FCC SAR Test Report

APPLICANT	: Motorola Mobility LLC
EQUIPMENT	: Mobile Cellular Phone
BRAND NAME	: Motorola
MODEL NAME	: XT2417-1, XT2417-2, XT2417-4, XT2417D
FCC ID	: IHDT56AQ3
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

Table of Contents

Revision History

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FA3O1303	Rev. 01	Initial issue of report.	Dec. 04, 2023

1. Statement of Compliance

The maximum results of Specific Absorption Rate (SAR) found during testing for **Motorola Mobility LLC, Mobile Cellular Phone, XT2417-1, XT2417-2, XT2417-4, XT2417D,** are as follows.

Highest 1g SAR Summary						
Equipment Class	Frequency Band		Head (Separation 0mm)	Hotspot (Separation 5mm)	Body-worn (Separation 5mm)	Highest Simultaneous Transmission 1g SAR (W/kg)
			1g SAR (W/kg)			
Licensed	GSM	GSM850	0.48	1.26	1.31	1.59
		GSM1900	<0.10	1.09	1.25	
	WCDMA	WCDMA II	0.17	1.22	1.28	
		WCDMA IV	0.27	1.16	1.30	
		WCDMA V	0.59	1.13	1.13	
	LTE	LTE Band 7	0.51	1.24	1.21	
		LTE Band 12/17	0.91	0.76	0.73	
		LTE Band 13	0.92	1.23	1.23	
		LTE Band 14	0.83	1.36	1.29	
		LTE Band 25/2	0.89	1.32	1.35	
		LTE Band 26/5	0.90	1.34	1.24	
		LTE Band 30	0.43	1.25	1.25	
		LTE Band 66/4	0.89	1.32	1.38	
		LTE Band 71	0.60	0.60	0.70	
		LTE Band 41/38	0.38	1.36	1.27	
		LTE Band 48	0.84	0.58	0.90	
	5G NR	FR1 n7	0.49	1.18	1.18	
		FR1 n12	0.77	0.64	0.64	
		FR1 n14	0.67	0.90	0.90	
		FR1 n25/n2	0.82	1.07	1.21	
		FR1 n26/n5	0.91	1.35	1.30	
		FR1 n30	0.27	1.22	1.22	
		FR1 n66	0.90	1.34	1.27	
		FR1 n70	0.89	1.37	1.27	
		FR1 n71	0.47	0.51	0.49	
		FR1 n41	0.87	1.23	1.24	
		FR1 n48	0.88	0.65	0.87	
		FR1 n77/n78	0.88	**1.39**	**1.39**	
DTS	WLAN	2.4GHz WLAN	**1.35**	0.57	1.33	1.59
NII		5GHz WLAN	1.10	0.60	1.17	1.59
DSS	Bluetooth	2.4GHz Bluetooth	0.49	0.30	0.48	1.59

Highest 10g SAR Summary				
Equipment Class	Frequency Band		Product Specific 10g SAR (W/kg) (Separation 0mm)	Highest Simultaneous Transmission 10g SAR (W/kg)
Licensed	GSM	GSM850	2.85	3.99
		GSM1900	3.19	
	WCDMA	WCDMA II	3.38	
		WCDMA IV	3.45	
		WCDMA V	2.41	
	LTE	LTE Band 7	3.30	
		LTE Band 13	2.90	
		LTE Band 14	3.09	
		LTE Band 25/2	**3.59**	
		LTE Band 26/5	3.27	
		LTE Band 30	3.06	
		LTE Band 66/4	**3.59**	
		LTE Band 41/38	3.18	
		LTE Band 48	2.28	
	5G NR	FR1 n7	2.67	
		FR1 n25/n2	2.72	
		FR1 n26	1.35	
		FR1 n30	2.96	
		FR1 n66	3.33	
		FR1 n70	3.58	
		FR1 n41	2.88	
		FR1 n48	2.68	
		FR1 n77/n78	3.16	
DTS	WLAN	2.4GHz WLAN	3.58	3.97
NII		5GHz WLAN	2.89	3.99
Date of Testing:			2023/10/21 ~ 2023/11/28	

Remark:
1. This device supports LTE B2 / B4 / B5 / B17 / B38 and B25 / B66 / B26 / B12 / B41. Since the supported frequency span for LTE B2 / B4 / B5 / B17 / B38 falls completely within the supports frequency span for LTE B25 / B66 / B26 / B12 / B41, both LTE bands have the same target power, and both LTE bands share the same transmission path; therefore, SAR was only assessed for LTE B25 / B66 / B26 / B12 / B41.
2. This device supports 5GNR n78 /n2 /n5 and n77 /n25 /n26. Since the supported frequency span for 5GNR n78 /n2 /n5 falls completely within the supports frequency span for n77/ n25 /n26, both 5GNR bands have the same target power, and both 5GNR bands share the same transmission path; therefore, SAR was only assessed for n77/ n25 /n26.

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

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

2. Administration Data

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

Testing Laboratory			
Test Firm	Sporton International Inc. (Kunshan)		
Test Site Location	No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300 People's Republic of China TEL : +86-512-57900158 FAX : +86-512-57900958		
Test Site No.	Sporton Site No.	FCC Designation No.	FCC Test Firm Registration No.
	SAR03-KS	CN1257	314309

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

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

3. Guidance Applied

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

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

4. Equipment Under Test (EUT) Information

4.1 General Information

Product Feature & Specification	
Equipment Name	Mobile Cellular Phone
Brand Name	Motorola
Model Name	XT2417-1, XT2417-2, XT2417-4, XT2417D
FCC ID	IHDT56AQ3
IMEI Code	Sample 1 IMEI 1: 354581940043657 IMEI 2: 354581940043665 Sample 2 IMEI 1: 354581940055370 IMEI 2: 354581940055388
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 14: 788 MHz ~ 798 MHz LTE Band 17: 704 MHz ~ 716 MHz LTE Band 25: 1850 MHz ~ 1915 MHz LTE Band 26: 814 MHz ~ 849 MHz LTE Band 30: 2305 MHz ~ 2315 MHz LTE Band 38: 2570 MHz ~ 2620 MHz LTE Band 41: 2496 MHz ~ 2690 MHz LTE Band 48: 3550 MHz ~ 3700 MHz LTE Band 66: 1710 MHz ~ 1780 MHz LTE Band 71: 663 MHz ~ 698 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 n14: 788 MHz ~ 798 MHz 5G NR n25: 1850 MHz ~ 1915 MHz 5G NR n26: 814 MHz ~ 849 MHz 5G NR n30: 2305 MHz ~ 2315 MHz 5G NR n66: 1710 MHz ~ 1780 MHz 5G NR n70: 1695 MHz ~ 1710 MHz 5G NR n71: 663 MHz ~ 698 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 Bluetooth: 2402 MHz ~ 2480 MHz NFC: 13.56 MHz
Mode	GSM/GPRS/EGPRS RMC/AMR 12.2Kbps HSDPA HSUPA

	DC-HSDPA HSPA+(16QAM uplink is supported) LTE: QPSK, 16QAM, 64QAM, 256QAM 5G NR : CP-OFDM / DFT-s-OFDM, PI/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM WLAN 2.4GHz 802.11b/g/n HT20/HT40 WLAN 5GHz 802.11a/n HT20/HT40 WLAN 5GHz 802.11ac VHT20/VHT40/VHT80 Bluetooth BR/EDR/LE NFC: ASK
HW Version	DVT2
SW Version	U1UFN34.35
GSM / (E)GPRS Transfer mode	Class B – EUT cannot support Packet Switched and Circuit Switched Network simultaneously but can automatically switch between Packet and Circuit Switched Network.
EUT Stage	Identical Prototype

Remark:

1. This device supports VoIP in GPRS, EGPRS, WCDMA and LTE (e.g. for 3rd-party VoIP), LTE supports VoLTE operation.
2. This device 2.4GHz WLAN support hotspot operation and Bluetooth support tethering applications.
3. This device 5.2GHz WLAN/5.8GHz WLAN support hotspot operation, and 5.2GHz WLAN/5.8GHz WLAN supports WiFi Direct (GC/GO), and 5.3GHz / 5.5GHz supports WiFi Direct (GC only).
4. This device does not support DTM operation and supports GPRS/EGPRS mode up to multi-slot class 12.
5. For dual SIM card mobile has single SIM slots + eSIM (electronic SIM) and supports dual SIM dual standby. The WWAN radio transmission will be enabled by either one SIM at a time (single active).
6. The device implements the power management and 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). Details about the power management decision and sensor detection are provided in the operational description. The device will invoke corresponding work scenarios power level base on frequency bands/antennas, which can refer to appendix E. power table.
7. For WLAN/BT transmitter, while the device WLAN is transmitting simultaneously with the WWAN/BT antenna, the device power will be reduced power at head and hotspot conditions. For WLAN/BT transmitter, while the device WLAN is transmitting simultaneously with the WWAN/BT antenna and Proximity sensors trigger, the device power will be reduced power at body-worn and extremity exposure conditions.
8. For some WWAN bands, sensor on power level is higher than hotspot power level, so front/back sensor on SAR can represent hotspot conservatively.
9. This device supports HPUE for LTE Band 41 and 5GNR n77/n78/n41 with class 2 level, HPUE power has been measured separately. For HPUE power is higher than power class 3 but with lower duty cycle, the maximum average power for class 2 and class 3 is almost the same, so we chose power class 3 full SAR testing and power class 2 verify the worst case of power class 3 SAR.
10. For 5GNR 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 test, using FTM (Factory Test Mode) with default 100% duty cycle transmission to perform SAR testing.
11. For 5GNR EN-DC mode, standalone SAR performed for 5GNR NSA band with the maximum power, EN-DC SAR summed EN-DC mode 5GNR standalone SAR and LTE standalone SAR, the result of EN-DC SAR is more conservatively.
12. This device implements antenna tuning techniques for several WWAN (cellular) operating modes and frequencies for the purpose of improving antenna efficiency over a broad range of frequencies. Specifically, these techniques are employed in the LTE and 5GNR modes. In this report SAR was measured according to the normally required SAR configurations with the tuner active and worst tune state (auto tune) was used for SAR testing. The detail descriptions of the antenna tuner and supplemental data for additional information can be referred to section 17 and appendix F.
13. The four model names are only for different market purpose, and all the others are the same.
14. There are two samples, the different between them refer to the XT2417-1, XT2417-2, XT2417-4, XT2417D_Operational Description of Product Equality Declaration which is exhibit separately. According to the differences, so sample 1 was chosen to perform full testing and the sample 2 verified the worst case of sample 1.
15. This device has NFC function and the NFC SAR report will be separately submitted.
16. 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	n2	FDD	15	5, 10, 15, 20
	n5	FDD	15	5, 10, 15, 20
	n7	FDD	15	5, 10, 15, 20, 25, 30, 40
	n12	FDD	15	5, 10, 15
	n25	FDD	15	5, 10, 15, 20, 25,30, 40
	n30	FDD	15	5, 10
	n66	FDD	15	5, 10, 15, 20, 30, 40
	n71	FDD	15	5, 10, 15, 20
	n41	TDD	30	20, 30, 40, 50, 60, 70, 80, 90, 100
	n77	TDD	30	20, 30, 40, 50, 60, 70, 80, 90, 100
	n78	TDD	30	20, 30, 40, 50, 60, 70, 80, 90, 100
SA	n2	FDD	15	5, 10, 15, 20
	n5	FDD	15	5, 10, 15, 20
	n7	FDD	15	5, 10, 15, 20, 25, 30, 40
	n12	FDD	15	5, 10, 15
	n14	FDD	15	5, 10
	n25	FDD	15	5, 10, 15, 20, 25,30, 40
	n26	FDD	15	5, 10, 15, 20
	n30	FDD	15	5, 10
	n66	FDD	15	5, 10, 15, 20, 30, 40
	n70	FDD	15	5, 10, 15
	n71	FDD	15	5, 10, 15, 20
	n41	TDD	30	20, 30, 40, 50, 60, 70, 80, 90, 100
	n48	TDD	30	10, 20, 30, 40
	n77	TDD	30	20, 30, 40, 50, 60, 70, 80, 90, 100
	n78	TDD	30	20, 30, 40, 50, 60, 70, 80, 90, 100

4.2 General LTE SAR Test and Reporting Considerations

<table>
<tr><th colspan="2">Summarized necessary items addressed in KDB 941225 D05 v02r05</th></tr>
<tr><td>FCC ID</td><td>IHDT56AQ3</td></tr>
<tr><td>Equipment Name</td><td>Mobile Cellular Phone</td></tr>
<tr><td>Operating Frequency Range of each LTE transmission band</td><td>LTE Band 2: 1850 MHz ~ 1910 MHz
LTE Band 4: 1710 MHz ~ 1755 MHz
LTE Band 5: 824 MHz ~ 849 MHz
LTE Band 7: 2500 MHz ~ 2570 MHz
LTE Band 12: 699 MHz ~ 716 MHz
LTE Band 13: 777 MHz ~ 787 MHz
LTE Band 14: 788 MHz ~ 798 MHz
LTE Band 17: 704 MHz ~ 716 MHz
LTE Band 25: 1850 MHz ~ 1915 MHz
LTE Band 26: 814 MHz ~ 849 MHz
LTE Band 30: 2305 MHz ~ 2315 MHz
LTE Band 38: 2570 MHz ~ 2620 MHz
LTE Band 41: 2496 MHz ~ 2690 MHz
LTE Band 48: 3550 MHz ~ 3700 MHz
LTE Band 66: 1710 MHz ~ 1780 MHz
LTE Band 71: 663 MHz ~ 698 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 14: 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 30: 5MHz, 10MHz
LTE Band 38: 5MHz, 10MHz, 15MHz, 20MHz
LTE Band 41: 5MHz, 10MHz, 15MHz, 20MHz
LTE Band 48: 5MHz, 10MHz, 15MHz, 20MHz
LTE Band 66:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz
LTE Band 71: 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, Cat18</td></tr>
<tr><td>CA Support</td><td>Supported, Uplink and Downlink</td></tr>
<tr><td>LTE MPR permanently built-in by design</td><td>Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 1, 2 and 3
<table>
<tr><th rowspan="2">Modulation</th><th colspan="6">Channel bandwidth / Transmission bandwidth (N_{RB})</th><th rowspan="2">MPR (dB)</th></tr>
<tr><th>1.4 MHz</th><th>3.0 MHz</th><th>5 MHz</th><th>10 MHz</th><th>15 MHz</th><th>20 MHz</th></tr>
<tr><td>QPSK</td><td>> 5</td><td>> 4</td><td>> 8</td><td>> 12</td><td>> 16</td><td>> 18</td><td>≤ 1</td></tr>
<tr><td>16 QAM</td><td>≤ 5</td><td>≤ 4</td><td>≤ 8</td><td>≤ 12</td><td>≤ 16</td><td>≤ 18</td><td>≤ 1</td></tr>
<tr><td>16 QAM</td><td>> 5</td><td>> 4</td><td>> 8</td><td>> 12</td><td>> 16</td><td>> 18</td><td>≤ 2</td></tr>
<tr><td>64 QAM</td><td>≤ 5</td><td>≤ 4</td><td>≤ 8</td><td>≤ 12</td><td>≤ 16</td><td>≤ 18</td><td>≤ 2</td></tr>
<tr><td>64 QAM</td><td>> 5</td><td>> 4</td><td>> 8</td><td>> 12</td><td>> 16</td><td>> 18</td><td>≤ 3</td></tr>
<tr><td>256 QAM</td><td colspan="6">≥ 1</td><td>≤ 5</td></tr>
</table></td></tr>
<tr><td>LTE A-MPR</td><td>In the base station simulator configuration, Network Setting value is set to NS_01 to disable A-MPR during SAR testing and the LTE SAR tests was transmitting on all TTI frames (Maximum TTI)</td></tr>
<tr><td>Spectrum plots for RB configuration</td><td>A properly configured base station simulator was used for the SAR and power measurement; therefore, spectrum plots for each RB allocation and offset configuration are not included in the SAR report.</td></tr>
<tr><td>Power reduction applied to satisfy SAR compliance</td><td>Yes, when operating in Proximity sensors/receiver/hotspot detect mechanism, head/body -worn /hotspot/extremity will trigger reduced power for some bands applied to satisfy SAR compliance, the detail please referred to section 13.</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 13.</td></tr>
<tr><td>LTE Carrier Aggregation Additional Information</td><td>1. This device supports LTE Carrier Aggregation (CA) in the uplink for intra-band and inter-band with two component carriers in the uplink. SAR Measurements and conducted powers were evaluated per FCC Guidance.
2. This device supports maximum of 4 carriers in the downlink and 2 carriers in the uplink.</td></tr>
</table>

Transmission (H, M, L) channel numbers and frequencies in each LTE band												
LTE Band 2												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	18607	1850.7	18615	1851.5	18625	1852.5	18650	1855	18675	1857.5	18700	1860
M	18900	1880	18900	1880	18900	1880	18900	1880	18900	1880	18900	1880
H	19193	1909.3	19185	1908.5	19175	1907.5	19150	1905	19125	1902.5	19100	1900
LTE Band 4												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	19957	1710.7	19965	1711.5	19975	1712.5	20000	1715	20025	1717.5	20050	1720
M	20175	1732.5	20175	1732.5	20175	1732.5	20175	1732.5	20175	1732.5	20175	1732.5
H	20393	1754.3	20385	1753.5	20375	1752.5	20350	1750	20325	1747.5	20300	1745
LTE Band 5												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz					
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)				
L	20407	824.7	20415	825.5	20425	826.5	20450	829				
M	20525	836.5	20525	836.5	20525	836.5	20525	836.5				
H	20643	848.3	20635	847.5	20625	846.5	20600	844				
LTE Band 7												
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz					
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)				
L	20775	2502.5	20800	2505	20825	2507.5	20850	2510				
M	21100	2535	21100	2535	21100	2535	21100	2535				
H	21425	2567.5	21400	2565	21375	2562.5	21350	2560				
LTE Band 12												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz					
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)				
L	23017	699.7	23025	700.5	23035	701.5	23060	704				
M	23095	707.5	23095	707.5	23095	707.5	23095	707.5				
H	23173	715.3	23165	714.5	23155	713.5	23130	711				
LTE Band 13												
	Bandwidth 5 MHz				Bandwidth 10 MHz							
	Channel #		Freq.(MHz)		Channel #		Freq.(MHz)					
L	23205		779.5		23230		782					
M	23230		782									
H	23255		784.5									
LTE Band 14												
	Bandwidth 5 MHz				Bandwidth 10 MHz							
	Channel #		Channel #		Channel #		Freq.(MHz)					
L	23305		790.5		23330		793					
M	23330		793									
H	23355		795.5									
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 30

	Bandwidth 5 MHz		Bandwidth 10 MHz	
	Channel #	Freq.(MHz)	Channel #	Freq.(MHz)
L	27685	2307.5	27710	2310
M	27710	2310		
H	27735	2312.5		

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 71

	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	133147	665.5	133172	668	133197	670.5	133222	673
M	133247	675.5	133272	678	133297	680.5	133322	683
H	133447	695.5	133422	693	133397	690.5	133372	688

LTE Band 48

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

<For LTE Overlap Bands Description>

1) LTE Bands BW

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

2) LTE Bands tune up:

Band	Antenna	Power Reduction	DSI 2 Tune-up Limit	DSI 3 Tune-up Limit	DSI 7 Tune-up Limit	DSI 6 Tune-up Limit	DSI 4 Tune-up Limit	Default Tune-up Limit
LTE Band 2	Ant 0	SA	24.00	18.00	16.50	21.00	24.00	24.00
LTE Band 2 Other PA	Ant 0	SA	22.50	16.50	15.00	19.50	22.50	22.50
LTE Band 25	Ant 0	SA	24.00	18.00	16.50	21.00	24.00	24.00
LTE Band 25 Other PA	Ant 0	SA	22.50	16.50	15.00	19.50	22.50	22.50
LTE Band 2	Ant 0	ENDC	24.00	15.00	14.00	18.00	24.00	24.00
LTE Band 2 Other PA	Ant 0	ENDC	22.50	13.50	12.50	16.50	22.50	22.50
LTE Band 25	Ant 0	ENDC	24.00	18.00	16.50	21.00	24.00	24.00
LTE Band 25 Other PA	Ant 0	ENDC	22.50	16.50	15.00	19.50	22.50	22.50
LTE Band 2	Ant 4	SA	16.50	17.50	14.50	20.00	22.00	22.00
LTE Band 2 Other PA	Ant 4	SA	18.50	19.50	16.50	22.00	24.00	24.00
LTE Band 25	Ant 4	SA	16.50	17.50	14.50	20.00	22.00	22.00
LTE Band 25 Other PA	Ant 4	SA	18.50	19.50	16.50	22.00	24.00	24.00
LTE Band 2	Ant 4	ENDC	14.00	15.00	11.50	17.00	22.00	22.00
LTE Band 2 Other PA	Ant 4	ENDC	16.00	17.00	13.50	19.00	24.00	24.00
LTE Band 25	Ant 4	ENDC	14.50	17.50	11.00	17.00	22.00	22.00
LTE Band 25 Other PA	Ant 4	ENDC	16.00	19.50	13.00	19.00	24.00	24.00
LTE Band 4	Ant 0	SA	24.00	19.50	18.00	22.50	24.00	24.00
LTE Band 4 Other PA	Ant 0	SA	23.00	18.50	17.00	21.50	23.00	23.00
LTE Band 66	Ant 0	SA	24.00	19.50	18.00	22.50	24.00	24.00
LTE Band 66 Other PA	Ant 0	SA	23.00	18.50	17.00	21.50	23.00	23.00
LTE Band 4	Ant 0	ENDC	24.00	15.50	15.50	19.50	24.00	24.00
LTE Band 4 Other PA	Ant 0	ENDC	23.00	14.50	14.50	18.50	23.00	23.00
LTE Band 66	Ant 0	ENDC	24.00	16.50	15.50	19.50	24.00	24.00
LTE Band 66 Other PA	Ant 0	ENDC	23.00	15.50	14.50	18.50	23.00	23.00
LTE Band 4	Ant 0	UL_CA	24.00	15.50	15.50	19.50	24.00	24.00
LTE Band 4 Other PA	Ant 0	UL_CA	23.00	14.50	14.50	18.50	23.00	23.00
LTE Band 66	Ant 0	UL_CA	24.00	16.50	15.50	19.50	24.00	24.00
LTE Band 66 Other PA	Ant 0	UL_CA	23.00	15.50	14.50	18.50	23.00	23.00
LTE Band 4	Ant 4	SA	18.50	19.50	17.50	22.50	23.00	23.00
LTE Band 4 Other PA	Ant 4	SA	19.50	20.50	18.50	23.50	24.00	24.00
LTE Band 66	Ant 4	SA	18.50	19.50	17.50	22.50	23.00	23.00
LTE Band 66 Other PA	Ant 4	SA	19.50	20.50	18.50	23.50	24.00	24.00
LTE Band 4	Ant 4	ENDC	15.50	16.50	14.00	20.00	23.00	23.00
LTE Band 4 Other PA	Ant 4	ENDC	16.50	17.50	15.00	21.00	24.00	24.00
LTE Band 66	Ant 4	ENDC	15.50	16.50	14.00	20.00	23.00	23.00
LTE Band 66 Other PA	Ant 4	ENDC	16.50	17.50	15.00	21.00	24.00	24.00
LTE Band 4	Ant 4	UL_CA	17.50	18.50	17.50	21.00	23.00	23.00
LTE Band 4 Other PA	Ant 4	UL_CA	18.50	19.50	18.50	22.00	24.00	24.00
LTE Band 66	Ant 4	UL_CA	17.50	18.50	17.50	21.00	23.00	23.00

LTE Band 66 Other PA	Ant 4	UL_CA	18.50	19.50	18.50	22.00	24.00	24.00
LTE Band 5	Ant 0	SA	24.00	23.50	23.50	24.00	24.00	24.00
LTE Band 26	Ant 0	SA	24.00	23.50	23.50	24.00	24.00	24.00
LTE Band 5	Ant 0	ENDC	24.00	20.50	21.00	22.50	24.00	24.00
LTE Band 26	Ant 0	ENDC	24.00	20.50	21.00	22.50	24.00	24.00
LTE Band 5	Ant 4	SA	23.00	24.00	23.50	24.00	24.00	24.00
LTE Band 26	Ant 4	SA	23.00	24.00	23.50	24.00	24.00	24.00
LTE Band 5	Ant 4	ENDC	20.00	19.50	19.50	24.00	24.00	24.00
LTE Band 26	Ant 4	ENDC	23.00	24.00	23.50	24.00	24.00	24.00
LTE Band 12	Ant 0	SA	24.00	24.00	24.00	24.00	24.00	24.00
LTE Band 17	Ant 0	SA	24.00	24.00	24.00	24.00	24.00	24.00
LTE Band 12	Ant 4	SA	23.50	23.50	23.00	24.00	24.00	24.00
LTE Band 17	Ant 4	SA	23.50	23.50	23.00	24.00	24.00	24.00
LTE Band 41 PC3	Ant 1	SA	24.00	22.50	22.50	24.00	24.00	24.00
LTE Band 38	Ant 1	SA	24.00	22.50	22.50	24.00	24.00	24.00

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 n14: 788 MHz ~ 798 MHz 5G NR n25: 1850 MHz ~ 1915 MHz 5G NR n26: 814 MHz ~ 849 MHz 5G NR n30: 2305 MHz ~ 2315 MHz 5G NR n66: 1710 MHz ~ 1780 MHz 5G NR n70: 1695 MHz ~ 1710 MHz 5G NR n71: 663 MHz ~ 698 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 n2	LTE B4/5/7/12/13/14/30/66/71
LTE Anchor Bands for n5	LTE B2/7/30/48/66
LTE Anchor Bands for n7	LTE B2/4/5/12/66
LTE Anchor Bands for n12	LTE B2/66
LTE Anchor Bands for n25	LTE B7/12/26/66
LTE Anchor Bands for n30	LTE B2/5/12/14/66
LTE Anchor Bands for n41	LTE B2/4/5/12/25/26/66/71
LTE Anchor Bands for n66	LTE B2/5/7/12/13/14/30/48/71
LTE Anchor Bands for n71	LTE B2/7/48/66
LTE Anchor Bands for n77	LTE B2/5/7/12/13/14/25/30/66
LTE Anchor Bands for n78	LTE B2/4/5/7/12/13/25/26/66/71

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

NR Band 2

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

NR Band 5

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

NR Band 7

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

NR Band 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 14				
	Bandwidth 5MHz		Bandwidth 10MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	158100	790.5	158600	793
M	158600	793		
H	159100	795.5		

NR Band 25														
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 40MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	370500	1852.5	371000	1855	371500	1857.5	372000	1860	372500	1862.5	373000	1865	374000	1870
M	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	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 30				
	Bandwidth 5MHz		Bandwidth 10MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	461500	2307.5	462000	2310
M	462000	2310		
H	462500	2312.5		

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

NR Band 70						
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	339500	1697.5	340000	1700	340500	1702.5
M	340500	1702.5	340500	1702.5		
H	341500	1707.5	341000	1705		

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

NR Band 41																		
	Bandwidth 20MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 50MHz		Bandwidth 60MHz		Bandwidth 70MHz		Bandwidth 80MHz		Bandwidth 90MHz		Bandwidth 100MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	501204	2506.02	502200	2511	503202	2516.01	504204	2521.02	505200	2526	500202	2501.01	507204	2536.02	508200	2541	509202	2546.01
M	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99
H	535998	2679.99	534996	2674.98	534000	2670	532998	2664.99	531996	2659.98	537000	2685	529998	2649.99	528996	2644.98	528000	2640

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

NR Band 77																				
	Bandwidth 20MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 50MHz		Bandwidth 60MHz		Bandwidth 70MHz		Bandwidth 80MHz		Bandwidth 90MHz		Bandwidth 100MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	647334	3710.01	647668	3715.02	648000	3720	648334	3725.01	648668	3730.02	649000	3735	649334	3740.01	649668	3745.02	650000	3750
M	656000	3840	656000	3840.00	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840
H	664668	3970.02	664334	3965.01	664000	3960	663668	3955.02	663334	3950.01	663000	3945	662668	3940.02	662334	3935.01	662000	3930

NR Band 78																		
	Bandwidth 20MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 50MHz		Bandwidth 60MHz		Bandwidth 70MHz		Bandwidth 80MHz		Bandwidth 90MHz		Bandwidth 100MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	647334	3710.01	647668	3715.02	648000	3720	648334	3725.01	648668	3730.02	649000	3735	649334	3740.01	649668	3745.02		
M	650000	3750	650000	3750.00	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750
H	652668	3790.02	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 20MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 50MHz		Bandwidth 60MHz		Bandwidth 70MHz		Bandwidth 80MHz		Bandwidth 90MHz		Bandwidth 100MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	630668	3460.02	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
H	636000	3540	635666	3534.99	635332	3529.98	635000	3525	634666	3519.99	634332	3514.98	634000	3510	633666	3504.99		

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

<For NR Overlap Bands Description>

1) NR Bands BW

Band	5 MH	10 MHz	15 MHz	20 MHz	25 MHz	30 MHz	35 MHz	40 MHz	45 MHz	50 MHz	60 MHz	70 MHz	80 MHz	90 MHz	100 MHz
FR1 n2	Yes	Yes	Yes	Yes	-	-	-	-	-	-	-	-	-	-	-
FR1 n25	Yes	Yes	Yes	Yes	Yes	Yes	-	Yes	-	-	-	-	-	-	-
FR1 n5	Yes	Yes	Yes	Yes	-	-	-	-	-	-	-	-	-	-	-
FR1 n26	Yes	Yes	Yes	Yes	-	-	-	-	-	-	-	-	-	-	-
FR1 n77	-	-	-	Yes	-	Yes	-	-	Yes	Yes	Yes	Yes	Yes	Yes	Yes
FR1 n78	-	-	-	Yes	-	Yes	-	-	Yes	Yes	Yes	Yes	Yes	Yes	Yes

2) NR Bands tune up:

Band	Antenna	Power Reduction	DSI 2 Tune-up Limit	DSI 3 Tune-up Limit	DSI 7 Tune-up Limit	DSI 6 Tune-up Limit	DSI 4 Tune-up Limit	Default Tune-up Limit
5G NR n2	Ant 0	SA	24.00	17.50	16.50	22.00	24.00	24.00
5G NR n2 Other PA	Ant 0	SA	23.00	16.50	15.50	21.00	23.00	23.00
5G NR n25	Ant 0	SA	24.00	17.50	16.50	22.00	24.00	24.00
5G NR n25 Other PA	Ant 0	SA	23.00	16.50	15.50	21.00	23.00	23.00
5G NR n2	Ant 0	ENDC	24.00	17.50	16.50	22.00	24.00	24.00
5G NR n2 Other PA	Ant 0	ENDC	23.00	16.50	15.50	21.00	23.00	23.00
5G NR n25	Ant 0	ENDC	24.00	17.50	16.50	22.00	24.00	24.00
5G NR n25 Other PA	Ant 0	ENDC	23.00	16.50	15.50	21.00	23.00	23.00
5G NR n2	Ant 4	SA	17.50	17.00	14.00	19.50	23.00	23.00
5G NR n2 Other PA	Ant 4	SA	18.50	18.00	15.00	20.50	24.00	24.00
5G NR n25	Ant 4	SA	17.50	17.00	14.00	19.50	23.00	23.00
5G NR n25 Other PA	Ant 4	SA	18.50	18.00	15.00	20.50	24.00	24.00
5G NR n2	Ant 4	ENDC	17.50	17.00	14.00	19.50	23.00	23.00

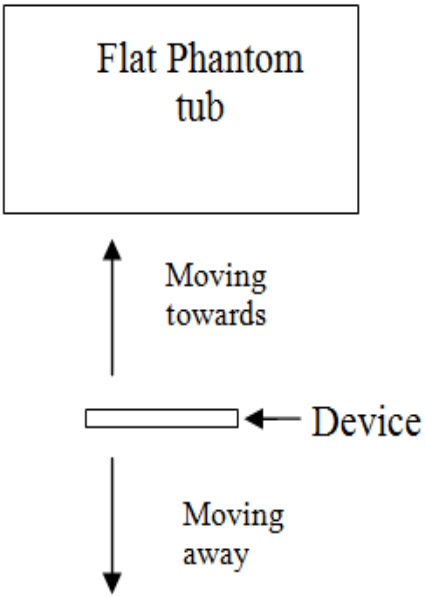
5G NR n2 Other PA	Ant 4	ENDC	18.50	18.00	15.00	20.50	24.00	24.00
5G NR n25	Ant 4	ENDC	17.50	17.00	14.00	19.50	23.00	23.00
5G NR n25 Other PA	Ant 4	ENDC	18.50	18.00	15.00	20.50	24.00	24.00
5G NR n5	Ant 0	SA	24.00	24.00	23.50	24.00	24.00	24.00
5G NR n26	Ant 0	SA	24.00	24.00	23.50	24.00	24.00	24.00
5G NR n5	Ant 4	SA	23.00	24.00	22.00	24.00	24.00	24.00
5G NR n26	Ant 4	SA	23.00	24.00	22.00	24.00	24.00	24.00
5G NR n77 PC3	Ant 5	SA	15.50	16.00	14.50	20.50	24.00	24.00
5G NR n77 PC2	Ant 5	SA	18.50	19.00	17.50	23.50	27.00	27.00
5G NR n78 PC3	Ant 5	SA	15.50	16.00	14.50	20.50	24.00	24.00
5G NR n78 PC2	Ant 5	SA	18.50	19.00	17.50	23.50	27.00	27.00
5G NR n77 PC3	Ant 5	ENDC	12.50	13.00	11.50	18.00	24.00	24.00
5G NR n77 PC2	Ant 5	ENDC	15.50	16.00	14.50	21.00	27.00	27.00
5G NR n78 PC3	Ant 5	ENDC	12.50	13.00	11.50	18.00	24.00	24.00
5G NR n78 PC2	Ant 5	ENDC	15.50	16.00	14.50	21.00	27.00	27.00
5G NR n77 PC3	Ant 1	SA	21.00	16.00	16.00	19.50	21.00	21.00
5G NR n77 PC2	Ant 1	SA	24.00	19.00	19.00	22.50	24.00	24.00
5G NR n78 PC3	Ant 1	SA	21.00	16.00	16.00	19.50	21.00	21.00
5G NR n78 PC2	Ant 1	SA	24.00	19.00	19.00	22.50	24.00	24.00
5G NR n77 PC3	Ant 8	SA	22.50	15.00	13.50	20.50	20.50	22.50
5G NR n77 PC2	Ant 8	SA	25.50	18.00	16.50	23.50	23.50	25.50
5G NR n78 PC3	Ant 8	SA	22.50	15.00	13.50	20.50	20.50	22.50
5G NR n78 PC2	Ant 8	SA	25.50	18.00	16.50	23.50	23.50	25.50
5G NR n77 PC3	Ant 2	SA	22.00	14.50	13.00	16.50	16.50	22.00
5G NR n77 PC2	Ant 2	SA	25.00	17.50	16.00	19.50	19.50	25.00
5G NR n78 PC3	Ant 2	SA	23.00	15.50	14.00	17.50	17.50	23.00
5G NR n78 PC2	Ant 2	SA	26.00	18.50	17.00	20.50	20.50	26.00

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

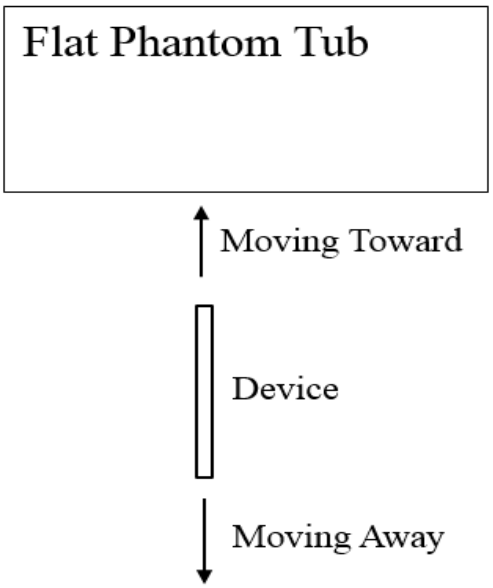
5. Proximity Sensor Triggering Test

<Proximity Sensor Triggering Distance>:

1. Proximity sensor triggering distance testing was performed according to the procedures outlined in KDB 616217 D04 section 6.2, and EUT moving further away from the flat phantom and EUT moving toward the flat phantom were both assessed and the tissue-equivalent medium for highest frequency (5850MHz) and lowest (750MHz) frequency was used for proximity sensor triggering testing.
2. Capacitive proximity sensors placed coincident with antenna elements at the top and bottom ends of the phone are utilized to determine when the device comes in proximity of the user's body at the front or back of the device.
3. The output power will reduce to body worn power level when top and bottom sensor pad be detected.
4. The sensors used to detect the proximity of the user's body at the front or back surface of the device use a detection threshold distance. The data shown in the sections below shows the distance(s). When front or back body worn condition is detected reduced power will be active.
5. The device employs proximity sensors also can detect the presence of the user's a finger or hand when handheld state at the front/back/top/bottom/left/right sides of the device. When front/back/top/bottom/left/right sides of handheld condition is detected reduced power will be active.
6. For verification of compliance of power reduction scheme, additional SAR testing with EUT transmitting at full RF power at a conservative trigger distance -1mm was performed:



Sensor/Handheld detection test set-up, Front and Back sides



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

<P-Sensor>

Proximity Sensor Triggering Distance (mm)				
Position	Front		Back	
	Moving away	Moving towards	Moving away	Moving towards
Minimum	23	18	28	22

<Handheld for ANT 0>

Proximity Sensor Triggering Distance (mm)								
Position	Front		Back		Right Side		Bottom Side	
	Moving away	Moving towards	Moving away	Moving towards	Moving away	Moving towards	Moving away	Moving towards
Minimum	20	15	27	21	12	7	25	19

<Handheld for ANT1>

Proximity Sensor Triggering Distance (mm)								
Position	Front		Back		Left Side		Bottom Side	
	Moving away	Moving towards	Moving away	Moving towards	Moving away	Moving towards	Moving away	Moving towards
Minimum	14	8	22	18	13	17	17	12

<Handheld for ANT4>

Proximity Sensor Triggering Distance (mm)								
Position	Front		Back		Left Side		Top Side	
	Moving away	Moving towards	Moving away	Moving towards	Moving away	Moving towards	Moving away	Moving towards
Minimum	15	10	21	16	13	8	22	16

<Handheld for ANT 5>

Proximity Sensor Triggering Distance (mm)						
Position	Front		Back		Top Side	
	Moving away	Moving towards	Moving away	Moving towards	Moving away	Moving towards
Minimum	9	4	14	9	17	11

<Handheld for ANT 6>

Proximity Sensor Triggering Distance (mm)								
Position	Front		Back		Right Side		Top Side	
	Moving away	Moving towards	Moving away	Moving towards	Moving away	Moving towards	Moving away	Moving towards
Minimum	18	13	23	17	19	15	22	17

6. RF Exposure Limits

6.1 Uncontrolled Environment

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

6.2 Controlled Environment

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

Limits for Occupational/Controlled Exposure (W/kg)

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

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

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

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

7. Specific Absorption Rate (SAR)

7.1 Introduction

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

7.2 SAR Definition

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

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

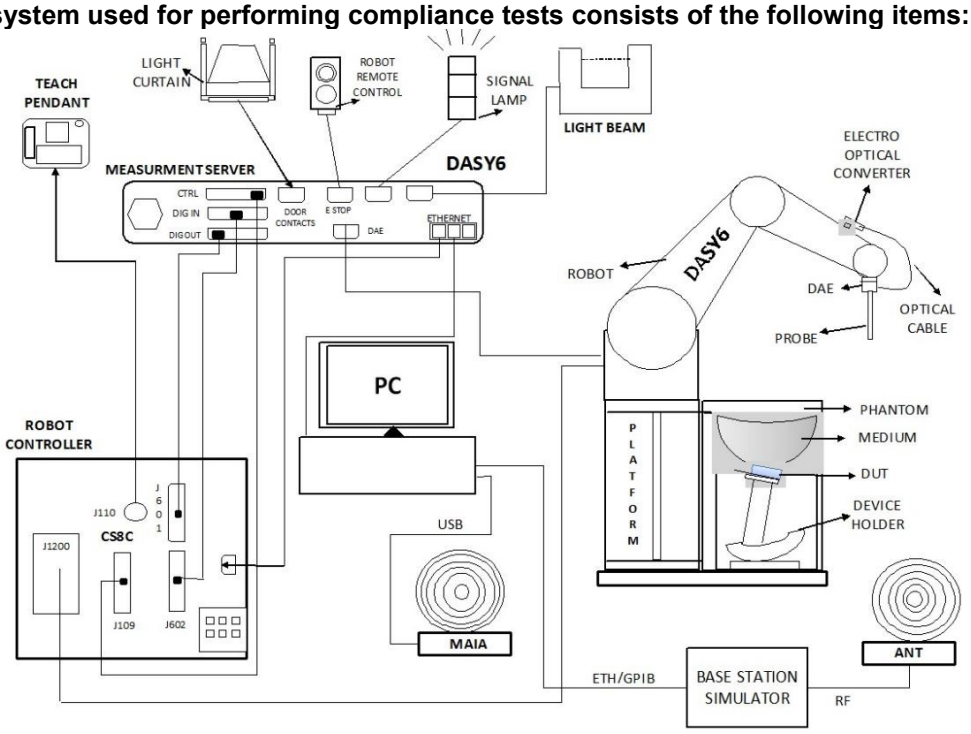
SAR is expressed in units of Watts per kilogram (W/kg)

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

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

8. System Description and Setup

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



- A standard high precision 6-axis robot with controller, teach pendant and software. An arm extension for accommodating the data acquisition electronics (DAE).
- An isotropic Field probe optimized and calibrated for the targeted measurement.
- A data acquisition electronics (DAE) which performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. The unit is battery powered with standard or rechargeable batteries. The signal is optically transmitted to the EOC.
- The Electro-optical converter (EOC) performs the conversion from optical to electrical signals for the digital communication to the DAE. To use optical surface detection, a special version of the EOC is required. The EOC signal is transmitted to the measurement server.
- The function of the measurement server is to perform the time critical tasks such as signal filtering, control of the robot operation and fast movement interrupts.
- The Light Beam used is for probe alignment. This improves the (absolute) accuracy of the probe positioning.
- A computer running Win7 or Win10 and the DASY5 or DASY6 software.
- Remote control and teach pendant as well as additional circuitry for robot safety such as warning lamps, etc.
- The phantom, the device holder and other accessories according to the targeted measurement.

