FCC SAR Test Report

APPLICANT	: Xiaomi Communications Co., Ltd.
EQUIPMENT	: Mobile Phone
BRAND NAME	: POCO
MODEL NAME	: 2311DRK48G
FCC ID	: 2AFZZK48G
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

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

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Revision History

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FA391402	Rev. 01	Initial issue of report.	Nov. 06, 2023

1. Statement of Compliance

The maximum results of Specific Absorption Rate (SAR) found during testing for **Xiaomi Communications Co., Ltd., Mobile Phone, 2311DRK48G,** are as follows.

Highest 1g SAR Summary						
Equipment Class	Frequency Band		Head (Separation 0mm)	Hotspot (Separation 10mm)	Body-worn (Separation 15mm)	Highest Simultaneous Transmission 1g SAR (W/kg)
			1g SAR (W/kg)			
Licensed	GSM	GSM850	0.65	0.36	0.24	1.59
		GSM1900	0.97	0.97	0.37	
	WCDMA	WCDMA II	**1.09**	0.81	0.69	
		WCDMA IV	1.08	1.00	0.55	
		WCDMA V	1.04	0.31	0.20	
	LTE	LTE Band 2	1.08	0.87	0.86	
		LTE Band 5	1.02	0.37	0.24	
		LTE Band 7	1.06	0.53	0.75	
		LTE Band 41/38	1.07	0.57	0.54	
		LTE Band 48	0.98	**1.07**	0.47	
		LTE Band 66/4	1.06	0.97	0.67	
	5G NR	FR1 n2	1.06	0.50	0.84	
		FR1 n5	1.03	0.36	0.24	
		FR1 n7	**1.09**	0.57	0.94	
		FR1 n38	1.05	0.68	0.88	
		FR1 n41	1.08	0.67	0.53	
		FR1 n48	1.00	0.91	0.75	
		FR1 n77	1.07	0.93	**1.02**	
		FR1 n78	1.08	0.84	0.96	
DTS	WLAN	2.4GHz WLAN	**1.09**	0.89	0.38	1.59
NII		5GHz WLAN	1.07	1.05	0.56	1.59
DSS	Bluetooth	2.4GHz Bluetooth	0.49	0.24	<0.10	1.57

Highest 10g SAR Summary				
Equipment Class	Frequency Band		Product Specific 10g SAR (W/kg) (Separation 0mm)	Highest Simultaneous Transmission 10g SAR (W/kg)
NII	WLAN	5GHz WLAN	**2.46**	3.29
Date of Testing:			2023/9/25~ 2023/10/16	

Remark:
1. This device supports LTE B4 / B38 and B66 / B41. Since the supported frequency span for LTE B4 / B38 falls completely within the supports frequency span for LTE B4 / 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 B66 / B41.
2. This device supports 5GNR n38/n78 and n41/77. Since the supported frequency span for 5GNR n38/n78 falls completely within the supports frequency span for n41/n77, both 5GNR bands have the same target power, and both 5GNR bands share the same transmission path; therefore, SAR was only assessed for n41/n77.

Declaration of Conformity:
The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.

Comments and Explanations:
The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

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

2. Administration Data

Sporton International Inc. (Kunshan) is accredited to ISO/IEC 17025:2017 by American Association for Laboratory Accreditation with Certificate Number 5145.01.

Testing Laboratory			
Test Firm	Sporton International Inc. (Kunshan)		
Test Site Location	No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300 People's Republic of China TEL : +86-512-57900158		
Test Site No.	Sporton Site No.	FCC Designation No.	FCC Test Firm Registration No.
	SAR04-KS	CN1257	314309

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

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

3. Guidance Applied

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

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

4. Equipment Under Test (EUT) Information

4.1 General Information

Product Feature & Specification	
Equipment Name	Mobile Phone
Brand Name	POCO
Model Name	2311DRK48G
FCC ID	2AFZZK48G
IMEI Code	IMEI 1: 863478060052440 IMEI 2: 863478060052457
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 38: 2570 MHz ~ 2620 MHz LTE Band 41: 2496 MHz ~ 2690 MHz LTE Band 66: 1710 MHz ~ 1780 MHz LTE Band 48: 3550 MHz ~ 3700 MHz 5G NR n2: 1850 MHz ~ 1910 MHz 5G NR n5: 824 MHz ~ 849 MHz 5G NR n7: 2500 MHz ~ 2570 MHz 5G NR n38: 2570 MHz ~ 2620 MHz 5G NR n41: 2496 MHz ~ 2690 MHz 5G NR 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 2.4GHz 802.11ax HE20/HE40 WLAN 5GHz 802.11a/n HT20/HT40 WLAN 5GHz 802.11ac/ax VHT20/VHT40/VHT80/VHT160/HE20/HE40/HE80/HE160 Bluetooth BR/EDR/LE NFC: ASK
HW Version	1351N11A
SW Version	Xiaomi HyperOS 1.0
GSM / (E)GPRS Transfer mode	Class B – EUT cannot support Packet Switched and Circuit Switched Network simultaneously but can automatically switch between Packet and Circuit Switched Network.
EUT Stage	Identical Prototype
Remark: 1. This device supports VoIP in GPRS, EGPRS, WCDMA 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. The 2.4GHz/5GHz WLAN can transmit in SISO and MIMO antenna mode.
5. This device does not support DTM operation and supports GPRS/EGPRS mode up to multi-slot class 12.
6. For dual SIM card mobile has two SIM slots and supports dual SIM dual standby. The WWAN radio transmission will be enabled by either one SIM at a time (single active). After pre-scan two SIM cards power, we found test result of the SIM1 was the worse, so we chose SIM1 slot to perform all tests.
7. The device implements the power management and proximity sensor/receiver detection/hotspot mode for SAR compliance at different exposure conditions (head, body-worn, hotspot, extremity) and the MediaTek TA-SAR will manage to ensure the power level not exceeding the associated power table. Details about the power management decision and sensor detection are provided in the operational description. And the device will invoke corresponding work scenarios power level base on frequency bands/antennas, which can refer to power table at appendix E.
8. For WLAN transmitter, while the device WLAN is transmitting simultaneously with the WWAN/BT antenna, the device power will be reduced power at head, Body-worn, hotspot and extremity exposure conditions.
9. 5GNR n41/n77/n78 supports HPUE mode, HPUE power and SAR testing performed separately.
10. 5GNR n41/n77/n78 HPUE with higher power. For HPUE power is higher than power class 3 but with lower duty cycle, the maximum average power for class 2 and class 3 is almost the same, so we chose power class 3 full SAR testing and power class 2 verify the worst case of power class 3 SAR.
11. For 5GNR n41/n77/n78 HPUE, 5GNR n77/n78 PC2 Maximum Duty Cycle is 50%, using FTM (Factory Test Mode) with 50% duty cycle is considered during SAR testing. For 5G NR other bands, using FTM to perform SAR with default 100% transmission.
12. For 5GNR FDD/TDD supports SCS15KHz and SCS30KHz, after verification for 30KHz at FDD power level is less than 15KHz at FDD power level, also verification for 15KHz at TDD power level is less than 30KHz at TDD power level, so only show 15KHz at FDD power and 30KHz at TDD power and chose higher power which is SCS15KHz for FDD bands and SCS30KHz for TDD bands to perform SAR testing.
13. There are three samples, the sample 1 is 12+512G capacity with Plastic Case, the sample 2 is 8+256G capacity with Plastic Case and the sample 3 is 12+512G capacity with PU Case. According to the differences, sample 1 was chosen to perform full test.
14. This device has NFC function and the NFC SAR report will be separately submitted.
15. 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)
SA	n2	FDD	15	5, 10, 15, 20, 25, 30, 35, 40
		FDD	30	10, 15, 20, 25, 30, 35, 40
	n5	FDD	15	5, 10, 15, 20
		FDD	30	10, 15, 20
	n7	FDD	15	5, 10, 15, 20, 25, 30, 35, 40, 50
		FDD	30	10, 15, 20, 25, 30, 35, 40, 50
	n38	TDD	15	5,10,15, 20, 25, 30, 40
		TDD	30	10,15, 20, 25, 30, 40
	n41	TDD	15	5,10, 15, 20, 25, 30, 35,40, 45, 50
		TDD	30	10, 15, 20, 25, 30, 35,40, 45, 50, 60, 70, 80, 90, 100
	n48	TDD	15	10, 15, 20, 30, 40
		TDD	30	10, 15, 20, 30, 40
	n77	TDD	15	10, 15, 20, 25, 30, 40, 50
		TDD	30	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100
	n78	TDD	15	10, 15, 20, 25, 30, 40, 50
		TDD	30	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100
NSA	n5	FDD	15	5, 10, 15, 20
		FDD	30	10, 15, 20
	n7	FDD	15	5, 10, 15, 20, 25, 30, 35, 40, 50
		FDD	30	10, 15, 20, 25, 30, 35, 40, 50
	n41	TDD	15	5,10, 15, 20, 25, 30, 35,40, 45, 50
		TDD	30	10, 15, 20, 25, 30, 35,40, 45, 50, 60, 70, 80, 90, 100
	n78	TDD	15	10, 15, 20, 25, 30, 40, 50
		TDD	30	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100

4.2 General LTE SAR Test and Reporting Considerations

<table>
<tr><th colspan="2">Summarized necessary items addressed in KDB 941225 D05 v02r05</th></tr>
<tr><td>FCC ID</td><td>2AFZZK48G</td></tr>
<tr><td>Equipment Name</td><td>Mobile Phone</td></tr>
<tr><td>Operating Frequency Range of each LTE transmission band</td><td>LTE Band 2: 1850 MHz ~ 1910 MHz
LTE Band 4: 1710 MHz ~ 1755 MHz
LTE Band 5: 824 MHz ~ 849 MHz
LTE Band 7: 2500 MHz ~ 2570 MHz
LTE Band 38: 2570 MHz ~ 2620 MHz
LTE Band 41: 2496 MHz ~ 2690 MHz
LTE Band 66: 1710 MHz ~ 1780 MHz
LTE Band 48: 3550 MHz ~ 3700 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 38: 5MHz, 10MHz, 15MHz, 20MHz
LTE Band 41: 5MHz, 10MHz, 15MHz, 20MHz
LTE Band 66:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz
LTE Band 48: 5MHz, 10MHz, 15MHz, 20MHz</td></tr>
<tr><td>uplink modulations used</td><td>QPSK / 16QAM / 64QAM / 256QAM</td></tr>
<tr><td>LTE Voice / Data requirements</td><td>Voice and Data</td></tr>
<tr><td>LTE Release Version</td><td>R15, Cat18</td></tr>
<tr><td>CA Support</td><td>Supported, Uplink and Downlink</td></tr>
<tr><td>LTE MPR permanently built-in by design</td><td>Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 1, 2 and 3
<table>
<tr><th rowspan="2">Modulation</th><th colspan="6">Channel bandwidth / Transmission bandwidth (N_{RB})</th><th rowspan="2">MPR (dB)</th></tr>
<tr><th>1.4 MHz</th><th>3.0 MHz</th><th>5 MHz</th><th>10 MHz</th><th>15 MHz</th><th>20 MHz</th></tr>
<tr><td>QPSK</td><td>> 5</td><td>> 4</td><td>> 8</td><td>> 12</td><td>> 16</td><td>> 18</td><td>≤ 1</td></tr>
<tr><td>16 QAM</td><td>≤ 5</td><td>≤ 4</td><td>≤ 8</td><td>≤ 12</td><td>≤ 16</td><td>≤ 18</td><td>≤ 1</td></tr>
<tr><td>16 QAM</td><td>> 5</td><td>> 4</td><td>> 8</td><td>> 12</td><td>> 16</td><td>> 18</td><td>≤ 2</td></tr>
<tr><td>64 QAM</td><td>≤ 5</td><td>≤ 4</td><td>≤ 8</td><td>≤ 12</td><td>≤ 16</td><td>≤ 18</td><td>≤ 2</td></tr>
<tr><td>64 QAM</td><td>> 5</td><td>> 4</td><td>> 8</td><td>> 12</td><td>> 16</td><td>> 18</td><td>≤ 3</td></tr>
<tr><td>256 QAM</td><td colspan="6">≥ 1</td><td>≤ 5</td></tr>
</table></td></tr>
<tr><td>LTE A-MPR</td><td>In the base station simulator configuration, Network Setting value is set to NS_01 to disable A-MPR during SAR testing and the LTE SAR tests was transmitting on all TTI frames (Maximum TTI)</td></tr>
<tr><td>Spectrum plots for RB configuration</td><td>A properly configured base station simulator was used for the SAR and power measurement; therefore, spectrum plots for each RB allocation and offset configuration are not included in the SAR report.</td></tr>
<tr><td>Power reduction applied to satisfy SAR compliance</td><td>Yes, when operating in Proximity sensors/receiver/hotspot detect mechanism, head/body -worn /hotspot/extremity will trigger reduced power for some bands applied to satisfy SAR compliance, the detail please referred to section 14.</td></tr>
<tr><td>LTE Carrier Aggregation Combinations</td><td>Inter-Band and Intra-Band possible combinations and the detail power verification please referred to section 14.</td></tr>
<tr><td>LTE Carrier Aggregation Additional Information</td><td>1. This device supports LTE Carrier Aggregation (CA) in the uplink for intra-band with two component carriers in the uplink. SAR Measurements and conducted powers were evaluated per FCC Guidance.
2. This device supports maximum of 3 carriers in the downlink and 2 carriers in the uplink.</td></tr>
</table>

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

LTE Band 2

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

LTE Band 4

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

LTE Band 5

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

LTE Band 7

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

LTE Band 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 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 4	Yes	Yes	Yes	Yes	Yes	Yes
LTE Band 66	Yes	Yes	Yes	Yes	Yes	Yes
LTE Band 38			Yes	Yes	Yes	Yes
LTE Band 41			Yes	Yes	Yes	Yes

2) LTE Bands tune up

Band	Antenna	Default	ECI 1	ECI 4	ECI 5	ECI 3
		Tune up Limit	Tune up Limit	Tune up Limit	Tune up Limit	Tune up Limit
LTE Band 4	Ant1	25.5	19.5	25.5	19.5	22.5
LTE Band 66		25.5	19.5	25.5	19.5	22.5
LTE Band 4	Ant2	25.7	25.7	25.7	22.7	22.7
LTE Band 66		25.7	25.7	25.7	22.2	22.2
LTE Band 4	Ant4	25.7	20.2	23.7	20.2	23.7
LTE Band 66		25.7	20.2	23.7	20.2	23.7
LTE Band 38	ANT1	25.5	20.5	25.5	20.5	23.5
LTE Band 38 Other PA		25.7	20.7	25.7	20.7	23.7
LTE Band 41	ANT1	25.7	20.7	25.7	20.7	23.7
LTE Band 41 Other PA		25.7	20.7	25.7	20.7	23.7
LTE Band 38	ANT2	25.7	25.7	25.7	22.2	22.2
LTE Band 38 Other PA		25.7	25.7	25.7	22.2	22.2
LTE Band 41	ANT2	25.7	25.7	25.7	23.2	23.2
LTE Band 41 Other PA		25.7	25.7	25.7	23.2	23.2
LTE Band 38	ANT3	25.7	22.7	25.7	22.7	25.2
LTE Band 41		25.7	20.7	25.7	20.7	23.2
LTE Band 38	ANT4	25.7	22.2	24.2	22.2	24.2
LTE Band 38 Other PA		25.7	22.2	24.2	22.2	24.2
LTE Band 41	ANT4	25.7	22.7	23.7	22.7	23.7
LTE Band 41 Other PA		25.7	22.7	23.7	22.7	23.7

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 n38: 2570 MHz ~ 2620 MHz 5G NR n41: 2496 MHz ~ 2690 MHz 5G NR n48: 3550 MHz ~ 3700 MHz 5G NR n77: 3450 MHz ~ 3550 MHz, 3700 MHz ~ 3980 MHz 5G NR n78: 3450 MHz ~ 3550 MHz, 3700 MHz ~ 3800 MHz
Channel Bandwidth	The detail please refers to section 4.1 5GNR FR1 bands table.
SCS	FDD/TDD: SCS15KHz/SCS30KHz
uplink modulations used	DFT-s-OFDM: PI/2 BPSK / QPSK / 16QAM / 64QAM / 256QAM CP-OFDM: QPSK / 16QAM / 64QAM / 256QAM
A-MPR (Additional MPR) disabled for SAR Testing?	Yes
LTE Anchor Bands for n5	LTE B7
LTE Anchor Bands for n7	LTE B7
LTE Anchor Bands for n41	LTE B41
LTE Anchor Bands for n78	LTE B2/5/7/38/41

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

NR Band 2 SCS15KHz

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

NR Band 2 SCS30KHz

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

NR Band 5 SCS15KHz

	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 5 SCS30KHz

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

NR Band 7 SCS15KHz

	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 35MHz		Bandwidth 40MHz		Bandwidth 50MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	500500	2502.5	501000	2505	501500	2507.5	502000	2510	502500	2512.5	503000	2515	503500	2517.5	504000	2520	505000	2525
M	507000	2535	507000	2535	507000	2535	507000	2535	507000	2535	507000	2535	507000	2535	507000	2535	507000	2535
H	513500	2567.5	513000	2565	512500	2562.5	512000	2560	511500	2557.5	511000	2555	510500	2552.5	510000	2550	509000	2545

NR Band 7 SCS30KHz

	Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 35MHz		Bandwidth 40MHz		Bandwidth 50MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	501000	2505	501500	2507.5	502000	2510	502500	2512.5	503000	2515	503500	2517.5	504000	2520	505000	2525
M	507000	2535	507000	2535	507000	2535	507000	2535	507000	2535	507000	2535	507000	2535	507000	2535
H	513000	2565	512500	2562.5	512000	2560	511500	2557.5	511000	2555	510500	2552.5	510000	2550	509000	2545

