29	20.00	1.178	-	-	-0.08	0.352	0.415
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Front	10mm	Ant 0	DSI 5	166300	831.5	25.26	25.70	1.107	-	-	0.1	0.311	0.344

	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Front	10mm	Ant 0	DSI 5	166300	831.5	25.21	25.70	1.119	-	-	-0.18	0.331	0.371
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Back	10mm	Ant 0	DSI 5	166300	831.5	25.26	25.70	1.107	-	-	0.1	0.395	0.437
	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Back	10mm	Ant 0	DSI 5	166300	831.5	25.21	25.70	1.119	-	-	0.12	0.398	0.446
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Right Side	10mm	Ant 0	DSI 5	166300	831.5	25.26	25.70	1.107	-	-	0.08	0.667	0.738
44	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Right Side	10mm	Ant 0	DSI 5	166300	831.5	25.21	25.70	1.119	-	-	-0.11	0.734	**0.822**
	FR1 n26	20M	QPSK	100	0	DFT-SCS-15KHz	Right Side	10mm	Ant 0	DSI 5	166300	831.5	24.22	24.70	1.117	-	-	-0.17	0.577	0.644
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	10mm	Ant 0	DSI 5	166300	831.5	25.26	25.70	1.107	-	-	-0.03	0.186	0.206
	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Bottom Side	10mm	Ant 0	DSI 5	166300	831.5	25.21	25.70	1.119	-	-	0.14	0.178	0.199
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Front	10mm	Ant 1	DSI 5	166300	831.5	20.39	21.00	1.151	-	-	0.11	0.361	0.415
	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Front	10mm	Ant 1	DSI 5	166300	831.5	20.36	21.00	1.159	-	-	-0.05	0.368	0.426
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Back	10mm	Ant 1	DSI 5	166300	831.5	20.39	21.00	1.151	-	-	0.18	0.424	0.488
	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Back	10mm	Ant 1	DSI 5	166300	831.5	20.36	21.00	1.159	-	-	0.14	0.445	0.516
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Left Side	10mm	Ant 1	DSI 5	166300	831.5	20.39	21.00	1.151	-	-	0.12	0.475	0.547
	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Left Side	10mm	Ant 1	DSI 5	166300	831.5	20.36	21.00	1.159	-	-	-0.17	0.468	0.542
1750MHz																				
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 4	DSI 5	1413	1732.6	17.13	18.00	1.222	-	-	-0.05	0.170	0.208
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 4	DSI 5	1413	1732.6	17.13	18.00	1.222	-	-	0.01	0.199	0.243
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 4	DSI 5	1413	1732.6	17.13	18.00	1.222	-	-	0.1	0.064	0.078
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Side	10mm	Ant 4	DSI 5	1413	1732.6	17.13	18.00	1.222	-	-	-0.17	0.015	0.018
45	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Top Side	10mm	Ant 4	DSI 5	1413	1732.6	17.13	18.00	1.222	-	-	0.01	0.313	**0.382**
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 5	DSI 5	1413	1732.6	17.53	18.70	1.309	-	-	-0.17	0.130	0.170
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 5	DSI 5	1413	1732.6	17.53	18.70	1.309	-	-	0.04	0.114	0.149
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Side	10mm	Ant 5	DSI 5	1413	1732.6	17.53	18.70	1.309	-	-	0.03	0.183	0.240
	LTE Band 4	20M	QPSK	1	0	-	Front	10mm	Ant 4	DSI 5	20175	1732.5	17.49	18.20	1.178	-	-	0.07	0.158	0.186
	LTE Band 4	20M	QPSK	50	0	-	Front	10mm	Ant 4	DSI 5	20175	1732.5	17.41	18.20	1.199	-	-	0.18	0.169	0.203
	LTE Band 4	20M	QPSK	1	0	-	Back	10mm	Ant 4	DSI 5	20175	1732.5	17.49	18.20	1.178	-	-	-0.1	0.196	0.231
	LTE Band 4	20M	QPSK	50	0	-	Back	10mm	Ant 4	DSI 5	20175	1732.5	17.41	18.20	1.199	-	-	0.01	0.204	0.245
	LTE Band 4	20M	QPSK	1	0	-	Left Side	10mm	Ant 4	DSI 5	20175	1732.5	17.49	18.20	1.178	-	-	-0.15	0.063	0.074
	LTE Band 4	20M	QPSK	50	0	-	Left Side	10mm	Ant 4	DSI 5	20175	1732.5	17.41	18.20	1.199	-	-	0.19	0.061	0.073
	LTE Band 4	20M	QPSK	1	0	-	Right Side	10mm	Ant 4	DSI 5	20175	1732.5	17.49	18.20	1.178	-	-	0.07	0.005	0.006
	LTE Band 4	20M	QPSK	50	0	-	Right Side	10mm	Ant 4	DSI 5	20175	1732.5	17.41	18.20	1.199	-	-	-0.18	0.003	0.004
	LTE Band 4	20M	QPSK	1	0	-	Top Side	10mm	Ant 4	DSI 5	20175	1732.5	17.49	18.20	1.178	-	-	-0.01	0.314	0.370
	LTE Band 4	20M	QPSK	50	0	-	Top Side	10mm	Ant 4	DSI 5	20175	1732.5	17.41	18.20	1.199	-	-	0.03	0.302	0.362
	LTE Band 4	20M	QPSK	1	0	-	Front	10mm	Ant 5	DSI 5	20175	1732.5	18.99	20.00	1.262	-	-	-0.15	0.177	0.223
	LTE Band 4	20M	QPSK	50	0	-	Front	10mm	Ant 5	DSI 5	20175	1732.5	18.97	20.00	1.268	-	-	0.11	0.182	0.231
	LTE Band 4	20M	QPSK	1	0	-	Back	10mm	Ant 5	DSI 5	20175	1732.5	18.99	20.00	1.262	-	-	-0.08	0.153	0.193
	LTE Band 4	20M	QPSK	50	0	-	Back	10mm	Ant 5	DSI 5	20175	1732.5	18.97	20.00	1.268	-	-	-0.17	0.157	0.199
	LTE Band 4	20M	QPSK	1	0	-	Right Side	10mm	Ant 5	DSI 5	20175	1732.5	18.99	20.00	1.262	-	-	-0.02	0.234	0.295
	LTE Band 4	20M	QPSK	50	0	-	Right Side	10mm	Ant 5	DSI 5	20175	1732.5	18.97	20.00	1.268	-	-	-0.08	0.230	0.292
	LTE Band 4 Other PA	20M	QPSK	1	0	-	Front	10mm	Ant 3	DSI 5	20175	1732.5	22.00	22.70	1.175	-	-	0.18	0.483	0.567
	LTE Band 4 Other PA	20M	QPSK	50	0	-	Front	10mm	Ant 3	DSI 5	20175	1732.5	21.95	22.70	1.189	-	-	-0.1	0.500	0.594
	LTE Band 4 Other PA	20M	QPSK	1	0	-	Back	10mm	Ant 3	DSI 5	20175	1732.5	22.00	22.70	1.175	-	-	0.01	0.613	0.720
	LTE Band 4 Other PA	20M	QPSK	50	0	-	Back	10mm	Ant 3	DSI 5	20175	1732.5	21.95	22.70	1.189	-	-	-0.15	0.626	0.744
	LTE Band 4 Other PA	20M	QPSK	1	0	-	Left Side	10mm	Ant 3	DSI 5	20175	1732.5	22.00	22.70	1.175	-	-	0.19	0.189	0.222
	LTE Band 4 Other PA	20M	QPSK	50	0	-	Left Side	10mm	Ant 3	DSI 5	20175	1732.5	21.95	22.70	1.189	-	-	0.07	0.202	0.240
46	LTE Band 4 Other PA	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 3	DSI 5	20175	1732.5	22.00	22.70	1.175	-	-	0.01	0.864	**1.015**
	LTE Band 4 Other PA	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 3	DSI 5	20175	1732.5	21.95	22.70	1.189	-	-	-0.18	0.851	1.011
	LTE Band 4 Other PA	20M	QPSK	100	0	-	Bottom Side	10mm	Ant 3	DSI 5	20175	1732.5	21.96	22.70	1.186	-	-	0.03	0.837	0.992
	LTE Band 4 Other PA	20M	QPSK	1	0	-	Front	10mm	Ant 6	DSI 5	20175	1732.5	15.41	16.50	1.285	-	-	-0.07	0.109	0.140
	LTE Band 4 Other PA	20M	QPSK	50	0	-	Front	10mm	Ant 6	DSI 5	20175	1732.5	15.35	16.50	1.303	-	-	0.05	0.114	0.149
	LTE Band 4 Other PA	20M	QPSK	1	0	-	Back	10mm	Ant 6	DSI 5	20175	1732.5	15.41	16.50	1.285	-	-	-0.11	0.144	0.185
	LTE Band 4 Other PA	20M	QPSK	50	0	-	Back	10mm	Ant 6	DSI 5	20175	1732.5	15.35	16.50	1.303	-	-	-0.12	0.151	0.197

	LTE Band 4 Other PA	20M	QPSK	1	0	-	Left Side	10mm	Ant 6	DSI 5	20175	1732.5	15.41	16.50	1.285	-	-	-0.02	0.185	0.238
	LTE Band 4 Other PA	20M	QPSK	50	0	-	Left Side	10mm	Ant 6	DSI 5	20175	1732.5	15.35	16.50	1.303	-	-	0.03	0.181	0.236
	LTE Band 4 Other PA	20M	QPSK	1	0	-	Top Side	10mm	Ant 6	DSI 5	20175	1732.5	15.41	16.50	1.285	-	-	-0.16	0.060	0.077
	LTE Band 4 Other PA	20M	QPSK	50	0	-	Top Side	10mm	Ant 6	DSI 5	20175	1732.5	15.35	16.50	1.303	-	-	-0.02	0.047	0.061
	LTE Band 66	20M	QPSK	1	0	-	Front	10mm	Ant 4	DSI 5	132322	1745	18.05	19.00	1.245	-	-	-0.15	0.195	0.243
	LTE Band 66	20M	QPSK	50	0	-	Front	10mm	Ant 4	DSI 5	132322	1745	17.98	19.00	1.265	-	-	-0.15	0.200	0.253
	LTE Band 66	20M	QPSK	1	0	-	Back	10mm	Ant 4	DSI 5	132322	1745	18.05	19.00	1.245	-	-	0.11	0.231	0.287
	LTE Band 66	20M	QPSK	50	0	-	Back	10mm	Ant 4	DSI 5	132322	1745	17.98	19.00	1.265	-	-	-0.08	0.229	0.290
	LTE Band 66	20M	QPSK	1	0	-	Left Side	10mm	Ant 4	DSI 5	132322	1745	18.05	19.00	1.245	-	-	-0.17	0.070	0.087
	LTE Band 66	20M	QPSK	50	0	-	Left Side	10mm	Ant 4	DSI 5	132322	1745	17.98	19.00	1.265	-	-	-0.08	0.073	0.092
	LTE Band 66	20M	QPSK	1	0	-	Right Side	10mm	Ant 4	DSI 5	132322	1745	18.05	19.00	1.245	-	-	-0.04	0.003	0.004
	LTE Band 66	20M	QPSK	50	0	-	Right Side	10mm	Ant 4	DSI 5	132322	1745	17.98	19.00	1.265	-	-	-0.08	0.001	0.001
	LTE Band 66	20M	QPSK	1	0	-	Top Side	10mm	Ant 4	DSI 5	132322	1745	18.05	19.00	1.245	-	-	0.03	0.359	0.447
	LTE Band 66	20M	QPSK	50	0	-	Top Side	10mm	Ant 4	DSI 5	132322	1745	17.98	19.00	1.265	-	-	0.17	0.352	0.445
	LTE Band 66	20M	QPSK	1	0	-	Front	10mm	Ant 5	DSI 5	132322	1745	16.19	17.00	1.205	-	-	-0.04	0.087	0.105
	LTE Band 66	20M	QPSK	50	0	-	Front	10mm	Ant 5	DSI 5	132322	1745	16.15	17.00	1.216	-	-	-0.08	0.083	0.101
	LTE Band 66	20M	QPSK	1	0	-	Back	10mm	Ant 5	DSI 5	132322	1745	16.19	17.00	1.205	-	-	0.17	0.071	0.086
	LTE Band 66	20M	QPSK	50	0	-	Back	10mm	Ant 5	DSI 5	132322	1745	16.15	17.00	1.216	-	-	0.18	0.078	0.095
	LTE Band 66	20M	QPSK	1	0	-	Right Side	10mm	Ant 5	DSI 5	132322	1745	16.19	17.00	1.205	-	-	0.07	0.126	0.152
	LTE Band 66	20M	QPSK	50	0	-	Right Side	10mm	Ant 5	DSI 5	132322	1745	16.15	17.00	1.216	-	-	-0.04	0.113	0.137
	LTE Band 66 Other PA	20M	QPSK	1	0	-	Front	10mm	Ant 3	DSI 5	132322	1745	21.69	22.50	1.205	-	-	-0.08	0.460	0.554
	LTE Band 66 Other PA	20M	QPSK	50	0	-	Front	10mm	Ant 3	DSI 5	132322	1745	21.65	22.50	1.216	-	-	-0.17	0.461	0.561
	LTE Band 66 Other PA	20M	QPSK	1	0	-	Back	10mm	Ant 3	DSI 5	132322	1745	21.69	22.50	1.205	-	-	-0.08	0.587	0.707
	LTE Band 66 Other PA	20M	QPSK	50	0	-	Back	10mm	Ant 3	DSI 5	132322	1745	21.65	22.50	1.216	-	-	0.17	0.604	0.735
	LTE Band 66 Other PA	20M	QPSK	1	0	-	Left Side	10mm	Ant 3	DSI 5	132322	1745	21.69	22.50	1.205	-	-	-0.13	0.174	0.210
	LTE Band 66 Other PA	20M	QPSK	50	0	-	Left Side	10mm	Ant 3	DSI 5	132322	1745	21.65	22.50	1.216	-	-	-0.13	0.188	0.229
47	LTE Band 66 Other PA	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 3	DSI 5	132322	1745	21.69	22.50	1.205	-	-	0.02	0.794	**0.957**
	LTE Band 66 Other PA	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 3	DSI 5	132072	1720	21.61	22.50	1.227	-	-	0.06	0.740	0.908
	LTE Band 66 Other PA	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 3	DSI 5	132572	1770	21.49	22.50	1.262	-	-	-0.03	0.738	0.931
	LTE Band 66 Other PA	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 3	DSI 5	132322	1745	21.65	22.50	1.216	-	-	-0.03	0.767	0.933
	LTE Band 66 Other PA	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 3	DSI 5	132072	1720	21.54	22.50	1.247	-	-	0.08	0.749	0.934
	LTE Band 66 Other PA	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 3	DSI 5	132572	1770	21.50	22.50	1.259	-	-	-0.07	0.729	0.918
	LTE Band 66 Other PA	20M	QPSK	100	0	-	Bottom Side	10mm	Ant 3	DSI 5	132322	1745	21.66	22.50	1.213	-	-	0.05	0.776	0.942
	LTE Band 66 Other PA	20M	QPSK	1	0	-	Front	10mm	Ant 6	DSI 5	132322	1745	17.05	18.00	1.245	-	-	0.15	0.121	0.151
	LTE Band 66 Other PA	20M	QPSK	50	0	-	Front	10mm	Ant 6	DSI 5	132322	1745	16.96	18.00	1.271	-	-	-0.09	0.123	0.156
	LTE Band 66 Other PA	20M	QPSK	1	0	-	Back	10mm	Ant 6	DSI 5	132322	1745	17.05	18.00	1.245	-	-	0.11	0.170	0.212
	LTE Band 66 Other PA	20M	QPSK	50	0	-	Back	10mm	Ant 6	DSI 5	132322	1745	16.96	18.00	1.271	-	-	-0.05	0.170	0.216
	LTE Band 66 Other PA	20M	QPSK	1	0	-	Left Side	10mm	Ant 6	DSI 5	132322	1745	17.05	18.00	1.245	-	-	0.01	0.219	0.273
	LTE Band 66 Other PA	20M	QPSK	50	0	-	Left Side	10mm	Ant 6	DSI 5	132322	1745	16.96	18.00	1.271	-	-	-0.08	0.210	0.267
	LTE Band 66 Other PA	20M	QPSK	1	0	-	Top Side	10mm	Ant 6	DSI 5	132322	1745	17.05	18.00	1.245	-	-	0.16	0.054	0.067
	LTE Band 66 Other PA	20M	QPSK	50	0	-	Top Side	10mm	Ant 6	DSI 5	132322	1745	16.96	18.00	1.271	-	-	0.05	0.057	0.072
	FR1 n66	45M	QPSK	1	1	DFT-SCS-15KHz	Front	10mm	Ant 4	DSI 5	349000	1745	18.02	18.50	1.117	-	-	0.17	0.177	0.198
	FR1 n66	45M	QPSK	120	60	DFT-SCS-15KHz	Front	10mm	Ant 4	DSI 5	349000	1745	17.99	18.50	1.125	-	-	-0.05	0.191	0.215
	FR1 n66	45M	QPSK	1	1	DFT-SCS-15KHz	Back	10mm	Ant 4	DSI 5	349000	1745	18.02	18.50	1.117	-	-	0.01	0.205	0.229
	FR1 n66	45M	QPSK	120	60	DFT-SCS-15KHz	Back	10mm	Ant 4	DSI 5	349000	1745	17.99	18.50	1.125	-	-	0.1	0.218	0.245
	FR1 n66	45M	QPSK	1	1	DFT-SCS-15KHz	Left Side	10mm	Ant 4	DSI 5	349000	1745	18.02	18.50	1.117	-	-	-0.17	0.068	0.076
	FR1 n66	45M	QPSK	120	60	DFT-SCS-15KHz	Left Side	10mm	Ant 4	DSI 5	349000	1745	17.99	18.50	1.125	-	-	0.04	0.082	0.092
	FR1 n66	45M	QPSK	1	1	DFT-SCS-15KHz	Right Side	10mm	Ant 4	DSI 5	349000	1745	18.02	18.50	1.117	-	-	-0.01	0.041	0.046

	FR1 n66	45M	QPSK	120	60	DFT-SCS-15KHz	Right Side	10mm	Ant 4	DSI 5	349000	1745	17.99	18.50	1.125	-	-	-0.08	0.030	0.034
	FR1 n66	45M	QPSK	1	1	DFT-SCS-15KHz	Top Side	10mm	Ant 4	DSI 5	349000	1745	18.02	18.50	1.117	-	-	0.01	0.353	0.394
	FR1 n66	45M	QPSK	120	60	DFT-SCS-15KHz	Top Side	10mm	Ant 4	DSI 5	349000	1745	17.99	18.50	1.125	-	-	0.05	0.345	0.388
	FR1 n66	45M	QPSK	1	1	DFT-SCS-15KHz	Front	10mm	Ant 5	DSI 5	349000	1745	19.16	19.90	1.186	-	-	0.06	0.200	0.237
	FR1 n66	45M	QPSK	120	60	DFT-SCS-15KHz	Front	10mm	Ant 5	DSI 5	349000	1745	19.11	19.90	1.199	-	-	-0.09	0.216	0.259
	FR1 n66	45M	QPSK	1	1	DFT-SCS-15KHz	Back	10mm	Ant 5	DSI 5	349000	1745	19.16	19.90	1.186	-	-	-0.08	0.184	0.218
	FR1 n66	45M	QPSK	120	60	DFT-SCS-15KHz	Back	10mm	Ant 5	DSI 5	349000	1745	19.11	19.90	1.199	-	-	0.13	0.208	0.249
	FR1 n66	45M	QPSK	1	1	DFT-SCS-15KHz	Right Side	10mm	Ant 5	DSI 5	349000	1745	19.16	19.90	1.186	-	-	0.12	0.322	0.382
	FR1 n66	45M	QPSK	120	60	DFT-SCS-15KHz	Right Side	10mm	Ant 5	DSI 5	349000	1745	19.11	19.90	1.199	-	-	0.01	0.328	0.393
	FR1 n66 Other PA	45M	QPSK	1	1	DFT-SCS-15KHz	Front	10mm	Ant 3	DSI 5	349000	1745	21.74	22.50	1.191	-	-	0.03	0.432	0.515
	FR1 n66 Other PA	45M	QPSK	120	60	DFT-SCS-15KHz	Front	10mm	Ant 3	DSI 5	349000	1745	21.71	22.50	1.199	-	-	0.18	0.460	0.552
	FR1 n66 Other PA	45M	QPSK	1	1	DFT-SCS-15KHz	Back	10mm	Ant 3	DSI 5	349000	1745	21.74	22.50	1.191	-	-	0.16	0.516	0.615
	FR1 n66 Other PA	45M	QPSK	120	60	DFT-SCS-15KHz	Back	10mm	Ant 3	DSI 5	349000	1745	21.71	22.50	1.199	-	-	-0.1	0.575	0.690
	FR1 n66 Other PA	45M	QPSK	1	1	DFT-SCS-15KHz	Left Side	10mm	Ant 3	DSI 5	349000	1745	21.74	22.50	1.191	-	-	0.07	0.196	0.233
	FR1 n66 Other PA	45M	QPSK	120	60	DFT-SCS-15KHz	Left Side	10mm	Ant 3	DSI 5	349000	1745	21.71	22.50	1.199	-	-	0.18	0.207	0.248
	FR1 n66 Other PA	45M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	10mm	Ant 3	DSI 5	349000	1745	21.74	22.50	1.191	-	-	-0.1	0.795	0.947
48	FR1 n66 Other PA	45M	QPSK	120	60	DFT-SCS-15KHz	Bottom Side	10mm	Ant 3	DSI 5	349000	1745	21.71	22.50	1.199	-	-	0.09	0.833	**0.999**
	FR1 n66 Other PA	45M	QPSK	240	0	DFT-SCS-15KHz	Bottom Side	10mm	Ant 3	DSI 5	349000	1745	21.68	22.50	1.208	-	-	0.01	0.792	0.957
	FR1 n66 Other PA	45M	QPSK	1	1	DFT-SCS-15KHz	Front	10mm	Ant 6	DSI 5	349000	1745	17.15	17.90	1.189	-	-	-0.15	0.121	0.144
	FR1 n66 Other PA	45M	QPSK	120	60	DFT-SCS-15KHz	Front	10mm	Ant 6	DSI 5	349000	1745	17.12	17.90	1.197	-	-	0.19	0.124	0.148
	FR1 n66 Other PA	45M	QPSK	1	1	DFT-SCS-15KHz	Back	10mm	Ant 6	DSI 5	349000	1745	17.15	17.90	1.189	-	-	0.07	0.166	0.197
	FR1 n66 Other PA	45M	QPSK	120	60	DFT-SCS-15KHz	Back	10mm	Ant 6	DSI 5	349000	1745	17.12	17.90	1.197	-	-	-0.18	0.182	0.218
	FR1 n66 Other PA	45M	QPSK	1	1	DFT-SCS-15KHz	Left Side	10mm	Ant 6	DSI 5	349000	1745	17.15	17.90	1.189	-	-	0.03	0.226	0.269
	FR1 n66 Other PA	45M	QPSK	120	60	DFT-SCS-15KHz	Left Side	10mm	Ant 6	DSI 5	349000	1745	17.12	17.90	1.197	-	-	-0.06	0.234	0.280
	FR1 n66 Other PA	45M	QPSK	1	1	DFT-SCS-15KHz	Top Side	10mm	Ant 6	DSI 5	349000	1745	17.15	17.90	1.189	-	-	-0.15	0.044	0.052
	FR1 n66 Other PA	45M	QPSK	120	60	DFT-SCS-15KHz	Top Side	10mm	Ant 6	DSI 5	349000	1745	17.12	17.90	1.197	-	-	-0.15	0.053	0.063
1900MHz																				
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Front	10mm	Ant 4	DSI 5	661	1880	21.45	23.00	1.429	-	-	0.18	0.242	0.346
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Back	10mm	Ant 4	DSI 5	661	1880	21.45	23.00	1.429	-	-	0.16	0.306	0.437
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Left Side	10mm	Ant 4	DSI 5	661	1880	21.45	23.00	1.429	-	-	-0.1	0.073	0.104
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Right Side	10mm	Ant 4	DSI 5	661	1880	21.45	23.00	1.429	-	-	0.07	0.097	0.139
49	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Top Side	10mm	Ant 4	DSI 5	661	1880	21.45	23.00	1.429	-	-	0.01	0.459	**0.656**
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Front	10mm	Ant 5	DSI 5	661	1880	21.09	22.40	1.352	-	-	0.05	0.142	0.192
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Back	10mm	Ant 5	DSI 5	661	1880	21.09	22.40	1.352	-	-	0.06	0.139	0.188
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Right Side	10mm	Ant 5	DSI 5	661	1880	21.09	22.40	1.352	-	-	-0.06	0.214	0.289
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 4	DSI 5	9400	1880	17.20	18.00	1.202	-	-	0.04	0.184	0.221
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 4	DSI 5	9400	1880	17.20	18.00	1.202	-	-	-0.01	0.226	0.272
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 4	DSI 5	9400	1880	17.20	18.00	1.202	-	-	-0.08	0.062	0.075
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Side	10mm	Ant 4	DSI 5	9400	1880	17.20	18.00	1.202	-	-	0.05	0.073	0.088
50	WCDMA II	-	-	-	-	RMC 12.2Kbps	Top Side	10mm	Ant 4	DSI 5	9400	1880	17.20	18.00	1.202	-	-	0.01	0.350	**0.421**
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 5	DSI 5	9400	1880	17.02	18.20	1.312	-	-	-0.01	0.182	0.239
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 5	DSI 5	9400	1880	17.02	18.20	1.312	-	-	-0.08	0.200	0.262
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Side	10mm	Ant 5	DSI 5	9400	1880	17.02	18.20	1.312	-	-	0.02	0.279	0.366
	LTE Band 2	20M	QPSK	1	0	-	Front	10mm	Ant 4	DSI 5	18900	1880	17.53	18.50	1.250	-	-	0.06	0.177	0.221
	LTE Band 2	20M	QPSK	50	0	-	Front	10mm	Ant 4	DSI 5	18900	1880	17.48	18.50	1.265	-	-	-0.09	0.171	0.216
	LTE Band 2	20M	QPSK	1	0	-	Back	10mm	Ant 4	DSI 5	18900	1880	17.53	18.50	1.250	-	-	-0.08	0.230	0.288
	LTE Band 2	20M	QPSK	50	0	-	Back	10mm	Ant 4	DSI 5	18900	1880	17.48	18.50	1.265	-	-	0.13	0.215	0.272
	LTE Band 2	20M	QPSK	1	0	-	Left Side	10mm	Ant 4	DSI 5	18900	1880	17.53	18.50	1.250	-	-	0.12	0.051	0.064
	LTE Band 2	20M	QPSK	50	0	-	Left Side	10mm	Ant 4	DSI 5	18900	1880	17.48	18.50	1.265	-	-	0.03	0.049	0.062
	LTE Band 2	20M	QPSK	1	0	-	Right Side	10mm	Ant 4	DSI 5	18900	1880	17.53	18.50	1.250	-	-	0.18	0.080	0.100
	LTE Band 2	20M	QPSK	50	0	-	Right Side	10mm	Ant 4	DSI 5	18900	1880	17.48	18.50	1.265	-	-	0.16	0.083	0.105

51	LTE Band 2	20M	QPSK	1	0	-	Top Side	10mm	Ant 4	DSI 5	18900	1880	17.53	18.50	1.250	-	-	0.01	0.340	**0.425**
	LTE Band 2	20M	QPSK	50	0	-	Top Side	10mm	Ant 4	DSI 5	18900	1880	17.48	18.50	1.265	-	-	-0.1	0.333	0.421
	LTE Band 2	20M	QPSK	1	0	-	Front	10mm	Ant 5	DSI 5	18900	1880	15.65	16.60	1.245	-	-	-0.08	0.099	0.123
	LTE Band 2	20M	QPSK	50	0	-	Front	10mm	Ant 5	DSI 5	18900	1880	15.62	16.60	1.253	-	-	-0.13	0.100	0.125
	LTE Band 2	20M	QPSK	1	0	-	Back	10mm	Ant 5	DSI 5	18900	1880	15.65	16.60	1.245	-	-	-0.13	0.108	0.134
	LTE Band 2	20M	QPSK	50	0	-	Back	10mm	Ant 5	DSI 5	18900	1880	15.62	16.60	1.253	-	-	0.06	0.108	0.135
	LTE Band 2	20M	QPSK	1	0	-	Right Side	10mm	Ant 5	DSI 5	18900	1880	15.65	16.60	1.245	-	-	0.01	0.171	0.213
	LTE Band 2	20M	QPSK	50	0	-	Right Side	10mm	Ant 5	DSI 5	18900	1880	15.62	16.60	1.253	-	-	-0.03	0.166	0.208
	LTE Band 25	20M	QPSK	1	0	-	Front	10mm	Ant 4	DSI 5	26340	1880	18.59	19.50	1.233	-	-	-0.17	0.115	0.142
	LTE Band 25	20M	QPSK	50	0	-	Front	10mm	Ant 4	DSI 5	26340	1880	18.58	19.50	1.236	-	-	0.04	0.116	0.143
	LTE Band 25	20M	QPSK	1	0	-	Back	10mm	Ant 4	DSI 5	26340	1880	18.59	19.50	1.233	-	-	-0.01	0.146	0.180
	LTE Band 25	20M	QPSK	50	0	-	Back	10mm	Ant 4	DSI 5	26340	1880	18.58	19.50	1.236	-	-	-0.08	0.151	0.187
	LTE Band 25	20M	QPSK	1	0	-	Left Side	10mm	Ant 4	DSI 5	26340	1880	18.59	19.50	1.233	-	-	0.05	0.003	0.004
	LTE Band 25	20M	QPSK	50	0	-	Left Side	10mm	Ant 4	DSI 5	26340	1880	18.58	19.50	1.236	-	-	0.06	0.001	0.001
	LTE Band 25	20M	QPSK	1	0	-	Right Side	10mm	Ant 4	DSI 5	26340	1880	18.59	19.50	1.233	-	-	-0.09	0.058	0.072
	LTE Band 25	20M	QPSK	50	0	-	Right Side	10mm	Ant 4	DSI 5	26340	1880	18.58	19.50	1.236	-	-	-0.08	0.064	0.079
52	LTE Band 25	20M	QPSK	1	0	-	Top Side	10mm	Ant 4	DSI 5	26340	1880	18.59	19.50	1.233	-	-	0.12	0.254	**0.313**
	LTE Band 25	20M	QPSK	50	0	-	Top Side	10mm	Ant 4	DSI 5	26340	1880	18.58	19.50	1.236	-	-	0.13	0.247	0.305
	LTE Band 25	20M	QPSK	1	0	-	Front	10mm	Ant 5	DSI 5	26340	1880	15.68	16.70	1.265	-	-	-0.15	0.106	0.134
	LTE Band 25	20M	QPSK	50	0	-	Front	10mm	Ant 5	DSI 5	26340	1880	15.62	16.70	1.282	-	-	0.11	0.108	0.138
	LTE Band 25	20M	QPSK	1	0	-	Back	10mm	Ant 5	DSI 5	26340	1880	15.68	16.70	1.265	-	-	-0.02	0.113	0.143
	LTE Band 25	20M	QPSK	50	0	-	Back	10mm	Ant 5	DSI 5	26340	1880	15.62	16.70	1.282	-	-	0.1	0.121	0.155
	LTE Band 25	20M	QPSK	1	0	-	Right Side	10mm	Ant 5	DSI 5	26340	1880	15.68	16.70	1.265	-	-	0.18	0.187	0.237
	LTE Band 25	20M	QPSK	50	0	-	Right Side	10mm	Ant 5	DSI 5	26340	1880	15.62	16.70	1.282	-	-	0.04	0.179	0.230
	FR1 n2	40M	QPSK	1	1	DFT-SCS-15KHz	Front	10mm	Ant 4	DSI 5	376000	1880	17.50	18.00	1.122	-	-	0.11	0.142	0.159
	FR1 n2	40M	QPSK	108	54	DFT-SCS-15KHz	Front	10mm	Ant 4	DSI 5	376000	1880	17.45	18.00	1.135	-	-	-0.08	0.130	0.148
	FR1 n2	40M	QPSK	1	1	DFT-SCS-15KHz	Back	10mm	Ant 4	DSI 5	376000	1880	17.50	18.00	1.122	-	-	-0.17	0.180	0.202
	FR1 n2	40M	QPSK	108	54	DFT-SCS-15KHz	Back	10mm	Ant 4	DSI 5	376000	1880	17.45	18.00	1.135	-	-	-0.08	0.164	0.186
	FR1 n2	40M	QPSK	1	1	DFT-SCS-15KHz	Left Side	10mm	Ant 4	DSI 5	376000	1880	17.50	18.00	1.122	-	-	-0.04	0.054	0.061
	FR1 n2	40M	QPSK	108	54	DFT-SCS-15KHz	Left Side	10mm	Ant 4	DSI 5	376000	1880	17.45	18.00	1.135	-	-	-0.08	0.058	0.066
	FR1 n2	40M	QPSK	1	1	DFT-SCS-15KHz	Right Side	10mm	Ant 4	DSI 5	376000	1880	17.50	18.00	1.122	-	-	0.17	0.052	0.058
	FR1 n2	40M	QPSK	108	54	DFT-SCS-15KHz	Right Side	10mm	Ant 4	DSI 5	376000	1880	17.45	18.00	1.135	-	-	0.18	0.060	0.068
	FR1 n2	40M	QPSK	1	1	DFT-SCS-15KHz	Top Side	10mm	Ant 4	DSI 5	376000	1880	17.50	18.00	1.122	-	-	-0.04	0.285	0.320
	FR1 n2	40M	QPSK	108	54	DFT-SCS-15KHz	Top Side	10mm	Ant 4	DSI 5	376000	1880	17.45	18.00	1.135	-	-	0.04	0.291	0.330
	FR1 n2	40M	QPSK	1	1	DFT-SCS-15KHz	Front	10mm	Ant 5	DSI 5	376000	1880	18.25	18.80	1.135	-	-	-0.08	0.190	0.216
	FR1 n2	40M	QPSK	108	54	DFT-SCS-15KHz	Front	10mm	Ant 5	DSI 5	376000	1880	18.21	18.80	1.146	-	-	-0.13	0.205	0.235
	FR1 n2	40M	QPSK	1	1	DFT-SCS-15KHz	Back	10mm	Ant 5	DSI 5	376000	1880	18.25	18.80	1.135	-	-	-0.13	0.209	0.237
	FR1 n2	40M	QPSK	108	54	DFT-SCS-15KHz	Back	10mm	Ant 5	DSI 5	376000	1880	18.21	18.80	1.146	-	-	0.06	0.224	0.257
	FR1 n2	40M	QPSK	1	1	DFT-SCS-15KHz	Right Side	10mm	Ant 5	DSI 5	376000	1880	18.25	18.80	1.135	-	-	-0.03	0.271	0.308
53	FR1 n2	40M	QPSK	108	54	DFT-SCS-15KHz	Right Side	10mm	Ant 5	DSI 5	376000	1880	18.21	18.80	1.146	-	-	-0.09	0.301	**0.345**
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Front	10mm	Ant 4	DSI 5	376500	1882.5	18.45	19.00	1.135	-	-	-0.03	0.105	0.119
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Front	10mm	Ant 4	DSI 5	376500	1882.5	18.43	19.00	1.140	-	-	0.08	0.107	0.122
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Back	10mm	Ant 4	DSI 5	376500	1882.5	18.45	19.00	1.135	-	-	-0.07	0.134	0.152
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Back	10mm	Ant 4	DSI 5	376500	1882.5	18.43	19.00	1.140	-	-	0.05	0.142	0.162
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Left Side	10mm	Ant 4	DSI 5	376500	1882.5	18.45	19.00	1.135	-	-	-0.11	0.039	0.044
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Left Side	10mm	Ant 4	DSI 5	376500	1882.5	18.43	19.00	1.140	-	-	-0.12	0.040	0.046
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Right Side	10mm	Ant 4	DSI 5	376500	1882.5	18.45	19.00	1.135	-	-	0.03	0.050	0.057
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Right Side	10mm	Ant 4	DSI 5	376500	1882.5	18.43	19.00	1.140	-	-	-0.16	0.055	0.063
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Top Side	10mm	Ant 4	DSI 5	376500	1882.5	18.45	19.00	1.135	-	-	-0.02	0.238	0.270
54	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Top Side	10mm	Ant 4	DSI 5	376500	1882.5	18.43	19.00	1.140	-	-	-0.16	0.248	**0.283**
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Front	10mm	Ant 5	DSI 5	376500	1882.5	16.41	16.80	1.094	-	-	-0.09	0.153	0.167
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Front	10mm	Ant 5	DSI 5	376500	1882.5	16.38	16.80	1.102	-	-	0.11	0.139	0.153
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Back	10mm	Ant 5	DSI 5	376500	1882.5	16.41	16.80	1.094	-	-	-0.05	0.162	0.177
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Back	10mm	Ant 5	DSI 5	376500	1882.5	16.38	16.80	1.102	-	-	-0.08	0.164	0.181
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Right Side	10mm	Ant 5	DSI 5	376500	1882.5	16.41	16.80	1.094	-	-	0.1	0.212	0.232
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Right Side	10mm	Ant 5	DSI 5	376500	1882.5	16.38	16.80	1.102	-	-	0.16	0.206	0.227