8.1 E-Field Probe

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

<EX3DV4 Probe>

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

<ES3DV3 Probe>

Construction	Symmetric design with triangular core Interleaved sensors Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., DGBE)
Frequency	10 MHz – 4 GHz; Linearity: ±0.2 dB (30 MHz – 4 GHz)
Directivity	±0.2 dB in TSL (rotation around probe axis) ±0.3 dB in TSL (rotation normal to probe axis)
Dynamic Range	5 µW/g – >100 mW/g; Linearity: ±0.2 dB
Dimensions	Overall length: 337 mm (tip: 20 mm) Tip diameter: 3.9 mm (body: 12 mm) Distance from probe tip to dipole centers: 3.0 mm

8.2 Data Acquisition Electronics (DAE)

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

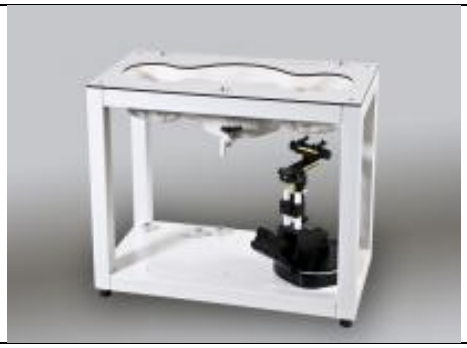
The input impedance of the DAE is 200 MOhm; the inputs are symmetrical and floating. Common mode rejection is above 80 dB.

Photo of DAE

8.3 Phantom

<SAM Twin Phantom>

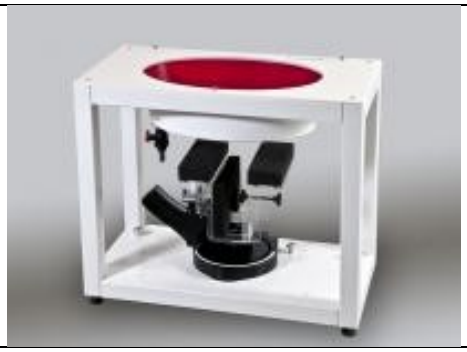
Shell Thickness	2 ± 0.2 mm; Center ear point: 6 ± 0.2 mm
Filling Volume	Approx. 25 liters
Dimensions	Length: 1000 mm; Width: 500 mm; Height: adjustable feet
Measurement Areas	Left Hand, Right Hand, Flat Phantom



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

<ELI Phantom>

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



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

8.4 Device Holder

<Mounting Device for Hand-Held Transmitter>

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

Mounting Device for Hand-Held Transmitters

Mounting Device Adaptor for Wide-Phones

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

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

Mounting Device for Laptops

9. Measurement Procedures

The measurement procedures are as follows:

<Conducted power measurement>

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

<SAR measurement>

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

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

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

9.1 Spatial Peak SAR Evaluation

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

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

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

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

9.2 Power Reference Measurement

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

9.3 Area Scan

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

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

	≤ 3 GHz	> 3 GHz
Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface	5 ± 1 mm	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.	

9.4 Zoom Scan

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

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

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

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

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

9.5 Volume Scan Procedures

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

9.6 Power Drift Monitoring

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

10. Test Equipment List

Manufacturer	Name of Equipment	Type/Model	Serial Number	Calibration	
				Last Cal.	Due Date
SPEAG	750MHz System Validation Kit	D750V3	1087	2022/2/24	2025/2/23
SPEAG	835MHz System Validation Kit	D835V2	4d091	2022/8/19	2025/8/18
SPEAG	1750MHz System Validation Kit	D1750V2	1090	2022/2/24	2025/2/23
SPEAG	1900MHz System Validation Kit	D1900V2	5d118	2022/3/30	2025/3/29
SPEAG	2300MHz System Validation Kit	D2300V2	1055	2023/8/21	2024/8/20
SPEAG	2450MHz System Validation Kit	D2450V2	1095	2022/12/7	2023/12/6
SPEAG	2600MHz System Validation Kit	D2600V2	1061	2020/11/26	2023/11/24
SPEAG	3500MHz System Validation Kit	D3500V2	1037	2020/11/25	2023/11/23
SPEAG	3700MHz System Validation Kit	D3700V2	1008	2020/11/25	2023/11/23
SPEAG	3900MHz System Validation Kit	D3900V2	1048	2023/3/9	2024/3/8
SPEAG	5000MHz System Validation Kit	D5GHzV2	1113	2022/9/23	2025/9/22
SPEAG	Data Acquisition Electronics	DAE4	1279	2023/6/7	2024/6/6
SPEAG	Data Acquisition Electronics	DAE4	1338	2022/12/15	2023/12/14
SPEAG	Dosimetric E-Field Probe	ES3DV3	3293	2022/11/22	2023/11/21
SPEAG	Dosimetric E-Field Probe	EX3DV4	3857	2022/12/14	2023/12/13
SPEAG	Dosimetric E-Field Probe	EX3DV4	7706	2023/1/26	2024/1/25
SPEAG	SAM Twin Phantom	SAM Twin	TP-1697	NCR	NCR
CHIGO	Thermo-Hygrometer	HTC-1	55011	2023/1/8	2024/1/7
SPEAG	Phone Positioner	N/A	N/A	NCR	NCR
Anritsu	Radio Communication Analyzer	MT8821C	6262306175	2023/7/5	2024/7/4
Agilent	ENA Series Network Analyzer	E5071C	MY46111157	2023/7/5	2024/7/4
SPEAG	Dielectric Probe Kit	DAK-3.5	1071	2023/2/20	2024/2/19
Anritsu	Vector Signal Generator	MG3710A	6201682672	2023/1/5	2024/1/4
Rohde & Schwarz	Power Meter	NRVD	102081	2023/7/5	2024/7/4
Rohde & Schwarz	Power Sensor	NRV-Z5	100538	2023/7/5	2024/7/4
Rohde & Schwarz	Power Sensor	NRV-Z5	100539	2023/7/5	2024/7/4
R&S	BLUETOOTH TESTER	CBT	101246	2023/5/15	2024/5/14
Rohde & Schwarz	Spectrum Analyzer	FSV7	101631	2023/10/12	2024/10/11
TES	DIGITAC THERMOMETER	1310	220305411	2023/1/8	2024/1/7
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.

11. System Verification

11.1 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.

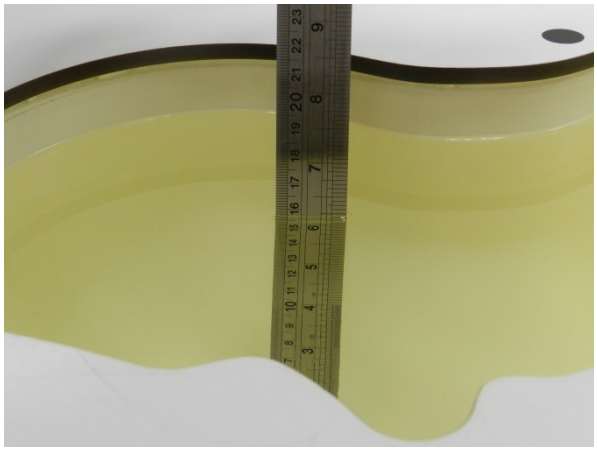


Fig 11.1 Photo of Liquid Height for Head SAR

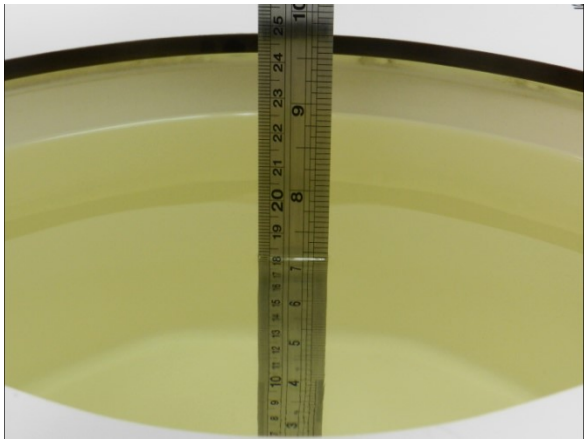


Fig 11.2 Photo of Liquid Height for Body SAR

11.2 Tissue Verification

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

Frequency (MHz)	Water (%)	Sugar (%)	Cellulose (%)	Salt (%)	Preventol (%)	DGBE (%)	Conductivity (σ)	Permittivity (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)	Head	Liquid Temp. (℃)	Conductivity (σ)	Permittivity (ε_r)	Conductivity Target (σ)	Permittivity Target (ε_r)	Delta (σ) (%)	Delta (ε_r) (%)	Limit (%)	Date
750	Head	22.9	0.888	42.248	0.89	41.90	-0.22	0.83	±5	2023/10/21
835	Head	22.7	0.911	41.914	0.90	41.50	1.22	1.00	±5	2023/10/22
1750	Head	22.9	1.315	40.193	1.37	40.10	-4.01	0.23	±5	2023/10/23
1900	Head	22.9	1.405	40.179	1.40	40.00	0.36	0.45	±5	2023/10/24
2300	Head	22.6	1.651	39.621	1.67	39.50	-1.14	0.31	±5	2023/10/25
2450	Head	22.8	1.743	39.248	1.80	39.20	-3.17	0.12	±5	2023/10/26
2600	Head	22.8	2.026	40.214	1.96	39.00	3.37	3.11	±5	2023/10/27
3500	Head	22.8	2.811	38.690	2.91	37.90	-3.40	2.08	±5	2023/10/28
3700	Head	22.6	2.990	38.337	3.12	37.70	-4.17	1.69	±5	2023/10/29
3900	Head	22.9	3.174	38.010	3.32	37.50	-4.40	1.36	±5	2023/10/31
5250	Head	22.7	4.566	35.977	4.71	35.90	-3.06	0.21	±5	2023/11/1
5600	Head	22.6	4.965	35.441	5.07	35.50	-2.07	-0.17	±5	2023/11/2
5750	Head	22.7	5.130	35.252	5.22	35.40	-1.72	-0.42	±5	2023/11/3
750	Head	22.6	0.900	41.197	0.89	41.90	1.12	-1.68	±5	2023/11/5
835	Head	22.6	0.929	40.902	0.90	41.50	3.22	-1.44	±5	2023/11/7
1750	Head	22.8	1.353	40.085	1.37	40.10	-1.24	-0.04	±5	2023/11/9
1900	Head	22.7	1.459	40.000	1.40	40.00	4.21	0.00	±5	2023/11/11
2300	Head	22.7	1.711	39.484	1.67	39.50	2.46	-0.04	±5	2023/11/13
2450	Head	22.7	1.872	40.807	1.80	39.20	4.00	4.10	±5	2023/11/15
2600	Head	22.9	1.980	40.595	1.96	39.00	1.02	4.09	±5	2023/11/17
3500	Head	22.7	2.835	39.048	2.91	37.90	-2.58	3.03	±5	2023/11/19
3700	Head	22.6	3.025	38.720	3.12	37.70	-3.04	2.71	±5	2023/11/21
3900	Head	22.7	3.229	38.414	3.32	37.50	-2.74	2.44	±5	2023/11/23
5250	Head	22.8	4.575	36.286	4.71	35.90	-2.87	1.08	±5	2023/11/25
5600	Head	22.6	4.952	35.732	5.07	35.50	-2.33	0.65	±5	2023/11/27
5750	Head	22.9	5.134	35.562	5.22	35.40	-1.65	0.46	±5	2023/11/28
750	Head	22.7	0.905	42.700	0.89	41.90	1.69	1.91	±5	2023/11/22
835	Head	22.8	0.924	41.400	0.90	41.50	2.67	-0.24	±5	2023/11/22
1750	Head	22.7	1.350	40.100	1.37	40.10	-1.46	0.00	±5	2023/11/23
1900	Head	22.9	1.430	39.800	1.40	40.00	2.14	-0.50	±5	2023/11/23
2300	Head	22.9	1.650	39.700	1.67	39.50	-1.20	0.51	±5	2023/11/24
2450	Head	22.6	1.860	38.400	1.80	39.20	3.33	-2.04	±5	2023/11/20
2600	Head	22.6	1.960	40.400	1.96	39.00	0.00	3.59	±5	2023/11/20
3500	Head	22.7	2.880	38.500	2.91	37.90	-1.03	1.58	±5	2023/11/21
3700	Head	22.7	3.080	38.000	3.12	37.70	-1.28	0.80	±5	2023/11/21
3900	Head	22.9	3.280	37.600	3.32	37.50	-1.20	0.27	±5	2023/11/25
5250	Head	22.8	4.570	35.500	4.71	35.90	-2.97	-1.11	±5	2023/11/25
5600	Head	22.8	4.950	34.800	5.07	35.50	-2.37	-1.97	±5	2023/11/26
5750	Head	22.8	5.130	34.600	5.22	35.40	-1.72	-2.26	±5	2023/11/26

11.3 System Performance Check Results

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

<1g SAR>

Date	Frequency (MHz)	Head	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 (%)
2023/10/21	750	Head	50	1087	3293	1279	0.407	8.58	8.14	-5.13
2023/10/22	835	Head	50	4d091	3293	1279	0.490	9.45	9.8	3.70
2023/10/23	1750	Head	50	1090	3293	1279	1.760	37.00	35.2	-4.86
2023/10/24	1900	Head	50	5d118	3293	1279	2.040	39.30	40.8	3.82
2023/10/25	2300	Head	50	1055	3293	1279	2.470	48.40	49.4	2.07
2023/10/26	2450	Head	50	1095	3293	1279	2.530	52.00	50.6	-2.69
2023/10/27	2600	Head	50	1061	3293	1279	2.980	56.60	59.6	5.30
2023/10/28	3500	Head	50	1037	3857	1279	3.330	68.00	66.6	-2.06
2023/10/29	3700	Head	50	1008	3857	1279	3.400	67.60	68	0.59
2023/10/31	3900	Head	50	1048	3857	1279	3.190	69.10	63.8	-7.67
2023/11/1	5250	Head	50	1113	3857	1279	3.840	81.50	76.8	-5.77
2023/11/2	5600	Head	50	1113	3857	1279	4.020	82.60	80.4	-2.66
2023/11/3	5750	Head	50	1113	3857	1279	3.780	80.80	75.6	-6.44
2023/11/5	750	Head	50	1087	3293	1279	0.416	8.58	8.32	-3.03
2023/11/7	835	Head	50	4d091	3293	1279	0.500	9.45	10	5.82
2023/11/9	1750	Head	50	1090	3293	1279	1.820	37.00	36.4	-1.62
2023/11/11	1900	Head	50	5d118	3293	1279	2.080	39.30	41.6	5.85
2023/11/13	2300	Head	50	1055	3293	1279	2.560	48.40	51.2	5.79
2023/11/15	2450	Head	50	1095	3293	1279	2.720	52.00	54.4	4.62
2023/11/17	2600	Head	50	1061	3293	1279	3.000	56.60	60	6.01
2023/11/19	3500	Head	50	1037	3857	1279	3.330	68.00	66.6	-2.06
2023/11/21	3700	Head	50	1008	3857	1279	3.440	67.60	68.8	1.78
2023/11/23	3900	Head	50	1048	3857	1279	3.210	69.10	64.2	-7.09
2023/11/25	5250	Head	50	1113	3857	1279	3.830	81.50	76.6	-6.01
2023/11/27	5600	Head	50	1113	3857	1279	3.990	82.60	79.8	-3.39
2023/11/28	5750	Head	50	1113	3857	1279	3.770	80.80	75.4	-6.68
2023/11/22	750	Head	50	1087	7706	1338	0.402	8.58	8.04	-6.29
2023/11/22	835	Head	50	4d091	7706	1338	0.472	9.45	9.44	-0.11
2023/11/23	1750	Head	50	1090	7706	1338	1.840	37.00	36.8	-0.54
2023/11/23	1900	Head	50	5d118	7706	1338	2.030	39.30	40.6	3.31
2023/11/24	2300	Head	50	1055	7706	1338	2.310	48.40	46.2	-4.55
2023/11/20	2450	Head	50	1095	7706	1338	2.550	52.00	51	-1.92
2023/11/20	2600	Head	50	1061	7706	1338	2.670	56.60	53.4	-5.65
2023/11/21	3500	Head	50	1037	7706	1338	3.210	68.00	64.2	-5.59
2023/11/21	3700	Head	50	1008	7706	1338	3.320	67.60	66.4	-1.78
2023/11/25	3900	Head	50	1048	7706	1338	3.290	69.10	65.8	-4.78
2023/11/25	5250	Head	50	1113	7706	1338	3.870	81.50	77.4	-5.03
2023/11/26	5600	Head	50	1113	7706	1338	3.880	82.60	77.6	-6.05
2023/11/26	5750	Head	50	1113	7706	1338	3.790	80.80	75.8	-6.19

<10g SAR>

Date	Frequency (MHz)	Head	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 (%)
2023/10/21	750	Head	50	1087	3293	1279	0.268	5.65	5.36	-5.13
2023/10/22	835	Head	50	4d091	3293	1279	0.319	6.22	6.38	2.57
2023/10/23	1750	Head	50	1090	3293	1279	0.937	19.50	18.74	-3.90
2023/10/24	1900	Head	50	5d118	3293	1279	1.050	20.40	21	2.94
2023/10/25	2300	Head	50	1055	3293	1279	1.170	23.70	23.4	-1.27
2023/10/26	2450	Head	50	1095	3293	1279	1.180	24.60	23.6	-4.07
2023/10/27	2600	Head	50	1061	3293	1279	1.310	25.10	26.2	4.38
2023/10/28	3500	Head	50	1037	3857	1279	1.280	25.40	25.6	0.79
2023/10/29	3700	Head	50	1008	3857	1279	1.260	24.40	25.2	3.28
2023/10/31	3900	Head	50	1048	3857	1279	1.120	24.10	22.4	-7.05
2023/11/1	5250	Head	50	1113	3857	1279	1.090	23.30	21.8	-6.44
2023/11/2	5600	Head	50	1113	3857	1279	1.140	23.70	22.8	-3.80
2023/11/3	5750	Head	50	1113	3857	1279	1.070	23.00	21.4	-6.96
2023/11/5	750	Head	50	1087	3293	1279	0.273	5.65	5.46	-3.36
2023/11/7	835	Head	50	4d091	3293	1279	0.326	6.22	6.52	4.82
2023/11/9	1750	Head	50	1090	3293	1279	0.967	19.50	19.34	-0.82
2023/11/11	1900	Head	50	5d118	3293	1279	1.080	20.40	21.6	5.88
2023/11/13	2300	Head	50	1055	3293	1279	1.220	23.70	24.4	2.95
2023/11/15	2450	Head	50	1095	3293	1279	1.260	24.60	25.2	2.44
2023/11/17	2600	Head	50	1061	3293	1279	1.350	25.10	27	7.57
2023/11/19	3500	Head	50	1037	3857	1279	1.280	25.40	25.6	0.79
2023/11/21	3700	Head	50	1008	3857	1279	1.280	24.40	25.6	4.92
2023/11/23	3900	Head	50	1048	3857	1279	1.140	24.10	22.8	-5.39
2023/11/25	5250	Head	50	1113	3857	1279	1.090	23.30	21.8	-6.44
2023/11/27	5600	Head	50	1113	3857	1279	1.120	23.70	22.4	-5.49
2023/11/28	5750	Head	50	1113	3857	1279	1.090	23.00	21.8	-5.22
2023/11/22	750	Head	50	1087	7706	1338	0.263	5.65	5.26	-6.90
2023/11/22	835	Head	50	4d091	7706	1338	0.305	6.22	6.1	-1.93
2023/11/23	1750	Head	50	1090	7706	1338	0.968	19.50	19.36	-0.72
2023/11/23	1900	Head	50	5d118	7706	1338	1.040	20.40	20.8	1.96
2023/11/24	2300	Head	50	1055	7706	1338	1.100	23.70	22	-7.17
2023/11/20	2450	Head	50	1095	7706	1338	1.190	24.60	23.8	-3.25
2023/11/20	2600	Head	50	1061	7706	1338	1.200	25.10	24	-4.38
2023/11/21	3500	Head	50	1037	7706	1338	1.230	25.40	24.6	-3.15
2023/11/21	3700	Head	50	1008	7706	1338	1.230	24.40	24.6	0.82
2023/11/25	3900	Head	50	1048	7706	1338	1.180	24.10	23.6	-2.07
2023/11/25	5250	Head	50	1113	7706	1338	1.090	23.30	21.8	-6.44
2023/11/26	5600	Head	50	1113	7706	1338	1.110	23.70	22.2	-6.33
2023/11/26	5750	Head	50	1113	7706	1338	1.080	23.00	21.6	-6.09

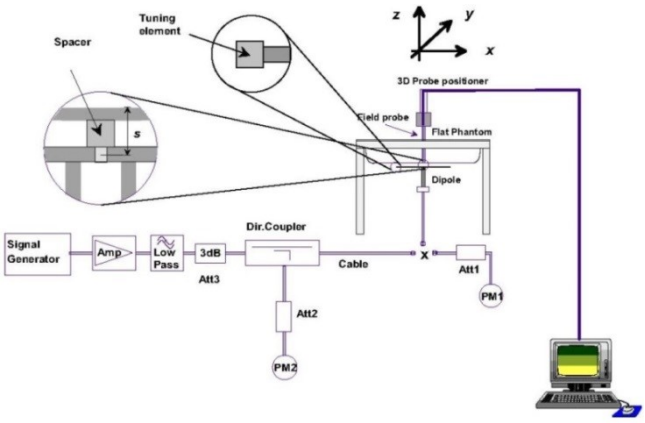


Fig 11.3.1 System Performance Check Setup

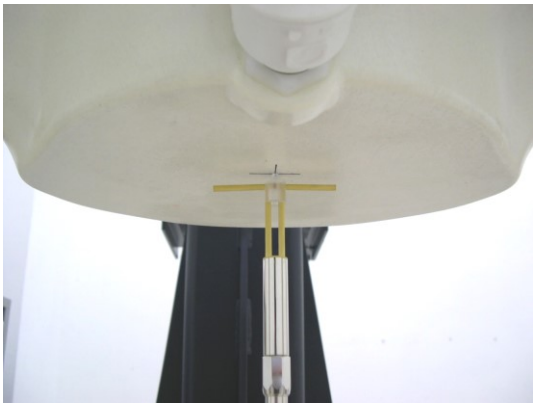


Fig 11.3.2 Setup Photo

12. RF Exposure Positions

12.1 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.

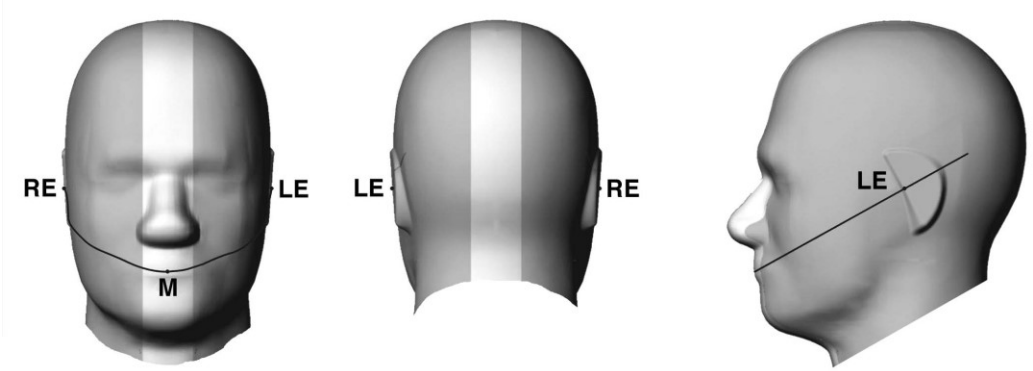


Fig 12.1.1 Front, back, and side views of SAM twin phantom

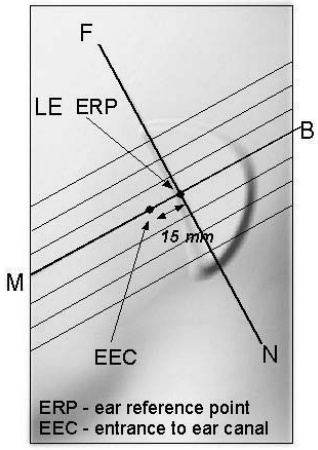


Fig 12.1.2 Close-up side view of phantom showing the ear region.

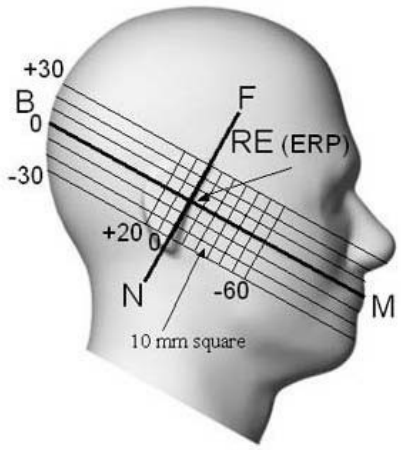


Fig 12.1.3 Side view of the phantom showing relevant markings and seven cross-sectional plane locations

12.2 Definition of the cheek position

1. Ready the handset for talk operation, if necessary. For example, for handsets with a cover piece (flip cover), open the cover. If the handset can transmit with the cover closed, both configurations must be tested.
2. Define two imaginary lines on the handset—the vertical centerline and the horizontal line. The vertical centerline passes through two points on the front side of the handset—the midpoint of the width 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.

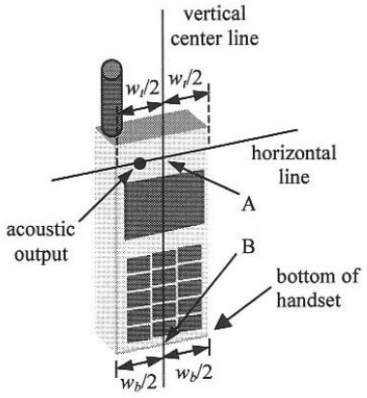


Fig 12.2.1 Handset vertical and horizontal reference lines—"fixed case

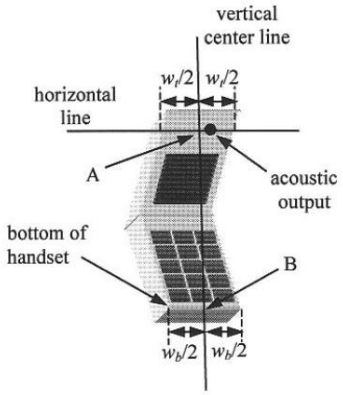


Fig 12.2.2 Handset vertical and horizontal reference lines—"clam-shell case"

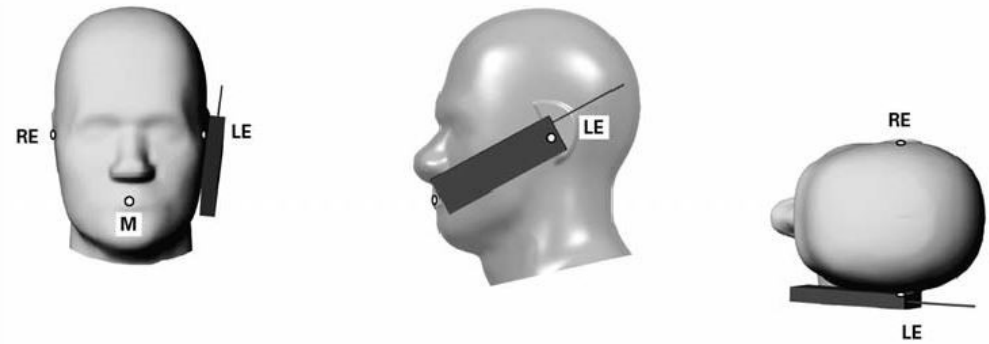


Fig 12.2.3 cheek or touch position. The reference points for the right ear (RE), left ear (LE), and mouth (M), which establish the Reference Plane for handset positioning, are indicated.

12.3 Definition of the tilt position

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

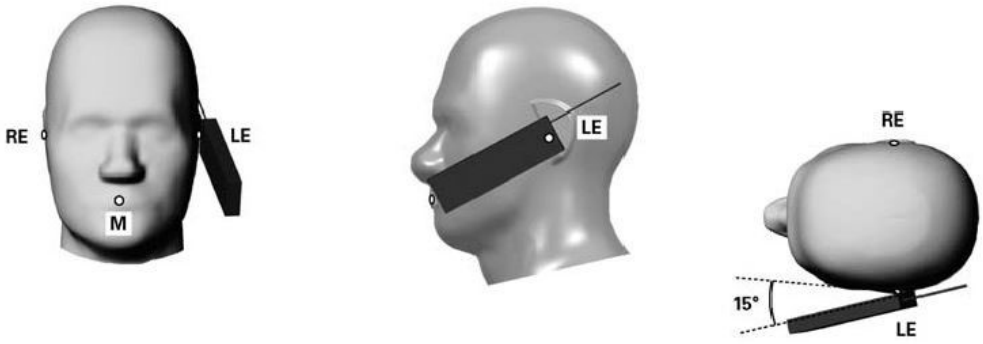


Fig 12.3.1 Tilt position. The reference points for the right ear (RE), left ear (LE), and mouth (M), which define the Reference Plane for handset positioning, are indicated.

12.4 Body Worn Accessory

Body-worn operating configurations are tested with the belt-clips and holsters attached to the device and positioned against a flat phantom in a normal use configuration (see Figure 11.4). Per KDB648474 D04v01r03, body-worn accessory exposure is typically related to voice mode operations when handsets are carried in body-worn accessories. The body-worn accessory procedures in FCC KDB 447498 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.

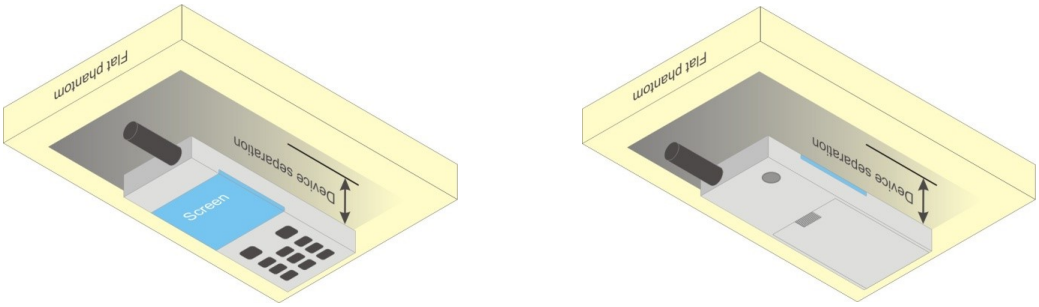


Fig 12.4 Body Worn Position

12.5 Product Specific 10g SAR Exposure

For smart phones with a display diagonal dimension > 15.0 cm or an overall diagonal dimension > 16.0 cm, that 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.

12.6 Wireless Router

Some battery-operated handsets have the capability to transmit and receive user through simultaneous transmission of WIFI simultaneously with a separate licensed transmitter. The FCC has provided guidance in FCC KDB Publication 941225 D06 v02r01 where SAR test considerations for handsets (L 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.

13. Conducted RF Output Power (Unit: dBm)

The detailed conducted power table can refer to Appendix E.

<GSM Conducted Power>

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

<WCDMA Conducted Power>

1. The following tests were conducted according to the test requirements outlines in 3GPP TS 34.121 specification.
2. The procedures in KDB 941225 D01v03r01 are applied for 3GPP Rel. 6 HSPA to configure the device in the required sub-test mode(s) to determine SAR test exclusion.
3. For HSPA+ devices supporting 16 QAM in the uplink, power measurements procedure is according to the configurations in Table C.11.1.4 of 3GPP TS 34.121-1.
4. For DC-HSDPA, the device was configured according to the H-Set 12, Fixed Reference Channel (FRC) configuration in Table C.8.1.12 of 3GPP TS 34.121-1, with the primary and the secondary serving HS-DSCH Cell enabled during the power measurement.

A summary of these settings are illustrated below:

HSDPA Setup Configuration:

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

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

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

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

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

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

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

Setup Configuration

HSUPA Setup Configuration:

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

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

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

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

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

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

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

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

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

Setup Configuration

DC-HSDPA 3GPP release 8 Setup Configuration:

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

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

C.8.1.12 Fixed Reference Channel Definition H-Set 12

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

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

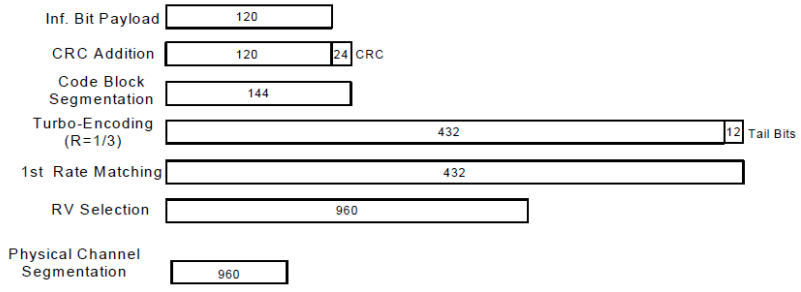


Figure C.8.19: Coding rate for Fixed reference Channel H-Set 12 (QPSK)

Setup Configuration

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	β_{ed}1: 30/15 β_{ed}2: 30/15	β_{ed}3: 24/15 β_{ed}4: 24/15	3.5	2.5	14	105	105

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

Setup Configuration

<WCDMA Conducted Power>

General Note:

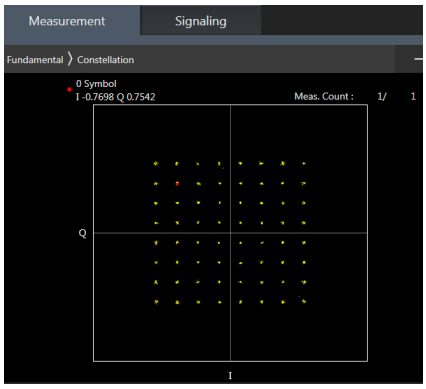
1. Per KDB 941225 D01v03r01, for SAR testing is measured using a 12.2 kbps RMC with TPC bits configured to all "1's".
2. Per KDB 941225 D01v03r01, RMC 12.2kbps setting is used to evaluate SAR. The maximum output power and tune-up tolerance specified for production units in HSDPA / HSUPA / DC-HSDPA /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

<LTE Conducted Power>

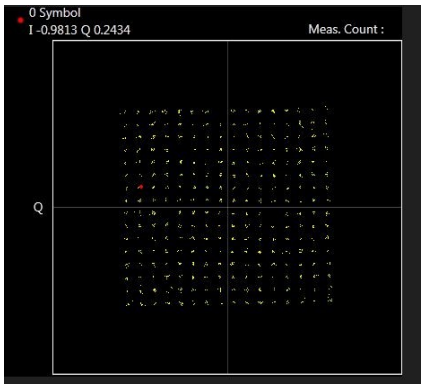
General Note:

1. Anritsu MT8820C base station simulator was used to setup the connection with EUT; the frequency band, channel bandwidth, RB allocation configuration, modulation type are set in the base station simulator to configure EUT transmitting at maximum power and at different configurations which are requested to be reported to FCC, for conducted power measurement and SAR testing.
2. Per KDB 941225 D05v02r05, when a properly configured base station simulator is used for the SAR and power measurements, spectrum plots for each RB allocation and offset configuration is not required.
3. Per KDB 941225 D05v02r05, start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel.
4. Per KDB 941225 D05v02r05, 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure.
5. Per KDB 941225 D05v02r05, for QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested.
6. Per KDB 941225 D05v02r05, 16QAM/64QAM/256QAM output power for each RB allocation configuration is > not ½ dB higher than the same configuration in QPSK and the reported SAR for the QPSK configuration is ≤ 1.45 W/kg; Per KDB 941225 D05v02r05, 16QAM/64QAM/256QAM SAR testing is not required.
7. Per KDB 941225 D05v02r05, smaller bandwidth output power for each RB allocation configuration is > not ½ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg; Per KDB 941225 D05v02r05, smaller bandwidth SAR testing is not required.
8. For LTE B4 / B5 / B12 / B17 / B26 / B38 / B71 the maximum bandwidth does not support three non-overlapping channels, per KDB 941225 D05v02r05, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.
9. LTE B2 /B4 /B5 / B17 / B38 SAR test was covered by B25 / B66 / B26 / B12 / B41; according to April 2015 TCB workshop, SAR test for overlapping LTE bands can be reduced if
   a. the maximum output power, including tolerance, for the smaller band is ≤ the larger band to qualify for the SAR test exclusion
   b. the channel bandwidth and other operating parameters for the smaller band are fully supported by the larger band
10. According to May 2017 TCB workshop, for 16QAM and 64QAM, 256QAM should be verified by checking the signal constellation with a call box to avoid incorrect maximum power levels due to MPR and other requirements associated with signal modulation, and the following figure is taken from the "Fundamental Measurement >> Modulation Analysis >> constellation" mode of the device connect to the MT8821C base station, therefore, the device 256QAM, 64QAM and 16QAM signal modulation are correct.

16QAM



64QAM



256QAM

<TDD LTE SAR Measurement>

TDD LTE configuration setup for SAR measurement

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

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

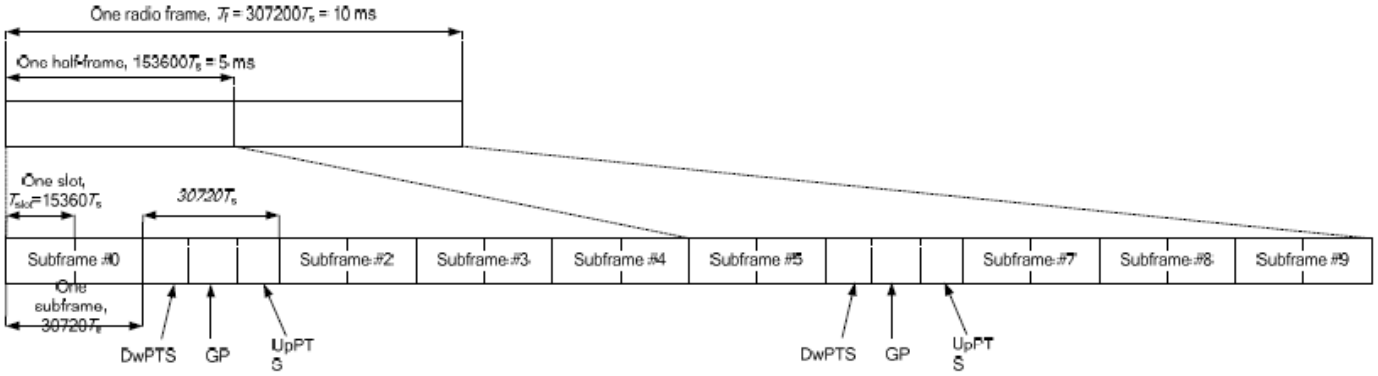


Figure 4.2-1: Frame structure type 2 (for 5 ms switch-point periodicity).

Table 4.2-2: Uplink-downlink configurations.

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

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

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

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

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

The highest duty factor is resulted from:

For LTE TDD Power class 2

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

For LTE TDD Power class 3

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

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

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

<LTE Carrier Aggregation>

General Note:

1. This device supports Carrier Aggregation on downlink for inter and intra band. For the device supports bands and bandwidths and configurations are provided as follow table was according to 3GPP.
2. In applying the existing power measurement procedures of KDB 941225 D05A for DL CA SAR test exclusion, only the subset with the largest number of combinations of frequency bands and CCs in each row need combination, and for this device that all the configurations were choose to power measurement.
3. The gray color table is covered by other combinations and no need to verify power.
4. All permutations exist, no restrictions on Pcell & Scell combinations but Only LTE Band 29A is limited to Scell.