NR Band 38 SCS15KHz														
	Bandwidth5MHz		Bandwidth10MHz		Bandwidth 15MHz		Bandwidth20MHz		Bandwidth25MHz		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	514500	2572.5	515004	2575.02	515502	2577.51	516000	2580	516504	2582.52	517002	2585.01	518004	2590.02
M	519000	2595	519000	2595	519000	2595	519000	2595	519000	2595	519000	2595	519000	2595
H	523500	2617.5	522996	2614.98	522498	2612.49	522000	2610	521496	2607.48	520998	2604.99	519996	2599.98

NR Band 38 SCS30KHz												
	Bandwidth10MHz		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)
L	515004	2575.02	515502	2577.51	516000	2580	516504	2582.52	517002	2585.01	518004	2590.02
M	519000	2595	519000	2595	519000	2595	519000	2595	519000	2595	519000	2595
H	522996	2614.98	522498	2612.49	522000	2610	521496	2607.48	520998	2604.99	519996	2599.98

NR Band 41 SCS15KHz																		
	Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 35MHz		Bandwidth 40MHz		Bandwidth 45MHz		Bandwidth 50MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	500202	2501.01	500700	2503.5	501204	2506.02	501702	2508.51	502200	2511	502704	2513.52	503202	2516.01	503700	2518.5	504204	2521.02
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	537000	2685	536496	2682.48	535998	2679.99	535500	2677.5	534996	2674.98	534498	2672.49	534000	2670	533496	2667.48	532998	2664.99

NR Band 41 SCS30KHz																								
	Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 35MHz		Bandwidth 40MHz		Bandwidth 45MHz		Bandwidth 50MHz		Bandwidth 60MHz		Bandwidth 70MHz		Bandwidth 80MHz		Bandwidth 90MHz		Bandwidth 100MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	500202	2501.01	500700	2503.5	501204	2506.02	501702	2508.51	502200	2511	502704	2513.52	503202	2516.01	503700	2518.5	504204	2521.02	505200	2526	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	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99
H	537000	2685	536496	2682.48	535998	2679.99	535500	2677.5	534996	2674.98	534498	2672.49	534000	2670	533496	2667.48	532998	2664.99	531996	2659.98	537000	2685	529998	2649.99	528996	2644.98	528000	2640

NR Band 48 SCS15Hz										
	Bandwidth 10MHz		Bandwidth15MHz		Bandwidth 20MHz		Bandwidth 30MHz		Bandwidth 40MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	637000	3555	637168	3557.52	637334	3560.01	637668	3565.02	638000	3570
M	641666	3624.99	641666	3624.99	641666	3624.99	641666	3624.99	641666	3624.99
H	646332	3694.98	646166	3692.49	646000	3690	645666	3684.99	645332	3679.98

NR Band 48 SCS30Hz										
	Bandwidth 10MHz		Bandwidth15MHz		Bandwidth 20MHz		Bandwidth 30MHz		Bandwidth 40MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	637000	3555	637168	3557.52	637334	3560.01	637668	3565.02	638000	3570
M	641666	3624.99	641666	3624.99	641666	3624.99	641666	3624.99	641666	3624.99
H	646332	3694.98	646166	3692.49	646000	3690	645666	3684.99	645332	3679.98

NR Band 77 SCS15KHz														
	Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 50MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	647000	3705	647168	3707.52	647334	3710.01	647500	3712.5	647668	3715.02	648000	3720	648334	3725.01
M	656000	3840	656000	3840	656000	3840	656000	3840.00	656000	3840.00	656000	3840	656000	3840
H	665000	3975	664832	3972.48	664666	3969.99	664500	3967.50	664332	3964.98	664000	3960	663666	3954.99

NR Band 77 SCS30KHz																								
	Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 50MHz		Bandwidth 60MHz		Bandwidth 70MHz		Bandwidth 80MHz		Bandwidth 90MHz		Bandwidth 100MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	647000	3705	647168	3707.52	647334	3710.01	647500	3712.5	647668	3715.02	648000	3720	648334	3725.01	648668	3730.02	649000	3735	649334	3740.01	649668	3745.02	650000	3750
M	656000	3840	656000	3840	656000	3840	656000	3840.00	656000	3840.00	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840
H	665000	3975	664832	3972.48	664666	3969.99	664500	3967.50	664332	3964.98	664000	3960	663666	3954.99	663332	3949.98	663000	3945	662666	3939.99	662332	3934.98	662000	3930

NR Band 78 SCS15KHz														
	Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 50MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	647000	3705	647168	3707.52	647334	3710.01	647500	3712.5	647668	3715.02	648000	3720	648334	3725.01
M	650000	3750	650000	3750	650000	3750	650000	3750.00	650000	3750.00	650000	3750	650000	3750
H	653000	3795	652834	3792.51	652668	3790.02	652500	3787.5	652334	3785.01	652000	3780	651668	3775.02

NR Band 78 SCS30KHz																						
	Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 50MHz		Bandwidth 60MHz		Bandwidth 70MHz		Bandwidth 80MHz		Bandwidth 90MHz		Bandwidth 100MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	647000	3705	647168	3707.52	647334	3710.01	647500	3712.5	647668	3715.02	648000	3720	648334	3725.01	648668	3730.02	649000	3735	649334	3740.01	649668	3745.02		
M	650000	3750	650000	3750	650000	3750	650000	3750.00	650000	3750.00	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750
H	653000	3795	652834	3792.51	652668	3790.02	652500	3787.5	652334	3785.01	652000	3780	651668	3775.02	651334	3770.01	651000	3765	650668	3760.02	650334	3755.01		

For <3450 MHz ~ 3550 MHz >

NR Band 77 SCS15KHz														
	Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 50MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	630334	3455.01	630500	3457.5	630668	3460.02	630834	3462.51	631000	3465	631334	3470.01	631668	3475.02
M	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01
H	636334	3545.01	636168	3542.52	636000	3540	635834	3537.51	635668	3535.02	635334	3530.01	635000	3525

NR Band 77 SCS30KHz																						
	Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 50MHz		Bandwidth 60MHz		Bandwidth 70MHz		Bandwidth 80MHz		Bandwidth 90MHz		Bandwidth 100MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	630334	3455.01	630500	3457.5	630668	3460.02	630834	3462.51	631000	3465	631334	3470.01	631668	3475.02	632000	3480	632334	3485.01	632668	3490.02	633000	3495		
M	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01
H	636334	3545.01	636168	3542.52	636000	3540	635834	3537.51	635668	3535.02	635334	3530.01	635000	3525	634668	3520.02	634334	3515.01	634000	3510	633668	3505.02		

NR Band 78 SCS15KHz														
	Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 50MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	630334	3455.01	630500	3457.5	630668	3460.02	630834	3462.51	631000	3465	631334	3470.01	631668	3475.02
M	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01
H	636334	3545.01	636168	3542.52	636000	3540	635834	3537.51	635668	3535.02	635334	3530.01	635000	3525

NR Band 78 SCS30KHz																						
	Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 50MHz		Bandwidth 60MHz		Bandwidth 70MHz		Bandwidth 80MHz		Bandwidth 90MHz		Bandwidth 100MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	630334	3455.01	630500	3457.5	630668	3460.02	630834	3462.51	631000	3465	631334	3470.01	631668	3475.02	632000	3480	632334	3485.01	632668	3490.02	633000	3495		
M	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01
H	636334	3545.01	636168	3542.52	636000	3540	635834	3537.51	635668	3535.02	635334	3530.01	635000	3525	634668	3520.02	634334	3515.01	634000	3510	633668	3505.02		

<For NR Overlap Bands Description>

1) NR Bands BW

Band	10 MHz	15 MHz	20 MHz	25 MHz	30 MHz	35 MHz	40 MHz	45 MHz	50 MHz	60 MHz	70 MHz	80 MHz	90 MHz	100 MHz
FR1 n38	Yes	Yes	Yes	Yes	Yes		Yes							
FR1 n41	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
FR1 n77	Yes	Yes	Yes	Yes	Yes		Yes		Yes	Yes	Yes	Yes	Yes	Yes
FR1 n78	Yes	Yes	Yes	Yes	Yes		Yes		Yes	Yes	Yes	Yes	Yes	Yes

2) NR Bands Tune up:

Band	Antenna	Default	ECI 1	ECI 4	ECI 5	ECI 3
		Tune up Limit	Tune up Limit	Tune up Limit	Tune up Limit	Tune up Limit
FR1 n38	Ant 1	25.7	18.7	25.7	18.7	22.2
FR1 n41		23	17.5	23	17.5	21.5
FR1 n38	Ant 2	25.7	25.7	25.7	20.2	20.2
FR1 n41		23.5	23.5	23.5	19.5	19.5
FR1 n38	Ant 3	25.7	19.7	25.7	19.7	21.7
FR1 n41		24	19.5	24	19.5	20.5
FR1 n38	Ant 4	25.7	20.7	22.2	20.7	22.2
FR1 n41		23.5	20.5	20.5	20.5	20.5
FR1 n77	Ant 5	23.5	16.5	23.5	16.5	18
FR1 n77 PC2		26.5	19.5	26.5	19.5	21
FR1 n78	Ant 5	24.5	16	24.5	16	18.5
FR1 n78 PC2		27.5	19	27.5	19	21.5
FR1 n77	Ant 6	24	17.5	18.5	17.5	18.5
FR1 n77 PC2		27	20.5	21.5	20.5	21.5
FR1 n78	Ant 6	25	18	18.5	18	18.5
FR1 n78 PC2		27.5	21	21.5	21	21.5
FR1 n77	Ant 7	22	21	21	14.5	14.5
FR1 n77 PC2		25	24	24	17.5	17.5
FR1 n78	Ant 7	25	21.5	24	20.5	20.5
FR1 n78 PC2		26.5	24.5	26.5	23.5	23.5
FR1 n77	Ant 8	22.5	19.5	21.5	17.5	18.5
FR1 n77 PC2		25.5	22.5	24.5	20.5	21.5
FR1 n78	Ant 8	25	18.5	21	18.5	19
FR1 n78 PC2		26.5	21.5	24	21.5	22

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

5. TA-SAR feature for RF Exposure compliance

WWAN bands are all enabled with MediaTek TA-SAR feature. This feature performs time averaging algorithm in real time to control and manage transmitting power and ensure the time-averaged RF exposure is in compliance with FCC requirements all the time. Note that WLAN operations are not enabled with TA-SAR feature.

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

The purpose of this report (Part 1 test) is to demonstrate that the EUT meets FCC SAR limits when transmitting in static transmission scenario at maximum allowable time-averaged power levels.

The Plimit values correspond to SAR_design_target. The power will be fixed at the static reduce power level at different exposure conditions for RF exposure compliance. For the GSM (TDD) Plimit power levels in the table correspond to the burst average power levels which don't account for TX duty cycle.

This report describes the procedures for the SAR char generation, and the parameters obtained from SAR characterization (referred to as SAR char, respectively) will be used as input for TA-SAR algorithm. SAR char will be entered via the MediaTek's NV suggestion to enable the TA-SAR Feature.

<Terminologies in this report>

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

<SAR Characterization>

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

<WWAN bands and located Antennas>

Tech_Band_Antenna for Main PA				
Band	Main Antenna	AUX1 Antenna	AUX2 Antenna	AUX3 Antenna
GSM 850	ANT0	ANT1		
GSM 1900	ANT2	ANT1		
WCDMA B5	ANT0	ANT1		
WCDMA B2/4	ANT2	ANT1		
LTE B5	ANT0	ANT1		
LTE B2/4/7/66	ANT1	ANT4	ANT2	
LTE 38/41	ANT1	ANT4	ANT2	ANT3
LTE 48	ANT5	ANT8	ANT6	ANT7
5G NR n5	ANT0	ANT1		
5G NR n2/7	ANT1	ANT4	ANT2	
5G 38/41	ANT1	ANT4	ANT2	ANT3
5G NR n48/77/78	ANT5	ANT8	ANT6	ANT7

Tech_Band_Antenna for Other PA				
Band	Main Antenna	AUX1 Antenna	AUX2 Antenna	AUX3 Antenna
LTE B5/	ANT0	ANT1		
LTE B2/7	ANT2	ANT4	ANT1	
38/41	ANT2	ANT4	ANT1	

<Uncertainty>

Total Uncertainty for Main PA				
Tech	Antenna	Total Uncertainty (dB)	Description	
			Antenna Number	Frequency
GSM	Main	1.00	ANT0	Fre < 1GHz
		1.00	ANT2	1GHz < Fre < 2GHz
	AUX1	1.50	ANT1	All Frequency
WCDMA	Main	1.00	ANT0	Fre < 1GHz
		1.00	ANT2	1GHz < Fre < 2GHz
	AUX1	1.50	ANT1	All Frequency
LTE	Main	0.70	ANT0	All Frequency
		1.00	ANT1	1GHz < Fre < 2GHz&Band7&38
		0.70	ANT1	Band41
		1.00	ANT5	Fre>3GHz
	Aux 1	0.70	ANT1	Fre < 1GHz
		1.20	ANT4	1GHz < Fre < 2GHz&Band38
		1.50	ANT4	Band7
		0.70	ANT4	Band41
		1.50	ANT8	Fre>3GHz
	Aux 2	1.20	ANT2	1GHz < Fre < 2GHz&Band38
		1.50	ANT2	Band7
		0.70	ANT2	Band41
		1.50	ANT6	Fre>3GHz
	Aux 3	1.20	ANT3	Band38
		0.70	ANT3	Band41
		1.50	ANT7	Fre>3GHz
5GNR	Main	0.70	ANT0	All Frequency
		1.00	ANT1	1GHz < Fre < 2GHz&FR1 n41
		0.70	ANT1	FR1 n7/38
		1.00	ANT5	Fre>3GHz
	Aux 1	0.70	ANT1	Fre < 1GHz
		1.20	ANT4	1GHz < Fre < 2GHz
		0.70	ANT4	FR1 n7/38
		1.50	ANT4	FR1 n41
		1.50	ANT8	Fre>3GHz
	Aux 2	1.20	ANT2	1GHz < Fre < 2GHz
		0.70	ANT2	FR1 n7/38
		1.50	ANT2	FR1 n41
		1.50	ANT6	Fre>3GHz
	Aux 3	0.70	ANT3	FR1 n38
		1.50	ANT3	FR1 n41
		1.50	ANT7	Fre>3GHz

Total Uncertainty for Other PA				
Tech	Antenna	Total Uncertainty (dB)	Description	
			Antenna Number	Frequency
LTE	Main	1.00	ANT0	All Frequency
		1.00	ANT2	1GHz < Fre < 2GHz
		0.70	ANT2	2GHz < Fre < 3GHz
	Aux 1	1.00	ANT1	Fre < 1GHz
		1.20	ANT4	1GHz < Fre < 2GHz
		0.70	ANT4	2GHz < Fre < 3GHz
	Aux 2	1.50	ANT1	1GHz < Fre < 2GHz
		0.70	ANT1	2GHz < Fre < 3GHz

Note: The mark "Fre" means that Frequency in above tables.

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

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

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

TA-SAR allows the device to transmit at higher power instantaneously, as high as Pmax, when needed, but enforces power limiting to maintain time-averaged transmit power to Plimit.