										2600MHz										
	LTE Band 7	20M	QPSK	1	0	-	Front	10mm	Ant 4	DSI 5	21100	2535	17.11	17.70	1.146	-	-	0.03	0.187	0.214
	LTE Band 7	20M	QPSK	50	0	-	Front	10mm	Ant 4	DSI 5	21100	2535	17.06	17.70	1.159	-	-	-0.15	0.188	0.218
	LTE Band 7	20M	QPSK	1	0	-	Back	10mm	Ant 4	DSI 5	21100	2535	17.11	17.70	1.146	-	-	-0.15	0.260	0.298
	LTE Band 7	20M	QPSK	50	0	-	Back	10mm	Ant 4	DSI 5	21100	2535	17.06	17.70	1.159	-	-	0.11	0.255	0.295
	LTE Band 7	20M	QPSK	1	0	-	Left Side	10mm	Ant 4	DSI 5	21100	2535	17.11	17.70	1.146	-	-	-0.08	0.088	0.101
	LTE Band 7	20M	QPSK	50	0	-	Left Side	10mm	Ant 4	DSI 5	21100	2535	17.06	17.70	1.159	-	-	-0.17	0.090	0.104
	LTE Band 7	20M	QPSK	1	0	-	Right Side	10mm	Ant 4	DSI 5	21100	2535	17.11	17.70	1.146	-	-	-0.08	0.003	0.003
	LTE Band 7	20M	QPSK	50	0	-	Right Side	10mm	Ant 4	DSI 5	21100	2535	17.06	17.70	1.159	-	-	-0.04	0.001	0.001
	LTE Band 7	20M	QPSK	1	0	-	Top Side	10mm	Ant 4	DSI 5	21100	2535	17.11	17.70	1.146	-	-	-0.04	0.348	0.399
	LTE Band 7C	20M	QPSK	1	99	-	Top Side	10mm	Ant 4	DSI 5	21100+ 21298	2535+ 2554.8	16.30	16.70	1.096	-	-	0.01	0.301	0.330
	LTE Band 7	20M	QPSK	50	0	-	Top Side	10mm	Ant 4	DSI 5	21100	2535	17.06	17.70	1.159	-	-	-0.08	0.333	0.386
	LTE Band 7	20M	QPSK	1	0	-	Front	10mm	Ant 5	DSI 5	21100	2535	18.81	19.60	1.199	-	-	-0.03	0.107	0.128
	LTE Band 7	20M	QPSK	50	0	-	Front	10mm	Ant 5	DSI 5	21100	2535	18.78	19.60	1.208	-	-	0.08	0.103	0.124
	LTE Band 7	20M	QPSK	1	0	-	Back	10mm	Ant 5	DSI 5	21100	2535	18.81	19.60	1.199	-	-	-0.07	0.148	0.178
	LTE Band 7	20M	QPSK	50	0	-	Back	10mm	Ant 5	DSI 5	21100	2535	18.78	19.60	1.208	-	-	0.05	0.150	0.181
	LTE Band 7	20M	QPSK	1	0	-	Right Side	10mm	Ant 5	DSI 5	21100	2535	18.81	19.60	1.199	-	-	0.02	0.234	0.281
	LTE Band 7C	20M	QPSK	1	99	-	Right Side	10mm	Ant 5	DSI 5	21100+ 21298	2535+ 2554.8	17.78	18.60	1.208	-	-	0.01	0.201	0.243
	LTE Band 7	20M	QPSK	50	0	-	Right Side	10mm	Ant 5	DSI 5	21100	2535	18.78	19.60	1.208	-	-	-0.11	0.222	0.268
	LTE Band 7 Other PA	20M	QPSK	1	0	-	Front	10mm	Ant 3	DSI 5	21100	2535	21.45	23.00	1.429	-	-	0.08	0.372	0.532
	LTE Band 7 Other PA	20M	QPSK	50	0	-	Front	10mm	Ant 3	DSI 5	21100	2535	21.36	23.00	1.459	-	-	0.01	0.374	0.546
	LTE Band 7 Other PA	20M	QPSK	1	0	-	Back	10mm	Ant 3	DSI 5	21100	2535	21.45	23.00	1.429	-	-	0.03	0.508	0.726
	LTE Band 7 Other PA	20M	QPSK	50	0	-	Back	10mm	Ant 3	DSI 5	21100	2535	21.36	23.00	1.459	-	-	-0.08	0.504	0.735
	LTE Band 7 Other PA	20M	QPSK	1	0	-	Left Side	10mm	Ant 3	DSI 5	21100	2535	21.45	23.00	1.429	-	-	-0.08	0.110	0.157
	LTE Band 7 Other PA	20M	QPSK	50	0	-	Left Side	10mm	Ant 3	DSI 5	21100	2535	21.36	23.00	1.459	-	-	0.1	0.109	0.159
55	LTE Band 7 Other PA	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 3	DSI 5	21100	2535	21.45	23.00	1.429	-	-	0.06	0.755	**1.079**
	LTE Band 7C Other PA	20M	QPSK	1	99	-	Bottom Side	10mm	Ant 3	DSI 5	21100+ 21298	2535+ 2554.8	19.95	21.50	1.429	-	-	0.03	0.713	1.019
	LTE Band 7 Other PA	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 3	DSI 5	20850	2510	21.30	23.00	1.479	-	-	-0.18	0.719	1.063
	LTE Band 7 Other PA	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 3	DSI 5	21350	2560	21.20	23.00	1.514	-	-	0.1	0.694	1.050
	LTE Band 7 Other PA	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 3	DSI 5	21100	2535	21.36	23.00	1.459	-	-	0.12	0.717	1.046
	LTE Band 7 Other PA	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 3	DSI 5	20850	2510	21.24	23.00	1.500	-	-	0.08	0.706	1.059
	LTE Band 7 Other PA	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 3	DSI 5	21350	2560	21.24	23.00	1.500	-	-	-0.17	0.698	1.047
	LTE Band 7 Other PA	20M	QPSK	100	0	-	Bottom Side	10mm	Ant 3	DSI 5	21100	2535	21.37	23.00	1.455	-	-	-0.03	0.737	1.073
	LTE Band 7 Other PA	20M	QPSK	1	0	-	Front	10mm	Ant 6	DSI 5	21100	2535	15.12	15.80	1.169	-	-	0.05	0.162	0.189
	LTE Band 7 Other PA	20M	QPSK	50	0	-	Front	10mm	Ant 6	DSI 5	21100	2535	15.03	15.80	1.194	-	-	-0.03	0.165	0.197
	LTE Band 7 Other PA	20M	QPSK	1	0	-	Back	10mm	Ant 6	DSI 5	21100	2535	15.12	15.80	1.169	-	-	-0.15	0.216	0.253
	LTE Band 7 Other PA	20M	QPSK	50	0	-	Back	10mm	Ant 6	DSI 5	21100	2535	15.03	15.80	1.194	-	-	0.02	0.219	0.261
	LTE Band 7 Other PA	20M	QPSK	1	0	-	Left Side	10mm	Ant 6	DSI 5	21100	2535	15.12	15.80	1.169	-	-	-0.12	0.276	0.323
	LTE Band 7C Other PA	20M	QPSK	1	99	-	Left Side	10mm	Ant 6	DSI 5	21100+ 21298	2535+ 2554.8	14.76	15.80	1.271	-	-	0.01	0.223	0.283
	LTE Band 7 Other PA	20M	QPSK	50	0	-	Left Side	10mm	Ant 6	DSI 5	21100	2535	15.03	15.80	1.194	-	-	0.07	0.253	0.302
	LTE Band 7 Other PA	20M	QPSK	1	0	-	Top Side	10mm	Ant 6	DSI 5	21100	2535	15.12	15.80	1.169	-	-	0.16	0.039	0.046
	LTE Band 7 Other PA	20M	QPSK	50	0	-	Top Side	10mm	Ant 6	DSI 5	21100	2535	15.03	15.80	1.194	-	-	0.13	0.041	0.049
	LTE Band 38	20M	QPSK	1	0	-	Front	10mm	Ant 4	DSI 5	38000	2595	19.69	20.20	1.125	62.9	1.006	0.17	0.213	0.241
	LTE Band 38	20M	QPSK	50	0	-	Front	10mm	Ant 4	DSI 5	38000	2595	19.61	20.20	1.146	62.9	1.006	0.18	0.212	0.244
	LTE Band 38	20M	QPSK	1	0	-	Back	10mm	Ant 4	DSI 5	38000	2595	19.69	20.20	1.125	62.9	1.006	-0.04	0.303	0.343
	LTE Band 38	20M	QPSK	50	0	-	Back	10mm	Ant 4	DSI 5	38000	2595	19.61	20.20	1.146	62.9	1.006	-0.08	0.316	0.364
	LTE Band 38	20M	QPSK	1	0	-	Left Side	10mm	Ant 4	DSI 5	38000	2595	19.69	20.20	1.125	62.9	1.006	-0.13	0.127	0.144
	LTE Band 38	20M	QPSK	50	0	-	Left Side	10mm	Ant 4	DSI 5	38000	2595	19.61	20.20	1.146	62.9	1.006	-0.13	0.141	0.162

	LTE Band 38	20M	QPSK	1	0	-	Right Side	10mm	Ant 4	DSI 5	38000	2595	19.69	20.20	1.125	62.9	1.006	0.06	0.047	0.053
	LTE Band 38	20M	QPSK	50	0	-	Right Side	10mm	Ant 4	DSI 5	38000	2595	19.61	20.20	1.146	62.9	1.006	-0.03	0.053	0.061
	LTE Band 38	20M	QPSK	1	0	-	Top Side	10mm	Ant 4	DSI 5	38000	2595	19.69	20.20	1.125	62.9	1.006	0.01	0.380	0.430
	LTE Band 38C	20M	QPSK	1	99	-	Top Side	10mm	Ant 4	DSI 5	37901+38099	2585.1+2604.9	18.77	19.20	1.104	62.9	1.006	0.02	0.311	0.345
	LTE Band 38	20M	QPSK	50	0	-	Top Side	10mm	Ant 4	DSI 5	38000	2595	19.61	20.20	1.146	62.9	1.006	-0.03	0.372	0.429
	LTE Band 38	20M	QPSK	1	0	-	Front	10mm	Ant 5	DSI 5	38000	2595	20.21	21.00	1.199	62.9	1.006	0.08	0.137	0.165
	LTE Band 38	20M	QPSK	50	0	-	Front	10mm	Ant 5	DSI 5	38000	2595	20.19	21.00	1.205	62.9	1.006	0.01	0.138	0.167
	LTE Band 38	20M	QPSK	1	0	-	Back	10mm	Ant 5	DSI 5	38000	2595	20.21	21.00	1.199	62.9	1.006	0.03	0.221	0.267
	LTE Band 38	20M	QPSK	50	0	-	Back	10mm	Ant 5	DSI 5	38000	2595	20.19	21.00	1.205	62.9	1.006	-0.08	0.228	0.276
	LTE Band 38	20M	QPSK	1	0	-	Right Side	10mm	Ant 5	DSI 5	38000	2595	20.21	21.00	1.199	62.9	1.006	0.01	0.363	0.438
	LTE Band 38C	20M	QPSK	1	99	-	Right Side	10mm	Ant 5	DSI 5	37901+38099	2585.1+2604.9	18.91	20.00	1.285	62.9	1.006	0.02	0.333	0.431
	LTE Band 38	20M	QPSK	50	0	-	Right Side	10mm	Ant 5	DSI 5	38000	2595	20.19	21.00	1.205	62.9	1.006	-0.08	0.357	0.433
	LTE Band 38 Other PA	20M	QPSK	1	0	-	Front	10mm	Ant 3	DSI 5	38000	2595	24.11	25.00	1.227	62.9	1.006	0.14	0.368	0.454
	LTE Band 38 Other PA	20M	QPSK	50	0	-	Front	10mm	Ant 3	DSI 5	38000	2595	23.12	24.00	1.225	62.9	1.006	0.11	0.305	0.376
	LTE Band 38 Other PA	20M	QPSK	1	0	-	Back	10mm	Ant 3	DSI 5	38000	2595	24.11	25.00	1.227	62.9	1.006	-0.05	0.462	0.570
	LTE Band 38 Other PA	20M	QPSK	50	0	-	Back	10mm	Ant 3	DSI 5	38000	2595	23.12	24.00	1.225	62.9	1.006	0.18	0.383	0.472
	LTE Band 38 Other PA	20M	QPSK	1	0	-	Left Side	10mm	Ant 3	DSI 5	38000	2595	24.11	25.00	1.227	62.9	1.006	0.14	0.104	0.128
	LTE Band 38 Other PA	20M	QPSK	50	0	-	Left Side	10mm	Ant 3	DSI 5	38000	2595	23.12	24.00	1.225	62.9	1.006	-0.17	0.080	0.099
56	LTE Band 38 Other PA	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 3	DSI 5	38000	2595	24.11	25.00	1.227	62.9	1.006	-0.01	0.724	**0.894**
	LTE Band 38C Other PA	20M	QPSK	1	99	-	Bottom Side	10mm	Ant 3	DSI 5	37901+38099	2585.1+2604.9	22.73	24.00	1.340	62.9	1.006	0.02	0.653	0.880
	LTE Band 38 Other PA	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 3	DSI 5	37850	2580	24.01	25.00	1.256	62.9	1.006	0.17	0.703	0.888
	LTE Band 38 Other PA	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 3	DSI 5	38150	2610	24.05	25.00	1.245	62.9	1.006	-0.05	0.649	0.813
	LTE Band 38 Other PA	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 3	DSI 5	38000	2595	23.12	24.00	1.225	62.9	1.006	0.01	0.592	0.729
	LTE Band 38 Other PA	20M	QPSK	100	0	-	Bottom Side	10mm	Ant 3	DSI 5	38000	2595	23.10	24.00	1.230	62.9	1.006	0.04	0.594	0.735
	LTE Band 38 Other PA	20M	QPSK	1	0	-	Front	10mm	Ant 6	DSI 5	38000	2595	17.55	18.40	1.216	62.9	1.006	-0.18	0.166	0.203
	LTE Band 38 Other PA	20M	QPSK	50	0	-	Front	10mm	Ant 6	DSI 5	38000	2595	17.49	18.40	1.233	62.9	1.006	0.02	0.164	0.203
	LTE Band 38 Other PA	20M	QPSK	1	0	-	Back	10mm	Ant 6	DSI 5	38000	2595	17.55	18.40	1.216	62.9	1.006	0.16	0.258	0.316
	LTE Band 38 Other PA	20M	QPSK	50	0	-	Back	10mm	Ant 6	DSI 5	38000	2595	17.49	18.40	1.233	62.9	1.006	-0.03	0.253	0.314
	LTE Band 38 Other PA	20M	QPSK	1	0	-	Left Side	10mm	Ant 6	DSI 5	38000	2595	17.55	18.40	1.216	62.9	1.006	-0.06	0.324	0.396
	LTE Band 38C Other PA	20M	QPSK	1	99	-	Left Side	10mm	Ant 6	DSI 5	37901+38099	2585.1+2604.9	15.65	16.40	1.189	62.9	1.006	0.01	0.302	0.361
	LTE Band 38 Other PA	20M	QPSK	50	0	-	Left Side	10mm	Ant 6	DSI 5	38000	2595	17.49	18.40	1.233	62.9	1.006	0.07	0.309	0.383
	LTE Band 38 Other PA	20M	QPSK	1	0	-	Top Side	10mm	Ant 6	DSI 5	38000	2595	17.55	18.40	1.216	62.9	1.006	0.02	0.050	0.061
	LTE Band 38 Other PA	20M	QPSK	50	0	-	Top Side	10mm	Ant 6	DSI 5	38000	2595	17.49	18.40	1.233	62.9	1.006	0.01	0.044	0.055
	LTE Band 41	20M	QPSK	1	0	-	Front	10mm	Ant 4	DSI 5	40620	2593	19.75	20.20	1.109	62.9	1.006	0.05	0.209	0.233
	LTE Band 41	20M	QPSK	50	0	-	Front	10mm	Ant 4	DSI 5	40620	2593	19.69	20.20	1.125	62.9	1.006	-0.11	0.210	0.238
	LTE Band 41	20M	QPSK	1	0	-	Back	10mm	Ant 4	DSI 5	40620	2593	19.75	20.20	1.109	62.9	1.006	-0.12	0.306	0.341
	LTE Band 41	20M	QPSK	50	0	-	Back	10mm	Ant 4	DSI 5	40620	2593	19.69	20.20	1.125	62.9	1.006	0.03	0.327	0.370
	LTE Band 41	20M	QPSK	1	0	-	Left Side	10mm	Ant 4	DSI 5	40620	2593	19.75	20.20	1.109	62.9	1.006	-0.16	0.132	0.147
	LTE Band 41	20M	QPSK	50	0	-	Left Side	10mm	Ant 4	DSI 5	40620	2593	19.69	20.20	1.125	62.9	1.006	-0.02	0.143	0.162
	LTE Band 41	20M	QPSK	1	0	-	Right Side	10mm	Ant 4	DSI 5	40620	2593	19.75	20.20	1.109	62.9	1.006	0.15	0.053	0.059
	LTE Band 41	20M	QPSK	50	0	-	Right Side	10mm	Ant 4	DSI 5	40620	2593	19.69	20.20	1.125	62.9	1.006	-0.09	0.060	0.068
	LTE Band 41	20M	QPSK	1	0	-	Top Side	10mm	Ant 4	DSI 5	40620	2593	19.75	20.20	1.109	62.9	1.006	-0.02	0.370	0.413
	LTE Band 41C	20M	QPSK	1	99	-	Top Side	10mm	Ant 4	DSI 5	40620+40818	2593+2612.8	18.75	19.20	1.109	62.9	1.006	0.01	0.311	0.347
	LTE Band 41	20M	QPSK	50	0	-	Top Side	10mm	Ant 4	DSI 5	40620	2593	19.69	20.20	1.125	62.9	1.006	0.11	0.364	0.412
	LTE Band 41	20M	QPSK	1	0	-	Front	10mm	Ant 5	DSI 5	40620	2593	20.49	21.40	1.233	62.9	1.006	0.1	0.142	0.176
	LTE Band 41	20M	QPSK	50	0	-	Front	10mm	Ant 5	DSI 5	40620	2593	20.46	21.40	1.242	62.9	1.006	-0.18	0.148	0.185
	LTE Band 41	20M	QPSK	1	0	-	Back	10mm	Ant 5	DSI 5	40620	2593	20.49	21.40	1.233	62.9	1.006	0.1	0.238	0.295
	LTE Band 41	20M	QPSK	50	0	-	Back	10mm	Ant 5	DSI 5	40620	2593	20.46	21.40	1.242	62.9	1.006	0.12	0.232	0.290
	LTE Band 41	20M	QPSK	1	0	-	Right Side	10mm	Ant 5	DSI 5	40620	2593	20.49	21.40	1.233	62.9	1.006	-0.05	0.392	0.486

	LTE Band 41C	20M	QPSK	1	99	-	Right Side	10mm	Ant 5	DSI 5	40620+ 40818	2593+ 2612.8	19.55	20.40	1.216	62.9	1.006	0.02	0.315	0.385
	LTE Band 41	20M	QPSK	50	0	-	Right Side	10mm	Ant 5	DSI 5	40620	2593	20.46	21.40	1.242	62.9	1.006	0.08	0.387	0.483
	LTE Band 41 Other PA	20M	QPSK	1	0	-	Front	10mm	Ant 3	DSI 5	40620	2593	24.10	25.00	1.230	62.9	1.006	-0.01	0.366	0.453
	LTE Band 41 Other PA	20M	QPSK	50	0	-	Front	10mm	Ant 3	DSI 5	40620	2593	23.14	24.00	1.219	62.9	1.006	-0.08	0.297	0.364
	LTE Band 41 Other PA	20M	QPSK	1	0	-	Back	10mm	Ant 3	DSI 5	40620	2593	24.10	25.00	1.230	62.9	1.006	0.05	0.483	0.598
	LTE Band 41 Other PA	20M	QPSK	50	0	-	Back	10mm	Ant 3	DSI 5	40620	2593	23.14	24.00	1.219	62.9	1.006	0.06	0.385	0.472
	LTE Band 41 Other PA	20M	QPSK	1	0	-	Left Side	10mm	Ant 3	DSI 5	40620	2593	24.10	25.00	1.230	62.9	1.006	-0.09	0.102	0.126
	LTE Band 41 Other PA	20M	QPSK	50	0	-	Left Side	10mm	Ant 3	DSI 5	40620	2593	23.14	24.00	1.219	62.9	1.006	-0.08	0.081	0.099
	LTE Band 41 Other PA	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 3	DSI 5	40620	2593	24.10	25.00	1.230	62.9	1.006	0.13	0.748	0.926
	LTE Band 41 Other PA	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 3	DSI 5	39750	2506	24.02	25.00	1.253	62.9	1.006	0.12	0.654	0.824
	LTE Band 41 Other PA	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 3	DSI 5	40185	2549.5	24.09	25.00	1.233	62.9	1.006	0.03	0.674	0.836
	LTE Band 41 Other PA	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 3	DSI 5	41055	2636.5	24.06	25.00	1.242	62.9	1.006	0.18	0.782	0.977
57	LTE Band 41 Other PA	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 3	DSI 5	41490	2680	24.02	25.00	1.253	62.9	1.006	-0.02	0.783	**0.987**
	LTE Band 41C Other PA	20M	QPSK	1	99	-	Bottom Side	10mm	Ant 3	DSI 5	41490+ 41292	2680+ 2660.2	22.95	24.00	1.274	62.9	1.006	0.02	0.732	0.938
	LTE Band 41 Other PA	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 3	DSI 5	40620	2593	23.14	24.00	1.219	62.9	1.006	0.16	0.611	0.749
	LTE Band 41 Other PA	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 3	DSI 5	39750	2506	23.93	25.00	1.279	62.9	1.006	-0.1	0.595	0.766
	LTE Band 41 Other PA	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 3	DSI 5	40185	2549.5	23.09	24.00	1.233	62.9	1.006	0.07	0.584	0.724
	LTE Band 41 Other PA	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 3	DSI 5	41055	2636.5	23.06	24.00	1.242	62.9	1.006	0.18	0.645	0.806
	LTE Band 41 Other PA	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 3	DSI 5	41490	2680	23.03	24.00	1.250	62.9	1.006	-0.1	0.619	0.779
	LTE Band 41 Other PA	20M	QPSK	100	0	-	Bottom Side	10mm	Ant 3	DSI 5	40620	2593	23.09	24.00	1.233	62.9	1.006	0.01	0.626	0.777
	LTE Band 41 Other PA	20M	QPSK	1	0	-	Front	10mm	Ant 6	DSI 5	40620	2593	17.59	18.40	1.205	62.9	1.006	-0.01	0.151	0.183
	LTE Band 41 Other PA	20M	QPSK	50	0	-	Front	10mm	Ant 6	DSI 5	40620	2593	17.56	18.40	1.213	62.9	1.006	-0.06	0.154	0.188
	LTE Band 41 Other PA	20M	QPSK	1	0	-	Back	10mm	Ant 6	DSI 5	40620	2593	17.59	18.40	1.205	62.9	1.006	-0.04	0.235	0.285
	LTE Band 41 Other PA	20M	QPSK	50	0	-	Back	10mm	Ant 6	DSI 5	40620	2593	17.56	18.40	1.213	62.9	1.006	-0.09	0.232	0.283
	LTE Band 41 Other PA	20M	QPSK	1	0	-	Left Side	10mm	Ant 6	DSI 5	40620	2593	17.59	18.40	1.205	62.9	1.006	-0.01	0.283	0.343
	LTE Band 41C Other PA	20M	QPSK	1	99	-	Left Side	10mm	Ant 6	DSI 5	40620+ 40818	2593+ 2612.8	15.59	16.40	1.205	62.9	1.006	0.01	0.255	0.309
	LTE Band 41 Other PA	20M	QPSK	50	0	-	Left Side	10mm	Ant 6	DSI 5	40620	2593	17.56	18.40	1.213	62.9	1.006	-0.17	0.261	0.319
	LTE Band 41 Other PA	20M	QPSK	1	0	-	Top Side	10mm	Ant 6	DSI 5	40620	2593	17.59	18.40	1.205	62.9	1.006	-0.1	0.048	0.058
	LTE Band 41 Other PA	20M	QPSK	50	0	-	Top Side	10mm	Ant 6	DSI 5	40620	2593	17.56	18.40	1.213	62.9	1.006	0.18	0.041	0.050
	FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Front	10mm	Ant 4	DSI 5	507000	2535	16.04	16.20	1.038	-	-	0.05	0.134	0.139
	FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Front	10mm	Ant 4	DSI 5	507000	2535	16.02	16.20	1.042	-	-	0.05	0.130	0.136
	FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Back	10mm	Ant 4	DSI 5	507000	2535	16.04	16.20	1.038	-	-	-0.03	0.179	0.186
	FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Back	10mm	Ant 4	DSI 5	507000	2535	16.02	16.20	1.042	-	-	-0.15	0.174	0.181
	FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Left Side	10mm	Ant 4	DSI 5	507000	2535	16.04	16.20	1.038	-	-	0.02	0.132	0.137
	FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Left Side	10mm	Ant 4	DSI 5	507000	2535	16.02	16.20	1.042	-	-	0.07	0.127	0.132
	FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Right Side	10mm	Ant 4	DSI 5	507000	2535	16.04	16.20	1.038	-	-	0.16	0.010	0.010
	FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Right Side	10mm	Ant 4	DSI 5	507000	2535	16.02	16.20	1.042	-	-	0.13	0.006	0.006
	FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Top Side	10mm	Ant 4	DSI 5	507000	2535	16.04	16.20	1.038	-	-	0.02	0.235	0.244
	FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Top Side	10mm	Ant 4	DSI 5	507000	2535	16.02	16.20	1.042	-	-	-0.18	0.204	0.213
	FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Front	10mm	Ant 5	DSI 5	507000	2535	19.71	20.10	1.094	-	-	0.02	0.195	0.213
	FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Front	10mm	Ant 5	DSI 5	507000	2535	19.68	20.10	1.102	-	-	0.16	0.174	0.192
	FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Back	10mm	Ant 5	DSI 5	507000	2535	19.71	20.10	1.094	-	-	-0.03	0.294	0.322
	FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Back	10mm	Ant 5	DSI 5	507000	2535	19.68	20.10	1.102	-	-	0.07	0.271	0.299
	FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Right Side	10mm	Ant 5	DSI 5	507000	2535	19.71	20.10	1.094	-	-	0.01	0.387	0.423
	FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Right Side	10mm	Ant 5	DSI 5	507000	2535	19.68	20.10	1.102	-	-	-0.06	0.454	0.500
	FR1 n7 Other PA	50M	QPSK	1	1	DFT-SCS-15KHz	Front	10mm	Ant 3	DSI 5	507000	2535	21.86	22.50	1.159	-	-	0.01	0.361	0.418
	FR1 n7 Other PA	50M	QPSK	135	68	DFT-SCS-15KHz	Front	10mm	Ant 3	DSI 5	507000	2535	21.83	22.50	1.167	-	-	-0.01	0.363	0.424