2CC Downlink Carrier Aggregation			3CC Downlink Carrier Aggregation			4CC Downlink Carrier Aggregation		
Number	Combination	Covered by Measurement Superset	Number	Combination	Covered by Measurement Superset	Number	Combination	Covered by Measurement Superset
1	CA_2A-2A	3CC-1	1	CA_2A-2A-4A	4CC-1	1	CA_2A-2A-4A-4A	
2	CA_2A-4A	3CC-1	2	CA_2A-2A-5A	4CC-2	2	CA_2A-2A-4A-5A	
3	CA_2A-5A	3CC-2	3	CA_2A-2A-7A		3	CA_2A-2A-4A-12A	
4	CA_2A-7A	3CC-13	4	CA_2A-2A-12A	4CC-3	4	CA_2A-2A-4A-71A	
5	CA_2A-12A	3CC-4	5	CA_2A-2A-13A	4CC-11	5	CA_2A-2A-5A-66A	
6	CA_2A-13A	3CC-5	6	CA_2A-2A-14A	4CC-12	6	CA_2A-2A-5B	
7	CA_2A-14A	3CC-6	7	CA_2A-2A-29A		7	CA_2A-2A-7A-12A	
8	CA_2A-17A		8	CA_2A-2A-30A	4CC-12	8	CA_2A-2A-7A-66A	
9	CA_2A-29A	3CC-7	9	CA_2A-2A-66A	4CC-5	9	CA_2A-2A-12A-66A	
10	CA_2A-30A	3CC-8	10	CA_2A-2A-71A	4CC-4	10	CA_2A-2A-12B	
11	CA_2A-48A	3CC-21	11	CA_2A-4A-4A	4CC-1	11	CA_2A-2A-13A-66A	
12	CA_2A-66A	3CC-9	12	CA_2A-4A-5A	4CC-2	12	CA_2A-2A-14A-30A	
13	CA_2A-71A	3CC-10	13	CA_2A-4A-7A	4CC-20	13	CA_2A-2A-66A-66A	
14	CA_2C	3CC-47	14	CA_2A-4A-12A	4CC-3	14	CA_2A-2A-66A-71A	
15	CA_4A-4A	3CC-51	15	CA_2A-4A-13A		15	CA_2A-2A-66B	
16	CA_4A-5A	3CC-54	16	CA_2A-4A-29A		16	CA_2A-2A-66C	
17	CA_4A-7A	3CC-56	17	CA_2A-4A-30A		17	CA_2A-4A-4A-5A	
18	CA_4A-12A	3CC-56	18	CA_2A-4A-71A		18	CA_2A-4A-4A-12A	
19	CA_4A-13A	3CC-51	19	CA_2A-5A-7A		19	CA_2A-4A-5B	
20	CA_4A-17A		20	CA_2A-5A-30A		20	CA_2A-4A-7A-7A	
21	CA_4A-29A	3CC-52	21	CA_2A-5A-48A		21	CA_2A-4A-7C	
22	CA_4A-30A	3CC-54	22	CA_2A-5A-66A	4CC-5	22	CA_2A-4A-12B	
23	CA_4A-48A		23	CA_2A-5B	4CC-19	23	CA_2A-5A-48C	
24	CA_4A-71A	3CC-53	24	CA_2A-7A-7A	4CC-29	24	CA_2A-5A-66A-66A	
25	CA_5A-5A	3CC-63	25	CA_2A-7A-12A		25	CA_2A-5A-66B	
26	CA_5A-7A	3CC-65	26	CA_2A-7A-13A	4CC-29	26	CA_2A-5A-66C	
27	CA_5A-30A	3CC-67	27	CA_2A-7A-29A	4CC-30	27	CA_2A-5B-66A	
28	CA_5A-41A		28	CA_2A-7A-66A	4CC-28	28	CA_2A-7A-66A-66A	
29	CA_5A-66A	3CC-68	29	CA_2A-7C	4CC-32	29	CA_2A-7A-7A-13A	
30	CA_5B	3CC-73	30	CA_2A-12A-30A		30	CA_2A-7A-7A-29A	
31	CA_7A-7A	3CC-75	31	CA_2A-12A-66A	4CC-34	31	CA_2A-7A-7A-66A	
32	CA_7A-12A	3CC-78	32	CA_2A-12B	4CC-22	32	CA_2A-7C-13A	
33	CA_7A-13A	3CC-79	33	CA_2A-13A-48A		33	CA_2A-7C-66A	
34	CA_7A-29A	3CC-80	34	CA_2A-13A-66A	4CC-38	34	CA_2A-12A-66A-66A	
35	CA_7A-66A	3CC-80	35	CA_2A-14A-30A	4CC-12	35	CA_2A-12A-66C	
36	CA_7B		36	CA_2A-14A-66A		36	CA_2A-12B-66A	
37	CA_7C	3CC-83	37	CA_2A-29A-30A		37	CA_2A-13A-48C	
38	CA_12A-30A	3CC-85	38	CA_2A-29A-66A		38	CA_2A-13A-66A-66A	
39	CA_12A-48A		39	CA_2A-30A-66A		39	CA_2A-13A-66B	
40	CA_12A-66A	3CC-87	40	CA_2A-48A-48A		40	CA_2A-13A-66C	
41	CA_12B	3CC-89	41	CA_2A-48A-66A	4CC-42	41	CA_2A-48A-48C	
42	CA_13A-48A	3CC-90	42	CA_2A-48C	4CC-41	42	CA_2A-48A-66A-66A	
43	CA_13A-66A	3CC-93	43	CA_2A-66A-66A	4CC-42	43	CA_2A-48C-66A	
44	CA_14A-30A	3CC-96	44	CA_2A-66A-71A	4CC-46	44	CA_2A-48D	

45	CA_14A-66A	3CC-96	45	CA_2A-66B	4CC-47	45	CA_2A-66A-66A-66A	
46	CA_25A-25A	3CC-98	46	CA_2A-66C	4CC-48	46	CA_2A-66A-66A-71A	
47	CA_25A-26A	3CC-98	47	CA_2C-12A		47	CA_2A-66A-66B	
48	CA_25A-41A		48	CA_2C-66A	4CC-49	48	CA_2A-66C-71A	
49	CA_26A-41A		49	CA_4A-4A-5A	4CC-17	49	CA_2C-66A-66A	
50	CA_29A-30A	3CC-101	50	CA_4A-4A-12A	4CC-18	50	CA_4A-4A-5B	
51	CA_29A-66A	3CC-101	51	CA_4A-4A-13A		51	CA_4A-4A-7A	
52	CA_30A-66A	3CC-101	52	CA_4A-4A-29A		52	CA_4A-4A-12B	
53	CA_41A-41A		53	CA_4A-4A-71A		53	CA_4A-48D	
54	CA_41C	3CC-104	54	CA_4A-5A-30A		54	CA_5A-5A-66A-66A	
55	CA_48A-48A	3CC-106	55	CA_4A-5B	4CC-50	55	CA_5A-5A-66B	
56	CA_48A-66A	3CC-107	56	CA_4A-7A-12A		56	CA_5A-5A-66C	
57	CA_48A-71A		57	CA_4A-7A-7A	4CC-20	57	CA_5A-7A-66A-66A	
58	CA_48B		58	CA_4A-7C	4CC-21	58	CA_5A-7C-66A	
59	CA_48C	3CC-114	59	CA_4A-12A-30A		59	CA_5A-30A-66A-66A	
60	CA_66A-66A	3CC-116	60	CA_4A-12B	4CC-52	60	CA_5A-48C-66A	
61	CA_66A-71A	3CC-117	61	CA_4A-29A-30A		61	CA_5A-48D	
62	CA_66B	3CC-118	62	CA_4A-48C		62	CA_5B-66A-66A	
63	CA_66C	3CC-119	63	CA_5A-5A-66A	4CC-54	63	CA_5B-66B	
			64	CA_5A-7A-66A	4CC-57	64	CA_5B-66C	
			65	CA_5A-7A-7A		65	CA_7A-7A-29A-66A	
			66	CA_5A-7C	4CC-58	66	CA_7A-7A-66A-66A	
			67	CA_5A-30A-66A	4CC-59	67	CA_7C-13A-66A	
			68	CA_5A-48A-66A		68	CA_7C-66A-66A	
			69	CA_5A-48C	4CC-60	69	CA_12A-30A-66A-66A	
			70	CA_5A-66A-66A	4CC-54	70	CA_12B-66A-66A	
			71	CA_5A-66B	4CC-55	71	CA_13A-48A-48C	
			72	CA_5A-66C	4CC-56	72	CA_13A-48A-66B	
			73	CA_5B-30A		73	CA_13A-48A-66C	
			74	CA_5B-66A	4CC-62	74	CA_13A-48C-66A	
			75	CA_7A-7A-13A	4CC-29	75	CA_13A-48D	
			76	CA_7A-7A-29A	4CC-30	76	CA_13A-66A-66B	
			77	CA_7A-7A-66A	4CC-65	77	CA_14A-66A-66A-66A	
			78	CA_7A-12A-66A		78	CA_25A-41D	
			79	CA_7A-13A-66A		79	CA_48A-48A-66A-66A	
			80	CA_7A-29A-66A		80	CA_48A-48A-66B	
			81	CA_7A-66A-66A	4CC-66	81	CA_48A-48A-66C	
			82	CA_7C-13A	4CC-67	82	CA_48A-48C-66A	
			83	CA_7C-29A		83	CA_48A-48D	
			84	CA_7C-66A	4CC-67	84	CA_48C-48C	
			85	CA_12A-30A-66A	4CC-69	85	CA_48C-66A-66A	
			86	CA_12A-48C		86	CA_48C-66B	
			87	CA_12A-66A-66A	4CC-69	87	CA_48C-66C	
			88	CA_12A-66C		88	CA_48D-66A	
			89	CA_12B-66A	4CC-70	89	CA_48E	
			90	CA_13A-48A-48A				
			91	CA_13A-48A-66A				
			92	CA_13A-48C	4CC-74			
			93	CA_13A-66A-66A				
			94	CA_13A-66B	4CC-72			
			95	CA_13A-66C	4CC-73			
			96	CA_14A-30A-66A				
			97	CA_14A-66A-66A	4CC-77			
			98	CA_25A-25A-26A				
			99	CA_25A-41C				
			100	CA_26A-41C				

			101	CA_29A-30A-66A				
			102	CA_29A-66A-66A				
			103	CA_30A-66A-66A				
			104	CA_41A-41C				
			105	CA_41D	4CC-78			
			106	CA_48A-48A-48A				
			107	CA_48A-48A-66A	4CC-79			
			108	CA_48A-48A-71A				
			109	CA_48A-48C	4CC-82			
			110	CA_48A-66A-66A	4CC-79			
			111	CA_48A-66B	4CC-80			
			112	CA_48A-66C	4CC-81			
			113	CA_48C-66A	4CC-82			
			114	CA_48C-71A				
			115	CA_48D	4CC-83			
			116	CA_66A-66A-66A				
			117	CA_66A-66A-71A				
			118	CA_66A-66B				
			119	CA_66A-66C				
			120	CA_66C-71A				

LTE Carrier Aggregation Conducted Power (Downlink)

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

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

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

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

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

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

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

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

LTE 4x4 MIMO (Downlink)

This device supports downlink 4x4 MIMO operations for LTE Band 2/4/7/25/30/41/48/66 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 2/4/7/25/30/41/48/66

LTE Carrier Aggregation Conducted Power (Uplink)

LTE Uplink CA	2CC Uplink Carrier Aggregation	
Intra-band	Main Antenna Tx	ASDiv Tx
CA_41C	Ant 1	
CA_48C	Ant 5	
CA_5B	Ant 0	Ant 4
CA_66B	Ant 0	Ant 4
CA_66C	Ant 0	Ant 4

<Intra-band>

General Note:

i. The device supports intra-band uplink carrier aggregation for LTE B5/41/48/66 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.

v. LTE CA_66B test was covered by CA_66C, therefore, SAR was only assessed for CA_66C.

<Inter-band uplink carrier aggregation consideration>

LTE Uplink CA	2CC Uplink Carrier Aggregation	
Inter-band	Main Antenna Tx	ASDiv Tx
CA_12A-30A	Ant 0 + Ant 1	Ant 4+ Ant 1
CA_12A-66A	Ant 4 + Ant 0	Ant 0 + Ant 4
CA_14A-30A	Ant 0 + Ant 1	Ant 4+ Ant 1
CA_2A-12A	Ant 0 + Ant 4	Ant 4 + Ant 0
CA_2A-4A	Ant 0 + Ant 4	Ant 4 + Ant 0
CA_2A-5A	Ant 0 + Ant 4	Ant 4 + Ant 0
CA_2A-66A	Ant 0 + Ant 4	Ant 4 + Ant 0
CA_4A-12A	Ant 0 + Ant 4	Ant 4 + Ant 0
CA_4A-13A	Ant 0 + Ant 4	Ant 4 + Ant 0
CA_4A-5A	Ant 0 + Ant 4	Ant 4 + Ant 0
CA_5A-30A	Ant 0 + Ant 1	Ant 4+ Ant 1
CA_5A-66A	Ant 4 + Ant 0	Ant 0 + Ant 4
CA_13A-66A	Ant 4 + Ant 0	Ant 0 + Ant 4
CA_2A-13A	Ant 0 + Ant 4	Ant 4 + Ant 0

General Note:

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

5G NR Output Power (Unit: dBm)

General Note:

1. 5G NR n2/n5/n7/ n12/n25/n30/n66/n71/n41 /n77/n78 is NSA mode.
2. 5G NR n2/n5/n7/n12/n14/n25/n26/n30/n66/n70/n71 /n41/n48/n77/n78 is SA mode.
3. For 5G NR test procedure was following step similar FCC KDB 941225 D05:
   a. For DFT-OFDM and CP-OFDM output power measurement reduction, according to 38.101 maximum power reduction for power class2 and 3, the CP-OFDM mode will not higher than DFT-OFDM mode, therefore, similar FCC KDB 941225 D05 procedure for other modulation output power for each RB allocation configuration is > not ½ dB higher than the same configuration in DFT-s QPSK and the reported SAR for the DFT-s QPSK configuration is ≤ 1.45 W/kg; CP-OFDM testing is not required.
   b. For DFT-OFDM output power measurement reduction, according to 38.101 maximum power reduction for power class2 and 3, for 16QAM/64QAM/256QAM and smaller bandwidth output power will spot check largest channel bandwidth worst RB configuration to ensure the 16QAM/64QAM/256QAM and smaller bandwidth output power will not ½ dB higher than the same configuration in the largest supported bandwidth.
   c. SAR testing start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel
   d. 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure
   e. QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested
   f. PI/2 BPSK/16QAM/64QAM/256QAM output powers according to 3GPP MPR will not ½ dB higher than the same configuration in QPSK, also reported SAR for the QPSK configuration is less than 1.45 W/kg, PI/2 BPSK /16QAM/64QAM/256QAM SAR testing are not required.
   g. Smaller bandwidth output power for each RB allocation configuration for this device will not ½ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg, smaller bandwidth SAR testing is not required for this device
4. 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 test, using FTM (Factory Test Mode) with default 100% duty cycle transmission to perform SAR testing.
5. For DFT-s-OFDM and CP-OFDM output power measurement reduction, according to 38.101 maximum power reduction for the CP-OFDM mode will not higher than DFT-s-OFDM mode, therefore, CP-OFDM measurement is unnecessary.
6. 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.
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. This device supports HPUE for 5GNR n41/n77/n78 with class 2 level, HPUE power has been measured separately. For HPUE power is higher than power class 3 but with lower duty cycle, the maximum average power for class 2 and class 3 is almost the same, so we chose power class 3 full SAR testing and power class 2 verify the worst case of power class 3 SAR.
10. For 5GNR EN-DC mode, standalone SAR performed for 5GNR NSA band with the maximum power, EN-DC SAR summed EN-DC mode 5GNR standalone SAR and LTE standalone SAR, the result of EN-DC SAR is more conservatively.

<3GPP 38.101 MPR for EN-DC>

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

Modulation		MPR (dB)		
		Edge RB allocations	Outer RB allocations	Inner RB allocations
DFT-s-OFDM	Pi/2 BPSK	≤ 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	Main Antenna Tx		ASDiv Tx	
	LTE TX	NR TX	LTE TX	NR TX
DC_12A_n25A	Ant 4	Ant 0	Ant 0	Ant 4
DC_12A_n2A	Ant 4	Ant 0	Ant 0	Ant 4
DC_12A_n30A	Ant 4	Ant 1	Ant 0	Ant 1
DC_12A_n41A	Ant 4	Ant 1	Ant 0	Ant 1
DC_12A_n66A	Ant 4	Ant 0	Ant 0	Ant 4
DC_12A_n7A	Ant 0	Ant 1		
DC_12A_n77A	Ant 0	Ant 5	Ant 4	Ant 5
DC_12A_n78A	Ant 0	Ant 5		
DC_13A_n2A	Ant 4	Ant 0	Ant 0	Ant 4
DC_13A_n66A	Ant 4	Ant 0	Ant 0	Ant 4
DC_13A_n77A	Ant 0	Ant 5	Ant 4	Ant 5
DC_13A_n78A	Ant 0	Ant 5		
DC_14A_n2A	Ant 4	Ant 0	Ant 0	Ant 4
DC_14A_n30A	Ant 4	Ant 1	Ant 0	Ant 1
DC_14A_n66A	Ant 4	Ant 0	Ant 0	Ant 4
DC_14A_n77A	Ant 0	Ant 5	Ant 4	Ant 5
DC_25A_n41A	Ant 4	Ant 1		
DC_25A_n77A	Ant 0	Ant 5	Ant 4	Ant 5
DC_25A_n78A	Ant 0	Ant 5		
DC_26A_n25A	Ant 4	Ant 0	Ant 0	Ant 4
DC_26A_n41A	Ant 4	Ant 1	Ant 0	Ant 1
DC_26A_n78A	Ant 0	Ant 5		
DC_2A_n12A	Ant 0	Ant 4	Ant 4	Ant 0
DC_2A_n5A	Ant 0	Ant 4	Ant 4	Ant 0
DC_2A_n66A	Ant 0	Ant 4	Ant 4	Ant 0
DC_2A_n30A	Ant 4	Ant 1	Ant 0	Ant 1
DC_2A_n41A	Ant 4	Ant 1		

DC_2A_n7A	Ant 4	Ant 1		
DC_2A_n71A	Ant 4	Ant 0	Ant 0	Ant 4
DC_2A_n77A	Ant 0	Ant 5	Ant 4	Ant 5
DC_2A_n78A	Ant 0	Ant 5		
DC_30A_n2A	Ant 1	Ant 4		
DC_30A_n5A	Ant 1	Ant 4	Ant 1	Ant 0
DC_30A_n66A	Ant 1	Ant 4		
DC_30A_n77A	Ant 4	Ant 5		
DC_48A_n5A	Ant 5	Ant 0	Ant 5	Ant 4
DC_48A_n66A	Ant 5	Ant 0	Ant 5	Ant 4
DC_48A_n71A	Ant 5	Ant 0	Ant 5	Ant 4
DC_4A_n2A	Ant 0	Ant 4	Ant 4	Ant 0
DC_4A_n41A	Ant 4	Ant 1		
DC_4A_n7A	Ant 4	Ant 1		
DC_4A_n78A	Ant 0	Ant 5		
DC_5A_n2A	Ant 4	Ant 0	Ant 0	Ant 4
DC_5A_n30A	Ant 4	Ant 1	Ant 0	Ant 1
DC_5A_n41A	Ant 4	Ant 1	Ant 0	Ant 1
DC_5A_n66A	Ant 4	Ant 0	Ant 0	Ant 4
DC_5A_n7A	Ant 4	Ant 1		
DC_5A_n77A	Ant 0	Ant 5	Ant 4	Ant 5
DC_5A_n78A	Ant 0	Ant 5		
DC_66A_n12A	Ant 0	Ant 4	Ant 4	Ant 0
DC_66A_n25A	Ant 0	Ant 4	Ant 4	Ant 0
DC_66A_n2A	Ant 0	Ant 4	Ant 4	Ant 0
DC_66A_n5A	Ant 0	Ant 4	Ant 4	Ant 0
DC_66A_n30A	Ant 4	Ant 1	Ant 0	Ant 1
DC_66A_n41A	Ant 4	Ant 1		
DC_66A_n7A	Ant 4	Ant 1		
DC_66A_n71A	Ant 4	Ant 0	Ant 0	Ant 4
DC_66A_n77A	Ant 0	Ant 5	Ant 4	Ant 5
DC_66A_n78A	Ant 0	Ant 5		
DC_71A_n2A	Ant 0	Ant 4	Ant 4	Ant 0
DC_71A_n41A	Ant 0	Ant 1	Ant 4	Ant 1
DC_71A_n78A	Ant 0	Ant 5		
DC_71A_n66A	Ant 0	Ant 4	Ant 4	Ant 0
DC_7A_n25A	Ant 1	Ant 4		
DC_7A_n2A	Ant 1	Ant 4		
DC_7A_n5A	Ant 1	Ant 4		
DC_7A_n66A	Ant 1	Ant 4		
DC_7A_n71A	Ant 1	Ant 0		
DC_7A_n77A	Ant 4	Ant 5		
DC_7A_n78A	Ant 4	Ant 5		

<WLAN Conducted Power>

General Note:

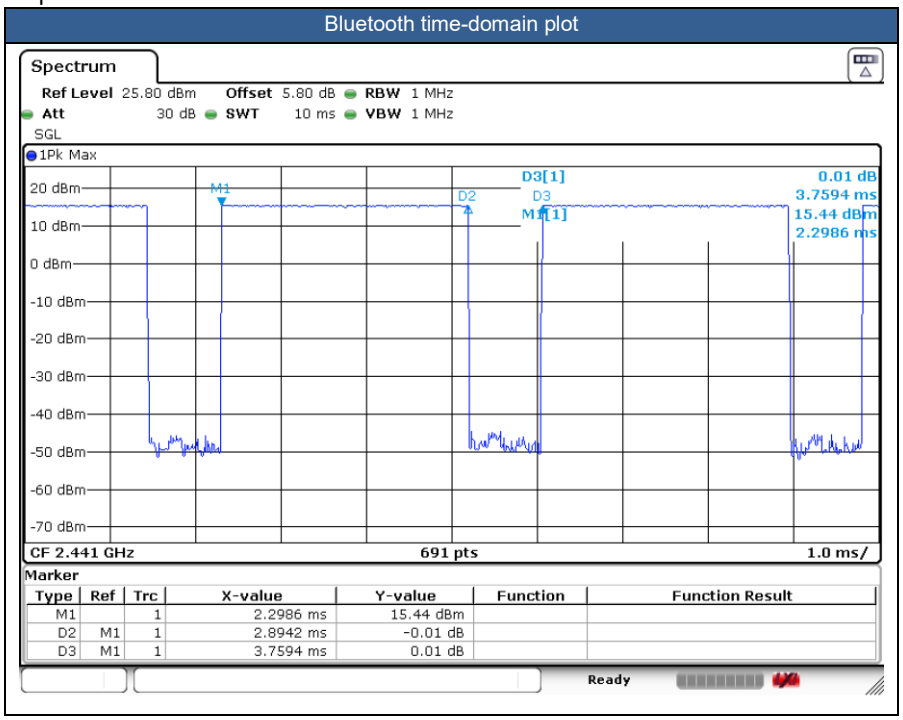
1. The maximum output power specified for production units are determined for all applicable 802.11 transmission modes in each standalone and aggregated frequency band. Maximum output power is measured for the highest maximum output power configuration(s) in each frequency band according to the default 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.

<2.4GHz Bluetooth>

General Note:

1. For 2.4GHz Bluetooth SAR testing was selected 1Mbps, due to its highest average power.
2. The Bluetooth duty cycle are 76.99% 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



14. Antenna Location

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

15. SAR Test Results

General Note:

1. Per KDB 447498 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.
   g. For TDD LTE SAR measurement of power class 2, the duty cycle 1:2.33 (42.9 %) was used perform testing and considering the theoretical duty cycle of 43.3% for extended cyclic prefix in the uplink, and the theoretical duty cycle of 42.9% for normal cyclic prefix in uplink, a scaling factor of extended cyclic prefix 43.3%/42.9% = 1.009 is applied to scale-up the measured SAR result. The reported TDD LTE SAR (W/kg) = measured SAR (W/kg)* Tune-up Scaling Factor* scaling factor for extended cyclic prefix.
2. Per KDB 447498 D01v06, for each exposure position, testing of other required channels within the operating mode of a frequency band is not required when the *reported* 1-g or 10-g SAR for the mid-band or highest output power channel is:
   - ≤ 0.8 W/kg or 2.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≤ 100 MHz
   - ≤ 0.6 W/kg or 1.5 W/kg, for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz
   - ≤ 0.4 W/kg or 1.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≥ 200 MHz
3. Per KDB 865664 D01v01r04, for each frequency band, repeated SAR measurement is required when the measured SAR is ≥ 0.8W/kg. Per KDB 865664 D01v01r04, if the extremity repeated SAR is necessary, the same procedures should be adapted for measurements according to extremity and occupational exposure limits by applying a factor of 2.5 for extremity exposure and a factor of 5 for occupational exposure to the corresponding SAR thresholds.
4. The device implements the power management and 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). Details about the power management decision and sensor detection are provided in the operational description. The device will invoke corresponding work scenarios power level base on frequency bands/antennas, which can refer to appendix E.
5. For WLAN/BT transmitter, while the device WLAN is transmitting simultaneously with the WWAN/BT antenna, the device power will be reduced power at head and hotspot conditions. For WLAN/BT transmitter, while the device WLAN is transmitting simultaneously with the WWAN/BT antenna and Proximity sensors trigger, the device power will be reduced power at body-worn and extremity exposure conditions.
6. For some WWAN bands, sensor on power level is higher than hotspot power level, so front/back sensor on SAR can represent hotspot conservatively.
7. This device supports HPUE for LTE Band 41 and 5GNR n77/n78/n41 with class 2 level, HPUE power has been measured separately. For HPUE power is higher than power class 3 but with lower duty cycle, the maximum average power for class 2 and class 3 is almost the same, so we chose power class 3 full SAR testing and power class 2 verify the worst case of power class 3 SAR.
8. 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 test, using FTM (Factory Test Mode) with default 100% duty cycle transmission to perform SAR testing.
9. For 5GNR EN-DC mode, standalone SAR performed for 5GNR NSA band with the maximum power, EN-DC SAR summed EN-DC mode 5GNR standalone SAR and LTE standalone SAR, the result of EN-DC SAR is more conservatively.
10. Per KDB648474 D04v01r03, for smart phones with a display diagonal dimension > 15.0 cm or an overall diagonal dimension > 16.0 cm, when hotspot mode applies, 10-g extremity SAR is required only for the surfaces and edges with hotspot mode 1-g reported SAR > 1.2 W/kg, however, when power reduction applies to hotspot mode the measured SAR

must be scaled to the maximum output power (for handheld on state, the maximum full power means reduced power), including tolerance, allowed for phablet modes to compare with the 1.2 W/kg SAR test reduction threshold.

a. For this device SAR for WWAN/WLAN transmitter scaled to maximum output power mode for product specific 10g SAR is higher than 1.2W/kg of GSM850/1900, WCDMA Band II/IV/V, LTE Band 2/4/5/7/13/14/25/26/30/66/38/41/48, 5GNR n2/ n5/ n7/ n25/ n26/ n30/ n66/ n70/ n41/ n48/ n77/ n78, WLAN2.4/5.2/5.8GHz, therefore product specific 10g SAR is necessary.
b. WLAN 5.3/5.5GHz tested the product specific 10g SAR since it has no hotspot mode.
c. When 10-g product specific 10g SAR is considered, SAR thresholds is specified in the procedures for SAR test reduction and exclusion should be multiplied by 2.5.

11. Although the headset SAR is greater than 0.8 W/kg, the headset SAR verified the worst of the non-headset SAR and less than non-headset SAR, so there is no need to be tested other channels.
12. Although the distance 1gSAR is greater than 0.8 W/kg at body-worn exposure conditions, the distance SAR verified the worst of the non-distance SAR and less than non-distance SAR, so there is no need to be tested other channels.
13. According to Nov. 2017 TCB workshop, when the reported SAR for UL CA configuration 1g SAR is <1.2 W/kg, UL CA SAR is not required for all required test channels (PCC based).
14. LTE B2/4/25/66 at ant0/4 and 5GNR n2/25/66 at ant0/4 support different PAs for some antennas, and LTE/NR bands support Other PA only under ENDC & UL CA. Some LTE/NR bands support different PAs for some antennas, whether it is the maximum power of Main PA is higher than and very close to the other PA, for RF exposure, after verification all PAs in a same position, so the worst-case PA was chosen to perform full SAR testing to ensure the RF exposure is compliance and other PAs verified the worst case.

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 output power for each RB allocation configuration is > not ½ dB higher than the same configuration in QPSK and the reported SAR for the QPSK configuration is ≤ 1.45 W/kg; Per KDB 941225 D05v02r05, 16QAM/64QAM SAR testing is not required.
5. Per KDB 941225 D05v02r05, smaller bandwidth output power for each RB allocation configuration is > not ½ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg; Per KDB 941225 D05v02r05, smaller bandwidth SAR testing is not required.
6. For LTE B4 / B5 / B12 / B17 / B26 / B38 / B71 the maximum bandwidth does not support three non-overlapping channels, per KDB 941225 D05v02r05, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.
7. LTE B2/B4/B5/B17/B38 SAR test was covered by B25 / B66 / B26 / B12 / B41; according to April 2015 TCB workshop, SAR test for overlapping LTE bands can be reduced if
   a. the maximum output power, including tolerance, for the smaller band is ≤ the larger band to qualify for the SAR test exclusion
   b. the channel bandwidth and other operating parameters for the smaller band are fully supported by the larger band

5G NR Note:

1. For 5G NR test procedure was following step similar FCC KDB 941225 D05:
   a. SAR testing start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel.
   b. 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure
   c. QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested.
   d. PI/2 BPSK/16QAM/64QAM/256QAM output powers according to 3GPP MPR will not ½ dB higher than the same configuration in QPSK, also reported SAR for the QPSK configuration is less than 1.45 W/kg, PI/2 BPSK /16QAM/64QAM/256QAM SAR testing are not required.
   e. Smaller bandwidth output power for each RB allocation configuration for this device will not ½ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg, smaller bandwidth SAR testing is not required for this device
   f. For 5G FR1 n2/n5/n7/n12/n25/n26/n41/ n66/n71/n77 the maximum bandwidth does not support three non-overlapping channels, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

WLAN/Bluetooth Note:

1. Per KDB 248227 D01v02r02, for 2.4GHz 802.11g/n SAR testing is not required when the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg.
2. Per KDB 248227 D01v02r02, U-NII-1 SAR testing is not required when the U-NII-2A band highest reported SAR for a test configuration is ≤ 1.2 W/kg, SAR is not required for U-NII-1 band.
3. When the reported SAR of the test position is > 0.4 W/kg, SAR is repeated for the 802.11 transmission mode configuration tested in the initial test position to measure the subsequent next closet/smallest test separation distance and maximum coupling test position on the highest maximum output power channel, until the report SAR is ≤ 0.8 W/kg or all required test position are tested.
4. For all positions / configurations, when the reported SAR is > 0.8 W/kg, SAR is measured for these test positions / configurations on the subsequent next highest measured output power channel(s) until the reported SAR is ≤ 1.2 W/kg or all required channels are tested.
5. During SAR testing the WLAN transmission was verified using a spectrum analyzer.

DSI status description:

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

Exposure Condition	DSI	Trigger Conditions
Head SAR	DSI 2	Receiver on
Body worn SAR	DSI 3	Receiver off/Sensor On
Hotspot SAR	DSI 7	Hotspot On
Extremity (Handheld) SAR	DSI 6	Receiver off/Sensor On
Sensor Off SAR	DSI 4	Sensor Off

15.1 Head SAR

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Sample	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 71	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	DSI 2	133297	680.5	1	22.91	24.00	1.285	-	-	0.08	0.172	0.221
	LTE Band 71	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 0	DSI 2	133297	680.5	1	21.87	23.00	1.297	-	-	0.01	0.095	0.123
	LTE Band 71	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	DSI 2	133297	680.5	1	22.91	24.00	1.285	-	-	0.03	0.088	0.113
	LTE Band 71	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 0	DSI 2	133297	680.5	1	21.87	23.00	1.297	-	-	-0.08	0.048	0.062
	LTE Band 71	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	DSI 2	133297	680.5	1	22.91	24.00	1.285	-	-	-0.08	0.166	0.213
	LTE Band 71	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 0	DSI 2	133297	680.5	1	21.87	23.00	1.297	-	-	0.1	0.091	0.118
	LTE Band 71	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	DSI 2	133297	680.5	1	22.91	24.00	1.285	-	-	-0.18	0.076	0.098
	LTE Band 71	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 0	DSI 2	133297	680.5	1	21.87	23.00	1.297	-	-	0.1	0.000	0.000
01	LTE Band 71	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 2	133297	680.5	1	22.82	24.00	1.312	-	-	0.02	0.458	**0.601**
	LTE Band 71	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI 2	133297	680.5	1	21.75	23.00	1.334	-	-	0.12	0.278	0.371
	LTE Band 71	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 2	133297	680.5	1	22.82	24.00	1.312	-	-	0.08	0.442	0.580
	LTE Band 71	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	DSI 2	133297	680.5	1	21.75	23.00	1.334	-	-	-0.17	0.267	0.356
	LTE Band 71	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	DSI 2	133297	680.5	1	22.82	24.00	1.312	-	-	-0.03	0.300	0.394
	LTE Band 71	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 4	DSI 2	133297	680.5	1	21.75	23.00	1.334	-	-	0.14	0.188	0.251
	LTE Band 71	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 4	DSI 2	133297	680.5	1	22.82	24.00	1.312	-	-	0.11	0.302	0.396
	LTE Band 71	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 4	DSI 2	133297	680.5	1	21.75	23.00	1.334	-	-	-0.05	0.185	0.247
	LTE Band 12 ENDC&UL_CA	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	DSI 2	23095	707.5	1	23.05	24.00	1.245	-	-	0.18	0.222	0.276
	LTE Band 12	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 0	DSI 2	23095	707.5	1	21.86	23.00	1.300	-	-	0.14	0.120	0.156
	LTE Band 12	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	DSI 2	23095	707.5	1	23.05	24.00	1.245	-	-	-0.17	0.114	0.142
	LTE Band 12	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 0	DSI 2	23095	707.5	1	21.86	23.00	1.300	-	-	0.17	0.062	0.081
	LTE Band 12	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	DSI 2	23095	707.5	1	23.05	24.00	1.245	-	-	-0.05	0.217	0.270
	LTE Band 12	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 0	DSI 2	23095	707.5	1	21.86	23.00	1.300	-	-	0.01	0.114	0.148
	LTE Band 12	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	DSI 2	23095	707.5	1	23.05	24.00	1.245	-	-	0.1	0.106	0.132
	LTE Band 12	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 0	DSI 2	23095	707.5	1	21.86	23.00	1.300	-	-	-0.17	0.061	0.079
	LTE Band 12 Main PA-1	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	DSI 2	23095	707.5	1	23.24	24.00	1.191	-	-	0.04	0.134	0.160
02	LTE Band 12	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 2	23095	707.5	1	22.69	23.50	1.205	-	-	0.06	0.753	**0.907**
	LTE Band 12 UL_CA	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 2	23095	707.5	1	21.86	23.00	1.300	-	-	0.02	0.552	0.718
	LTE Band 12 UL_CA	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	DSI 2	23095	707.5	1	21.86	23.00	1.300	-	-	0.01	0.377	0.490
	LTE Band 12 ENDC	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 2	23095	707.5	1	19.87	21.00	1.297	-	-	0.1	0.341	0.442
	LTE Band 12	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 4	DSI 2	23095	707.5	1	21.58	23.00	1.387	-	-	-0.01	0.431	0.598
	LTE Band 12	10M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI 2	23095	707.5	1	21.51	23.00	1.409	-	-	-0.08	0.425	0.599
	LTE Band 12	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 2	23095	707.5	1	22.69	23.50	1.205	-	-	0.05	0.684	0.824
	LTE Band 12	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 4	DSI 2	23095	707.5	1	21.58	23.00	1.387	-	-	0.06	0.396	0.549
	LTE Band 12	10M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	DSI 2	23095	707.5	1	21.51	23.00	1.409	-	-	-0.09	0.393	0.554
	LTE Band 12	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	DSI 2	23095	707.5	1	22.69	23.50	1.205	-	-	-0.08	0.529	0.637
	LTE Band 12	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 4	DSI 2	23095	707.5	1	21.58	23.00	1.387	-	-	0.13	0.306	0.424
	LTE Band 12	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 4	DSI 2	23095	707.5	1	22.69	23.50	1.205	-	-	0.12	0.511	0.616
	LTE Band 12	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 4	DSI 2	23095	707.5	1	21.58	23.00	1.387	-	-	0.03	0.293	0.406
	LTE Band 12 Main PA-1	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 2	23095	707.5	1	22.92	23.50	1.143	-	-	0.18	0.648	0.741
	LTE Band 13 ENDC&UL_CA	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	DSI 2	23230	782	1	22.98	24.00	1.265	-	-	-0.08	0.334	0.422
	LTE Band 13	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 0	DSI 2	23230	782	1	21.88	23.00	1.294	-	-	0.16	0.179	0.232
	LTE Band 13	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	DSI 2	23230	782	1	22.98	24.00	1.265	-	-	-0.1	0.207	0.262
	LTE Band 13	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 0	DSI 2	23230	782	1	21.88	23.00	1.294	-	-	0.07	0.116	0.150
	LTE Band 13	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	DSI 2	23230	782	1	22.98	24.00	1.265	-	-	0.18	0.294	0.372
	LTE Band 13	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 0	DSI 2	23230	782	1	21.88	23.00	1.294	-	-	-0.1	0.161	0.208
	LTE Band 13	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	DSI 2	23230	782	1	22.98	24.00	1.265	-	-	0.01	0.192	0.243
	LTE Band 13	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 0	DSI 2	23230	782	1	21.88	23.00	1.294	-	-	-0.15	0.109	0.141
	LTE Band 13 Main PA-1	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	DSI 2	23230	782	1	22.94	24.00	1.276	-	-	0.19	0.231	0.295
03	LTE Band 13	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 2	23230	782	1	22.78	23.50	1.180	-	-	-0.04	0.775	**0.915**

	LTE Band 13 UL_CA	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 2	23230	782	1	21.82	22.50	1.169	-	-	0.02	0.607	0.710
	LTE Band 13 UL_CA	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	DSI 2	23230	782	1	21.82	22.50	1.169	-	-	0.07	0.412	0.482
	LTE Band 13 ENDC	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 2	23230	782	1	19.81	20.50	1.172	-	-	0.05	0.370	0.434
	LTE Band 13	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 2	23230	782	2	22.78	23.50	1.180	-	-	0.01	0.653	0.771
	LTE Band 13	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 4	DSI 2	23230	782	1	21.72	23.00	1.343	-	-	0.07	0.419	0.563
	LTE Band 13	10M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI 2	23230	782	1	21.67	23.00	1.358	-	-	-0.18	0.449	0.610
	LTE Band 13	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 2	23230	782	1	22.78	23.50	1.180	-	-	0.03	0.699	0.825
	LTE Band 13	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 4	DSI 2	23230	782	1	21.72	23.00	1.343	-	-	-0.15	0.377	0.506
	LTE Band 13	10M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	DSI 2	23230	782	1	21.67	23.00	1.358	-	-	-0.15	0.370	0.503
	LTE Band 13	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	DSI 2	23230	782	1	22.78	23.50	1.180	-	-	0.11	0.575	0.679
	LTE Band 13	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 4	DSI 2	23230	782	1	21.72	23.00	1.343	-	-	-0.08	0.313	0.420
	LTE Band 13	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 4	DSI 2	23230	782	1	22.78	23.50	1.180	-	-	-0.17	0.569	0.672
	LTE Band 13	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 4	DSI 2	23230	782	1	21.72	23.00	1.343	-	-	-0.08	0.302	0.406
	LTE Band 13 Main PA-1	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 2	23230	782	1	22.51	23.50	1.256	-	-	-0.04	0.560	0.703
	LTE Band 14 ENDC&UL_CA	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	DSI 2	23330	793	1	23.01	24.00	1.256	-	-	-0.08	0.319	0.401
	LTE Band 14	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 0	DSI 2	23330	793	1	21.85	23.00	1.303	-	-	0.17	0.171	0.223
	LTE Band 14	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	DSI 2	23330	793	1	23.01	24.00	1.256	-	-	0.18	0.206	0.259
	LTE Band 14	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 0	DSI 2	23330	793	1	21.85	23.00	1.303	-	-	-0.04	0.114	0.149
	LTE Band 14	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	DSI 2	23330	793	1	23.01	24.00	1.256	-	-	-0.08	0.279	0.350
	LTE Band 14	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 0	DSI 2	23330	793	1	21.85	23.00	1.303	-	-	-0.13	0.151	0.197
	LTE Band 14	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	DSI 2	23330	793	1	23.01	24.00	1.256	-	-	-0.13	0.178	0.224
	LTE Band 14	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 0	DSI 2	23330	793	1	21.85	23.00	1.303	-	-	0.06	0.096	0.125
	LTE Band 14 Main PA-1	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	DSI 2	23330	793	1	23.02	24.00	1.253	-	-	-0.03	0.220	0.276
04	LTE Band 14	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 2	23330	793	1	22.81	23.50	1.172	-	-	0.03	0.705	**0.826**
	LTE Band 14 UL_CA	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 2	23330	793	1	21.84	22.50	1.164	-	-	0.02	0.613	0.714
	LTE Band 14 ENDC	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 2	23330	793	1	19.82	20.50	1.169	-	-	0.04	0.369	0.432
	LTE Band 14	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 4	DSI 2	23330	793	1	21.77	23.00	1.327	-	-	-0.03	0.352	0.467
	LTE Band 14	10M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI 2	23330	793	1	21.65	23.00	1.365	-	-	0.08	0.372	0.508
	LTE Band 14	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 2	23330	793	1	22.81	23.50	1.172	-	-	-0.07	0.608	0.713
	LTE Band 14	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 4	DSI 2	23330	793	1	21.77	23.00	1.327	-	-	0.05	0.300	0.398
	LTE Band 14	10M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	DSI 2	23330	793	1	21.65	23.00	1.365	-	-	-0.11	0.309	0.422
	LTE Band 14	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	DSI 2	23330	793	1	22.81	23.50	1.172	-	-	-0.12	0.511	0.599
	LTE Band 14	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 4	DSI 2	23330	793	1	21.77	23.00	1.327	-	-	0.03	0.266	0.353
	LTE Band 14	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 4	DSI 2	23330	793	1	22.81	23.50	1.172	-	-	-0.16	0.492	0.577
	LTE Band 14	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 4	DSI 2	23330	793	1	21.77	23.00	1.327	-	-	-0.02	0.257	0.341
	LTE Band 14 Main PA-1	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 2	23330	793	1	22.73	23.50	1.194	-	-	0.15	0.466	0.556
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	DSI 2	136100	680.5	1	23.24	24.00	1.191	-	-	-0.09	0.131	0.156
	FR1 n71 ENDC	20M	QPSK	50	28	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	DSI 2	136100	680.5	1	23.18	24.00	1.208	-	-	0.11	0.152	0.184
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 0	DSI 2	136100	680.5	1	23.24	24.00	1.191	-	-	-0.05	0.065	0.077
	FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Right Tilted	0mm	Ant 0	DSI 2	136100	680.5	1	23.18	24.00	1.208	-	-	-0.08	0.080	0.097
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	DSI 2	136100	680.5	1	23.24	24.00	1.191	-	-	0.16	0.127	0.151
	FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	DSI 2	136100	680.5	1	23.18	24.00	1.208	-	-	0.05	0.143	0.173
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 0	DSI 2	136100	680.5	1	23.24	24.00	1.191	-	-	0.05	0.061	0.073
	FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Left Tilted	0mm	Ant 0	DSI 2	136100	680.5	1	23.18	24.00	1.208	-	-	-0.03	0.072	0.087
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 4	DSI 2	136100	680.5	1	23.05	24.00	1.245	-	-	-0.15	0.333	0.414
05	FR1 n71 ENDC	20M	QPSK	50	28	DFT-SCS-15KHz	Right Cheek	0mm	Ant 4	DSI 2	136100	680.5	1	22.97	24.00	1.268	-	-	-0.01	0.372	**0.472**
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 4	DSI 2	136100	680.5	1	23.05	24.00	1.245	-	-	0.02	0.321	0.399
	FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Right Tilted	0mm	Ant 4	DSI 2	136100	680.5	1	22.97	24.00	1.268	-	-	0.07	0.354	0.449
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 4	DSI 2	136100	680.5	1	23.05	24.00	1.245	-	-	0.16	0.231	0.287
	FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Left Cheek	0mm	Ant 4	DSI 2	136100	680.5	1	22.97	24.00	1.268	-	-	0.13	0.254	0.322
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 4	DSI 2	136100	680.5	1	23.05	24.00	1.245	-	-	-0.18	0.231	0.287
	FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Left Tilted	0mm	Ant 4	DSI 2	136100	680.5	1	22.97	24.00	1.268	-	-	0.02	0.261	0.331
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	DSI 2	141500	707.5	1	23.13	24.00	1.222	-	-	0.16	0.172	0.210
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	DSI 2	141500	707.5	1	23.04	24.00	1.247	-	-	-0.03	0.163	0.203