<P_{limit} for supported technologies and bands>

Band	Antenna	Head ECI 1	Hotspot ECI 5	Body-worn ECI 4	Extremity ECI 3	Pmax*
GSM850	Ant 0	30.10	28.80	30.60	24.00	24.0
GSM850	Ant 1	26.30	30.70	33.30	24.00	24.0
GSM1900	Ant 1	18.00	18.00	26.20	18.50	21.5
GSM1900	Ant 2	30.10	21.00	26.70	20.50	20.5
WCDMA II	Ant 1	18.00	18.00	25.90	21.00	24.0
WCDMA II	Ant 2	30.40	20.50	26.80	20.50	23.5
WCDMA VI	Ant 1	18.50	18.50	27.70	21.50	24.0
WCDMA VI	Ant 2	29.50	21.50	26.50	21.50	23.5
WCDMA V	Ant 0	30.50	29.50	31.50	24.00	24.0
WCDMA V	Ant 1	23.50	23.50	32.40	24.00	24.0
LTE Band 2	Ant 1	18.00	18.00	25.30	21.50	24.5
LTE Band 2_Other PA	Ant 1	17.50	17.50	25.30	21.00	24.0
LTE Band 2	Ant 4	19.50	19.50	23.50	23.50	24.5
LTE Band 2_Other PA	Ant 4	19.50	19.00	23.50	23.50	24.5
LTE Band 2_Other PA	Ant 2	31.00	21.00	27.60	21.00	24.5
LTE Band 4	Ant 1	18.50	18.50	27.30	21.50	24.5
LTE Band 4	Ant 4	19.00	19.00	29.60	22.50	24.5
LTE Band 4	Ant 2	30.10	21.50	22.50	21.50	24.5
LTE Band 5	Ant 0	31.00	29.80	31.60	25.00	25.0
LTE Band 5_Other PA	Ant 0	30.50	29.30	31.10	24.50	24.5
LTE Band 5	Ant 1	25.40	24.50	33.40	24.50	25.0
LTE Band 5_Other PA	Ant 1	24.80	24.00	32.80	24.00	24.5
LTE Band 7	Ant 1	17.50	17.50	23.00	21.50	24.0
LTE Band 7_Other PA	Ant 1	18.50	18.50	24.00	22.50	25.0
LTE Band 7	Ant 4	20.50	20.50	20.50	20.50	24.0
LTE Band 7_Other PA	Ant 4	21.50	21.50	21.50	21.50	25.0
LTE Band 7	Ant 2	23.00	19.00	23.00	19.00	24.0
LTE Band 7_Other PA	Ant 2	24.00	20.00	24.00	20.00	25.0
LTE Band 38	Ant 1	17.50	17.50	27.50	20.50	22.5
LTE Band 38_Other PA	Ant 1	18.00	18.00	28.50	21.00	23.0
LTE Band 38	Ant 4	19.00	19.00	21.00	21.00	22.5
LTE Band 38_Other PA	Ant 4	19.50	19.50	21.50	21.50	23.0
LTE Band 38	Ant 2	28.10	19.00	25.40	19.00	22.5
LTE Band 38_Other PA	Ant 2	29.80	19.50	27.00	19.50	23.0
LTE Band 38	Ant 3	19.50	19.50	28.20	22.00	22.5
LTE Band 41	Ant 1	18.00	18.00	28.30	21.00	23.0
LTE Band 41_Other PA	Ant 1	18.00	18.00	28.40	21.00	23.0
LTE Band 41	Ant 4	20.00	20.00	21.00	21.00	23.0
LTE Band 41_Other PA	Ant 4	20.00	20.00	21.00	21.00	23.0
LTE Band 41	Ant 2	28.90	20.50	26.10	20.50	23.0
LTE Band 41_Other PA	Ant 2	29.70	20.50	27.00	20.50	23.0
LTE Band 41	Ant 3	18.00	18.00	29.00	20.50	23.0
LTE Band 48	Ant 5	17.50	17.50	26.00	19.50	21.0
LTE Band 48	Ant 8	19.70	19.20	22.70	19.00	19.0
LTE Band 48	Ant 6	17.00	16.00	16.00	16.00	19.0
LTE Band 48	Ant 7	21.90	20.90	24.30	19.00	19.0
LTE Band 66	Ant 1	18.50	18.50	27.50	21.50	24.5
LTE Band 66	Ant 4	19.00	19.00	22.50	22.50	24.5

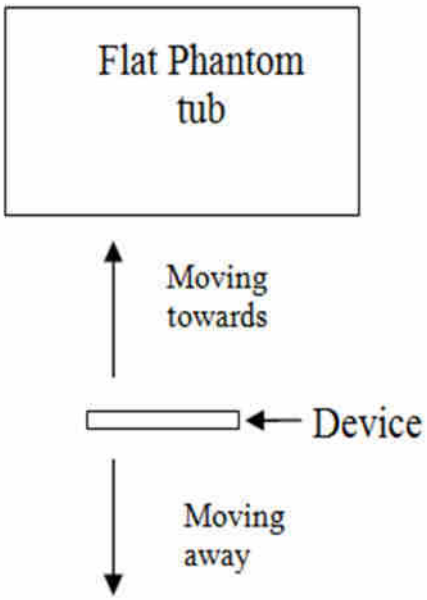
LTE Band 66	Ant 2	30.20	21.00	26.70	21.00	24.5
FR1 n2	Ant 1	18.50	18.50	25.70	20.50	24.5
FR1 n2	Ant 4	19.50	19.50	28.90	24.50	24.5
FR1 n5	Ant 0	30.80	29.90	31.60	25.00	25.0
FR1 n5	Ant 1	25.30	24.50	32.90	24.50	25.0
FR1 n7	Ant 1	18.00	18.00	27.50	22.00	25.0
FR1 n7	Ant 4	22.00	21.00	21.00	21.00	25.0
FR1 n7	Ant 2	28.10	19.50	25.70	19.50	25.0
FR1 n38	Ant 1	18.00	18.00	28.20	21.50	25.0
FR1 n38	Ant 4	20.00	20.00	21.50	21.50	25.0
FR1 n38	Ant 2	29.10	19.50	26.00	19.50	25.0
FR1 n38	Ant 3	19.00	19.00	28.20	21.00	25.0
FR1 n41	Ant 1	16.50	16.50	27.10	20.50	22.0
FR1 n41 PC2	Ant 1	16.50	16.50	27.10	20.50	22.0
FR1 n41	Ant 4	19.00	19.00	19.00	19.00	22.0
FR1 n41 PC2	Ant 4	19.00	19.00	19.00	19.00	22.0
FR1 n41	Ant 2	27.60	18.00	25.30	18.00	22.0
FR1 n41 PC2	Ant 2	27.60	18.00	25.30	18.00	22.0
FR1 n41	Ant 3	18.00	18.00	25.70	19.00	22.5
FR1 n41 PC2	Ant 3	18.00	18.00	25.70	19.00	22.5
FR1 n48	Ant 5	17.50	17.50	27.10	19.00	23.0
FR1 n48	Ant 8	20.00	19.00	22.70	20.00	21.0
FR1 n48	Ant 6	17.00	17.00	18.00	18.00	21.0
FR1 n48	Ant 7	23.30	20.50	24.50	20.50	21.0
FR1 n77 PC3	Ant 5	15.50	15.50	24.10	17.00	22.5
FR1 n77 PC2	Ant 5	15.50	15.50	24.10	17.00	22.5
FR1 n77 PC3	Ant 8	18.00	16.00	20.00	17.00	21.0
FR1 n77 PC2	Ant 8	18.00	16.00	20.00	17.00	21.0
FR1 n77 PC3	Ant 6	16.00	16.00	17.00	17.00	22.5
FR1 n77 PC2	Ant 6	16.00	16.00	17.00	17.00	22.5
FR1 n77 PC3	Ant 7	19.50	13.00	19.50	13.00	20.5
FR1 n77 PC2	Ant 7	19.50	13.00	19.50	13.00	20.5
FR1 n78 PC3	Ant 5	15.00	15.00	24.20	17.50	23.5
FR1 n78 PC2	Ant 5	15.00	15.00	24.20	17.50	23.5
FR1 n78 PC3	Ant 8	17.00	17.00	19.50	17.50	23.5
FR1 n78 PC2	Ant 8	17.00	17.00	19.50	17.50	22.0
FR1 n78 PC3	Ant 6	16.50	16.50	17.00	17.00	23.5
FR1 n78 PC2	Ant 6	16.50	16.50	17.00	17.00	23.0
FR1 n78 PC3	Ant 7	20.00	19.00	22.50	19.00	23.5
FR1 n78 PC2	Ant 7	20.00	19.00	22.50	19.00	22.0

Note: 1) *P_{max} is used for RF tune up procedure. The maximum allowed output power is equal to Pmax + total uncertainty.
2) All P_{limit} power levels entered in the Table correspond to average power levels after accounting for duty cycle in the case TDD modulation schemes (for e.g., GSM & LTE TDD & NR TDD).
3) The max allowed output power is the Plimit + 1.0 dB device uncertainty, and if Plimit is higher than Pmax, the device output power will be Pmax instead.

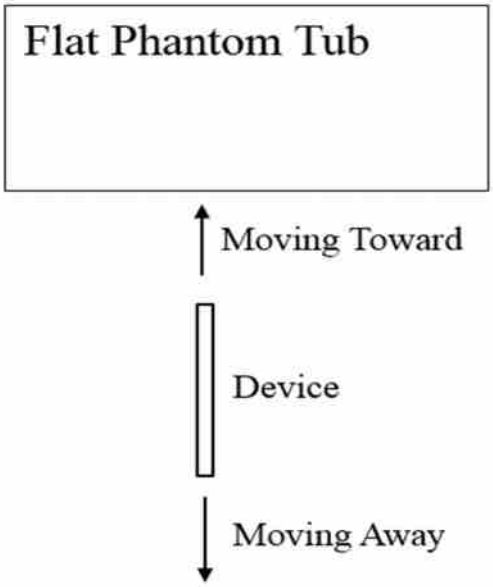
6. Proximity Sensor Triggering Test

<Proximity Sensor Triggering Distance>:

1. Proximity sensor triggering distance testing was performed according to the procedures outlined in KDB 616217 D04 section 6.2, and EUT moving further away from the flat phantom and EUT moving toward the flat phantom were both assessed and the tissue-equivalent medium for highest frequency (3980MHz) and lowest (835MHz) frequency was used for proximity sensor triggering testing.
2. Capacitive proximity sensors placed coincident with antenna elements at the top and bottom ends of the phone are utilized to determine when the device comes in proximity of the user's body or finger or hand at the front or back or bottom or right or top side of the device. There is no need to do sensor coverage testing for the proximity sensor is designed to support sufficient detection range and sensitivity to cover regions of the sensors in all applicable directions since the proximity sensor entirely covers the antenna.
3. The sensors can use to detect the proximity of the user's body or handheld states at the front or back or bottom or right or top side of the device use a detection threshold distance. When front/back/right/ right/top/bottom sides of body or handheld condition is detected reduced power will be active. The trigger distance shown in the sections below.
4. For verification of compliance of power reduction scheme, additional SAR testing with EUT transmitting at full RF power at a conservative trigger distance -1mm was performed:



Sensor detection test set-up, Front and Back sides



Sensor detection test set-up, Right Side, Light Side, Bottom Side and Top Side

<P-Sensor>

< Sensor for Ant2 >

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

< Sensor for Ant1/3/5/7/8 >

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

7. RF Exposure Limits

7.1 Uncontrolled Environment

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

7.2 Controlled Environment

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

Limits for Occupational/Controlled Exposure (W/kg)

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

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

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

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

8. Specific Absorption Rate (SAR)

8.1 Introduction

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

8.2 SAR Definition

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

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

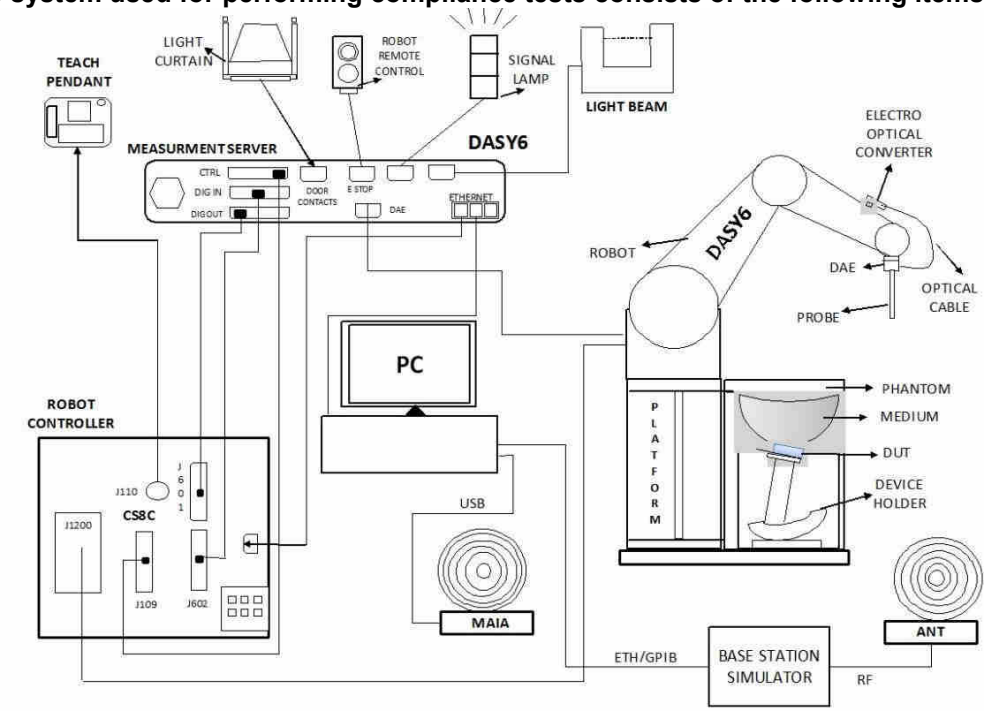
SAR is expressed in units of Watts per kilogram (W/kg)

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

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

9. System Description and Setup

The 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 DASY6 software.
- Remote control and teach pendant as well as additional circuitry for robot safety such as warning lamps, etc.
- The phantom, the device holder and other accessories according to the targeted measurement.

9.1 E-Field Probe

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

<EX3DV4 Probe>

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

9.2 Data Acquisition Electronics (DAE)

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

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

Photo of DAE

9.3 Phantom

<SAM Twin Phantom>

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

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

<ELI Phantom>

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

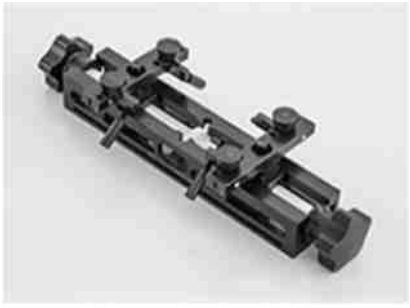
The ELI phantom is intended for compliance testing of handheld and body-mounted wireless devices or for evaluating transmitters operating at low frequencies. ELI is fully compatible with standard and all known tissue simulating liquids.

9.4 Device Holder

<Mounting Device for Hand-Held Transmitter>

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

Mounting Device for Hand-Held Transmitters



Mounting Device Adaptor for Wide-Phones

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

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

Mounting Device for Laptops

10. Measurement Procedures

The measurement procedures are as follows:

<Conducted power measurement>

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

<SAR measurement>

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

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

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

10.1 Spatial Peak SAR Evaluation

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

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

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

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

10.2 Power Reference Measurement

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

10.3 Area Scan

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

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

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

10.4 Zoom Scan

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

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

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

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

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

10.5 Volume Scan Procedures

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

10.6 Power Drift Monitoring

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

11. Test Equipment List

Manufacturer	Name of Equipment	Type/Model	Serial Number	Calibration	
				Last Cal.	Due Date
SPEAG	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	2450MHz System Validation Kit	D2450V2	1040	2023/4/25	2024/4/24
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	2026/3/8
SPEAG	5000MHz System Validation Kit	D5GHzV2	1113	2022/9/23	2025/9/22
SPEAG	Data Acquisition Electronics	DAE4	1338	2022/12/15	2023/12/14
SPEAG	Dosimetric E-Field Probe	EX3DV4	7627	2023/6/6	2024/6/5
SPEAG	Dosimetric E-Field Probe	EX3DV4	3857	2022/12/14	2023/12/13
SPEAG	SAM Twin Phantom	SAM Twin	TP-1644	NCR	NCR
SPEAG	Phone Positioner	N/A	N/A	NCR	NCR
Anritsu	Radio Communication Analyzer	MT8821C	6262306175	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
ARRA	Power Divider	A3200-2	N/A	NA	NA
R&S	BLUETOOTH TESTER	CBT	101246	2023/5/15	2024/5/14
Rohde & Schwarz	Spectrum Analyzer	FSV7	101631	2022/10/12	2023/10/11
Rohde & Schwarz	Spectrum Analyzer	FSV7	101631	2023/10/11	2024/10/10
CHIGO	Thermo-Hygrometer	HTC-1	55011	2023/1/8	2024/1/7
TES	DIGITAC THERMOMETER	1310	220305411	2023/1/8	2024/1/7
MCL	Attenuation1	BW-S10W5+	N/A	Note 1	
MCL	Attenuation2	BW-S10W5+	N/A	Note 1	
MCL	Attenuation3	BW-S10W5+	N/A	Note 1	
Agilent	Dual Directional Coupler	778D	20500	Note 1	
Agilent	Dual Directional Coupler	11691D	MY48151020	Note 1	
BONN	POWER AMPLIFIER	BLMA 0830-3	087193A	Note 1	
BONN	POWER AMPLIFIER	BLMA 2060-2	087193B	Note 1	

Note:

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

12. System Verification

12.1 Tissue Simulating Liquids

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

Fig 11.1 Photo of Liquid Height for Head SAR

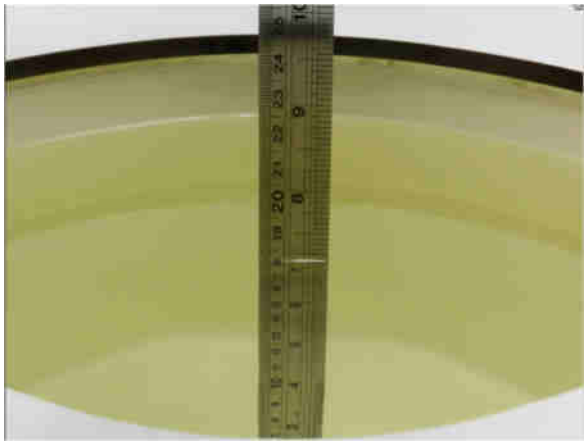


Fig 11.2 Photo of Liquid Height for Body SAR

12.2 Tissue Verification

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

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

Simulating Liquid for 5GHz, Manufactured by SPEAG

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

<Tissue Dielectric Parameter Check Results>

Frequency (MHz)	Tissue Type	Liquid Temp. (℃)	Conductivity (σ)	Permittivity (ε_r)	Conductivity Target (σ)	Permittivity Target (ε_r)	Delta (σ) (%)	Delta (ε_r) (%)	Limit (%)	Date
835	Head	22.6	0.902	41.200	0.90	41.50	0.22	-0.72	±5	2023/9/25
1750	Head	22.6	1.400	40.800	1.37	40.10	2.19	1.75	±5	2023/9/26
1900	Head	22.7	1.400	39.000	1.40	40.00	0.00	-2.50	±5	2023/9/27
2600	Head	22.7	1.930	38.200	1.96	39.00	-1.53	-2.05	±5	2023/9/28
3500	Head	22.8	2.780	38.900	2.91	37.90	-4.47	2.64	±5	2023/9/29
3700	Head	22.8	2.990	38.700	3.12	37.70	-4.17	2.65	±5	2023/10/4
3900	Head	22.9	3.190	38.400	3.32	37.50	-3.92	2.40	±5	2023/10/5
835	Head	22.9	0.920	40.600	0.90	41.50	2.22	-2.17	±5	2023/10/6
1750	Head	22.6	1.390	38.500	1.37	40.10	1.46	-3.99	±5	2023/10/7
1900	Head	22.8	1.450	39.900	1.40	40.00	3.57	-0.25	±5	2023/10/8
2600	Head	22.7	1.930	37.300	1.96	39.00	-1.53	-4.36	±5	2023/10/9
3500	Head	22.6	2.790	39.600	2.91	37.90	-4.12	4.49	±5	2023/10/10
3700	Head	22.8	2.990	38.400	3.12	37.70	-4.17	1.86	±5	2023/10/11
3900	Head	22.7	3.190	38.400	3.32	37.50	-3.92	2.40	±5	2023/10/12
2450	Head	22.7	1.830	37.500	1.80	39.20	1.67	-4.34	±5	2023/10/13
5250	Head	22.7	4.600	35.900	4.71	35.90	-2.34	0.00	±5	2023/10/14
5600	Head	22.8	5.000	35.300	5.07	35.50	-1.38	-0.56	±5	2023/10/15
5750	Head	22.8	5.170	35.100	5.22	35.40	-0.96	-0.85	±5	2023/10/16