	FR1 n7 Other PA	50M	QPSK	1	1	DFT-SCS-15KHz	Back	10mm	Ant 3	DSI 5	507000	2535	21.86	22.50	1.159	-	-	-0.06	0.500	0.579
	FR1 n7 Other PA	50M	QPSK	135	68	DFT-SCS-15KHz	Back	10mm	Ant 3	DSI 5	507000	2535	21.83	22.50	1.167	-	-	-0.04	0.460	0.537
	FR1 n7 Other PA	50M	QPSK	1	1	DFT-SCS-15KHz	Left Side	10mm	Ant 3	DSI 5	507000	2535	21.86	22.50	1.159	-	-	-0.17	0.119	0.138
	FR1 n7 Other PA	50M	QPSK	135	68	DFT-SCS-15KHz	Left Side	10mm	Ant 3	DSI 5	507000	2535	21.83	22.50	1.167	-	-	-0.1	0.112	0.131
58	FR1 n7 Other PA	50M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	10mm	Ant 3	DSI 5	507000	2535	21.86	22.50	1.159	-	-	0.17	0.754	**0.874**
	FR1 n7 Other PA	50M	QPSK	135	68	DFT-SCS-15KHz	Bottom Side	10mm	Ant 3	DSI 5	507000	2535	21.83	22.50	1.167	-	-	0.18	0.736	0.859
	FR1 n7 Other PA	50M	QPSK	270	0	DFT-SCS-15KHz	Bottom Side	10mm	Ant 3	DSI 5	507000	2535	21.79	22.50	1.178	-	-	-0.17	0.723	0.851
	FR1 n7 Other PA	50M	QPSK	1	1	DFT-SCS-15KHz	Front	10mm	Ant 6	DSI 5	507000	2535	15.49	16.10	1.151	-	-	-0.04	0.098	0.113
	FR1 n7 Other PA	50M	QPSK	135	68	DFT-SCS-15KHz	Front	10mm	Ant 6	DSI 5	507000	2535	15.47	16.10	1.156	-	-	-0.05	0.103	0.119
	FR1 n7 Other PA	50M	QPSK	1	1	DFT-SCS-15KHz	Back	10mm	Ant 6	DSI 5	507000	2535	15.49	16.10	1.151	-	-	0.01	0.145	0.167
	FR1 n7 Other PA	50M	QPSK	135	68	DFT-SCS-15KHz	Back	10mm	Ant 6	DSI 5	507000	2535	15.47	16.10	1.156	-	-	-0.13	0.160	0.185
	FR1 n7 Other PA	50M	QPSK	1	1	DFT-SCS-15KHz	Left Side	10mm	Ant 6	DSI 5	507000	2535	15.49	16.10	1.151	-	-	-0.01	0.169	0.194
	FR1 n7 Other PA	50M	QPSK	135	68	DFT-SCS-15KHz	Left Side	10mm	Ant 6	DSI 5	507000	2535	15.47	16.10	1.156	-	-	0.08	0.196	0.227
	FR1 n7 Other PA	50M	QPSK	1	1	DFT-SCS-15KHz	Top Side	10mm	Ant 6	DSI 5	507000	2535	15.49	16.10	1.151	-	-	-0.09	0.030	0.035
	FR1 n7 Other PA	50M	QPSK	135	68	DFT-SCS-15KHz	Top Side	10mm	Ant 6	DSI 5	507000	2535	15.47	16.10	1.156	-	-	0.05	0.030	0.035
	FR1 n38	40M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 4	DSI 5	519000	2595	17.37	17.70	1.079	-	-	0.02	0.178	0.192
	FR1 n38	40M	QPSK	50	28	DFT-SCS-30KHz	Front	10mm	Ant 4	DSI 5	519000	2595	17.33	17.70	1.089	-	-	-0.13	0.159	0.173
	FR1 n38	40M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 4	DSI 5	519000	2595	17.37	17.70	1.079	-	-	0.17	0.242	0.261
	FR1 n38	40M	QPSK	50	28	DFT-SCS-30KHz	Back	10mm	Ant 4	DSI 5	519000	2595	17.33	17.70	1.089	-	-	0.06	0.234	0.255
	FR1 n38	40M	QPSK	1	1	DFT-SCS-30KHz	Left Side	10mm	Ant 4	DSI 5	519000	2595	17.37	17.70	1.079	-	-	0.02	0.163	0.176
	FR1 n38	40M	QPSK	50	28	DFT-SCS-30KHz	Left Side	10mm	Ant 4	DSI 5	519000	2595	17.33	17.70	1.089	-	-	-0.04	0.139	0.151
	FR1 n38	40M	QPSK	1	1	DFT-SCS-30KHz	Right Side	10mm	Ant 4	DSI 5	519000	2595	17.37	17.70	1.079	-	-	-0.15	0.045	0.049
	FR1 n38	40M	QPSK	50	28	DFT-SCS-30KHz	Right Side	10mm	Ant 4	DSI 5	519000	2595	17.33	17.70	1.089	-	-	0.11	0.037	0.040
	FR1 n38	40M	QPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 4	DSI 5	519000	2595	17.37	17.70	1.079	-	-	0.03	0.356	0.384
	FR1 n38	40M	QPSK	50	28	DFT-SCS-30KHz	Top Side	10mm	Ant 4	DSI 5	519000	2595	17.33	17.70	1.089	-	-	-0.02	0.333	0.363
	FR1 n38	40M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 5	DSI 5	519000	2595	18.59	19.50	1.233	-	-	0.1	0.168	0.207
	FR1 n38	40M	QPSK	50	28	DFT-SCS-30KHz	Front	10mm	Ant 5	DSI 5	519000	2595	18.51	19.50	1.256	-	-	0.04	0.156	0.196
	FR1 n38	40M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 5	DSI 5	519000	2595	18.59	19.50	1.233	-	-	0.13	0.272	0.335
	FR1 n38	40M	QPSK	50	28	DFT-SCS-30KHz	Back	10mm	Ant 5	DSI 5	519000	2595	18.51	19.50	1.256	-	-	-0.18	0.242	0.304
	FR1 n38	40M	QPSK	1	1	DFT-SCS-30KHz	Right Side	10mm	Ant 5	DSI 5	519000	2595	18.59	19.50	1.233	-	-	0.11	0.418	0.515
	FR1 n38	40M	QPSK	50	28	DFT-SCS-30KHz	Right Side	10mm	Ant 5	DSI 5	519000	2595	18.51	19.50	1.256	-	-	-0.11	0.392	0.492
	FR1 n38 Other PA	40M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 3	DSI 5	519000	2595	20.02	21.00	1.253	-	-	-0.15	0.261	0.327
	FR1 n38 Other PA	40M	QPSK	50	28	DFT-SCS-30KHz	Front	10mm	Ant 3	DSI 5	519000	2595	19.98	21.00	1.265	-	-	0.11	0.284	0.359
	FR1 n38 Other PA	40M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 3	DSI 5	519000	2595	20.02	21.00	1.253	-	-	-0.08	0.355	0.445
	FR1 n38 Other PA	40M	QPSK	50	28	DFT-SCS-30KHz	Back	10mm	Ant 3	DSI 5	519000	2595	19.98	21.00	1.265	-	-	-0.17	0.355	0.449
	FR1 n38 Other PA	40M	QPSK	1	1	DFT-SCS-30KHz	Left Side	10mm	Ant 3	DSI 5	519000	2595	20.02	21.00	1.253	-	-	-0.08	0.075	0.094
	FR1 n38 Other PA	40M	QPSK	50	28	DFT-SCS-30KHz	Left Side	10mm	Ant 3	DSI 5	519000	2595	19.98	21.00	1.265	-	-	-0.04	0.071	0.090
59	FR1 n38 Other PA	40M	QPSK	1	1	DFT-SCS-30KHz	Bottom Side	10mm	Ant 3	DSI 5	519000	2595	20.02	21.00	1.253	-	-	-0.02	0.545	**0.683**
	FR1 n38 Other PA	40M	QPSK	50	28	DFT-SCS-30KHz	Bottom Side	10mm	Ant 3	DSI 5	519000	2595	19.98	21.00	1.265	-	-	-0.08	0.534	0.675
	FR1 n38 Other PA	40M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 6	DSI 5	519000	2595	14.58	15.80	1.324	-	-	-0.16	0.112	0.148
	FR1 n38 Other PA	40M	QPSK	50	28	DFT-SCS-30KHz	Front	10mm	Ant 6	DSI 5	519000	2595	14.57	15.80	1.327	-	-	-0.15	0.108	0.143
	FR1 n38 Other PA	40M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 6	DSI 5	519000	2595	14.58	15.80	1.324	-	-	-0.06	0.174	0.230
	FR1 n38 Other PA	40M	QPSK	50	28	DFT-SCS-30KHz	Back	10mm	Ant 6	DSI 5	519000	2595	14.57	15.80	1.327	-	-	-0.14	0.166	0.220
	FR1 n38 Other PA	40M	QPSK	1	1	DFT-SCS-30KHz	Left Side	10mm	Ant 6	DSI 5	519000	2595	14.58	15.80	1.324	-	-	0.04	0.217	0.287
	FR1 n38 Other PA	40M	QPSK	50	28	DFT-SCS-30KHz	Left Side	10mm	Ant 6	DSI 5	519000	2595	14.57	15.80	1.327	-	-	-0.19	0.208	0.276
	FR1 n38 Other PA	40M	QPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 6	DSI 5	519000	2595	14.58	15.80	1.324	-	-	0.01	0.034	0.045
	FR1 n38 Other PA	40M	QPSK	50	28	DFT-SCS-30KHz	Top Side	10mm	Ant 6	DSI 5	519000	2595	14.57	15.80	1.327	-	-	0.06	0.028	0.037

	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 4	DSI 5	518598	2592.99	16.56	16.70	1.033	-	-	0.02	0.129	0.133
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Front	10mm	Ant 4	DSI 5	518598	2592.99	16.41	16.70	1.069	-	-	0.12	0.098	0.105
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 4	DSI 5	518598	2592.99	16.56	16.70	1.033	-	-	-0.16	0.172	0.178
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 4	DSI 5	518598	2592.99	16.41	16.70	1.069	-	-	-0.12	0.144	0.154
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	10mm	Ant 4	DSI 5	518598	2592.99	16.56	16.70	1.033	-	-	0.07	0.128	0.132
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Left Side	10mm	Ant 4	DSI 5	518598	2592.99	16.41	16.70	1.069	-	-	-0.02	0.095	0.102
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Right Side	10mm	Ant 4	DSI 5	518598	2592.99	16.56	16.70	1.033	-	-	-0.05	0.024	0.025
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Right Side	10mm	Ant 4	DSI 5	518598	2592.99	16.41	16.70	1.069	-	-	-0.13	0.021	0.022
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 4	DSI 5	518598	2592.99	16.56	16.70	1.033	-	-	0.08	0.234	0.242
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	10mm	Ant 4	DSI 5	518598	2592.99	16.41	16.70	1.069	-	-	-0.03	0.198	0.212
	FR1 n41 PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 4	DSI 5	518598	2592.99	19.54	20.00	1.112	50	1.000	0.01	0.210	0.233
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 5	DSI 5	518598	2592.99	18.35	19.20	1.216	-	-	0.16	0.160	0.195
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Front	10mm	Ant 5	DSI 5	518598	2592.99	18.31	19.20	1.227	-	-	0.01	0.184	0.226
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 5	DSI 5	518598	2592.99	18.35	19.20	1.216	-	-	-0.16	0.275	0.334
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 5	DSI 5	518598	2592.99	18.31	19.20	1.227	-	-	0.1	0.280	0.344
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Right Side	10mm	Ant 5	DSI 5	518598	2592.99	18.35	19.20	1.216	-	-	-0.17	0.480	0.584
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Right Side	10mm	Ant 5	DSI 5	518598	2592.99	18.31	19.20	1.227	-	-	-0.04	0.447	0.549
	FR1 n41 PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Right Side	10mm	Ant 5	DSI 5	518598	2592.99	21.38	22.20	1.208	50	1.000	0.02	0.465	0.562
	FR1 n41 Other PA	100M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 3	DSI 5	518598	2592.99	19.84	20.50	1.164	-	-	-0.08	0.232	0.270
	FR1 n41 Other PA	100M	QPSK	135	69	DFT-SCS-30KHz	Front	10mm	Ant 3	DSI 5	518598	2592.99	19.82	20.50	1.169	-	-	-0.13	0.250	0.292
	FR1 n41 Other PA	100M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 3	DSI 5	518598	2592.99	19.84	20.50	1.164	-	-	-0.13	0.304	0.354
	FR1 n41 Other PA	100M	QPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 3	DSI 5	518598	2592.99	19.82	20.50	1.169	-	-	0.06	0.329	0.385
	FR1 n41 Other PA	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	10mm	Ant 3	DSI 5	518598	2592.99	19.84	20.50	1.164	-	-	-0.03	0.071	0.083
	FR1 n41 Other PA	100M	QPSK	135	69	DFT-SCS-30KHz	Left Side	10mm	Ant 3	DSI 5	518598	2592.99	19.82	20.50	1.169	-	-	0.08	0.066	0.077
	FR1 n41 Other PA	100M	QPSK	1	1	DFT-SCS-30KHz	Bottom Side	10mm	Ant 3	DSI 5	518598	2592.99	19.84	20.50	1.164	-	-	-0.07	0.433	0.504
60	FR1 n41 Other PA	100M	QPSK	135	69	DFT-SCS-30KHz	Bottom Side	10mm	Ant 3	DSI 5	518598	2592.99	19.82	20.50	1.169	-	-	-0.02	0.518	**0.606**
	FR1 n41 Other PA	100M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 6	DSI 5	518598	2592.99	14.86	15.70	1.213	-	-	-0.01	0.130	0.158
	FR1 n41 Other PA	100M	QPSK	135	69	DFT-SCS-30KHz	Front	10mm	Ant 6	DSI 5	518598	2592.99	14.82	15.70	1.225	-	-	0.16	0.124	0.152
	FR1 n41 Other PA	100M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 6	DSI 5	518598	2592.99	14.86	15.70	1.213	-	-	-0.11	0.185	0.224
	FR1 n41 Other PA	100M	QPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 6	DSI 5	518598	2592.99	14.82	15.70	1.225	-	-	-0.06	0.195	0.239
	FR1 n41 Other PA	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	10mm	Ant 6	DSI 5	518598	2592.99	14.86	15.70	1.213	-	-	-0.15	0.215	0.261
	FR1 n41 Other PA	100M	QPSK	135	69	DFT-SCS-30KHz	Left Side	10mm	Ant 6	DSI 5	518598	2592.99	14.82	15.70	1.225	-	-	-0.14	0.237	0.290
	FR1 n41 Other PA	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 6	DSI 5	518598	2592.99	14.86	15.70	1.213	-	-	0.03	0.038	0.046
	FR1 n41 Other PA	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	10mm	Ant 6	DSI 5	518598	2592.99	14.82	15.70	1.225	-	-	-0.13	0.031	0.038
3500MHz																				
	LTE Band 42	20M	QPSK	1	0	-	Front	10mm	Ant 4	DSI 5	42590	3500	18.34	18.70	1.086	62.9	1.006	0.08	0.144	0.157
	LTE Band 42	20M	QPSK	50	0	-	Front	10mm	Ant 4	DSI 5	42590	3500	18.30	18.70	1.096	62.9	1.006	0.01	0.144	0.159
	LTE Band 42	20M	QPSK	1	0	-	Back	10mm	Ant 4	DSI 5	42590	3500	18.34	18.70	1.086	62.9	1.006	0.03	0.151	0.165
	LTE Band 42	20M	QPSK	50	0	-	Back	10mm	Ant 4	DSI 5	42590	3500	18.30	18.70	1.096	62.9	1.006	-0.08	0.163	0.180
	LTE Band 42	20M	QPSK	1	0	-	Left Side	10mm	Ant 4	DSI 5	42590	3500	18.34	18.70	1.086	62.9	1.006	-0.08	0.063	0.069
	LTE Band 42	20M	QPSK	50	0	-	Left Side	10mm	Ant 4	DSI 5	42590	3500	18.30	18.70	1.096	62.9	1.006	0.1	0.067	0.074
	LTE Band 42	20M	QPSK	1	0	-	Right Side	10mm	Ant 4	DSI 5	42590	3500	18.34	18.70	1.086	62.9	1.006	-0.18	0.022	0.024
	LTE Band 42	20M	QPSK	50	0	-	Right Side	10mm	Ant 4	DSI 5	42590	3500	18.30	18.70	1.096	62.9	1.006	0.1	0.023	0.025
	LTE Band 42	20M	QPSK	1	0	-	Top Side	10mm	Ant 4	DSI 5	42590	3500	18.34	18.70	1.086	62.9	1.006	-0.01	0.209	0.228
	LTE Band 42C	20M	QPSK	1	99	-	Top Side	10mm	Ant 4	DSI 5	42590+ 42788	3500+ 3519.8	17.25	17.70	1.109	62.9	1.006	0.02	0.151	0.168
	LTE Band 42	20M	QPSK	50	0	-	Top Side	10mm	Ant 4	DSI 5	42590	3500	18.30	18.70	1.096	62.9	1.006	0.12	0.204	0.225
	LTE Band 42	20M	QPSK	1	0	-	Front	10mm	Ant 5	DSI 5	42590	3500	19.39	20.00	1.151	62.9	1.006	-0.17	0.096	0.111
	LTE Band 42	20M	QPSK	50	0	-	Front	10mm	Ant 5	DSI 5	42590	3500	19.29	20.00	1.178	62.9	1.006	-0.03	0.099	0.117
	LTE Band 42	20M	QPSK	1	0	-	Back	10mm	Ant 5	DSI 5	42590	3500	19.39	20.00	1.151	62.9	1.006	0.14	0.149	0.172
	LTE Band 42	20M	QPSK	50	0	-	Back	10mm	Ant 5	DSI 5	42590	3500	19.29	20.00	1.178	62.9	1.006	0.11	0.152	0.180
	LTE Band 42	20M	QPSK	1	0	-	Right Side	10mm	Ant 5	DSI 5	42590	3500	19.39	20.00	1.151	62.9	1.006	0.09	0.272	0.315

	LTE Band 42C	20M	QPSK	1	99	-	Right Side	10mm	Ant 5	DSI 5	42590+ 42788	3500+ 3519.8	18.45	19.00	1.135	62.9	1.006	0.03	0.212	0.242
	LTE Band 42	20M	QPSK	50	0	-	Right Side	10mm	Ant 5	DSI 5	42590	3500	19.29	20.00	1.178	62.9	1.006	-0.05	0.257	0.304
	LTE Band 42	20M	QPSK	1	0	-	Front	10mm	Ant 9	DSI 5	42590	3500	17.96	19.00	1.271	62.9	1.006	-0.17	0.033	0.042
	LTE Band 42	20M	QPSK	50	0	-	Front	10mm	Ant 9	DSI 5	42590	3500	17.93	19.00	1.279	62.9	1.006	-0.08	0.034	0.044
61	LTE Band 42	20M	QPSK	1	0	-	Back	10mm	Ant 9	DSI 5	42590	3500	17.96	19.00	1.271	62.9	1.006	-0.01	0.380	**0.486**
	LTE Band 42C	20M	QPSK	1	99	-	Back	10mm	Ant 9	DSI 5	42590+ 42788	3500+ 3519.8	17.51	18.50	1.256	62.9	1.006	0.02	0.315	0.398
	LTE Band 42	20M	QPSK	50	0	-	Back	10mm	Ant 9	DSI 5	42590	3500	17.93	19.00	1.279	62.9	1.006	-0.04	0.370	0.476
	LTE Band 42	20M	QPSK	1	0	-	Left Side	10mm	Ant 9	DSI 5	42590	3500	17.96	19.00	1.271	62.9	1.006	-0.08	0.045	0.058
	LTE Band 42	20M	QPSK	50	0	-	Left Side	10mm	Ant 9	DSI 5	42590	3500	17.93	19.00	1.279	62.9	1.006	0.17	0.043	0.055
	LTE Band 42	20M	QPSK	1	0	-	Top Side	10mm	Ant 9	DSI 5	42590	3500	17.96	19.00	1.271	62.9	1.006	0.18	0.028	0.036
	LTE Band 42	20M	QPSK	50	0	-	Top Side	10mm	Ant 9	DSI 5	42590	3500	17.93	19.00	1.279	62.9	1.006	-0.04	0.020	0.026
	LTE Band 42	20M	QPSK	1	0	-	Front	10mm	Ant 8	DSI 5	42590	3500	17.66	18.60	1.242	62.9	1.006	-0.17	0.140	0.175
	LTE Band 42	20M	QPSK	50	0	-	Front	10mm	Ant 8	DSI 5	42590	3500	17.65	18.60	1.245	62.9	1.006	-0.04	0.147	0.184
	LTE Band 42	20M	QPSK	1	0	-	Back	10mm	Ant 8	DSI 5	42590	3500	17.66	18.60	1.242	62.9	1.006	-0.05	0.068	0.085
	LTE Band 42	20M	QPSK	50	0	-	Back	10mm	Ant 8	DSI 5	42590	3500	17.65	18.60	1.245	62.9	1.006	0.01	0.077	0.096
	LTE Band 42	20M	QPSK	1	0	-	Right Side	10mm	Ant 8	DSI 5	42590	3500	17.66	18.60	1.242	62.9	1.006	0.06	0.277	0.346
	LTE Band 42C	20M	QPSK	1	99	-	Right Side	10mm	Ant 8	DSI 5	42590+ 42788	3500+ 3519.8	17.66	18.60	1.242	62.9	1.006	0.01	0.215	0.269
	LTE Band 42	20M	QPSK	50	0	-	Right Side	10mm	Ant 8	DSI 5	42590	3500	17.65	18.60	1.245	62.9	1.006	-0.13	0.274	0.343
	LTE Band 42	20M	QPSK	1	0	-	Top Side	10mm	Ant 8	DSI 5	42590	3500	17.66	18.60	1.242	62.9	1.006	-0.01	0.061	0.076
	LTE Band 42	20M	QPSK	50	0	-	Top Side	10mm	Ant 8	DSI 5	42590	3500	17.65	18.60	1.245	62.9	1.006	-0.09	0.046	0.058
	LTE Band 48	20M	QPSK	1	0	-	Front	10mm	Ant 4	DSI 5	55830	3609	16.95	18.00	1.274	62.9	1.006	-0.17	0.140	0.179
	LTE Band 48	20M	QPSK	50	0	-	Front	10mm	Ant 4	DSI 5	55830	3609	16.86	18.00	1.300	62.9	1.006	0.17	0.134	0.175
	LTE Band 48	20M	QPSK	1	0	-	Back	10mm	Ant 4	DSI 5	55830	3609	16.95	18.00	1.274	62.9	1.006	-0.05	0.156	0.200
	LTE Band 48	20M	QPSK	50	0	-	Back	10mm	Ant 4	DSI 5	55830	3609	16.86	18.00	1.300	62.9	1.006	0.01	0.147	0.192
	LTE Band 48	20M	QPSK	1	0	-	Left Side	10mm	Ant 4	DSI 5	55830	3609	16.95	18.00	1.274	62.9	1.006	0.1	0.046	0.059
	LTE Band 48	20M	QPSK	50	0	-	Left Side	10mm	Ant 4	DSI 5	55830	3609	16.86	18.00	1.300	62.9	1.006	-0.17	0.056	0.073
	LTE Band 48	20M	QPSK	1	0	-	Right Side	10mm	Ant 4	DSI 5	55830	3609	16.95	18.00	1.274	62.9	1.006	0.04	0.027	0.035
	LTE Band 48	20M	QPSK	50	0	-	Right Side	10mm	Ant 4	DSI 5	55830	3609	16.86	18.00	1.300	62.9	1.006	-0.01	0.034	0.044
	LTE Band 48	20M	QPSK	1	0	-	Top Side	10mm	Ant 4	DSI 5	55830	3609	16.95	18.00	1.274	62.9	1.006	-0.01	0.196	0.251
	LTE Band 48	20M	QPSK	50	0	-	Top Side	10mm	Ant 4	DSI 5	55830	3609	16.86	18.00	1.300	62.9	1.006	-0.08	0.188	0.246
	LTE Band 48	20M	QPSK	1	0	-	Front	10mm	Ant 5	DSI 5	55830	3609	17.45	18.40	1.245	62.9	1.006	0.18	0.121	0.151
	LTE Band 48	20M	QPSK	50	0	-	Front	10mm	Ant 5	DSI 5	55830	3609	17.41	18.40	1.256	62.9	1.006	0.14	0.122	0.154
	LTE Band 48	20M	QPSK	1	0	-	Back	10mm	Ant 5	DSI 5	55830	3609	17.45	18.40	1.245	62.9	1.006	-0.17	0.165	0.207
	LTE Band 48	20M	QPSK	50	0	-	Back	10mm	Ant 5	DSI 5	55830	3609	17.41	18.40	1.256	62.9	1.006	0.17	0.168	0.212
	LTE Band 48	20M	QPSK	1	0	-	Right Side	10mm	Ant 5	DSI 5	55830	3609	17.45	18.40	1.245	62.9	1.006	-0.08	0.278	0.348
	LTE Band 48	20M	QPSK	50	0	-	Right Side	10mm	Ant 5	DSI 5	55830	3609	17.41	18.40	1.256	62.9	1.006	-0.05	0.267	0.337
	LTE Band 48	20M	QPSK	1	0	-	Front	10mm	Ant 9	DSI 5	55830	3609	17.95	18.90	1.245	62.9	1.006	-0.08	0.036	0.045
	LTE Band 48	20M	QPSK	50	0	-	Front	10mm	Ant 9	DSI 5	55830	3609	17.93	18.90	1.250	62.9	1.006	-0.13	0.049	0.062
62	LTE Band 48	20M	QPSK	1	0	-	Back	10mm	Ant 9	DSI 5	55830	3609	17.95	18.90	1.245	62.9	1.006	-0.06	0.337	**0.422**
	LTE Band 48	20M	QPSK	50	0	-	Back	10mm	Ant 9	DSI 5	55830	3609	17.93	18.90	1.250	62.9	1.006	-0.13	0.330	0.415
	LTE Band 48	20M	QPSK	1	0	-	Left Side	10mm	Ant 9	DSI 5	55830	3609	17.95	18.90	1.245	62.9	1.006	0.06	0.049	0.061
	LTE Band 48	20M	QPSK	50	0	-	Left Side	10mm	Ant 9	DSI 5	55830	3609	17.93	18.90	1.250	62.9	1.006	-0.03	0.051	0.064
	LTE Band 48	20M	QPSK	1	0	-	Top Side	10mm	Ant 9	DSI 5	55830	3609	17.95	18.90	1.245	62.9	1.006	-0.03	0.057	0.071
	LTE Band 48	20M	QPSK	50	0	-	Top Side	10mm	Ant 9	DSI 5	55830	3609	17.93	18.90	1.250	62.9	1.006	0.08	0.037	0.047
	LTE Band 48	20M	QPSK	1	0	-	Front	10mm	Ant 8	DSI 5	55830	3609	16.21	17.20	1.256	62.9	1.006	0.05	0.121	0.153
	LTE Band 48	20M	QPSK	50	0	-	Front	10mm	Ant 8	DSI 5	55830	3609	16.13	17.20	1.279	62.9	1.006	0.02	0.117	0.151
	LTE Band 48	20M	QPSK	1	0	-	Back	10mm	Ant 8	DSI 5	55830	3609	16.21	17.20	1.256	62.9	1.006	-0.13	0.094	0.119
	LTE Band 48	20M	QPSK	50	0	-	Back	10mm	Ant 8	DSI 5	55830	3609	16.13	17.20	1.279	62.9	1.006	0.17	0.093	0.120
	LTE Band 48	20M	QPSK	1	0	-	Right Side	10mm	Ant 8	DSI 5	55830	3609	16.21	17.20	1.256	62.9	1.006	0.09	**0.191**	0.241
	LTE Band 48	20M	QPSK	50	0	-	Right Side	10mm	Ant 8	DSI 5	55830	3609	16.13	17.20	1.279	62.9	1.006	0.06	0.185	0.238
	LTE Band 48	20M	QPSK	1	0	-	Top Side	10mm	Ant 8	DSI 5	55830	3609	16.21	17.20	1.256	62.9	1.006	0.01	0.064	0.081
	LTE Band 48	20M	QPSK	50	0	-	Top Side	10mm	Ant 8	DSI 5	55830	3609	16.13	17.20	1.279	62.9	1.006	-0.04	0.074	0.095
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 4	DSI 5	641666	3624.99	15.79	16.50	1.178	-	-	-0.15	0.145	0.171
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Front	10mm	Ant 4	DSI 5	641666	3624.99	15.71	16.50	1.199	-	-	-0.02	0.137	0.164
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 4	DSI 5	641666	3624.99	15.79	16.50	1.178	-	-	-0.09	0.187	0.220

	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Back	10mm	Ant 4	DSI 5	641666	3624.99	15.71	16.50	1.199	-	-	0.14	0.160	0.192
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Left Side	10mm	Ant 4	DSI 5	641666	3624.99	15.79	16.50	1.178	-	-	0.1	0.061	0.072
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Left Side	10mm	Ant 4	DSI 5	641666	3624.99	15.71	16.50	1.199	-	-	-0.09	0.057	0.068
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Right Side	10mm	Ant 4	DSI 5	641666	3624.99	15.79	16.50	1.178	-	-	0.07	0.061	0.072
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Right Side	10mm	Ant 4	DSI 5	641666	3624.99	15.71	16.50	1.199	-	-	-0.09	0.050	0.060
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 4	DSI 5	641666	3624.99	15.79	16.50	1.178	-	-	-0.04	0.218	0.257
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Top Side	10mm	Ant 4	DSI 5	641666	3624.99	15.71	16.50	1.199	-	-	-0.16	0.206	0.247
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 5	DSI 5	641666	3624.99	15.95	17.00	1.274	-	-	-0.07	0.114	0.145
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Front	10mm	Ant 5	DSI 5	641666	3624.99	15.91	17.00	1.285	-	-	0.11	0.114	0.147
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 5	DSI 5	641666	3624.99	15.95	17.00	1.274	-	-	-0.08	0.168	0.214
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Back	10mm	Ant 5	DSI 5	641666	3624.99	15.91	17.00	1.285	-	-	-0.1	0.178	0.229
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Right Side	10mm	Ant 5	DSI 5	641666	3624.99	15.95	17.00	1.274	-	-	0.03	0.312	0.397
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Right Side	10mm	Ant 5	DSI 5	641666	3624.99	15.91	17.00	1.285	-	-	-0.01	0.299	0.384
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 9	DSI 5	641666	3624.99	16.45	17.20	1.189	-	-	-0.06	0.011	0.013
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Front	10mm	Ant 9	DSI 5	641666	3624.99	16.35	17.20	1.216	-	-	-0.17	0.007	0.009
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 9	DSI 5	641666	3624.99	16.45	17.20	1.189	-	-	-0.01	0.348	0.414
63	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Back	10mm	Ant 9	DSI 5	641666	3624.99	16.35	17.20	1.216	-	-	0.03	0.373	**0.454**
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Left Side	10mm	Ant 9	DSI 5	641666	3624.99	16.45	17.20	1.189	-	-	-0.11	0.069	0.082
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Left Side	10mm	Ant 9	DSI 5	641666	3624.99	16.35	17.20	1.216	-	-	0.14	0.054	0.066
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 9	DSI 5	641666	3624.99	16.45	17.20	1.189	-	-	0.03	0.043	0.051
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Top Side	10mm	Ant 9	DSI 5	641666	3624.99	16.35	17.20	1.216	-	-	0.1	0.036	0.044
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 8	DSI 5	641666	3624.99	14.63	15.20	1.140	-	-	-0.06	0.091	0.104
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Front	10mm	Ant 8	DSI 5	641666	3624.99	14.56	15.20	1.159	-	-	0.02	0.096	0.111
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 8	DSI 5	641666	3624.99	14.63	15.20	1.140	-	-	-0.16	0.064	0.073
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Back	10mm	Ant 8	DSI 5	641666	3624.99	14.56	15.20	1.159	-	-	0.05	0.061	0.071
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Right Side	10mm	Ant 8	DSI 5	641666	3624.99	14.63	15.20	1.140	-	-	0.01	0.154	0.176
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Right Side	10mm	Ant 8	DSI 5	641666	3624.99	14.56	15.20	1.159	-	-	-0.03	0.136	0.158
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 8	DSI 5	641666	3624.99	14.63	15.20	1.140	-	-	0.17	0.045	0.051
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Top Side	10mm	Ant 8	DSI 5	641666	3624.99	14.56	15.20	1.159	-	-	-0.15	0.043	0.050
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 4	DSI 5	656000	3840	14.85	15.20	1.084	-	-	0.08	0.051	0.055
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Front	10mm	Ant 4	DSI 5	656000	3840	14.79	15.20	1.099	-	-	0.01	0.041	0.045
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 4	DSI 5	656000	3840	14.85	15.20	1.084	-	-	0.03	0.079	0.086
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 4	DSI 5	656000	3840	14.79	15.20	1.099	-	-	-0.08	0.061	0.067
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	10mm	Ant 4	DSI 5	656000	3840	14.85	15.20	1.084	-	-	-0.08	0.016	0.017
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Left Side	10mm	Ant 4	DSI 5	656000	3840	14.79	15.20	1.099	-	-	0.1	0.013	0.014
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Right Side	10mm	Ant 4	DSI 5	656000	3840	14.85	15.20	1.084	-	-	-0.18	0.002	0.002
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Right Side	10mm	Ant 4	DSI 5	656000	3840	14.79	15.20	1.099	-	-	0.1	0.001	0.001
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 4	DSI 5	656000	3840	14.85	15.20	1.084	-	-	0.01	0.110	0.119
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	10mm	Ant 4	DSI 5	656000	3840	14.79	15.20	1.099	-	-	0.12	0.089	0.098
	FR1 n77 PC 2	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 4	DSI 5	656000	3840	17.72	18.50	1.197	50	1.000	0.08	0.104	0.124
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 4	DSI 5	633332	3499.98	15.15	15.20	1.012	-	-	-0.17	0.107	0.108
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Front	10mm	Ant 4	DSI 5	633332	3499.98	15.07	15.20	1.030	-	-	-0.03	0.097	0.100
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 4	DSI 5	633332	3499.98	15.15	15.20	1.012	-	-	0.14	0.133	0.135
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 4	DSI 5	633332	3499.98	15.07	15.20	1.030	-	-	0.11	0.127	0.131
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	10mm	Ant 4	DSI 5	633332	3499.98	15.15	15.20	1.012	-	-	-0.05	0.042	0.042
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Left Side	10mm	Ant 4	DSI 5	633332	3499.98	15.07	15.20	1.030	-	-	0.18	0.035	0.036
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Right Side	10mm	Ant 4	DSI 5	633332	3499.98	15.15	15.20	1.012	-	-	0.14	0.027	0.027
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Right Side	10mm	Ant 4	DSI 5	633332	3499.98	15.07	15.20	1.030	-	-	-0.17	0.021	0.022
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 4	DSI 5	633332	3499.98	15.15	15.20	1.012	-	-	0.17	0.161	0.163
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	10mm	Ant 4	DSI 5	633332	3499.98	15.07	15.20	1.030	-	-	-0.05	0.147	0.151
	FR1 n77 PC 2	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 4	DSI 5	633332	3499.98	18.05	18.50	1.109	50	1.000	-0.01	0.163	0.181
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 5	DSI 5	656000	3840	16.12	17.00	1.225	-	-	0.01	0.089	0.109
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Front	10mm	Ant 5	DSI 5	656000	3840	16.09	17.00	1.233	-	-	0.1	0.072	0.089
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 5	DSI 5	656000	3840	16.12	17.00	1.225	-	-	-0.17	0.106	0.130
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 5	DSI 5	656000	3840	16.09	17.00	1.233	-	-	0.04	0.085	0.105
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Right Side	10mm	Ant 5	DSI 5	656000	3840	16.12	17.00	1.225	-	-	-0.01	0.185	0.227