	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 0	DSI 2	141500	707.5	1	23.13	24.00	1.222	-	-	0.07	0.093	0.114
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Right Tilted	0mm	Ant 0	DSI 2	141500	707.5	1	23.04	24.00	1.247	-	-	0	0.086	0.107
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	DSI 2	141500	707.5	1	23.13	24.00	1.222	-	-	0.01	0.175	0.214
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	DSI 2	141500	707.5	1	23.04	24.00	1.247	-	-	-0.01	0.165	0.206
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 0	DSI 2	141500	707.5	1	23.13	24.00	1.222	-	-	-0.06	0.089	0.109
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Left Tilted	0mm	Ant 0	DSI 2	141500	707.5	1	23.04	24.00	1.247	-	-	-0.04	0.083	0.104
	FR1 n12 Main PA-1	15M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	DSI 2	141500	707.5	1	22.93	24.00	1.279	-	-	-0.09	0.132	0.169
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 4	DSI 2	141500	707.5	1	23.23	24.00	1.194	-	-	-0.17	0.545	0.651
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Right Cheek	0mm	Ant 4	DSI 2	141500	707.5	1	23.15	24.00	1.216	-	-	-0.1	0.558	0.679
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 4	DSI 2	141500	707.5	1	23.23	24.00	1.194	-	-	0.18	0.506	0.604
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Right Tilted	0mm	Ant 4	DSI 2	141500	707.5	1	23.15	24.00	1.216	-	-	-0.17	0.522	0.635
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 4	DSI 2	141500	707.5	1	23.23	24.00	1.194	-	-	-0.04	0.377	0.450
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Left Cheek	0mm	Ant 4	DSI 2	141500	707.5	1	23.15	24.00	1.216	-	-	-0.05	0.399	0.485
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 4	DSI 2	141500	707.5	1	23.23	24.00	1.194	-	-	0	0.384	0.458
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Left Tilted	0mm	Ant 4	DSI 2	141500	707.5	1	23.15	24.00	1.216	-	-	-0.13	0.415	0.505
06	FR1 n12 Main PA-1	15M	QPSK	36	22	DFT-SCS-15KHz	Right Cheek	0mm	Ant 4	DSI 2	141500	707.5	1	22.89	24.00	1.291	-	-	0.03	0.595	**0.768**
	FR1 n14	10M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	DSI 2	158600	793	1	23.08	24.00	1.236	-	-	-0.01	0.269	0.332
	FR1 n14 SA	10M	QPSK	25	14	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	DSI 2	158600	793	1	22.98	24.00	1.265	-	-	-0.09	0.283	0.358
	FR1 n14 SA	10M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 0	DSI 2	158600	793	1	23.08	24.00	1.236	-	-	0.05	0.150	0.185
	FR1 n14 SA	10M	QPSK	25	14	DFT-SCS-15KHz	Right Tilted	0mm	Ant 0	DSI 2	158600	793	1	22.98	24.00	1.265	-	-	0.02	0.159	0.201
	FR1 n14 SA	10M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	DSI 2	158600	793	1	23.08	24.00	1.236	-	-	-0.13	0.248	0.307
	FR1 n14 SA	10M	QPSK	25	14	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	DSI 2	158600	793	1	22.98	24.00	1.265	-	-	0.17	0.255	0.323
	FR1 n14 SA	10M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 0	DSI 2	158600	793	1	23.08	24.00	1.236	-	-	0.06	0.152	0.188
	FR1 n14 SA	10M	QPSK	25	14	DFT-SCS-15KHz	Left Tilted	0mm	Ant 0	DSI 2	158600	793	1	22.98	24.00	1.265	-	-	0	0.159	0.201
07	FR1 n14 SA	10M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 4	DSI 2	158600	793	1	22.63	24.00	1.371	-	-	0.06	0.491	**0.673**
	FR1 n14 SA	10M	QPSK	25	14	DFT-SCS-15KHz	Right Cheek	0mm	Ant 4	DSI 2	158600	793	1	22.45	24.00	1.429	-	-	-0.04	0.445	0.636
	FR1 n14 SA	10M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 4	DSI 2	158600	793	1	22.63	24.00	1.371	-	-	-0.15	0.420	0.576
	FR1 n14 SA	10M	QPSK	25	14	DFT-SCS-15KHz	Right Tilted	0mm	Ant 4	DSI 2	158600	793	1	22.45	24.00	1.429	-	-	0.11	0.399	0.570
	FR1 n14 SA	10M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 4	DSI 2	158600	793	1	22.63	24.00	1.371	-	-	-0.02	0.378	0.518
	FR1 n14 SA	10M	QPSK	25	14	DFT-SCS-15KHz	Left Cheek	0mm	Ant 4	DSI 2	158600	793	1	22.45	24.00	1.429	-	-	0.1	0.359	0.513
	FR1 n14 SA	10M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 4	DSI 2	158600	793	1	22.63	24.00	1.371	-	-	0.04	0.369	0.506
	FR1 n14 SA	10M	QPSK	25	14	DFT-SCS-15KHz	Left Tilted	0mm	Ant 4	DSI 2	158600	793	1	22.45	24.00	1.429	-	-	0.13	0.334	0.477
									835MHz												
08	GSM850	-	-	-	-	GPRS (2 Tx slots)	Right Cheek	0mm	Ant 0	DSI 2	189	836.4	1	31.10	32.00	1.230	-	-	0.05	0.390	**0.480**
	GSM850	-	-	-	-	GPRS (2 Tx slots)	Right Tilted	0mm	Ant 0	DSI 2	189	836.4	1	31.10	32.00	1.230	-	-	-0.18	0.168	0.207
	GSM850	-	-	-	-	GPRS (2 Tx slots)	Left Cheek	0mm	Ant 0	DSI 2	189	836.4	1	31.10	32.00	1.230	-	-	-0.11	0.281	0.346
	GSM850	-	-	-	-	GPRS (2 Tx slots)	Left Tilted	0mm	Ant 0	DSI 2	189	836.4	1	31.10	32.00	1.230	-	-	-0.16	0.152	0.187
09	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 0	DSI 2	4182	836.4	1	23.00	24.00	1.259	-	-	-0.04	0.472	**0.594**
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 0	DSI 2	4182	836.4	1	23.00	24.00	1.259	-	-	-0.15	0.278	0.350
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 0	DSI 2	4182	836.4	1	23.00	24.00	1.259	-	-	-0.06	0.399	0.502
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 0	DSI 2	4182	836.4	1	23.00	24.00	1.259	-	-	-0.14	0.204	0.257
	LTE Band 26	15M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	DSI 2	26865	831.5	1	22.80	24.00	1.318	-	-	-0.19	0.275	0.363
	LTE Band 26	15M	QPSK	36	0	-	Right Cheek	0mm	Ant 0	DSI 2	26865	831.5	1	21.64	23.00	1.368	-	-	0.01	0.150	0.205
	LTE Band 26	15M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	DSI 2	26865	831.5	1	22.80	24.00	1.318	-	-	0.06	0.224	0.295
	LTE Band 26	15M	QPSK	36	0	-	Right Tilted	0mm	Ant 0	DSI 2	26865	831.5	1	21.64	23.00	1.368	-	-	0.02	0.121	0.165
	LTE Band 26 ENDC&UL_CA	15M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	DSI 2	26865	831.5	1	22.80	24.00	1.318	-	-	0.12	0.311	0.410
	LTE Band 5B UL_CA	10M	QPSK	1	49	-	Left Cheek	0mm	Ant 0	DSI 2	20475+ 20574	831.5+ 841.4	1	22.03	23.50	1.403	-	-	0.02	0.285	0.400
	LTE Band 26	15M	QPSK	36	0	-	Left Cheek	0mm	Ant 0	DSI 2	26865	831.5	1	21.64	23.00	1.368	-	-	-0.16	0.165	0.226
	LTE Band 26	15M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	DSI 2	26865	831.5	1	22.80	24.00	1.318	-	-	-0.12	0.183	0.241
	LTE Band 26	15M	QPSK	36	0	-	Left Tilted	0mm	Ant 0	DSI 2	26865	831.5	1	21.64	23.00	1.368	-	-	0.07	0.101	0.138
	LTE Band 26 Main PA-1	15M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	DSI 2	26865	831.5	1	23.36	24.00	1.159	-	-	-0.02	0.199	0.231
10	LTE Band 26	15M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 2	26865	831.5	1	22.25	23.00	1.190	-	-	-0.02	0.755	**0.898**
	LTE Band 5B	10M	QPSK	1	49	-	Right Cheek	0mm	Ant 4	DSI 2	20475+ 20574	831.5+ 841.4	1	22.03	23.00	1.250	-	-	0.01	0.712	0.890
	LTE Band 5 UL_CA	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 2	20525	836.5	1	21.16	22.00	1.213	-	-	0.01	0.569	0.690

	LTE Band 5 UL_CA	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	DSI 2	20525	836.5	1	21.16	22.00	1.213	-	-	0.07	0.402	0.488
	LTE Band 5 ENDC	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 2	20525	836.5	1	19.18	20.00	1.208	-	-	0.03	0.382	0.461
	LTE Band 26	15M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 2	26965	841.5	2	22.15	23.00	1.216	-	-	0.04	0.476	0.579
	LTE Band 26	15M	QPSK	36	0	-	Right Cheek	0mm	Ant 4	DSI 2	26865	831.5	1	22.15	23.00	1.216	-	-	-0.05	0.432	0.525
	LTE Band 26	15M	QPSK	75	0	-	Right Cheek	0mm	Ant 4	DSI 2	26865	831.5	1	22.12	23.00	1.225	-	-	-0.13	0.473	0.579
	LTE Band 26	15M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 2	26865	831.5	1	22.25	23.00	1.189	-	-	0.08	0.717	0.852
	LTE Band 26	15M	QPSK	36	0	-	Right Tilted	0mm	Ant 4	DSI 2	26865	831.5	1	22.15	23.00	1.216	-	-	0.16	0.377	0.459
	LTE Band 26	15M	QPSK	75	0	-	Right Tilted	0mm	Ant 4	DSI 2	26865	831.5	1	22.12	23.00	1.225	-	-	0.01	0.379	0.464
	LTE Band 26	15M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	DSI 2	26865	831.5	1	22.25	23.00	1.189	-	-	-0.16	0.534	0.635
	LTE Band 26	15M	QPSK	36	0	-	Left Cheek	0mm	Ant 4	DSI 2	26865	831.5	1	22.15	23.00	1.216	-	-	0.1	0.310	0.377
	LTE Band 26	15M	QPSK	1	0	-	Left Tilted	0mm	Ant 4	DSI 2	26865	831.5	1	22.25	23.00	1.189	-	-	-0.04	0.527	0.626
	LTE Band 26	15M	QPSK	36	0	-	Left Tilted	0mm	Ant 4	DSI 2	26865	831.5	1	22.15	23.00	1.216	-	-	-0.01	0.311	0.378
	LTE Band 26 Main PA-1	15M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 2	26965	841.5	1	22.67	23.00	1.079	-	-	0.01	0.609	0.657
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	DSI 2	166300	831.5	1	23.17	24.00	1.211	-	-	-0.11	0.288	0.349
	FR1 n26 ENDC	20M	QPSK	50	28	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	DSI 2	166300	831.5	1	23.15	24.00	1.216	-	-	-0.06	0.333	0.405
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 0	DSI 2	166300	831.5	1	23.17	24.00	1.211	-	-	-0.15	0.173	0.209
	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Right Tilted	0mm	Ant 0	DSI 2	166300	831.5	1	23.15	24.00	1.216	-	-	0.03	0.196	0.238
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	DSI 2	166300	831.5	1	23.17	24.00	1.211	-	-	-0.13	0.266	0.322
	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	DSI 2	166300	831.5	1	23.15	24.00	1.216	-	-	0.16	0.292	0.355
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 0	DSI 2	166300	831.5	1	23.17	24.00	1.211	-	-	-0.15	0.161	0.195
	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Left Tilted	0mm	Ant 0	DSI 2	166300	831.5	1	23.15	24.00	1.216	-	-	-0.02	0.174	0.212
11	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 4	DSI 2	166300	831.5	1	22.18	23.00	1.208	-	-	0.04	0.752	**0.908**
	FR1 n5 ENDC	20M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 4	DSI 2	167300	836.5	1	19.09	19.50	1.099	-	-	0.01	0.393	0.432
	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Right Cheek	0mm	Ant 4	DSI 2	166300	831.5	1	22.12	23.00	1.225	-	-	-0.09	0.607	0.743
	FR1 n26	20M	QPSK	100	0	DFT-SCS-15KHz	Right Cheek	0mm	Ant 4	DSI 2	166300	831.5	1	22.09	23.00	1.233	-	-	0.14	0.489	0.603
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 4	DSI 2	166300	831.5	1	22.18	23.00	1.208	-	-	0.1	0.615	0.743
	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Right Tilted	0mm	Ant 4	DSI 2	166300	831.5	1	22.12	23.00	1.225	-	-	-0.09	0.530	0.649
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 4	DSI 2	166300	831.5	1	22.18	23.00	1.208	-	-	0.07	0.521	0.629
	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Left Cheek	0mm	Ant 4	DSI 2	166300	831.5	1	22.12	23.00	1.225	-	-	-0.09	0.462	0.566
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 4	DSI 2	166300	831.5	1	22.18	23.00	1.208	-	-	-0.16	0.503	0.608
	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Left Tilted	0mm	Ant 4	DSI 2	166300	831.5	1	22.12	23.00	1.225	-	-	-0.18	0.465	0.569
1750MHz																					
12	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 0	DSI 2	1413	1732.6	1	22.85	24.00	1.303	-	-	0.02	0.204	**0.266**
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 0	DSI 2	1413	1732.6	1	22.85	24.00	1.303	-	-	-0.07	0.114	0.149
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 0	DSI 2	1413	1732.6	1	22.85	24.00	1.303	-	-	0.11	0.182	0.237
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 0	DSI 2	1413	1732.6	1	22.85	24.00	1.303	-	-	-0.08	0.132	0.172
	LTE Band 66 ENDC&UL_CA	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	DSI 2	132322	1745	1	22.76	24.00	1.330	-	-	-0.1	0.184	0.245
	LTE Band 66C	20M	QPSK	1	99	-	Right Cheek	0mm	Ant 0	DSI 2	132322+ 132520	1745+ 1764.8	1	22.72	24.00	1.343	-	-	0.08	0.171	0.230
	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 0	DSI 2	132322	1745	1	21.69	23.00	1.352	-	-	-0.01	0.104	0.141
	LTE Band 66	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	DSI 2	132322	1745	1	22.76	24.00	1.330	-	-	-0.09	0.099	0.132
	LTE Band 66	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 0	DSI 2	132322	1745	1	21.69	23.00	1.352	-	-	-0.06	0.056	0.076
	LTE Band 66	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	DSI 2	132322	1745	1	22.76	24.00	1.330	-	-	-0.17	0.155	0.206
	LTE Band 66	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 0	DSI 2	132322	1745	1	21.69	23.00	1.352	-	-	-0.01	0.086	0.116
	LTE Band 66	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	DSI 2	132322	1745	1	22.76	24.00	1.330	-	-	-0.11	0.127	0.169
	LTE Band 66	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 0	DSI 2	132322	1745	1	21.69	23.00	1.352	-	-	0.14	0.073	0.099
	LTE Band 66 Main PA-1	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	DSI 2	132322	1745	1	22.86	24.00	1.300	-	-	0.03	0.125	0.163
	LTE Band 66 Other PA	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	DSI 2	132322	1745	1	22.15	23.00	1.216	-	-	0.1	0.098	0.119
	LTE Band 66 Other PA-1	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	DSI 2	132322	1745	1	22.17	23.00	1.211	-	-	0.16	0.097	0.117
	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 2	132322	1745	1	17.79	18.50	1.178	-	-	-0.06	0.652	0.768
	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 2	132072	1720	1	17.72	18.50	1.197	-	-	0.02	0.629	0.753
	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 2	132572	1770	1	17.74	18.50	1.191	-	-	-0.16	0.652	0.777
	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI 2	132322	1745	1	17.77	18.50	1.183	-	-	0.05	0.379	0.448
	LTE Band 66	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 4	DSI 2	132322	1745	1	17.75	18.50	1.189	-	-	-0.15	0.386	0.459
	LTE Band 66	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 2	132322	1745	1	17.79	18.50	1.178	-	-	0.16	0.732	0.862

	LTE Band 66	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 2	132072	1720	1	17.72	18.50	1.197	-	-	0.05	0.718	0.859
13	LTE Band 66	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 2	132572	1770	1	17.74	18.50	1.191	-	-	0.02	0.745	**0.887**
	LTE Band 66C	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 2	132572+ 132374	1770+ 1750.2	1	17.58	18.50	1.236	-	-	0.06	0.711	0.879
	LTE Band 66 UL_CA	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 2	132572	1770	1	16.80	17.50	1.175	-	-	0.03	0.581	0.683
	LTE Band 66 ENDC	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 2	132572	1770	1	14.77	15.50	1.183	-	-	0.01	0.371	0.439
	LTE Band 66	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	DSI 2	132322	1745	1	17.77	18.50	1.183	-	-	-0.06	0.426	0.504
	LTE Band 66	20M	QPSK	100	0	-	Right Tilted	0mm	Ant 4	DSI 2	132322	1745	1	17.75	18.50	1.189	-	-	-0.11	0.432	0.513
	LTE Band 66	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	DSI 2	132322	1745	1	17.79	18.50	1.178	-	-	0.19	0.409	0.482
	LTE Band 66	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 4	DSI 2	132322	1745	1	17.77	18.50	1.183	-	-	-0.14	0.243	0.287
	LTE Band 66	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 4	DSI 2	132322	1745	1	17.79	18.50	1.178	-	-	-0.18	0.525	0.618
	LTE Band 66	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 4	DSI 2	132322	1745	1	17.77	18.50	1.183	-	-	-0.06	0.313	0.370
	LTE Band 66 Main PA-1	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 2	132572	1770	1	17.48	18.50	1.265	-	-	0.02	0.610	0.771
	LTE Band 66 Other PA	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 2	132572	1770	1	18.84	19.50	1.164	-	-	0.16	0.637	0.742
	LTE Band 66 Other PA-1	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 2	132572	1770	1	19.27	19.50	1.054	-	-	0.01	0.671	0.707
	FR1 n70	15M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	DSI 2	340500	1702.5	1	22.59	24.00	1.384	-	-	-0.04	0.182	0.252
	FR1 n70	15M	QPSK	36	22	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	DSI 2	340500	1702.5	1	22.45	24.00	1.429	-	-	0.13	0.168	0.240
	FR1 n70	15M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 0	DSI 2	340500	1702.5	1	22.59	24.00	1.384	-	-	0.12	0.101	0.140
	FR1 n70	15M	QPSK	36	22	DFT-SCS-15KHz	Right Tilted	0mm	Ant 0	DSI 2	340500	1702.5	1	22.45	24.00	1.429	-	-	0.07	0.106	0.151
	FR1 n70	15M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	DSI 2	340500	1702.5	1	22.59	24.00	1.384	-	-	0.08	0.131	0.181
	FR1 n70	15M	QPSK	36	22	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	DSI 2	340500	1702.5	1	22.45	24.00	1.429	-	-	0.19	0.134	0.191
	FR1 n70	15M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 0	DSI 2	340500	1702.5	1	22.59	24.00	1.384	-	-	-0.06	0.118	0.163
	FR1 n70	15M	QPSK	36	22	DFT-SCS-15KHz	Left Tilted	0mm	Ant 0	DSI 2	340500	1702.5	1	22.45	24.00	1.429	-	-	0	0.081	0.116
	FR1 n70	15M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 4	DSI 2	340500	1702.5	1	17.17	18.00	1.211	-	-	-0.03	0.669	0.810
	FR1 n70	15M	QPSK	36	22	DFT-SCS-15KHz	Right Cheek	0mm	Ant 4	DSI 2	340500	1702.5	1	17.13	18.00	1.222	-	-	0.07	0.622	0.760
	FR1 n70	15M	QPSK	75	0	DFT-SCS-15KHz	Right Cheek	0mm	Ant 4	DSI 2	340500	1702.5	1	17.06	18.00	1.242	-	-	-0.12	0.503	0.625
14	FR1 n70	15M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 4	DSI 2	340500	1702.5	1	17.17	18.00	1.211	-	-	0.05	0.738	**0.893**
	FR1 n70	15M	QPSK	36	22	DFT-SCS-15KHz	Right Tilted	0mm	Ant 4	DSI 2	340500	1702.5	1	17.13	18.00	1.222	-	-	-0.03	0.698	0.853
	FR1 n70	15M	QPSK	75	0	DFT-SCS-15KHz	Right Tilted	0mm	Ant 4	DSI 2	340500	1702.5	1	17.06	18.00	1.242	-	-	0.02	0.564	0.700
	FR1 n70	15M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 4	DSI 2	340500	1702.5	1	17.17	18.00	1.211	-	-	0.12	0.488	0.591
	FR1 n70	15M	QPSK	36	22	DFT-SCS-15KHz	Left Cheek	0mm	Ant 4	DSI 2	340500	1702.5	1	17.13	18.00	1.222	-	-	0.02	0.434	0.530
	FR1 n70	15M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 4	DSI 2	340500	1702.5	1	17.17	18.00	1.211	-	-	-0.03	0.608	0.736
	FR1 n70	15M	QPSK	36	22	DFT-SCS-15KHz	Left Tilted	0mm	Ant 4	DSI 2	340500	1702.5	1	17.13	18.00	1.222	-	-	0	0.550	0.672
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	DSI 2	349000	1745	1	22.93	24.00	1.279	-	-	-0.1	0.175	0.224
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	DSI 2	349000	1745	1	22.88	24.00	1.294	-	-	0.05	0.162	0.210
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 0	DSI 2	349000	1745	1	22.93	24.00	1.279	-	-	0	0.000	0.000
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Right Tilted	0mm	Ant 0	DSI 2	349000	1745	1	22.88	24.00	1.294	-	-	0.07	0.000	0.000
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	DSI 2	349000	1745	1	22.93	24.00	1.279	-	-	0.15	0.133	0.170
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	DSI 2	349000	1745	1	22.88	24.00	1.294	-	-	-0.05	0.143	0.185
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 0	DSI 2	349000	1745	1	22.93	24.00	1.279	-	-	-0.08	0.117	0.150
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Left Tilted	0mm	Ant 0	DSI 2	349000	1745	1	22.88	24.00	1.294	-	-	-0.08	0.125	0.162
	FR1 n66 Main PA-1	40M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	DSI 2	349000	1745	1	22.92	24.00	1.282	-	-	-0.13	0.173	0.222
	FR1 n66 Other PA	40M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	DSI 2	349000	1745	1	22.25	23.00	1.189	-	-	0.01	0.058	0.069
	FR1 n66 Other PA-1	40M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	DSI 2	349000	1745	1	22.25	23.00	1.189	-	-	-0.11	0.121	0.144
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 4	DSI 2	349000	1745	1	16.45	17.00	1.135	-	-	0.03	0.636	0.722
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Right Cheek	0mm	Ant 4	DSI 2	349000	1745	1	16.40	17.00	1.148	-	-	-0.05	0.615	0.706
	FR1 n66	40M	QPSK	216	0	DFT-SCS-15KHz	Right Cheek	0mm	Ant 4	DSI 2	349000	1745	1	16.38	17.00	1.153	-	-	0.14	0.518	0.597
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 4	DSI 2	349000	1745	1	16.45	17.00	1.135	-	-	-0.01	0.719	0.816
15	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Right Tilted	0mm	Ant 4	DSI 2	349000	1745	1	16.40	17.00	1.148	-	-	-0.12	0.781	**0.897**
	FR1 n66 ENDC	40M	QPSK	108	54	DFT-SCS-15KHz	Right Tilted	0mm	Ant 4	DSI 2	349000	1745	1	13.42	14.00	1.143	-	-	-0.12	0.391	0.447
	FR1 n66	40M	QPSK	216	0	DFT-SCS-15KHz	Right Tilted	0mm	Ant 4	DSI 2	349000	1745	1	16.38	17.00	1.153	-	-	0.07	0.582	0.671
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 4	DSI 2	349000	1745	1	16.45	17.00	1.135	-	-	0.09	0.424	0.481
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Left Cheek	0mm	Ant 4	DSI 2	349000	1745	1	16.40	17.00	1.148	-	-	0.04	0.424	0.487
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 4	DSI 2	349000	1745	1	16.45	17.00	1.135	-	-	0.11	0.529	0.600
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Left Tilted	0mm	Ant 4	DSI 2	349000	1745	1	16.40	17.00	1.148	-	-	-0.13	0.529	0.607

	FR1 n66 Main PA-1	40M	QPSK	108	54	DFT-SCS-15KHz	Right Tilted	0mm	Ant 4	DSI 2	349000	1745	1	16.40	17.00	1.148	-	-	0.12	0.566	0.650
	FR1 n66 Other PA	40M	QPSK	108	54	DFT-SCS-15KHz	Right Tilted	0mm	Ant 4	DSI 2	349000	1745	1	17.35	18.00	1.161	-	-	-0.03	0.763	0.886
	FR1 n66 Other PA-1	40M	QPSK	108	54	DFT-SCS-15KHz	Right Tilted	0mm	Ant 4	DSI 2	349000	1745	1	16.91	18.00	1.285	-	-	-0.11	0.527	0.677
1900MHz																					
	GSM1900	-	-	-	-	GPRS (2 Tx slots)	Right Cheek	0mm	Ant 0	DSI 2	661	1880	1	28.42	29.00	1.143	-	-	0.17	0.039	0.045
	GSM1900	-	-	-	-	GPRS (2 Tx slots)	Right Tilted	0mm	Ant 0	DSI 2	661	1880	1	28.42	29.00	1.143	-	-	-0.16	0.043	0.049
16	GSM1900	-	-	-	-	GPRS (2 Tx slots)	Left Cheek	0mm	Ant 0	DSI 2	661	1880	1	28.42	29.00	1.143	-	-	0.05	0.054	**0.062**
	GSM1900	-	-	-	-	GPRS (2 Tx slots)	Left Tilted	0mm	Ant 0	DSI 2	661	1880	1	28.42	29.00	1.143	-	-	-0.17	0.045	0.051
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 0	DSI 2	9400	1880	1	23.01	24.00	1.256	-	-	0.11	0.111	0.139
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 0	DSI 2	9400	1880	1	23.01	24.00	1.256	-	-	-0.05	0.107	0.134
17	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 0	DSI 2	9400	1880	1	23.01	24.00	1.256	-	-	0.01	0.136	**0.171**
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 0	DSI 2	9400	1880	1	23.01	24.00	1.256	-	-	-0.01	0.106	0.133
	LTE Band 25	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	DSI 2	26340	1880	1	22.73	24.00	1.340	-	-	-0.14	0.095	0.127
	LTE Band 25	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 0	DSI 2	26340	1880	1	21.53	23.00	1.403	-	-	-0.15	0.058	0.081
	LTE Band 25	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	DSI 2	26340	1880	1	22.73	24.00	1.340	-	-	-0.12	0.094	0.126
	LTE Band 25	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 0	DSI 2	26340	1880	1	21.53	23.00	1.403	-	-	-0.17	0.055	0.077
	LTE Band 25 ENDC&UL_CA	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	DSI 2	26340	1880	1	22.73	24.00	1.340	-	-	0.08	0.128	0.171
	LTE Band 25	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 0	DSI 2	26340	1880	1	21.53	23.00	1.403	-	-	0.01	0.075	0.105
	LTE Band 25	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	DSI 2	26340	1880	1	22.73	24.00	1.340	-	-	0.02	0.100	0.134
	LTE Band 25	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 0	DSI 2	26340	1880	1	21.53	23.00	1.403	-	-	-0.11	0.061	0.086
	LTE Band 25 Other PA	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	DSI 2	26340	1880	1	21.65	22.50	1.216	-	-	-0.01	0.066	0.080
	LTE Band 25 Other PA-1	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	DSI 2	26340	1880	1	21.69	22.50	1.205	-	-	0.09	0.067	0.081
	LTE Band 2 Main PA-1	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	DSI 2	18900	1880	1	23.35	24.00	1.161	-	-	0.03	0.081	0.094
	LTE Band 25	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 2	26340	1880	1	15.89	16.50	1.151	-	-	0.1	0.623	0.717
	LTE Band 25	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI 2	26340	1880	1	15.85	16.50	1.161	-	-	-0.04	0.362	0.420
	LTE Band 25	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 2	26340	1880	1	15.89	16.50	1.151	-	-	0.15	0.725	0.834
18	LTE Band 25	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 2	26140	1860	1	15.83	16.50	1.167	-	-	0.02	0.762	**0.889**
	LTE Band 2 UL_CA	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 2	18900	1880	1	15.37	16.00	1.156	-	-	0.03	0.613	0.709
	LTE Band 2	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	DSI 2	18900	1880	1	15.37	16.00	1.156	-	-	0.07	0.322	0.372
	LTE Band 2 ENDC	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 2	18900	1880	1	13.36	14.00	1.159	-	-	0.04	0.381	0.441
	LTE Band 25	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 2	26140	1860	2	15.83	16.50	1.167	-	-	0.09	0.730	0.852
	LTE Band 25	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 2	26590	1905	1	15.87	16.50	1.156	-	-	0.09	0.650	0.751
	LTE Band 25	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	DSI 2	26340	1880	1	15.85	16.50	1.161	-	-	-0.16	0.427	0.496
	LTE Band 25	20M	QPSK	100	0	-	Right Tilted	0mm	Ant 4	DSI 2	26340	1880	1	15.79	16.50	1.178	-	-	-0.18	0.410	0.483
	LTE Band 25	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	DSI 2	26340	1880	1	15.89	16.50	1.151	-	-	-0.03	0.400	0.460
	LTE Band 25	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 4	DSI 2	26340	1880	1	15.85	16.50	1.161	-	-	-0.04	0.229	0.266
	LTE Band 25	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 4	DSI 2	26340	1880	1	15.89	16.50	1.151	-	-	-0.09	0.494	0.568
	LTE Band 25	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 4	DSI 2	26340	1880	1	15.85	16.50	1.161	-	-	0.18	0.283	0.329
	LTE Band 25 Other PA	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 2	26140	1860	1	17.62	18.50	1.225	-	-	0.11	0.674	0.825
	LTE Band 25 Other PA-1	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 2	26140	1860	1	17.70	18.50	1.202	-	-	0.07	0.654	0.786
	LTE Band 2 Main PA-1	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 2	18900	1880	1	16.49	16.50	1.002	-	-	0.02	0.867	0.869
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	DSI 2	376500	1882.5	1	23.42	24.00	1.143	-	-	-0.03	0.095	0.109
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	DSI 2	376500	1882.5	1	23.33	24.00	1.167	-	-	0.09	0.088	0.103
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 0	DSI 2	376500	1882.5	1	23.42	24.00	1.143	-	-	-0.08	0.095	0.109
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Right Tilted	0mm	Ant 0	DSI 2	376500	1882.5	1	23.33	24.00	1.167	-	-	-0.05	0.078	0.091
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	DSI 2	376500	1882.5	1	23.42	24.00	1.143	-	-	-0.03	0.126	0.144
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	DSI 2	376500	1882.5	1	23.33	24.00	1.167	-	-	0.17	0.129	0.151
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 0	DSI 2	376500	1882.5	1	23.42	24.00	1.143	-	-	-0.14	0.100	0.114
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Left Tilted	0mm	Ant 0	DSI 2	376500	1882.5	1	23.33	24.00	1.167	-	-	0.06	0.092	0.107
	FR1 n25 Other PA	40M	QPSK	108	54	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	DSI 2	376500	1882.5	1	21.38	23.00	1.452	-	-	-0.06	0.076	0.110
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 4	DSI 2	376500	1882.5	1	17.16	17.50	1.081	-	-	-0.15	0.586	0.634
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Right Cheek	0mm	Ant 4	DSI 2	376500	1882.5	1	17.14	17.50	1.086	-	-	-0.12	0.528	0.574
19	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 4	DSI 2	376500	1882.5	1	17.16	17.50	1.081	-	-	0.03	0.759	**0.821**

	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Right Tilted	0mm	Ant 4	DSI 2	376500	1882.5	1	17.14	17.50	1.086	-	-	-0.16	0.641	0.696
	FR1 n25	40M	QPSK	216	0	DFT-SCS-15KHz	Right Tilted	0mm	Ant 4	DSI 2	376500	1882.5	1	17.11	17.50	1.094	-	-	-0.03	0.544	0.595
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 4	DSI 2	376500	1882.5	1	17.16	17.50	1.081	-	-	0.17	0.404	0.437
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Left Cheek	0mm	Ant 4	DSI 2	376500	1882.5	1	17.14	17.50	1.086	-	-	0.02	0.368	0.400
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 4	DSI 2	376500	1882.5	1	17.16	17.50	1.081	-	-	0	0.528	0.571
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Left Tilted	0mm	Ant 4	DSI 2	376500	1882.5	1	17.14	17.50	1.086	-	-	0.18	0.464	0.504
	FR1 n25 Other PA	40M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 4	DSI 2	376500	1882.5	1	18.36	18.50	1.033	-	-	-0.11	0.740	0.764
2300MHz																					
	LTE Band 30 ENDC&UL_CA	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 2	27710	2310	1	23.00	24.00	1.259	-	-	0.01	0.160	0.201
	LTE Band 30	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 1	DSI 2	27710	2310	1	21.59	23.00	1.384	-	-	-0.05	0.090	0.125
	LTE Band 30	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	DSI 2	27710	2310	1	23.00	24.00	1.259	-	-	-0.04	0.086	0.108
	LTE Band 30	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 1	DSI 2	27710	2310	1	21.59	23.00	1.384	-	-	-0.08	0.049	0.068
	LTE Band 30	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	DSI 2	27710	2310	1	23.00	24.00	1.259	-	-	0	0.135	0.170
	LTE Band 30	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 1	DSI 2	27710	2310	1	21.59	23.00	1.384	-	-	-0.14	0.075	0.104
	LTE Band 30	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	DSI 2	27710	2310	1	23.00	24.00	1.259	-	-	0.01	0.110	0.138
	LTE Band 30	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 1	DSI 2	27710	2310	1	21.59	23.00	1.384	-	-	0.18	0.063	0.087
	LTE Band 30 Other PA_ENDC	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 2	27710	2310	1	13.07	13.50	1.104	-	-	0.02	0.315	0.348
	LTE Band 30 Other PA_ENDC	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 4	DSI 2	27710	2310	1	13.03	13.50	1.114	-	-	0.16	0.310	0.345
	LTE Band 30 Other PA_ENDC	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 2	27710	2310	1	13.07	13.50	1.104	-	-	0.06	0.383	0.423
20	LTE Band 30 ENDC	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 4	DSI 2	27710	2310	1	13.03	13.50	1.114	-	-	0.09	0.384	**0.428**
	LTE Band 30 Other PA_ENDC	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	DSI 2	27710	2310	1	13.07	13.50	1.104	-	-	0.07	0.141	0.156
	LTE Band 30 Other PA_ENDC	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 4	DSI 2	27710	2310	1	13.03	13.50	1.114	-	-	-0.17	0.144	0.160
	LTE Band 30 Other PA_ENDC	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 4	DSI 2	27710	2310	1	13.07	13.50	1.104	-	-	0.1	0.187	0.206
	LTE Band 30 Other PA_ENDC	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 4	DSI 2	27710	2310	1	13.03	13.50	1.114	-	-	0.08	0.184	0.205
	FR1 n30	10M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	DSI 2	462000	2310	1	23.39	24.00	1.151	-	-	0	0.143	0.165
	FR1 n30	10M	QPSK	25	14	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	DSI 2	462000	2310	1	23.32	24.00	1.169	-	-	-0.13	0.148	0.173
	FR1 n30	10M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	DSI 2	462000	2310	1	23.39	24.00	1.151	-	-	-0.1	0.119	0.137
	FR1 n30	10M	QPSK	25	14	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	DSI 2	462000	2310	1	23.32	24.00	1.169	-	-	-0.07	0.131	0.153
21	FR1 n30 ENDC	10M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 1	DSI 2	462000	2310	1	23.39	24.00	1.151	-	-	0.05	0.233	**0.268**
	FR1 n30	10M	QPSK	25	14	DFT-SCS-15KHz	Left Cheek	0mm	Ant 1	DSI 2	462000	2310	1	23.32	24.00	1.169	-	-	0.11	0.221	0.258
	FR1 n30	10M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 1	DSI 2	462000	2310	1	23.39	24.00	1.151	-	-	-0.17	0.097	0.112
	FR1 n30	10M	QPSK	25	14	DFT-SCS-15KHz	Left Tilted	0mm	Ant 1	DSI 2	462000	2310	1	23.32	24.00	1.169	-	-	0.01	0.097	0.113
2600MHz																					
	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 2	21100	2535	1	22.95	24.00	1.274	-	-	0.1	0.184	0.234
	LTE Band 7	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 1	DSI 2	21100	2535	1	21.56	23.00	1.393	-	-	0.11	0.140	0.195
	LTE Band 7	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	DSI 2	21100	2535	1	22.95	24.00	1.274	-	-	-0.07	0.240	0.306
	LTE Band 7	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 1	DSI 2	21100	2535	1	21.56	23.00	1.393	-	-	0.18	0.154	0.215
22	LTE Band 7 ENDC	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	DSI 2	21100	2535	1	22.95	24.00	1.274	-	-	0.06	0.399	**0.508**
	LTE Band 7	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 1	DSI 2	21100	2535	1	21.56	23.00	1.393	-	-	0.12	0.262	0.365
	LTE Band 7	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	DSI 2	21100	2535	1	22.95	24.00	1.274	-	-	0.07	0.135	0.172
	LTE Band 7	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 1	DSI 2	21100	2535	1	21.56	23.00	1.393	-	-	0.15	0.092	0.128
	LTE Band 7 Other PA_ENDC	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 2	21100	2535	1	13.31	13.50	1.045	-	-	0.14	0.225	0.235
	LTE Band 7 Other PA_ENDC	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI 2	21100	2535	1	13.27	13.50	1.054	-	-	-0.03	0.214	0.226
22	LTE Band 7 Other PA_ENDC	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 2	21100	2535	1	13.31	13.50	1.045	-	-	-0.14	0.413	0.431
	LTE Band 7 Other PA_ENDC	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	DSI 2	21100	2535	1	13.27	13.50	1.054	-	-	0.11	0.249	0.263
	LTE Band 7 Other PA_ENDC	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	DSI 2	21100	2535	1	13.31	13.50	1.045	-	-	-0.13	0.074	0.077
	LTE Band 7 Other PA_ENDC	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 4	DSI 2	21100	2535	1	13.27	13.50	1.054	-	-	-0.13	0.070	0.074
	LTE Band 7 Other PA_ENDC	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 4	DSI 2	21100	2535	1	13.31	13.50	1.045	-	-	0	0.097	0.101
	LTE Band 7 Other PA_ENDC	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 4	DSI 2	21100	2535	1	13.27	13.50	1.054	-	-	-0.04	0.093	0.098
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 2	40620	2593	1	22.97	24.00	1.268	62.9	1.006	-0.15	0.175	0.223
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 1	DSI 2	40620	2593	1	21.81	23.00	1.315	62.9	1.006	-0.09	0.122	0.161
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	DSI 2	40620	2593	1	22.97	24.00	1.268	62.9	1.006	0.05	0.158	0.201

	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 1	DSI 2	40620	2593	1	21.81	23.00	1.315	62.9	1.006	0.13	0.104	0.138
	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	DSI 2	40620	2593	1	22.97	24.00	1.268	62.9	1.006	0.01	0.234	0.298
	LTE Band 41C	20M	QPSK	1	99	-	Left Cheek	0mm	Ant 1	DSI 2	40620+ 40818	2593+ 2612.8	1	22.90	24.00	1.288	62.9	1.006	0.09	0.211	0.273
	LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 1	DSI 2	40620	2593	1	21.81	23.00	1.315	62.9	1.006	0	0.162	0.214
	LTE Band 41	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	DSI 2	40620	2593	1	22.97	24.00	1.268	62.9	1.006	-0.12	0.082	0.105
	LTE Band 41	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 1	DSI 2	40620	2593	1	21.81	23.00	1.315	62.9	1.006	0.15	0.061	0.081
23	LTE Band 41 _HPUE	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	DSI 2	40620	2593	1	25.85	27.00	1.303	42.9	1.009	0.04	0.291	**0.383**
	LTE Band 41C _HPUE	20M	QPSK	1	99	-	Left Cheek	0mm	Ant 1	DSI 2	40620+ 40818	2593+ 2612.8	1	25.82	27.00	1.312	42.9	1.009	0.02	0.283	0.375
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	DSI 2	507000	2535	1	23.45	24.00	1.135	-	-	-0.05	0.258	0.293
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	DSI 2	507000	2535	1	23.38	24.00	1.153	-	-	-0.07	0.270	0.311
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	DSI 2	507000	2535	1	23.45	24.00	1.135	-	-	0.1	0.219	0.249
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	DSI 2	507000	2535	1	23.38	24.00	1.153	-	-	-0.11	0.247	0.285
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 1	DSI 2	507000	2535	1	23.45	24.00	1.135	-	-	-0.02	0.392	0.445
24	FR1 n7 ENDC	40M	QPSK	108	54	DFT-SCS-15KHz	Left Cheek	0mm	Ant 1	DSI 2	507000	2535	1	23.38	24.00	1.153	-	-	0.07	0.426	**0.491**
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 1	DSI 2	507000	2535	1	23.45	24.00	1.135	-	-	-0.1	0.138	0.157
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Left Tilted	0mm	Ant 1	DSI 2	507000	2535	1	23.38	24.00	1.153	-	-	0.14	0.159	0.183
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 1	DSI 2	518598	2592.99	1	22.95	24.00	1.274	-	-	0.04	0.253	0.322
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 1	DSI 2	518598	2592.99	1	22.89	24.00	1.291	-	-	-0.05	0.343	0.443
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 1	DSI 2	518598	2592.99	1	22.95	24.00	1.274	-	-	-0.04	0.207	0.264
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 1	DSI 2	518598	2592.99	1	22.89	24.00	1.291	-	-	0.14	0.315	0.407
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 1	DSI 2	518598	2592.99	1	22.95	24.00	1.274	-	-	0.03	0.391	0.498
	FR1 n41 ENDC	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 1	DSI 2	518598	2592.99	1	22.89	24.00	1.291	-	-	0.16	0.499	0.644
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 1	DSI 2	518598	2592.99	1	22.95	24.00	1.274	-	-	0.01	0.133	0.169
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 1	DSI 2	518598	2592.99	1	22.89	24.00	1.291	-	-	-0.06	0.165	0.213
	FR1 n41 HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 1	DSI 2	518598	2592.99	1	25.85	27.00	1.303	50	1.000	0.14	0.473	0.616
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 4	DSI 2	518598	2592.99	1	17.36	18.00	1.159	-	-	-0.09	0.679	0.787
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 4	DSI 2	518598	2592.99	1	17.31	18.00	1.172	-	-	-0.09	0.612	0.717
	FR1 n41	100M	QPSK	270	0	DFT-SCS-30KHz	Right Cheek	0mm	Ant 4	DSI 2	518598	2592.99	1	17.28	18.00	1.180	-	-	-0.12	0.624	0.737
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 4	DSI 2	518598	2592.99	1	17.36	18.00	1.159	-	-	-0.06	0.747	0.866
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 4	DSI 2	518598	2592.99	1	17.31	18.00	1.172	-	-	-0.19	0.685	0.803
	FR1 n41	100M	QPSK	270	0	DFT-SCS-30KHz	Right Tilted	0mm	Ant 4	DSI 2	518598	2592.99	1	17.28	18.00	1.180	-	-	0.09	0.679	0.801
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 4	DSI 2	518598	2592.99	1	17.36	18.00	1.159	-	-	0.13	0.212	0.246
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 4	DSI 2	518598	2592.99	1	17.31	18.00	1.172	-	-	-0.08	0.211	0.247
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 4	DSI 2	518598	2592.99	1	17.36	18.00	1.159	-	-	0.08	0.264	0.306
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 4	DSI 2	518598	2592.99	1	17.31	18.00	1.172	-	-	-0.04	0.234	0.274
25	FR1 n41 HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 4	DSI 2	518598	2592.99	1	20.46	21.00	1.132	50	1.000	-0.05	0.771	**0.873**
	FR1 n41 HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 4	DSI 2	518598	2592.99	2	20.46	21.00	1.132	50	1.000	0.01	0.529	0.599
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 2	DSI 2	518598	2592.99	1	22.98	24.00	1.265	-	-	0.12	0.178	0.225
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 2	DSI 2	518598	2592.99	1	22.45	23.00	1.135	-	-	0.09	0.139	0.158
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 2	DSI 2	518598	2592.99	1	22.98	24.00	1.265	-	-	-0.02	0.085	0.108
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 2	DSI 2	518598	2592.99	1	22.45	23.00	1.135	-	-	-0.16	0.068	0.077
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 2	DSI 2	518598	2592.99	1	22.98	24.00	1.265	-	-	-0.03	0.069	0.087
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 2	DSI 2	518598	2592.99	1	22.45	23.00	1.135	-	-	-0.06	0.058	0.066
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 2	DSI 2	518598	2592.99	1	22.98	24.00	1.265	-	-	0.08	0.041	0.052
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 2	DSI 2	518598	2592.99	1	22.45	23.00	1.135	-	-	-0.07	0.000	0.000
	FR1 n41 HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 2	DSI 2	518598	2592.99	1	25.94	27.00	1.276	50	1.000	0.11	0.188	0.240
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 7	DSI 2	518598	2592.99	1	18.11	19.50	1.377	-	-	-0.13	0.180	0.248
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 7	DSI 2	518598	2592.99	1	18.10	18.50	1.096	-	-	0.04	0.145	0.159
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 7	DSI 2	518598	2592.99	1	18.11	19.50	1.377	-	-	0.17	0.159	0.219
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 7	DSI 2	518598	2592.99	1	18.10	18.50	1.096	-	-	-0.1	0.110	0.121
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 7	DSI 2	518598	2592.99	1	18.11	19.50	1.377	-	-	0.17	0.615	0.847
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 7	DSI 2	518598	2592.99	1	18.10	18.50	1.096	-	-	-0.15	0.507	0.556
	FR1 n41	100M	QPSK	270	0	DFT-SCS-30KHz	Left Cheek	0mm	Ant 7	DSI 2	518598	2592.99	1	18.08	19.50	1.387	-	-	0.18	0.495	0.686
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 7	DSI 2	518598	2592.99	1	18.11	19.50	1.377	-	-	0.05	0.333	0.459
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 7	DSI 2	518598	2592.99	1	18.10	18.50	1.096	-	-	0.04	0.264	0.289