12.3 System Performance Check Results

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

<1g SAR>

Date	Frequency (MHz)	Tissue Type	Input Power (mW)	Dipole S/N	Probe S/N	DAE S/N	Measured 1g SAR (W/kg)	Targeted 1g SAR (W/kg)	Normalized 1g SAR (W/kg)	Deviation (%)
2023/9/25	835	Head	50	4d091	7627	1338	0.468	9.45	9.36	-0.95
2023/9/26	1750	Head	50	1090	7627	1338	1.890	37.00	37.8	2.16
2023/9/27	1900	Head	50	5d118	7627	1338	2.010	39.30	40.2	2.29
2023/9/28	2600	Head	50	1061	7627	1338	2.620	56.60	52.4	-7.42
2023/9/29	3500	Head	50	1037	7627	1338	3.160	68.00	63.2	-7.06
2023/10/4	3700	Head	50	1008	7627	1338	3.130	67.60	62.6	-7.40
2023/10/5	3900	Head	50	1048	3857	1338	3.260	69.10	65.2	-5.64
2023/10/6	835	Head	50	4d091	7627	1338	0.480	9.45	9.6	1.59
2023/10/7	1750	Head	50	1090	7627	1338	1.860	37.00	37.2	0.54
2023/10/8	1900	Head	50	5d118	7627	1338	2.000	39.30	40	1.78
2023/10/9	2600	Head	50	1061	7627	1338	2.630	56.60	52.6	-7.07
2023/10/10	3500	Head	50	1037	7627	1338	3.180	68.00	63.6	-6.47
2023/10/11	3700	Head	50	1008	7627	1338	3.150	67.60	63	-6.80
2023/10/12	3900	Head	50	1048	3857	1338	3.280	69.10	65.6	-5.07
2023/10/13	2450	Head	50	1040	7627	1338	2.510	52.70	50.2	-4.74
2023/10/14	5250	Head	50	1113	7627	1338	3.820	81.50	76.4	-6.26
2023/10/15	5600	Head	50	1113	7627	1338	3.910	82.60	78.2	-5.33
2023/10/16	5750	Head	50	1113	7627	1338	3.980	80.80	79.6	-1.49

<10g SAR>

Date	Frequency (MHz)	Tissue Type	Input Power (mW)	Dipole S/N	Probe S/N	DAE S/N	Measured 10g SAR (W/kg)	Targeted 10g SAR (W/kg)	Normalized 10g SAR (W/kg)	Deviation (%)
2023/9/25	835	Head	50	4d091	7627	1338	0.303	6.22	6.06	-2.57
2023/9/26	1750	Head	50	1090	7627	1338	0.993	19.50	19.86	1.85
2023/9/27	1900	Head	50	5d118	7627	1338	1.050	20.40	21	2.94
2023/9/28	2600	Head	50	1061	7627	1338	1.170	25.10	23.4	-6.77
2023/9/29	3500	Head	50	1037	7627	1338	1.180	25.40	23.6	-7.09
2023/10/4	3700	Head	50	1008	7627	1338	1.160	24.40	23.2	-4.92
2023/10/5	3900	Head	50	1048	3857	1338	1.220	24.10	24.4	1.24
2023/10/6	835	Head	50	4d091	7627	1338	0.311	6.22	6.22	0.00
2023/10/7	1750	Head	50	1090	7627	1338	0.980	19.50	19.6	0.51
2023/10/8	1900	Head	50	5d118	7627	1338	1.060	20.40	21.2	3.92
2023/10/9	2600	Head	50	1061	7627	1338	1.180	25.10	23.6	-5.98
2023/10/10	3500	Head	50	1037	7627	1338	1.210	25.40	24.2	-4.72
2023/10/11	3700	Head	50	1008	7627	1338	1.180	24.40	23.6	-3.28
2023/10/12	3900	Head	50	1048	3857	1338	1.200	24.10	24	-0.41
2023/10/13	2450	Head	50	1040	7627	1338	1.160	24.60	23.2	-5.69
2023/10/14	5250	Head	50	1113	7627	1338	1.090	23.30	21.8	-6.44
2023/10/15	5600	Head	50	1113	7627	1338	1.110	23.70	22.2	-6.33
2023/10/16	5750	Head	50	1113	7627	1338	1.150	23.00	23	0.00

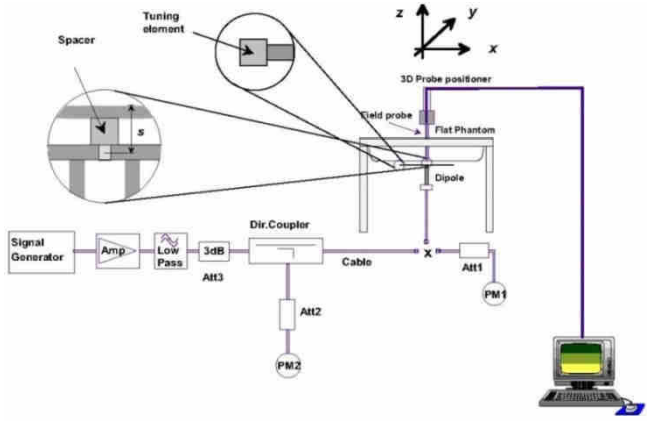


Fig 11.3.1 System Performance Check Setup

Fig 11.3.2 Setup Photo

13. RF Exposure Positions

13.1 Ear and handset reference point

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

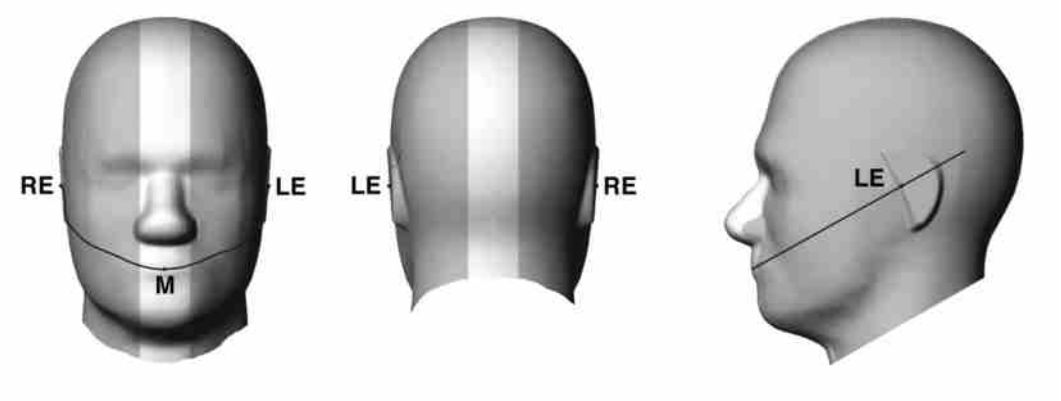


Fig 12.1.1 Front, back, and side views of SAM twin phantom

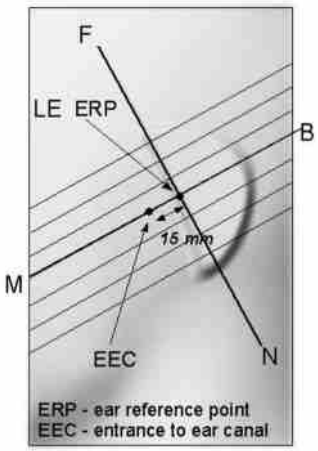


Fig 12.1.2 Close-up side view of phantom showing the ear region.

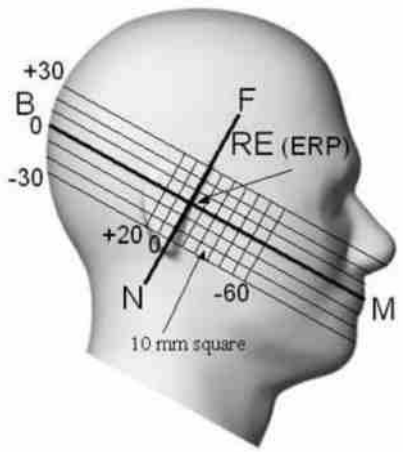


Fig 12.1.3 Side view of the phantom showing relevant markings and seven cross-sectional plane locations

13.2 Definition of the cheek position

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

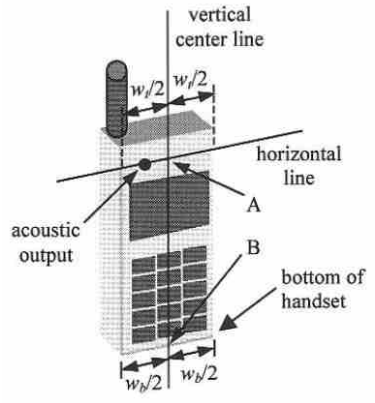


Fig 12.2.1 Handset vertical and horizontal reference lines—"fixed case

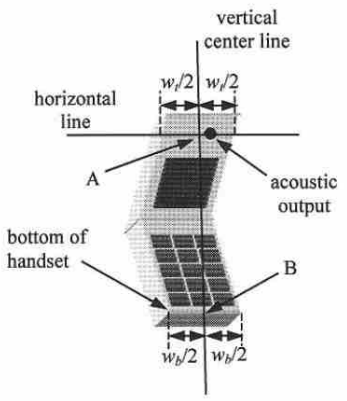


Fig 12.2.2 Handset vertical and horizontal reference lines—"clam-shell case"

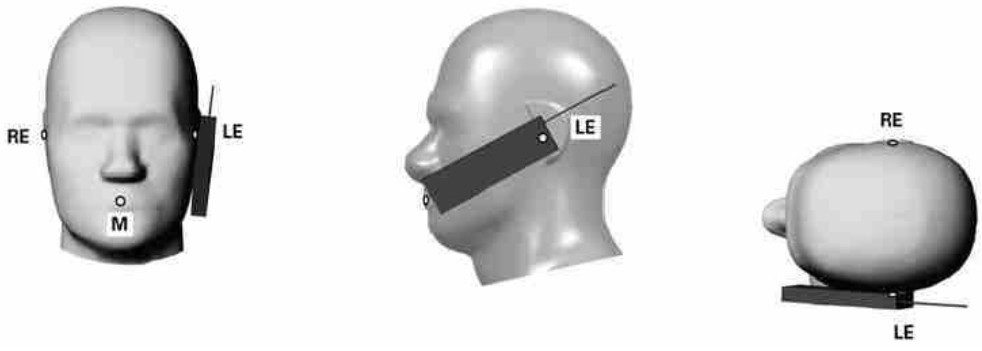


Fig 12.2.3 cheek or touch position. The reference points for the right ear (RE), left ear (LE), and mouth (M), which establish the Reference Plane for handset positioning, are indicated.

13.3 Definition of the tilt position

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

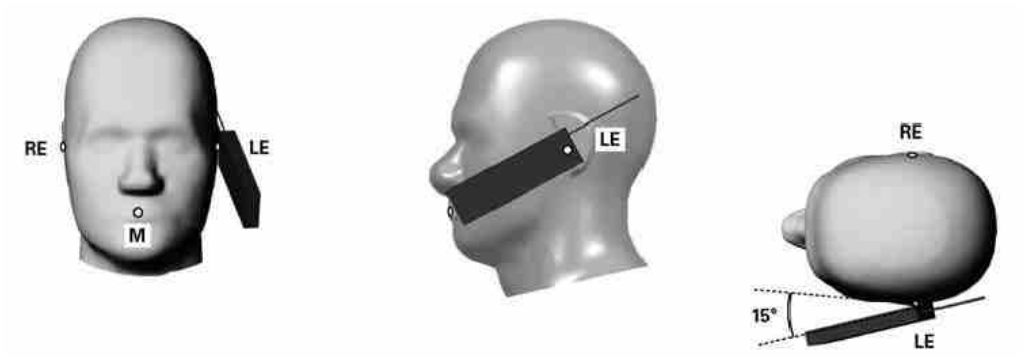


Fig 12.3.1 Tilt position. The reference points for the right ear (RE), left ear (LE), and mouth (M), which define the Reference Plane for handset positioning, are indicated.

13.4 Body Worn Accessory

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

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

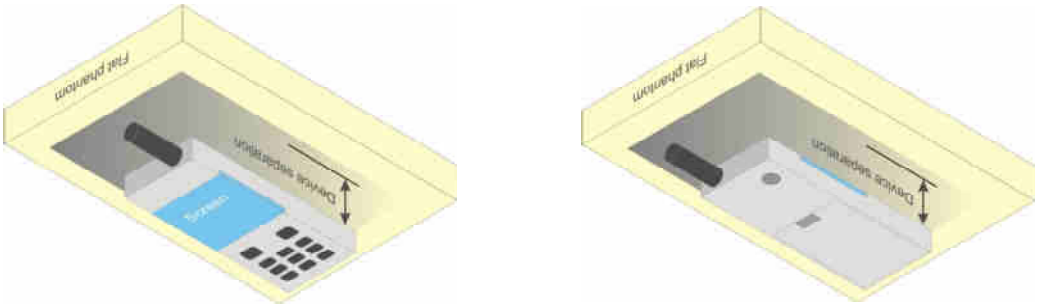


Fig 12.4 Body Worn Position

13.5 Product Specific 10g SAR Exposure

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

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

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

13.6 Wireless Router

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

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

14. Conducted RF Output Power (Unit: dBm)

The detailed conducted power table can refer to Appendix E.

<GSM Conducted Power>

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

<WCDMA Conducted Power>

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

A summary of these settings are illustrated below:

HSDPA Setup Configuration:

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

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

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

Note 1: Δ_{ACK}, Δ_{NACK} and Δ_{CQI} = 30/15 with $\beta_{hs} = 30/15 * \beta_c$.

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

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

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

Setup Configuration

HSUPA Setup Configuration:

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

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

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

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

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

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

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

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

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

Setup Configuration

DC-HSDPA 3GPP release 8 Setup Configuration:

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

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

C.8.1.12 Fixed Reference Channel Definition H-Set 12

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

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

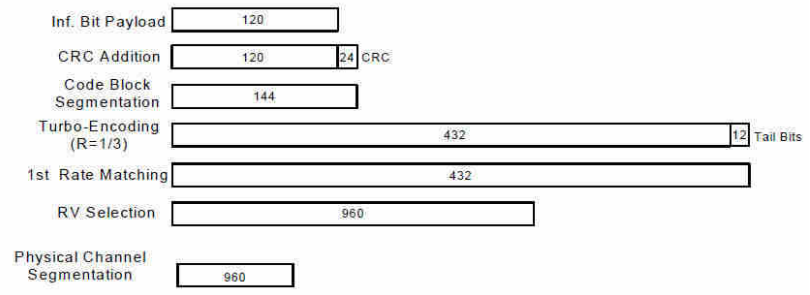


Figure C.8.19: Coding rate for Fixed reference Channel H-Set 12 (QPSK)

Setup Configuration

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

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

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

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

Note 1: Δ_{ACK}, Δ_{NACK} and Δ_{CQI} = 30/15 with $\beta_{hs} = 30/15 * \beta_c$.
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:

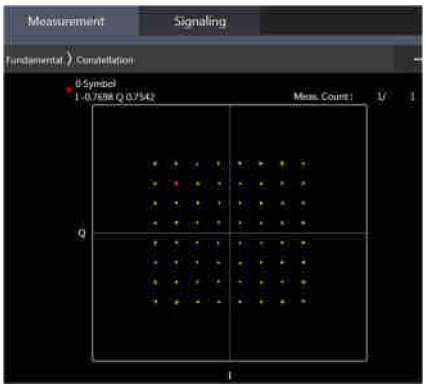
1. Per KDB 941225 D01v03r01, for SAR testing is measured using a 12.2 kbps RMC with TPC bits configured to all "1's".
2. Per KDB 941225 D01v03r01, RMC 12.2kbps setting is used to evaluate SAR. The maximum output power and tune-up tolerance specified for production units in HSDPA / HSUPA / DC-HSDPA / 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>

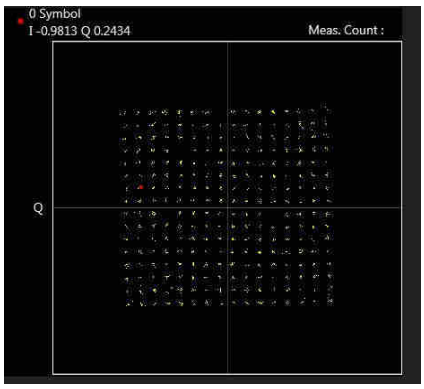
General Note:

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 / B38 the maximum bandwidth does not support three non-overlapping channels, per KDB 941225 D05v02r05, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.
9. LTE B4 / B38 SAR test was covered by B66 / B41; according to April 2015 TCB workshop, SAR test for overlapping LTE bands can be reduced if
   a. the maximum output power, including tolerance, for the smaller band is ≤ the larger band to qualify for the SAR test exclusion
   b. the channel bandwidth and other operating parameters for the smaller band are fully supported by the larger band
10. According to May 2017 TCB workshop, for 16QAM and 64QAM, 256QAM should be verified by checking the signal constellation with a call box to avoid incorrect maximum power levels due to MPR and other requirements associated with signal modulation, and the following figure is taken from the "Fundamental Measurement >> Modulation Analysis >> constellation" mode of the device connect to the MT8821C base station, therefore, the device 256QAM, 64QAM and 16QAM signal modulation are correct.