	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Right Side	10mm	Ant 5	DSI 5	656000	3840	16.09	17.00	1.233	-	-	-0.08	0.167	0.206
	FR1 n77 PC 2	100M	QPSK	1	1	DFT-SCS-30KHz	Right Side	10mm	Ant 5	DSI 5	656000	3840	19.15	20.50	1.365	50	1.000	-0.14	0.189	0.258
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 5	DSI 5	633332	3499.98	16.56	17.00	1.107	-	-	0.13	0.091	0.101
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Front	10mm	Ant 5	DSI 5	633332	3499.98	16.53	17.00	1.114	-	-	-0.18	0.101	0.113
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 5	DSI 5	633332	3499.98	16.56	17.00	1.107	-	-	-0.11	0.153	0.169
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 5	DSI 5	633332	3499.98	16.53	17.00	1.114	-	-	-0.16	0.161	0.179
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Right Side	10mm	Ant 5	DSI 5	633332	3499.98	16.56	17.00	1.107	-	-	-0.15	0.248	0.274
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Right Side	10mm	Ant 5	DSI 5	633332	3499.98	16.53	17.00	1.114	-	-	-0.06	0.251	0.280
	FR1 n77 PC 2	100M	QPSK	135	69	DFT-SCS-30KHz	Right Side	10mm	Ant 5	DSI 5	633332	3499.98	19.56	20.50	1.242	50	1.000	0.04	0.258	0.320
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 9	DSI 5	656000	3840	16.45	17.40	1.245	-	-	-0.13	0.032	0.040
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Front	10mm	Ant 9	DSI 5	656000	3840	16.36	17.40	1.271	-	-	0.16	0.027	0.034
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 9	DSI 5	656000	3840	16.45	17.40	1.245	-	-	0.01	0.329	0.409
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 9	DSI 5	656000	3840	16.36	17.40	1.271	-	-	-0.15	0.281	0.357
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	10mm	Ant 9	DSI 5	656000	3840	16.45	17.40	1.245	-	-	-0.02	0.055	0.068
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Left Side	10mm	Ant 9	DSI 5	656000	3840	16.36	17.40	1.271	-	-	-0.09	0.050	0.064
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 9	DSI 5	656000	3840	16.45	17.40	1.245	-	-	0.14	0.040	0.050
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	10mm	Ant 9	DSI 5	656000	3840	16.36	17.40	1.271	-	-	0.1	0.032	0.041
	FR1 n77 PC 2	100M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 9	DSI 5	656000	3840	19.48	20.90	1.387	50	1.000	-0.09	0.313	0.434
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 9	DSI 5	633332	3499.98	16.55	17.40	1.216	-	-	0.07	0.041	0.050
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Front	10mm	Ant 9	DSI 5	633332	3499.98	16.52	17.40	1.225	-	-	-0.09	0.034	0.042
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 9	DSI 5	633332	3499.98	16.55	17.40	1.216	-	-	-0.01	0.497	0.604
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 9	DSI 5	633332	3499.98	16.52	17.40	1.225	-	-	-0.16	0.457	0.560
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	10mm	Ant 9	DSI 5	633332	3499.98	16.55	17.40	1.216	-	-	-0.18	0.089	0.108
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Left Side	10mm	Ant 9	DSI 5	633332	3499.98	16.52	17.40	1.225	-	-	-0.07	0.080	0.098
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 9	DSI 5	633332	3499.98	16.55	17.40	1.216	-	-	0.11	0.043	0.052
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	10mm	Ant 9	DSI 5	633332	3499.98	16.52	17.40	1.225	-	-	-0.08	0.049	0.060
64	FR1 n77 PC 2	100M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 9	DSI 5	633332	3499.98	19.59	20.90	1.352	50	1.000	-0.01	0.455	**0.615**
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 8	DSI 5	656000	3840	16.15	16.80	1.161	-	-	0.07	0.098	0.114
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Front	10mm	Ant 8	DSI 5	656000	3840	16.13	16.80	1.167	-	-	-0.02	0.079	0.092
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 8	DSI 5	656000	3840	16.15	16.80	1.161	-	-	-0.05	0.074	0.086
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 8	DSI 5	656000	3840	16.13	16.80	1.167	-	-	-0.13	0.062	0.072
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Right Side	10mm	Ant 8	DSI 5	656000	3840	16.15	16.80	1.161	-	-	0.08	0.223	0.259
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Right Side	10mm	Ant 8	DSI 5	656000	3840	16.13	16.80	1.167	-	-	0.16	0.189	0.221
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 8	DSI 5	656000	3840	16.15	16.80	1.161	-	-	0.01	0.052	0.060
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	10mm	Ant 8	DSI 5	656000	3840	16.13	16.80	1.167	-	-	-0.16	0.042	0.049
	FR1 n77 PC 2	100M	QPSK	1	1	DFT-SCS-30KHz	Right Side	10mm	Ant 8	DSI 5	656000	3840	19.18	20.30	1.294	50	1.000	0.19	0.232	0.300
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 8	DSI 5	633332	3499.98	15.55	16.80	1.334	-	-	0.1	0.143	0.191
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Front	10mm	Ant 8	DSI 5	633332	3499.98	15.53	16.80	1.340	-	-	-0.04	0.153	0.205
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 8	DSI 5	633332	3499.98	15.55	16.80	1.334	-	-	-0.01	0.093	0.124
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 8	DSI 5	633332	3499.98	15.53	16.80	1.340	-	-	0.02	0.106	0.142
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Right Side	10mm	Ant 8	DSI 5	633332	3499.98	15.55	16.80	1.334	-	-	-0.11	0.209	0.279
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Right Side	10mm	Ant 8	DSI 5	633332	3499.98	15.53	16.80	1.340	-	-	0.16	0.229	0.307
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 8	DSI 5	633332	3499.98	15.55	16.80	1.334	-	-	-0.15	0.064	0.085
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	10mm	Ant 8	DSI 5	633332	3499.98	15.53	16.80	1.340	-	-	0.03	0.067	0.090
	FR1 n77 PC 2	100M	QPSK	135	69	DFT-SCS-30KHz	Right Side	10mm	Ant 8	DSI 5	633332	3499.98	18.56	20.30	1.493	50	1.000	0.19	0.223	0.333
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 4	DSI 5	650000	3750	14.85	15.20	1.084	-	-	0.08	0.104	0.113
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Front	10mm	Ant 4	DSI 5	650000	3750	14.74	15.20	1.112	-	-	0.01	0.084	0.093
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 4	DSI 5	650000	3750	14.85	15.20	1.084	-	-	0.03	0.113	0.122
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 4	DSI 5	650000	3750	14.74	15.20	1.112	-	-	-0.08	0.114	0.127
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	10mm	Ant 4	DSI 5	650000	3750	14.85	15.20	1.084	-	-	-0.08	0.044	0.048
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Left Side	10mm	Ant 4	DSI 5	650000	3750	14.74	15.20	1.112	-	-	0.1	0.031	0.034
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Right Side	10mm	Ant 4	DSI 5	650000	3750	14.85	15.20	1.084	-	-	-0.18	0.005	0.005
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Right Side	10mm	Ant 4	DSI 5	650000	3750	14.74	15.20	1.112	-	-	0.1	0.002	0.002
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 4	DSI 5	650000	3750	14.85	15.20	1.084	-	-	0.12	0.166	0.180
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	10mm	Ant 4	DSI 5	650000	3750	14.74	15.20	1.112	-	-	0.08	0.141	0.157
	FR1 n78 PC 2	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 4	DSI 5	650000	3750	17.85	18.50	1.161	50	1.000	-0.07	0.172	0.200

	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 4	DSI 5	633332	3499.98	14.98	15.20	1.052	-	-	-0.17	0.120	0.126
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Front	10mm	Ant 4	DSI 5	633332	3499.98	14.91	15.20	1.069	-	-	-0.03	0.107	0.114
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 4	DSI 5	633332	3499.98	14.98	15.20	1.052	-	-	0.14	0.151	0.159
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 4	DSI 5	633332	3499.98	14.91	15.20	1.069	-	-	0.11	0.134	0.143
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	10mm	Ant 4	DSI 5	633332	3499.98	14.98	15.20	1.052	-	-	-0.05	0.047	0.049
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Left Side	10mm	Ant 4	DSI 5	633332	3499.98	14.91	15.20	1.069	-	-	0.18	0.041	0.044
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Right Side	10mm	Ant 4	DSI 5	633332	3499.98	14.98	15.20	1.052	-	-	0.14	0.044	0.046
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Right Side	10mm	Ant 4	DSI 5	633332	3499.98	14.91	15.20	1.069	-	-	-0.17	0.039	0.042
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 4	DSI 5	633332	3499.98	14.98	15.20	1.052	-	-	0.17	0.169	0.178
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	10mm	Ant 4	DSI 5	633332	3499.98	14.91	15.20	1.069	-	-	-0.05	0.157	0.168
	FR1 n78 PC 2	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 4	DSI 5	633332	3499.98	18.05	18.50	1.109	50	1.000	0.11	0.180	0.200
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 5	DSI 5	650000	3750	16.71	17.50	1.199	-	-	0.01	0.158	0.190
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Front	10mm	Ant 5	DSI 5	650000	3750	16.65	17.50	1.216	-	-	0.1	0.145	0.176
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 5	DSI 5	650000	3750	16.71	17.50	1.199	-	-	-0.17	0.214	0.257
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 5	DSI 5	650000	3750	16.65	17.50	1.216	-	-	0.04	0.185	0.225
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Right Side	10mm	Ant 5	DSI 5	650000	3750	16.71	17.50	1.199	-	-	-0.05	0.383	0.459
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Right Side	10mm	Ant 5	DSI 5	650000	3750	16.65	17.50	1.216	-	-	-0.01	0.310	0.377
	FR1 n78 PC 2	100M	QPSK	1	1	DFT-SCS-30KHz	Right Side	10mm	Ant 5	DSI 5	650000	3750	19.69	21.00	1.352	50	1.000	-0.08	0.366	0.495
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 5	DSI 5	633332	3499.98	16.73	17.50	1.194	-	-	0.05	0.098	0.117
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Front	10mm	Ant 5	DSI 5	633332	3499.98	16.66	17.50	1.213	-	-	0.06	0.102	0.124
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 5	DSI 5	633332	3499.98	16.73	17.50	1.194	-	-	-0.09	0.164	0.196
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 5	DSI 5	633332	3499.98	16.66	17.50	1.213	-	-	-0.08	0.176	0.214
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Right Side	10mm	Ant 5	DSI 5	633332	3499.98	16.73	17.50	1.194	-	-	0.13	0.281	0.336
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Right Side	10mm	Ant 5	DSI 5	633332	3499.98	16.66	17.50	1.213	-	-	0.12	0.289	0.351
	FR1 n78 PC 2	100M	QPSK	135	69	DFT-SCS-30KHz	Right Side	10mm	Ant 5	DSI 5	633332	3499.98	19.68	21.00	1.355	50	1.000	-0.02	0.295	0.400
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 9	DSI 5	650000	3750	16.59	17.40	1.205	-	-	-0.08	0.005	0.006
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Front	10mm	Ant 9	DSI 5	650000	3750	16.55	17.40	1.216	-	-	-0.13	0.003	0.004
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 9	DSI 5	650000	3750	16.59	17.40	1.205	-	-	0.01	0.334	0.402
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 9	DSI 5	650000	3750	16.55	17.40	1.216	-	-	-0.13	0.278	0.338
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	10mm	Ant 9	DSI 5	650000	3750	16.59	17.40	1.205	-	-	0.06	0.045	0.054
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Left Side	10mm	Ant 9	DSI 5	650000	3750	16.55	17.40	1.216	-	-	-0.03	0.046	0.056
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 9	DSI 5	650000	3750	16.59	17.40	1.205	-	-	-0.03	0.042	0.051
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	10mm	Ant 9	DSI 5	650000	3750	16.55	17.40	1.216	-	-	0.08	0.035	0.043
	FR1 n78 PC 2	100M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 9	DSI 5	650000	3750	19.65	20.90	1.334	50	1.000	-0.07	0.329	0.439
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 9	DSI 5	633332	3499.98	16.44	17.40	1.247	-	-	0.05	0.004	0.005
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Front	10mm	Ant 9	DSI 5	633332	3499.98	16.35	17.40	1.274	-	-	-0.11	0.001	0.001
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 9	DSI 5	633332	3499.98	16.44	17.40	1.247	-	-	0.01	0.392	0.489
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 9	DSI 5	633332	3499.98	16.35	17.40	1.274	-	-	-0.12	0.350	0.446
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	10mm	Ant 9	DSI 5	633332	3499.98	16.44	17.40	1.247	-	-	0.03	0.057	0.071
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Left Side	10mm	Ant 9	DSI 5	633332	3499.98	16.35	17.40	1.274	-	-	-0.16	0.053	0.067
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 9	DSI 5	633332	3499.98	16.44	17.40	1.247	-	-	-0.02	0.045	0.056
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	10mm	Ant 9	DSI 5	633332	3499.98	16.35	17.40	1.274	-	-	0.15	0.041	0.052
65	FR1 n78 PC 2	100M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 9	DSI 5	633332	3499.98	19.48	20.90	1.387	50	1.000	0.01	0.405	**0.562**
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 8	DSI 5	650000	3750	16.21	16.70	1.119	-	-	-0.08	0.142	0.159
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Front	10mm	Ant 8	DSI 5	650000	3750	16.18	16.70	1.127	-	-	-0.17	0.118	0.133
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 8	DSI 5	650000	3750	16.21	16.70	1.119	-	-	-0.08	0.089	0.100
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 8	DSI 5	650000	3750	16.18	16.70	1.127	-	-	-0.04	0.076	0.086
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Right Side	10mm	Ant 8	DSI 5	650000	3750	16.21	16.70	1.119	-	-	0.08	0.284	0.318
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Right Side	10mm	Ant 8	DSI 5	650000	3750	16.18	16.70	1.127	-	-	-0.08	0.251	0.283
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 8	DSI 5	650000	3750	16.21	16.70	1.119	-	-	0.17	0.069	0.077
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	10mm	Ant 8	DSI 5	650000	3750	16.18	16.70	1.127	-	-	0.18	0.066	0.074
	FR1 n78 PC 2	100M	QPSK	1	1	DFT-SCS-30KHz	Right Side	10mm	Ant 8	DSI 5	650000	3750	19.25	20.20	1.245	50	1.000	-0.04	0.276	0.343
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 8	DSI 5	633332	3499.98	15.59	16.70	1.291	-	-	-0.15	0.140	0.181
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Front	10mm	Ant 8	DSI 5	633332	3499.98	15.54	16.70	1.306	-	-	0.19	0.143	0.187
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 8	DSI 5	633332	3499.98	15.59	16.70	1.291	-	-	0.07	0.095	0.123
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 8	DSI 5	633332	3499.98	15.54	16.70	1.306	-	-	-0.18	0.113	0.148

	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Right Side	10mm	Ant 8	DSI 5	633332	3499.98	15.59	16.70	1.291	-	-	0.03	0.221	0.285
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Right Side	10mm	Ant 8	DSI 5	633332	3499.98	15.54	16.70	1.306	-	-	0.05	**0.262**	0.342
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 8	DSI 5	633332	3499.98	15.59	16.70	1.291	-	-	-0.15	0.064	0.083
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	10mm	Ant 8	DSI 5	633332	3499.98	15.54	16.70	1.306	-	-	-0.15	0.067	0.088
	FR1 n78 PC 2	100M	QPSK	135	69	DFT-SCS-30KHz	Right Side	10mm	Ant 8	DSI 5	633332	3499.98	18.50	20.20	1.479	50	1.000	0.11	0.254	0.376

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+8(8)	Full power	1	2412	19.65	20.50	1.216	97.05	1.030	0.08	0.664	0.832
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 15+8(15)	Full power	11	2462	18.77	19.50	1.183	97.05	1.030	0.01	0.689	0.840
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 15+8(8)	Full power	1	2412	19.65	20.50	1.216	97.05	1.030	0.03	0.603	0.755
	WLAN2.4GHz	802.11b 1Mbps	Left Side	10mm	Ant 15+8(8)	Full power	1	2412	19.65	20.50	1.216	97.05	1.030	-0.08	0.050	0.063
66	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	Ant 15+8(8)	Full power	1	2412	19.65	20.50	1.216	97.05	1.030	-0.01	0.806	**1.010**
	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	Ant 15+8(15)	Full power	11	2462	18.77	19.50	1.183	97.05	1.030	-0.03	0.776	0.946
	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	Ant 15+8(8)	Full power	1	2412	19.65	20.50	1.216	97.05	1.030	0.1	0.704	0.882
	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	Ant 15+8(15)	Full power	11	2462	18.77	19.50	1.183	97.05	1.030	0.02	0.668	0.814
	Bluetooth	1Mbps	Front	10mm	Ant 8	Full power	78	2480	16.03	17.50	1.403	77.45	1.076	-0.09	0.145	0.219
	Bluetooth	1Mbps	Back	10mm	Ant 8	Full power	78	2480	16.03	17.50	1.403	77.45	1.076	0.11	0.136	0.205
	Bluetooth	1Mbps	Left Side	10mm	Ant 8	Full power	78	2480	16.03	17.50	1.403	77.45	1.076	-0.05	0.001	0.002
67	Bluetooth	1Mbps	Right Side	10mm	Ant 8	Full power	78	2480	16.03	17.50	1.403	77.45	1.076	0.17	0.239	**0.361**
	Bluetooth	1Mbps	Top Side	10mm	Ant 8	Full power	78	2480	16.03	17.50	1.403	77.45	1.076	-0.08	0.046	0.069
	Bluetooth	1Mbps	Front	10mm	Ant 15	Full power	0	2402	15.29	17.00	1.483	76.97	1.082	-0.02	0.064	0.103
	Bluetooth	1Mbps	Back	10mm	Ant 15	Full power	0	2402	15.29	17.00	1.483	76.97	1.082	0.07	0.076	0.122
	Bluetooth	1Mbps	Left Side	10mm	Ant 15	Full power	0	2402	15.29	17.00	1.483	76.97	1.082	0.04	0.000	0.000
	Bluetooth	1Mbps	Right Side	10mm	Ant 15	Full power	0	2402	15.29	17.00	1.483	76.97	1.082	-0.02	0.000	0.000
	Bluetooth	1Mbps	Top Side	10mm	Ant 15	Full power	0	2402	15.29	17.00	1.483	76.97	1.082	0.07	0.168	0.269
5000MHz																
68	WLAN5.2GHz	802.11n-HT20 MCS0	Front	10mm	Ant 16+12(16)	Full power	36	5180	19.29	20.00	1.178	100	1.000	-0.05	0.469	**0.552**
	WLAN5.2GHz	802.11n-HT20 MCS0	Back	10mm	Ant 16+12(16)	Full power	36	5180	19.29	20.00	1.178	100	1.000	-0.18	0.159	0.187
	WLAN5.2GHz	802.11n-HT20 MCS0	Left Side	10mm	Ant 16+12(16)	Full power	36	5180	19.29	20.00	1.178	100	1.000	0.1	0.082	0.097
	WLAN5.2GHz	802.11n-HT20 MCS0	Right Side	10mm	Ant 16+12(16)	Full power	36	5180	19.29	20.00	1.178	100	1.000	0.12	0.340	0.400
	WLAN5.2GHz	802.11n-HT20 MCS0	Top Side	10mm	Ant 16+12(16)	Full power	36	5180	19.29	20.00	1.178	100	1.000	0.08	0.347	0.409
	WLAN5.8GHz	802.11a 6Mbps	Front	10mm	Ant 16+12(12)	Full power	165	5825	19.55	20.50	1.245	99.32	1.007	0.07	0.275	0.345
	WLAN5.8GHz	802.11a 6Mbps	Back	10mm	Ant 16+12(12)	Full power	165	5825	19.55	20.50	1.245	99.32	1.007	-0.18	0.251	0.315
	WLAN5.8GHz	802.11a 6Mbps	Left Side	10mm	Ant 16+12(12)	Full power	165	5825	19.55	20.50	1.245	99.32	1.007	0.03	0.084	0.105
69	WLAN5.8GHz	802.11a 6Mbps	Right Side	10mm	Ant 16+12(12)	Full power	165	5825	19.55	20.50	1.245	99.32	1.007	-0.02	0.290	**0.363**
	WLAN5.8GHz	802.11a 6Mbps	Top Side	10mm	Ant 16+12(12)	Full power	165	5825	19.55	20.50	1.245	99.32	1.007	-0.15	0.248	0.311

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										
	LTE Band 12	10M	QPSK	1	0	-	Front	15mm	Ant 0	DSI 4	23095	707.5	24.78	25.50	1.180	-	-	0.08	0.256	0.302
	LTE Band 12	10M	QPSK	25	0	-	Front	15mm	Ant 0	DSI 4	23095	707.5	23.82	24.50	1.169	-	-	0.01	0.214	0.250
70	LTE Band 12	10M	QPSK	1	0	-	Back	15mm	Ant 0	DSI 4	23095	707.5	24.78	25.50	1.180	-	-	0.01	0.295	**0.348**
	LTE Band 12	10M	QPSK	25	0	-	Back	15mm	Ant 0	DSI 4	23095	707.5	23.82	24.50	1.169	-	-	0.03	0.237	0.277
	LTE Band 12	10M	QPSK	1	0	-	Front	15mm	Ant 1	DSI 4	23095	707.5	24.15	25.00	1.216	-	-	-0.08	0.188	0.229
	LTE Band 12	10M	QPSK	25	0	-	Front	15mm	Ant 1	DSI 4	23095	707.5	23.18	24.00	1.208	-	-	-0.08	0.177	0.214
	LTE Band 12	10M	QPSK	1	0	-	Back	15mm	Ant 1	DSI 4	23095	707.5	24.15	25.00	1.216	-	-	0.02	0.232	0.282
	LTE Band 12	10M	QPSK	25	0	-	Back	15mm	Ant 1	DSI 4	23095	707.5	23.18	24.00	1.208	-	-	0.1	0.212	0.256
	LTE Band 13	10M	QPSK	1	0	-	Front	15mm	Ant 0	DSI 4	23230	782	25.14	25.70	1.138	-	-	-0.18	0.336	0.382
	LTE Band 13	10M	QPSK	25	0	-	Front	15mm	Ant 0	DSI 4	23230	782	24.10	24.70	1.148	-	-	0.1	0.263	0.302
	LTE Band 13	10M	QPSK	1	0	-	Back	15mm	Ant 0	DSI 4	23230	782	25.14	25.70	1.138	-	-	-0.05	0.373	0.424
	LTE Band 13	10M	QPSK	25	0	-	Back	15mm	Ant 0	DSI 4	23230	782	24.10	24.70	1.148	-	-	0.12	0.297	0.341
	LTE Band 13	10M	QPSK	1	0	-	Front	15mm	Ant 1	DSI 4	23230	782	23.63	24.50	1.222	-	-	0.08	0.327	0.400
	LTE Band 13	10M	QPSK	25	0	-	Front	15mm	Ant 1	DSI 4	23230	782	23.59	24.50	1.233	-	-	-0.17	0.326	0.402
71	LTE Band 13	10M	QPSK	1	0	-	Back	15mm	Ant 1	DSI 4	23230	782	23.63	24.50	1.222	-	-	-0.03	0.390	**0.477**
	LTE Band 13	10M	QPSK	25	0	-	Back	15mm	Ant 1	DSI 4	23230	782	23.59	24.50	1.233	-	-	-0.03	0.382	0.471
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Front	15mm	Ant 0	DSI 4	141500	707.5	24.63	25.50	1.222	-	-	0.08	0.312	0.381
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Front	15mm	Ant 0	DSI 4	141500	707.5	24.57	25.50	1.239	-	-	0.01	0.328	0.406
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Back	15mm	Ant 0	DSI 4	141500	707.5	24.63	25.50	1.222	-	-	0.03	0.326	0.398
72	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Back	15mm	Ant 0	DSI 4	141500	707.5	24.57	25.50	1.239	-	-	0.14	0.363	**0.450**
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Front	15mm	Ant 1	DSI 4	141500	707.5	24.38	25.00	1.153	-	-	-0.08	0.180	0.208
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Front	15mm	Ant 1	DSI 4	141500	707.5	24.37	25.00	1.156	-	-	-0.08	0.218	0.252
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Back	15mm	Ant 1	DSI 4	141500	707.5	24.38	25.00	1.153	-	-	0.1	0.228	0.263
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Back	15mm	Ant 1	DSI 4	141500	707.5	24.37	25.00	1.156	-	-	-0.18	0.208	0.240
										850MHz										
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Front	15mm	Ant 0	DSI 4	189	836.4	26.11	27.00	1.227	-	-	-0.17	0.113	0.139
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Back	15mm	Ant 0	DSI 4	189	836.4	26.11	27.00	1.227	-	-	0.17	0.138	0.169
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Front	15mm	Ant 1	DSI 4	189	836.4	24.48	25.90	1.387	-	-	0.08	0.251	0.348
73	GSM850	-	-	-	-	GPRS (4 Tx slots)	Back	15mm	Ant 1	DSI 4	189	836.4	24.48	25.90	1.387	-	-	-0.07	0.330	**0.458**
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 0	DSI 4	4182	836.4	24.35	25.00	1.161	-	-	-0.05	0.235	0.273
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 0	DSI 4	4182	836.4	24.35	25.00	1.161	-	-	0.11	0.286	0.332
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 1	DSI 4	4182	836.4	21.86	23.20	1.361	-	-	0.1	0.328	0.447
74	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 1	DSI 4	4182	836.4	21.86	23.20	1.361	-	-	-0.09	0.386	**0.526**
	LTE Band 5	10M	QPSK	1	0	-	Front	15mm	Ant 0	DSI 4	20525	836.5	25.21	25.70	1.119	-	-	0.19	0.295	0.330
	LTE Band 5	10M	QPSK	25	0	-	Front	15mm	Ant 0	DSI 4	20525	836.5	24.23	24.70	1.114	-	-	0.07	0.227	0.253
	LTE Band 5	10M	QPSK	1	0	-	Back	15mm	Ant 0	DSI 4	20525	836.5	25.21	25.70	1.119	-	-	-0.08	0.310	0.347
	LTE Band 5	10M	QPSK	25	0	-	Back	15mm	Ant 0	DSI 4	20525	836.5	24.23	24.70	1.114	-	-	-0.18	0.284	0.316
	LTE Band 5	10M	QPSK	1	0	-	Front	15mm	Ant 1	DSI 4	20525	836.5	21.89	23.00	1.291	-	-	0.12	0.309	0.399
	LTE Band 5	10M	QPSK	25	0	-	Front	15mm	Ant 1	DSI 4	20525	836.5	21.88	23.00	1.294	-	-	0.08	0.322	0.417
	LTE Band 5	10M	QPSK	1	0	-	Back	15mm	Ant 1	DSI 4	20525	836.5	21.89	23.00	1.291	-	-	-0.17	0.370	0.478
75	LTE Band 5	10M	QPSK	25	0	-	Back	15mm	Ant 1	DSI 4	20525	836.5	21.88	23.00	1.294	-	-	-0.01	0.379	**0.491**
	LTE Band 26	15M	QPSK	1	0	-	Front	15mm	Ant 0	DSI 4	26865	831.5	25.20	25.70	1.122	-	-	0.03	0.252	0.283
	LTE Band 26	15M	QPSK	36	0	-	Front	15mm	Ant 0	DSI 4	26865	831.5	24.20	24.70	1.122	-	-	-0.15	0.203	0.228
	LTE Band 26	15M	QPSK	1	0	-	Back	15mm	Ant 0	DSI 4	26865	831.5	25.20	25.70	1.122	-	-	-0.07	0.317	0.356
	LTE Band 26	15M	QPSK	36	0	-	Back	15mm	Ant 0	DSI 4	26865	831.5	24.20	24.70	1.122	-	-	-0.15	0.256	0.287
	LTE Band 26	15M	QPSK	1	0	-	Front	15mm	Ant 1	DSI 4	26865	831.5	22.53	23.50	1.250	-	-	-0.03	0.328	0.410
	LTE Band 26	15M	QPSK	36	0	-	Front	15mm	Ant 1	DSI 4	26865	831.5	22.58	23.50	1.236	-	-	0.14	0.345	0.426
76	LTE Band 26	15M	QPSK	1	0	-	Back	15mm	Ant 1	DSI 4	26865	831.5	22.53	23.50	1.250	-	-	0.11	0.405	**0.506**
	LTE Band 26	15M	QPSK	36	0	-	Back	15mm	Ant 1	DSI 4	26865	831.5	22.58	23.50	1.236	-	-	-0.08	0.384	0.475
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Front	15mm	Ant 0	DSI 4	167300	836.5	25.37	25.70	1.079	-	-	0.1	0.232	0.250