	FR1 n41 HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 7	DSI 2	518598	2592.99	1	21.13	22.50	1.371	50	1.000	0.03	0.636	0.872
	3500MHz																				
	LTE Band 48	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 5	DSI 2	55830	3609	1	18.48	19.50	1.265	62.9	1.006	0.15	0.378	0.481
	LTE Band 48	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 5	DSI 2	55830	3609	1	18.55	19.50	1.245	62.9	1.006	-0.16	0.252	0.315
	LTE Band 48	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 5	DSI 2	55830	3609	1	18.48	19.50	1.265	62.9	1.006	-0.04	0.388	0.494
	LTE Band 48	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 5	DSI 2	55830	3609	1	18.55	19.50	1.245	62.9	1.006	-0.11	0.258	0.323
	LTE Band 48	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	DSI 2	55830	3609	1	18.48	19.50	1.265	62.9	1.006	0.15	0.592	0.753
	LTE Band 48	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	DSI 2	55340	3560	1	18.53	19.50	1.250	62.9	1.006	-0.1	0.649	0.816
	LTE Band 48	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	DSI 2	56150	3641	1	18.51	19.50	1.256	62.9	1.006	0.17	0.566	0.715
	LTE Band 48	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	DSI 2	56640	3690	1	18.50	19.50	1.259	62.9	1.006	0.13	0.589	0.746
	LTE Band 48	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 5	DSI 2	55830	3609	1	18.55	19.50	1.245	62.9	1.006	-0.02	0.392	0.491
	LTE Band 48	20M	QPSK	100	0	-	Left Cheek	0mm	Ant 5	DSI 2	55830	3609	1	18.47	19.50	1.268	62.9	1.006	-0.04	0.392	0.500
	LTE Band 48	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 5	DSI 2	55830	3609	1	18.48	19.50	1.265	62.9	1.006	-0.12	0.599	0.762
26	LTE Band 48	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 5	DSI 2	55340	3560	1	18.53	19.50	1.250	62.9	1.006	-0.09	0.666	**0.838**
	LTE Band 48C	20M	QPSK	1	99	-	Left Tilted	0mm	Ant 5	DSI 2	55340+ 55538	3560+ 3579.8	1	18.42	19.50	1.282	62.9	1.006	0.04	0.641	0.827
	LTE Band 48 ENDC	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 5	DSI 2	55340	3560	1	16.63	17.00	1.089	62.9	1.006	0.01	0.381	0.417
	LTE Band 48	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 5	DSI 2	56150	3641	1	18.51	19.50	1.256	62.9	1.006	-0.07	0.576	0.728
	LTE Band 48	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 5	DSI 2	56640	3690	1	18.50	19.50	1.259	62.9	1.006	-0.03	0.599	0.759
	LTE Band 48	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 5	DSI 2	55830	3609	1	18.55	19.50	1.245	62.9	1.006	-0.13	0.398	0.498
	LTE Band 48	20M	QPSK	100	0	-	Left Tilted	0mm	Ant 5	DSI 2	55830	3609	1	18.47	19.50	1.268	62.9	1.006	0.07	0.398	0.508
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 5	DSI 2	641666	3624.99	1	15.37	16.00	1.156	-	-	0	0.324	0.375
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Right Cheek	0mm	Ant 5	DSI 2	641666	3624.99	1	15.33	16.00	1.167	-	-	-0.12	0.315	0.368
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 5	DSI 2	641666	3624.99	1	15.37	16.00	1.156	-	-	0.19	0.368	0.425
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Right Tilted	0mm	Ant 5	DSI 2	641666	3624.99	1	15.33	16.00	1.167	-	-	-0.01	0.595	0.694
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 5	DSI 2	641666	3624.99	1	15.37	16.00	1.156	-	-	-0.19	0.449	0.519
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Left Cheek	0mm	Ant 5	DSI 2	641666	3624.99	1	15.33	16.00	1.167	-	-	-0.03	0.675	0.788
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 5	DSI 2	641666	3624.99	1	15.37	16.00	1.156	-	-	-0.08	0.479	0.554
27	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Left Tilted	0mm	Ant 5	DSI 2	641666	3624.99	1	15.33	16.00	1.167	-	-	-0.01	0.750	**0.875**
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Left Tilted	0mm	Ant 5	DSI 2	638000	3570	1	15.20	16.00	1.202	-	-	-0.01	0.715	0.860
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Left Tilted	0mm	Ant 5	DSI 2	645332	3679.98	1	15.31	16.00	1.172	-	-	-0.01	0.723	0.847
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Left Tilted	0mm	Ant 5	DSI 2	641666	3624.99	2	15.33	16.00	1.167	-	-	0.11	0.656	0.765
	FR1 n48	40M	QPSK	100	0	DFT-SCS-30KHz	Left Tilted	0mm	Ant 5	DSI 2	641666	3624.99	1	15.30	16.00	1.175	-	-	0.1	0.537	0.631
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 5	DSI 2	656000	3840	1	15.32	15.50	1.042	-	-	0.15	0.294	0.306
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 5	DSI 2	656000	3840	1	15.30	15.50	1.047	-	-	0.12	0.294	0.308
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 5	DSI 2	656000	3840	1	15.32	15.50	1.042	-	-	-0.12	0.304	0.317
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 5	DSI 2	656000	3840	1	15.30	15.50	1.047	-	-	-0.15	0.312	0.327
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 5	DSI 2	656000	3840	1	15.32	15.50	1.042	-	-	-0.19	0.468	0.488
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 5	DSI 2	656000	3840	1	15.30	15.50	1.047	-	-	-0.13	0.452	0.473
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 5	DSI 2	656000	3840	1	15.32	15.50	1.042	-	-	-0.05	0.456	0.475
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 5	DSI 2	656000	3840	1	15.30	15.50	1.047	-	-	-0.12	0.478	0.501
	FR1 n77 ENDC	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 5	DSI 2	656000	3840	1	12.29	12.50	1.050	-	-	-0.02	0.243	0.255
	FR1 n77 HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 5	DSI 2	656000	3840	1	18.11	18.50	1.094	50	1.000	0.18	0.447	0.489
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 5	DSI 2	633332	3499.98	1	14.40	15.50	1.288	-	-	0.14	0.402	0.518
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 5	DSI 2	633332	3499.98	1	14.36	15.50	1.300	-	-	0.03	0.381	0.495
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 5	DSI 2	633332	3499.98	1	14.40	15.50	1.288	-	-	0.09	0.402	0.518
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 5	DSI 2	633332	3499.98	1	14.36	15.50	1.300	-	-	-0.13	0.373	0.485
28	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 5	DSI 2	633332	3499.98	1	14.40	15.50	1.288	-	-	-0.03	0.685	**0.882**
	FR1 n77 ENDC	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 5	DSI 2	633332	3499.98	1	11.45	12.50	1.274	-	-	0.05	0.347	0.442
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 5	DSI 2	633332	3499.98	1	14.36	15.50	1.300	-	-	-0.09	0.634	0.824
	FR1 n77	100M	QPSK	270	0	DFT-SCS-30KHz	Left Cheek	0mm	Ant 5	DSI 2	633332	3499.98	1	14.28	15.50	1.324	-	-	-0.18	0.637	0.844
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 5	DSI 2	633332	3499.98	1	14.40	15.50	1.288	-	-	0.12	0.654	0.843
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 5	DSI 2	633332	3499.98	1	14.36	15.50	1.300	-	-	0.11	0.605	0.787
	FR1 n77	100M	QPSK	270	0	DFT-SCS-30KHz	Left Tilted	0mm	Ant 5	DSI 2	633332	3499.98	1	14.28	15.50	1.324	-	-	0.11	0.606	0.803
	FR1 n77 HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 5	DSI 2	633332	3499.98	1	17.47	18.50	1.268	50	1.000	-0.06	0.670	0.849
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 1	DSI 2	656000	3840	1	19.41	21.00	1.442	-	-	-0.02	0.039	0.056

	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 1	DSI 2	656000	3840	1	19.33	21.00	1.469	-	-	0.02	0.058	0.085
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 1	DSI 2	656000	3840	1	19.41	21.00	1.442	-	-	0.12	0.052	0.075
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 1	DSI 2	656000	3840	1	19.33	21.00	1.469	-	-	0.02	0.041	0.060
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 1	DSI 2	656000	3840	1	19.41	21.00	1.442	-	-	-0.11	0.079	0.114
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 1	DSI 2	656000	3840	1	19.33	21.00	1.469	-	-	-0.11	0.070	0.103
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 1	DSI 2	656000	3840	1	19.41	21.00	1.442	-	-	-0.05	0.053	0.076
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 1	DSI 2	656000	3840	1	19.33	21.00	1.469	-	-	0.03	0.040	0.059
	FR1 n77 HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 1	DSI 2	656000	3840	1	22.34	24.00	1.466	50	1.000	-0.06	0.071	0.104
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 1	DSI 2	633332	3499.98	1	20.47	21.00	1.130	-	-	0.01	0.049	0.055
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 1	DSI 2	633332	3499.98	1	20.41	21.00	1.146	-	-	-0.03	0.040	0.046
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 1	DSI 2	633332	3499.98	1	20.47	21.00	1.130	-	-	0.03	0.077	0.087
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 1	DSI 2	633332	3499.98	1	20.41	21.00	1.146	-	-	-0.17	0.050	0.057
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 1	DSI 2	633332	3499.98	1	20.47	21.00	1.130	-	-	0.02	0.092	0.104
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 1	DSI 2	633332	3499.98	1	20.41	21.00	1.146	-	-	-0.11	0.070	0.080
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 1	DSI 2	633332	3499.98	1	20.47	21.00	1.130	-	-	0.18	0.047	0.053
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 1	DSI 2	633332	3499.98	1	20.41	21.00	1.146	-	-	0.16	0.028	0.032
	FR1 n77 HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 1	DSI 2	633332	3499.98	1	23.39	24.00	1.151	50	1.000	0.19	0.088	0.101
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 2	DSI 2	656000	3840	1	21.11	22.00	1.227	-	-	0.13	0.118	0.145
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 2	DSI 2	656000	3840	1	21.08	22.00	1.236	-	-	-0.03	0.132	0.163
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 2	DSI 2	656000	3840	1	21.11	22.00	1.227	-	-	0.12	0.045	0.055
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 2	DSI 2	656000	3840	1	21.08	22.00	1.236	-	-	0.19	0.066	0.082
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 2	DSI 2	656000	3840	1	21.11	22.00	1.227	-	-	-0.09	0.062	0.076
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 2	DSI 2	656000	3840	1	21.08	22.00	1.236	-	-	-0.12	0.052	0.064
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 2	DSI 2	656000	3840	1	21.11	22.00	1.227	-	-	0.07	0.036	0.044
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 2	DSI 2	656000	3840	1	21.08	22.00	1.236	-	-	-0.18	0.000	0.000
	FR1 n77 HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 2	DSI 2	656000	3840	1	24.05	25.00	1.245	50	1.000	-0.06	0.128	0.159
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 2	DSI 2	633332	3499.98	1	21.41	22.00	1.146	-	-	0.07	0.143	0.164
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 2	DSI 2	633332	3499.98	1	21.35	22.00	1.161	-	-	-0.15	0.122	0.142
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 2	DSI 2	633332	3499.98	1	21.41	22.00	1.146	-	-	-0.15	0.062	0.071
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 2	DSI 2	633332	3499.98	1	21.35	22.00	1.161	-	-	-0.08	0.049	0.057
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 2	DSI 2	633332	3499.98	1	21.41	22.00	1.146	-	-	-0.04	0.074	0.085
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 2	DSI 2	633332	3499.98	1	21.35	22.00	1.161	-	-	0.02	0.063	0.073
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 2	DSI 2	633332	3499.98	1	21.41	22.00	1.146	-	-	-0.07	0.047	0.054
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 2	DSI 2	633332	3499.98	1	21.35	22.00	1.161	-	-	-0.08	0.045	0.052
	FR1 n77 HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 2	DSI 2	633332	3499.98	1	24.34	25.00	1.164	50	1.000	0.12	0.127	0.148
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 8	DSI 2	656000	3840	1	21.35	22.50	1.303	-	-	-0.07	0.187	0.244
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 8	DSI 2	656000	3840	1	21.24	22.50	1.337	-	-	-0.05	0.180	0.241
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 8	DSI 2	656000	3840	1	21.35	22.50	1.303	-	-	-0.04	0.092	0.120
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 8	DSI 2	656000	3840	1	21.24	22.50	1.337	-	-	0.13	0.085	0.114
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 8	DSI 2	656000	3840	1	21.35	22.50	1.303	-	-	-0.03	0.297	0.387
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 8	DSI 2	656000	3840	1	21.24	22.50	1.337	-	-	0.09	0.286	0.382
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 8	DSI 2	656000	3840	1	21.35	22.50	1.303	-	-	0.06	0.210	0.274
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 8	DSI 2	656000	3840	1	21.24	22.50	1.337	-	-	-0.04	0.199	0.266
	FR1 n77 HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 8	DSI 2	656000	3840	1	24.28	25.50	1.324	50	1.000	0.17	0.268	0.355
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 8	DSI 2	633332	3499.98	1	20.97	22.50	1.422	-	-	0.06	0.150	0.213
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 8	DSI 2	633332	3499.98	1	20.92	22.50	1.439	-	-	0.01	0.140	0.201
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 8	DSI 2	633332	3499.98	1	20.97	22.50	1.422	-	-	-0.11	0.044	0.063
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 8	DSI 2	633332	3499.98	1	20.92	22.50	1.439	-	-	0.03	0.044	0.063
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 8	DSI 2	633332	3499.98	1	20.97	22.50	1.422	-	-	0.09	0.176	0.250
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 8	DSI 2	633332	3499.98	1	20.92	22.50	1.439	-	-	-0.02	0.173	0.249
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 8	DSI 2	633332	3499.98	1	20.97	22.50	1.422	-	-	0.15	0.090	0.128
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 8	DSI 2	633332	3499.98	1	20.92	22.50	1.439	-	-	-0.08	0.106	0.153
	FR1 n77 HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 8	DSI 2	633332	3499.98	1	23.93	25.50	1.435	50	1.000	0.06	0.158	0.227
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 2	DSI 2	650000	3750	1	21.63	23.00	1.371	-	-	0.15	0.091	0.125
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 2	DSI 2	650000	3750	1	21.52	23.00	1.406	-	-	-0.08	0.097	0.136

	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 2	DSI 2	650000	3750	1	21.63	23.00	1.371	-	-	-0.05	0.041	0.056
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 2	DSI 2	650000	3750	1	21.52	23.00	1.406	-	-	-0.18	0.040	0.056
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 2	DSI 2	650000	3750	1	21.63	23.00	1.371	-	-	-0.08	0.062	0.085
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 2	DSI 2	650000	3750	1	21.52	23.00	1.406	-	-	0.18	0.044	0.062
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 2	DSI 2	650000	3750	1	21.63	23.00	1.371	-	-	0.1	0.041	0.056
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 2	DSI 2	650000	3750	1	21.52	23.00	1.406	-	-	0.03	0.024	0.034
	FR1 n78 HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 2	DSI 2	650000	3750	1	24.48	26.00	1.419	50	1.000	0.04	0.089	0.126
29	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 2	DSI 2	633334	3500.01	1	21.82	23.00	1.312	-	-	-0.09	0.199	**0.261**
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 2	DSI 2	633334	3500.01	1	21.76	23.00	1.330	-	-	0	0.161	0.214
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 2	DSI 2	633334	3500.01	1	21.82	23.00	1.312	-	-	0.11	0.081	0.106
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 2	DSI 2	633334	3500.01	1	21.76	23.00	1.330	-	-	0.14	0.068	0.090
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 2	DSI 2	633334	3500.01	1	21.82	23.00	1.312	-	-	-0.15	0.104	0.136
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 2	DSI 2	633334	3500.01	1	21.76	23.00	1.330	-	-	0.02	0.104	0.138
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 2	DSI 2	633334	3500.01	1	21.82	23.00	1.312	-	-	-0.03	0.062	0.081
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 2	DSI 2	633334	3500.01	1	21.76	23.00	1.330	-	-	-0.16	0.043	0.057
	FR1 n78 HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 2	DSI 2	633334	3500.01	1	24.78	26.00	1.324	50	1.000	-0.02	0.182	0.241

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Sample	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 6	Standalone	6	2437	1	17.96	19.50	1.426	99.36	1.006	0.08	0.382	0.548
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 6	Standalone	6	2437	1	17.96	19.50	1.426	99.36	1.006	0.03	0.360	0.516
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 6	Standalone	6	2437	1	17.96	19.50	1.426	99.36	1.006	-0.02	0.887	1.272
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 6	Standalone	1	2412	1	17.65	19.00	1.365	99.36	1.006	0.03	0.862	1.183
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 6	Standalone	11	2462	1	17.71	19.50	1.510	99.36	1.006	-0.08	0.774	1.176
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 6	Standalone	6	2437	1	17.96	19.50	1.426	99.36	1.006	0.1	0.554	0.795
30	WLAN2.4GHz	802.11g 6Mbps	Left Cheek	0mm	Ant 6	Standalone	1	2412	1	17.80	19.50	1.479	98.27	1.018	0.02	0.893	**1.345**
	WLAN2.4GHz	802.11g 6Mbps	Left Cheek	0mm	Ant 6	Standalone	1	2412	2	17.80	19.50	1.479	98.27	1.018	0.03	0.769	1.158
	WLAN2.4GHz	802.11g 6Mbps	Left Cheek	0mm	Ant 6	Standalone	6	2437	1	17.75	19.50	1.496	98.27	1.018	0.01	0.881	1.342
	WLAN2.4GHz	802.11g 6Mbps	Left Cheek	0mm	Ant 6	Standalone	11	2462	1	17.61	19.00	1.377	98.27	1.018	0.04	0.899	1.260
	WLAN2.4GHz	802.11n-HT40 MCS0	Left Cheek	0mm	Ant 6	Standalone	6	2437	1	17.82	19.00	1.312	94.91	1.054	0.07	0.949	1.313
	WLAN2.4GHz	802.11n-HT40 MCS0	Left Cheek	0mm	Ant 6	Standalone	9	2452	1	16.41	18.00	1.442	94.91	1.054	-0.02	0.800	1.216
	WLAN2.4GHz	802.11n-HT40 MCS0	Left Cheek	0mm	Ant 6	Standalone	3	2422	1	15.37	17.00	1.455	94.91	1.054	0.01	0.735	1.128
	WLAN2.4GHz	802.11n-HT40 MCS0	Right Cheek	0mm	Ant 6	Simultaneous	6	2437	1	14.01	15.50	1.409	99.36	1.006	0.13	0.150	0.213
	WLAN2.4GHz	802.11n-HT40 MCS0	Right Tilted	0mm	Ant 6	Simultaneous	6	2437	1	14.01	15.50	1.409	99.36	1.006	0.07	0.142	0.201
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 6	Simultaneous	6	2437	1	14.01	15.50	1.409	99.36	1.006	0.01	0.351	0.498
	WLAN2.4GHz	802.11n-HT40 MCS0	Left Tilted	0mm	Ant 6	Simultaneous	6	2437	1	14.01	15.50	1.409	99.36	1.006	0.01	0.218	0.309
	Bluetooth	1Mbps	Right Cheek	0mm	Ant 6	Full Power	39	2441	1	14.74	16.00	1.337	76.99	1.082	0.1	0.146	0.211
	Bluetooth	1Mbps	Right Tilted	0mm	Ant 6	Full Power	39	2441	1	14.74	16.00	1.337	76.99	1.082	0.12	0.142	0.205
31	Bluetooth	1Mbps	Left Cheek	0mm	Ant 6	Full Power	39	2441	1	14.74	16.00	1.337	76.99	1.082	-0.06	0.339	**0.490**
	Bluetooth	1Mbps	Left Tilted	0mm	Ant 6	Full Power	39	2441	1	14.74	16.00	1.337	76.99	1.082	0.08	0.220	0.318
	Bluetooth	1Mbps	Right Cheek	0mm	Ant 6	Simultaneous	39	2441	1	12.84	14.00	1.306	76.99	1.082	0.01	0.097	0.137
	Bluetooth	1Mbps	Right Tilted	0mm	Ant 6	Simultaneous	39	2441	1	12.84	14.00	1.306	76.99	1.082	0.03	0.107	0.151
	Bluetooth	1Mbps	Left Cheek	0mm	Ant 6	Simultaneous	39	2441	1	12.84	14.00	1.306	76.99	1.082	-0.01	0.217	0.307
	Bluetooth	1Mbps	Left Tilted	0mm	Ant 6	Simultaneous	39	2441	1	12.84	14.00	1.306	76.99	1.082	0.07	0.151	0.213
5000MHz																	
	WLAN5.3GHz	802.11a 6Mbps	Right Cheek	0mm	Ant 6	Standalone	56	5280	1	16.33	18.00	1.469	98.26	1.018	-0.17	0.329	0.492
	WLAN5.3GHz	802.11a 6Mbps	Right Tilted	0mm	Ant 6	Standalone	56	5280	1	16.33	18.00	1.469	98.26	1.018	0.14	0.307	0.459
	WLAN5.3GHz	802.11a 6Mbps	Left Cheek	0mm	Ant 6	Standalone	56	5280	1	16.33	18.00	1.469	98.26	1.018	-0.05	0.670	1.002
32	WLAN5.3GHz	802.11a 6Mbps	Left Cheek	0mm	Ant 6	Standalone	52	5260	1	16.25	18.00	1.496	98.26	1.018	-0.06	0.722	**1.100**
	WLAN5.3GHz	802.11a 6Mbps	Left Cheek	0mm	Ant 6	Standalone	52	5260	2	16.25	18.00	1.496	98.26	1.018	0.03	0.558	0.850
	WLAN5.3GHz	802.11a 6Mbps	Left Tilted	0mm	Ant 6	Standalone	56	5280	1	16.33	18.00	1.469	98.26	1.018	0.18	0.628	0.939
	WLAN5.3GHz	802.11a 6Mbps	Left Tilted	0mm	Ant 6	Standalone	52	5260	1	16.25	18.00	1.496	98.26	1.018	0.14	0.701	1.068
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 6	Simultaneous	58	5290	1	11.75	13.50	1.496	92.71	1.079	0.07	0.105	0.170
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 6	Simultaneous	58	5290	1	11.75	13.50	1.496	92.71	1.079	0.08	0.100	0.161

	WLAN5.3GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 6	Simultaneous	58	5290	1	11.75	13.50	1.496	92.71	1.079	0.01	0.231	0.373
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 6	Simultaneous	58	5290	1	11.75	13.50	1.496	92.71	1.079	0.03	0.197	0.318
	WLAN5.5GHz	802.11a 6Mbps	Right Cheek	0mm	Ant 6	Full Power	124	5620	1	19.81	21.00	1.315	98.26	1.018	-0.17	0.436	0.584
	WLAN5.5GHz	802.11a 6Mbps	Right Tilted	0mm	Ant 6	Full Power	124	5620	1	19.81	21.00	1.315	98.26	1.018	0.17	0.472	0.632
33	WLAN5.5GHz	802.11a 6Mbps	Left Cheek	0mm	Ant 6	Full Power	124	5620	1	19.81	21.00	1.315	98.26	1.018	0.05	0.811	**1.086**
	WLAN5.5GHz	802.11a 6Mbps	Left Cheek	0mm	Ant 6	Full Power	124	5620	2	19.81	21.00	1.315	98.26	1.018	0.01	0.481	0.644
	WLAN5.5GHz	802.11a 6Mbps	Left Cheek	0mm	Ant 6	Full Power	140	5700	1	19.54	21.00	1.400	98.26	1.018	-0.05	0.466	0.664
	WLAN5.5GHz	802.11a 6Mbps	Left Tilted	0mm	Ant 6	Full Power	124	5620	1	19.81	21.00	1.315	98.26	1.018	0.01	0.671	0.898
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 6	Simultaneous	122	5610	1	13.75	15.50	1.496	92.71	1.079	0.05	0.131	0.211
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 6	Simultaneous	122	5610	1	13.75	15.50	1.496	92.71	1.079	0.04	0.145	0.234
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 6	Simultaneous	122	5610	1	13.75	15.50	1.496	92.71	1.079	0.01	0.237	0.383
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 6	Simultaneous	122	5610	1	13.75	15.50	1.496	92.71	1.079	0.05	0.201	0.325
	WLAN5.8GHz	802.11a 6Mbps	Right Cheek	0mm	Ant 6	Full Power	157	5785	1	19.73	21.00	1.341	98.26	1.018	0.1	0.214	0.292
	WLAN5.8GHz	802.11a 6Mbps	Right Tilted	0mm	Ant 6	Full Power	157	5785	1	19.73	21.00	1.341	98.26	1.018	-0.17	0.191	0.261
34	WLAN5.8GHz	802.11a 6Mbps	Left Cheek	0mm	Ant 6	Full Power	157	5785	1	19.73	21.00	1.341	98.26	1.018	-0.03	0.560	**0.764**
	WLAN5.8GHz	802.11a 6Mbps	Left Tilted	0mm	Ant 6	Full Power	157	5785	1	19.73	21.00	1.341	98.26	1.018	0.04	0.388	0.530
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 6	Simultaneous	155	5775	1	15.41	17.00	1.442	92.71	1.079	0.07	0.099	0.154
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 6	Simultaneous	155	5775	1	15.41	17.00	1.442	92.71	1.079	0.11	0.085	0.132
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 6	Simultaneous	155	5775	1	15.41	17.00	1.442	92.71	1.079	0.05	0.241	0.375
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 6	Simultaneous	155	5775	1	15.41	17.00	1.442	92.71	1.079	0.01	0.167	0.260

15.2 Hotspot SAR

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Sample	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 71	20M	QPSK	1	0	-	Front	5mm	Ant 0	DSI 7	133297	680.5	1	22.91	24.00	1.285	-	-	0.07	0.253	0.325
	LTE Band 71	20M	QPSK	50	0	-	Front	5mm	Ant 0	DSI 7	133297	680.5	1	21.87	23.00	1.297	-	-	0.18	0.138	0.179
	LTE Band 71	20M	QPSK	1	0	-	Back	5mm	Ant 0	DSI 7	133297	680.5	1	22.91	24.00	1.285	-	-	-0.01	0.427	0.549
	LTE Band 71	20M	QPSK	50	0	-	Back	5mm	Ant 0	DSI 7	133297	680.5	1	21.87	23.00	1.297	-	-	-0.1	0.233	0.302
	LTE Band 71	20M	QPSK	1	0	-	Left Side	5mm	Ant 0	DSI 7	133297	680.5	1	22.91	24.00	1.285	-	-	0.01	0.258	0.332
	LTE Band 71	20M	QPSK	50	0	-	Left Side	5mm	Ant 0	DSI 7	133297	680.5	1	21.87	23.00	1.297	-	-	-0.15	0.141	0.183
	LTE Band 71	20M	QPSK	1	0	-	Right Side	5mm	Ant 0	DSI 7	133297	680.5	1	22.91	24.00	1.285	-	-	0.19	0.424	0.545
	LTE Band 71	20M	QPSK	50	0	-	Right Side	5mm	Ant 0	DSI 7	133297	680.5	1	21.87	23.00	1.297	-	-	0.07	0.229	0.297
	LTE Band 71	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 0	DSI 7	133297	680.5	1	22.91	24.00	1.285	-	-	-0.18	0.198	0.254
	LTE Band 71	20M	QPSK	50	0	-	Bottom Side	5mm	Ant 0	DSI 7	133297	680.5	1	21.87	23.00	1.297	-	-	0.03	0.106	0.138
	LTE Band 71	20M	QPSK	1	0	-	Front	5mm	Ant 4	DSI 7	133297	680.5	1	22.82	24.00	1.312	-	-	-0.15	0.196	0.257
	LTE Band 71	20M	QPSK	50	0	-	Front	5mm	Ant 4	DSI 7	133297	680.5	1	21.75	23.00	1.334	-	-	0.11	0.122	0.163
35	LTE Band 71	20M	QPSK	1	0	-	Back	5mm	Ant 4	DSI 7	133297	680.5	1	22.82	24.00	1.312	-	-	0.07	0.456	**0.598**
	LTE Band 71	20M	QPSK	50	0	-	Back	5mm	Ant 4	DSI 7	133297	680.5	1	21.75	23.00	1.334	-	-	-0.08	0.274	0.365
	LTE Band 71	20M	QPSK	1	0	-	Left Side	5mm	Ant 4	DSI 7	133297	680.5	1	22.82	24.00	1.312	-	-	-0.17	0.127	0.167
	LTE Band 71	20M	QPSK	50	0	-	Left Side	5mm	Ant 4	DSI 7	133297	680.5	1	21.75	23.00	1.334	-	-	-0.08	0.088	0.117
	LTE Band 71	20M	QPSK	1	0	-	Top Side	5mm	Ant 4	DSI 7	133297	680.5	1	22.82	24.00	1.312	-	-	-0.04	0.302	0.396
	LTE Band 71	20M	QPSK	50	0	-	Top Side	5mm	Ant 4	DSI 7	133297	680.5	1	21.75	23.00	1.334	-	-	-0.08	0.182	0.243
	LTE Band 12	10M	QPSK	1	0	-	Front	5mm	Ant 0	DSI 7	23095	707.5	1	23.05	24.00	1.245	-	-	0.18	0.410	0.510
	LTE Band 12	10M	QPSK	25	0	-	Front	5mm	Ant 0	DSI 7	23095	707.5	1	21.86	23.00	1.300	-	-	-0.04	0.214	0.278
36	LTE Band 12	10M	QPSK	1	0	-	Back	5mm	Ant 0	DSI 7	23095	707.5	1	23.05	24.00	1.245	-	-	0.01	0.609	**0.758**
	LTE Band 12 ENDC&UL_CA	10M	QPSK	1	0	-	Front	5mm	Ant 0	DSI 7	23095	707.5	1	23.05	24.00	1.245	-	-	0.01	0.381	0.474
	LTE Band 12 ENDC&UL_CA	10M	QPSK	1	0	-	Back	5mm	Ant 0	DSI 7	23095	707.5	1	23.05	24.00	1.245	-	-	0.05	0.550	0.684
	LTE Band 12	10M	QPSK	1	0	-	Right Side	5mm	Ant 0	DSI 7	23095	707.5	1	23.05	24.00	1.245	-	-	0.07	0.500	0.622
	LTE Band 12	10M	QPSK	25	0	-	Back	5mm	Ant 0	DSI 7	23095	707.5	1	21.86	23.00	1.300	-	-	-0.08	0.328	0.426
	LTE Band 12	10M	QPSK	1	0	-	Left Side	5mm	Ant 0	DSI 7	23095	707.5	1	23.05	24.00	1.245	-	-	-0.13	0.318	0.396
	LTE Band 12	10M	QPSK	25	0	-	Left Side	5mm	Ant 0	DSI 7	23095	707.5	1	21.86	23.00	1.300	-	-	0.06	0.171	0.222
	LTE Band 12	10M	QPSK	1	0	-	Right Side	5mm	Ant 0	DSI 7	23095	707.5	1	23.05	24.00	1.245	-	-	-0.03	0.560	0.697
	LTE Band 12	10M	QPSK	25	0	-	Right Side	5mm	Ant 0	DSI 7	23095	707.5	1	21.86	23.00	1.300	-	-	-0.03	0.302	0.393
	LTE Band 12	10M	QPSK	1	0	-	Bottom Side	5mm	Ant 0	DSI 7	23095	707.5	1	23.05	24.00	1.245	-	-	-0.07	0.371	0.462
	LTE Band 12	10M	QPSK	25	0	-	Bottom Side	5mm	Ant 0	DSI 7	23095	707.5	1	21.86	23.00	1.300	-	-	0.05	0.206	0.268
	LTE Band 12 Main PA -1	10M	QPSK	1	0	-	Back	5mm	Ant 0	DSI 7	23095	707.5	1	23.24	24.00	1.191	-	-	-0.11	0.421	0.502
	LTE Band 12	10M	QPSK	1	0	-	Front	5mm	Ant 4	DSI 7	23095	707.5	1	21.85	23.00	1.303	-	-	0.03	0.154	0.201
	LTE Band 12	10M	QPSK	25	0	-	Front	5mm	Ant 4	DSI 7	23095	707.5	1	21.58	23.00	1.387	-	-	-0.16	0.088	0.122
	LTE Band 12 UL_CA	10M	QPSK	1	0	-	Back	5mm	Ant 4	DSI 7	23095	707.5	1	21.85	23.00	1.303	-	-	0.06	0.474	0.618
	LTE Band 12 ENDC	10M	QPSK	1	0	-	Front	5mm	Ant 4	DSI 7	23095	707.5	1	18.91	20.00	1.285	-	-	0.02	0.081	0.104
	LTE Band 12 ENDC	10M	QPSK	1	0	-	Back	5mm	Ant 4	DSI 7	23095	707.5	1	18.91	20.00	1.285	-	-	0.06	0.238	0.306
	LTE Band 12	10M	QPSK	25	0	-	Back	5mm	Ant 4	DSI 7	23095	707.5	1	21.58	23.00	1.387	-	-	-0.02	0.259	0.359
	LTE Band 12	10M	QPSK	1	0	-	Left Side	5mm	Ant 4	DSI 7	23095	707.5	1	21.85	23.00	1.303	-	-	-0.09	0.108	0.141
	LTE Band 12	10M	QPSK	25	0	-	Left Side	5mm	Ant 4	DSI 7	23095	707.5	1	21.58	23.00	1.387	-	-	0.11	0.079	0.110
	LTE Band 12	10M	QPSK	1	0	-	Top Side	5mm	Ant 4	DSI 7	23095	707.5	1	21.85	23.00	1.303	-	-	-0.05	0.349	0.455
	LTE Band 12	10M	QPSK	25	0	-	Top Side	5mm	Ant 4	DSI 7	23095	707.5	1	21.58	23.00	1.387	-	-	-0.08	0.230	0.319
	LTE Band 12 Main PA -1	10M	QPSK	1	0	-	Back	5mm	Ant 4	DSI 7	23095	707.5	1	21.94	23.00	1.276	-	-	0.05	0.416	0.531
	LTE Band 13	10M	QPSK	1	0	-	Front	5mm	Ant 0	DSI 7	23230	782	1	22.98	24.00	1.265	-	-	-0.03	0.613	0.775
	LTE Band 13	10M	QPSK	25	0	-	Front	5mm	Ant 0	DSI 7	23230	782	1	21.88	23.00	1.294	-	-	-0.15	0.332	0.430
37	LTE Band 13	10M	QPSK	1	0	-	Back	5mm	Ant 0	DSI 7	23230	782	1	22.98	24.00	1.265	-	-	-0.05	0.973	**1.231**
	LTE Band 13 ENDC&UL_CA	10M	QPSK	1	0	-	Front	5mm	Ant 0	DSI 7	23230	782	1	22.53	23.50	1.250	-	-	0.01	0.382	0.478
	LTE Band 13	10M	QPSK	1	0	-	Back	5mm	Ant 0	DSI 7	23230	782	1	22.53	23.50	1.250	-	-	0.05	0.601	0.751

	ENDC&UL_CA																				
	LTE Band 13	10M	QPSK	1	0	-	Right Side	5mm	Ant 0	DSI 7	23230	782	1	22.53	23.50	1.250	-	-	-0.01	0.487	0.609
	LTE Band 13	10M	QPSK	25	0	-	Back	5mm	Ant 0	DSI 7	23230	782	1	21.88	23.00	1.294	-	-	0.07	0.523	0.677
	LTE Band 13	10M	QPSK	50	0	-	Back	5mm	Ant 0	DSI 7	23230	782	1	21.81	23.00	1.315	-	-	0.16	0.523	0.688
	LTE Band 13	10M	QPSK	1	0	-	Left Side	5mm	Ant 0	DSI 7	23230	782	1	22.98	24.00	1.265	-	-	0.13	0.441	0.558
	LTE Band 13	10M	QPSK	25	0	-	Left Side	5mm	Ant 0	DSI 7	23230	782	1	21.88	23.00	1.294	-	-	-0.18	0.236	0.305
	LTE Band 13	10M	QPSK	1	0	-	Right Side	5mm	Ant 0	DSI 7	23230	782	1	22.98	24.00	1.265	-	-	0.02	0.670	0.847
	LTE Band 13	10M	QPSK	25	0	-	Right Side	5mm	Ant 0	DSI 7	23230	782	1	21.88	23.00	1.294	-	-	0.16	0.430	0.557
	LTE Band 13	10M	QPSK	50	0	-	Right Side	5mm	Ant 0	DSI 7	23230	782	1	21.81	23.00	1.315	-	-	-0.03	0.434	0.571
	LTE Band 13	10M	QPSK	1	0	-	Bottom Side	5mm	Ant 0	DSI 7	23230	782	1	22.98	24.00	1.265	-	-	0.07	0.952	1.204
	LTE Band 13	10M	QPSK	25	0	-	Bottom Side	5mm	Ant 0	DSI 7	23230	782	1	21.88	23.00	1.294	-	-	0.08	0.513	0.664
	LTE Band 13	10M	QPSK	50	0	-	Bottom Side	5mm	Ant 0	DSI 7	23230	782	1	21.81	23.00	1.315	-	-	-0.03	0.523	0.688
	LTE Band 13 Main PA -1	10M	QPSK	1	0	-	Back	5mm	Ant 0	DSI 7	23230	782	1	22.94	24.00	1.276	-	-	0.01	0.327	0.417
	LTE Band 13	10M	QPSK	1	0	-	Front	5mm	Ant 4	DSI 7	23230	782	1	21.24	22.50	1.337	-	-	-0.17	0.265	0.354
	LTE Band 13	10M	QPSK	25	0	-	Front	5mm	Ant 4	DSI 7	23230	782	1	21.18	22.50	1.355	-	-	-0.04	0.145	0.197
	LTE Band 13 UL_CA	10M	QPSK	1	0	-	Back	5mm	Ant 4	DSI 7	23230	782	1	21.24	22.50	1.337	-	-	0.08	0.456	0.609
	LTE Band 13 ENDC	10M	QPSK	1	0	-	Front	5mm	Ant 4	DSI 7	23230	782	1	18.75	20.00	1.334	-	-	0.04	0.142	0.189
	LTE Band 13 ENDC	10M	QPSK	1	0	-	Back	5mm	Ant 4	DSI 7	23230	782	1	18.75	20.00	1.334	-	-	0.09	0.238	0.317
	LTE Band 13	10M	QPSK	25	0	-	Back	5mm	Ant 4	DSI 7	23230	782	1	21.18	22.50	1.355	-	-	-0.05	0.252	0.342
	LTE Band 13	10M	QPSK	1	0	-	Left Side	5mm	Ant 4	DSI 7	23230	782	1	21.24	22.50	1.337	-	-	-0.13	0.175	0.234
	LTE Band 13	10M	QPSK	25	0	-	Left Side	5mm	Ant 4	DSI 7	23230	782	1	21.18	22.50	1.355	-	-	-0.01	0.095	0.129
	LTE Band 13	10M	QPSK	1	0	-	Top Side	5mm	Ant 4	DSI 7	23230	782	1	21.24	22.50	1.337	-	-	-0.09	0.396	0.529
	LTE Band 13	10M	QPSK	25	0	-	Top Side	5mm	Ant 4	DSI 7	23230	782	1	21.18	22.50	1.355	-	-	0.05	0.216	0.293
	LTE Band 13 Main PA -1	10M	QPSK	1	0	-	Back	5mm	Ant 4	DSI 7	23230	782	1	21.03	22.50	1.403	-	-	-0.13	0.372	0.522
	LTE Band 14	10M	QPSK	1	0	-	Front	5mm	Ant 0	DSI 7	23330	793	1	23.01	24.00	1.256	-	-	0.06	0.663	0.833
	LTE Band 14	10M	QPSK	25	0	-	Front	5mm	Ant 0	DSI 7	23330	793	1	21.85	23.00	1.303	-	-	0.03	0.365	0.476
	LTE Band 14	10M	QPSK	50	0	-	Front	5mm	Ant 0	DSI 7	23330	793	1	21.82	23.00	1.312	-	-	-0.15	0.359	0.471
38	LTE Band 14	10M	QPSK	1	0	-	Back	5mm	Ant 0	DSI 7	23330	793	1	23.01	24.00	1.256	-	-	0.04	1.080	**1.357**
	LTE Band 14 ENDC&UL_CA	10M	QPSK	1	0	-	Front	5mm	Ant 0	DSI 7	23330	793	1	21.51	22.50	1.256	-	-	0.08	0.345	0.433
	LTE Band 14 ENDC&UL_CA	10M	QPSK	1	0	-	Back	5mm	Ant 0	DSI 7	23330	793	1	21.51	22.50	1.256	-	-	0.01	0.549	0.690
	LTE Band 14	10M	QPSK	1	0	-	Right Side	5mm	Ant 0	DSI 7	23330	793	1	21.51	22.50	1.256	-	-	0.07	0.361	0.453
	LTE Band 14	10M	QPSK	1	0	-	Back	5mm	Ant 0	DSI 7	23330	793	2	23.01	24.00	1.256	-	-	0.02	0.925	1.162
	LTE Band 14	10M	QPSK	25	0	-	Back	5mm	Ant 0	DSI 7	23330	793	1	21.85	23.00	1.303	-	-	-0.15	0.589	0.768
	LTE Band 14	10M	QPSK	50	0	-	Back	5mm	Ant 0	DSI 7	23330	793	1	21.82	23.00	1.312	-	-	0.11	0.586	0.769
	LTE Band 14	10M	QPSK	1	0	-	Left Side	5mm	Ant 0	DSI 7	23330	793	1	23.01	24.00	1.256	-	-	-0.02	0.357	0.448
	LTE Band 14	10M	QPSK	25	0	-	Left Side	5mm	Ant 0	DSI 7	23330	793	1	21.85	23.00	1.303	-	-	0.1	0.197	0.257
	LTE Band 14	10M	QPSK	1	0	-	Right Side	5mm	Ant 0	DSI 7	23330	793	1	23.01	24.00	1.256	-	-	0.04	0.671	0.843
	LTE Band 14	10M	QPSK	25	0	-	Right Side	5mm	Ant 0	DSI 7	23330	793	1	21.85	23.00	1.303	-	-	0.13	0.388	0.506
	LTE Band 14	10M	QPSK	50	0	-	Right Side	5mm	Ant 0	DSI 7	23330	793	1	21.82	23.00	1.312	-	-	-0.18	0.387	0.508
	LTE Band 14	10M	QPSK	1	0	-	Bottom Side	5mm	Ant 0	DSI 7	23330	793	1	23.01	24.00	1.256	-	-	-0.11	1.010	1.269
	LTE Band 14	10M	QPSK	25	0	-	Bottom Side	5mm	Ant 0	DSI 7	23330	793	1	21.85	23.00	1.303	-	-	-0.16	0.547	0.713
	LTE Band 14	10M	QPSK	50	0	-	Bottom Side	5mm	Ant 0	DSI 7	23330	793	1	21.82	23.00	1.312	-	-	-0.15	0.549	0.720
	LTE Band 14 Main PA -1	10M	QPSK	1	0	-	Back	5mm	Ant 0	DSI 7	23330	793	1	23.02	24.00	1.253	-	-	-0.06	0.718	0.900
	LTE Band 14	10M	QPSK	1	0	-	Front	5mm	Ant 4	DSI 7	23330	793	1	22.52	23.50	1.253	-	-	-0.16	0.240	0.301
	LTE Band 14	10M	QPSK	25	0	-	Front	5mm	Ant 4	DSI 7	23330	793	1	21.77	23.00	1.327	-	-	-0.12	0.128	0.170
	LTE Band 14 UL_CA	10M	QPSK	1	0	-	Back	5mm	Ant 4	DSI 7	23330	793	1	22.52	23.50	1.253	-	-	0.01	0.480	0.602
	LTE Band 14 ENDC	10M	QPSK	1	0	-	Front	5mm	Ant 4	DSI 7	23330	793	1	19.99	21.00	1.262	-	-	0.02	0.132	0.167
	LTE Band 14 ENDC	10M	QPSK	1	0	-	Back	5mm	Ant 4	DSI 7	23330	793	1	19.99	21.00	1.262	-	-	0.04	0.252	0.318
	LTE Band 14	10M	QPSK	25	0	-	Back	5mm	Ant 4	DSI 7	23330	793	1	21.77	23.00	1.327	-	-	0.07	0.236	0.313
	LTE Band 14	10M	QPSK	1	0	-	Left Side	5mm	Ant 4	DSI 7	23330	793	1	22.52	23.50	1.253	-	-	-0.05	0.174	0.218
	LTE Band 14	10M	QPSK	25	0	-	Left Side	5mm	Ant 4	DSI 7	23330	793	1	21.77	23.00	1.327	-	-	-0.13	0.099	0.131
	LTE Band 14	10M	QPSK	1	0	-	Top Side	5mm	Ant 4	DSI 7	23330	793	1	22.52	23.50	1.253	-	-	0.08	0.333	0.417