16QAM



64QAM



256QAM

<TDD LTE SAR Measurement>

TDD LTE configuration setup for SAR measurement

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

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

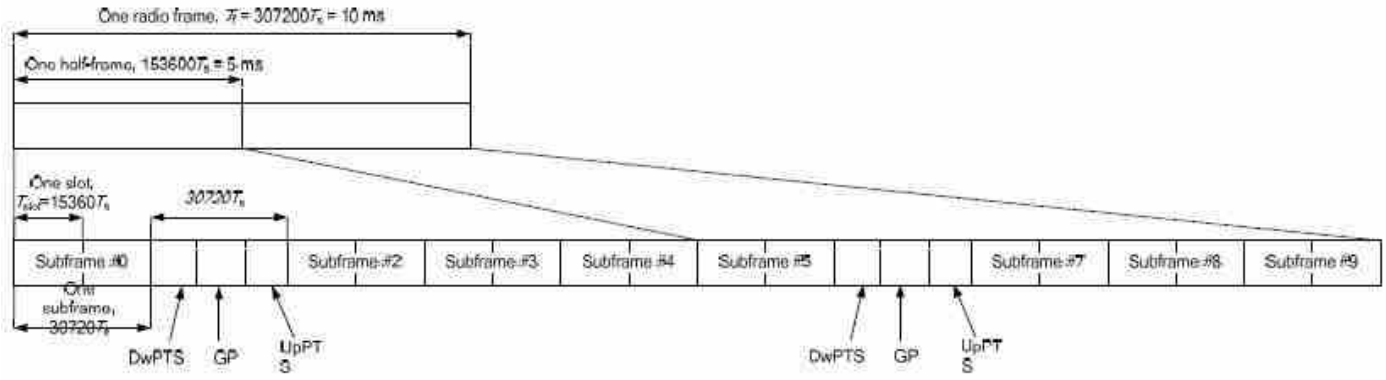


Figure 4.2-1: Frame structure type 2 (for 5 ms switch-point periodicity).

Table 4.2-2: Uplink-downlink configurations.

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

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

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

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

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

The highest duty factor is resulted from:

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

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

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

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

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

<LTE Carrier Aggregation>

General Note:

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

2CC Downlink Carrier Aggregation					3CC Downlink Carrier Aggregation				
Number	Combination	4X4 MIMO	Restriction	Covered by Measurement Superset	Number	Combination	4X4 MIMO	Restriction	Covered by Measurement Superset
1	CA_2A-4A	-			1	CA_2A-7A-7A	7A-7A		
2	CA_2A-7A	7A		3CC-1	2	CA_2A-7C	2A,7C		
3	CA_38C	38C			3	CA_41D	41C		
4	CA_41A-41A	41A-41A			4	CA_4A-7C	4A,7C		
5	CA_41C	41C			5	CA_5A-7A-7A	7A-7A		
6	CA_4A-5A	4A			6				
7	CA_4A-7A	4A,7A			7				
8	CA_7A-7A	7A-7A		3CC-1	8				
9	CA_7C	7C			9				
10	CA_66C	66C			10				
11	CA_66B	66B			11				
12	CA_2A-2A				12				
13	CA_5A-7A	7A		3CC-1	13				

LTE Carrier Aggregation Conducted Power (Downlink)

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

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

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

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

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

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

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

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

LTE 4x4 MIMO (Downlink)

This device supports downlink 4x4 MIMO operations for LTE Band 4/7/66/38/41 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 2/4/7/66/38/41

LTE Carrier Aggregation Conducted Power (Uplink)

LTE Uplink CA	2CC Uplink Carrier Aggregation			
Intra-band	LTE Tx			
CA_7C	Ant1	Ant4	Ant2	/
CA_66C	Ant1	Ant4	Ant2	/
CA_66B	Ant1	Ant4	Ant2	/
CA_38C	Ant1	Ant4	Ant2	Ant3
CA_41C	Ant1	Ant4	Ant2	Ant3

<Intra-band>

General Note:

i. The device supports intra-band uplink carrier aggregation for LTE B7/38 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.

5G NR Output Power (Unit: dBm)

General Note:

1. 5G NR n5/n7/n41/n78 is NSA mode.
2. 5G NR n2/n5/n7/n38/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 n77/n78 PC2 Maximum Duty Cycle is 50%, using FTM (Factory Test Mode) with 50% duty cycle is considered during SAR testing. For 5G NR other bands, using FTM to perform SAR with default 100% transmission.
5. For 5GNR, the simultaneous transmission analysis is used standalone SAR at total power level to show compliance.
6. NSA and SA mode should perform SAR separately. For the maximum power of NSA mode is the same as SA total power level, so SA SAR can represent NSA mode SAR.
7. 5GNR NSA mode, the power level is the same as 5GNR SA mode, so 5GNR NSA mode and SA mode power table only show one time.
8. 5G NR supports CP-OFDM and DFT-s-OFDM modulation, for DFT-s-OFDM power is higher than CP-OFDM, so only show DFT-s-OFDM power table and chose DFT-s-OFDM to perform SAR testing.
9. For DFT-s-OFDM and CP-OFDM output power measurement reduction, according to 38.101 maximum power reduction for the CP-OFDM mode will not higher than DFT-s-OFDM mode, therefore, CP-OFDM measurement is unnecessary.
10. 5GNR n41/n77/n78 supports HPUE, HPUE power and SAR testing performed separately.
11. For 5GNR FDD/TDD supports SCS15KHz and SCS30KHz, after verification for 30KHz at FDD power level is less than 15KHz at FDD power level, also verification for 15KHz at TDD power level is less than 30KHz at TDD power level, so only show 15KHz at FDD power and 30KHz at TDD power and chose higher power which is SCS15KHz for FDD bands and SCS30KHz for TDD bands to perform SAR testing.

<3GPP 38.101 MPR for EN-DC>

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

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

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

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

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

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

<EN-DC combination>

ENDC	LTE Tx	NR TX
DC_2A_n78A	Ant2/Ant4/Ant1	Ant5/Ant6/Ant7/Ant8
DC_38A_n78A	Ant2/Ant4/Ant1	Ant5/Ant6/Ant7/Ant8
DC_41A_n78A	Ant2/Ant4/Ant1	Ant5/Ant6/Ant7/Ant8
DC_5A_ n78A	Ant0/Ant1	Ant5/Ant6/Ant7/Ant8
DC_7A_ n78A	Ant2/Ant4/Ant1	Ant5/Ant6/Ant7/Ant8
DC_7A_n5A	Ant2/Ant4/Ant1	Ant0/Ant1
DC_41A_n41A	Ant2/Ant4/Ant1	Ant2/Ant4/Ant1
DC_7A_n7A	Ant2/Ant4/Ant1	Ant2/Ant4/Ant1

<WLAN Conducted Power>

General Note:

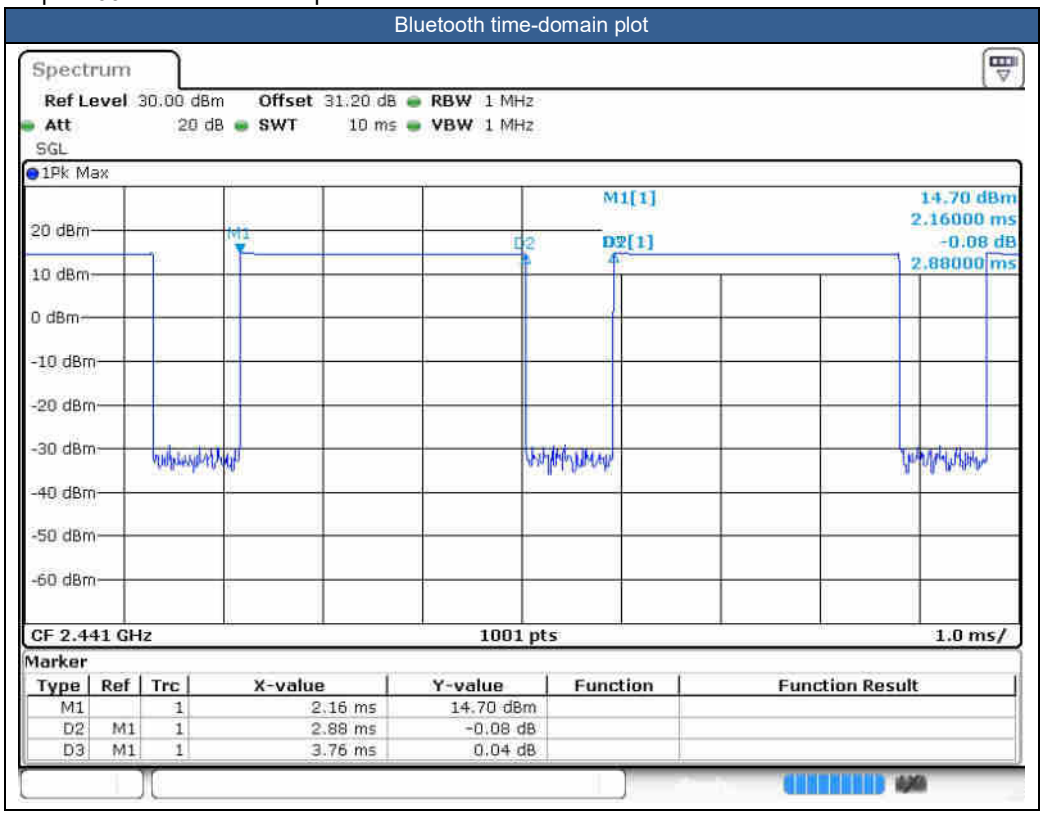
1. The maximum output power specified for production units are determined for all applicable 802.11 transmission modes in each standalone and aggregated frequency band. Maximum output power is measured for the highest maximum output power configuration(s) in each frequency band according to the default power measurement procedures. For “Not required”, SAR Test reduction was applied from KDB 248227 guidance, Sec. 2.1, b), 1) when the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order 802.11a/g/n/ac mode is used for SAR measurement, on the highest measured output power channel in the initial test configuration. Additional output power measurements were not necessary.
2. Per KDB 248227 D01v02r02, SAR test reduction is determined according to 802.11 transmission mode configurations and certain exposure conditions with multiple test positions. In the 2.4 GHz band, separate SAR procedures are applied to DSSS and OFDM configurations to simplify DSSS test requirements. For OFDM, in both 2.4 and 5 GHz bands, an initial test configuration must be determined for each standalone and aggregated frequency band, according to the transmission mode configuration with the highest maximum output power specified for production units to perform SAR measurements. If the same highest maximum output power applies to different combinations of channel bandwidths, modulations and data rates, additional procedures are applied to determine which test configurations require SAR measurement. When applicable, an initial test position may be applied to reduce the number of SAR measurements required for next to the ear, UMPC mini-tablet or hotspot mode configurations with multiple test positions.
3. For 2.4 GHz 802.11b DSSS, either the initial test position procedure for multiple exposure test positions or the DSSS procedure for fixed exposure position is applied; these are mutually exclusive. For 2.4 GHz and 5 GHz OFDM configurations, the initial test configuration is applied to measure SAR using either the initial test position procedure for multiple exposure test position configurations or the initial test configuration procedures for fixed exposure test conditions. Based on the reported SAR of the measured configurations and maximum output power of the transmission mode configurations that are not included in the initial test configuration, the subsequent test configuration and initial test position procedures are applied to determine if SAR measurements are required for the remaining OFDM transmission configurations. In general, the number of test channels that require SAR measurement is minimized based on maximum output power measured for the test sample(s).
4. For OFDM transmission configurations in the 2.4 GHz and 5 GHz bands, When the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order 802.11a/g/n/ac mode is used for SAR measurement, on the highest measured output power channel for each frequency band.
5. DSSS and OFDM configurations are considered separately according to the required SAR procedures. SAR is measured in the initial test position using the 802.11 transmission mode configuration required by the DSSS procedure or initial test configuration and subsequent test configuration(s) according to the OFDM procedures.18 The initial test position procedure is described in the following:
   a. When the reported SAR of the initial test position is ≤ 0.4 W/kg, further SAR measurement is not required for the other test positions in that exposure configuration and 802.11 transmission mode combinations within the frequency band or aggregated band.
   b. When the reported SAR of the test position is > 0.4 W/kg, SAR is repeated for the 802.11 transmission mode configuration tested in the initial test position to measure the subsequent next closet/smallest test separation distance and maximum coupling test position on the highest maximum output power channel, until the report SAR is ≤ 0.8 W/kg or all required test position are tested.
   c. For all positions/configurations, when the reported SAR is > 0.8 W/kg, SAR is measured for these test positions/configurations on the subsequent next highest measured output power channel(s) until the reported SAR is ≤ 1.2 W/kg or all required channels are tested.
6. 802.11 ax supports both full tone size mode and partial tone size mode, after verification on partial tone size mode that partial size tone mode power will not be higher than full tone size mode, therefore, full tone mode power was chosen to be measured in this report.
7. SISO and MIMO all supported by WLAN2.4GHz/WLAN5GHz, for SISO mode power is less than per chain power of MIMO mode. For WLAN SISO & MIMO mode, the whole testing has assessed only MIMO mode by referring to their higher conducted power, so only chose MIMO mode to perform SAR testing. However, in order to do SISO simultaneous transmission, additional tested the WLAN 2.4GHz SISO antenna 6/17 and the WLAN 5GHz SISO antenna 18.
8. For the conducted power measurement is MIMO chains transmitting simultaneously and measured the separately conducted power for both chains and then based on the conducted power of two antennas respectively to calculate sum of the power for MIMO mode.

<2.4GHz Bluetooth>

General Note:

1. For 2.4GHz Bluetooth SAR testing was selected 1Mbps, due to its highest average power.
2. The Bluetooth duty cycle is 76.6 % as following figure, according to Oct. 2016 TCB workshop for Bluetooth SAR scaling need further consideration and the maximum duty cycle is 100%, therefore the actual duty cycle will be scaled up to100% for Bluetooth reported SAR calculation.

Bluetooth time-domain plot



15. Antenna Location

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

16. SAR Test Results

General Note:

1. Per KDB 447498 D01v06, the reported SAR is the measured SAR value adjusted for maximum tune-up tolerance.
   a. Tune-up scaling Factor = tune-up limit power (mW) / EUT RF power (mW), where tune-up limit is the maximum rated power among all production units.
   b. For SAR testing of WLAN signal with non-100% duty cycle, the measured SAR is scaled-up by the duty cycle scaling factor which is equal to "1/(duty cycle)"
   c. For SAR testing of Bluetooth signal with 83.3% theoretical duty cycle, the measured SAR is scaled-up by the duty cycle scaling factor which is equal to "1/(duty cycle) *83.3%".
   d. For WWAN: Reported SAR(W/kg)= Measured SAR(W/kg)*Tune-up Scaling Factor
   e. For BT/WLAN: Reported SAR(W/kg)= Measured SAR(W/kg)* Duty Cycle scaling factor * Tune-up scaling factor
   f. For TDD LTE SAR measurement of power class 3, the duty cycle 1:1.59 (62.9 %) was used perform testing and considering the theoretical duty cycle of 63.3% for extended cyclic prefix in the uplink, and the theoretical duty cycle of 62.9% for normal cyclic prefix in uplink, a scaling factor of extended cyclic prefix 63.3%/62.9% = 1.006 is applied to scale-up the measured SAR result. The reported TDD LTE SAR (W/kg) = Measured SAR (W/kg)* Tune-up Scaling Factor* scaling factor for extended cyclic prefix.
2. Per KDB 447498 D01v06, for each exposure position, testing of other required channels within the operating mode of a frequency band is not required when the *reported* 1-g or 10-g SAR for the mid-band or highest output power channel is:
   - ≤ 0.8 W/kg or 2.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≤ 100 MHz
   - ≤ 0.6 W/kg or 1.5 W/kg, for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz
   - ≤ 0.4 W/kg or 1.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≥ 200 MHz
3. Per KDB 865664 D01v01r04, for each frequency band, repeated SAR measurement is required when the measured SAR is ≥ 0.8W/kg. Per KDB 865664 D01v01r04, if the extremity repeated SAR is necessary, the same procedures should be adapted for measurements according to extremity and occupational exposure limits by applying a factor of 2.5 for extremity exposure and a factor of 5 for occupational exposure to the corresponding SAR thresholds.
4. The device implements the power management and proximity sensor /receiver detection/hotspot mode for SAR compliance at different exposure conditions (head, body-worn, hotspot, extremity) and the MediaTek TA-SAR will manage to ensure the power level not exceeding the associated power table. Details about the power management decision and sensor detection are provided in the operational description. And the device will invoke corresponding work scenarios power level base on frequency bands/antennas, which can refer to power table at appendix E.
5. Per KDB648474 D04v01r03, for smart phones with a display diagonal dimension > 15.0 cm or an overall diagonal dimension > 16.0 cm, when hotspot mode applies, 10-g extremity SAR is required only for the surfaces and edges with hotspot mode 1-g reported SAR > 1.2 W/kg, however, when power reduction applies to hotspot mode the measured SAR must be scaled to the maximum output power (for handheld on state, the maximum full power means reduced power), including tolerance, allowed for phablet modes to compare with the 1.2 W/kg SAR test reduction threshold.
   a. 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 WLAN 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.
6. According to Nov. 2017 TCB workshop, when the reported 1gSAR for UL CA configuration is <1.2 W/kg, UL CA 1gSAR is not required for all required test channels (PCC based).
7. LTE B2/7/38/41 at Ant1/4/2 and LTE B5 at ant0/1 support different PAs for some antennas. And some LTE bands support Other PA only under ENDC. Some LTE 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 another PA 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/256QAM output power for each RB allocation configuration is > not ½ dB higher than the same configuration in QPSK and the reported SAR for the QPSK configuration is ≤ 1.45 W/kg; Per KDB 941225 D05v02r05, 16QAM/64QAM/256QAM SAR testing is not required.
5. Per KDB 941225 D05v02r05, smaller bandwidth output power for each RB allocation configuration is > not ½ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg; Per KDB 941225 D05v02r05, smaller bandwidth SAR testing is not required.
6. For LTE B4 / B5 / B38 the maximum bandwidth does not support three non-overlapping channels, per KDB 941225 D05v02r05, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.
7. LTE B4 / B38 SAR test was covered by B66 / B41; according to April 2015 TCB workshop, SAR test for overlapping LTE bands can be reduced if
   a. the maximum output power, including tolerance, for the smaller band is ≤ the larger band to qualify for the SAR test exclusion
   b. the channel bandwidth and other operating parameters for the smaller band are fully supported by the larger band