	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Front	15mm	Ant 0	DSI 4	167300	836.5	25.35	25.70	1.084	-	-	-0.17	0.234	0.254
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Back	15mm	Ant 0	DSI 4	167300	836.5	25.37	25.70	1.079	-	-	0.04	0.278	0.300
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Back	15mm	Ant 0	DSI 4	167300	836.5	25.35	25.70	1.084	-	-	-0.01	0.281	0.305
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Front	15mm	Ant 1	DSI 4	167300	836.5	22.68	23.50	1.208	-	-	-0.05	0.356	0.430
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Front	15mm	Ant 1	DSI 4	167300	836.5	22.60	23.50	1.230	-	-	0.18	0.381	0.469
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Back	15mm	Ant 1	DSI 4	167300	836.5	22.68	23.50	1.208	-	-	0.14	0.418	0.505
77	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Back	15mm	Ant 1	DSI 4	167300	836.5	22.60	23.50	1.230	-	-	-0.1	0.463	**0.570**
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Front	15mm	Ant 0	DSI 4	166300	831.5	25.26	25.70	1.107	-	-	0.05	0.285	0.315
	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Front	15mm	Ant 0	DSI 4	166300	831.5	25.21	25.70	1.119	-	-	0.06	0.278	0.311
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Back	15mm	Ant 0	DSI 4	166300	831.5	25.26	25.70	1.107	-	-	-0.09	0.332	0.367
	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Back	15mm	Ant 0	DSI 4	166300	831.5	25.21	25.70	1.119	-	-	-0.11	0.339	0.379
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Front	15mm	Ant 1	DSI 4	166300	831.5	22.25	23.00	1.189	-	-	0.12	0.349	0.415
	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Front	15mm	Ant 1	DSI 4	166300	831.5	22.23	23.00	1.194	-	-	0.08	0.411	0.491
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Back	15mm	Ant 1	DSI 4	166300	831.5	22.25	23.00	1.189	-	-	-0.17	0.416	0.494
78	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Back	15mm	Ant 1	DSI 4	166300	831.5	22.23	23.00	1.194	-	-	-0.06	0.491	**0.586**
1750MHz																				
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 4	DSI 4	1413	1732.6	24.11	25.00	1.227	-	-	0.02	0.527	0.647
79	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 4	DSI 4	1413	1732.6	24.11	25.00	1.227	-	-	-0.11	0.580	**0.712**
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 5	DSI 4	1413	1732.6	21.52	22.70	1.312	-	-	0.14	0.172	0.226
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 5	DSI 4	1413	1732.6	21.52	22.70	1.312	-	-	-0.01	0.153	0.201
	LTE Band 4	20M	QPSK	1	0	-	Front	15mm	Ant 4	DSI 4	20175	1732.5	24.89	25.70	1.205	-	-	-0.17	0.559	0.674
	LTE Band 4	20M	QPSK	50	0	-	Front	15mm	Ant 4	DSI 4	20175	1732.5	23.91	24.70	1.199	-	-	0.17	0.533	0.639
	LTE Band 4	20M	QPSK	1	0	-	Back	15mm	Ant 4	DSI 4	20175	1732.5	24.89	25.70	1.205	-	-	-0.13	0.621	0.748
	LTE Band 4	20M	QPSK	50	0	-	Back	15mm	Ant 4	DSI 4	20175	1732.5	23.91	24.70	1.199	-	-	-0.05	0.556	0.667
	LTE Band 4	20M	QPSK	1	0	-	Front	15mm	Ant 5	DSI 4	20175	1732.5	23.06	24.00	1.242	-	-	0.01	0.209	0.260
	LTE Band 4	20M	QPSK	50	0	-	Front	15mm	Ant 5	DSI 4	20175	1732.5	22.95	24.00	1.274	-	-	-0.05	0.219	0.279
	LTE Band 4	20M	QPSK	1	0	-	Back	15mm	Ant 5	DSI 4	20175	1732.5	23.06	24.00	1.242	-	-	0.03	0.186	0.231
	LTE Band 4	20M	QPSK	50	0	-	Back	15mm	Ant 5	DSI 4	20175	1732.5	22.95	24.00	1.274	-	-	-0.08	0.198	0.252
	LTE Band 4 Other PA	20M	QPSK	1	0	-	Front	15mm	Ant 3	DSI 4	20175	1732.5	24.95	25.70	1.189	-	-	0.01	0.638	0.758
	LTE Band 4 Other PA	20M	QPSK	50	0	-	Front	15mm	Ant 3	DSI 4	20175	1732.5	23.99	24.70	1.178	-	-	0.1	0.523	0.616
80	LTE Band 4 Other PA	20M	QPSK	1	0	-	Back	15mm	Ant 3	DSI 4	20175	1732.5	24.95	25.70	1.189	-	-	-0.06	0.689	**0.819**
	LTE Band 4 Other PA	20M	QPSK	50	0	-	Back	15mm	Ant 3	DSI 4	20175	1732.5	23.99	24.70	1.178	-	-	-0.17	0.554	0.652
	LTE Band 4 Other PA	20M	QPSK	100	0	-	Back	15mm	Ant 3	DSI 4	20175	1732.5	23.94	24.70	1.191	-	-	0.05	0.510	0.608
	LTE Band 4 Other PA	20M	QPSK	1	0	-	Front	15mm	Ant 6	DSI 4	20175	1732.5	20.93	22.00	1.279	-	-	-0.17	0.229	0.293
	LTE Band 4 Other PA	20M	QPSK	50	0	-	Front	15mm	Ant 6	DSI 4	20175	1732.5	20.91	22.00	1.285	-	-	0.04	0.236	0.303
	LTE Band 4 Other PA	20M	QPSK	1	0	-	Back	15mm	Ant 6	DSI 4	20175	1732.5	20.93	22.00	1.279	-	-	-0.01	0.288	0.368
	LTE Band 4 Other PA	20M	QPSK	50	0	-	Back	15mm	Ant 6	DSI 4	20175	1732.5	20.91	22.00	1.285	-	-	-0.01	0.296	0.380
	LTE Band 66	20M	QPSK	1	0	-	Front	15mm	Ant 4	DSI 4	132322	1745	23.95	25.00	1.274	-	-	-0.15	0.503	0.641
	LTE Band 66	20M	QPSK	50	0	-	Front	15mm	Ant 4	DSI 4	132322	1745	22.96	24.00	1.271	-	-	0.04	0.384	0.488
	LTE Band 66	20M	QPSK	1	0	-	Back	15mm	Ant 4	DSI 4	132322	1745	23.95	25.00	1.274	-	-	-0.01	0.486	0.619
	LTE Band 66	20M	QPSK	50	0	-	Back	15mm	Ant 4	DSI 4	132322	1745	22.96	24.00	1.271	-	-	-0.08	0.424	0.539
	LTE Band 66	20M	QPSK	1	0	-	Front	15mm	Ant 5	DSI 4	132322	1745	22.16	23.00	1.213	-	-	-0.08	0.177	0.215
	LTE Band 66	20M	QPSK	50	0	-	Front	15mm	Ant 5	DSI 4	132322	1745	22.07	23.00	1.239	-	-	-0.03	0.185	0.229
	LTE Band 66	20M	QPSK	1	0	-	Back	15mm	Ant 5	DSI 4	132322	1745	22.16	23.00	1.213	-	-	0.1	0.165	0.200
	LTE Band 66	20M	QPSK	50	0	-	Back	15mm	Ant 5	DSI 4	132322	1745	22.07	23.00	1.239	-	-	-0.18	0.175	0.217
	LTE Band 66 Other PA	20M	QPSK	1	0	-	Front	15mm	Ant 3	DSI 4	132322	1745	24.13	25.00	1.222	-	-	0.08	0.579	0.707
	LTE Band 66 Other PA	20M	QPSK	50	0	-	Front	15mm	Ant 3	DSI 4	132322	1745	23.18	24.00	1.208	-	-	0.01	0.463	0.559
81	LTE Band 66 Other PA	20M	QPSK	1	0	-	Back	15mm	Ant 3	DSI 4	132322	1745	24.13	25.00	1.222	-	-	0.01	0.618	**0.755**
	LTE Band 66 Other PA	20M	QPSK	50	0	-	Back	15mm	Ant 3	DSI 4	132322	1745	23.18	24.00	1.208	-	-	0.03	0.507	0.612
	LTE Band 66 Other PA	20M	QPSK	1	0	-	Front	15mm	Ant 6	DSI 4	132322	1745	21.97	23.00	1.268	-	-	-0.08	0.227	0.288
	LTE Band 66 Other PA	20M	QPSK	50	0	-	Front	15mm	Ant 6	DSI 4	132322	1745	21.96	23.00	1.271	-	-	0.05	0.232	0.295

	LTE Band 66 Other PA	20M	QPSK	1	0	-	Back	15mm	Ant 6	DSI 4	132322	1745	21.97	23.00	1.268	-	-	-0.08	0.309	0.392
	LTE Band 66 Other PA	20M	QPSK	50	0	-	Back	15mm	Ant 6	DSI 4	132322	1745	21.96	23.00	1.271	-	-	0.06	0.296	0.376
	FR1 n66	45M	QPSK	1	1	DFT-SCS-15KHz	Front	15mm	Ant 4	DSI 4	349000	1745	24.51	25.00	1.119	-	-	-0.03	0.543	0.608
	FR1 n66	45M	QPSK	120	60	DFT-SCS-15KHz	Front	15mm	Ant 4	DSI 4	349000	1745	24.13	25.00	1.222	-	-	0.14	0.527	0.644
	FR1 n66	45M	QPSK	1	1	DFT-SCS-15KHz	Back	15mm	Ant 4	DSI 4	349000	1745	24.51	25.00	1.119	-	-	-0.15	0.588	0.658
	FR1 n66	45M	QPSK	120	60	DFT-SCS-15KHz	Back	15mm	Ant 4	DSI 4	349000	1745	24.13	25.00	1.222	-	-	0.11	0.529	0.646
	FR1 n66	45M	QPSK	1	1	DFT-SCS-15KHz	Front	15mm	Ant 5	DSI 4	349000	1745	23.58	24.40	1.208	-	-	0.01	0.219	0.265
	FR1 n66	45M	QPSK	120	60	DFT-SCS-15KHz	Front	15mm	Ant 5	DSI 4	349000	1745	23.47	24.40	1.239	-	-	-0.01	0.249	0.308
	FR1 n66	45M	QPSK	1	1	DFT-SCS-15KHz	Back	15mm	Ant 5	DSI 4	349000	1745	23.58	24.40	1.208	-	-	0.1	0.210	0.254
	FR1 n66	45M	QPSK	120	60	DFT-SCS-15KHz	Back	15mm	Ant 5	DSI 4	349000	1745	23.47	24.40	1.239	-	-	-0.17	0.248	0.307
	FR1 n66 Other PA	45M	QPSK	1	1	DFT-SCS-15KHz	Front	15mm	Ant 3	DSI 4	349000	1745	24.19	25.00	1.205	-	-	-0.05	0.477	0.575
	FR1 n66 Other PA	45M	QPSK	120	60	DFT-SCS-15KHz	Front	15mm	Ant 3	DSI 4	349000	1745	23.93	25.00	1.279	-	-	0.18	0.480	0.614
	FR1 n66 Other PA	45M	QPSK	1	1	DFT-SCS-15KHz	Back	15mm	Ant 3	DSI 4	349000	1745	24.19	25.00	1.205	-	-	0.14	0.540	0.651
82	FR1 n66 Other PA	45M	QPSK	120	60	DFT-SCS-15KHz	Back	15mm	Ant 3	DSI 4	349000	1745	23.93	25.00	1.279	-	-	0.01	0.541	**0.692**
	FR1 n66 Other PA	45M	QPSK	1	1	DFT-SCS-15KHz	Front	15mm	Ant 6	DSI 4	349000	1745	22.09	22.90	1.205	-	-	-0.08	0.208	0.251
	FR1 n66 Other PA	45M	QPSK	120	60	DFT-SCS-15KHz	Front	15mm	Ant 6	DSI 4	349000	1745	22.04	22.90	1.219	-	-	0.05	0.214	0.261
	FR1 n66 Other PA	45M	QPSK	1	1	DFT-SCS-15KHz	Back	15mm	Ant 6	DSI 4	349000	1745	22.09	22.90	1.205	-	-	0.06	0.286	0.345
	FR1 n66 Other PA	45M	QPSK	120	60	DFT-SCS-15KHz	Back	15mm	Ant 6	DSI 4	349000	1745	22.04	22.90	1.219	-	-	-0.09	0.312	0.380
1900MHz																				
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Front	15mm	Ant 4	DSI 4	661	1880	23.92	25.50	1.439	-	-	0.01	0.163	0.235
83	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Back	15mm	Ant 4	DSI 4	661	1880	23.92	25.50	1.439	-	-	-0.09	0.224	**0.322**
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Front	15mm	Ant 5	DSI 4	661	1880	24.06	25.40	1.361	-	-	0.01	0.109	0.148
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Back	15mm	Ant 5	DSI 4	661	1880	24.06	25.40	1.361	-	-	-0.07	0.117	0.159
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 4	DSI 4	9400	1880	24.15	25.00	1.216	-	-	0.02	0.561	0.682
84	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 4	DSI 4	9400	1880	24.15	25.00	1.216	-	-	-0.1	0.650	**0.791**
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 5	DSI 4	9400	1880	21.48	22.70	1.324	-	-	0.08	0.201	0.266
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 5	DSI 4	9400	1880	21.48	22.70	1.324	-	-	-0.18	0.224	0.297
	LTE Band 2	20M	QPSK	1	0	-	Front	15mm	Ant 4	DSI 4	18900	1880	23.93	25.00	1.279	-	-	0.05	0.431	0.551
	LTE Band 2	20M	QPSK	50	0	-	Front	15mm	Ant 4	DSI 4	18900	1880	22.97	24.00	1.268	-	-	0.06	0.363	0.460
85	LTE Band 2	20M	QPSK	1	0	-	Back	15mm	Ant 4	DSI 4	18900	1880	23.93	25.00	1.279	-	-	0.05	0.554	**0.709**
	LTE Band 2	20M	QPSK	50	0	-	Back	15mm	Ant 4	DSI 4	18900	1880	22.97	24.00	1.268	-	-	-0.09	0.450	0.570
	LTE Band 2	20M	QPSK	1	0	-	Front	15mm	Ant 5	DSI 4	18900	1880	21.65	22.60	1.245	-	-	0.1	0.190	0.236
	LTE Band 2	20M	QPSK	50	0	-	Front	15mm	Ant 5	DSI 4	18900	1880	21.61	22.60	1.256	-	-	0.12	0.192	0.241
	LTE Band 2	20M	QPSK	1	0	-	Back	15mm	Ant 5	DSI 4	18900	1880	21.65	22.60	1.245	-	-	0.08	0.231	0.287
	LTE Band 2	20M	QPSK	50	0	-	Back	15mm	Ant 5	DSI 4	18900	1880	21.61	22.60	1.256	-	-	-0.02	0.234	0.294
	LTE Band 25	20M	QPSK	1	0	-	Front	15mm	Ant 4	DSI 4	26340	1880	24.02	25.00	1.253	-	-	-0.08	0.252	0.316
	LTE Band 25	20M	QPSK	50	0	-	Front	15mm	Ant 4	DSI 4	26340	1880	23.04	24.00	1.247	-	-	0.13	0.231	0.288
86	LTE Band 25	20M	QPSK	1	0	-	Back	15mm	Ant 4	DSI 4	26340	1880	24.02	25.00	1.253	-	-	-0.1	0.310	**0.388**
	LTE Band 25	20M	QPSK	50	0	-	Back	15mm	Ant 4	DSI 4	26340	1880	23.04	24.00	1.247	-	-	0.12	0.282	0.352
	LTE Band 25	20M	QPSK	1	0	-	Front	15mm	Ant 5	DSI 4	26340	1880	20.21	21.20	1.256	-	-	0.18	0.117	0.147
	LTE Band 25	20M	QPSK	50	0	-	Front	15mm	Ant 5	DSI 4	26340	1880	20.15	21.20	1.274	-	-	-0.1	0.120	0.153
	LTE Band 25	20M	QPSK	1	0	-	Back	15mm	Ant 5	DSI 4	26340	1880	20.21	21.20	1.256	-	-	0.01	0.145	0.182
	LTE Band 25	20M	QPSK	50	0	-	Back	15mm	Ant 5	DSI 4	26340	1880	20.15	21.20	1.274	-	-	-0.15	0.150	0.191
	FR1 n2	40M	QPSK	1	1	DFT-SCS-15KHz	Front	15mm	Ant 4	DSI 4	376000	1880	24.45	25.00	1.135	-	-	-0.05	0.559	0.634
	FR1 n2	40M	QPSK	108	54	DFT-SCS-15KHz	Front	15mm	Ant 4	DSI 4	376000	1880	24.28	25.00	1.180	-	-	0.18	0.497	0.587
87	FR1 n2	40M	QPSK	1	1	DFT-SCS-15KHz	Back	15mm	Ant 4	DSI 4	376000	1880	24.45	25.00	1.135	-	-	-0.04	0.695	**0.789**
	FR1 n2	40M	QPSK	108	54	DFT-SCS-15KHz	Back	15mm	Ant 4	DSI 4	376000	1880	24.28	25.00	1.180	-	-	0.14	0.616	0.727
	FR1 n2	40M	QPSK	1	1	DFT-SCS-15KHz	Front	15mm	Ant 5	DSI 4	376000	1880	22.10	22.80	1.175	-	-	-0.08	0.226	0.266
	FR1 n2	40M	QPSK	108	54	DFT-SCS-15KHz	Front	15mm	Ant 5	DSI 4	376000	1880	22.09	22.80	1.178	-	-	0.13	0.249	0.293
	FR1 n2	40M	QPSK	1	1	DFT-SCS-15KHz	Back	15mm	Ant 5	DSI 4	376000	1880	22.10	22.80	1.175	-	-	0.12	0.268	0.315
	FR1 n2	40M	QPSK	108	54	DFT-SCS-15KHz	Back	15mm	Ant 5	DSI 4	376000	1880	22.09	22.80	1.178	-	-	-0.02	0.283	0.333
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Front	15mm	Ant 4	DSI 4	376500	1882.5	24.45	25.00	1.135	-	-	0.17	0.402	0.456

	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Front	15mm	Ant 4	DSI 4	376500	1882.5	24.42	25.00	1.143	-	-	-0.05	0.404	0.462
88	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Back	15mm	Ant 4	DSI 4	376500	1882.5	24.45	25.00	1.135	-	-	-0.15	0.503	**0.571**
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Back	15mm	Ant 4	DSI 4	376500	1882.5	24.42	25.00	1.143	-	-	0.01	0.497	0.568
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Front	15mm	Ant 5	DSI 4	376500	1882.5	22.31	22.80	1.119	-	-	0.18	0.229	0.256
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Front	15mm	Ant 5	DSI 4	376500	1882.5	22.25	22.80	1.135	-	-	0.16	0.219	0.249
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Back	15mm	Ant 5	DSI 4	376500	1882.5	22.31	22.80	1.119	-	-	-0.1	0.268	0.300
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Back	15mm	Ant 5	DSI 4	376500	1882.5	22.25	22.80	1.135	-	-	0.07	0.260	0.295
2600MHz																				
	LTE Band 7	20M	QPSK	1	0	-	Front	15mm	Ant 4	DSI 4	21100	2535	25.03	25.70	1.167	-	-	0.03	0.568	0.663
	LTE Band 7	20M	QPSK	50	0	-	Front	15mm	Ant 4	DSI 4	21100	2535	24.03	24.70	1.167	-	-	0.18	0.451	0.526
	LTE Band 7	20M	QPSK	1	0	-	Back	15mm	Ant 4	DSI 4	21100	2535	25.03	25.70	1.167	-	-	0.16	0.761	0.888
	LTE Band 7	20M	QPSK	1	0	-	Back	15mm	Ant 4	DSI 4	20850	2510	24.99	25.70	1.178	-	-	-0.1	0.727	0.856
89	LTE Band 7	20M	QPSK	1	0	-	Back	15mm	Ant 4	DSI 4	21350	2560	24.95	25.70	1.189	-	-	-0.04	0.764	**0.908**
	LTE Band 7C	20M	QPSK	1	0	-	Back	15mm	Ant 4	DSI 4	21350+ 21152	2560+ 2540.2	24.21	24.70	1.119	-	-	0.01	0.653	0.731
	LTE Band 7	20M	QPSK	50	0	-	Back	15mm	Ant 4	DSI 4	21100	2535	24.03	24.70	1.167	-	-	0.07	0.608	0.709
	LTE Band 7	20M	QPSK	100	0	-	Back	15mm	Ant 4	DSI 4	21100	2535	23.99	24.70	1.178	-	-	0.18	0.653	0.769
	LTE Band 7	20M	QPSK	1	0	-	Front	15mm	Ant 5	DSI 4	21100	2535	18.81	19.60	1.199	-	-	0.03	0.058	0.070
	LTE Band 7	20M	QPSK	50	0	-	Front	15mm	Ant 5	DSI 4	21100	2535	18.78	19.60	1.208	-	-	-0.08	0.058	0.070
	LTE Band 7	20M	QPSK	1	0	-	Back	15mm	Ant 5	DSI 4	21100	2535	18.81	19.60	1.199	-	-	0.14	0.085	0.102
	LTE Band 7C	20M	QPSK	1	99	-	Back	15mm	Ant 5	DSI 4	21100+ 21298	2535+ 2554.8	17.78	18.60	1.208	-	-	0.01	0.051	0.062
	LTE Band 7	20M	QPSK	50	0	-	Back	15mm	Ant 5	DSI 4	21100	2535	18.78	19.60	1.208	-	-	-0.08	0.083	0.100
	LTE Band 7 Other PA	20M	QPSK	1	0	-	Front	15mm	Ant 3	DSI 4	21100	2535	23.87	25.50	1.455	-	-	-0.08	0.299	0.435
	LTE Band 7 Other PA	20M	QPSK	50	0	-	Front	15mm	Ant 3	DSI 4	21100	2535	22.82	24.50	1.472	-	-	-0.08	0.365	0.537
	LTE Band 7 Other PA	20M	QPSK	1	0	-	Back	15mm	Ant 3	DSI 4	21100	2535	23.87	25.50	1.455	-	-	-0.09	0.471	0.686
	LTE Band 7C Other PA	20M	QPSK	1	99	-	Back	15mm	Ant 3	DSI 4	21100+ 21298	2535+ 2554.8	22.44	24.00	1.432	-	-	0.01	0.415	0.594
	LTE Band 7 Other PA	20M	QPSK	50	0	-	Back	15mm	Ant 3	DSI 4	21100	2535	22.82	24.50	1.472	-	-	0.1	0.385	0.567
	LTE Band 7 Other PA	20M	QPSK	1	0	-	Front	15mm	Ant 6	DSI 4	21100	2535	19.61	20.30	1.172	-	-	-0.09	0.193	0.226
	LTE Band 7 Other PA	20M	QPSK	50	0	-	Front	15mm	Ant 6	DSI 4	21100	2535	19.55	20.30	1.189	-	-	-0.08	0.199	0.237
	LTE Band 7 Other PA	20M	QPSK	1	0	-	Back	15mm	Ant 6	DSI 4	21100	2535	19.61	20.30	1.172	-	-	0.13	0.281	0.329
	LTE Band 7C Other PA	20M	QPSK	1	99	-	Back	15mm	Ant 6	DSI 4	21100+ 21298	2535+ 2554.8	19.25	20.30	1.274	-	-	0.03	0.243	0.309
	LTE Band 7 Other PA	20M	QPSK	50	0	-	Back	15mm	Ant 6	DSI 4	21100	2535	19.55	20.30	1.189	-	-	-0.02	0.268	0.319
	LTE Band 38	20M	QPSK	1	0	-	Front	15mm	Ant 4	DSI 4	38000	2595	25.11	25.70	1.146	62.9	1.006	-0.1	0.336	0.387
	LTE Band 38	20M	QPSK	50	0	-	Front	15mm	Ant 4	DSI 4	38000	2595	24.13	24.70	1.140	62.9	1.006	0.01	0.274	0.314
90	LTE Band 38	20M	QPSK	1	0	-	Back	15mm	Ant 4	DSI 4	38000	2595	25.11	25.70	1.146	62.9	1.006	0.03	0.474	**0.546**
	LTE Band 38C	20M	QPSK	1	99	-	Back	15mm	Ant 4	DSI 4	37901+ 38099	2585.1+ 2604.9	24.25	24.70	1.109	62.9	1.006	0.01	0.415	0.463
	LTE Band 38	20M	QPSK	50	0	-	Back	15mm	Ant 4	DSI 4	38000	2595	24.13	24.70	1.140	62.9	1.006	-0.15	0.384	0.440
	LTE Band 38	20M	QPSK	1	0	-	Front	15mm	Ant 5	DSI 4	38000	2595	20.75	21.50	1.189	62.9	1.006	0.1	0.073	0.087
	LTE Band 38	20M	QPSK	50	0	-	Front	15mm	Ant 5	DSI 4	38000	2595	20.67	21.50	1.211	62.9	1.006	-0.18	0.070	0.085
	LTE Band 38	20M	QPSK	1	0	-	Back	15mm	Ant 5	DSI 4	38000	2595	20.75	21.50	1.189	62.9	1.006	0.14	0.098	0.117
	LTE Band 38C	20M	QPSK	1	99	-	Back	15mm	Ant 5	DSI 4	37901+ 38099	2585.1+ 2604.9	19.56	20.50	1.242	62.9	1.006	0.03	0.045	0.056
	LTE Band 38	20M	QPSK	50	0	-	Back	15mm	Ant 5	DSI 4	38000	2595	20.67	21.50	1.211	62.9	1.006	0.1	0.096	0.117
	LTE Band 38 Other PA	20M	QPSK	1	0	-	Front	15mm	Ant 3	DSI 4	38000	2595	24.11	25.00	1.227	62.9	1.006	-0.18	0.259	0.320
	LTE Band 38 Other PA	20M	QPSK	50	0	-	Front	15mm	Ant 3	DSI 4	38000	2595	23.12	24.00	1.225	62.9	1.006	0.1	0.211	0.260
	LTE Band 38 Other PA	20M	QPSK	1	0	-	Back	15mm	Ant 3	DSI 4	38000	2595	24.11	25.00	1.227	62.9	1.006	0.1	0.304	0.375
	LTE Band 38C Other PA	20M	QPSK	1	99	-	Back	15mm	Ant 3	DSI 4	37901+ 38099	2585.1+ 2604.9	22.73	24.00	1.340	62.9	1.006	0.01	0.215	0.290
	LTE Band 38 Other PA	20M	QPSK	50	0	-	Back	15mm	Ant 3	DSI 4	38000	2595	23.12	24.00	1.225	62.9	1.006	0.12	0.257	0.317
	LTE Band 38 Other PA	20M	QPSK	1	0	-	Front	15mm	Ant 6	DSI 4	38000	2595	22.40	23.40	1.259	62.9	1.006	0.12	0.250	0.317
	LTE Band 38 Other PA	20M	QPSK	50	0	-	Front	15mm	Ant 6	DSI 4	38000	2595	22.36	23.40	1.271	62.9	1.006	0.03	0.196	0.251
	LTE Band 38 Other PA	20M	QPSK	1	0	-	Back	15mm	Ant 6	DSI 4	38000	2595	22.40	23.40	1.259	62.9	1.006	-0.02	0.375	0.475

	LTE Band 38C Other PA	20M	QPSK	1	99	-	Back	15mm	Ant 6	DSI 4	37901+38099	2585.1+2604.9	15.65	16.40	1.189	62.9	1.006	0.01	0.312	0.373
	LTE Band 38 Other PA	20M	QPSK	50	0	-	Back	15mm	Ant 6	DSI 4	38000	2595	22.36	23.40	1.271	62.9	1.006	0.18	0.292	0.373
	LTE Band 41	20M	QPSK	1	0	-	Front	15mm	Ant 4	DSI 4	40620	2593	25.14	25.70	1.138	62.9	1.006	0.19	0.287	0.328
	LTE Band 41	20M	QPSK	50	0	-	Front	15mm	Ant 4	DSI 4	40620	2593	24.16	24.70	1.132	62.9	1.006	0.07	0.237	0.270
91	LTE Band 41	20M	QPSK	1	0	-	Back	15mm	Ant 4	DSI 4	40620	2593	25.14	25.70	1.138	62.9	1.006	0.06	0.411	**0.470**
	LTE Band 41C	20M	QPSK	1	99	-	Back	15mm	Ant 4	DSI 4	40620+40818	2593+2612.8	24.15	24.70	1.135	62.9	1.006	0.03	0.315	0.360
	LTE Band 41	20M	QPSK	50	0	-	Back	15mm	Ant 4	DSI 4	40620	2593	24.16	24.70	1.132	62.9	1.006	-0.18	0.339	0.386
	LTE Band 41	20M	QPSK	1	0	-	Front	15mm	Ant 5	DSI 4	40620	2593	20.49	21.40	1.233	62.9	1.006	0.12	0.067	0.083
	LTE Band 41	20M	QPSK	50	0	-	Front	15mm	Ant 5	DSI 4	40620	2593	20.46	21.40	1.242	62.9	1.006	0.08	0.066	0.082
	LTE Band 41	20M	QPSK	1	0	-	Back	15mm	Ant 5	DSI 4	40620	2593	20.49	21.40	1.233	62.9	1.006	0.01	0.094	0.117
	LTE Band 41C	20M	QPSK	1	99	-	Back	15mm	Ant 5	DSI 4	40620+40818	2593+2612.8	19.55	20.40	1.216	62.9	1.006	0.02	0.045	0.055
	LTE Band 41	20M	QPSK	50	0	-	Back	15mm	Ant 5	DSI 4	40620	2593	20.46	21.40	1.242	62.9	1.006	-0.17	0.091	0.114
	LTE Band 41 Other PA	20M	QPSK	1	0	-	Front	15mm	Ant 3	DSI 4	40620	2593	24.10	25.00	1.230	62.9	1.006	0.08	0.239	0.296
	LTE Band 41 Other PA	20M	QPSK	50	0	-	Front	15mm	Ant 3	DSI 4	40620	2593	23.14	24.00	1.219	62.9	1.006	-0.17	0.195	0.239
	LTE Band 41 Other PA	20M	QPSK	1	0	-	Back	15mm	Ant 3	DSI 4	40620	2593	24.10	25.00	1.230	62.9	1.006	0.08	0.296	0.366
	LTE Band 41C Other PA	20M	QPSK	1	99	-	Back	15mm	Ant 3	DSI 4	40620+40818	2593+2612.8	22.97	24.00	1.268	62.9	1.006	0.01	0.231	0.295
	LTE Band 41 Other PA	20M	QPSK	50	0	-	Back	15mm	Ant 3	DSI 4	40620	2593	23.14	24.00	1.219	62.9	1.006	-0.03	0.228	0.280
	LTE Band 41 Other PA	20M	QPSK	1	0	-	Front	15mm	Ant 6	DSI 4	40620	2593	22.53	23.40	1.222	62.9	1.006	0.16	0.250	0.307
	LTE Band 41 Other PA	20M	QPSK	50	0	-	Front	15mm	Ant 6	DSI 4	40620	2593	22.48	23.40	1.236	62.9	1.006	-0.1	0.199	0.247
	LTE Band 41 Other PA	20M	QPSK	1	0	-	Back	15mm	Ant 6	DSI 4	40620	2593	22.53	23.40	1.222	62.9	1.006	0.07	0.289	0.355
	LTE Band 41C Other PA	20M	QPSK	1	99	-	Back	15mm	Ant 6	DSI 4	40620+40818	2593+2612.8	20.56	21.40	1.213	62.9	1.006	0.04	0.216	0.264
	LTE Band 41 Other PA	20M	QPSK	50	0	-	Back	15mm	Ant 6	DSI 4	40620	2593	22.48	23.40	1.236	62.9	1.006	0.01	0.275	0.342
	FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Front	15mm	Ant 4	DSI 4	507000	2535	25.50	25.70	1.047	-	-	-0.17	0.673	0.705
	FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Front	15mm	Ant 4	DSI 4	507000	2535	24.43	25.70	1.340	-	-	0.04	0.463	0.620
92	FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Back	15mm	Ant 4	DSI 4	507000	2535	25.50	25.70	1.047	-	-	-0.16	0.924	**0.968**
	FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Back	15mm	Ant 4	DSI 4	507000	2535	24.43	25.70	1.340	-	-	-0.08	0.652	0.873
	FR1 n7	50M	QPSK	270	0	DFT-SCS-15KHz	Back	15mm	Ant 4	DSI 4	507000	2535	23.51	24.70	1.315	-	-	0.05	0.591	0.777
	FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Front	15mm	Ant 5	DSI 4	507000	2535	19.63	20.10	1.114	-	-	0.06	0.109	0.121
	FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Front	15mm	Ant 5	DSI 4	507000	2535	19.53	20.10	1.140	-	-	-0.09	0.110	0.125
	FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Back	15mm	Ant 5	DSI 4	507000	2535	19.63	20.10	1.114	-	-	-0.09	0.159	0.177
	FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Back	15mm	Ant 5	DSI 4	507000	2535	19.53	20.10	1.140	-	-	-0.08	0.150	0.171
	FR1 n7 Other PA	50M	QPSK	1	1	DFT-SCS-15KHz	Front	15mm	Ant 3	DSI 4	507000	2535	24.37	25.00	1.156	-	-	0.12	0.374	0.432
	FR1 n7 Other PA	50M	QPSK	135	68	DFT-SCS-15KHz	Front	15mm	Ant 3	DSI 4	507000	2535	24.14	25.00	1.219	-	-	0.03	0.352	0.429
	FR1 n7 Other PA	50M	QPSK	1	1	DFT-SCS-15KHz	Back	15mm	Ant 3	DSI 4	507000	2535	24.37	25.00	1.156	-	-	0.07	0.493	0.570
	FR1 n7 Other PA	50M	QPSK	135	68	DFT-SCS-15KHz	Back	15mm	Ant 3	DSI 4	507000	2535	24.14	25.00	1.219	-	-	0.18	0.458	0.558
	FR1 n7 Other PA	50M	QPSK	1	1	DFT-SCS-15KHz	Front	15mm	Ant 6	DSI 4	507000	2535	21.76	22.60	1.213	-	-	-0.1	0.327	0.397
	FR1 n7 Other PA	50M	QPSK	135	68	DFT-SCS-15KHz	Front	15mm	Ant 6	DSI 4	507000	2535	21.56	22.60	1.271	-	-	0.07	0.360	0.457
	FR1 n7 Other PA	50M	QPSK	1	1	DFT-SCS-15KHz	Back	15mm	Ant 6	DSI 4	507000	2535	21.76	22.60	1.213	-	-	0.18	0.493	0.598
	FR1 n7 Other PA	50M	QPSK	135	68	DFT-SCS-15KHz	Back	15mm	Ant 6	DSI 4	507000	2535	21.56	22.60	1.271	-	-	-0.04	0.519	0.659
	FR1 n38	40M	QPSK	1	1	DFT-SCS-30KHz	Front	15mm	Ant 4	DSI 4	519000	2595	25.31	25.70	1.094	-	-	-0.1	0.550	0.602
	FR1 n38	40M	QPSK	50	28	DFT-SCS-30KHz	Front	15mm	Ant 4	DSI 4	519000	2595	25.04	25.70	1.164	-	-	0.01	0.494	0.575
93	FR1 n38	40M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 4	DSI 4	519000	2595	25.31	25.70	1.094	-	-	-0.03	0.767	**0.839**
	FR1 n38	40M	QPSK	50	28	DFT-SCS-30KHz	Back	15mm	Ant 4	DSI 4	519000	2595	25.04	25.70	1.164	-	-	-0.15	0.693	0.807
	FR1 n38	40M	QPSK	100	0	DFT-SCS-30KHz	Back	15mm	Ant 4	DSI 4	519000	2595	24.16	24.70	1.132	-	-	0.19	0.570	0.645
	FR1 n38	40M	QPSK	1	1	DFT-SCS-30KHz	Front	15mm	Ant 5	DSI 4	519000	2595	18.49	19.50	1.262	-	-	0.19	0.077	0.097
	FR1 n38	40M	QPSK	50	28	DFT-SCS-30KHz	Front	15mm	Ant 5	DSI 4	519000	2595	18.43	19.50	1.279	-	-	0.07	0.069	0.088
	FR1 n38	40M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 5	DSI 4	519000	2595	18.49	19.50	1.262	-	-	-0.18	0.106	0.134
	FR1 n38	40M	QPSK	50	28	DFT-SCS-30KHz	Back	15mm	Ant 5	DSI 4	519000	2595	18.43	19.50	1.279	-	-	0.03	0.098	0.125
	FR1 n38 Other PA	40M	QPSK	1	1	DFT-SCS-30KHz	Front	15mm	Ant 3	DSI 4	519000	2595	24.02	25.00	1.253	-	-	-0.03	0.367	0.460
	FR1 n38 Other PA	40M	QPSK	50	28	DFT-SCS-30KHz	Front	15mm	Ant 3	DSI 4	519000	2595	23.70	24.00	1.072	-	-	0.14	0.348	0.373
	FR1 n38 Other PA	40M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 3	DSI 4	519000	2595	24.02	25.00	1.253	-	-	0.11	0.439	0.550