	LTE Band 14	10M	QPSK	25	0	-	Top Side	5mm	Ant 4	DSI 7	23330	793	1	21.77	23.00	1.327	-	-	0.16	0.206	0.273
	LTE Band 14 Main PA -1	10M	QPSK	1	0	-	Back	5mm	Ant 4	DSI 7	23330	793	1	22.36	23.50	1.300	-	-	0.01	0.396	0.515
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 0	DSI 7	136100	680.5	1	23.24	24.00	1.191	-	-	-0.16	0.193	0.230
	FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Front	5mm	Ant 0	DSI 7	136100	680.5	1	23.18	24.00	1.208	-	-	0.1	0.231	0.279
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 0	DSI 7	136100	680.5	1	23.24	24.00	1.191	-	-	-0.04	0.398	0.474
	FR1 n71 ENDC	20M	QPSK	50	28	DFT-SCS-15KHz	Back	5mm	Ant 0	DSI 7	136100	680.5	1	23.18	24.00	1.208	-	-	0.02	0.408	0.493
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Left Side	5mm	Ant 0	DSI 7	136100	680.5	1	23.24	24.00	1.191	-	-	-0.01	0.176	0.210
	FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Left Side	5mm	Ant 0	DSI 7	136100	680.5	1	23.18	24.00	1.208	-	-	0.05	0.218	0.263
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Right Side	5mm	Ant 0	DSI 7	136100	680.5	1	23.24	24.00	1.191	-	-	-0.11	0.313	0.373
	FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Right Side	5mm	Ant 0	DSI 7	136100	680.5	1	23.18	24.00	1.208	-	-	-0.06	0.365	0.441
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	5mm	Ant 0	DSI 7	136100	680.5	1	23.24	24.00	1.191	-	-	-0.15	0.155	0.185
	FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Bottom Side	5mm	Ant 0	DSI 7	136100	680.5	1	23.18	24.00	1.208	-	-	0.03	0.160	0.193
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 4	DSI 7	136100	680.5	1	23.05	24.00	1.245	-	-	-0.13	0.117	0.146
	FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Front	5mm	Ant 4	DSI 7	136100	680.5	1	22.97	24.00	1.268	-	-	0.16	0.171	0.217
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 4	DSI 7	136100	680.5	1	23.05	24.00	1.245	-	-	-0.15	0.295	0.367
39	FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Back	5mm	Ant 4	DSI 7	136100	680.5	1	22.97	24.00	1.268	-	-	0.04	0.403	**0.511**
	FR1 n71 ENDC	20M	QPSK	50	28	DFT-SCS-15KHz	Back	5mm	Ant 4	DSI 7	136100	680.5	1	21.04	22.00	1.247	-	-	0.01	0.255	0.318
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Left Side	5mm	Ant 4	DSI 7	136100	680.5	1	23.05	24.00	1.245	-	-	-0.02	0.121	0.151
	FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Left Side	5mm	Ant 4	DSI 7	136100	680.5	1	22.97	24.00	1.268	-	-	-0.09	0.143	0.181
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Top Side	5mm	Ant 4	DSI 7	136100	680.5	1	23.05	24.00	1.245	-	-	0.14	0.194	0.241
	FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Top Side	5mm	Ant 4	DSI 7	136100	680.5	1	22.97	24.00	1.268	-	-	0.1	0.308	0.390
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 0	DSI 7	141500	707.5	1	23.13	24.00	1.222	-	-	-0.09	0.258	0.315
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Front	5mm	Ant 0	DSI 7	141500	707.5	1	23.04	24.00	1.247	-	-	0.07	0.260	0.324
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 0	DSI 7	141500	707.5	1	23.13	24.00	1.222	-	-	0.02	0.438	0.535
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Back	5mm	Ant 0	DSI 7	141500	707.5	1	23.04	24.00	1.247	-	-	-0.09	0.413	0.515
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Left Side	5mm	Ant 0	DSI 7	141500	707.5	1	23.13	24.00	1.222	-	-	-0.16	0.226	0.276
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Left Side	5mm	Ant 0	DSI 7	141500	707.5	1	23.04	24.00	1.247	-	-	-0.18	0.219	0.273
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Right Side	5mm	Ant 0	DSI 7	141500	707.5	1	23.13	24.00	1.222	-	-	-0.07	0.349	0.426
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Right Side	5mm	Ant 0	DSI 7	141500	707.5	1	23.04	24.00	1.247	-	-	0.11	0.361	0.450
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	5mm	Ant 0	DSI 7	141500	707.5	1	23.13	24.00	1.222	-	-	-0.08	0.197	0.241
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Bottom Side	5mm	Ant 0	DSI 7	141500	707.5	1	23.04	24.00	1.247	-	-	-0.1	0.185	0.231
	FR1 n12 Main PA -1	15M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 0	DSI 7	141500	707.5	1	22.93	24.00	1.279	-	-	-0.01	0.417	0.534
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 4	DSI 7	141500	707.5	1	23.23	24.00	1.194	-	-	-0.09	0.195	0.233
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Front	5mm	Ant 4	DSI 7	141500	707.5	1	23.15	24.00	1.216	-	-	-0.06	0.218	0.265
40	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 4	DSI 7	141500	707.5	1	23.23	24.00	1.194	-	-	-0.03	0.534	**0.638**
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Back	5mm	Ant 4	DSI 7	141500	707.5	1	23.15	24.00	1.216	-	-	-0.17	0.474	0.576
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Left Side	5mm	Ant 4	DSI 7	141500	707.5	1	23.23	24.00	1.194	-	-	-0.01	0.129	0.154
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Left Side	5mm	Ant 4	DSI 7	141500	707.5	1	23.15	24.00	1.216	-	-	-0.11	0.148	0.180
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Top Side	5mm	Ant 4	DSI 7	141500	707.5	1	23.23	24.00	1.194	-	-	0.14	0.505	0.603
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Top Side	5mm	Ant 4	DSI 7	141500	707.5	1	23.15	24.00	1.216	-	-	0.03	0.472	0.574
	FR1 n12 Main PA -1	15M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 4	DSI 7	141500	707.5	1	23.06	24.00	1.242	-	-	0.1	0.493	0.612
	FR1 n14	10M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 0	DSI 7	158600	793	1	23.08	24.00	1.236	-	-	0.16	0.377	0.466
	FR1 n14	10M	QPSK	25	14	DFT-SCS-15KHz	Front	5mm	Ant 0	DSI 7	158600	793	1	22.98	24.00	1.265	-	-	-0.06	0.370	0.468
	FR1 n14	10M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 0	DSI 7	158600	793	1	23.08	24.00	1.236	-	-	0.02	0.692	0.855
41	FR1 n14	10M	QPSK	25	14	DFT-SCS-15KHz	Back	5mm	Ant 0	DSI 7	158600	793	1	22.98	24.00	1.265	-	-	0.03	0.715	**0.904**
	FR1 n14	10M	QPSK	50	0	DFT-SCS-15KHz	Back	5mm	Ant 0	DSI 7	158600	793	1	22.13	23.00	1.222	-	-	-0.16	0.537	0.656
	FR1 n14	10M	QPSK	1	1	DFT-SCS-15KHz	Left Side	5mm	Ant 0	DSI 7	158600	793	1	23.08	24.00	1.236	-	-	0.05	0.179	0.221
	FR1 n14	10M	QPSK	25	14	DFT-SCS-15KHz	Left Side	5mm	Ant 0	DSI 7	158600	793	1	22.98	24.00	1.265	-	-	-0.03	0.181	0.229
	FR1 n14	10M	QPSK	1	1	DFT-SCS-15KHz	Right Side	5mm	Ant 0	DSI 7	158600	793	1	23.08	24.00	1.236	-	-	0.17	0.375	0.463
	FR1 n14	10M	QPSK	25	14	DFT-SCS-15KHz	Right Side	5mm	Ant 0	DSI 7	158600	793	1	22.98	24.00	1.265	-	-	-0.15	0.376	0.476
	FR1 n14	10M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	5mm	Ant 0	DSI 7	158600	793	1	23.08	24.00	1.236	-	-	0.16	0.512	0.633
	FR1 n14	10M	QPSK	25	14	DFT-SCS-15KHz	Bottom Side	5mm	Ant 0	DSI 7	158600	793	1	22.98	24.00	1.265	-	-	0.05	0.690	0.873
	FR1 n14	10M	QPSK	50	0	DFT-SCS-15KHz	Bottom Side	5mm	Ant 0	DSI 7	158600	793	1	22.13	23.00	1.222	-	-	-0.06	0.539	0.659
	FR1 n14	10M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 4	DSI 7	158600	793	1	22.63	24.00	1.371	-	-	-0.13	0.235	0.322
	FR1 n14	10M	QPSK	25	14	DFT-SCS-15KHz	Front	5mm	Ant 4	DSI 7	158600	793	1	22.45	24.00	1.429	-	-	-0.01	0.230	0.329

	FR1 n14	10M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 4	DSI 7	158600	793	1	22.63	24.00	1.371	-	-	-0.11	0.321	0.440
	FR1 n14	10M	QPSK	25	14	DFT-SCS-15KHz	Back	5mm	Ant 4	DSI 7	158600	793	1	22.45	24.00	1.429	-	-	-0.01	0.447	0.639
	FR1 n14	10M	QPSK	1	1	DFT-SCS-15KHz	Left Side	5mm	Ant 4	DSI 7	158600	793	1	22.63	24.00	1.371	-	-	0.19	0.154	0.211
	FR1 n14	10M	QPSK	25	14	DFT-SCS-15KHz	Left Side	5mm	Ant 4	DSI 7	158600	793	1	22.45	24.00	1.429	-	-	-0.14	0.151	0.216
	FR1 n14	10M	QPSK	1	1	DFT-SCS-15KHz	Top Side	5mm	Ant 4	DSI 7	158600	793	1	22.63	24.00	1.371	-	-	-0.18	0.433	0.594
	FR1 n14	10M	QPSK	25	14	DFT-SCS-15KHz	Top Side	5mm	Ant 4	DSI 7	158600	793	1	22.45	24.00	1.429	-	-	-0.06	0.319	0.456
	GSM850	-	-	-	-	GPRS (2 Tx slots)	Front	5mm	Ant 0	DSI 7	189	836.4	1	28.20	29.50	1.349	-	-	0.13	0.374	0.505
	GSM850	-	-	-	-	GPRS (2 Tx slots)	Back	5mm	Ant 0	DSI 7	189	836.4	1	28.20	29.50	1.349	-	-	0.08	0.825	1.113
	GSM850	-	-	-	-	GPRS (2 Tx slots)	Back	5mm	Ant 0	DSI 7	128	824.2	1	27.93	29.50	1.435	-	-	0.19	0.746	1.071
42	GSM850	-	-	-	-	GPRS (2 Tx slots)	Back	5mm	Ant 0	DSI 7	251	848.8	1	27.88	29.50	1.452	-	-	0.02	0.865	**1.256**
	GSM850	-	-	-	-	GPRS (2 Tx slots)	Left Side	5mm	Ant 0	DSI 7	189	836.4	1	28.20	29.50	1.349	-	-	-0.06	0.107	0.144
	GSM850	-	-	-	-	GPRS (2 Tx slots)	Right Side	5mm	Ant 0	DSI 7	189	836.4	1	28.20	29.50	1.349	-	-	0.01	0.310	0.418
	GSM850	-	-	-	-	GPRS (2 Tx slots)	Bottom Side	5mm	Ant 0	DSI 7	189	836.4	1	28.20	29.50	1.349	-	-	-0.12	0.834	1.125
	GSM850	-	-	-	-	GPRS (2 Tx slots)	Bottom Side	5mm	Ant 0	DSI 7	128	824.2	1	27.93	29.50	1.435	-	-	-0.03	0.663	0.952
	GSM850	-	-	-	-	GPRS (2 Tx slots)	Bottom Side	5mm	Ant 0	DSI 7	251	848.8	1	27.88	29.50	1.452	-	-	0.02	0.676	0.982
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Front	5mm	Ant 0	DSI 7	4182	836.4	1	21.76	22.50	1.186	-	-	0.15	0.434	0.515
43	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 0	DSI 7	4182	836.4	1	21.76	22.50	1.186	-	-	0.09	0.956	**1.134**
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 0	DSI 7	4132	826.4	1	21.70	22.50	1.202	-	-	-0.08	0.818	0.983
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 0	DSI 7	4233	846.6	1	21.72	22.50	1.197	-	-	-0.13	0.885	1.059
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Side	5mm	Ant 0	DSI 7	4182	836.4	1	21.76	22.50	1.186	-	-	0.01	0.001	0.001
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Side	5mm	Ant 0	DSI 7	4182	836.4	1	21.76	22.50	1.186	-	-	-0.11	0.205	0.243
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Bottom Side	5mm	Ant 0	DSI 7	4182	836.4	1	21.76	22.50	1.186	-	-	0.03	0.723	0.857
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Bottom Side	5mm	Ant 0	DSI 7	4132	826.4	1	21.70	22.50	1.202	-	-	-0.05	0.645	0.775
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Bottom Side	5mm	Ant 0	DSI 7	4233	846.6	1	21.72	22.50	1.197	-	-	0.14	0.666	0.797
	LTE Band 26	15M	QPSK	1	0	-	Front	5mm	Ant 0	DSI 7	26865	831.5	1	22.44	23.50	1.276	-	-	-0.13	0.458	0.585
	LTE Band 26	15M	QPSK	36	0	-	Front	5mm	Ant 0	DSI 7	26865	831.5	1	21.64	23.00	1.368	-	-	0.12	0.258	0.353
	LTE Band 26	15M	QPSK	1	0	-	Back	5mm	Ant 0	DSI 7	26865	831.5	1	22.44	23.50	1.276	-	-	0.17	0.920	1.174
	LTE Band 26	15M	QPSK	36	0	-	Back	5mm	Ant 0	DSI 7	26865	831.5	1	21.64	23.00	1.368	-	-	-0.16	0.498	0.681
	LTE Band 26	15M	QPSK	75	0	-	Back	5mm	Ant 0	DSI 7	26865	831.5	1	21.34	23.00	1.466	-	-	-0.17	0.493	0.723
	LTE Band 26	15M	QPSK	1	0	-	Left Side	5mm	Ant 0	DSI 7	26865	831.5	1	22.44	23.50	1.276	-	-	0.11	0.203	0.259
	LTE Band 26	15M	QPSK	36	0	-	Left Side	5mm	Ant 0	DSI 7	26865	831.5	1	21.64	23.00	1.368	-	-	-0.05	0.111	0.152
	LTE Band 26	15M	QPSK	1	0	-	Right Side	5mm	Ant 0	DSI 7	26865	831.5	1	22.44	23.50	1.276	-	-	-0.01	0.423	0.540
	LTE Band 26	15M	QPSK	36	0	-	Right Side	5mm	Ant 0	DSI 7	26865	831.5	1	21.64	23.00	1.368	-	-	-0.14	0.230	0.315
44	LTE Band 26	15M	QPSK	1	0	-	Bottom Side	5mm	Ant 0	DSI 7	26865	831.5	1	22.44	23.50	1.276	-	-	0.05	1.050	**1.340**
	LTE Band 5B	10M	QPSK	1	49	-	Bottom Side	5mm	Ant 0	DSI 7	20475+ 20574	831.5+ 841.4	1	22.26	23.50	1.330	-	-	0.07	0.952	1.267
	LTE Band 5B	10M	QPSK	1	49	-	Bottom Side	5mm	Ant 0	DSI 7	20450+ 20549	829+ 838.9	1	22.24	23.50	1.337	-	-	0.01	0.923	1.234
	LTE Band 5B	10M	QPSK	1	0	-	Bottom Side	5mm	Ant 0	DSI 7	20600+ 20501	844+ 834.1	1	22.22	23.50	1.343	-	-	0.06	0.934	1.254
	LTE Band 26	15M	QPSK	1	0	-	Front	5mm	Ant 0	DSI 7	26865	831.5	1	19.64	21.00	1.368	-	-	0.03	0.240	0.328
	LTE Band 26	15M	QPSK	1	0	-	Back	5mm	Ant 0	DSI 7	26865	831.5	1	19.64	21.00	1.368	-	-	0.05	0.469	0.641
	LTE Band 26 ENDC&UL_CA	15M	QPSK	1	0	-	Right Side	5mm	Ant 0	DSI 7	26865	831.5	1	19.64	21.00	1.368	-	-	-0.01	0.225	0.308
	LTE Band 26 ENDC&UL_CA	15M	QPSK	1	0	-	Bottom Side	5mm	Ant 0	DSI 7	26865	831.5	1	19.64	21.00	1.368	-	-	0.02	0.550	0.752
	LTE Band 26	15M	QPSK	36	0	-	Bottom Side	5mm	Ant 0	DSI 7	26865	831.5	1	21.64	23.00	1.368	-	-	-0.12	0.571	0.781
	LTE Band 26	15M	QPSK	75	0	-	Bottom Side	5mm	Ant 0	DSI 7	26865	831.5	1	21.34	23.00	1.466	-	-	-0.17	0.571	0.837
	LTE Band 26 Main PA -1	15M	QPSK	1	0	-	Bottom Side	5mm	Ant 0	DSI 7	26865	*831.5*	1	22.91	23.50	1.146	-	-	0.08	0.961	1.101
	LTE Band 26	15M	QPSK	1	0	-	Front	5mm	Ant 4	DSI 7	26865	831.5	1	22.35	23.50	1.303	-	-	-0.04	0.332	0.433
	LTE Band 26	15M	QPSK	36	0	-	Front	5mm	Ant 4	DSI 7	26865	831.5	1	21.65	23.00	1.365	-	-	0.15	0.191	0.261
	LTE Band 26 UL CA	15M	QPSK	1	0	-	Back	5mm	Ant 4	DSI 7	26865	831.5	1	22.35	23.50	1.303	-	-	0.09	0.529	0.689
	LTE Band 5B	10M	QPSK	1	49	-	Back	5mm	Ant 4	DSI 7	20475+ 20574	831.5+ 841.4	1	22.03	23.50	1.403	-	-	0.05	0.483	0.678
	LTE Band 5 ENDC	10M	QPSK	1	0	-	Front	5mm	Ant 4	DSI 7	20525	836.5	1	18.19	19.50	1.352	-	-	0.05	0.147	0.199
	LTE Band 5 ENDC	10M	QPSK	1	0	-	Back	5mm	Ant 4	DSI 7	20525	836.5	1	18.19	19.50	1.352	-	-	0.01	0.223	0.302
	LTE Band 26	15M	QPSK	36	0	-	Back	5mm	Ant 4	DSI 7	26865	831.5	1	21.65	23.00	1.365	-	-	-0.16	0.313	0.427
	LTE Band 26	15M	QPSK	1	0	-	Left Side	5mm	Ant 4	DSI 7	26865	831.5	1	22.35	23.50	1.303	-	-	0.08	0.234	0.305
	LTE Band 26	15M	QPSK	36	0	-	Left Side	5mm	Ant 4	DSI 7	26865	831.5	1	21.65	23.00	1.365	-	-	-0.18	0.128	0.175

	LTE Band 26	15M	QPSK	1	0	-	Top Side	5mm	Ant 4	DSI 7	26865	831.5	1	22.35	23.50	1.303	-	-	-0.03	0.409	0.533
	LTE Band 26	15M	QPSK	36	0	-	Top Side	5mm	Ant 4	DSI 7	26865	831.5	1	21.65	23.00	1.365	-	-	-0.04	0.299	0.408
	LTE Band 26 Main PA -1	15M	QPSK	1	0	-	Back	5mm	Ant 4	DSI 7	26865	831.5	1	22.65	23.50	1.216	-	-	-0.04	0.442	0.538
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 0	DSI 7	166300	831.5	1	22.71	23.50	1.199	-	-	-0.09	0.509	0.611
	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Front	5mm	Ant 0	DSI 7	166300	831.5	1	22.70	23.50	1.202	-	-	0.18	0.486	0.584
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 0	DSI 7	166300	831.5	1	22.71	23.50	1.199	-	-	0.11	1.010	1.211
	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Back	5mm	Ant 0	DSI 7	166300	831.5	1	22.70	23.50	1.202	-	-	0.07	0.933	1.122
	FR1 n26	20M	QPSK	100	0	DFT-SCS-15KHz	Back	5mm	Ant 0	DSI 7	166300	831.5	1	22.20	23.00	1.202	-	-	-0.03	0.800	0.962
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Left Side	5mm	Ant 0	DSI 7	166300	831.5	1	22.71	23.50	1.199	-	-	0.09	0.207	0.248
	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Left Side	5mm	Ant 0	DSI 7	166300	831.5	1	22.70	23.50	1.202	-	-	-0.08	0.191	0.230
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Right Side	5mm	Ant 0	DSI 7	166300	831.5	1	22.71	23.50	1.199	-	-	-0.05	0.434	0.521
	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Right Side	5mm	Ant 0	DSI 7	166300	831.5	1	22.70	23.50	1.202	-	-	-0.03	0.399	0.480
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	5mm	Ant 0	DSI 7	166300	831.5	1	22.71	23.50	1.199	-	-	0.17	0.899	1.078
45	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Bottom Side	5mm	Ant 0	DSI 7	166300	831.5	1	22.70	23.50	1.202	-	-	0.01	1.120	**1.347**
	FR1 n5 ENDC	20M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 0	DSI 7	167300	836.5	1	19.02	20.00	1.253	-	-	-0.02	0.258	0.323
	FR1 n5 ENDC	20M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 0	DSI 7	167300	836.5	1	19.02	20.00	1.253	-	-	0.01	0.507	0.635
	FR1 n5 ENDC	20M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	5mm	Ant 0	DSI 7	167300	836.5	1	19.02	20.00	1.253	-	-	0.06	0.567	0.711
	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Bottom Side	5mm	Ant 0	DSI 7	166300	831.5	2	22.70	23.50	1.202	-	-	0.03	0.666	0.801
	FR1 n26	20M	QPSK	100	0	DFT-SCS-15KHz	Bottom Side	5mm	Ant 0	DSI 7	166300	831.5	1	22.20	23.00	1.202	-	-	-0.14	0.883	1.062
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 4	DSI 7	166300	831.5	1	21.35	22.00	1.161	-	-	-0.12	0.221	0.257
	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Front	5mm	Ant 4	DSI 7	166300	831.5	1	21.30	22.00	1.175	-	-	-0.16	0.230	0.270
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 4	DSI 7	166300	831.5	1	21.35	22.00	1.161	-	-	-0.03	0.332	0.386
	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Back	5mm	Ant 4	DSI 7	166300	831.5	1	21.30	22.00	1.175	-	-	0.17	0.339	0.398
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Left Side	5mm	Ant 4	DSI 7	166300	831.5	1	21.35	22.00	1.161	-	-	0.02	0.093	0.108
	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Left Side	5mm	Ant 4	DSI 7	166300	831.5	1	21.30	22.00	1.175	-	-	0	0.185	0.217
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Top Side	5mm	Ant 4	DSI 7	166300	831.5	1	21.35	22.00	1.161	-	-	-0.06	0.477	0.554
	FR1 n5 ENDC	20M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 4	DSI 7	167300	836.5	1	18.77	19.50	1.183	-	-	-0.02	0.124	0.147
	FR1 n5 ENDC	20M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 4	DSI 7	167300	836.5	1	18.77	19.50	1.183	-	-	0.01	0.190	0.225
	FR1 n5 ENDC	20M	QPSK	1	1	DFT-SCS-15KHz	Top Side	5mm	Ant 4	DSI 7	167300	836.5	1	18.77	19.50	1.183	-	-	0.06	0.268	0.317
	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Top Side	5mm	Ant 4	DSI 7	166300	831.5	1	21.30	22.00	1.175	-	-	0.18	0.467	0.549
1750MHz																					
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	5mm	Ant 0	DSI 7	1413	1732.6	1	16.32	17.50	1.312	-	-	0.16	0.594	0.779
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	5mm	Ant 0	DSI 7	1312	1712.4	1	16.22	17.50	1.343	-	-	-0.06	0.480	0.645
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	5mm	Ant 0	DSI 7	1513	1752.6	1	16.28	17.50	1.324	-	-	0.02	0.504	0.667
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 0	DSI 7	1413	1732.6	1	16.32	17.50	1.312	-	-	-0.16	0.812	1.066
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 0	DSI 7	1312	1712.4	1	16.22	17.50	1.343	-	-	0.05	0.571	0.767
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 0	DSI 7	1513	1752.6	1	16.28	17.50	1.324	-	-	-0.03	0.667	0.883
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Side	5mm	Ant 0	DSI 7	1413	1732.6	1	16.32	17.50	1.312	-	-	0.17	0.057	0.075
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Side	5mm	Ant 0	DSI 7	1413	1732.6	1	16.32	17.50	1.312	-	-	-0.15	0.079	0.104
46	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Bottom Side	5mm	Ant 0	DSI 7	1413	1732.6	1	16.32	17.50	1.312	-	-	0.05	0.887	**1.164**
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Bottom Side	5mm	Ant 0	DSI 7	1312	1712.4	1	16.22	17.50	1.343	-	-	0.16	0.763	1.025
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Bottom Side	5mm	Ant 0	DSI 7	1513	1752.6	1	16.28	17.50	1.324	-	-	0.05	0.789	1.045
	LTE Band 66	20M	QPSK	1	0	-	Front	5mm	Ant 0	DSI 7	132322	1745	1	16.73	18.00	1.340	-	-	0.02	0.590	0.790
	LTE Band 66	20M	QPSK	50	0	-	Front	5mm	Ant 0	DSI 7	132322	1745	1	16.67	18.00	1.358	-	-	-0.04	0.344	0.467
	LTE Band 66	20M	QPSK	1	0	-	Back	5mm	Ant 0	DSI 7	132322	1745	1	16.73	18.00	1.340	-	-	0.08	0.637	0.853
	LTE Band 66	20M	QPSK	1	0	-	Back	5mm	Ant 0	DSI 7	132072	1720	1	16.62	18.00	1.374	-	-	0.19	0.598	0.822
	LTE Band 66	20M	QPSK	1	0	-	Back	5mm	Ant 0	DSI 7	132572	1770	1	16.60	18.00	1.380	-	-	-0.06	0.712	0.983
	LTE Band 66	20M	QPSK	50	0	-	Back	5mm	Ant 0	DSI 7	132322	1745	1	16.67	18.00	1.358	-	-	0	0.582	0.791
	LTE Band 66	20M	QPSK	100	0	-	Back	5mm	Ant 0	DSI 7	132322	1745	1	16.65	18.00	1.365	-	-	-0.12	0.390	0.532
	LTE Band 66	20M	QPSK	1	0	-	Left Side	5mm	Ant 0	DSI 7	132322	1745	1	16.73	18.00	1.340	-	-	-0.03	0.071	0.095
	LTE Band 66	20M	QPSK	50	0	-	Left Side	5mm	Ant 0	DSI 7	132322	1745	1	16.67	18.00	1.358	-	-	0.02	0.040	0.054
	LTE Band 66	20M	QPSK	1	0	-	Right Side	5mm	Ant 0	DSI 7	132322	1745	1	16.73	18.00	1.340	-	-	0.12	0.068	0.091
	LTE Band 66	20M	QPSK	50	0	-	Right Side	5mm	Ant 0	DSI 7	132322	1745	1	16.67	18.00	1.358	-	-	0.02	0.039	0.053
	LTE Band 66	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 0	DSI 7	132322	1745	1	16.73	18.00	1.340	-	-	-0.03	0.868	1.163
	LTE Band 66	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 0	DSI 7	132072	1720	1	16.62	18.00	1.374	-	-	0	0.794	1.091
47	LTE Band 66	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 0	DSI 7	132572	1770	1	16.60	18.00	1.380	-	-	-0.08	0.953	**1.316**

	LTE Band 66C	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 0	DSI 7	132572+ 132374	1770+ 1750.2	1	16.49	18.00	1.416	-	-	-0.03	0.915	1.295
	LTE Band 66C	20M	QPSK	1	99	-	Bottom Side	5mm	Ant 0	DSI 7	132072+ 132270	1720+ 1739.8	1	16.48	18.00	1.419	-	-	0.03	0.903	1.281
	LTE Band 66C	20M	QPSK	1	99	-	Bottom Side	5mm	Ant 0	DSI 7	132322+ 132520	1745+ 1764.8	1	16.62	18.00	1.374	-	-	0.04	0.894	1.228
	LTE Band 66 ENDC&UL_CA	20M	QPSK	1	0	-	Front	5mm	Ant 0	DSI 7	132572	1770	1	14.08	15.50	1.387	-	-	0.01	0.341	0.473
	LTE Band 66 ENDC&UL_CA	20M	QPSK	1	0	-	Back	5mm	Ant 0	DSI 7	132572	1770	1	14.08	15.50	1.387	-	-	-0.07	0.392	0.544
	LTE Band 66 ENDC&UL_CA	20M	QPSK	1	0	-	Right Side	5mm	Ant 0	DSI 7	132572	1770	1	14.08	15.50	1.387	-	-	0.01	0.037	0.051
	LTE Band 66 ENDC&UL_CA	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 0	DSI 7	132572	1770	1	14.08	15.50	1.387	-	-	0.01	0.521	0.722
	LTE Band 66	20M	QPSK	50	0	-	Bottom Side	5mm	Ant 0	DSI 7	132322	1745	1	16.67	18.00	1.358	-	-	-0.1	0.779	1.058
	LTE Band 66	20M	QPSK	50	0	-	Bottom Side	5mm	Ant 0	DSI 7	132072	1720	1	16.51	18.00	1.409	-	-	0.05	0.774	1.091
	LTE Band 66	20M	QPSK	50	0	-	Bottom Side	5mm	Ant 0	DSI 7	132572	1770	1	16.62	18.00	1.374	-	-	0	0.655	0.900
	LTE Band 66	20M	QPSK	100	0	-	Bottom Side	5mm	Ant 0	DSI 7	132322	1745	1	16.65	18.00	1.365	-	-	0.07	0.481	0.656
	LTE Band 66 Main PA -1	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 0	DSI 7	132572	1770	1	16.72	18.00	1.343	-	-	0.15	0.941	1.264
	LTE Band 66 Other PA	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 0	DSI 7	132572	1770	1	16.20	17.00	1.202	-	-	-0.05	0.608	0.731
	LTE Band 66 Other PA-1	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 0	DSI 7	132572	1770	1	16.10	17.00	1.230	-	-	-0.08	0.605	0.744
	LTE Band 66	20M	QPSK	1	0	-	Front	5mm	Ant 4	DSI 7	132322	1745	1	16.55	17.50	1.245	-	-	-0.15	0.253	0.315
	LTE Band 66	20M	QPSK	50	0	-	Front	5mm	Ant 4	DSI 7	132322	1745	1	16.51	17.50	1.256	-	-	0.08	0.134	0.168
	LTE Band 66	20M	QPSK	1	0	-	Back	5mm	Ant 4	DSI 7	132322	1745	1	16.55	17.50	1.245	-	-	-0.01	0.437	0.544
	LTE Band 66	20M	QPSK	50	0	-	Back	5mm	Ant 4	DSI 7	132322	1745	1	16.51	17.50	1.256	-	-	-0.04	0.221	0.278
	LTE Band 66	20M	QPSK	1	0	-	Left Side	5mm	Ant 4	DSI 7	132322	1745	1	16.55	17.50	1.245	-	-	0.05	0.070	0.087
	LTE Band 66	20M	QPSK	50	0	-	Left Side	5mm	Ant 4	DSI 7	132322	1745	1	16.51	17.50	1.256	-	-	0.08	0.037	0.046
	LTE Band 66 UL CA	20M	QPSK	1	0	-	Top Side	5mm	Ant 4	DSI 7	132322	1745	1	16.55	17.50	1.245	-	-	-0.18	0.571	0.711
	LTE Band 66C	20M	QPSK	1	99	-	Top Side	5mm	Ant 4	DSI 7	132322+ 132520	1745+ 1764.8	1	16.46	17.50	1.271	-	-	0.01	0.553	0.703
	LTE Band 66 ENDC	20M	QPSK	1	0	-	Front	5mm	Ant 4	DSI 7	132322	1745	1	13.07	14.00	1.239	-	-	0.04	0.115	0.142
	LTE Band 66 ENDC	20M	QPSK	1	0	-	Back	5mm	Ant 4	DSI 7	132322	1745	1	13.07	14.00	1.239	-	-	-0.01	0.197	0.244
	LTE Band 66 ENDC	20M	QPSK	1	0	-	Top Side	5mm	Ant 4	DSI 7	132322	1745	1	13.07	14.00	1.239	-	-	0.06	0.253	0.313
	LTE Band 66	20M	QPSK	50	0	-	Top Side	5mm	Ant 4	DSI 7	132322	1745	1	16.51	17.50	1.256	-	-	-0.04	0.352	0.442
	LTE Band 66 Main PA -1	20M	QPSK	1	0	-	Top Side	5mm	Ant 4	DSI 7	132322	1745	1	16.13	17.50	1.371	-	-	0.07	0.513	0.703
	LTE Band 66 Other PA	20M	QPSK	1	0	-	Top Side	5mm	Ant 4	DSI 7	132322	1745	1	17.88	18.50	1.153	-	-	-0.03	0.577	0.666
	LTE Band 66 Other PA-1	20M	QPSK	1	0	-	Top Side	5mm	Ant 4	DSI 7	132322	1745	1	17.83	18.50	1.167	-	-	0.09	0.579	0.676
	FR1 n70	15M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 0	DSI 7	340500	1702.5	1	16.56	18.00	1.393	-	-	-0.14	0.492	0.685
	FR1 n70	15M	QPSK	36	22	DFT-SCS-15KHz	Front	5mm	Ant 0	DSI 7	340500	1702.5	1	16.53	18.00	1.403	-	-	0.01	0.462	0.648
	FR1 n70	15M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 0	DSI 7	340500	1702.5	1	16.56	18.00	1.393	-	-	0.02	0.613	0.854
	FR1 n70	15M	QPSK	36	22	DFT-SCS-15KHz	Back	5mm	Ant 0	DSI 7	340500	1702.5	1	16.53	18.00	1.403	-	-	0.16	0.606	0.850
	FR1 n70	15M	QPSK	75	0	DFT-SCS-15KHz	Back	5mm	Ant 0	DSI 7	340500	1702.5	1	16.48	18.00	1.419	-	-	0.01	0.596	0.846
	FR1 n70	15M	QPSK	1	1	DFT-SCS-15KHz	Left Side	5mm	Ant 0	DSI 7	340500	1702.5	1	16.56	18.00	1.393	-	-	-0.02	0.060	0.084
	FR1 n70	15M	QPSK	36	22	DFT-SCS-15KHz	Left Side	5mm	Ant 0	DSI 7	340500	1702.5	1	16.53	18.00	1.403	-	-	0.07	0.052	0.073
	FR1 n70	15M	QPSK	1	1	DFT-SCS-15KHz	Right Side	5mm	Ant 0	DSI 7	340500	1702.5	1	16.56	18.00	1.393	-	-	-0.17	0.077	0.107
	FR1 n70	15M	QPSK	36	22	DFT-SCS-15KHz	Right Side	5mm	Ant 0	DSI 7	340500	1702.5	1	16.53	18.00	1.403	-	-	0.1	0.070	0.098
48	FR1 n70	15M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	5mm	Ant 0	DSI 7	340500	1702.5	1	16.56	18.00	1.393	-	-	-0.04	0.984	**1.371**
	FR1 n70	15M	QPSK	36	22	DFT-SCS-15KHz	Bottom Side	5mm	Ant 0	DSI 7	340500	1702.5	1	16.53	18.00	1.403	-	-	0.08	0.784	1.100
	FR1 n70	15M	QPSK	75	0	DFT-SCS-15KHz	Bottom Side	5mm	Ant 0	DSI 7	340500	1702.5	1	16.48	18.00	1.419	-	-	0	0.650	0.922
	FR1 n70	15M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 4	DSI 7	340500	1702.5	1	14.60	16.00	1.380	-	-	-0.07	0.286	0.395
	FR1 n70	15M	QPSK	36	22	DFT-SCS-15KHz	Front	5mm	Ant 4	DSI 7	340500	1702.5	1	14.51	16.00	1.409	-	-	0.18	0.283	0.399
	FR1 n70	15M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 4	DSI 7	340500	1702.5	1	14.60	16.00	1.380	-	-	0.07	0.404	0.558
	FR1 n70	15M	QPSK	36	22	DFT-SCS-15KHz	Back	5mm	Ant 4	DSI 7	340500	1702.5	1	14.51	16.00	1.409	-	-	0.15	0.376	0.530
	FR1 n70	15M	QPSK	1	1	DFT-SCS-15KHz	Left Side	5mm	Ant 4	DSI 7	340500	1702.5	1	14.60	16.00	1.380	-	-	-0.03	0.077	0.106
	FR1 n70	15M	QPSK	36	22	DFT-SCS-15KHz	Left Side	5mm	Ant 4	DSI 7	340500	1702.5	1	14.51	16.00	1.409	-	-	-0.14	0.071	0.100
	FR1 n70	15M	QPSK	1	1	DFT-SCS-15KHz	Top Side	5mm	Ant 4	DSI 7	340500	1702.5	1	14.60	16.00	1.380	-	-	-0.16	0.519	0.716
	FR1 n70	15M	QPSK	36	22	DFT-SCS-15KHz	Top Side	5mm	Ant 4	DSI 7	340500	1702.5	1	14.51	16.00	1.409	-	-	0.17	0.494	0.696
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 0	DSI 7	349000	1745	1	16.87	18.00	1.297	-	-	-0.15	0.549	0.712