5G NR Note:

1. For 5G NR test procedure was following step similar FCC KDB 941225 D05:
   a. SAR testing start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel.
   b. 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure
   c. QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested.
   d. PI/2 BPSK/16QAM/64QAM/256QAM output powers according to 3GPP MPR will not ½ dB higher than the same configuration in QPSK, also reported SAR for the QPSK configuration is less than 1.45 W/kg, PI/2 BPSK /16QAM/64QAM/256QAM SAR testing are not required.
   e. Smaller bandwidth output power for each RB allocation configuration for this device will not ½ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg, smaller bandwidth SAR testing is not required for this device
   f. For 5G FR1 n5 /n7/n38/n41/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.
6. The 2.4GHz/5GHz WLAN can transmit in SISO and MIMO antenna mode.
7. SISO and MIMO all supported by WLAN2.4GHz/WLAN5GHz, for SISO mode power is less than per chain power of MIMO mode. For WLAN SISO & MIMO mode, the whole testing has assessed only MIMO mode by referring to their higher conducted power, so only chose MIMO mode to perform SAR testing. However, in order to do SISO simultaneous transmission, additional tested the WLAN 2.4GHz SISO antenna 6/17 and the WLAN 5GHz SISO antenna 18.
8. For the conducted power measurement is MIMO chains transmitting simultaneously and measured the separately conducted power for both chains and then based on the conducted power of two antennas respectively to calculate sum of the power for MIMO mode.

ECI status description：

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

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

Exposure Condition	ECI	Trigger conditions
Head SAR	ECI1	Earpiece On
Hotspot Mode SAR	ECI5	Hotspot On
Body worn/ Extremity Mode SAR	ECI4	Sensor Off/ receiver off
Body worn/ Extremity Mode SAR	ECI3	Sensor On

16.1 Head SAR

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
835MHz																				
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Right Cheek	0mm	Ant 0	ECI 1	189	836.4	27.15	28.00	1.216	-	-	0.01	0.220	0.268
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Right Tilted	0mm	Ant 0	ECI 1	189	836.4	27.15	28.00	1.216	-	-	-0.08	0.120	0.146
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Left Cheek	0mm	Ant 0	ECI 1	189	836.4	27.15	28.00	1.216	-	-	0.1	0.171	0.208
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Left Tilted	0mm	Ant 0	ECI 1	189	836.4	27.15	28.00	1.216	-	-	-0.18	0.097	0.118
01	GSM850	-	-	-	-	GPRS (4 Tx slots)	Right Cheek	0mm	Ant 1	ECI 1	189	836.4	27.35	28.50	1.303	-	-	-0.01	0.501	**0.653**
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Right Tilted	0mm	Ant 1	ECI 1	189	836.4	27.35	28.50	1.303	-	-	-0.03	0.428	0.558
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Left Cheek	0mm	Ant 1	ECI 1	189	836.4	27.35	28.50	1.303	-	-	0.14	0.335	0.437
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Left Tilted	0mm	Ant 1	ECI 1	189	836.4	27.35	28.50	1.303	-	-	0.11	0.304	0.396
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 0	ECI 1	4182	836.4	24.42	25.00	1.143	-	-	0.18	0.214	0.245
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 0	ECI 1	4182	836.4	24.42	25.00	1.143	-	-	0.17	0.132	0.151
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 0	ECI 1	4182	836.4	24.42	25.00	1.143	-	-	-0.05	0.183	0.209
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 0	ECI 1	4182	836.4	24.42	25.00	1.143	-	-	0.01	0.095	0.109
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 1	ECI 1	4182	836.4	23.79	25.00	1.321	-	-	-0.17	0.722	0.954
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 1	ECI 1	4132	826.4	23.68	25.00	1.355	-	-	0.04	0.534	0.724
02	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 1	ECI 1	4233	846.6	23.72	25.00	1.343	-	-	-0.01	0.777	**1.043**
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 1	ECI 1	4182	836.4	23.79	25.00	1.321	-	-	-0.08	0.558	0.737
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 1	ECI 1	4182	836.4	23.79	25.00	1.321	-	-	0.05	0.374	0.494
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 1	ECI 1	4182	836.4	23.79	25.00	1.321	-	-	0.06	0.321	0.424
	LTE Band 5 Main PA	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	ECI 1	20525	836.5	25.35	25.70	1.084	-	-	-0.17	0.256	0.277
	LTE Band 5 Main PA	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 0	ECI 1	20525	836.5	24.28	24.70	1.102	-	-	0.04	0.202	0.223
	LTE Band 5 Main PA	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	ECI 1	20525	836.5	25.35	25.70	1.084	-	-	-0.01	0.161	0.175
	LTE Band 5 Main PA	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 0	ECI 1	20525	836.5	24.28	24.70	1.102	-	-	-0.08	0.121	0.133
	LTE Band 5 Main PA	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	ECI 1	20525	836.5	25.35	25.70	1.084	-	-	-0.17	0.218	0.236
	LTE Band 5 Main PA	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 0	ECI 1	20525	836.5	24.28	24.70	1.102	-	-	0.04	0.122	0.134
	LTE Band 5 Main PA	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	ECI 1	20525	836.5	25.35	25.70	1.084	-	-	-0.01	0.123	0.133
	LTE Band 5 Main PA	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 0	ECI 1	20525	836.5	24.28	24.70	1.102	-	-	-0.08	0.099	0.109
	LTE Band 5 Other PA	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	ECI 1	20525	836.5	24.62	25.50	1.225	-	-	0.06	0.224	0.274
03	LTE Band 5 Main PA	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	ECI 1	20525	836.5	25.15	25.70	1.135	-	-	0.04	0.894	**1.015**
	LTE Band 5 Main PA	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 1	ECI 1	20525	836.5	24.10	24.70	1.148	-	-	0.14	0.756	0.868
	LTE Band 5 Main PA	10M	QPSK	50	0	-	Right Cheek	0mm	Ant 1	ECI 1	20525	836.5	24.05	24.70	1.161	-	-	-0.17	0.800	0.929
	LTE Band 5 Main PA	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	ECI 1	20525	836.5	25.15	25.70	1.135	-	-	-0.1	0.746	0.847
	LTE Band 5 Main PA	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 1	ECI 1	20525	836.5	24.10	24.70	1.148	-	-	0.01	0.659	0.757
	LTE Band 5 Main PA	10M	QPSK	50	0	-	Right Tilted	0mm	Ant 1	ECI 1	20525	836.5	24.05	24.70	1.161	-	-	0.03	0.716	0.832
	LTE Band 5 Main PA	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	ECI 1	20525	836.5	25.15	25.70	1.135	-	-	-0.15	0.493	0.560
	LTE Band 5 Main PA	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 1	ECI 1	20525	836.5	24.10	24.70	1.148	-	-	0.14	0.507	0.582
	LTE Band 5 Main PA	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	ECI 1	20525	836.5	25.15	25.70	1.135	-	-	-0.17	0.468	0.531
	LTE Band 5 Main PA	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 1	ECI 1	20525	836.5	24.10	24.70	1.148	-	-	0.17	0.399	0.458
	LTE Band 5 Other PA	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	ECI 1	20525	836.5	24.58	25.50	1.236	-	-	0.06	0.818	1.011
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	ECI 1	167300	836.5	25.41	25.70	1.069	-	-	-0.17	0.252	0.269
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	ECI 1	167300	836.5	25.27	25.70	1.104	-	-	0.04	0.263	0.290
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 0	ECI 1	167300	836.5	25.41	25.70	1.069	-	-	0.12	0.163	0.174
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Right Tilted	0mm	Ant 0	ECI 1	167300	836.5	25.27	25.70	1.104	-	-	0.03	0.154	0.170
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	ECI 1	167300	836.5	25.41	25.70	1.069	-	-	0.18	0.211	0.226
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	ECI 1	167300	836.5	25.27	25.70	1.104	-	-	0.04	0.223	0.246
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 0	ECI 1	167300	836.5	25.41	25.70	1.069	-	-	-0.01	0.118	0.126
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Left Tilted	0mm	Ant 0	ECI 1	167300	836.5	25.27	25.70	1.104	-	-	-0.08	0.118	0.130
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	ECI 1	167300	836.5	24.91	25.70	1.199	-	-	-0.17	0.673	0.807
04	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	ECI 1	167300	836.5	24.83	25.70	1.222	-	-	-0.01	0.845	**1.032**
	FR1 n5	20M	QPSK	100	0	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	ECI 1	167300	836.5	23.82	24.70	1.225	-	-	0.11	0.704	0.862

	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	ECI 1	167300	836.5	24.91	25.70	1.199	-	-	-0.08	0.563	0.675
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	ECI 1	167300	836.5	24.83	25.70	1.222	-	-	-0.17	0.651	0.795
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 1	ECI 1	167300	836.5	24.91	25.70	1.199	-	-	-0.17	0.388	0.465
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Left Cheek	0mm	Ant 1	ECI 1	167300	836.5	24.83	25.70	1.222	-	-	0.04	0.465	0.568
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 1	ECI 1	167300	836.5	24.91	25.70	1.199	-	-	-0.01	0.368	0.441
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Left Tilted	0mm	Ant 1	ECI 1	167300	836.5	24.83	25.70	1.222	-	-	-0.08	0.478	0.584
1750MHz																				
05	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 1	ECI 1	1413	1732.6	18.12	19.50	1.374	-	-	-0.08	0.788	**1.083**
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 1	ECI 1	1312	1712.4	18.00	19.50	1.413	-	-	0.13	0.763	1.078
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 1	ECI 1	1513	1752.6	18.06	19.50	1.393	-	-	0.12	0.776	1.081
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 1	ECI 1	1413	1732.6	18.12	19.50	1.374	-	-	0.03	0.639	0.878
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 1	ECI 1	1312	1712.4	18.00	19.50	1.413	-	-	0.13	0.631	0.891
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 1	ECI 1	1513	1752.6	18.06	19.50	1.393	-	-	0.12	0.618	0.861
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 1	ECI 1	1413	1732.6	18.12	19.50	1.374	-	-	0.18	0.457	0.628
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 1	ECI 1	1413	1732.6	18.12	19.50	1.374	-	-	0.16	0.586	0.805
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 1	ECI 1	1312	1712.4	18.00	19.50	1.413	-	-	0.11	0.547	0.773
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 1	ECI 1	1513	1752.6	18.06	19.50	1.393	-	-	-0.08	0.532	0.741
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 2	ECI 1	1413	1732.6	23.98	25.00	1.265	-	-	0.07	0.219	0.277
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 2	ECI 1	1413	1732.6	23.98	25.00	1.265	-	-	0.01	0.112	0.142
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 2	ECI 1	1413	1732.6	23.98	25.00	1.265	-	-	-0.15	0.178	0.225
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 2	ECI 1	1413	1732.6	23.98	25.00	1.265	-	-	0.19	0.124	0.157
	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	ECI 1	132322	1745	18.58	19.50	1.236	-	-	0.17	0.858	1.060
	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	ECI 1	132072	1720	18.49	19.50	1.262	-	-	0.05	0.816	1.030
	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	ECI 1	132572	1770	18.50	19.50	1.259	-	-	0.03	0.824	1.037
06	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 1	ECI 1	132322	1745	18.57	19.50	1.239	-	-	0.01	0.859	**1.064**
	LTE Band 66B	15M	QPSK	36	39	-	Right Cheek	0mm	Ant 1	ECI 1	132322+ 132415	1745+ 1754.3	18.51	19.50	1.256	-	-	0.02	0.831	1.044
	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 1	ECI 1	132072	1720	18.40	19.50	1.288	-	-	0.07	0.821	1.058
	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 1	ECI 1	132572	1770	18.48	19.50	1.265	-	-	0.01	0.831	1.051
	LTE Band 66	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 1	ECI 1	132322	1745	18.51	19.50	1.256	-	-	0.06	0.843	1.059
	LTE Band 66	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	ECI 1	132322	1745	18.58	19.50	1.236	-	-	-0.03	0.642	0.793
	LTE Band 66	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 1	ECI 1	132322	1745	18.57	19.50	1.239	-	-	-0.03	0.635	0.787
	LTE Band 66	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	ECI 1	132322	1745	18.58	19.50	1.236	-	-	0.08	0.486	0.601
	LTE Band 66	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 1	ECI 1	132322	1745	18.57	19.50	1.239	-	-	-0.07	0.482	0.597
	LTE Band 66	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	ECI 1	132322	1745	18.58	19.50	1.236	-	-	0.05	0.630	0.779
	LTE Band 66	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 1	ECI 1	132322	1745	18.57	19.50	1.239	-	-	-0.11	0.633	0.784
	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	ECI 1	132322	1745	19.38	20.20	1.208	-	-	0.03	0.397	0.480
	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	ECI 1	132322	1745	19.36	20.20	1.213	-	-	-0.16	0.403	0.489
	LTE Band 66	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	ECI 1	132322	1745	19.38	20.20	1.208	-	-	-0.02	0.097	0.117
	LTE Band 66	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	ECI 1	132322	1745	19.36	20.20	1.213	-	-	0.15	0.097	0.118
	LTE Band 66	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	ECI 1	132322	1745	19.38	20.20	1.208	-	-	-0.09	0.812	0.981
	LTE Band 66	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	ECI 1	132072	1720	19.28	20.20	1.236	-	-	0.02	0.793	0.980
	LTE Band 66	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	ECI 1	132572	1770	19.35	20.20	1.216	-	-	0.08	0.787	0.957
	LTE Band 66	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 4	ECI 1	132322	1745	19.36	20.20	1.213	-	-	0.02	0.827	1.003
	LTE Band 66B	15M	QPSK	36	39	-	Left Cheek	0mm	Ant 4	ECI 1	132322+ 132415	1745+ 1754.3	19.15	20.20	1.274	-	-	-0.02	0.781	0.995
	LTE Band 66	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 4	ECI 1	132072	1720	19.23	20.20	1.250	-	-	0.09	0.806	1.008
	LTE Band 66	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 4	ECI 1	132572	1770	19.18	20.20	1.265	-	-	-0.03	0.811	1.026
	LTE Band 66	20M	QPSK	100	0	-	Left Cheek	0mm	Ant 4	ECI 1	132322	1745	19.34	20.20	1.219	-	-	-0.03	0.766	0.934
	LTE Band 66	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 4	ECI 1	132322	1745	19.38	20.20	1.208	-	-	-0.15	0.139	0.168
	LTE Band 66	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 4	ECI 1	132322	1745	19.36	20.20	1.213	-	-	0.02	0.141	0.171
	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	ECI 1	132322	1745	24.95	25.70	1.189	-	-	0.16	0.249	0.296
	LTE Band 66B	15M	QPSK	1	74	-	Right Cheek	0mm	Ant 2	ECI 1	132322+ 132415	1745+ 1754.3	24.84	25.70	1.219	-	-	0.05	0.217	0.265
	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 2	ECI 1	132322	1745	23.89	24.70	1.205	-	-	0.13	0.205	0.247
	LTE Band 66	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 2	ECI 1	132322	1745	24.95	25.70	1.189	-	-	-0.18	0.147	0.175
	LTE Band 66	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 2	ECI 1	132322	1745	23.89	24.70	1.205	-	-	0.02	0.112	0.135
	LTE Band 66	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 2	ECI 1	132322	1745	24.95	25.70	1.189	-	-	0.16	0.209	0.248