	FR1 n38 Other PA	40M	QPSK	50	28	DFT-SCS-30KHz	Back	15mm	Ant 3	DSI 4	519000	2595	23.70	24.00	1.072	-	-	-0.03	0.450	0.482
	FR1 n38 Other PA	40M	QPSK	1	1	DFT-SCS-30KHz	Front	15mm	Ant 6	DSI 4	519000	2595	20.50	21.80	1.349	-	-	0.12	0.282	0.380
	FR1 n38 Other PA	40M	QPSK	50	28	DFT-SCS-30KHz	Front	15mm	Ant 6	DSI 4	519000	2595	20.37	21.80	1.390	-	-	0.08	0.279	0.388
	FR1 n38 Other PA	40M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 6	DSI 4	519000	2595	20.50	21.80	1.349	-	-	-0.02	0.418	0.564
	FR1 n38 Other PA	40M	QPSK	50	28	DFT-SCS-30KHz	Back	15mm	Ant 6	DSI 4	519000	2595	20.37	21.80	1.390	-	-	-0.17	0.412	0.573
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Front	15mm	Ant 4	DSI 4	518598	2592.99	25.41	25.70	1.069	-	-	0.07	0.687	0.734
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Front	15mm	Ant 4	DSI 4	518598	2592.99	25.37	25.70	1.079	-	-	-0.18	0.609	0.657
94	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 4	DSI 4	518598	2592.99	25.41	25.70	1.069	-	-	-0.05	0.929	**0.993**
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 4	DSI 4	518598	2592.99	25.37	25.70	1.079	-	-	-0.15	0.836	0.902
	FR1 n41	100M	QPSK	270	0	DFT-SCS-30KHz	Back	15mm	Ant 4	DSI 4	518598	2592.99	24.43	24.70	1.064	-	-	-0.15	0.634	0.675
	FR1 n41 PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 4	DSI 4	518598	2592.99	26.44	27.00	1.138	50	1.000	0.01	0.643	0.731
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Front	15mm	Ant 5	DSI 4	518598	2592.99	18.32	19.20	1.225	-	-	0.11	0.107	0.131
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Front	15mm	Ant 5	DSI 4	518598	2592.99	18.27	19.20	1.239	-	-	-0.08	0.106	0.131
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 5	DSI 4	518598	2592.99	18.32	19.20	1.225	-	-	-0.17	0.148	0.181
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 5	DSI 4	518598	2592.99	18.27	19.20	1.239	-	-	-0.06	0.155	0.192
	FR1 n41 PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 5	DSI 4	518598	2592.99	21.34	22.20	1.219	50	1.000	0.03	0.142	0.173
	FR1 n41 Other PA	100M	QPSK	1	1	DFT-SCS-30KHz	Front	15mm	Ant 3	DSI 4	518598	2592.99	24.32	25.00	1.169	-	-	0.08	0.510	0.596
	FR1 n41 Other PA	100M	QPSK	135	69	DFT-SCS-30KHz	Front	15mm	Ant 3	DSI 4	518598	2592.99	24.28	25.00	1.180	-	-	0.01	0.398	0.470
	FR1 n41 Other PA	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 3	DSI 4	518598	2592.99	24.32	25.00	1.169	-	-	-0.05	0.612	0.716
	FR1 n41 Other PA	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 3	DSI 4	518598	2592.99	24.28	25.00	1.180	-	-	0.03	0.472	0.557
	FR1 n41 Other PA	100M	QPSK	1	1	DFT-SCS-30KHz	Front	15mm	Ant 6	DSI 4	518598	2592.99	20.70	21.70	1.259	-	-	-0.08	0.342	0.431
	FR1 n41 Other PA	100M	QPSK	135	69	DFT-SCS-30KHz	Front	15mm	Ant 6	DSI 4	518598	2592.99	20.65	21.70	1.274	-	-	-0.08	0.339	0.432
	FR1 n41 Other PA	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 6	DSI 4	518598	2592.99	20.70	21.70	1.259	-	-	-0.03	0.529	0.666
	FR1 n41 Other PA	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 6	DSI 4	518598	2592.99	20.65	21.70	1.274	-	-	-0.18	0.511	0.651
3500MHz																				
	LTE Band 42	20M	QPSK	1	0	-	Front	15mm	Ant 4	DSI 4	42590	3500	24.92	25.70	1.197	62.9	1.006	-0.09	0.397	0.478
	LTE Band 42C	20M	QPSK	1	99	-	Front	15mm	Ant 4	DSI 4	42590+ 42788	3500+ 3519.8	24.15	24.70	1.135	62.9	1.006	0.01	0.315	0.360
	LTE Band 42	20M	QPSK	50	0	-	Front	15mm	Ant 4	DSI 4	42590	3500	23.90	24.70	1.202	62.9	1.006	0.03	0.317	0.383
	LTE Band 42	20M	QPSK	1	0	-	Back	15mm	Ant 4	DSI 4	42590	3500	24.92	25.70	1.197	62.9	1.006	-0.15	0.378	0.455
	LTE Band 42	20M	QPSK	50	0	-	Back	15mm	Ant 4	DSI 4	42590	3500	23.90	24.70	1.202	62.9	1.006	-0.15	0.314	0.380
	LTE Band 42	20M	QPSK	1	0	-	Front	15mm	Ant 5	DSI 4	42590	3500	20.88	21.50	1.153	62.9	1.006	0.14	0.048	0.056
	LTE Band 42	20M	QPSK	50	0	-	Front	15mm	Ant 5	DSI 4	42590	3500	20.83	21.50	1.167	62.9	1.006	0.11	0.047	0.055
	LTE Band 42	20M	QPSK	1	0	-	Back	15mm	Ant 5	DSI 4	42590	3500	20.88	21.50	1.153	62.9	1.006	-0.07	0.085	0.099
	LTE Band 42C	20M	QPSK	1	99	-	Back	15mm	Ant 5	DSI 4	42590+ 42788	3500+ 3519.8	18.45	19.00	1.135	62.9	1.006	0.02	0.051	0.058
	LTE Band 42	20M	QPSK	50	0	-	Back	15mm	Ant 5	DSI 4	42590	3500	20.83	21.50	1.167	62.9	1.006	-0.05	0.076	0.089
	LTE Band 42	20M	QPSK	1	0	-	Front	15mm	Ant 9	DSI 4	42590	3500	24.39	25.50	1.291	62.9	1.006	-0.08	0.000	0.000
	LTE Band 42	20M	QPSK	50	0	-	Front	15mm	Ant 9	DSI 4	42590	3500	23.41	24.50	1.285	62.9	1.006	-0.08	0.030	0.039
95	LTE Band 42	20M	QPSK	1	0	-	Back	15mm	Ant 9	DSI 4	42590	3500	24.39	25.50	1.291	62.9	1.006	-0.06	0.544	**0.707**
	LTE Band 42C	20M	QPSK	1	99	-	Back	15mm	Ant 9	DSI 4	42590+ 42788	3500+ 3519.8	23.89	25.00	1.291	62.9	1.006	0.05	0.451	0.586
	LTE Band 42	20M	QPSK	50	0	-	Back	15mm	Ant 9	DSI 4	42590	3500	23.41	24.50	1.285	62.9	1.006	0.1	0.437	0.565
	LTE Band 42	20M	QPSK	100	0	-	Back	15mm	Ant 9	DSI 4	42590	3500	23.37	24.50	1.297	62.9	1.006	0.07	0.424	0.553
	LTE Band 42	20M	QPSK	1	0	-	Back	15mm	Ant 9	DSI 4	42190	3460	24.31	25.50	1.315	62.9	1.006	0.02	0.513	0.679
	LTE Band 42	20M	QPSK	1	0	-	Back	15mm	Ant 9	DSI 4	42990	3540	24.35	25.50	1.303	62.9	1.006	0.01	0.521	0.683
	LTE Band 42	20M	QPSK	1	0	-	Front	15mm	Ant 8	DSI 4	42590	3500	20.68	21.60	1.236	62.9	1.006	0.18	0.046	0.057
	LTE Band 42	20M	QPSK	50	0	-	Front	15mm	Ant 8	DSI 4	42590	3500	20.12	21.10	1.253	62.9	1.006	0.14	0.057	0.072
	LTE Band 42	20M	QPSK	1	0	-	Back	15mm	Ant 8	DSI 4	42590	3500	20.68	21.60	1.236	62.9	1.006	0.01	0.060	0.075
	LTE Band 42C	20M	QPSK	1	99	-	Back	15mm	Ant 8	DSI 4	42590+ 42788	3500+ 3519.8	20.25	21.10	1.216	62.9	1.006	0.03	0.021	0.026
	LTE Band 42	20M	QPSK	50	0	-	Back	15mm	Ant 8	DSI 4	42590	3500	20.12	21.10	1.253	62.9	1.006	-0.17	0.052	0.066
	LTE Band 48	20M	QPSK	1	0	-	Front	15mm	Ant 4	DSI 4	55830	3609	23.29	24.50	1.321	62.9	1.006	-0.04	0.237	0.315
	LTE Band 48	20M	QPSK	50	0	-	Front	15mm	Ant 4	DSI 4	55830	3609	22.30	23.50	1.318	62.9	1.006	0.08	0.185	0.245
	LTE Band 48	20M	QPSK	1	0	-	Back	15mm	Ant 4	DSI 4	55830	3609	23.29	24.50	1.321	62.9	1.006	-0.17	0.235	0.312

	LTE Band 48	20M	QPSK	50	0	-	Back	15mm	Ant 4	DSI 4	55830	3609	22.30	23.50	1.318	62.9	1.006	-0.03	0.198	0.263
	LTE Band 48	20M	QPSK	1	0	-	Front	15mm	Ant 5	DSI 4	55830	3609	18.98	19.90	1.236	62.9	1.006	0.08	0.049	0.061
	LTE Band 48	20M	QPSK	50	0	-	Front	15mm	Ant 5	DSI 4	55830	3609	18.93	19.90	1.250	62.9	1.006	0.01	0.053	0.067
	LTE Band 48	20M	QPSK	1	0	-	Back	15mm	Ant 5	DSI 4	55830	3609	18.98	19.90	1.236	62.9	1.006	0.03	0.070	0.087
	LTE Band 48	20M	QPSK	50	0	-	Back	15mm	Ant 5	DSI 4	55830	3609	18.93	19.90	1.250	62.9	1.006	0.03	0.071	0.089
	LTE Band 48	20M	QPSK	1	0	-	Front	15mm	Ant 9	DSI 4	55830	3609	23.35	24.40	1.274	62.9	1.006	-0.18	0.037	0.047
	LTE Band 48	20M	QPSK	50	0	-	Front	15mm	Ant 9	DSI 4	55830	3609	22.38	23.40	1.265	62.9	1.006	0.1	0.028	0.036
96	LTE Band 48	20M	QPSK	1	0	-	Back	15mm	Ant 9	DSI 4	55830	3609	23.35	24.40	1.274	62.9	1.006	-0.07	0.348	**0.446**
	LTE Band 48	20M	QPSK	50	0	-	Back	15mm	Ant 9	DSI 4	55830	3609	22.38	23.40	1.265	62.9	1.006	0.12	0.274	0.349
	LTE Band 48	20M	QPSK	1	0	-	Front	15mm	Ant 8	DSI 4	55830	3609	19.65	20.70	1.274	62.9	1.006	0.01	0.155	0.199
	LTE Band 48	20M	QPSK	50	0	-	Front	15mm	Ant 8	DSI 4	55830	3609	18.66	20.20	1.426	62.9	1.006	0.17	0.129	0.185
	LTE Band 48	20M	QPSK	1	0	-	Back	15mm	Ant 8	DSI 4	55830	3609	19.65	20.70	1.274	62.9	1.006	-0.05	0.122	0.156
	LTE Band 48	20M	QPSK	50	0	-	Back	15mm	Ant 8	DSI 4	55830	3609	18.66	20.20	1.426	62.9	1.006	0.01	0.106	0.152
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Front	15mm	Ant 4	DSI 4	641666	3624.99	23.65	24.50	1.216	-	-	0.07	0.465	0.566
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Front	15mm	Ant 4	DSI 4	641666	3624.99	23.56	24.50	1.242	-	-	0.18	0.459	0.570
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 4	DSI 4	641666	3624.99	23.65	24.50	1.216	-	-	-0.09	0.498	0.606
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Back	15mm	Ant 4	DSI 4	641666	3624.99	23.56	24.50	1.242	-	-	-0.1	0.481	0.597
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Front	15mm	Ant 5	DSI 4	641666	3624.99	17.13	18.50	1.371	-	-	0.03	0.079	0.108
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Front	15mm	Ant 5	DSI 4	641666	3624.99	17.10	18.50	1.380	-	-	0.18	0.076	0.105
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 5	DSI 4	641666	3624.99	17.13	18.50	1.371	-	-	0.16	0.122	0.167
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Back	15mm	Ant 5	DSI 4	641666	3624.99	17.10	18.50	1.380	-	-	-0.1	0.133	0.184
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Front	15mm	Ant 9	DSI 4	641666	3624.99	23.31	24.20	1.227	-	-	0.01	0.000	0.000
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Front	15mm	Ant 9	DSI 4	641666	3624.99	23.29	24.20	1.233	-	-	-0.15	0.000	0.000
97	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 9	DSI 4	641666	3624.99	23.31	24.20	1.227	-	-	-0.06	0.737	**0.905**
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 9	DSI 4	638000	3570	23.02	24.20	1.312	-	-	0.07	0.685	0.899
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 9	DSI 4	645332	3679.98	23.25	24.20	1.245	-	-	0.06	0.714	0.889
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Back	15mm	Ant 9	DSI 4	641666	3624.99	23.29	24.20	1.233	-	-	0.19	0.694	0.856
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Back	15mm	Ant 9	DSI 4	638000	3570	23.27	24.20	1.239	-	-	0.08	0.673	0.834
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Back	15mm	Ant 9	DSI 4	645332	3679.98	23.28	24.20	1.236	-	-	0.06	0.681	0.842
	FR1 n48	40M	QPSK	100	0	DFT-SCS-30KHz	Back	15mm	Ant 9	DSI 4	641666	3624.99	22.35	23.20	1.216	-	-	0.07	0.538	0.654
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Front	15mm	Ant 8	DSI 4	641666	3624.99	17.16	17.70	1.132	-	-	0.08	0.098	0.111
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Front	15mm	Ant 8	DSI 4	641666	3624.99	17.09	17.70	1.151	-	-	0.01	0.099	0.114
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 8	DSI 4	641666	3624.99	17.16	17.70	1.132	-	-	0.03	0.062	0.070
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Back	15mm	Ant 8	DSI 4	641666	3624.99	17.09	17.70	1.151	-	-	-0.08	0.058	0.067
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Front	15mm	Ant 4	DSI 4	656000	3840	25.29	25.70	1.099	-	-	0.1	0.482	0.530
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Front	15mm	Ant 4	DSI 4	656000	3840	25.24	25.70	1.112	-	-	-0.17	0.399	0.444
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 4	DSI 4	656000	3840	25.29	25.70	1.099	-	-	0.02	0.634	0.697
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 4	DSI 4	656000	3840	25.24	25.70	1.112	-	-	0.04	0.563	0.626
	FR1 n77	100M	QPSK	270	0	DFT-SCS-30KHz	Back	15mm	Ant 4	DSI 4	656000	3840	25.27	25.70	1.104	-	-	-0.01	0.557	0.615
	FR1 n77 PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 4	DSI 4	656000	3840	28.27	29.00	1.183	50	1.000	-0.08	0.571	0.676
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Front	15mm	Ant 4	DSI 4	633332	3499.98	25.57	25.70	1.030	-	-	0.05	0.779	0.803
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Front	15mm	Ant 4	DSI 4	633332	3499.98	25.41	25.70	1.069	-	-	0.06	0.667	0.713
	FR1 n77	100M	QPSK	270	0	DFT-SCS-30KHz	Front	15mm	Ant 4	DSI 4	633332	3499.98	25.20	25.70	1.122	-	-	-0.09	0.686	0.770
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 4	DSI 4	633332	3499.98	25.57	25.70	1.030	-	-	-0.07	0.784	0.808
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 4	DSI 4	633332	3499.98	25.41	25.70	1.069	-	-	-0.08	0.751	0.803
	FR1 n77	100M	QPSK	270	0	DFT-SCS-30KHz	Back	15mm	Ant 4	DSI 4	633332	3499.98	25.20	25.70	1.122	-	-	0.13	0.714	0.801
	FR1 n77 PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 4	DSI 4	633332	3499.98	28.52	29.00	1.117	50	1.000	0.12	0.703	0.785
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Front	15mm	Ant 5	DSI 4	656000	3840	18.55	19.50	1.245	-	-	-0.15	0.059	0.073
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Front	15mm	Ant 5	DSI 4	656000	3840	18.43	19.50	1.279	-	-	-0.15	0.059	0.075
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 5	DSI 4	656000	3840	18.55	19.50	1.245	-	-	0.11	0.087	0.108
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 5	DSI 4	656000	3840	18.43	19.50	1.279	-	-	-0.08	0.070	0.090
	FR1 n77 PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 5	DSI 4	656000	3840	21.54	23.00	1.400	50	1.000	-0.04	0.080	0.112
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Front	15mm	Ant 5	DSI 4	633332	3499.98	18.90	19.50	1.148	-	-	-0.17	0.075	0.086
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Front	15mm	Ant 5	DSI 4	633332	3499.98	18.88	19.50	1.153	-	-	-0.08	0.073	0.084
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 5	DSI 4	633332	3499.98	18.90	19.50	1.148	-	-	-0.04	0.102	0.117
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 5	DSI 4	633332	3499.98	18.88	19.50	1.153	-	-	-0.08	0.108	0.125

	FR1 n77 PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 5	DSI 4	633332	3499.98	21.91	23.00	1.285	50	1.000	-0.01	0.111	0.143
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Front	15mm	Ant 9	DSI 4	656000	3840	23.41	24.40	1.256	-	-	0.08	0.029	0.036
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Front	15mm	Ant 9	DSI 4	656000	3840	23.36	24.40	1.271	-	-	0.01	0.029	0.037
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 9	DSI 4	656000	3840	23.41	24.40	1.256	-	-	-0.07	0.645	0.810
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 9	DSI 4	656000	3840	23.36	24.40	1.271	-	-	0.03	0.598	0.760
	FR1 n77	100M	QPSK	270	0	DFT-SCS-30KHz	Back	15mm	Ant 9	DSI 4	656000	3840	23.31	24.40	1.285	-	-	-0.08	0.595	0.765
	FR1 n77 PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 9	DSI 4	656000	3840	26.45	27.90	1.396	50	1.000	-0.08	0.591	0.825
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Front	15mm	Ant 9	DSI 4	633332	3499.98	23.59	24.40	1.205	-	-	0.1	0.034	0.040
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Front	15mm	Ant 9	DSI 4	633332	3499.98	23.57	24.40	1.211	-	-	-0.18	0.029	0.035
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 9	DSI 4	633332	3499.98	23.59	24.40	1.205	-	-	-0.05	0.853	1.028
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 9	DSI 4	633332	3499.98	23.57	24.40	1.211	-	-	0.1	0.825	0.998
	FR1 n77	100M	QPSK	270	0	DFT-SCS-30KHz	Back	15mm	Ant 9	DSI 4	633332	3499.98	23.56	24.40	1.213	-	-	0.12	0.836	1.015
98	FR1 n77 PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 9	DSI 4	633332	3499.98	26.65	27.90	1.334	50	1.000	0.08	0.798	**1.064**
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Front	15mm	Ant 8	DSI 4	656000	3840	19.19	19.80	1.151	-	-	0.11	0.159	0.183
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Front	15mm	Ant 8	DSI 4	656000	3840	19.12	19.80	1.169	-	-	-0.08	0.127	0.149
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 8	DSI 4	656000	3840	19.19	19.80	1.151	-	-	-0.17	0.087	0.100
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 8	DSI 4	656000	3840	19.12	19.80	1.169	-	-	-0.08	0.077	0.090
	FR1 n77 PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Front	15mm	Ant 8	DSI 4	656000	3840	22.24	23.30	1.276	50	1.000	-0.04	0.146	0.186
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Front	15mm	Ant 8	DSI 4	633332	3499.98	18.47	19.80	1.358	-	-	0.08	0.156	0.212
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Front	15mm	Ant 8	DSI 4	633332	3499.98	18.39	19.80	1.384	-	-	0.01	0.145	0.201
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 8	DSI 4	633332	3499.98	18.47	19.80	1.358	-	-	0.03	0.080	0.109
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 8	DSI 4	633332	3499.98	18.39	19.80	1.384	-	-	-0.08	0.098	0.136
	FR1 n77 PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Front	15mm	Ant 8	DSI 4	633332	3499.98	21.47	23.30	1.524	50	1.000	-0.08	0.148	0.226
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Front	15mm	Ant 4	DSI 4	650000	3750	25.24	25.70	1.112	-	-	-0.03	0.525	0.584
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Front	15mm	Ant 4	DSI 4	650000	3750	25.21	25.70	1.119	-	-	0.14	0.419	0.469
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 4	DSI 4	650000	3750	25.24	25.70	1.112	-	-	0.01	0.611	0.679
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 4	DSI 4	650000	3750	25.21	25.70	1.119	-	-	-0.05	0.517	0.579
	FR1 n78	100M	QPSK	270	0	DFT-SCS-30KHz	Back	15mm	Ant 4	DSI 4	650000	3750	25.06	25.70	1.159	-	-	0.18	0.544	0.630
	FR1 n78 PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 4	DSI 4	650000	3750	28.28	29.00	1.180	50	1.000	0.14	0.560	0.661
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Front	15mm	Ant 4	DSI 4	633332	3499.98	25.41	25.70	1.069	-	-	-0.03	0.741	0.792
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Front	15mm	Ant 4	DSI 4	633332	3499.98	25.27	25.70	1.104	-	-	0.14	0.736	0.813
	FR1 n78	100M	QPSK	270	0	DFT-SCS-30KHz	Front	15mm	Ant 4	DSI 4	633332	3499.98	25.04	25.70	1.164	-	-	0.11	0.696	0.810
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 4	DSI 4	633332	3499.98	25.41	25.70	1.069	-	-	-0.14	0.790	0.845
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 4	DSI 4	633332	3499.98	25.27	25.70	1.104	-	-	-0.05	0.757	0.836
	FR1 n78	100M	QPSK	270	0	DFT-SCS-30KHz	Back	15mm	Ant 4	DSI 4	633332	3499.98	25.04	25.70	1.164	-	-	0.18	0.715	0.832
	FR1 n78 PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 4	DSI 4	633332	3499.98	28.44	29.00	1.138	50	1.000	0.14	0.719	0.818
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Front	15mm	Ant 5	DSI 4	650000	3750	19.05	20.00	1.245	-	-	-0.08	0.134	0.167
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Front	15mm	Ant 5	DSI 4	650000	3750	18.98	20.00	1.265	-	-	0.1	0.130	0.164
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 5	DSI 4	650000	3750	19.05	20.00	1.245	-	-	-0.18	0.197	0.245
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 5	DSI 4	650000	3750	18.98	20.00	1.265	-	-	0.1	0.169	0.214
	FR1 n78 PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 5	DSI 4	650000	3750	22.10	23.50	1.380	50	1.000	0.12	0.204	0.282
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Front	15mm	Ant 5	DSI 4	633332	3499.98	19.14	20.00	1.219	-	-	0.08	0.071	0.087
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Front	15mm	Ant 5	DSI 4	633332	3499.98	19.09	20.00	1.233	-	-	-0.17	0.079	0.097
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 5	DSI 4	633332	3499.98	19.14	20.00	1.219	-	-	-0.03	0.113	0.138
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 5	DSI 4	633332	3499.98	19.09	20.00	1.233	-	-	0.14	0.125	0.154
	FR1 n78 PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 5	DSI 4	633332	3499.98	22.08	23.50	1.387	50	1.000	-0.07	0.123	0.171
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Front	15mm	Ant 9	DSI 4	650000	3750	23.61	24.40	1.199	-	-	-0.17	0.045	0.054
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Front	15mm	Ant 9	DSI 4	650000	3750	23.58	24.40	1.208	-	-	-0.03	0.000	0.000
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 9	DSI 4	650000	3750	23.61	24.40	1.199	-	-	-0.04	0.756	0.907
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 9	DSI 4	650000	3750	23.58	24.40	1.208	-	-	0.14	0.671	0.811
	FR1 n78	100M	QPSK	270	0	DFT-SCS-30KHz	Back	15mm	Ant 9	DSI 4	650000	3750	23.50	24.40	1.230	-	-	0.11	0.635	0.781
	FR1 n78 PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 9	DSI 4	650000	3750	26.64	27.90	1.337	50	1.000	-0.05	0.689	0.921
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Front	15mm	Ant 9	DSI 4	633332	3499.98	23.38	24.40	1.265	-	-	0.18	0.000	0.000
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Front	15mm	Ant 9	DSI 4	633332	3499.98	23.35	24.40	1.274	-	-	0.14	0.000	0.000
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 9	DSI 4	633332	3499.98	23.38	24.40	1.265	-	-	-0.01	0.784	0.992
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 9	DSI 4	633332	3499.98	23.35	24.40	1.274	-	-	-0.17	0.719	0.916

	FR1 n78	100M	QPSK	270	0	DFT-SCS-30KHz	Back	15mm	Ant 9	DSI 4	633332	3499.98	23.32	24.40	1.282	-	-	0.17	0.735	0.943
99	FR1 n78 PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 9	DSI 4	633332	3499.98	26.45	27.90	1.396	50	1.000	-0.01	0.745	**1.040**
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Front	15mm	Ant 8	DSI 4	650000	3750	18.74	19.20	1.112	-	-	0.11	0.162	0.180
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Front	15mm	Ant 8	DSI 4	650000	3750	18.67	19.20	1.130	-	-	-0.05	0.133	0.150
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 8	DSI 4	650000	3750	18.74	19.20	1.112	-	-	0.18	0.089	0.099
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 8	DSI 4	650000	3750	18.67	19.20	1.130	-	-	0.14	0.074	0.084
	FR1 n78 PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Front	15mm	Ant 8	DSI 4	650000	3750	21.75	22.70	1.245	50	1.000	-0.17	0.154	0.192
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Front	15mm	Ant 8	DSI 4	633332	3499.98	18.13	19.20	1.279	-	-	0.17	0.135	0.173
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Front	15mm	Ant 8	DSI 4	633332	3499.98	18.08	19.20	1.294	-	-	-0.05	0.139	0.180
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 8	DSI 4	633332	3499.98	18.13	19.20	1.279	-	-	0.01	0.075	0.096
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 8	DSI 4	633332	3499.98	18.08	19.20	1.294	-	-	0.1	0.086	0.111
	FR1 n78 PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Front	15mm	Ant 8	DSI 4	633332	3499.98	21.10	22.70	1.445	50	1.000	-0.17	0.134	0.194

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																
100	WLAN2.4GHz	802.11b 1Mbps	Front	15mm	Ant 15+8(8)	Full power	1	2412	19.65	20.50	1.216	97.05	1.030	-0.01	0.254	**0.318**
	WLAN2.4GHz	802.11b 1Mbps	Back	15mm	Ant 15+8(8)	Full power	1	2412	19.65	20.50	1.216	97.05	1.030	-0.16	0.212	0.266
101	Bluetooth	1Mbps	Front	15mm	Ant 8	Full power	78	2480	16.03	17.50	1.403	77.45	1.076	0.01	0.069	**0.104**
	Bluetooth	1Mbps	Back	15mm	Ant 8	Full power	78	2480	16.03	17.50	1.403	77.45	1.076	0.16	0.064	0.097
	Bluetooth	1Mbps	Front	15mm	Ant 15	Full power	0	2402	15.29	17.00	1.483	76.97	1.082	-0.01	0.001	0.002
	Bluetooth	1Mbps	Back	15mm	Ant 15	Full power	0	2402	15.29	17.00	1.483	76.97	1.082	0	0.000	0.000
5000MHz																
102	WLAN5.3GHz	802.11a 6Mbps	Front	15mm	Ant 16+12(16)	Full power	64	5320	19.16	20.00	1.213	99.32	1.007	-0.08	0.271	**0.331**
	WLAN5.3GHz	802.11a 6Mbps	Back	15mm	Ant 16+12(16)	Full power	64	5320	19.16	20.00	1.213	99.32	1.007	-0.02	0.118	0.144
103	WLAN5.5GHz	802.11n-HT20 MCS0	Front	15mm	Ant 16+12(16)	Full power	100	5500	19.09	20.00	1.233	100	1.000	0.02	0.217	**0.268**
	WLAN5.5GHz	802.11n-HT20 MCS0	Back	15mm	Ant 16+12(16)	Full power	100	5500	19.09	20.00	1.233	100	1.000	0.15	0.201	0.248
104	WLAN5.8GHz	802.11a 6Mbps	Front	15mm	Ant 16+12(12)	Full power	165	5825	19.55	20.50	1.245	99.32	1.007	0.01	0.154	**0.193**
	WLAN5.8GHz	802.11a 6Mbps	Back	15mm	Ant 16+12(12)	Full power	165	5825	19.55	20.50	1.245	99.32	1.007	0.03	0.143	0.179