	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Front	5mm	Ant 0	DSI 7	349000	1745	1	16.79	18.00	1.321	-	-	-0.09	0.626	0.827
	FR1 n66	40M	QPSK	216	0	DFT-SCS-15KHz	Back	5mm	Ant 0	DSI 7	349000	1745	1	16.71	18.00	1.346	-	-	0.06	0.596	0.802
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 0	DSI 7	349000	1745	1	16.87	18.00	1.297	-	-	0.13	0.664	0.861
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Back	5mm	Ant 0	DSI 7	349000	1745	1	16.79	18.00	1.321	-	-	0	0.803	1.061
	FR1 n66	40M	QPSK	216	0	DFT-SCS-15KHz	Back	5mm	Ant 0	DSI 7	349000	1745	1	16.71	18.00	1.346	-	-	-0.12	0.653	0.879
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Left Side	5mm	Ant 0	DSI 7	349000	1745	1	16.87	18.00	1.297	-	-	0.15	0.081	0.105
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Left Side	5mm	Ant 0	DSI 7	349000	1745	1	16.79	18.00	1.321	-	-	-0.05	0.088	0.116
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Right Side	5mm	Ant 0	DSI 7	349000	1745	1	16.87	18.00	1.297	-	-	-0.07	0.082	0.106
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Right Side	5mm	Ant 0	DSI 7	349000	1745	1	16.79	18.00	1.321	-	-	0.1	0.088	0.116
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	5mm	Ant 0	DSI 7	349000	1745	1	16.87	18.00	1.297	-	-	-0.11	0.883	1.145
49	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Bottom Side	5mm	Ant 0	DSI 7	349000	1745	1	16.79	18.00	1.321	-	-	0.08	1.010	**1.335**
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Bottom Side	5mm	Ant 0	DSI 7	349000	1745	2	16.79	18.00	1.321	-	-	0.01	0.692	0.914
	FR1 n66	40M	QPSK	216	0	DFT-SCS-15KHz	Bottom Side	5mm	Ant 0	DSI 7	349000	1745	1	16.71	18.00	1.346	-	-	-0.02	0.910	1.225
	FR1 n66 Main PA -1	40M	QPSK	108	54	DFT-SCS-15KHz	Bottom Side	5mm	Ant 0	DSI 7	349000	1745	1	16.77	18.00	1.327	-	-	-0.1	1.000	1.327
	FR1 n66 Other PA	40M	QPSK	108	54	DFT-SCS-15KHz	Bottom Side	5mm	Ant 0	DSI 7	349000	1745	1	16.33	17.00	1.167	-	-	0.14	0.808	0.943
	FR1 n66 Other PA-1	40M	QPSK	108	54	DFT-SCS-15KHz	Bottom Side	5mm	Ant 0	DSI 7	349000	1745	1	16.18	17.00	1.208	-	-	0.04	0.798	0.964
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 4	DSI 7	349000	1745	1	14.46	15.50	1.271	-	-	-0.06	0.198	0.252
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Front	5mm	Ant 4	DSI 7	349000	1745	1	14.39	15.50	1.291	-	-	-0.19	0.215	0.278
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 4	DSI 7	349000	1745	1	14.46	15.50	1.271	-	-	0.13	0.273	0.347
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Back	5mm	Ant 4	DSI 7	349000	1745	1	14.39	15.50	1.291	-	-	-0.08	0.317	0.409
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Left Side	5mm	Ant 4	DSI 7	349000	1745	1	14.46	15.50	1.271	-	-	-0.04	0.050	0.064
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Left Side	5mm	Ant 4	DSI 7	349000	1745	1	14.39	15.50	1.291	-	-	0.12	0.055	0.071
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Top Side	5mm	Ant 4	DSI 7	349000	1745	1	14.46	15.50	1.271	-	-	0.09	0.406	0.516
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Top Side	5mm	Ant 4	DSI 7	349000	1745	1	14.39	15.50	1.291	-	-	-0.02	0.476	0.615
	FR1 n66 ENDC	40M	QPSK	108	54	DFT-SCS-15KHz	Front	5mm	Ant 4	DSI 7	349000	1745	1	11.48	12.50	1.265	-	-	-0.07	0.114	0.144
	FR1 n66 ENDC	40M	QPSK	108	54	DFT-SCS-15KHz	Back	5mm	Ant 4	DSI 7	349000	1745	1	11.48	12.50	1.265	-	-	0.01	0.167	0.211
	FR1 n66 ENDC	40M	QPSK	108	54	DFT-SCS-15KHz	Top Side	5mm	Ant 4	DSI 7	349000	1745	1	11.48	12.50	1.265	-	-	0.04	0.253	0.320
	FR1 n66 Main PA -1	40M	QPSK	108	54	DFT-SCS-15KHz	Top Side	5mm	Ant 4	DSI 7	349000	1745	1	14.35	15.50	1.303	-	-	-0.03	0.424	0.553
	FR1 n66 Other PA	40M	QPSK	108	54	DFT-SCS-15KHz	Top Side	5mm	Ant 4	DSI 7	349000	1745	1	15.71	16.50	1.199	-	-	0.04	0.504	0.605
	FR1 n66 Other PA-1	40M	QPSK	108	54	DFT-SCS-15KHz	Top Side	5mm	Ant 4	DSI 7	349000	1745	1	15.23	16.50	1.340	-	-	-0.06	0.424	0.568
1900MHz																					
	GSM1900	-	-	-	-	GPRS (2 Tx slots)	Front	5mm	Ant 0	DSI 7	661	1880	1	23.09	24.00	1.233	-	-	0.04	0.468	0.577
	GSM1900	-	-	-	-	GPRS (2 Tx slots)	Back	5mm	Ant 0	DSI 7	661	1880	1	23.09	24.00	1.233	-	-	-0.1	0.661	0.815
	GSM1900	-	-	-	-	GPRS (2 Tx slots)	Back	5mm	Ant 0	DSI 7	512	1850.2	1	23.03	24.00	1.250	-	-	0.14	0.644	0.805
	GSM1900	-	-	-	-	GPRS (2 Tx slots)	Back	5mm	Ant 0	DSI 7	810	1909.8	1	22.87	24.00	1.297	-	-	-0.16	0.645	0.837
	GSM1900	-	-	-	-	GPRS (2 Tx slots)	Left Side	5mm	Ant 0	DSI 7	661	1880	1	23.09	24.00	1.233	-	-	-0.02	0.024	0.030
	GSM1900	-	-	-	-	GPRS (2 Tx slots)	Right Side	5mm	Ant 0	DSI 7	661	1880	1	23.09	24.00	1.233	-	-	0.1	0.036	0.044
50	GSM1900	-	-	-	-	GPRS (2 Tx slots)	Bottom Side	5mm	Ant 0	DSI 7	661	1880	1	23.09	24.00	1.233	-	-	0.08	0.882	**1.088**
	GSM1900	-	-	-	-	GPRS (2 Tx slots)	Bottom Side	5mm	Ant 0	DSI 7	512	1850.2	1	23.03	24.00	1.250	-	-	-0.1	0.818	1.023
	GSM1900	-	-	-	-	GPRS (2 Tx slots)	Bottom Side	5mm	Ant 0	DSI 7	810	1909.8	1	22.87	24.00	1.297	-	-	-0.05	0.762	0.988
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	5mm	Ant 0	DSI 7	9400	1880	1	14.57	15.50	1.239	-	-	0.06	0.573	0.710
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 0	DSI 7	9400	1880	1	14.57	15.50	1.239	-	-	0.17	0.787	0.975
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 0	DSI 7	9262	1852.4	1	14.52	15.50	1.253	-	-	0.13	0.629	0.788
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 0	DSI 7	9538	1907.6	1	14.45	15.50	1.274	-	-	-0.02	0.629	0.801
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Side	5mm	Ant 0	DSI 7	9400	1880	1	14.57	15.50	1.239	-	-	0	0.061	0.076
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Side	5mm	Ant 0	DSI 7	9400	1880	1	14.57	15.50	1.239	-	-	0.1	0.055	0.068
51	WCDMA II	-	-	-	-	RMC 12.2Kbps	Bottom Side	5mm	Ant 0	DSI 7	9400	1880	1	14.57	15.50	1.239	-	-	0.03	0.981	**1.215**
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Bottom Side	5mm	Ant 0	DSI 7	9262	1852.4	1	14.52	15.50	1.253	-	-	0.13	0.833	1.044
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Bottom Side	5mm	Ant 0	DSI 7	9538	1907.6	1	14.45	15.50	1.274	-	-	-0.04	0.803	1.023
	LTE Band 25	20M	QPSK	1	0	-	Front	5mm	Ant 0	DSI 7	26340	1880	1	15.17	16.50	1.358	-	-	0	0.516	0.701
	LTE Band 25	20M	QPSK	50	0	-	Front	5mm	Ant 0	DSI 7	26340	1880	1	15.10	16.50	1.380	-	-	-0.01	0.304	0.420
	LTE Band 25	20M	QPSK	1	0	-	Back	5mm	Ant 0	DSI 7	26340	1880	1	15.17	16.50	1.358	-	-	0.1	0.758	1.030
	LTE Band 25	20M	QPSK	1	0	-	Back	5mm	Ant 0	DSI 7	26140	1860	1	15.07	16.50	1.390	-	-	0.15	0.725	1.008

	LTE Band 25	20M	QPSK	1	0	-	Back	5mm	Ant 0	DSI 7	26590	1905	1	15.10	16.50	1.380	-	-	0.12	0.744	1.027
	LTE Band 25	20M	QPSK	50	0	-	Back	5mm	Ant 0	DSI 7	26340	1880	1	15.10	16.50	1.380	-	-	-0.12	0.656	0.906
	LTE Band 25	20M	QPSK	50	0	-	Back	5mm	Ant 0	DSI 7	26140	1860	1	14.98	16.50	1.419	-	-	-0.15	0.631	0.895
	LTE Band 25	20M	QPSK	50	0	-	Back	5mm	Ant 0	DSI 7	26590	1905	1	14.97	16.50	1.422	-	-	-0.19	0.653	0.929
	LTE Band 25	20M	QPSK	100	0	-	Back	5mm	Ant 0	DSI 7	26340	1880	1	15.04	16.50	1.400	-	-	-0.13	0.441	0.617
	LTE Band 25	20M	QPSK	1	0	-	Left Side	5mm	Ant 0	DSI 7	26340	1880	1	15.17	16.50	1.358	-	-	-0.05	0.058	0.079
	LTE Band 25	20M	QPSK	50	0	-	Left Side	5mm	Ant 0	DSI 7	26340	1880	1	15.10	16.50	1.380	-	-	-0.12	0.035	0.048
	LTE Band 25	20M	QPSK	1	0	-	Right Side	5mm	Ant 0	DSI 7	26340	1880	1	15.17	16.50	1.358	-	-	0.18	0.058	0.079
	LTE Band 25	20M	QPSK	50	0	-	Right Side	5mm	Ant 0	DSI 7	26340	1880	1	15.10	16.50	1.380	-	-	0.14	0.036	0.050
52	LTE Band 25	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 0	DSI 7	26340	1880	1	15.17	16.50	1.358	-	-	0.05	0.969	**1.316**
	LTE Band 2 ENDC&UL_CA	20M	QPSK	1	0	-	Front	5mm	Ant 0	DSI 7	18900	1880	1	12.71	14.00	1.346	-	-	0.01	0.287	0.386
	LTE Band 2 ENDC&UL_CA	20M	QPSK	1	0	-	Back	5mm	Ant 0	DSI 7	18900	1880	1	12.71	14.00	1.346	-	-	-0.02	0.421	0.567
	LTE Band 2 ENDC&UL_CA	20M	QPSK	1	0	-	Right Side	5mm	Ant 0	DSI 7	18900	1880	1	12.71	14.00	1.346	-	-	0.02	0.032	0.043
	LTE Band 2 ENDC&UL_CA	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 0	DSI 7	18900	1880	1	12.71	14.00	1.346	-	-	0.01	0.535	0.720
	LTE Band 25	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 0	DSI 7	26140	1860	1	15.07	16.50	1.390	-	-	0.03	0.900	1.251
	LTE Band 25	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 0	DSI 7	26590	1905	1	15.10	16.50	1.380	-	-	0.09	0.927	1.280
	LTE Band 25	20M	QPSK	50	0	-	Bottom Side	5mm	Ant 0	DSI 7	26340	1880	1	15.10	16.50	1.380	-	-	-0.13	0.883	1.219
	LTE Band 25	20M	QPSK	50	0	-	Bottom Side	5mm	Ant 0	DSI 7	26140	1860	1	14.98	16.50	1.419	-	-	-0.09	0.846	1.201
	LTE Band 25	20M	QPSK	50	0	-	Bottom Side	5mm	Ant 0	DSI 7	26590	1905	1	14.97	16.50	1.422	-	-	-0.18	0.849	1.208
	LTE Band 25	20M	QPSK	100	0	-	Bottom Side	5mm	Ant 0	DSI 7	26340	1880	1	15.04	16.50	1.400	-	-	0.12	0.574	0.803
	LTE Band 25 Other PA	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 0	DSI 7	26340	1880	1	14.24	15.00	1.191	-	-	0.11	0.382	0.455
	LTE Band 25 Other PA-1	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 0	DSI 7	26340	1880	1	14.22	15.00	1.197	-	-	0.11	0.425	0.509
	LTE Band 2 Main PA-1	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 0	DSI 7	18900	1880	1	15.74	16.50	1.191	-	-	-0.05	0.588	0.700
	LTE Band 25	20M	QPSK	1	0	-	Front	5mm	Ant 4	DSI 7	26340	1880	1	13.84	14.50	1.164	-	-	0.19	0.178	0.207
	LTE Band 25	20M	QPSK	50	0	-	Front	5mm	Ant 4	DSI 7	26340	1880	1	13.81	14.50	1.172	-	-	-0.09	0.100	0.117
	LTE Band 25	20M	QPSK	1	0	-	Back	5mm	Ant 4	DSI 7	26340	1880	1	13.84	14.50	1.164	-	-	-0.12	0.308	0.359
	LTE Band 25	20M	QPSK	50	0	-	Back	5mm	Ant 4	DSI 7	26340	1880	1	13.81	14.50	1.172	-	-	0.07	0.177	0.207
	LTE Band 25	20M	QPSK	1	0	-	Left Side	5mm	Ant 4	DSI 7	26340	1880	1	13.84	14.50	1.164	-	-	-0.18	0.047	0.055
	LTE Band 25	20M	QPSK	50	0	-	Left Side	5mm	Ant 4	DSI 7	26340	1880	1	13.81	14.50	1.172	-	-	-0.06	0.028	0.033
	LTE Band 25 band2 for CA& ENDC band 25 for ENDC	20M	QPSK	1	0	-	Top Side	5mm	Ant 4	DSI 7	26340	1880	1	13.84	14.50	1.164	-	-	0.03	0.578	0.673
	LTE Band 25 ENDC&UL_CA	20M	QPSK	1	0	-	Front	5mm	Ant 4	DSI 7	26340	1880	1	10.34	11.00	1.164	-	-	0.01	0.082	0.095
	LTE Band 25 ENDC&UL_CA	20M	QPSK	1	0	-	Back	5mm	Ant 4	DSI 7	26340	1880	1	10.34	11.00	1.164	-	-	-0.05	0.142	0.165
	LTE Band 25 ENDC&UL_CA	20M	QPSK	1	0	-	Top Side	5mm	Ant 4	DSI 7	26340	1880	1	10.34	11.00	1.164	-	-	0.07	0.258	0.300
	LTE Band 25	20M	QPSK	50	0	-	Top Side	5mm	Ant 4	DSI 7	26340	1880	1	13.81	14.50	1.172	-	-	0.06	0.548	0.642
	LTE Band 25 Other PA	20M	QPSK	1	0	-	Top Side	5mm	Ant 4	DSI 7	26340	1880	1	15.79	16.50	1.178	-	-	-0.15	0.483	0.569
	LTE Band 25 Other PA-1	20M	QPSK	1	0	-	Top Side	5mm	Ant 4	DSI 7	26340	1880	1	15.67	16.50	1.211	-	-	-0.15	0.497	0.602
	LTE Band 2 Main PA-1	20M	QPSK	1	0	-	Top Side	5mm	Ant 4	DSI 7	18900	1880	1	14.36	14.50	1.033	-	-	-0.06	0.648	0.669
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 0	DSI 7	376500	1882.5	1	16.11	16.50	1.094	-	-	0.03	0.501	0.548
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Front	5mm	Ant 0	DSI 7	376500	1882.5	1	15.94	16.50	1.138	-	-	0.09	0.616	0.701
	FR1 n25	40M	QPSK	216	0	DFT-SCS-15KHz	Front	5mm	Ant 0	DSI 7	376500	1882.5	1	15.81	16.50	1.172	-	-	-0.02	0.515	0.604
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 0	DSI 7	376500	1882.5	1	16.11	16.50	1.094	-	-	0.15	0.654	0.715
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Back	5mm	Ant 0	DSI 7	376500	1882.5	1	15.94	16.50	1.138	-	-	-0.08	0.876	0.997
	FR1 n25	40M	QPSK	216	0	DFT-SCS-15KHz	Back	5mm	Ant 0	DSI 7	376500	1882.5	1	15.81	16.50	1.172	-	-	0.06	0.705	0.826
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Left Side	5mm	Ant 0	DSI 7	376500	1882.5	1	16.11	16.50	1.094	-	-	0.15	0.054	0.059
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Left Side	5mm	Ant 0	DSI 7	376500	1882.5	1	15.94	16.50	1.138	-	-	-0.08	0.046	0.052
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Right Side	5mm	Ant 0	DSI 7	376500	1882.5	1	16.11	16.50	1.094	-	-	-0.05	0.063	0.069
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Right Side	5mm	Ant 0	DSI 7	376500	1882.5	1	15.94	16.50	1.138	-	-	-0.18	0.061	0.069
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	5mm	Ant 0	DSI 7	376500	1882.5	1	16.11	16.50	1.094	-	-	-0.08	0.860	0.941
53	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Bottom Side	5mm	Ant 0	DSI 7	376500	1882.5	1	15.94	16.50	1.138	-	-	0.05	0.936	**1.065**
	FR1 n25	40M	QPSK	216	0	DFT-SCS-15KHz	Bottom Side	5mm	Ant 0	DSI 7	376500	1882.5	1	15.81	16.50	1.172	-	-	0.18	0.817	0.958
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Bottom Side	5mm	Ant 0	DSI 7	376500	1882.5	1	14.38	15.50	1.294	-	-	0.1	0.636	0.823

	Other PA																				
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 4	DSI 7	376500	1882.5	1	13.19	14.00	1.205	-	-	-0.16	0.184	0.222
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Front	5mm	Ant 4	DSI 7	376500	1882.5	1	13.12	14.00	1.225	-	-	-0.02	0.163	0.200
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 4	DSI 7	376500	1882.5	1	13.19	14.00	1.205	-	-	0	0.309	0.372
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Back	5mm	Ant 4	DSI 7	376500	1882.5	1	13.12	14.00	1.225	-	-	-0.04	0.289	0.354
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Left Side	5mm	Ant 4	DSI 7	376500	1882.5	1	13.19	14.00	1.205	-	-	0.18	0.041	0.049
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Left Side	5mm	Ant 4	DSI 7	376500	1882.5	1	13.12	14.00	1.225	-	-	0.03	0.033	0.040
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Top Side	5mm	Ant 4	DSI 7	376500	1882.5	1	13.19	14.00	1.205	-	-	0.01	0.478	0.576
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Top Side	5mm	Ant 4	DSI 7	376500	1882.5	1	13.12	14.00	1.225	-	-	0.04	0.395	0.484
	FR1 n25 Other PA	40M	QPSK	1	1	DFT-SCS-15KHz	Top Side	5mm	Ant 4	DSI 7	376500	1882.5	1	14.59	15.00	1.099	-	-	0.09	0.522	0.574
2300MHz																					
	LTE Band 30	10M	QPSK	1	0	-	Front	5mm	Ant 1	DSI 7	27710	2310	1	20.46	21.50	1.271	-	-	-0.04	0.528	0.671
	LTE Band 30	10M	QPSK	25	0	-	Front	5mm	Ant 1	DSI 7	27710	2310	1	20.44	21.50	1.276	-	-	-0.17	0.338	0.431
54	LTE Band 30	10M	QPSK	1	0	-	Back	5mm	Ant 1	DSI 7	27710	2310	1	20.46	21.50	1.271	-	-	-0.06	0.982	**1.248**
	LTE Band 30 ENDC	10M	QPSK	1	0	-	Back	5mm	Ant 1	DSI 7	27710	2310	1	17.99	19.00	1.262	-	-	0.01	0.542	0.684
	LTE Band 30	10M	QPSK	1	0	-	Back	5mm	Ant 1	DSI 7	27710	2310	2	20.46	21.50	1.271	-	-	0.03	0.943	1.198
	LTE Band 30	10M	QPSK	25	0	-	Back	5mm	Ant 1	DSI 7	27710	2310	1	20.44	21.50	1.276	-	-	0.04	0.629	0.803
	LTE Band 30	10M	QPSK	50	0	-	Back	5mm	Ant 1	DSI 7	27710	2310	1	20.37	21.50	1.297	-	-	0.01	0.629	0.816
	LTE Band 30	10M	QPSK	1	0	-	Left Side	5mm	Ant 1	DSI 7	27710	2310	1	20.46	21.50	1.271	-	-	0.04	0.496	0.630
	LTE Band 30	10M	QPSK	25	0	-	Left Side	5mm	Ant 1	DSI 7	27710	2310	1	20.44	21.50	1.276	-	-	-0.06	0.318	0.406
	LTE Band 30	10M	QPSK	1	0	-	Bottom Side	5mm	Ant 1	DSI 7	27710	2310	1	20.46	21.50	1.271	-	-	0.1	0.105	0.133
	LTE Band 30	10M	QPSK	25	0	-	Bottom Side	5mm	Ant 1	DSI 7	27710	2310	1	20.44	21.50	1.276	-	-	0.03	0.066	0.084
	LTE Band 30 Other PA	10M	QPSK	1	0	-	Front	5mm	Ant 4	DSI 7	27710	2310	1	8.22	9.50	1.343	-	-	0.07	0.082	0.110
	LTE Band 30 Other PA	10M	QPSK	25	0	-	Front	5mm	Ant 4	DSI 7	27710	2310	1	8.13	9.50	1.371	-	-	0.11	0.078	0.107
	LTE Band 30 Other PA	10M	QPSK	1	0	-	Back	5mm	Ant 4	DSI 7	27710	2310	1	8.22	9.50	1.343	-	-	0.11	0.175	0.235
	LTE Band 30 Other PA	10M	QPSK	25	0	-	Back	5mm	Ant 4	DSI 7	27710	2310	1	8.13	9.50	1.371	-	-	-0.01	0.167	0.229
	LTE Band 30 Other PA	10M	QPSK	1	0	-	Left Side	5mm	Ant 4	DSI 7	27710	2310	1	8.22	9.50	1.343	-	-	0.04	0.023	0.031
	LTE Band 30 Other PA	10M	QPSK	25	0	-	Left Side	5mm	Ant 4	DSI 7	27710	2310	1	8.13	9.50	1.371	-	-	0.16	0.020	0.027
	LTE Band 30 Other PA	10M	QPSK	1	0	-	Top Side	5mm	Ant 4	DSI 7	27710	2310	1	8.22	9.50	1.343	-	-	0.08	0.232	0.312
	LTE Band 30 Other PA	10M	QPSK	1	0	-	Top Side	5mm	Ant 4	DSI 7	27710	2310	2	8.22	9.50	1.343	-	-	0.03	0.221	0.297
	LTE Band 30 Other PA	10M	QPSK	25	0	-	Top Side	5mm	Ant 4	DSI 7	27710	2310	1	8.13	9.50	1.371	-	-	0.17	0.202	0.277
	FR1 n30	10M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 1	DSI 7	462000	2310	1	20.41	21.00	1.146	-	-	0.12	0.638	0.731
	FR1 n30	10M	QPSK	25	14	DFT-SCS-15KHz	Front	5mm	Ant 1	DSI 7	462000	2310	1	20.36	21.00	1.159	-	-	-0.17	0.671	0.778
	FR1 n30	10M	QPSK	50	0	DFT-SCS-15KHz	Front	5mm	Ant 1	DSI 7	462000	2310	1	20.27	21.00	1.183	-	-	-0.17	0.525	0.621
	FR1 n30	10M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 1	DSI 7	462000	2310	1	20.41	21.00	1.146	-	-	0.02	1.040	1.191
55	FR1 n30	10M	QPSK	25	14	DFT-SCS-15KHz	Back	5mm	Ant 1	DSI 7	462000	2310	1	20.36	21.00	1.159	-	-	-0.02	1.050	**1.217**
	FR1 n30 ENDC	10M	QPSK	25	14	DFT-SCS-15KHz	Front	5mm	Ant 1	DSI 7	462000	2310	1	18.43	19.00	1.140	-	-	-0.02	0.404	0.461
	FR1 n30 ENDC	10M	QPSK	25	14	DFT-SCS-15KHz	Back	5mm	Ant 1	DSI 7	462000	2310	1	18.43	19.00	1.140	-	-	0.01	0.632	0.721
	FR1 n30	10M	QPSK	50	0	DFT-SCS-15KHz	Back	5mm	Ant 1	DSI 7	462000	2310	1	20.27	21.00	1.183	-	-	-0.07	0.924	1.093
	FR1 n30	10M	QPSK	1	1	DFT-SCS-15KHz	Left Side	5mm	Ant 1	DSI 7	462000	2310	1	20.41	21.00	1.146	-	-	-0.03	0.594	0.680
	FR1 n30	10M	QPSK	25	14	DFT-SCS-15KHz	Left Side	5mm	Ant 1	DSI 7	462000	2310	1	20.36	21.00	1.159	-	-	0	0.610	0.707
	FR1 n30	10M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	5mm	Ant 1	DSI 7	462000	2310	1	20.41	21.00	1.146	-	-	-0.02	0.598	0.685
	FR1 n30	10M	QPSK	25	14	DFT-SCS-15KHz	Bottom Side	5mm	Ant 1	DSI 7	462000	2310	1	20.36	21.00	1.159	-	-	-0.07	0.731	0.847
	FR1 n30	10M	QPSK	50	0	DFT-SCS-15KHz	Bottom Side	5mm	Ant 1	DSI 7	462000	2310	1	20.27	21.00	1.183	-	-	-0.16	0.583	0.690
2600MHz																					
	LTE Band 7	20M	QPSK	1	0	-	Front	5mm	Ant 1	DSI 7	21100	2535	1	18.81	20.00	1.315	-	-	-0.12	0.445	0.585
	LTE Band 7	20M	QPSK	50	0	-	Front	5mm	Ant 1	DSI 7	21100	2535	1	18.79	20.00	1.321	-	-	-0.1	0.293	0.387
	LTE Band 7	20M	QPSK	1	0	-	Back	5mm	Ant 1	DSI 7	21100	2535	1	18.81	20.00	1.315	-	-	-0.12	0.803	1.056
	LTE Band 7	20M	QPSK	1	0	-	Back	5mm	Ant 1	DSI 7	20850	2510	1	18.74	20.00	1.337	-	-	-0.1	0.772	1.032
56	LTE Band 7	20M	QPSK	1	0	-	Back	5mm	Ant 1	DSI 7	21350	2560	1	18.73	20.00	1.340	-	-	0.07	0.923	**1.237**
	LTE Band 7 ENDC	20M	QPSK	1	0	-	Back	5mm	Ant 1	DSI 7	21350	2560	1	15.73	17.00	1.340	-	-	0.04	0.541	0.725
	LTE Band 7	20M	QPSK	50	0	-	Back	5mm	Ant 1	DSI 7	21100	2535	1	18.79	20.00	1.321	-	-	0.16	0.830	1.097

	LTE Band 7	20M	QPSK	50	0	-	Back	5mm	Ant 1	DSI 7	20850	2510	1	18.70	20.00	1.349	-	-	-0.09	0.813	1.097
	LTE Band 7	20M	QPSK	50	0	-	Back	5mm	Ant 1	DSI 7	21350	2560	1	18.66	20.00	1.361	-	-	-0.09	0.855	1.164
	LTE Band 7	20M	QPSK	100	0	-	Back	5mm	Ant 1	DSI 7	21100	2535	1	18.76	20.00	1.330	-	-	0.08	0.536	0.713
	LTE Band 7	20M	QPSK	1	0	-	Left Side	5mm	Ant 1	DSI 7	21100	2535	1	18.81	20.00	1.315	-	-	0.06	0.369	0.485
	LTE Band 7	20M	QPSK	50	0	-	Left Side	5mm	Ant 1	DSI 7	21100	2535	1	18.79	20.00	1.321	-	-	-0.07	0.238	0.314
	LTE Band 7	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 1	DSI 7	21100	2535	1	18.81	20.00	1.315	-	-	-0.11	0.510	0.671
	LTE Band 7	20M	QPSK	50	0	-	Bottom Side	5mm	Ant 1	DSI 7	21100	2535	1	18.79	20.00	1.321	-	-	-0.05	0.341	0.451
	LTE Band 7 Other PA	20M	QPSK	1	0	-	Front	5mm	Ant 4	DSI 7	21100	2535	1	11.00	12.00	1.259	-	-	-0.12	0.050	0.063
	LTE Band 7 Other PA	20M	QPSK	50	0	-	Front	5mm	Ant 4	DSI 7	21100	2535	1	10.96	12.00	1.271	-	-	0.18	0.038	0.048
	LTE Band 7 Other PA	20M	QPSK	1	0	-	Back	5mm	Ant 4	DSI 7	21100	2535	1	11.00	12.00	1.259	-	-	0.13	0.110	0.138
	LTE Band 7 Other PA	20M	QPSK	50	0	-	Back	5mm	Ant 4	DSI 7	21100	2535	1	10.96	12.00	1.271	-	-	-0.12	0.081	0.103
	LTE Band 7 Other PA	20M	QPSK	1	0	-	Left Side	5mm	Ant 4	DSI 7	21100	2535	1	11.00	12.00	1.259	-	-	-0.02	0.044	0.055
	LTE Band 7 Other PA	20M	QPSK	50	0	-	Left Side	5mm	Ant 4	DSI 7	21100	2535	1	10.96	12.00	1.271	-	-	-0.07	0.036	0.046
	LTE Band 7 Other PA	20M	QPSK	1	0	-	Top Side	5mm	Ant 4	DSI 7	21100	2535	1	11.00	12.00	1.259	-	-	0.07	0.245	0.308
	LTE Band 7 Other PA	20M	QPSK	50	0	-	Top Side	5mm	Ant 4	DSI 7	21100	2535	1	10.96	12.00	1.271	-	-	0.12	0.173	0.220
	LTE Band 41	20M	QPSK	1	0	-	Front	5mm	Ant 1	DSI 7	40620	2593	1	21.53	22.50	1.250	62.9	1.006	0.04	0.521	0.655
	LTE Band 41	20M	QPSK	1	0	-	Front	5mm	Ant 1	DSI 7	39750	2506	1	21.44	22.50	1.276	62.9	1.006	-0.02	0.389	0.500
	LTE Band 41	20M	QPSK	1	0	-	Front	5mm	Ant 1	DSI 7	40185	2549.5	1	21.50	22.50	1.259	62.9	1.006	-0.03	0.430	0.545
	LTE Band 41	20M	QPSK	1	0	-	Front	5mm	Ant 1	DSI 7	41055	2636.5	1	21.37	22.50	1.297	62.9	1.006	-0.06	0.587	0.766
	LTE Band 41	20M	QPSK	1	0	-	Front	5mm	Ant 1	DSI 7	41490	2680	1	21.47	22.50	1.268	62.9	1.006	0.08	0.577	0.736
	LTE Band 41	20M	QPSK	50	0	-	Front	5mm	Ant 1	DSI 7	40620	2593	1	20.81	22.00	1.315	62.9	1.006	-0.11	0.519	0.687
	LTE Band 41	20M	QPSK	50	0	-	Front	5mm	Ant 1	DSI 7	39750	2506	1	20.64	22.00	1.368	62.9	1.006	0.15	0.472	0.649
	LTE Band 41	20M	QPSK	50	0	-	Front	5mm	Ant 1	DSI 7	40185	2549.5	1	20.61	22.00	1.377	62.9	1.006	-0.17	0.481	0.666
	LTE Band 41	20M	QPSK	50	0	-	Front	5mm	Ant 1	DSI 7	41055	2636.5	1	20.77	22.00	1.327	62.9	1.006	-0.02	0.471	0.629
	LTE Band 41	20M	QPSK	50	0	-	Front	5mm	Ant 1	DSI 7	41490	2680	1	20.72	22.00	1.343	62.9	1.006	0.09	0.492	0.665
	LTE Band 41	20M	QPSK	100	0	-	Front	5mm	Ant 1	DSI 7	40620	2593	1	20.80	22.00	1.318	62.9	1.006	0.1	0.353	0.468
	LTE Band 41	20M	QPSK	1	0	-	Back	5mm	Ant 1	DSI 7	40620	2593	1	21.53	22.50	1.250	62.9	1.006	0.12	0.820	1.031
	LTE Band 41	20M	QPSK	1	0	-	Back	5mm	Ant 1	DSI 7	39750	2506	1	21.44	22.50	1.276	62.9	1.006	-0.01	0.825	1.059
	LTE Band 41	20M	QPSK	1	0	-	Back	5mm	Ant 1	DSI 7	40185	2549.5	1	21.50	22.50	1.259	62.9	1.006	0.14	0.825	1.045
	LTE Band 41	20M	QPSK	1	0	-	Back	5mm	Ant 1	DSI 7	41055	2636.5	1	21.37	22.50	1.297	62.9	1.006	0.12	0.931	1.215
	LTE Band 41	20M	QPSK	1	0	-	Back	5mm	Ant 1	DSI 7	41490	2680	1	21.47	22.50	1.268	62.9	1.006	-0.03	1.010	1.288
	LTE Band 41C	20M	QPSK	1	0	-	Back	5mm	Ant 1	DSI 7	41490+ 41292	2680+ 2660.2	1	21.46	22.50	1.271	62.9	1.006	0.06	0.922	1.178
	LTE Band 41	20M	QPSK	50	0	-	Back	5mm	Ant 1	DSI 7	40620	2593	1	20.81	22.00	1.315	62.9	1.006	-0.03	0.536	0.709
	LTE Band 41	20M	QPSK	50	0	-	Back	5mm	Ant 1	DSI 7	39750	2506	1	20.64	22.00	1.368	62.9	1.006	-0.06	0.542	0.746
	LTE Band 41	20M	QPSK	50	0	-	Back	5mm	Ant 1	DSI 7	40185	2549.5	1	20.61	22.00	1.377	62.9	1.006	-0.1	0.499	0.691
	LTE Band 41	20M	QPSK	50	0	-	Back	5mm	Ant 1	DSI 7	41055	2636.5	1	20.77	22.00	1.327	62.9	1.006	0.12	0.628	0.839
	LTE Band 41	20M	QPSK	50	0	-	Back	5mm	Ant 1	DSI 7	41490	2680	1	20.72	22.00	1.343	62.9	1.006	0.02	0.552	0.746
	LTE Band 41	20M	QPSK	100	0	-	Back	5mm	Ant 1	DSI 7	40620	2593	1	20.80	22.00	1.318	62.9	1.006	0.01	0.597	0.792
	LTE Band 41	20M	QPSK	1	0	-	Left Side	5mm	Ant 1	DSI 7	40620	2593	1	21.53	22.50	1.250	62.9	1.006	0.05	0.458	0.576
	LTE Band 41	20M	QPSK	50	0	-	Left Side	5mm	Ant 1	DSI 7	40620	2593	1	20.81	22.00	1.315	62.9	1.006	0.18	0.304	0.402
	LTE Band 41	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 1	DSI 7	40620	2593	1	21.53	22.50	1.250	62.9	1.006	-0.11	0.557	0.701
	LTE Band 41	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 1	DSI 7	39750	2506	1	21.44	22.50	1.276	62.9	1.006	0.04	0.485	0.623
	LTE Band 41	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 1	DSI 7	40185	2549.5	1	21.50	22.50	1.259	62.9	1.006	-0.1	0.490	0.621
	LTE Band 41	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 1	DSI 7	41055	2636.5	1	21.37	22.50	1.297	62.9	1.006	0.07	0.623	0.813
	LTE Band 41	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 1	DSI 7	41490	2680	1	21.47	22.50	1.268	62.9	1.006	0.03	0.653	0.833
	LTE Band 41	20M	QPSK	50	0	-	Bottom Side	5mm	Ant 1	DSI 7	40620	2593	1	20.81	22.00	1.315	62.9	1.006	0.04	0.535	0.708
	LTE Band 41	20M	QPSK	50	0	-	Bottom Side	5mm	Ant 1	DSI 7	39750	2506	1	20.64	22.00	1.368	62.9	1.006	-0.17	0.518	0.713
	LTE Band 41	20M	QPSK	50	0	-	Bottom Side	5mm	Ant 1	DSI 7	40185	2549.5	1	20.61	22.00	1.377	62.9	1.006	-0.13	0.520	0.720
	LTE Band 41	20M	QPSK	50	0	-	Bottom Side	5mm	Ant 1	DSI 7	41055	2636.5	1	20.77	22.00	1.327	62.9	1.006	-0.1	0.516	0.689
	LTE Band 41	20M	QPSK	50	0	-	Bottom Side	5mm	Ant 1	DSI 7	41490	2680	1	20.72	22.00	1.343	62.9	1.006	-0.04	0.518	0.700
	LTE Band 41	20M	QPSK	100	0	-	Bottom Side	5mm	Ant 1	DSI 7	40620	2593	1	20.80	22.00	1.318	62.9	1.006	0.03	0.583	0.773
57	LTE Band 41 _HPUE	20M	QPSK	1	0	-	Back	5mm	Ant 1	DSI 7	41490	2680	1	22.99	24.00	1.262	42.9	1.009	-0.08	1.070	**1.362**
	LTE Band 41C _HPUE	20M	QPSK	1	0	-	Back	5mm	Ant 1	DSI 7	41490+ 41292	2680+ 2660.2	1	22.83	24.00	1.309	42.9	1.009	0.02	0.902	1.192

	LTE Band 41 _HPUE	20M	QPSK	1	0	-	Back	5mm	Ant 1	DSI 7	41490	2680	2	22.99	24.00	1.262	42.9	1.009	0.01	0.986	1.255
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 1	DSI 7	507000	2535	1	18.93	19.50	1.140	-	-	0.13	0.556	0.634
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Front	5mm	Ant 1	DSI 7	507000	2535	1	18.82	19.50	1.169	-	-	0.15	0.592	0.692
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 1	DSI 7	507000	2535	1	18.93	19.50	1.140	-	-	-0.04	0.956	1.090
58	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Back	5mm	Ant 1	DSI 7	507000	2535	1	18.82	19.50	1.169	-	-	-0.05	1.010	**1.181**
	FR1 n7 ENDC	40M	QPSK	108	54	DFT-SCS-15KHz	Front	5mm	Ant 1	DSI 7	507000	2535	1	16.32	17.00	1.169	-	-	0.07	0.341	0.399
	FR1 n7 ENDC	40M	QPSK	108	54	DFT-SCS-15KHz	Back	5mm	Ant 1	DSI 7	507000	2535	1	16.32	17.00	1.169	-	-	-0.05	0.577	0.675
	FR1 n7	40M	QPSK	216	0	DFT-SCS-15KHz	Back	5mm	Ant 1	DSI 7	507000	2535	1	18.80	19.50	1.175	-	-	-0.19	0.862	1.013
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Left Side	5mm	Ant 1	DSI 7	507000	2535	1	18.93	19.50	1.140	-	-	-0.09	0.462	0.527
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Left Side	5mm	Ant 1	DSI 7	507000	2535	1	18.82	19.50	1.169	-	-	-0.13	0.519	0.607
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	5mm	Ant 1	DSI 7	507000	2535	1	18.93	19.50	1.140	-	-	0.18	0.606	0.691
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Bottom Side	5mm	Ant 1	DSI 7	507000	2535	1	18.82	19.50	1.169	-	-	-0.07	0.657	0.768
	FR1 n7	40M	QPSK	216	0	DFT-SCS-15KHz	Bottom Side	5mm	Ant 1	DSI 7	507000	2535	1	18.80	19.50	1.175	-	-	-0.1	0.537	0.631
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Front	5mm	Ant 1	DSI 7	518598	2592.99	1	17.89	19.00	1.291	-	-	0.07	0.569	0.735
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Front	5mm	Ant 1	DSI 7	518598	2592.99	1	17.86	19.00	1.300	-	-	-0.04	0.647	0.841
	FR1 n41	100M	QPSK	270	0	DFT-SCS-30KHz	Front	5mm	Ant 1	DSI 7	518598	2592.99	1	17.85	19.00	1.303	-	-	0.13	0.640	0.834
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Back	5mm	Ant 1	DSI 7	518598	2592.99	1	17.89	19.00	1.291	-	-	-0.03	0.822	1.061
59	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Back	5mm	Ant 1	DSI 7	518598	2592.99	1	17.86	19.00	1.300	-	-	-0.02	0.946	**1.230**
	FR1 n41 ENDC	100M	QPSK	135	69	DFT-SCS-30KHz	Front	5mm	Ant 1	DSI 7	518598	2592.99	1	14.95	16.00	1.274	-	-	0.01	0.371	0.472
	FR1 n41 ENDC	100M	QPSK	135	69	DFT-SCS-30KHz	Back	5mm	Ant 1	DSI 7	518598	2592.99	1	14.95	16.00	1.274	-	-	0.05	0.543	0.692
	FR1 n41	100M	QPSK	270	0	DFT-SCS-30KHz	Back	5mm	Ant 1	DSI 7	518598	2592.99	1	17.85	19.00	1.303	-	-	0.13	0.939	1.224
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	5mm	Ant 1	DSI 7	518598	2592.99	1	17.89	19.00	1.291	-	-	-0.11	0.465	0.600
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Left Side	5mm	Ant 1	DSI 7	518598	2592.99	1	17.86	19.00	1.300	-	-	0.09	0.562	0.731
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Bottom Side	5mm	Ant 1	DSI 7	518598	2592.99	1	17.89	19.00	1.291	-	-	-0.11	0.559	0.722
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Bottom Side	5mm	Ant 1	DSI 7	518598	2592.99	1	17.86	19.00	1.300	-	-	0.18	0.611	0.794
	FR1 n41 HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Back	5mm	Ant 1	DSI 7	518598	2592.99	1	20.94	22.00	1.276	50	1.000	0.14	0.866	1.105
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Front	5mm	Ant 4	DSI 7	518598	2592.99	1	14.20	15.00	1.202	-	-	-0.02	0.225	0.271
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Front	5mm	Ant 4	DSI 7	518598	2592.99	1	14.15	15.00	1.216	-	-	-0.08	0.219	0.266
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Back	5mm	Ant 4	DSI 7	518598	2592.99	1	14.20	15.00	1.202	-	-	-0.19	0.418	0.503
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Back	5mm	Ant 4	DSI 7	518598	2592.99	1	14.15	15.00	1.216	-	-	0.06	0.320	0.389
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	5mm	Ant 4	DSI 7	518598	2592.99	1	14.20	15.00	1.202	-	-	0.01	0.257	0.309
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Left Side	5mm	Ant 4	DSI 7	518598	2592.99	1	14.15	15.00	1.216	-	-	-0.18	0.274	0.333
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	5mm	Ant 4	DSI 7	518598	2592.99	1	14.20	15.00	1.202	-	-	0.07	0.578	0.695
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	5mm	Ant 4	DSI 7	518598	2592.99	1	14.15	15.00	1.216	-	-	-0.07	0.480	0.584
	FR1 n41 HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	5mm	Ant 4	DSI 7	518598	2592.99	1	17.04	18.00	1.247	50	1.000	-0.08	0.560	0.699
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Front	5mm	Ant 2	DSI 7	518598	2592.99	1	16.85	18.00	1.303	-	-	-0.09	0.036	0.047
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Front	5mm	Ant 2	DSI 7	518598	2592.99	1	16.79	18.00	1.321	-	-	0.03	0.029	0.038
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Back	5mm	Ant 2	DSI 7	518598	2592.99	1	16.85	18.00	1.303	-	-	0.03	0.457	0.596
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Back	5mm	Ant 2	DSI 7	518598	2592.99	1	16.79	18.00	1.321	-	-	0.02	0.465	0.614
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	5mm	Ant 2	DSI 7	518598	2592.99	1	16.85	18.00	1.303	-	-	0.19	0.116	0.151
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Left Side	5mm	Ant 2	DSI 7	518598	2592.99	1	16.79	18.00	1.321	-	-	0.16	0.105	0.139
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	5mm	Ant 2	DSI 7	518598	2592.99	1	16.85	18.00	1.303	-	-	-0.1	0.024	0.031
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	5mm	Ant 2	DSI 7	518598	2592.99	1	16.79	18.00	1.321	-	-	0.12	0.016	0.021
	FR1 n41 HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Back	5mm	Ant 2	DSI 7	518598	2592.99	1	19.81	21.00	1.315	50	1.000	-0.04	0.438	0.576
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Front	5mm	Ant 7	DSI 7	518598	2592.99	1	13.09	14.50	1.384	-	-	0	0.197	0.273
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Front	5mm	Ant 7	DSI 7	518598	2592.99	1	13.05	14.50	1.396	-	-	-0.14	0.138	0.193
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Back	5mm	Ant 7	DSI 7	518598	2592.99	1	13.09	14.50	1.384	-	-	0.05	0.495	0.685
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Back	5mm	Ant 7	DSI 7	518598	2592.99	1	13.05	14.50	1.396	-	-	0.18	0.438	0.612
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Right Side	5mm	Ant 7	DSI 7	518598	2592.99	1	13.09	14.50	1.384	-	-	-0.12	0.460	0.636
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Right Side	5mm	Ant 7	DSI 7	518598	2592.99	1	13.05	14.50	1.396	-	-	0.03	0.317	0.443
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	5mm	Ant 7	DSI 7	518598	2592.99	1	13.09	14.50	1.384	-	-	0.07	0.098	0.136
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	5mm	Ant 7	DSI 7	518598	2592.99	1	13.05	14.50	1.396	-	-	-0.15	0.066	0.092
	FR1 n41 HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Back	5mm	Ant 7	DSI 7	518598	2592.99	1	16.11	17.50	1.377	50	1.000	0.09	0.488	0.672
3500MHz																					