	LTE Band 66	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 2	ECI 1	132322	1745	23.89	24.70	1.205	-	-	-0.03	0.170	0.205
	LTE Band 66	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 2	ECI 1	132322	1745	24.95	25.70	1.189	-	-	0.07	0.153	0.182
	LTE Band 66	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 2	ECI 1	132322	1745	23.89	24.70	1.205	-	-	-0.03	0.122	0.147
	1900MHz																			
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Right Cheek	0mm	Ant 1	ECI 1	661	1880	20.30	22.00	1.479	-	-	0.01	0.616	0.911
07	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Right Cheek	0mm	Ant 1	ECI 1	512	1850.2	20.12	22.00	1.542	-	-	0.08	0.632	**0.974**
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Right Cheek	0mm	Ant 1	ECI 1	810	1909.8	20.18	22.00	1.521	-	-	-0.04	0.575	0.874
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Right Tilted	0mm	Ant 1	ECI 1	661	1880	20.30	22.00	1.479	-	-	-0.09	0.528	0.781
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Left Cheek	0mm	Ant 1	ECI 1	661	1880	20.30	22.00	1.479	-	-	0.18	0.291	0.430
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Left Tilted	0mm	Ant 1	ECI 1	661	1880	20.30	22.00	1.479	-	-	-0.17	0.381	0.564
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Right Cheek	0mm	Ant 2	ECI 1	661	1880	24.12	25.00	1.225	-	-	-0.13	0.079	0.097
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Right Tilted	0mm	Ant 2	ECI 1	661	1880	24.12	25.00	1.225	-	-	0.05	0.047	0.058
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Left Cheek	0mm	Ant 2	ECI 1	661	1880	24.12	25.00	1.225	-	-	0.02	0.093	0.114
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Left Tilted	0mm	Ant 2	ECI 1	661	1880	24.12	25.00	1.225	-	-	-0.13	0.076	0.093
08	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 1	ECI 1	9400	1880	17.66	19.00	1.361	-	-	-0.02	0.797	**1.085**
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 1	ECI 1	9262	1852.4	17.64	19.00	1.368	-	-	0.01	0.777	1.063
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 1	ECI 1	9538	1907.6	17.62	19.00	1.374	-	-	-0.04	0.706	0.970
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 1	ECI 1	9400	1880	17.66	19.00	1.361	-	-	-0.15	0.666	0.907
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 1	ECI 1	9262	1852.4	17.64	19.00	1.368	-	-	0.01	0.651	0.890
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 1	ECI 1	9538	1907.6	17.62	19.00	1.374	-	-	-0.04	0.634	0.871
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 1	ECI 1	9400	1880	17.66	19.00	1.361	-	-	0.11	0.383	0.521
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 1	ECI 1	9400	1880	17.66	19.00	1.361	-	-	-0.02	0.503	0.685
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 2	ECI 1	9400	1880	24.49	25.00	1.125	-	-	0.04	0.201	0.226
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 2	ECI 1	9400	1880	24.49	25.00	1.125	-	-	-0.11	0.086	0.097
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 2	ECI 1	9400	1880	24.49	25.00	1.125	-	-	-0.16	0.198	0.223
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 2	ECI 1	9400	1880	24.49	25.00	1.125	-	-	-0.15	0.132	0.148
	LTE Band 2 Main PA	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	ECI 1	18900	1880	18.07	19.00	1.239	-	-	-0.14	0.836	1.036
	LTE Band 2 Main PA	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	ECI 1	18700	1860	17.91	19.00	1.285	-	-	-0.19	0.818	1.051
	LTE Band 2 Main PA	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	ECI 1	19100	1900	17.99	19.00	1.262	-	-	0.01	0.787	0.993
	LTE Band 2 Main PA	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 1	ECI 1	18900	1880	18.05	19.00	1.245	-	-	0.06	0.830	1.033
09	LTE Band 2 Main PA	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 1	ECI 1	18700	1860	18.04	19.00	1.247	-	-	0.02	0.862	**1.075**
	LTE Band 2 Main PA	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 1	ECI 1	19100	1900	17.87	19.00	1.297	-	-	0.12	0.787	1.021
	LTE Band 2 Main PA	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 1	ECI 1	18900	1880	17.95	19.00	1.274	-	-	-0.16	0.831	1.058
	LTE Band 2 Main PA	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	ECI 1	18900	1880	18.07	19.00	1.239	-	-	-0.12	0.778	0.964
	LTE Band 2 Main PA	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	ECI 1	18700	1860	17.91	19.00	1.285	-	-	0.07	0.753	0.968
	LTE Band 2 Main PA	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	ECI 1	19100	1900	17.99	19.00	1.262	-	-	-0.02	0.743	0.938
	LTE Band 2 Main PA	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 1	ECI 1	18900	1880	18.05	19.00	1.245	-	-	-0.05	0.762	0.948
	LTE Band 2 Main PA	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 1	ECI 1	18700	1860	18.04	19.00	1.247	-	-	-0.13	0.771	0.962
	LTE Band 2 Main PA	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 1	ECI 1	19100	1900	17.87	19.00	1.297	-	-	0.08	0.687	0.891
	LTE Band 2 Main PA	20M	QPSK	100	0	-	Right Tilted	0mm	Ant 1	ECI 1	18900	1880	17.95	19.00	1.274	-	-	0.16	0.733	0.933
	LTE Band 2 Main PA	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	ECI 1	18900	1880	18.07	19.00	1.239	-	-	0.01	0.332	0.411
	LTE Band 2 Main PA	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 1	ECI 1	18900	1880	18.05	19.00	1.245	-	-	-0.16	0.327	0.407
	LTE Band 2 Main PA	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	ECI 1	18900	1880	18.07	19.00	1.239	-	-	0.1	0.497	0.616
	LTE Band 2 Main PA	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 1	ECI 1	18900	1880	18.05	19.00	1.245	-	-	-0.04	0.489	0.609
	LTE Band 2 Other PA	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 1	ECI 1	18700	1860	17.70	19.00	1.349	-	-	-0.01	0.767	1.035
	LTE Band 2 Main PA	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	ECI 1	18900	1880	19.61	20.70	1.285	-	-	-0.11	0.486	0.625
	LTE Band 2 Main PA	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	ECI 1	18900	1880	19.59	20.70	1.291	-	-	-0.06	0.505	0.652
	LTE Band 2 Main PA	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	ECI 1	18900	1880	19.61	20.70	1.285	-	-	-0.15	0.126	0.162
	LTE Band 2 Main PA	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	ECI 1	18900	1880	19.59	20.70	1.291	-	-	0.03	0.128	0.165

	LTE Band 2 Main PA	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	ECI 1	18900	1880	19.61	20.70	1.285	-	-	-0.13	0.755	0.970
	LTE Band 2 Main PA	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	ECI 1	18700	1860	19.58	20.70	1.294	-	-	0.16	0.780	1.009
	LTE Band 2 Main PA	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	ECI 1	19100	1900	19.55	20.70	1.303	-	-	-0.15	0.760	0.990
	LTE Band 2 Main PA	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 4	ECI 1	18900	1880	19.59	20.70	1.291	-	-	-0.02	0.782	1.010
	LTE Band 2 Main PA	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 4	ECI 1	18700	1860	19.58	20.70	1.294	-	-	-0.09	0.766	0.991
	LTE Band 2 Main PA	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 4	ECI 1	19100	1900	19.57	20.70	1.297	-	-	0.14	0.789	1.023
	LTE Band 2 Main PA	20M	QPSK	100	0	-	Left Cheek	0mm	Ant 4	ECI 1	18900	1880	19.57	20.70	1.297	-	-	0.1	0.780	1.012
	LTE Band 2 Main PA	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 4	ECI 1	18900	1880	19.61	20.70	1.285	-	-	-0.09	0.166	0.213
	LTE Band 2 Main PA	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 4	ECI 1	18900	1880	19.59	20.70	1.291	-	-	0.07	0.172	0.222
	LTE Band 2 Other PA	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 4	ECI 1	19100	1900	19.66	20.70	1.271	-	-	-0.09	0.669	0.850
	LTE Band 2 Other PA	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	ECI 1	18900	1880	24.77	25.50	1.183	-	-	-0.18	0.193	0.228
	LTE Band 2 Other PA	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 2	ECI 1	18900	1880	23.70	24.50	1.202	-	-	-0.07	0.156	0.188
	LTE Band 2 Other PA	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 2	ECI 1	18900	1880	24.77	25.50	1.183	-	-	0.11	0.097	0.115
	LTE Band 2 Other PA	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 2	ECI 1	18900	1880	23.70	24.50	1.202	-	-	-0.08	0.079	0.095
	LTE Band 2 Other PA	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 2	ECI 1	18900	1880	24.77	25.50	1.183	-	-	-0.1	0.206	0.244
	LTE Band 2 Other PA	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 2	ECI 1	18900	1880	23.70	24.50	1.202	-	-	-0.01	0.166	0.200
	LTE Band 2 Other PA	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 2	ECI 1	18900	1880	24.77	25.50	1.183	-	-	-0.09	0.142	0.168
	LTE Band 2 Other PA	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 2	ECI 1	18900	1880	23.70	24.50	1.202	-	-	-0.06	0.116	0.139
	FR1 n2	40M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	ECI 1	376000	1880	18.67	19.50	1.211	-	-	-0.01	0.815	0.987
	FR1 n2	40M	QPSK	108	54	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	ECI 1	376000	1880	18.61	19.50	1.227	-	-	-0.11	0.765	0.939
	FR1 n2	40M	QPSK	216	0	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	ECI 1	376000	1880	18.58	19.50	1.236	-	-	0.06	0.844	1.043
	FR1 n2	40M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	ECI 1	376000	1880	18.67	19.50	1.211	-	-	0.14	0.674	0.816
	FR1 n2	40M	QPSK	108	54	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	ECI 1	376000	1880	18.61	19.50	1.227	-	-	0.03	0.640	0.786
	FR1 n2	40M	QPSK	216	0	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	ECI 1	376000	1880	18.58	19.50	1.236	-	-	0.1	0.656	0.811
	FR1 n2	40M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 1	ECI 1	376000	1880	18.67	19.50	1.211	-	-	0.16	0.390	0.472
	FR1 n2	40M	QPSK	108	54	DFT-SCS-15KHz	Left Cheek	0mm	Ant 1	ECI 1	376000	1880	18.61	19.50	1.227	-	-	-0.06	0.381	0.468
	FR1 n2	40M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 1	ECI 1	376000	1880	18.67	19.50	1.211	-	-	0.02	0.464	0.562
	FR1 n2	40M	QPSK	108	54	DFT-SCS-15KHz	Left Tilted	0mm	Ant 1	ECI 1	376000	1880	18.61	19.50	1.227	-	-	-0.16	0.448	0.550
	FR1 n2	40M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 4	ECI 1	376000	1880	19.56	20.70	1.300	-	-	-0.03	0.427	0.555
	FR1 n2	40M	QPSK	108	54	DFT-SCS-15KHz	Right Cheek	0mm	Ant 4	ECI 1	376000	1880	19.51	20.70	1.315	-	-	0.17	0.576	0.758
	FR1 n2	40M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 4	ECI 1	376000	1880	19.56	20.70	1.300	-	-	-0.15	0.093	0.121
	FR1 n2	40M	QPSK	108	54	DFT-SCS-15KHz	Right Tilted	0mm	Ant 4	ECI 1	376000	1880	19.51	20.70	1.315	-	-	0.16	0.119	0.157
	FR1 n2	40M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 4	ECI 1	376000	1880	19.56	20.70	1.300	-	-	0.05	0.689	0.896
10	FR1 n2	40M	QPSK	108	54	DFT-SCS-15KHz	Left Cheek	0mm	Ant 4	ECI 1	376000	1880	19.51	20.70	1.315	-	-	-0.03	0.805	**1.059**
	FR1 n2	40M	QPSK	216	0	DFT-SCS-15KHz	Left Cheek	0mm	Ant 4	ECI 1	376000	1880	19.43	20.70	1.340	-	-	-0.06	0.789	1.057
	FR1 n2	40M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 4	ECI 1	376000	1880	19.56	20.70	1.300	-	-	-0.13	0.133	0.173
	FR1 n2	40M	QPSK	108	54	DFT-SCS-15KHz	Left Tilted	0mm	Ant 4	ECI 1	376000	1880	19.51	20.70	1.315	-	-	-0.01	0.167	0.220
	2600MHz																			
	LTE Band 7 Other PA	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	ECI 1	21100	2535	18.52	19.20	1.169	-	-	-0.11	0.833	0.974
	LTE Band 7 Other PA	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	ECI 1	20850	2510	18.44	19.20	1.191	-	-	0.03	0.754	0.898
	LTE Band 7 Other PA	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	ECI 1	21350	2560	18.40	19.20	1.202	-	-	0.08	0.768	0.923
	LTE Band 7 Other PA	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 1	ECI 1	21100	2535	18.48	19.20	1.180	-	-	-0.18	0.810	0.956
	LTE Band 7 Other PA	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 1	ECI 1	20850	2510	18.26	19.20	1.242	-	-	0.08	0.748	0.929
	LTE Band 7 Other PA	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 1	ECI 1	21350	2560	18.35	19.20	1.216	-	-	-0.02	0.753	0.916
	LTE Band 7 Other PA	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 1	ECI 1	21100	2535	18.43	19.20	1.194	-	-	0.02	0.786	0.938
	LTE Band 7 Other PA	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	ECI 1	21100	2535	18.52	19.20	1.169	-	-	0.01	0.562	0.657
	LTE Band 7 Other PA	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 1	ECI 1	21100	2535	18.48	19.20	1.180	-	-	-0.04	0.561	0.662
	LTE Band 7	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	ECI 1	21100	2535	18.52	19.20	1.169	-	-	0.13	0.374	0.437

	Other PA																			
	LTE Band 7 Other PA	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 1	ECI 1	21100	2535	18.48	19.20	1.180	-	-	0.12	0.382	0.451
	LTE Band 7 Other PA	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	ECI 1	21100	2535	18.52	19.20	1.169	-	-	0.07	0.473	0.553
	LTE Band 7 Other PA	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 1	ECI 1	21100	2535	18.48	19.20	1.180	-	-	0.08	0.464	0.548
	LTE Band 7 Main PA	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	ECI 1	21100	2535	17.48	18.50	1.265	-	-	-0.11	0.675	0.854
	LTE Band 7C Main PA	20M	QPSK	1	99	-	Right Cheek	0mm	Ant 1	ECI 1	21100+ 21298	2535+ 2554.8	17.41	18.50	1.285	-	-	0.01	0.657	0.844
	LTE Band 7 Main PA	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	ECI 1	21100	2535	20.58	22.00	1.387	-	-	0.19	0.664	0.921
	LTE Band 7 Main PA	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	ECI 1	20850	2510	20.54	22.00	1.400	-	-	0.03	0.638	0.893
	LTE Band 7 Main PA	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	ECI 1	21350	2560	20.48	22.00	1.419	-	-	0.05	0.624	0.885
11	LTE Band 7 Main PA	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	ECI 1	21100	2535	20.50	22.00	1.413	-	-	-0.03	0.749	**1.058**
	LTE Band 7C Main PA	20M	QPSK	50	50	-	Right Cheek	0mm	Ant 4	ECI 1	21100+ 21298	2535+ 2554.8	20.48	22.00	1.419	-	-	0.01	0.741	1.052
	LTE Band 7 Main PA	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	ECI 1	20850	2510	20.49	22.00	1.416	-	-	0.05	0.663	0.939
	LTE Band 7 Main PA	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	ECI 1	21350	2560	20.47	22.00	1.422	-	-	0.01	0.683	0.971
	LTE Band 7 Main PA	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 4	ECI 1	21100	2535	20.42	22.00	1.439	-	-	0.19	0.660	0.950
	LTE Band 7 Main PA	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	ECI 1	21100	2535	20.58	22.00	1.387	-	-	0.07	0.157	0.218
	LTE Band 7 Main PA	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	ECI 1	21100	2535	20.50	22.00	1.413	-	-	-0.12	0.153	0.216
	LTE Band 7 Main PA	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	ECI 1	21100	2535	20.58	22.00	1.387	-	-	-0.03	0.699	0.969
	LTE Band 7 Main PA	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	ECI 1	20850	2510	20.54	22.00	1.400	-	-	0.07	0.681	0.953
	LTE Band 7 Main PA	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	ECI 1	21350	2560	20.48	22.00	1.419	-	-	-0.06	0.664	0.942
	LTE Band 7 Main PA	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 4	ECI 1	21100	2535	20.50	22.00	1.413	-	-	0.02	0.693	0.979
	LTE Band 7 Main PA	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 4	ECI 1	20850	2510	20.49	22.00	1.416	-	-	0.05	0.643	0.910
	LTE Band 7 Main PA	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 4	ECI 1	21350	2560	20.47	22.00	1.422	-	-	-0.08	0.658	0.936
	LTE Band 7 Main PA	20M	QPSK	100	0	-	Left Cheek	0mm	Ant 4	ECI 1	21100	2535	20.42	22.00	1.439	-	-	0.02	0.650	0.935
	LTE Band 7 Main PA	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 4	ECI 1	21100	2535	20.58	22.00	1.387	-	-	0.12	0.271	0.376
	LTE Band 7 Main PA	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 4	ECI 1	21100	2535	20.50	22.00	1.413	-	-	0.02	0.301	0.425
	LTE Band 7 Other PA	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	ECI 1	21100	2535	21.57	22.20	1.156	-	-	-0.03	0.819	0.947
	LTE Band 7 Other PA	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	ECI 1	21100	2535	25.09	25.70	1.151	-	-	-0.1	0.198	0.228
	LTE Band 7 Other PA	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 2	ECI 1	21100	2535	24.07	24.70	1.156	-	-	0.05	0.176	0.203
	LTE Band 7 Other PA	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 2	ECI 1	21100	2535	25.09	25.70	1.151	-	-	0.06	0.115	0.132
	LTE Band 7 Other PA	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 2	ECI 1	21100	2535	24.07	24.70	1.156	-	-	0.07	0.126	0.146
	LTE Band 7 Other PA	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 2	ECI 1	21100	2535	25.09	25.70	1.151	-	-	0.15	0.331	0.381
	LTE Band 7 Other PA	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 2	ECI 1	21100	2535	24.07	24.70	1.156	-	-	-0.05	0.347	0.401
	LTE Band 7 Other PA	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 2	ECI 1	21100	2535	25.09	25.70	1.151	-	-	-0.08	0.164	0.189
	LTE Band 7 Other PA	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 2	ECI 1	21100	2535	24.07	24.70	1.156	-	-	-0.08	0.159	0.184
	LTE Band 7 Main PA	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 2	ECI 1	21100	2535	22.93	24.50	1.435	-	-	-0.05	0.256	0.367
	LTE Band 7C Main PA	20M	QPSK	50	50	-	Left Cheek	0mm	Ant 2	ECI 1	21100+ 21298	2535+ 2554.8	22.91	24.50	1.442	-	-	0.04	0.247	0.356
	LTE Band 38	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	ECI 1	38000	2595	22.10	22.70	1.148	62.9	1.006	0.11	0.416	0.480
	LTE Band 38	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	ECI 1	38000	2595	22.05	22.70	1.161	62.9	1.006	-0.05	0.417	0.487
	LTE Band 38	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 3	ECI 1	38000	2595	22.10	22.70	1.148	62.9	1.006	-0.01	0.235	0.271
	LTE Band 38	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 3	ECI 1	38000	2595	22.05	22.70	1.161	62.9	1.006	-0.14	0.231	0.270
12	LTE Band 38	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	ECI 1	38000	2595	22.10	22.70	1.148	62.9	1.006	0.01	0.724	**0.836**
	LTE Band 38C	20M	QPSK	1	99	-	Left Cheek	0mm	Ant 3	ECI 1	37901+ 38099	2585.1+ 2604.9	22.07	22.70	1.156	62.9	1.006	0.01	0.710	0.826
	LTE Band 38	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 3	ECI 1	38000	2595	22.05	22.70	1.161	62.9	1.006	-0.12	0.706	0.825
	LTE Band 38	20M	QPSK	100	0	-	Left Cheek	0mm	Ant 3	ECI 1	38000	2595	22.00	22.70	1.175	62.9	1.006	0.08	0.692	0.818
	LTE Band 38	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 3	ECI 1	38000	2595	22.10	22.70	1.148	62.9	1.006	-0.17	0.132	0.152