16.4 Product specific 10g SAR

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)
5000MHz																
105	WLAN5.3GHz	802.11a 6Mbps	Front	0mm	Ant 16+12(16)	Full power	64	5320	19.16	20.00	1.213	99.32	1.007	0.04	2.01	**2.456**
	WLAN5.3GHz	802.11a 6Mbps	Front	0mm	Ant 16+12(12)	Full power	52	5260	18.76	19.50	1.186	99.32	1.007	-0.17	1.92	2.293
	WLAN5.3GHz	802.11a 6Mbps	Back	0mm	Ant 16+12(16)	Full power	64	5320	19.16	20.00	1.213	99.32	1.007	-0.03	0.365	0.446
	WLAN5.3GHz	802.11a 6Mbps	Left Side	0mm	Ant 16+12(16)	Full power	64	5320	19.16	20.00	1.213	99.32	1.007	0.14	0.059	0.072
	WLAN5.3GHz	802.11a 6Mbps	Right Side	0mm	Ant 16+12(16)	Full power	64	5320	19.16	20.00	1.213	99.32	1.007	0.11	1.55	1.894
	WLAN5.3GHz	802.11a 6Mbps	Top Side	0mm	Ant 16+12(16)	Full power	64	5320	19.16	20.00	1.213	99.32	1.007	0.18	1.32	1.613
	WLAN5.5GHz	802.11n-HT20 MCS0	Front	0mm	Ant 16+12(16)	Full power	100	5500	19.09	20.00	1.233	100	1.000	0.16	1.69	2.084
106	WLAN5.5GHz	802.11n-HT20 MCS0	Front	0mm	Ant 16+12(12)	Full power	144	5720	19.74	20.50	1.191	100	1.000	-0.05	1.93	**2.299**
	WLAN5.5GHz	802.11n-HT20 MCS0	Back	0mm	Ant 16+12(16)	Full power	100	5500	19.09	20.00	1.233	100	1.000	-0.1	0.357	0.440
	WLAN5.5GHz	802.11n-HT20 MCS0	Left Side	0mm	Ant 16+12(16)	Full power	100	5500	19.09	20.00	1.233	100	1.000	0.07	0.036	0.044
	WLAN5.5GHz	802.11n-HT20 MCS0	Right Side	0mm	Ant 16+12(16)	Full power	100	5500	19.09	20.00	1.233	100	1.000	0.18	1.46	1.800
	WLAN5.5GHz	802.11n-HT20 MCS0	Top Side	0mm	Ant 16+12(16)	Full power	100	5500	19.09	20.00	1.233	100	1.000	-0.1	1.00	1.233

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 13	10M	QPSK	1	0	-	Right Side	10mm	Ant 0	DSI 5	23230	782	25.14	25.70	1.138	-	-	0.03	0.961	1	1.093
2nd	LTE Band 13	10M	QPSK	1	0	-	Right Side	10mm	Ant 0	DSI 5	23230	782	25.14	25.70	1.138	-	-	0.05	0.953	1.008	1.084
1st	LTE Band 4	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 3	DSI 5	20175	1732.5	22.00	22.70	1.175	-	-	0.01	0.864	1	1.015
2nd	LTE Band 4	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 3	DSI 5	20175	1732.5	22.00	22.70	1.175	-	-	0.06	0.858	1.007	1.008
1st	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 5	DSI 1	376500	1882.5	16.41	16.80	1.094	-	-	0.03	0.807	1	0.883
2nd	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 5	DSI 1	376500	1882.5	16.41	16.80	1.094	-	-	0.02	0.783	1.031	0.857
1st	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 1	40185	2549.5	19.53	20.20	1.167	62.9	1.006	-0.05	0.932	1	1.094
2nd	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 1	40185	2549.5	19.53	20.20	1.167	62.9	1.006	0.02	0.905	1.030	1.062
1st	LTE Band 42	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 1	42990	3540	18.14	18.70	1.138	62.9	1.006	0.09	0.953	1	1.091
2nd	LTE Band 42	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 1	42990	3540	18.14	18.70	1.138	62.9	1.006	0.02	0.912	1.045	1.044
1st	WLAN5.3GHz	-	-	-	-	802.11ac-VHT160 MCS0	Left Cheek	0mm	Ant 16+12(16)	Standalone	50	5250	12.68	13.50	1.208	100	1.000	-0.07	0.903	1	1.091
2nd	WLAN5.3GHz	-	-	-	-	802.11ac-VHT160 MCS0	Left Cheek	0mm	Ant 16+12(16)	Standalone	50	5250	12.68	13.50	1.208	100	1.000	0.02	0.856	1.055	1.034
1st	WLAN2.4GHz	-	-	-	-	802.11b 1Mbps	Right Side	10mm	Ant 15+8(8)	Full power	1	2412	19.65	20.50	1.216	97.05	1.030	-0.01	0.806	1	1.010
2nd	WLAN2.4GHz	-	-	-	-	802.11b 1Mbps	Right Side	10mm	Ant 15+8(8)	Full power	1	2412	19.65	20.50	1.216	97.05	1.030	0.06	0.798	1.010	1.000
1st	WLAN5.5GHz	-	-	-	-	802.11ac-VHT160 MCS0	Left Cheek	0mm	Ant 16+12(16)	Standalone	114	5570	13.35	14.00	1.161	100	1.000	-0.06	0.848	1	0.985
2nd	WLAN5.5GHz	-	-	-	-	802.11ac-VHT160 MCS0	Left Cheek	0mm	Ant 16+12(16)	Standalone	114	5570	13.35	14.00	1.161	100	1.000	0.03	0.811	1.046	0.942
1st	WLAN5.8GHz	-	-	-	-	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 16+12(12)	Standalone	155	5775	14.19	15.00	1.205	100	1.000	0.06	0.857	1	1.033
2nd	WLAN5.8GHz	-	-	-	-	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 16+12(12)	Standalone	155	5775	14.19	15.00	1.205	100	1.000	0.02	0.853	1.005	1.028
1st	LTE Band 5	10M	QPSK	1	0	-	Right Side	10mm	Ant 0	DSI 5	20525	836.5	25.21	25.70	1.119	-	-	-0.01	0.879	1	0.984
2nd	LTE Band 5	10M	QPSK	1	0	-	Right Side	10mm	Ant 0	DSI 5	20525	836.5	25.21	25.70	1.119	-	-	0.06	0.866	1.015	0.969

<10g>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Ratio	Reported 10g SAR (W/kg)
1st	WLAN5.3GHz	-	-	-	-	802.11a 6Mbps	Front	0mm	Ant 16+12(16)	Full power	64	5320	19.16	20.00	1.213	99.32	1.007	0.04	2.01	1	2.456
2nd	WLAN5.3GHz	-	-	-	-	802.11a 6Mbps	Front	0mm	Ant 16+12(16)	Full power	64	5320	19.16	20.00	1.213	99.32	1.007	0.01	1.99	1.010	2.432

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 5GNR Linearity Data Analysis

General Note:

This device support Power Class 2 and Power Class 3 operations for 5GNR n41/n77/n78. The highest available duty cycle for Power Class 2 operation is 43.3% using UL-DL configuration 1. Per FCC Guidance based on the device behavior, all SAR tests were performed using Power Class 3. Power Class 2 is tested using the highest SAR test configuration in Power Class 3 for each 5GNR 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.

FR1 n41 HPUE (HPUE)-Linearity Data for Head Ant4			FR1 n41 HPUE (HPUE)-Linearity Data for Head Ant5		
	NR n41 (Power Class 3)	NR n41 (Power Class 2)		NR n41 (Power Class 3)	NR n41 (Power Class 2)
Maximum Tune up Power (dBm)	16.70	20.00	Maximum Tune up Power (dBm)	20.70	23.70
Reported 1g SAR (W/kg)	0.931	1.009	Reported 1g SAR (W/kg)	1.037	1.020
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	46.77	50.00	Frame Averaged (mW)	117.49	117.21
Linearity SAR (W/kg)	0.995		Linearity SAR (W/kg)	1.035	
% deviation from expected linearity		1.38%	% deviation from expected linearity		-1.41%
FR1 n41 HPUE (HPUE)-Linearity Data for Body-worn Ant4			**FR1 n41 HPUE (HPUE)-Linearity Data for Body-worn Ant5**		
	NR n41 (Power Class 3)	NR n41 (Power Class 2)		NR n41 (Power Class 3)	NR n41 (Power Class 2)
Maximum Tune up Power (dBm)	25.70	27.00	Maximum Tune up Power (dBm)	19.20	22.20
Reported 1g SAR (W/kg)	0.993	0.731	Reported 1g SAR (W/kg)	0.192	0.173
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	371.54	250.59	Frame Averaged (mW)	83.18	82.98
Linearity SAR (W/kg)	0.670		Linearity SAR (W/kg)	0.192	
% deviation from expected linearity		9.14%	% deviation from expected linearity		-9.68%
FR1 n41 HPUE (HPUE)-Linearity Data for Hotspot Ant4			**FR1 n41 HPUE (HPUE)-Linearity Data for Hotspot Ant5**		
	NR n41 (Power Class 3)	NR n41 (Power Class 2)		NR n41 (Power Class 3)	NR n41 (Power Class 2)
Maximum Tune up Power (dBm)	16.70	20.00	Maximum Tune up Power (dBm)	19.20	22.20
Reported 1g SAR (W/kg)	0.242	0.233	Reported 1g SAR (W/kg)	0.584	0.562
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	46.77	50.00	Frame Averaged (mW)	83.18	82.98
Linearity SAR (W/kg)	0.259		Linearity SAR (W/kg)	0.583	
% deviation from expected linearity		-9.93%	% deviation from expected linearity		-3.54%

NR n77 Part27O (HPUE)-Linearity Data for Head Ant4		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	15.20	18.50
Reported 1g SAR (W/kg)	0.475	0.552
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	33.11	35.40
Linearity SAR (W/kg)	0.508	
% deviation from expected linearity		8.71%

NR n77 Part27Q (HPUE)-Linearity Data for Head Ant4		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	15.20	18.50
Reported 1g SAR (W/kg)	0.795	0.829
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	33.11	35.40
Linearity SAR (W/kg)	0.850	
% deviation from expected linearity		-2.45%

NR n77 Part27O (HPUE)-Linearity Data for Body-worn Ant4		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	25.70	29.00
Reported 1g SAR (W/kg)	0.697	0.676
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	371.54	397.16
Linearity SAR (W/kg)	0.745	
% deviation from expected linearity		-9.27%

NR n77 Part27Q (HPUE)-Linearity Data for Body-worn Ant4		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	25.70	29.00
Reported 1g SAR (W/kg)	0.808	0.785
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	371.54	397.16
Linearity SAR (W/kg)	0.864	
% deviation from expected linearity		-9.12%

NR n77 Part27O (HPUE)-Linearity Data for Hotspot Ant4		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	15.20	18.50
Reported 1g SAR (W/kg)	0.119	0.124
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	33.11	35.40
Linearity SAR (W/kg)	0.127	
% deviation from expected linearity		-2.52%

NR n77 Part27Q (HPUE)-Linearity Data for Hotspot Ant4		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	15.20	18.50
Reported 1g SAR (W/kg)	0.163	0.181
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	33.11	35.40
Linearity SAR (W/kg)	0.174	
% deviation from expected linearity		3.88%

NR n77 Part27O (HPUE)-Linearity Data for Head Ant5		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	17.00	20.50
Reported 1g SAR (W/kg)	0.574	0.654
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	50.12	56.10
Linearity SAR (W/kg)	0.643	
% deviation from expected linearity		1.79%

NR n77 Part27Q (HPUE)-Linearity Data for Head Ant5		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	17.00	20.50
Reported 1g SAR (W/kg)	0.544	0.586
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	50.12	56.10
Linearity SAR (W/kg)	0.609	
% deviation from expected linearity		-3.77%

NR n77 Part27O (HPUE)-Linearity Data for Body-worn Ant5		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	19.50	23.00
Reported 1g SAR (W/kg)	0.108	0.112
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	89.13	99.76
Linearity SAR (W/kg)	0.121	
% deviation from expected linearity		-7.35%

NR n77 Part27Q (HPUE)-Linearity Data for Body-worn Ant5		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	19.50	23.00
Reported 1g SAR (W/kg)	0.125	0.143
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	89.13	99.76
Linearity SAR (W/kg)	0.140	
% deviation from expected linearity		2.20%

NR n77 Part27O (HPUE)-Linearity Data for Hotspot Ant5		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	17.00	20.50
Reported 1g SAR (W/kg)	0.227	0.258
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	50.12	56.10
Linearity SAR (W/kg)	0.254	
% deviation from expected linearity		1.54%

NR n77 Part27Q (HPUE)-Linearity Data for Hotspot Ant5		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	17.00	20.50
Reported 1g SAR (W/kg)	0.280	0.320
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	50.12	56.10
Linearity SAR (W/kg)	0.313	
% deviation from expected linearity		2.10%

NR n77 Part27O (HPUE)-Linearity Data for Head Ant8		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	16.80	20.30
Reported 1g SAR (W/kg)	0.677	0.744
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	47.86	53.58
Linearity SAR (W/kg)	0.758	
% deviation from expected linearity		-1.82%

NR n77 Part27Q (HPUE)-Linearity Data for Head Ant8		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	16.80	20.30
Reported 1g SAR (W/kg)	0.955	1.082
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	47.86	53.58
Linearity SAR (W/kg)	1.069	
% deviation from expected linearity		1.22%

NR n77 Part27O (HPUE)-Linearity Data for Body-worn Ant8		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	19.80	23.30
Reported 1g SAR (W/kg)	0.183	0.186
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	95.50	106.90
Linearity SAR (W/kg)	0.205	
% deviation from expected linearity		-9.20%

NR n77 Part27Q (HPUE)-Linearity Data for Body-worn Ant8		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	19.80	23.30
Reported 1g SAR (W/kg)	0.212	0.226
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	95.50	106.90
Linearity SAR (W/kg)	0.237	
% deviation from expected linearity		-4.76%

NR n77 Part27O (HPUE)-Linearity Data for Hotspot Ant8		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	16.80	20.30
Reported 1g SAR (W/kg)	0.259	0.300
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	47.86	53.58
Linearity SAR (W/kg)	0.290	
% deviation from expected linearity		3.48%

NR n77 Part27Q (HPUE)-Linearity Data for Hotspot Ant8		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	16.80	20.30
Reported 1g SAR (W/kg)	0.307	0.333
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	47.86	53.58
Linearity SAR (W/kg)	0.344	
% deviation from expected linearity		-3.10%

NR n77 Part27O (HPUE)-Linearity Data for Head Ant9		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	25.40	28.90
Reported 1g SAR (W/kg)	0.143	0.145
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	346.74	388.12
Linearity SAR (W/kg)	0.160	
% deviation from expected linearity		-9.41%

NR n77 Part27Q (HPUE)-Linearity Data for Head Ant9		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	25.40	28.90
Reported 1g SAR (W/kg)	0.550	0.562
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	346.74	388.12
Linearity SAR (W/kg)	0.616	
% deviation from expected linearity		-8.71%

NR n77 Part27O (HPUE)-Linearity Data for Body-worn Ant9		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	24.40	27.90
Reported 1g SAR (W/kg)	0.810	0.825
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	275.42	308.30
Linearity SAR (W/kg)	0.907	
% deviation from expected linearity		-9.01%

NR n77 Part27Q (HPUE)-Linearity Data for Body-worn Ant9		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	24.40	27.90
Reported 1g SAR (W/kg)	1.028	1.064
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	275.42	308.30
Linearity SAR (W/kg)	1.151	
% deviation from expected linearity		-7.53%

NR n77 Part27O (HPUE)-Linearity Data for Hotspot Ant9		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	17.40	20.90
Reported 1g SAR (W/kg)	0.409	0.434
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	54.95	61.51
Linearity SAR (W/kg)	0.458	
% deviation from expected linearity		-5.20%

NR n77 Part27Q (HPUE)-Linearity Data for Hotspot Ant9		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	17.40	20.90
Reported 1g SAR (W/kg)	0.604	0.615
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	54.95	61.51
Linearity SAR (W/kg)	0.676	
% deviation from expected linearity		-9.04%

NR N78 Part27O (HPUE)-Linearity Data for Head Ant4		
	NR N78 (Power Class 3)	NR N78 (Power Class 2)
Maximum Tune up Power (dBm)	15.20	18.50
Reported 1g SAR (W/kg)	0.633	0.731
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	33.11	35.40
Linearity SAR (W/kg)	0.677	
% deviation from expected linearity		8.03%

NR N78 Part27Q (HPUE)-Linearity Data for Head Ant4		
	NR N78 (Power Class 3)	NR N78 (Power Class 2)
Maximum Tune up Power (dBm)	15.20	18.50
Reported 1g SAR (W/kg)	0.803	0.840
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	33.11	35.40
Linearity SAR (W/kg)	0.858	
% deviation from expected linearity		-2.14%

NR N78 Part27O (HPUE)-Linearity Data for Body-worn Ant4		
	NR N78 (Power Class 3)	NR N78 (Power Class 2)
Maximum Tune up Power (dBm)	25.70	29.00
Reported 1g SAR (W/kg)	0.679	0.661
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	371.54	397.16
Linearity SAR (W/kg)	0.726	
% deviation from expected linearity		-8.93%

NR N78 Part27Q (HPUE)-Linearity Data for Body-worn Ant4		
	NR N78 (Power Class 3)	NR N78 (Power Class 2)
Maximum Tune up Power (dBm)	25.70	29.00
Reported 1g SAR (W/kg)	0.845	0.818
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	371.54	397.16
Linearity SAR (W/kg)	0.903	
% deviation from expected linearity		-9.44%

NR N78 Part27O (HPUE)-Linearity Data for Hotspot Ant4		
	NR N78 (Power Class 3)	NR N78 (Power Class 2)
Maximum Tune up Power (dBm)	15.20	18.50
Reported 1g SAR (W/kg)	0.180	0.200
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	33.11	35.40
Linearity SAR (W/kg)	0.192	
% deviation from expected linearity		3.94%

NR N78 Part27Q (HPUE)-Linearity Data for Hotspot Ant4		
	NR N78 (Power Class 3)	NR N78 (Power Class 2)
Maximum Tune up Power (dBm)	15.20	18.50
Reported 1g SAR (W/kg)	0.178	0.200
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	33.11	35.40
Linearity SAR (W/kg)	0.190	
% deviation from expected linearity		5.11%

NR N78 Part27O (HPUE)-Linearity Data for Head Ant5		
	NR N78 (Power Class 3)	NR N78 (Power Class 2)
Maximum Tune up Power (dBm)	17.50	21.00
Reported 1g SAR (W/kg)	0.802	0.959
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	56.23	62.95
Linearity SAR (W/kg)	0.898	
% deviation from expected linearity		6.83%

NR N78 Part27Q (HPUE)-Linearity Data for Head Ant5		
	NR N78 (Power Class 3)	NR N78 (Power Class 2)
Maximum Tune up Power (dBm)	17.50	21.00
Reported 1g SAR (W/kg)	0.806	0.821
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	56.23	62.95
Linearity SAR (W/kg)	0.902	
% deviation from expected linearity		-9.00%

NR N78 Part27O (HPUE)-Linearity Data for Body-worn Ant5		
	NR N78 (Power Class 3)	NR N78 (Power Class 2)
Maximum Tune up Power (dBm)	20.00	23.50
Reported 1g SAR (W/kg)	0.245	0.282
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	100.00	111.94
Linearity SAR (W/kg)	0.274	
% deviation from expected linearity		2.83%

NR N78 Part27Q (HPUE)-Linearity Data for Body-worn Ant5		
	NR N78 (Power Class 3)	NR N78 (Power Class 2)
Maximum Tune up Power (dBm)	20.00	23.50
Reported 1g SAR (W/kg)	0.154	0.171
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	100.00	111.94
Linearity SAR (W/kg)	0.172	
% deviation from expected linearity		-0.80%

NR N78 Part27O (HPUE)-Linearity Data for Hotspot Ant5		
	NR N78 (Power Class 3)	NR N78 (Power Class 2)
Maximum Tune up Power (dBm)	17.50	21.00
Reported 1g SAR (W/kg)	0.459	0.495
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	56.23	62.95
Linearity SAR (W/kg)	0.514	
% deviation from expected linearity		-3.66%

NR N78 Part27Q (HPUE)-Linearity Data for Hotspot Ant5		
	NR N78 (Power Class 3)	NR N78 (Power Class 2)
Maximum Tune up Power (dBm)	17.50	21.00
Reported 1g SAR (W/kg)	0.351	0.400
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	56.23	62.95
Linearity SAR (W/kg)	0.393	
% deviation from expected linearity		1.81%

NR N78 Part27O (HPUE)-Linearity Data for Head Ant8		
	NR N78 (Power Class 3)	NR N78 (Power Class 2)
Maximum Tune up Power (dBm)	16.70	20.20
Reported 1g SAR (W/kg)	0.833	0.891
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	46.77	52.36
Linearity SAR (W/kg)	0.932	
% deviation from expected linearity		-4.44%

NR N78 Part27Q (HPUE)-Linearity Data for Head Ant8		
	NR N78 (Power Class 3)	NR N78 (Power Class 2)
Maximum Tune up Power (dBm)	16.70	20.20
Reported 1g SAR (W/kg)	0.994	1.084
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	46.77	52.36
Linearity SAR (W/kg)	1.113	
% deviation from expected linearity		-2.57%

NR N78 Part27O (HPUE)-Linearity Data for Body-worn Ant8		
	NR N78 (Power Class 3)	NR N78 (Power Class 2)
Maximum Tune up Power (dBm)	19.20	22.70
Reported 1g SAR (W/kg)	0.180	0.192
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	83.18	93.10
Linearity SAR (W/kg)	0.201	
% deviation from expected linearity		-4.71%

NR N78 Part27Q (HPUE)-Linearity Data for Body-worn Ant8		
	NR N78 (Power Class 3)	NR N78 (Power Class 2)
Maximum Tune up Power (dBm)	19.20	22.70
Reported 1g SAR (W/kg)	0.180	0.194
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	83.18	93.10
Linearity SAR (W/kg)	0.201	
% deviation from expected linearity		-3.71%

NR N78 Part27O (HPUE)-Linearity Data for Hotspot Ant8		
	NR N78 (Power Class 3)	NR N78 (Power Class 2)
Maximum Tune up Power (dBm)	16.70	20.20
Reported 1g SAR (W/kg)	0.318	0.343
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	46.77	52.36
Linearity SAR (W/kg)	0.356	
% deviation from expected linearity		-3.64%

NR N78 Part27Q (HPUE)-Linearity Data for Hotspot Ant8		
	NR N78 (Power Class 3)	NR N78 (Power Class 2)
Maximum Tune up Power (dBm)	16.70	20.20
Reported 1g SAR (W/kg)	0.342	0.376
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	46.77	52.36
Linearity SAR (W/kg)	0.383	
% deviation from expected linearity		-1.78%

NR N78 Part27O (HPUE)-Linearity Data for Head Ant9		
	NR N78 (Power Class 3)	NR N78 (Power Class 2)
Maximum Tune up Power (dBm)	25.40	28.90
Reported 1g SAR (W/kg)	0.144	0.156
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	346.74	388.12
Linearity SAR (W/kg)	0.161	
% deviation from expected linearity		-3.22%

NR N78 Part27Q (HPUE)-Linearity Data for Head Ant9		
	NR N78 (Power Class 3)	NR N78 (Power Class 2)
Maximum Tune up Power (dBm)	25.40	28.90
Reported 1g SAR (W/kg)	0.559	0.610
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	346.74	388.12
Linearity SAR (W/kg)	0.626	
% deviation from expected linearity		-2.51%

NR N78 Part27O (HPUE)-Linearity Data for Body-worn Ant9		
	NR N78 (Power Class 3)	NR N78 (Power Class 2)
Maximum Tune up Power (dBm)	24.40	27.90
Reported 1g SAR (W/kg)	0.907	0.921
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	275.42	308.30
Linearity SAR (W/kg)	1.015	
% deviation from expected linearity		-9.28%

NR N78 Part27Q (HPUE)-Linearity Data for Body-worn Ant9		
	NR N78 (Power Class 3)	NR N78 (Power Class 2)
Maximum Tune up Power (dBm)	24.40	27.90
Reported 1g SAR (W/kg)	0.992	1.040
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	275.42	308.30
Linearity SAR (W/kg)	1.110	
% deviation from expected linearity		-6.34%

NR N78 Part27O (HPUE)-Linearity Data for Hotspot Ant9		
	NR N78 (Power Class 3)	NR N78 (Power Class 2)
Maximum Tune up Power (dBm)	17.40	20.90
Reported 1g SAR (W/kg)	0.402	0.439
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	54.95	61.51
Linearity SAR (W/kg)	0.450	
% deviation from expected linearity		-2.44%

NR N78 Part27Q (HPUE)-Linearity Data for Hotspot Ant9		
	NR N78 (Power Class 3)	NR N78 (Power Class 2)
Maximum Tune up Power (dBm)	17.40	20.90
Reported 1g SAR (W/kg)	0.489	0.562
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	54.95	61.51
Linearity SAR (W/kg)	0.547	
% deviation from expected linearity		2.67%

17. Simultaneous Transmission Analysis

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

General Note:

1. This device supports VoIP in GPRS, EGPRS, WCDMA, LTE and 5GNR (e.g. for 3rd-party VoIP), LTE supports VoLTE operation.
2. WWAN above includes 5G NR bands and EN-DC combination.
3. WLAN2.4GHz/WLAN5GHz MIMO SAR can represent SISO SAR to do co-located SAR analysis.
4. EUT will choose each GSM, WCDMA, LTE and 5GNR according to the network signal condition; therefore, they will not operate simultaneously at any moment.
5. This device 2.4GHz WLAN support hotspot operation and Bluetooth support tethering applications.
6. This device 5.2GHz WLAN/5.8GHz WLAN support hotspot operation, and 5.2GHz WLAN/5.8GHz WLAN supports WiFi Direct (GC/GO), and 5.3GHz / 5.5GHz supports WiFi Direct (GC only). WLAN6GHz has no hotspot function.
7. 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 SAR exposure limit. Therefore, simultaneous transmission compliance between 4G+5G (PCC+SCC) operations within an antenna group is demonstrated in the Part 2 Report during algorithm validation.
8. The equipment under test (EUT) contains the Qualcomm modems supporting 2G/3G/4G/5G technologies and WLAN/BT technologies. these modems are always enabled with Qualcomm Smart Transmit feature to control and manage transmitting power in real time and to ensure the time-averaged RF exposure follows the FCC requirement. Smart Transmit algorithm controls the total RF exposure from all WWAN/WLAN/BT to not exceed FCC limit and each antenna group has controlled the total RF exposure from all transmitter to not exceed FCC limit. Therefore, in Part.1 report, it is evaluated whether the sum of the groups of each antenna does not exceed FCC limit or spatial separation is applied. In addition, each antenna needs to satisfy simultaneous transmission analysis with External radios (NFC) in this report at extremity exposure condition.
9. According to the EUT characteristic, WLAN2.4GHz and Bluetooth cannot transmit simultaneously.
10. According to the EUT characteristic, WLAN5GHz/6GHz and Bluetooth can transmit simultaneously.
11. According to the EUT characteristic, WLAN5GHz/6GHz and WLAN 2.4GHz can transmit simultaneously.
12. The worst case 5 GHz/6GHz WLAN SAR for each configuration was used for SAR summation.
13. NFC can transmit simultaneously with other Radios in extremity exposure condition.
14. The worst case 5 GHz WLAN SAR for each configuration was used for SAR summation.
15. When stand-alone SAR is not required for a transmitter or antenna, its SAR is considered zero in the SAR summing process to assess Multi-band transmission SAR compliance.
16. For standalone WWAN/BT/WLAN, always choose the highest SAR among all WWAN/BT/WLAN bands within all antennas for each exposure position to perform simultaneous transmission analysis. This is the worst co-located analysis and can represent each band.

17. The maximum SAR summation is calculated based on the same configuration and test position.
18. 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.
19. Per KDB 447498 D01v06, simultaneous transmission SAR is compliant if,
    i) 1g Scalar SAR summation < 1.6W/kg and 10g Scalar SAR summation < 4.0W/kg.
    ii) SPLSR = (SAR1 + SAR2)^1.5 / (min. separation distance, mm), and the peak separation distance is determined from the square root of [(x1-x2)2 + (y1-y2)2 + (z1-z2)2], where (x1, y1, z1) and (x2, y2, z2) are the coordinates of the extrapolated peak SAR locations in the zoom scan.
    iii) If SPLSR ≤ 0.04 for 1g SAR and SPLSR≤ 0.10 for 10g SAR, simultaneously transmission SAR measurement is not necessary.
    iv) Simultaneously transmission SAR measurement, and the reported multi-band 1g SAR < 1.6W/kg and 10g SAR < 4.0W/kg.
    v) The SPLSR calculated results please refer to section 17.7.
20. The WLAN6GHz Sim-Tx analysis guidance with other transmitters was based on SAR test results. The simultaneous transmission and test exemption analysis were compliant with KDB 447498 D01. For the device does not support FR2 or other MPE field measurement, therefore section 17 in the SAR report has no TER analysis according to KDB 987594 requirement.

17.1 MIMO SAR Test condition and verification

General Note:

1. Smart Transmit EFS v20 (or lower) uses SISO Plimit to calculate RF exposure from MIMO transmission scenario. Therefore, if MIMO is supported for WWAN technologies (including 5G sub6 NR), below procedure should be performed for validity of Smart Transmit operation:
    1) Below procedure should also be performed for Smart Transmit EFS v21 (or higher) if MIMO Plimit is not populated in the EFS but MIMO operation is supported for antennas belonging to the same antenna group (refer to Section 4.2.5 of of Qualcomm's document 80-W2112-4).
2. Measure SAR for supported MIMO scenarios in FTM mode with each of the MIMO antennas set to transmit continuously at *Ptest* = minimum {*Plimit(i), Pmax(i); i*=1 to *n* MIMO antennas}, where *Plimit(i)* is the power level entered in the Smart Transmit EFS for antenna *i* under the corresponding tech/band/DSI. For Smart Transmit to ensure the compliance in MIMO transmission scenario, the below criteria should be met for measured MIMO SAR (i.e., highest peak spatial-average SAR from the measurement):

$$reported\ SAR_{MIMO} = Measured\ MIMO\ SAR_{MIMO}\ \ at\ (\ P_{test}\ + device\ total\ uncertainty\ ) \leq calc.SAR$$

Where $calc.SAR\ =\ \sum_{i=1}^{n}\left[SAR_design_target\ *10^{\left(\frac{total\ uncertainty+P_{test}-P_{limit}(i)-backoff(i)}{10}\right)}\right]$

Here,

- *n* is number of MIMO antennas (in case of 2x2MIMO, n=2).
- *Plimit(i)* is EFS *Plimit* for antenna *i* ϵ MIMO for a given tech/band/DSI. *Plimit* corresponds to *SAR_design_target.*
- *backoff(i)* is backoff from *SAR_design_target* used for the *i*th antenna's *Plimit* to meet TER with external radios (i.e., radios outside of Smart Transmit control). If EFS *Plimit* of antenna *i* corresponds to *SAR_design_target*, then *backoff(i)* = 0 in the above equation.
- *Ptest* (i.e., power level used for MIMO SAR measurement, MIMO.SAR @*Ptest*) = min {*Plimit(i)*, Pmax*(i)*, *i* = 1 to n MIMO antenna}. To further clarify, *Ptest* = min {*Plimit(i), SISO.Pmax(i)*, *MIMO.Pmax*, *i*= 1 to n antenna ϵ MIMO}, where, *Plimit* corresponds to *SAR_design_target*; *SISO.Pmax* and *MIMO.Pmax* correspond to the maximum output power (nominal levels without device uncertainty) that device is capable; here, *Ptest* is nominal power level, not measured level.