	LTE Band 48	20M	QPSK	1	0	-	Front	5mm	Ant 5	DSI 7	55830	3609	1	16.99	18.00	1.262	62.9	1.006	-0.17	0.196	0.249
	LTE Band 48	20M	QPSK	50	0	-	Front	5mm	Ant 5	DSI 7	55830	3609	1	16.95	18.00	1.274	62.9	1.006	-0.07	0.129	0.165
60	LTE Band 48	20M	QPSK	1	0	-	Back	5mm	Ant 5	DSI 7	55830	3609	1	16.99	18.00	1.262	62.9	1.006	0.09	0.457	**0.580**
	LTE Band 48C	20M	QPSK	1	0	-	Back	5mm	Ant 5	DSI 7	55830+ 56028	3609+ 3628.8	1	16.93	18.00	1.279	62.9	1.006	0.03	0.439	0.565
	LTE Band 48 ENDC	20M	QPSK	1	0	-	Back	5mm	Ant 5	DSI 7	55830	3609	1	14.03	15.00	1.250	62.9	1.006	0.06	0.251	0.316
	LTE Band 48	20M	QPSK	1	0	-	Back	5mm	Ant 5	DSI 7	55340	3560	1	16.87	18.00	1.297	62.9	1.006	-0.01	0.398	0.519
	LTE Band 48	20M	QPSK	1	0	-	Back	5mm	Ant 5	DSI 7	56150	3641	1	16.98	18.00	1.265	62.9	1.006	-0.17	0.340	0.433
	LTE Band 48	20M	QPSK	1	0	-	Back	5mm	Ant 5	DSI 7	56640	3690	1	16.97	18.00	1.268	62.9	1.006	-0.02	0.340	0.434
	LTE Band 48	20M	QPSK	50	0	-	Back	5mm	Ant 5	DSI 7	55830	3609	1	16.95	18.00	1.274	62.9	1.006	-0.02	0.431	0.552
	LTE Band 48	20M	QPSK	100	0	-	Back	5mm	Ant 5	DSI 7	55830	3609	1	16.85	18.00	1.303	62.9	1.006	0.01	0.428	0.561
	LTE Band 48	20M	QPSK	1	0	-	Left Side	5mm	Ant 5	DSI 7	55830	3609	1	16.99	18.00	1.262	62.9	1.006	-0.06	0.026	0.033
	LTE Band 48	20M	QPSK	50	0	-	Left Side	5mm	Ant 5	DSI 7	55830	3609	1	16.95	18.00	1.274	62.9	1.006	0	0.018	0.023
	LTE Band 48	20M	QPSK	1	0	-	Right Side	5mm	Ant 5	DSI 7	55830	3609	1	16.99	18.00	1.262	62.9	1.006	-0.04	0.104	0.132
	LTE Band 48	20M	QPSK	50	0	-	Right Side	5mm	Ant 5	DSI 7	55830	3609	1	16.95	18.00	1.274	62.9	1.006	-0.05	0.069	0.088
	LTE Band 48	20M	QPSK	1	0	-	Top Side	5mm	Ant 5	DSI 7	55830	3609	1	16.99	18.00	1.262	62.9	1.006	0.15	0.303	0.385
	LTE Band 48	20M	QPSK	50	0	-	Top Side	5mm	Ant 5	DSI 7	55830	3609	1	16.95	18.00	1.274	62.9	1.006	-0.17	0.257	0.329
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Front	5mm	Ant 5	DSI 7	641666	3624.99	1	14.45	15.50	1.274	-	-	0.04	0.294	0.374
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Front	5mm	Ant 5	DSI 7	641666	3624.99	1	14.35	15.50	1.303	-	-	0.02	0.287	0.374
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Back	5mm	Ant 5	DSI 7	641666	3624.99	1	14.45	15.50	1.274	-	-	-0.14	0.352	0.448
61	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Back	5mm	Ant 5	DSI 7	641666	3624.99	1	14.35	15.50	1.303	-	-	0.02	0.502	**0.654**
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Left Side	5mm	Ant 5	DSI 7	641666	3624.99	1	14.45	15.50	1.274	-	-	-0.19	0.032	0.041
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Left Side	5mm	Ant 5	DSI 7	641666	3624.99	1	14.35	15.50	1.303	-	-	0.11	0.044	0.057
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Right Side	5mm	Ant 5	DSI 7	641666	3624.99	1	14.45	15.50	1.274	-	-	0.16	0.080	0.102
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Right Side	5mm	Ant 5	DSI 7	641666	3624.99	1	14.35	15.50	1.303	-	-	-0.08	0.106	0.138
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Top Side	5mm	Ant 5	DSI 7	641666	3624.99	1	14.45	15.50	1.274	-	-	0.17	0.277	0.353
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Top Side	5mm	Ant 5	DSI 7	641666	3624.99	1	14.35	15.50	1.303	-	-	-0.12	0.389	0.507
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Front	5mm	Ant 5	DSI 7	656000	3840	1	13.61	14.50	1.227	-	-	0.11	0.175	0.215
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Front	5mm	Ant 5	DSI 7	656000	3840	1	13.55	14.50	1.245	-	-	0.08	0.164	0.204
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Back	5mm	Ant 5	DSI 7	656000	3840	1	13.61	14.50	1.227	-	-	0.09	0.366	0.449
	FR1 n77 ENDC	100M	QPSK	1	1	DFT-SCS-30KHz	Back	5mm	Ant 5	DSI 7	656000	3840	1	10.66	11.50	1.213	-	-	0.08	0.193	0.234
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Right Side	5mm	Ant 5	DSI 7	656000	3840	1	10.66	11.50	1.213	-	-	0.01	0.051	0.062
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Back	5mm	Ant 5	DSI 7	656000	3840	1	13.55	14.50	1.245	-	-	-0.01	0.309	0.385
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	5mm	Ant 5	DSI 7	656000	3840	1	13.61	14.50	1.227	-	-	0.09	0.032	0.039
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Left Side	5mm	Ant 5	DSI 7	656000	3840	1	13.55	14.50	1.245	-	-	-0.04	0.042	0.052
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Right Side	5mm	Ant 5	DSI 7	656000	3840	1	13.61	14.50	1.227	-	-	-0.1	0.090	0.110
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Right Side	5mm	Ant 5	DSI 7	656000	3840	1	13.55	14.50	1.245	-	-	0.04	0.097	0.121
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	5mm	Ant 5	DSI 7	656000	3840	1	13.61	14.50	1.227	-	-	-0.01	0.296	0.363
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	5mm	Ant 5	DSI 7	656000	3840	1	13.55	14.50	1.245	-	-	0.06	0.311	0.387
	FR1 n77 HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Back	5mm	Ant 5	DSI 7	656000	3840	1	16.61	17.50	1.227	50	1.000	-0.17	0.354	0.435
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Front	5mm	Ant 5	DSI 7	633332	3499.98	1	13.08	14.50	1.387	-	-	-0.16	0.238	0.330
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Front	5mm	Ant 5	DSI 7	633332	3499.98	1	13.06	14.50	1.393	-	-	-0.14	0.230	0.320
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Back	5mm	Ant 5	DSI 7	633332	3499.98	1	13.08	14.50	1.387	-	-	-0.01	0.432	0.599
	FR1 n77 ENDC	100M	QPSK	1	1	DFT-SCS-30KHz	Back	5mm	Ant 5	DSI 7	633332	3499.98	1	10.17	11.50	1.358	-	-	0.01	0.199	0.270
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Right Side	5mm	Ant 5	DSI 7	633332	3499.98	1	10.17	11.50	1.358	-	-	0.01	0.097	0.132
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Back	5mm	Ant 5	DSI 7	633332	3499.98	1	13.06	14.50	1.393	-	-	0.12	0.366	0.510
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	5mm	Ant 5	DSI 7	633332	3499.98	1	13.08	14.50	1.387	-	-	0.19	0.048	0.067
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Left Side	5mm	Ant 5	DSI 7	633332	3499.98	1	13.06	14.50	1.393	-	-	-0.1	0.039	0.054
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Right Side	5mm	Ant 5	DSI 7	633332	3499.98	1	13.08	14.50	1.387	-	-	0.06	0.122	0.169
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Right Side	5mm	Ant 5	DSI 7	633332	3499.98	1	13.06	14.50	1.393	-	-	0.05	0.122	0.170
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	5mm	Ant 5	DSI 7	633332	3499.98	1	13.08	14.50	1.387	-	-	-0.03	0.350	0.485
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	5mm	Ant 5	DSI 7	633332	3499.98	1	13.06	14.50	1.393	-	-	-0.17	0.313	0.436
	FR1 n77 HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Back	5mm	Ant 5	DSI 7	633332	3499.98	1	16.18	17.50	1.355	50	1.000	-0.13	0.430	0.583
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Front	5mm	Ant 1	DSI 7	656000	3840	1	14.53	16.00	1.403	-	-	0.03	0.105	0.147
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Front	5mm	Ant 1	DSI 7	656000	3840	1	14.45	16.00	1.429	-	-	-0.02	0.126	0.180

	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Back	5mm	Ant 1	DSI 7	656000	3840	1	14.53	16.00	1.403	-	-	-0.17	0.657	0.922
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Back	5mm	Ant 1	DSI 7	656000	3840	1	14.45	16.00	1.429	-	-	-0.18	0.947	1.353
62	FR1 n77	100M	QPSK	270	0	DFT-SCS-30KHz	Back	5mm	Ant 1	DSI 7	656000	3840	1	14.34	16.00	1.466	-	-	-0.02	0.950	**1.392**
	FR1 n77	100M	QPSK	270	0	DFT-SCS-30KHz	Back	5mm	Ant 1	DSI 7	656000	3840	2	14.34	16.00	1.466	-	-	0.05	0.777	1.139
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	5mm	Ant 1	DSI 7	656000	3840	1	14.53	16.00	1.403	-	-	-0.05	0.165	0.231
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Left Side	5mm	Ant 1	DSI 7	656000	3840	1	14.45	16.00	1.429	-	-	-0.03	0.178	0.254
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Bottom Side	5mm	Ant 1	DSI 7	656000	3840	1	14.53	16.00	1.403	-	-	0.05	0.239	0.335
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Bottom Side	5mm	Ant 1	DSI 7	656000	3840	1	14.45	16.00	1.429	-	-	-0.12	0.308	0.440
	FR1 n77 HPUE	100M	QPSK	270	0	DFT-SCS-30KHz	Back	5mm	Ant 1	DSI 7	656000	3840	1	17.35	19.00	1.462	50	1.000	-0.13	0.951	1.391
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Front	5mm	Ant 1	DSI 7	633332	3499.98	1	15.57	16.00	1.104	-	-	0.11	0.139	0.153
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Front	5mm	Ant 1	DSI 7	633332	3499.98	1	15.54	16.00	1.112	-	-	0.14	0.116	0.129
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Back	5mm	Ant 1	DSI 7	633332	3499.98	1	15.57	16.00	1.104	-	-	0.18	0.263	0.290
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Back	5mm	Ant 1	DSI 7	633332	3499.98	1	15.54	16.00	1.112	-	-	-0.09	0.307	0.341
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Back	5mm	Ant 1	DSI 7	633332	3499.98	2	15.54	16.00	1.112	-	-	0.01	0.232	0.258
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	5mm	Ant 1	DSI 7	633332	3499.98	1	15.57	16.00	1.104	-	-	0.16	0.120	0.132
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Left Side	5mm	Ant 1	DSI 7	633332	3499.98	1	15.54	16.00	1.112	-	-	0.16	0.095	0.106
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Bottom Side	5mm	Ant 1	DSI 7	633332	3499.98	1	15.57	16.00	1.104	-	-	0	0.251	0.277
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Bottom Side	5mm	Ant 1	DSI 7	633332	3499.98	1	15.54	16.00	1.112	-	-	0.15	0.270	0.300
	FR1 n77 HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Back	5mm	Ant 1	DSI 7	633332	3499.98	1	18.47	19.00	1.130	50	1.000	-0.03	0.286	0.323
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Front	5mm	Ant 2	DSI 7	656000	3840	1	12.33	13.00	1.167	-	-	0.12	0.023	0.027
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Front	5mm	Ant 2	DSI 7	656000	3840	1	12.23	13.00	1.194	-	-	0.09	0.019	0.023
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Back	5mm	Ant 2	DSI 7	656000	3840	1	12.33	13.00	1.167	-	-	0.01	0.587	0.685
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Back	5mm	Ant 2	DSI 7	656000	3840	1	12.23	13.00	1.194	-	-	-0.13	0.522	0.623
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	5mm	Ant 2	DSI 7	656000	3840	1	12.33	13.00	1.167	-	-	0.1	0.137	0.160
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Left Side	5mm	Ant 2	DSI 7	656000	3840	1	12.23	13.00	1.194	-	-	0.06	0.181	0.216
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	5mm	Ant 2	DSI 7	656000	3840	1	12.33	13.00	1.167	-	-	0.13	0.021	0.025
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	5mm	Ant 2	DSI 7	656000	3840	1	12.23	13.00	1.194	-	-	0.11	0.014	0.017
	FR1 n77 HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Back	5mm	Ant 2	DSI 7	656000	3840	1	15.26	16.00	1.186	50	1.000	0.11	0.577	0.684
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Front	5mm	Ant 2	DSI 7	633332	3499.98	1	12.43	13.00	1.140	-	-	-0.01	0.021	0.024
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Front	5mm	Ant 2	DSI 7	633332	3499.98	1	12.29	13.00	1.178	-	-	0.15	0.018	0.021
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Back	5mm	Ant 2	DSI 7	633332	3499.98	1	12.43	13.00	1.140	-	-	0.14	0.222	0.253
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Back	5mm	Ant 2	DSI 7	633332	3499.98	1	12.29	13.00	1.178	-	-	-0.04	0.226	0.266
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	5mm	Ant 2	DSI 7	633332	3499.98	1	12.43	13.00	1.140	-	-	0	0.086	0.098
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Left Side	5mm	Ant 2	DSI 7	633332	3499.98	1	12.29	13.00	1.178	-	-	0.18	0.074	0.087
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	5mm	Ant 2	DSI 7	633332	3499.98	1	12.43	13.00	1.140	-	-	-0.02	0.020	0.023
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	5mm	Ant 2	DSI 7	633332	3499.98	1	12.29	13.00	1.178	-	-	0.11	0.020	0.024
	FR1 n77 HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Back	5mm	Ant 2	DSI 7	633332	3499.98	1	15.24	16.00	1.191	50	1.000	-0.07	0.206	0.245
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Front	5mm	Ant 8	DSI 7	656000	3840	1	12.33	13.50	1.309	-	-	0.14	0.040	0.052
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Front	5mm	Ant 8	DSI 7	656000	3840	1	12.21	13.50	1.346	-	-	0.12	0.048	0.065
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Back	5mm	Ant 8	DSI 7	656000	3840	1	12.33	13.50	1.309	-	-	0.1	0.387	0.507
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Back	5mm	Ant 8	DSI 7	656000	3840	1	12.21	13.50	1.346	-	-	-0.02	0.493	0.664
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Right Side	5mm	Ant 8	DSI 7	656000	3840	1	12.33	13.50	1.309	-	-	-0.17	0.280	0.367
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Right Side	5mm	Ant 8	DSI 7	656000	3840	1	12.21	13.50	1.346	-	-	0.12	0.225	0.303
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	5mm	Ant 8	DSI 7	656000	3840	1	12.33	13.50	1.309	-	-	-0.09	0.041	0.054
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	5mm	Ant 8	DSI 7	656000	3840	1	12.21	13.50	1.346	-	-	-0.17	0.046	0.062
	FR1 n77 HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Back	5mm	Ant 8	DSI 7	656000	3840	1	15.27	16.50	1.327	50	1.000	0.15	0.455	0.604
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Front	5mm	Ant 8	DSI 7	633332	3499.98	1	12.01	13.50	1.409	-	-	-0.11	0.016	0.023
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Front	5mm	Ant 8	DSI 7	633332	3499.98	1	11.93	13.50	1.435	-	-	-0.14	0.016	0.023
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Back	5mm	Ant 8	DSI 7	633332	3499.98	1	12.01	13.50	1.409	-	-	0.14	0.186	0.262
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Back	5mm	Ant 8	DSI 7	633332	3499.98	1	11.93	13.50	1.435	-	-	0.03	0.130	0.187
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Right Side	5mm	Ant 8	DSI 7	633332	3499.98	1	12.01	13.50	1.409	-	-	-0.16	0.068	0.096
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Right Side	5mm	Ant 8	DSI 7	633332	3499.98	1	11.93	13.50	1.435	-	-	-0.11	0.056	0.080
	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	5mm	Ant 8	DSI 7	633332	3499.98	1	12.01	13.50	1.409	-	-	0.05	0.009	0.013
	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	5mm	Ant 8	DSI 7	633332	3499.98	1	11.93	13.50	1.435	-	-	-0.02	0.012	0.017
	FR1 n77 HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Back	5mm	Ant 8	DSI 7	633332	3499.98	1	15.08	16.50	1.387	50	1.000	-0.08	0.184	0.255
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Front	5mm	Ant 2	DSI 7	650000	3750	1	12.72	14.00	1.343	-	-	0.11	0.245	0.329

	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Front	5mm	Ant 2	DSI 7	650000	3750	1	12.64	14.00	1.368	-	-	0.12	0.146	0.200
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Back	5mm	Ant 2	DSI 7	650000	3750	1	12.72	14.00	1.343	-	-	0.04	0.471	0.632
63	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Back	5mm	Ant 2	DSI 7	650000	3750	1	12.64	14.00	1.368	-	-	-0.05	0.489	**0.669**
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	5mm	Ant 2	DSI 7	650000	3750	1	12.72	14.00	1.343	-	-	0.03	0.156	0.209
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Left Side	5mm	Ant 2	DSI 7	650000	3750	1	12.64	14.00	1.368	-	-	0.06	0.161	0.220
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	5mm	Ant 2	DSI 7	650000	3750	1	12.72	14.00	1.343	-	-	0.03	0.082	0.110
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	5mm	Ant 2	DSI 7	650000	3750	1	12.64	14.00	1.368	-	-	-0.17	0.106	0.145
	FR1 n78 HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Back	5mm	Ant 2	DSI 7	650000	3750	1	15.57	17.00	1.390	50	1.000	0.13	0.478	0.664
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Front	5mm	Ant 2	DSI 7	633334	3500.01	1	12.65	14.00	1.365	-	-	0.14	0.055	0.075
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Front	5mm	Ant 2	DSI 7	633334	3500.01	1	12.63	14.00	1.371	-	-	-0.17	0.143	0.196
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Back	5mm	Ant 2	DSI 7	633334	3500.01	1	12.65	14.00	1.365	-	-	0.15	0.180	0.246
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Back	5mm	Ant 2	DSI 7	633334	3500.01	1	12.63	14.00	1.371	-	-	-0.1	0.263	0.361
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	5mm	Ant 2	DSI 7	633334	3500.01	1	12.65	14.00	1.365	-	-	-0.17	0.072	0.098
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Left Side	5mm	Ant 2	DSI 7	633334	3500.01	1	12.63	14.00	1.371	-	-	0.11	0.169	0.232
	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	5mm	Ant 2	DSI 7	633334	3500.01	1	12.65	14.00	1.365	-	-	-0.18	0.046	0.063
	FR1 n78	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	5mm	Ant 2	DSI 7	633334	3500.01	1	12.63	14.00	1.371	-	-	-0.14	0.102	0.140
	FR1 n78 HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Back	5mm	Ant 2	DSI 7	633334	3500.01	1	15.64	17.00	1.368	50	1.000	0.06	0.238	0.326

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Sample	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	5mm	Ant 6	Simultaneous	6	2437	1	13.90	15.50	1.445	99.36	1.006	-0.18	0.195	0.284
	WLAN2.4GHz	802.11b 1Mbps	Back	5mm	Ant 6	Simultaneous	6	2437	1	13.90	15.50	1.445	99.36	1.006	0.12	0.332	0.483
	WLAN2.4GHz	802.11b 1Mbps	Right Side	5mm	Ant 6	Simultaneous	6	2437	1	13.90	15.50	1.445	99.36	1.006	-0.17	0.201	0.292
	WLAN2.4GHz	802.11b 1Mbps	Top Side	5mm	Ant 6	Simultaneous	6	2437	1	13.90	15.50	1.445	99.36	1.006	0.14	0.224	0.326
64	WLAN2.4GHz	802.11b 1Mbps	Back	5mm	Ant 6	Simultaneous	11	2462	1	13.69	15.50	1.517	99.36	1.006	0.01	0.374	**0.571**
	WLAN2.4GHz	802.11b 1Mbps	Back	5mm	Ant 6	Simultaneous	11	2462	2	13.69	15.50	1.517	99.36	1.006	0.08	0.354	0.540
	Bluetooth	1Mbps	Front	5mm	Ant 6	Simultaneous	39	2441	1	12.84	14.00	1.306	76.99	1.082	0.02	0.127	0.179
65	Bluetooth	1Mbps	Back	5mm	Ant 6	Simultaneous	39	2441	1	12.84	14.00	1.306	76.99	1.082	0.01	0.214	**0.302**
	Bluetooth	1Mbps	Right Side	5mm	Ant 6	Simultaneous	39	2441	1	12.84	14.00	1.306	76.99	1.082	-0.04	0.125	0.177
	Bluetooth	1Mbps	Top Side	5mm	Ant 6	Simultaneous	39	2441	1	12.84	14.00	1.306	76.99	1.082	0.05	0.147	0.208
5000MHz																	
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Front	5mm	Ant 6	Simultaneous	42	5210	1	10.36	12.00	1.459	92.71	1.079	-0.17	0.156	0.246
66	WLAN5.2GHz	802.11ac-VHT80 MCS0	Back	5mm	Ant 6	Simultaneous	42	5210	1	10.36	12.00	1.459	92.71	1.079	0.12	0.379	**0.597**
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Right Side	5mm	Ant 6	Simultaneous	42	5210	1	10.36	12.00	1.459	92.71	1.079	0.06	0.211	0.332
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Top Side	5mm	Ant 6	Simultaneous	42	5210	1	10.36	12.00	1.459	92.71	1.079	-0.08	0.324	0.510
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Front	5mm	Ant 6	Simultaneous	155	5775	1	10.55	12.00	1.396	92.71	1.079	-0.13	0.058	0.087
67	WLAN5.8GHz	802.11ac-VHT80 MCS0	Back	5mm	Ant 6	Simultaneous	155	5775	1	10.55	12.00	1.396	92.71	1.079	0.09	0.377	**0.568**
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Side	5mm	Ant 6	Simultaneous	155	5775	1	10.55	12.00	1.396	92.71	1.079	-0.03	0.376	0.567
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Top Side	5mm	Ant 6	Simultaneous	155	5775	1	10.55	12.00	1.396	92.71	1.079	-0.07	0.104	0.157

15.3 Body Worn Accessory SAR

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Headset	Power State	Ch.	Freq. (MHz)	Sample	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 71	20M	QPSK	1	0	-	Front	5mm	Ant 0	-	DSI 3	133297	680.5	1	22.91	24.00	1.285	-	-	0.09	0.253	0.325
	LTE Band 71	20M	QPSK	50	0	-	Front	5mm	Ant 0	-	DSI 3	133297	680.5	1	21.87	23.00	1.297	-	-	-0.02	0.138	0.179
	LTE Band 71	20M	QPSK	1	0	-	Back	5mm	Ant 0	-	DSI 3	133297	680.5	1	22.91	24.00	1.285	-	-	-0.01	0.427	0.549
	LTE Band 71	20M	QPSK	50	0	-	Back	5mm	Ant 0	-	DSI 3	133297	680.5	1	21.87	23.00	1.297	-	-	-0.07	0.233	0.302
	LTE Band 71	20M	QPSK	1	0	-	Front	5mm	Ant 4	-	DSI 3	133297	680.5	1	22.82	24.00	1.312	-	-	-0.16	0.208	0.273
	LTE Band 71	20M	QPSK	50	0	-	Front	5mm	Ant 4	-	DSI 3	133297	680.5	1	21.75	23.00	1.334	-	-	-0.03	0.134	0.179
68	LTE Band 71	20M	QPSK	1	0	-	Back	5mm	Ant 4	-	DSI 3	133297	680.5	1	22.82	24.00	1.312	-	-	0.04	0.531	**0.697**
	LTE Band 71	20M	QPSK	50	0	-	Back	5mm	Ant 4	-	DSI 3	133297	680.5	1	21.75	23.00	1.334	-	-	0.03	0.330	0.440
	LTE Band 12	10M	QPSK	1	0	-	Front	5mm	Ant 0	-	DSI 3	23095	707.5	1	23.05	24.00	1.245	-	-	0.1	0.410	0.510
	LTE Band 12	10M	QPSK	25	0	-	Front	5mm	Ant 0	-	DSI 3	23095	707.5	1	21.86	23.00	1.300	-	-	0.03	0.214	0.278
69	LTE Band 12 ENDC&UL_CA	10M	QPSK	1	0	-	Back	5mm	Ant 0	-	DSI 3	23095	707.5	1	23.05	24.00	1.245	-	-	0.01	0.585	**0.728**
	LTE Band 12	10M	QPSK	25	0	-	Back	5mm	Ant 0	-	DSI 3	23095	707.5	1	21.86	23.00	1.300	-	-	0.06	0.328	0.426
	LTE Band 12 Main PA -1	10M	QPSK	1	0	-	Back	5mm	Ant 0	-	DSI 3	23095	707.5	1	23.24	24.00	1.191	-	-	-0.03	0.421	0.502
	LTE Band 12	10M	QPSK	1	0	-	Front	5mm	Ant 4	-	DSI 3	23095	707.5	1	22.69	23.50	1.205	-	-	0.11	0.209	0.252
	LTE Band 12	10M	QPSK	25	0	-	Front	5mm	Ant 4	-	DSI 3	23095	707.5	1	21.58	23.00	1.387	-	-	0.08	0.120	0.166
	LTE Band 12	10M	QPSK	1	0	-	Back	5mm	Ant 4	-	DSI 3	23095	707.5	1	22.69	23.50	1.205	-	-	0.08	0.587	0.707
	LTE Band 12 ENDC	10M	QPSK	1	0	-	Front	5mm	Ant 4	-	DSI 3	23095	707.5	1	21.35	22.00	1.161	-	-	0.04	0.143	0.166
	LTE Band 12 ENDC	10M	QPSK	1	0	-	Back	5mm	Ant 4	-	DSI 3	23095	707.5	1	21.35	22.00	1.161	-	-	0.01	0.390	0.453
	LTE Band 12	10M	QPSK	25	0	-	Back	5mm	Ant 4	-	DSI 3	23095	707.5	1	21.58	23.00	1.387	-	-	0.07	0.352	0.488
	LTE Band 12	10M	QPSK	50	0	-	Back	5mm	Ant 4	-	DSI 3	23095	707.5	1	21.51	23.00	1.409	-	-	0.09	0.335	0.472
	LTE Band 12 Main PA -1	10M	QPSK	1	0	-	Back	5mm	Ant 4	-	DSI 3	23095	707.5	1	22.92	23.50	1.143	-	-	-0.12	0.277	0.317
	LTE Band 12	10M	QPSK	1	0	-	Front	17mm	Ant 4	-	DSI 4	23095	707.5	1	22.69	24.00	1.352	-	-	0.04	0.118	0.160
	LTE Band 12	10M	QPSK	1	0	-	Back	21mm	Ant 4	-	DSI 4	23095	707.5	1	22.69	24.00	1.352	-	-	-0.01	0.129	0.174
	LTE Band 13	10M	QPSK	1	0	-	Front	5mm	Ant 0	-	DSI 3	23230	782	1	22.98	24.00	1.265	-	-	0.1	0.613	0.775
	LTE Band 13	10M	QPSK	25	0	-	Front	5mm	Ant 0	-	DSI 3	23230	782	1	21.88	23.00	1.294	-	-	-0.16	0.332	0.430
70	LTE Band 13	10M	QPSK	1	0	-	Back	5mm	Ant 0	-	DSI 3	23230	782	1	22.98	24.00	1.265	-	-	-0.05	0.973	**1.231**
	LTE Band 13	10M	QPSK	1	0	-	Front	5mm	Ant 0	-	DSI 3	23230	782	1	22.60	23.50	1.230	-	-	0.09	0.381	0.469
	LTE Band 13 ENDC&UL_CA	10M	QPSK	1	0	-	Back	5mm	Ant 0	-	DSI 3	23230	782	1	22.60	23.50	1.230	-	-	0.02	0.592	0.728
	LTE Band 13	10M	QPSK	1	0	-	Back	5mm	Ant 0	Headset	DSI 3	23230	782	1	22.98	24.00	1.265	-	-	0.03	0.954	1.207
	LTE Band 13	10M	QPSK	25	0	-	Back	5mm	Ant 0	-	DSI 3	23230	782	1	21.88	23.00	1.294	-	-	0.17	0.523	0.677
	LTE Band 13	10M	QPSK	50	0	-	Back	5mm	Ant 0	-	DSI 3	23230	782	1	21.81	23.00	1.315	-	-	0.12	0.523	0.688
	LTE Band 13 Main PA -1	10M	QPSK	1	0	-	Back	5mm	Ant 0	-	DSI 3	23230	782	1	22.94	24.00	1.276	-	-	-0.11	0.327	0.417
	LTE Band 13	10M	QPSK	1	0	-	Front	17mm	Ant 0	-	DSI 4	23230	782	1	22.98	24.00	1.265	-	-	0.04	0.199	0.252
	LTE Band 13	10M	QPSK	1	0	-	Back	21mm	Ant 0	-	DSI 4	23230	782	1	22.98	24.00	1.265	-	-	0.06	0.216	0.273
	LTE Band 13	10M	QPSK	1	0	-	Front	5mm	Ant 4	-	DSI 3	23230	782	1	22.78	23.50	1.180	-	-	-0.12	0.440	0.519
	LTE Band 13	10M	QPSK	25	0	-	Front	5mm	Ant 4	-	DSI 3	23230	782	1	21.72	23.00	1.343	-	-	-0.1	0.241	0.324
	LTE Band 13	10M	QPSK	1	0	-	Back	5mm	Ant 4	-	DSI 3	23230	782	1	22.78	23.50	1.180	-	-	0.06	0.758	0.895
	LTE Band 13 UL CA	10M	QPSK	1	0	-	Front	5mm	Ant 4	-	DSI 3	23230	782	1	22.33	23.00	1.167	-	-	0.02	0.413	0.482
	LTE Band 13 UL CA	10M	QPSK	1	0	-	Back	5mm	Ant 4	-	DSI 3	23230	782	1	22.33	23.00	1.167	-	-	0.09	0.613	0.715
	LTE Band 13 ENDC	10M	QPSK	1	0	-	Front	5mm	Ant 4	-	DSI 3	23230	782	1	20.31	21.00	1.172	-	-	0.04	0.230	0.270
	LTE Band 13 ENDC	10M	QPSK	1	0	-	Back	5mm	Ant 4	-	DSI 3	23230	782	1	20.31	21.00	1.172	-	-	0.01	0.390	0.457
	LTE Band 13	10M	QPSK	25	0	-	Back	5mm	Ant 4	-	DSI 3	23230	782	1	21.72	23.00	1.343	-	-	0.16	0.419	0.563
	LTE Band 13	10M	QPSK	50	0	-	Back	5mm	Ant 4	-	DSI 3	23230	782	1	21.67	23.00	1.358	-	-	-0.09	0.424	0.576
	LTE Band 13 Main PA -1	10M	QPSK	1	0	-	Back	5mm	Ant 4	-	DSI 3	23230	782	1	22.51	23.50	1.256	-	-	-0.09	0.497	0.624
	LTE Band 13	10M	QPSK	1	0	-	Front	17mm	Ant 4	-	DSI 4	23230	782	1	22.78	24.00	1.324	-	-	-0.08	0.102	0.135
	LTE Band 13	10M	QPSK	1	0	-	Back	21mm	Ant 4	-	DSI 4	23230	782	1	22.78	24.00	1.324	-	-	0.05	0.106	0.140
	LTE Band 14	10M	QPSK	1	0	-	Front	5mm	Ant 0	-	DSI 3	23330	793	1	23.01	24.00	1.256	-	-	0.08	0.663	0.833
	LTE Band 14	10M	QPSK	25	0	-	Front	5mm	Ant 0	-	DSI 3	23330	793	1	21.85	23.00	1.303	-	-	0.06	0.365	0.476

	LTE Band 14	10M	QPSK	50	0	-	Front	5mm	Ant 0	-	DSI 3	23330	793	1	21.82	23.00	1.312	-	-	0.1	0.358	0.470
71	LTE Band 14	10M	QPSK	1	0	-	Back	5mm	Ant 0	-	DSI 3	23330	793	1	23.01	24.00	1.256	-	-	0.04	1.030	**1.294**
	LTE Band 14	10M	QPSK	1	0	-	Front	5mm	Ant 0	-	DSI 3	23330	793	1	21.56	22.50	1.242	-	-	0.09	0.391	0.485
	LTE Band 14 ENDC&UL_CA	10M	QPSK	1	0	-	Back	5mm	Ant 0	-	DSI 3	23330	793	1	21.56	22.50	1.242	-	-	0.01	0.567	0.704
	LTE Band 14	10M	QPSK	1	0	-	Back	5mm	Ant 0	Headset	DSI 3	23330	793	1	23.01	24.00	1.256	-	-	0.01	0.986	1.238
	LTE Band 14	10M	QPSK	25	0	-	Back	5mm	Ant 0	-	DSI 3	23330	793	1	21.85	23.00	1.303	-	-	0.1	0.589	0.768
	LTE Band 14	10M	QPSK	50	0	-	Back	5mm	Ant 0	-	DSI 3	23330	793	1	21.82	23.00	1.312	-	-	-0.07	0.586	0.769
	LTE Band 14 Main PA -1	10M	QPSK	1	0	-	Back	5mm	Ant 0	-	DSI 3	23330	793	1	23.02	24.00	1.253	-	-	0.12	0.718	0.900
	LTE Band 14	10M	QPSK	1	0	-	Front	17mm	Ant 0	-	DSI 4	23330	793	1	23.01	24.00	1.256	-	-	0.09	0.234	0.294
	LTE Band 14	10M	QPSK	1	0	-	Back	21mm	Ant 0	-	DSI 4	23330	793	1	23.01	24.00	1.256	-	-	0.04	0.293	0.368
	LTE Band 14	10M	QPSK	1	0	-	Front	5mm	Ant 4	-	DSI 3	23330	793	1	22.81	24.00	1.315	-	-	0.08	0.265	0.349
	LTE Band 14	10M	QPSK	25	0	-	Front	5mm	Ant 4	-	DSI 3	23330	793	1	21.77	23.00	1.327	-	-	0.15	0.142	0.188
	LTE Band 14	10M	QPSK	1	0	-	Back	5mm	Ant 4	-	DSI 3	23330	793	1	22.81	24.00	1.315	-	-	0.08	0.561	0.738
	LTE Band 14 ENDC	10M	QPSK	1	0	-	Front	5mm	Ant 4	-	DSI 3	23330	793	1	21.78	22.50	1.180	-	-	0.03	0.173	0.204
	LTE Band 14 ENDC	10M	QPSK	1	0	-	Back	5mm	Ant 4	-	DSI 3	23330	793	1	21.78	22.50	1.180	-	-	0.07	0.371	0.438
	LTE Band 14	10M	QPSK	25	0	-	Back	5mm	Ant 4	-	DSI 3	23330	793	1	21.77	23.00	1.327	-	-	-0.11	0.261	0.346
	LTE Band 14	10M	QPSK	50	0	-	Back	5mm	Ant 4	-	DSI 3	23330	793	1	21.65	23.00	1.365	-	-	-0.05	0.239	0.326
	LTE Band 14 Main PA -1	10M	QPSK	1	0	-	Back	5mm	Ant 4	-	DSI 3	23330	793	1	22.73	24.00	1.340	-	-	0.02	0.407	0.545
	LTE Band 14	10M	QPSK	1	0	-	Front	17mm	Ant 4	-	DSI 4	23330	793	1	22.81	24.00	1.315	-	-	0.06	0.116	0.153
	LTE Band 14	10M	QPSK	1	0	-	Back	21mm	Ant 4	-	DSI 4	23330	793	1	22.81	24.00	1.315	-	-	-0.09	0.120	0.158
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 0	-	DSI 3	136100	680.5	1	23.24	24.00	1.191	-	-	-0.05	0.193	0.230
	FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Front	5mm	Ant 0	-	DSI 3	136100	680.5	1	23.18	24.00	1.208	-	-	-0.11	0.231	0.279
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 0	-	DSI 3	136100	680.5	1	23.24	24.00	1.191	-	-	0.03	0.398	0.474
72	FR1 n71 ENDC	20M	QPSK	50	28	DFT-SCS-15KHz	Back	5mm	Ant 0	-	DSI 3	136100	680.5	1	23.18	24.00	1.208	-	-	0.02	0.408	**0.493**
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 4	-	DSI 3	136100	680.5	1	23.05	23.50	1.109	-	-	0.05	0.117	0.130
	FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Front	5mm	Ant 4	-	DSI 3	136100	680.5	1	22.97	23.50	1.130	-	-	-0.14	0.171	0.193
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 4	-	DSI 3	136100	680.5	1	23.05	23.50	1.109	-	-	-0.17	0.295	0.327
	FR1 n71 ENDC	20M	QPSK	50	28	DFT-SCS-15KHz	Back	5mm	Ant 4	-	DSI 3	136100	680.5	1	22.97	23.50	1.130	-	-	0.04	0.402	0.454
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 0	-	DSI 3	141500	707.5	1	23.13	24.00	1.222	-	-	0.05	0.258	0.315
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Front	5mm	Ant 0	-	DSI 3	141500	707.5	1	23.04	24.00	1.247	-	-	0.13	0.260	0.324
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 0	-	DSI 3	141500	707.5	1	23.13	24.00	1.222	-	-	0.02	0.438	0.535
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Back	5mm	Ant 0	-	DSI 3	141500	707.5	1	23.04	24.00	1.247	-	-	0.05	0.413	0.515
	FR1 n12 Main PA -1	15M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 0	-	DSI 3	141500	707.5	1	22.93	24.00	1.279	-	-	-0.03	0.417	0.534
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 4	-	DSI 3	141500	707.5	1	23.23	24.00	1.194	-	-	-0.12	0.195	0.233
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Front	5mm	Ant 4	-	DSI 3	141500	707.5	1	23.15	24.00	1.216	-	-	0	0.218	0.265
73	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 4	-	DSI 3	141500	707.5	1	23.23	24.00	1.194	-	-	-0.03	0.534	**0.638**
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Back	5mm	Ant 4	-	DSI 3	141500	707.5	1	23.15	24.00	1.216	-	-	0.18	0.474	0.576
	FR1 n12 Main PA -1	15M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 4	-	DSI 3	141500	707.5	1	23.06	24.00	1.242	-	-	0.1	0.493	0.612
	FR1 n14 SA	10M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 0	-	DSI 3	158600	793	1	23.08	24.00	1.236	-	-	-0.05	0.377	0.466
	FR1 n14 SA	10M	QPSK	25	14	DFT-SCS-15KHz	Front	5mm	Ant 0	-	DSI 3	158600	793	1	22.98	24.00	1.265	-	-	-0.01	0.370	0.468
	FR1 n14 SA	10M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 0	-	DSI 3	158600	793	1	23.08	24.00	1.236	-	-	0.02	0.692	0.855
74	FR1 n14 SA	10M	QPSK	25	14	DFT-SCS-15KHz	Back	5mm	Ant 0	-	DSI 3	158600	793	1	22.98	24.00	1.265	-	-	0.03	0.715	**0.904**
	FR1 n14 SA	10M	QPSK	50	0	DFT-SCS-15KHz	Back	5mm	Ant 0	-	DSI 3	158600	793	1	22.13	23.00	1.222	-	-	0.07	0.537	0.656
	FR1 n14 SA	10M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 4	-	DSI 3	158600	793	1	22.63	24.00	1.371	-	-	-0.18	0.235	0.322
	FR1 n14 SA	10M	QPSK	25	14	DFT-SCS-15KHz	Front	5mm	Ant 4	-	DSI 3	158600	793	1	22.45	24.00	1.429	-	-	0.06	0.230	0.329
	FR1 n14 SA	10M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 4	-	DSI 3	158600	793	1	22.63	24.00	1.371	-	-	0.15	0.321	0.440
	FR1 n14 SA	10M	QPSK	25	14	DFT-SCS-15KHz	Back	5mm	Ant 4	-	DSI 3	158600	793	1	22.45	24.00	1.429	-	-	-0.01	0.447	0.639
835MHz																						
	GSM850	-	-	-	-	GPRS (2 Tx slots)	Front	5mm	Ant 0	-	DSI 3	189	836.4	1	28.20	29.50	1.349	-	-	-0.06	0.441	0.595
75	GSM850	-	-	-	-	GPRS (2 Tx slots)	Back	5mm	Ant 0	-	DSI 3	189	836.4	1	28.20	29.50	1.349	-	-	0.1	0.973	**1.313**
	GSM850	-	-	-	-	GPRS (2 Tx slots)	Back	5mm	Ant 0	Headset	DSI 3	189	836.4	1	28.20	29.50	1.349	-	-	0.03	0.949	1.280
	GSM850	-	-	-	-	GPRS (2 Tx slots)	Back	5mm	Ant 0	-	DSI 3	128	824.2	1	27.93	29.50	1.435	-	-	-0.05	0.880	1.263
	GSM850	-	-	-	-	GPRS (2 Tx slots)	Back	5mm	Ant 0	-	DSI 3	251	848.8	1	27.88	29.50	1.452	-	-	0.02	0.865	1.256
	GSM850	-	-	-	-	GPRS (2 Tx slots)	Front	17mm	Ant 0	-	DSI 4	189	836.4	1	31.10	32.00	1.230	-	-	0.1	0.259	0.319