3. If the $reported\ SARMIMO$ does not meet the above condition, then *Plimit(i)* for each of the MIMO antenna in the Smart Transmit EFS should be reduced by *10*log10[*$reported\ SARMIMO$ */calc.SAR]* dB.
4. Per Qualcomm's document guideline, WLAN MIMO Plimit is configured in the EFS and WLAN MIMO antennas belong to the same antenna group, then SAR measurement results at MIMO Plimit for the corresponding WLAN MIMO transmission scenario can be referred to section 16 in this report.
5. Per Qualcomm's document guideline, FR1/BT MIMO Plimit is not populated in the EFS file, but MIMO operation is supported for antennas belonging to the same antenna group, the detail FR1/BT MIMO analysis results please referred to appendix H.

17.2 Sub6 Antenna Groups

The Qualcomm® Smart Transmit™ 5.0 of Smart Transmit (GEN2) Feature 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: Demonstrate that Sum of maximum reported SAR from each of the sub6 AGs and the reported normalized SAR values from radios outside Smart Transmit should be 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 & ANT8 & ANT9 & ANT15 & ANT12 & ANT16
Antenna Group 1 (AG1)	ANT0 & ANT3

3) This model's multi_Tx_factor is 1.0.

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] + each external radio worst-case reported SAR (ex: NFC)} ≤ 1.6 (for 1g, or 4.0 for 10g). (each external radio worst-case reported SAR is the worst SAR in all combinations of each external radio 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 sub6g 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).

iv) 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 WIFI/BT antennas supported Smart Transmit technology and there is no other radios in this report, and demonstrate that the sum of these RF exposures meets: { [max.SAR.AG0+ max.SAR.AG1] } ≤ 1.6 (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 of this report. All of the combinations of sub6 antenna groups are sufficient to show that AG0 is mutually exclusive from AG1 and that

simultaneous transmission cases will not exceed the SAR limit and therefore no measured volumetric simultaneous SAR summation is required per FCC KDB Publication 447498 D01v06 and IEEE 1528- 2013 Section 6.3.4.1.

17.3 Head Exposure Conditions

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

Test Position	Ant1	Ant4	Ant5	Ant6	Ant8	Ant9	WLAN2.4GHz Ant15+8	WLAN5GHz Ant16+12	WLAN6GHz Ant16+12	BT Ant8	BT Ant15	MAX
Right Cheek	0.889	1.094	1.047	1.086	0.243	0.610	0.278	0.353	0.221	0.120	0.337	**1.094**
Right Tilted	0.194	1.094	0.151	0.464	0.210	0.184	0.301	0.362	0.125	0.086	0.481	**1.094**
Left Cheek	0.968	0.550	1.089	0.322	1.084	0.289	0.904	1.091	1.092	0.661	0.547	**1.092**
Left Tilted	0.162	0.749	0.180	0.171	0.484	0.135	0.552	0.798	0.693	0.278	0.800	**0.800**

<AG1 maximum reported SAR>:

Test Position	Ant0	Ant3	MAX
Right Cheek	0.580	0.411	**0.580**
Right Tilted	0.214	0.170	**0.214**
Left Cheek	0.310	0.286	**0.310**
Left Tilted	0.176	0.127	**0.176**

<Simultaneous Transmission analysis of AG0 + AG1>:

Test Position	AG0	AG1	AG0+AG1
Right Cheek	1.094	0.580	**1.67**
Right Tilted	1.094	0.214	1.31
Left Cheek	1.092	0.310	1.40
Left Tilted	0.800	0.176	0.98

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

Right Cheek

Ant combination	AG1	AG0	AG0+AG1	SPLSR
	SAR	SAR		
Ant0-Ant1	0.580	0.889	1.47	-
Ant0-Ant4	0.580	1.094	**1.67**	**Case 1**
Ant0-Ant5	0.580	1.047	**1.63**	**Case 2**
Ant0-Ant6	0.580	1.086	**1.67**	**Case 3**
Ant0-Ant8	0.580	0.243	0.82	-
Ant0-Ant9	0.580	0.610	1.19	-
Ant0-WLAN2.4GHz Ant15+8	0.580	0.278	0.86	-
Ant0-WLAN5GHz Ant16+12	0.580	0.353	0.93	-
Ant0-WLAN6GHz Ant16+12	0.580	0.221	0.80	-
Ant0-BT Ant8	0.580	0.095	0.68	-
Ant0-BT Ant15	0.580	0.013	0.59	-
Ant3-Ant1	0.411	0.889	1.30	-
Ant3-Ant4	0.411	1.094	1.51	-
Ant3-Ant5	0.411	1.047	1.46	-
Ant3-Ant6	0.411	1.086	1.50	-
Ant3-Ant8	0.411	0.243	0.65	-
Ant3-Ant9	0.411	0.610	1.02	-
Ant3-WLAN2.4GHz Ant15+8	0.411	0.278	0.69	-
Ant3-WLAN5GHz Ant16+12	0.411	0.353	0.76	-
Ant3-WLAN6GHz Ant16+12	0.411	0.221	0.63	-
Ant3-BT Ant8	0.411	0.095	0.51	-
Ant3-BT Ant15	0.411	0.013	0.42	-

17.4 Hotspot Exposure Conditions

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

Test Position	Ant1	Ant4	Ant5	Ant6	Ant8	Ant9	WLAN2.4GHz Ant15+8	WLAN5GHz Ant16+12	BT Ant8	BT Ant15	MAX
Front	0.517	0.346	0.259	0.203	0.205	0.062	0.881	0.552	0.219	0.103	0.881
Back	0.622	0.437	0.344	0.316	0.148	0.615	0.755	0.315	0.205	0.122	0.755
Left Side	0.700	0.176		0.396		0.108	0.063	0.105	0.002	0.000	0.700
Right Side		0.139	0.584		0.376		1.010	0.400	0.361	0.000	1.010
Top Side		0.656		0.077	0.095	0.071	0.882	0.409	0.069	0.269	0.882

<AG1 maximum reported SAR>:

Test Position	Ant0	Ant3	MAX
Front	0.422	0.594	**0.594**
Back	0.588	0.744	**0.744**
Left Side		0.248	**0.248**
Right Side	1.094		**1.094**
Bottom Side	0.403	1.079	**1.079**

<Simultaneous Transmission analysis of AG0 + AG1>:

Test Position	AG0	AG1	AG0+AG1
Front	0.881	0.594	**1.48**
Back	0.755	0.744	**1.50**
Left Side	0.700	0.248	**0.95**
Right Side	1.010	1.094	**2.10**
Top Side	0.882		**0.88**
Bottom Side		1.079	**1.08**

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

Right Side

Ant combination	AG1 SAR	AG0 SAR	AG0+AG1	SPLSR
Ant0-Ant1	1.094		1.09	-
Ant0-Ant4	1.094	0.139	1.23	-
Ant0-Ant5	1.094	0.584	**1.68**	**Case 1**
Ant0-Ant6	1.094		1.09	-
Ant0-Ant8	1.094	0.376	1.47	-
Ant0-Ant9	1.094		1.09	-
Ant0-WLAN2.4GHz Ant15+8	1.094	1.010	**2.10**	**Case 2**
Ant0-WLAN5GHz Ant16+12	1.094	0.400	1.49	-
Ant0-BT Ant8	1.094	0.361	1.46	-
Ant0-BT Ant15	1.094		1.09	-
Ant3-Ant1			0.00	-
Ant3-Ant4		0.139	0.14	-
Ant3-Ant5		0.584	0.58	-
Ant3-Ant6			0.00	-
Ant3-Ant8		0.376	0.38	-
Ant3-Ant9			0.00	-
Ant3-WLAN2.4GHz Ant15+8		1.010	1.01	-
Ant3-WLAN5GHz Ant16+12		0.400	0.40	-
Ant3-BT Ant8		0.361	0.36	-
Ant3-BT Ant15			0.00	-

17.5 Body-Worn Accessory Exposure Conditions

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

Test Position	Ant1	Ant4	Ant5	Ant6	Ant8	Ant9	WLAN2.4GHz Ant15+8	WLAN5GHz Ant16+12	WLAN6GHz Ant16+12	BT Ant8	BT Ant15	MAX
Front	0.491	0.813	0.308	0.457	0.226	0.054	0.318	0.331	0.063	0.104	0.002	0.813
Back	0.586	0.993	0.333	0.666	0.156	1.064	0.266	0.248	0.203	0.097	0.000	1.064

<AG1 maximum reported SAR>:

Test Position	Ant0	Ant3	MAX
Front	0.406	0.758	**0.758**
Back	0.450	0.819	**0.819**

<Simultaneous Transmission analysis of AG0 + AG1>:

Test Position	AG0	AG1	AG0+AG1
Front	0.813	0.758	**1.57**
Back	1.064	0.819	**1.88**

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

Back

Ant combination	AG1 SAR	AG0 SAR	AG0+AG1	SPLSR
Ant0-Ant1	0.450	0.586	1.04	-
Ant0-Ant4	0.450	0.993	1.44	-
Ant0-Ant5	0.450	0.333	0.78	-
Ant0-Ant6	0.450	0.666	1.12	-
Ant0-Ant8	0.450	0.156	0.61	-
Ant0-Ant9	0.450	1.064	1.51	-
Ant0-WLAN2.4GHz Ant15+8	0.450	0.266	0.72	-
Ant0-WLAN5GHz Ant16+12	0.450	0.254	0.70	-
Ant0-WLAN6GHz Ant16+12	0.450	0.203	0.65	-
Ant0-BT Ant8	0.450	0.097	0.55	-
Ant0-BT Ant15	0.450	0.000	0.45	-
Ant3-Ant1	0.819	0.586	1.41	-
Ant3-Ant4	0.819	0.993	**1.81**	**Case 1**
Ant3-Ant5	0.819	0.333	1.15	-
Ant3-Ant6	0.819	0.666	1.49	-
Ant3-Ant8	0.819	0.156	0.98	-
Ant3-Ant9	0.819	1.064	**1.88**	**Case 2**
Ant3-WLAN2.4GHz Ant15+8	0.819	0.266	1.09	-
Ant3-WLAN5GHz Ant16+12	0.819	0.254	1.07	-
Ant3-WLAN6GHz Ant16+12	0.819	0.203	1.02	-
Ant3-BT Ant8	0.819	0.097	0.92	-
Ant3-BT Ant15	0.819	0.000	0.82	-

17.6 Product specific 10g SAR Exposure Conditions

Remark:

1. For 2.4GHz/Bluetooth Product specific 10g stand-alone SAR is not required for a transmitter or antenna, due to 1g hotspot SAR is <1.2W/kg.

General Note: The unit of SAR evaluation is W/kg.

Simultaneous Transmission Evaluation of WWAN+WLAN+BT+NFC:

<AG0 maximum reported SAR>:

Test Position	WLAN5GHz Ant16+12	WLAN6GHz Ant16+12	MAX
Front	2.456	0.592	**2.456**
Back	0.446	0.184	**0.446**
Left Side	0.072	0.001	**0.072**
Right Side	1.894	0.657	**1.894**
Top Side	1.613	0.242	**1.613**

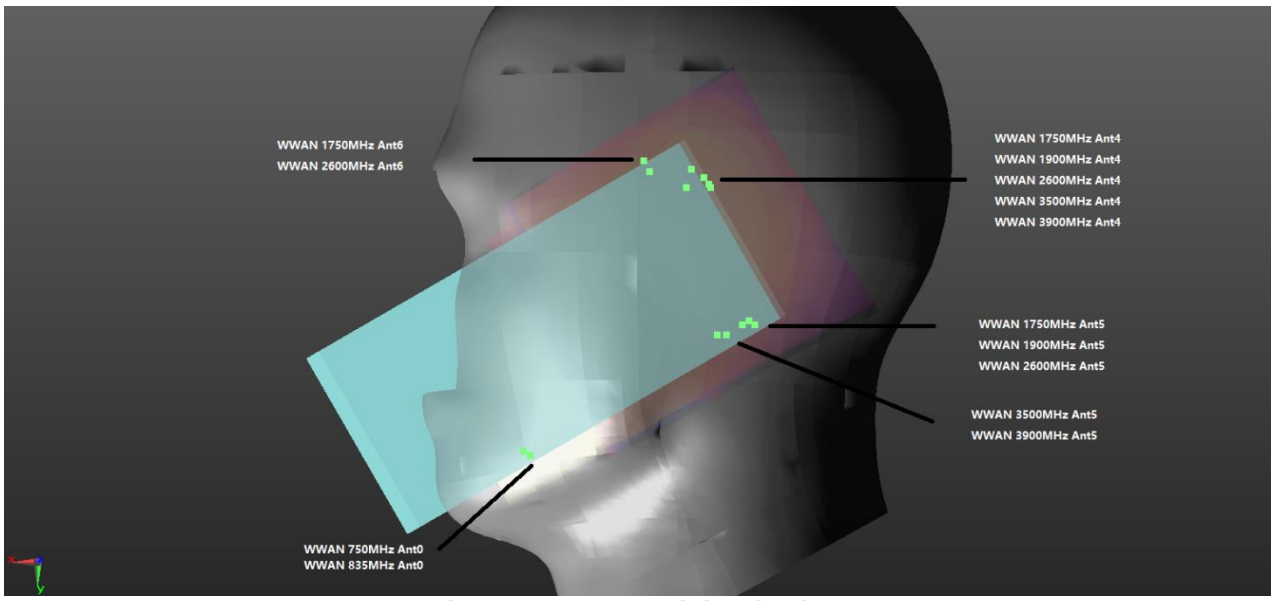
<Simultaneous Transmission analysis of AG0 + NFC >:

Test Position	AG0	NFC	AG0+NFC
Front	2.456	0.001	**2.46**
Back	0.446	0.023	**0.47**
Left Side	0.072	0.001	**0.07**
Right Side	1.894	0.001	**1.90**
Top Side	1.613	0.001	**1.61**
Bottom Side		0.001	**0.00**

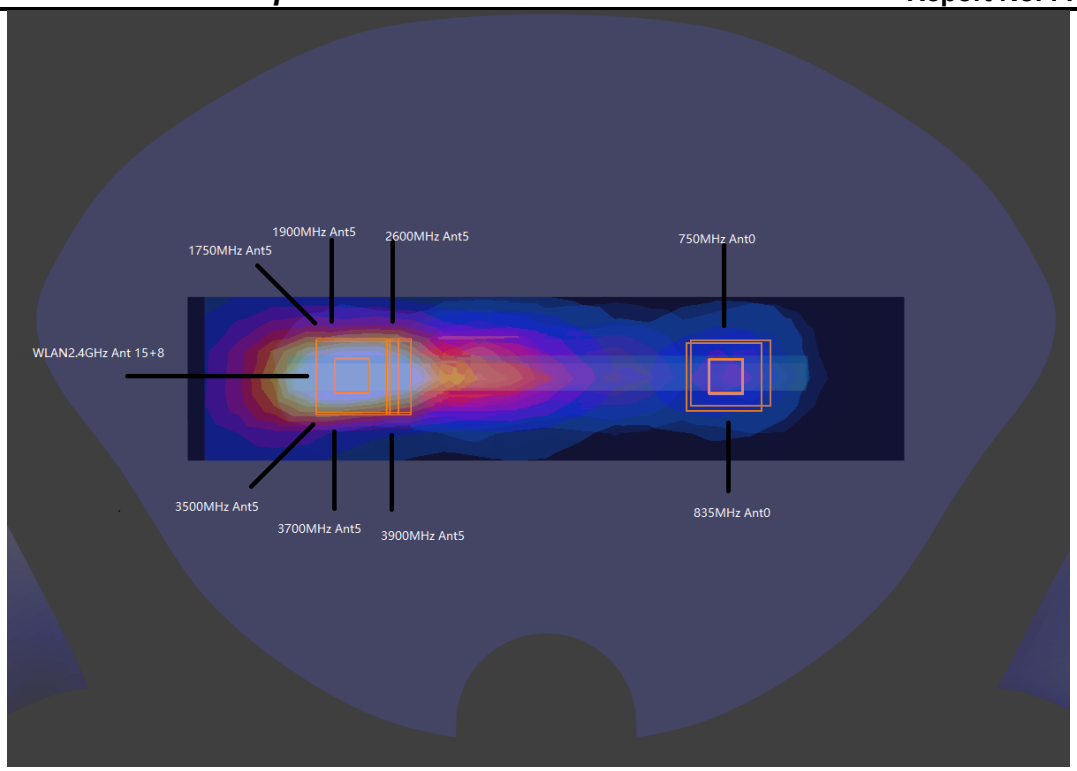
17.7 SPLSR Evaluation and Analysis

General Note:

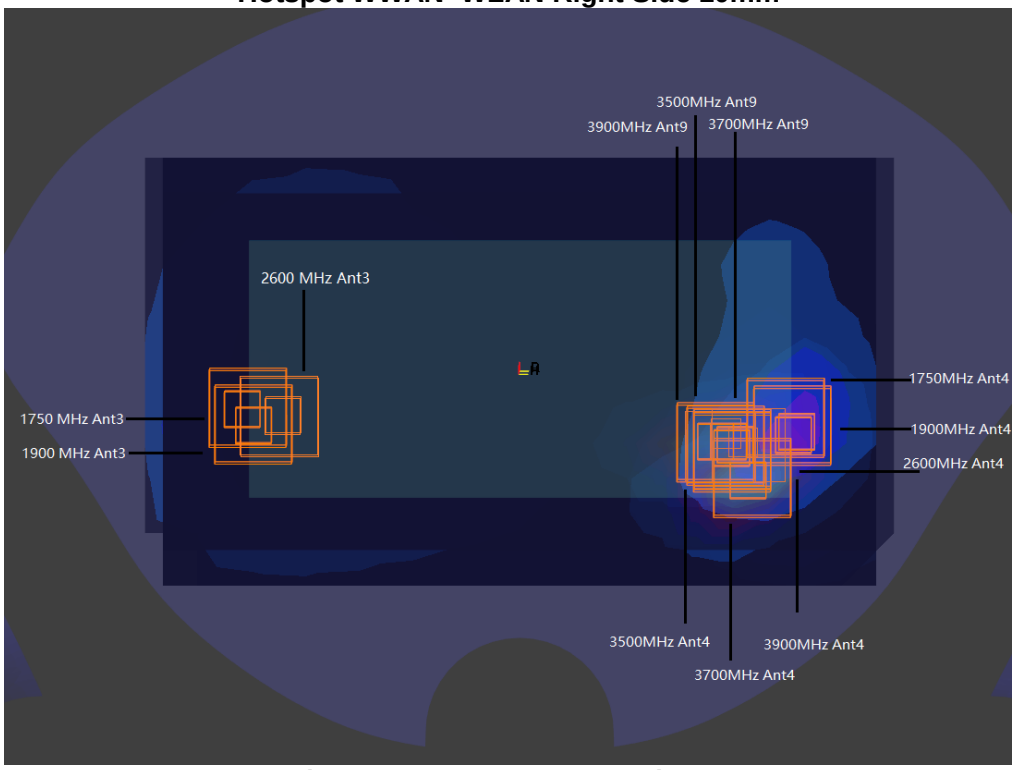
1. When standalone SAR is measured for both antennas in the pair, the peak location separation distance is computed by the square root of [(x1−x2)2 + (y1−y2)2 + (z1−z2)2], where (x1, y1, z1) and (x2, y2, z2) are the coordinates in the area scans or extrapolated peak SAR locations in the zoom scans, as 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 8/15/16/12 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 detail hotspot point for each transmitter in each exposure condition are showing as below figure and the minimum 3D distance for each sum combination is used for SPLSR analysis.
6. The axis peak locations refer to Section 17.8.



Head WWAN+WWAN Right Check 0mm



Hotspot WWAN+WLAN Right Side 10mm



Body-worn WWAN+WWAN Back 15mm

<Head>

No.1 Band	Position	SAR 1g SAR (W/kg)	Summed	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
Ant 0	Right Cheek	0.580	0.580	0mm	77.88	60.95	-1.12	100.1	1.67	0.02	Not required
Ant 4		1.094	1.094	0mm	12.72	-15.04	-2.03				
No.2 Band	**Position**	**SAR 1g SAR (W/kg)**	**Summed**	**Gap**	**SAR peak location (mm)**			**3D distance (mm)**	**Summed SAR (W/kg)**	**SPLSR Results**	**Simultaneous SAR**
					X	Y	Z				
Ant 0	Right Cheek	0.580	0.580	0mm	77.9	68.42	-1.62	65.8	1.63	0.03	Not required
Ant 5		1.047	1.047	0mm	20.17	36.94	-1.52				
No.3 Band	**Position**	**SAR 1g SAR (W/kg)**	**Summed**	**Gap**	**SAR peak location (mm)**			**3D distance (mm)**	**Summed SAR (W/kg)**	**SPLSR Results**	**Simultaneous SAR**
					X	Y	Z				
Ant 0	Right Cheek	0.580	0.580	0mm	77.73	71.91	-1.11	104.7	1.67	0.02	Not required
Ant 6		1.086	1.086	0mm	33.29	-22.91	-1.34				

<Hotspot>

No.1 Band	Position	SAR 1g SAR (W/kg)	Summed	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
Ant 0	Right Side	1.094	1.094	10mm	-31.4	52.6	-207	111.0	1.68	0.02	Not required
Ant 5		0.584	0.584	10mm	-24.5	-58.2	-207				
No.2 Band	**Position**	**SAR 1g SAR (W/kg)**	**Summed**	**Gap**	**SAR peak location (mm)**			**3D distance (mm)**	**Summed SAR (W/kg)**	**SPLSR Results**	**Simultaneous SAR**
					X	Y	Z				
Ant 0	Right Side	1.094	1.094	10mm	-31.4	52.6	-207	110.8	2.10	0.03	Not required
WLAN2.4GHz 15+8		1.010	1.010	10mm	-24.8	-58	-207				

<Body-worn>

No.1 Band	Position	SAR 1g SAR (W/kg)	Summed	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
Ant3	Back	0.819	1.812	15mm	-7.6	-74.7	-207	141.7	1.81	0.02	Not required
Ant4		0.993		15mm	-5	67	-207				
No.2 Band	**Position**	**SAR 1g SAR (W/kg)**	**Summed**	**Gap**	**SAR peak location (mm)**			**3D distance (mm)**	**Summed SAR (W/kg)**	**SPLSR Results**	**Simultaneous SAR**
					X	Y	Z				
Ant3	Back	0.819	1.883	15mm	-7.6	-74.7	-207	128.8	1.88	0.02	Not required
Ant9		1.064		15mm	-3	54	-207				

17.8 Maximum Reported SAR and SAR Peak Locations

General Note:

1. The maximum reported 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>

Right Cheek														
Band		Ant0			Ant4			Ant5			Ant6			
GSM850	SAR (W/kg)	0.329												
	Axis	78.02	62.05	-1.15										
GSM1900	SAR (W/kg)				0.873			0.439						
	Axis				5.25	-26.28	-1.06	-13.51	38.12	5.55				
WCDMA II	SAR (W/kg)				0.693			0.569						
	Axis				5.2	-26.2	-1.03	-13.45	38.05	5.67				
WCDMA IV	SAR (W/kg)				0.813			0.491						
	Axis				7.26	-26.75	-1.1	-15.51	32.89	6.35				
WCDMA V	SAR (W/kg)	0.538												
	Axis	78	62.06	-1.11										
LTE Band 2	SAR (W/kg)				0.74									
	Axis				5.25	-26.3	-1.11							
LTE Band 4	SAR (W/kg)				0.691			0.595			0.745			
	Axis				5.99	-28.15	-0.99	-15.65	35.15	6.29	28.61	-26.65	-1.17	
LTE Band 5	SAR (W/kg)	0.566												
	Axis	77.88	60.95	-1.12										
LTE Band 12	SAR (W/kg)	0.282												
	Axis	78.1	68.5	-1.77										
LTE Band 13	SAR (W/kg)	0.446												
	Axis	78.15	68.45	-1.66										
LTE Band 25	SAR (W/kg)				0.838									
	Axis				2.97	-25.73	-0.91							
LTE Band 26	SAR (W/kg)	0.517												
	Axis	77.99	71.89	-1.12										
LTE Band 66	SAR (W/kg)				0.97			0.353			0.949			
	Axis				5.95	-27.51	-0.97	-15.55	33.15	6.45	28.63	-27.06	-1.13	
LTE Band 7	SAR (W/kg)				0.938			0.737			0.979			
	Axis				3.59	-27.25	-0.92	7.55	43.29	2.11	30.08	-26.15	-1.12	
LTE Band 38	SAR (W/kg)				0.962			0.512			1.045			
	Axis				5.06	-27.8	-0.93	7.46	43.26	2.15	32.14	-26.13	-1.04	
LTE Band 41	SAR (W/kg)				1.094			0.587			1.01			
	Axis				3.59	-27.25	-0.92	7.39	45.02	2.26	30.24	-27.22	-0.98	
LTE Band 42	SAR (W/kg)				1.008			0.492						
	Axis				13	-19.06	-1.7	17.74	40.12	-0.66				
LTE Band 48	SAR (W/kg)				0.995			0.556						
	Axis				6.62	-20.87	-1.29	16.97	41.55	-0.89				
FR1 n2	SAR (W/kg)				0.678			0.595						
	Axis				2.48	-21.16	-1.11	-13.39	37.99	5.75				
FR1 n5	SAR (W/kg)	0.58												
	Axis	77.73	71.91	-1.11										
FR1 n12	SAR (W/kg)	0.313												
	Axis	77.9	68.42	-1.62										
FR1 n25	SAR (W/kg)				0.619			0.674						
	Axis				2.49	-21.16	-1.08	-13.44	38.11	5.66				
FR1 n26	SAR (W/kg)	0.499												
	Axis	77.73	71.91	-1.11										
FR1 n66	SAR (W/kg)				0.794			0.838			0.981			

	Axis				3.03	-18.88	-1.16	-15.41	33.42	6.48	31.38	-25.38	-1.08
FR1 n7	SAR (W/kg)				0.758			0.792			0.969		
	Axis				3.6	-23.3	-1.1	7.62	43.73	2.08	33.46	-25.59	-0.93
FR1 n38	SAR (W/kg)				1.002			1.047			1.086		
	Axis				8.43	-26.79	-1.12	7.71	44.15	2.12	33.29	-22.91	-1.34
FR1 n41	SAR (W/kg)				1.009			1.013			1.031		
	Axis				8.41	-25.75	-1.23	7.32	44.26	2.21	33.37	-25.85	-0.94
FR1 n48	SAR (W/kg)				0.683			0.605					
	Axis				12.72	-15.04	-2.03	17.9	38	-0.91			
FR1 n77	SAR (W/kg)				0.67			0.654					
	Axis				5.35	-22.3	-1.28	18.61	35.44	-1.64			
FR1 n78	SAR (W/kg)				0.657			0.972					
	Axis				6.33	-21.97	-1.35	20.17	36.94	-1.52			

<Hotspot>

Right Side							
Band		Ant0			Ant5		
GSM850	SAR (W/kg)	0.466					
	Axis	-25.3	54.1	-207			
GSM1900	SAR (W/kg)				0.289		
	Axis				-20.8	-54.5	-207
WCDMA II	SAR (W/kg)				0.366		
	Axis				-27.7	-53.7	-207
WCDMA IV	SAR (W/kg)				0.24		
	Axis				-26.5	-56.6	-207
WCDMA V	SAR (W/kg)	0.828					
	Axis	-26.6	55.1	-207			
LTE Band 2	SAR (W/kg)				0.213		
	Axis				-26.1	-52.7	-207
LTE Band 4	SAR (W/kg)				0.295		
	Axis				-25.6	-56.9	-207
LTE Band 5	SAR (W/kg)	0.984					
	Axis	-26.3	54.6	-207			
LTE Band 12	SAR (W/kg)	0.719					
	Axis	-27.5	55.6	-207			
LTE Band 13	SAR (W/kg)	1.093					
	Axis	-26	56.3	-207			
LTE Band 25	SAR (W/kg)				0.237		
	Axis				-27.2	-52.4	-207
LTE Band 26	SAR (W/kg)	0.916					
	Axis	-26.5	56.8	-207			
LTE Band 66	SAR (W/kg)				0.152		
	Axis				-24.7	-58.8	-207
LTE Band 7	SAR (W/kg)				0.281		
	Axis				-25	-54.5	-207
LTE Band 38	SAR (W/kg)				0.438		
	Axis				-24.8	-53.6	-207
LTE Band 41	SAR (W/kg)				0.486		
	Axis				-25.3	-55.5	-207
LTE Band 42	SAR (W/kg)				0.315		
	Axis				-26.2	-55.3	-207
LTE Band 48	SAR (W/kg)				0.348		
	Axis				-25.4	-54.8	-207
FR1 n2	SAR (W/kg)				0.345		
	Axis				-30.4	-53.9	-207
FR1 n5	SAR (W/kg)	0.784					

	Axis	-22.9	58.5	-207			
FR1 n12	SAR (W/kg)	1.094					
	Axis	-31.4	52.6	-207			
FR1 n25	SAR (W/kg)				0.232		
	Axis				-27.2	-53.2	-207
FR1 n26	SAR (W/kg)	0.822					
	Axis	-26.9	56.2	-207			
FR1 n66	SAR (W/kg)				0.393		
	Axis				-25.1	-52.4	-207
FR1 n7	SAR (W/kg)				0.5		
	Axis				-28	-56.5	-207
FR1 n38	SAR (W/kg)				0.515		
	Axis				-28.8	-57.5	-207
FR1 n41	SAR (W/kg)				0.584		
	Axis				-24.5	-58.2	-207
FR1 n48	SAR (W/kg)				0.397		
	Axis				-27.5	-57.6	-207
FR1 n77	SAR (W/kg)				0.32		
	Axis				-28.8	-56.5	-207
FR1 n78	SAR (W/kg)				0.495		
	Axis				-26.4	-55.1	-207

WLAN2.4GHz 15+8	SAR (W/kg)	1.007		
	Axis	-24.8	-58	-207

<Body-worn>

Back										
Band		**Ant3**			**Ant4**			**Ant9**		
GSM1900	**SAR**				**0.322**					
	Axis				-33.1	76.1	-207			
WCDMA II	**SAR**				**0.791**					
	Axis				-28.8	74.8	-207			
WCDMA IV	**SAR**				**0.712**					
	Axis				-21.7	74.4	-207			
LTE Band 4	**SAR**	**0.819**			**0.748**					
	Axis	-7.6	-74.7	-207	-17.5	74.1	-207			
LTE Band 66	**SAR**	**0.755**			**0.619**					
	Axis	-6.1	-75.7	-207	-25.8	73.2	-207			
LTE Band 2	**SAR**				**0.709**					
	Axis				-36.4	69	-207			
LTE Band 25	**SAR**				**0.388**					
	Axis				-31.9	72.6	-207			
LTE Band 7	**SAR**	**0.686**			**0.908**					
	Axis	-13.7	-77.5	-207	-7.6	77	-207			
LTE Band 38	**SAR**	**0.375**			**0.546**					
	Axis	-13.9	-77	-207	4.2	77	-207			
LTE Band 41	**SAR**	**0.366**			**0.470**					
	Axis	-13.9	-77.5	-207	-37.6	71	-207			
LTE Band 42	**SAR**				**0.455**			**0.707**		
	Axis				3.1	77.6	-207	-1	59.5	-207
LTE Band 48	**SAR**				**0.312**			**0.446**		
	Axis				-7.5	78.5	-207	-1	58	-207
FR1 n66	**SAR**	**0.692**			**0.658**					
	Axis	-6.1	-75.7	-207	23.4	73	-207			
FR1 n2	**SAR**				**0.789**					
	Axis				-35	70.3	-207			

FR1 n25	SAR				0.571					
	Axis				-37.3	71.3	-207			
FR1 n7	SAR	0.570			0.968					
	Axis	-16.8	-76.5	-207	4	75.4	-207			
FR1 n38	SAR	0.550			0.839					
	Axis	-20.2	-76	-207	-41.2	71.5	-207			
FR1 n41	SAR	0.716			0.993					
	Axis	-18.5	-76	-207	4	74	-207			
FR1 n48	SAR				0.606			0.905		
	Axis				0.8	76.6	-207	1	58.3	-207
FR1 n77	SAR				0.808			1.064		
	Axis				-4.5	70.5	-207	-0.5	60.5	-207
FR1 n78	SAR				0.845			1.040		
	Axis				-5	67	-207	-3	54	-207

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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 648474 D04 v01r03, “SAR Evaluation Considerations for Wireless Handsets”, Oct 2015.

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

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

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

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

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

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

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

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