	LTE Band 38	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 3	ECI 1	38000	2595	22.05	22.70	1.161	62.9	1.006	0.08	0.129	0.151
	LTE Band 41 Main PA	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	ECI 1	40620	2593	20.49	20.70	1.050	62.9	1.006	0.02	0.920	0.971
	LTE Band 41 Main PA	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	ECI 1	39750	2506	20.40	20.70	1.072	62.9	1.006	-0.01	0.824	0.888
	LTE Band 41 Main PA	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	ECI 1	40185	2549.5	20.43	20.70	1.064	62.9	1.006	0.09	0.830	0.889
	LTE Band 41 Main PA	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	ECI 1	41055	2636.5	20.37	20.70	1.079	62.9	1.006	0.1	0.908	0.986
	LTE Band 41 Main PA	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	ECI 1	41490	2680	20.35	20.70	1.084	62.9	1.006	-0.04	0.870	0.949
	LTE Band 41 Main PA	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 1	ECI 1	40620	2593	20.44	20.70	1.062	62.9	1.006	0.15	0.926	0.989
	LTE Band 41 Main PA	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 1	ECI 1	39750	2506	20.21	20.70	1.119	62.9	1.006	-0.16	0.831	0.936
	LTE Band 41 Main PA	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 1	ECI 1	40185	2549.5	20.33	20.70	1.089	62.9	1.006	0.05	0.834	0.914
	LTE Band 41 Main PA	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 1	ECI 1	41055	2636.5	20.18	20.70	1.127	62.9	1.006	0.08	0.876	0.993
	LTE Band 41 Main PA	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 1	ECI 1	41490	2680	20.27	20.70	1.104	62.9	1.006	-0.03	0.932	1.035
	LTE Band 41C Main PA	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 1	ECI 1	41490+ 41292	2680+ 2660	20.27	20.70	1.104	62.9	1.006	0.04	0.912	1.013
	LTE Band 41 Main PA	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 1	ECI 1	40620	2593	20.38	20.70	1.076	62.9	1.006	-0.18	0.874	0.946
	LTE Band 41 Main PA	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	ECI 1	40620	2593	20.49	20.70	1.050	62.9	1.006	-0.04	0.635	0.670
	LTE Band 41 Main PA	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	ECI 1	39750	2506	20.40	20.70	1.072	62.9	1.006	-0.17	0.611	0.659
	LTE Band 41 Main PA	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	ECI 1	40185	2549.5	20.43	20.70	1.064	62.9	1.006	-0.02	0.609	0.652
	LTE Band 41 Main PA	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	ECI 1	41055	2636.5	20.37	20.70	1.079	62.9	1.006	0.07	0.593	0.644
	LTE Band 41 Main PA	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	ECI 1	41490	2680	20.35	20.70	1.084	62.9	1.006	0.09	0.587	0.640
	LTE Band 41 Main PA	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 1	ECI 1	40620	2593	20.44	20.70	1.062	62.9	1.006	0.09	0.635	0.678
	LTE Band 41 Main PA	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 1	ECI 1	39750	2506	20.21	20.70	1.119	62.9	1.006	0.16	0.615	0.693
	LTE Band 41 Main PA	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 1	ECI 1	40185	2549.5	20.33	20.70	1.089	62.9	1.006	0.06	0.622	0.681
	LTE Band 41 Main PA	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 1	ECI 1	41055	2636.5	20.18	20.70	1.127	62.9	1.006	-0.1	0.614	0.696
	LTE Band 41 Main PA	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 1	ECI 1	41490	2680	20.27	20.70	1.104	62.9	1.006	-0.07	0.592	0.658
	LTE Band 41 Main PA	20M	QPSK	100	0	-	Right Tilted	0mm	Ant 1	ECI 1	40620	2593	20.38	20.70	1.076	62.9	1.006	0.11	0.607	0.657
	LTE Band 41 Main PA	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	ECI 1	40620	2593	20.49	20.70	1.050	62.9	1.006	-0.06	0.378	0.399
	LTE Band 41 Main PA	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 1	ECI 1	40620	2593	20.44	20.70	1.062	62.9	1.006	-0.15	0.376	0.402
	LTE Band 41 Main PA	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	ECI 1	40620	2593	20.49	20.70	1.050	62.9	1.006	-0.12	0.121	0.128
	LTE Band 41 Main PA	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 1	ECI 1	40620	2593	20.44	20.70	1.062	62.9	1.006	-0.16	0.089	0.095
	LTE Band 41 Other PA	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 1	ECI 1	40620	2593	20.02	20.70	1.169	62.9	1.006	-0.03	0.799	0.940
	LTE Band 41 Main PA	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	ECI 1	40620	2593	22.36	22.70	1.081	62.9	1.006	0.16	0.922	1.003
	LTE Band 41 Main PA	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	ECI 1	39750	2506	22.22	22.70	1.117	62.9	1.006	-0.01	0.893	1.003
	LTE Band 41 Main PA	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	ECI 1	40185	2549.5	22.27	22.70	1.104	62.9	1.006	0.09	0.887	0.985
	LTE Band 41 Main PA	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	ECI 1	41055	2636.5	22.19	22.70	1.125	62.9	1.006	0.1	0.869	0.983
	LTE Band 41 Main PA	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	ECI 1	41490	2680	22.31	22.70	1.094	62.9	1.006	-0.04	0.902	0.993
	LTE Band 41 Main PA	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	ECI 1	40620	2593	22.32	22.70	1.091	62.9	1.006	0.06	0.962	1.056
	LTE Band 41C Main PA	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	ECI 1	40620+ 40818	2593+ 2612.8	22.27	22.70	1.104	62.9	1.006	0.04	0.912	1.013
	LTE Band 41 Main PA	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	ECI 1	39750	2506	22.19	22.70	1.125	62.9	1.006	0.02	0.921	1.042
	LTE Band 41 Main PA	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	ECI 1	40185	2549.5	22.20	22.70	1.122	62.9	1.006	0.16	0.901	1.017
	LTE Band 41 Main PA	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	ECI 1	41055	2636.5	22.12	22.70	1.143	62.9	1.006	0.06	0.882	1.014
	LTE Band 41 Main PA	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	ECI 1	41490	2680	22.19	22.70	1.125	62.9	1.006	0.07	0.891	1.008
	LTE Band 41 Main PA	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 4	ECI 1	40620	2593	22.24	22.70	1.112	62.9	1.006	-0.17	0.873	0.976
	LTE Band 41 Main PA	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	ECI 1	40620	2593	22.36	22.70	1.081	62.9	1.006	-0.02	0.152	0.165
	LTE Band 41 Main PA	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	ECI 1	40620	2593	22.32	22.70	1.091	62.9	1.006	0.07	0.157	0.172

	LTE Band 41 Main PA	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	ECI 1	40620	2593	22.36	22.70	1.081	62.9	1.006	-0.17	0.668	0.727
	LTE Band 41 Main PA	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	ECI 1	39750	2506	22.22	22.70	1.117	62.9	1.006	-0.01	0.631	0.709
	LTE Band 41 Main PA	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	ECI 1	40185	2549.5	22.27	22.70	1.104	62.9	1.006	0.09	0.618	0.686
	LTE Band 41 Main PA	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	ECI 1	41055	2636.5	22.19	22.70	1.125	62.9	1.006	0.1	0.627	0.709
	LTE Band 41 Main PA	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	ECI 1	41490	2680	22.31	22.70	1.094	62.9	1.006	-0.04	0.623	0.686
	LTE Band 41 Main PA	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 4	ECI 1	40620	2593	22.32	22.70	1.091	62.9	1.006	0.14	0.671	0.737
	LTE Band 41 Main PA	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 4	ECI 1	39750	2506	22.19	22.70	1.125	62.9	1.006	0.02	0.651	0.737
	LTE Band 41 Main PA	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 4	ECI 1	40185	2549.5	22.20	22.70	1.122	62.9	1.006	0.16	0.648	0.731
	LTE Band 41 Main PA	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 4	ECI 1	41055	2636.5	22.12	22.70	1.143	62.9	1.006	0.06	0.628	0.722
	LTE Band 41 Main PA	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 4	ECI 1	41490	2680	22.19	22.70	1.125	62.9	1.006	0.07	0.637	0.721
	LTE Band 41 Main PA	20M	QPSK	100	0	-	Left Cheek	0mm	Ant 4	ECI 1	40620	2593	22.24	22.70	1.112	62.9	1.006	-0.17	0.629	0.703
	LTE Band 41 Main PA	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 4	ECI 1	40620	2593	22.36	22.70	1.081	62.9	1.006	-0.03	0.231	0.251
	LTE Band 41 Main PA	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 4	ECI 1	40620	2593	22.32	22.70	1.091	62.9	1.006	-0.14	0.228	0.250
	LTE Band 41 Other PA	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	ECI 1	40620	2593	22.08	22.70	1.153	62.9	1.006	-0.14	0.826	0.958
	LTE Band 41 Main PA	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	ECI 1	40620	2593	24.67	25.70	1.268	62.9	1.006	0.18	0.115	0.147
	LTE Band 41 Main PA	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 2	ECI 1	40620	2593	23.62	24.70	1.282	62.9	1.006	0.02	0.096	0.124
	LTE Band 41 Main PA	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 2	ECI 1	40620	2593	24.67	25.70	1.268	62.9	1.006	0.16	0.089	0.113
	LTE Band 41 Main PA	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 2	ECI 1	40620	2593	23.62	24.70	1.282	62.9	1.006	0.06	0.072	0.093
	LTE Band 41 Main PA	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 2	ECI 1	40620	2593	24.67	25.70	1.268	62.9	1.006	-0.02	0.225	0.287
	LTE Band 41C Main PA	20M	QPSK	1	99	-	Left Cheek	0mm	Ant 2	ECI 1	40620+ 40818	2593+ 2612.8	24.60	25.70	1.288	62.9	1.006	0.01	0.201	0.260
	LTE Band 41 Main PA	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 2	ECI 1	40620	2593	23.62	24.70	1.282	62.9	1.006	0.07	0.179	0.231
	LTE Band 41 Main PA	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 2	ECI 1	40620	2593	24.67	25.70	1.268	62.9	1.006	-0.17	0.073	0.093
	LTE Band 41 Main PA	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 2	ECI 1	40620	2593	23.62	24.70	1.282	62.9	1.006	0.1	0.060	0.077
	LTE Band 41 Other PA	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 2	ECI 1	40620	2593	25.17	25.70	1.130	62.9	1.006	0.08	0.208	0.236
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	ECI 1	40620	2593	20.45	20.70	1.059	62.9	1.006	-0.13	0.347	0.370
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	ECI 1	40620	2593	20.40	20.70	1.072	62.9	1.006	-0.1	0.346	0.373
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 3	ECI 1	40620	2593	20.45	20.70	1.059	62.9	1.006	-0.07	0.181	0.193
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 3	ECI 1	40620	2593	20.40	20.70	1.072	62.9	1.006	0.11	0.181	0.195
	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	ECI 1	40620	2593	20.45	20.70	1.059	62.9	1.006	-0.17	0.780	0.831
	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	ECI 1	39750	2506	20.27	20.70	1.104	62.9	1.006	0.1	0.877	0.974
	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	ECI 1	40185	2549.5	20.32	20.70	1.091	62.9	1.006	0.11	0.416	0.457
	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	ECI 1	41055	2636.5	20.30	20.70	1.096	62.9	1.006	-0.07	0.756	0.834
13	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	ECI 1	41490	2680	20.19	20.70	1.125	62.9	1.006	-0.01	0.949	**1.074**
	LTE Band 41C	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	ECI 1	41490+ 41292	2680+ 2660	20.11	20.70	1.146	62.9	1.006	0.05	0.927	1.068
	LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 3	ECI 1	40620	2593	20.40	20.70	1.072	62.9	1.006	0.07	0.764	0.824
	LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 3	ECI 1	39750	2506	20.06	20.70	1.159	62.9	1.006	0.14	0.313	0.365
	LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 3	ECI 1	40185	2549.5	20.17	20.70	1.130	62.9	1.006	-0.03	0.404	0.459
	LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 3	ECI 1	41055	2636.5	20.07	20.70	1.156	62.9	1.006	-0.14	0.750	0.872
	LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 3	ECI 1	41490	2680	20.19	20.70	1.125	62.9	1.006	0.17	0.940	1.063
	LTE Band 41	20M	QPSK	100	0	-	Left Cheek	0mm	Ant 3	ECI 1	40620	2593	20.34	20.70	1.086	62.9	1.006	0.11	0.587	0.642
	LTE Band 41	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 3	ECI 1	40620	2593	20.45	20.70	1.059	62.9	1.006	0.07	0.100	0.107
	LTE Band 41	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 3	ECI 1	40620	2593	20.40	20.70	1.072	62.9	1.006	-0.04	0.081	0.087
	FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	ECI 1	507000	2535	18.25	18.70	1.109	-	-	-0.13	0.818	0.907
	FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	ECI 1	507000	2535	18.21	18.70	1.119	-	-	-0.13	0.873	0.977
	FR1 n7	50M	QPSK	270	0	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	ECI 1	507000	2535	18.15	18.70	1.135	-	-	-0.01	0.879	0.998
	FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	ECI 1	507000	2535	18.25	18.70	1.109	-	-	-0.09	0.533	0.591
	FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	ECI 1	507000	2535	18.21	18.70	1.119	-	-	-0.04	0.596	0.667
	FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 1	ECI 1	507000	2535	18.25	18.70	1.109	-	-	-0.09	0.390	0.433

	FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Left Cheek	0mm	Ant 1	ECI 1	507000	2535	18.21	18.70	1.119	-	-	0.05	0.408	0.457
	FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 1	ECI 1	507000	2535	18.25	18.70	1.109	-	-	0.13	0.477	0.529
	FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Left Tilted	0mm	Ant 1	ECI 1	507000	2535	18.21	18.70	1.119	-	-	-0.12	0.504	0.564
	FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 4	ECI 1	507000	2535	21.98	22.70	1.180	-	-	0.15	0.763	0.901
14	FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Right Cheek	0mm	Ant 4	ECI 1	507000	2535	21.97	22.70	1.183	-	-	0.09	0.925	**1.094**
	FR1 n7	50M	QPSK	270	0	DFT-SCS-15KHz	Right Cheek	0mm	Ant 4	ECI 1	507000	2535	21.88	22.70	1.208	-	-	-0.07	0.905	1.093
	FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 4	ECI 1	507000	2535	21.98	22.70	1.180	-	-	0.1	0.156	0.184
	FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Right Tilted	0mm	Ant 4	ECI 1	507000	2535	21.97	22.70	1.183	-	-	-0.11	0.168	0.199
	FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 4	ECI 1	507000	2535	21.98	22.70	1.180	-	-	-0.02	0.670	0.791
	FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Left Cheek	0mm	Ant 4	ECI 1	507000	2535	21.97	22.70	1.183	-	-	-0.1	0.727	0.860
	FR1 n7	50M	QPSK	270	0	DFT-SCS-15KHz	Left Cheek	0mm	Ant 4	ECI 1	507000	2535	21.88	22.70	1.208	-	-	0.14	0.720	0.870
	FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 4	ECI 1	507000	2535	21.98	22.70	1.180	-	-	0.04	0.236	0.279
	FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Left Tilted	0mm	Ant 4	ECI 1	507000	2535	21.97	22.70	1.183	-	-	-0.05	0.259	0.306
	FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 2	ECI 1	507000	2535	25.05	25.70	1.161	-	-	0.14	0.192	0.223
	FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Right Cheek	0mm	Ant 2	ECI 1	507000	2535	25.00	25.70	1.175	-	-	0.03	0.197	0.231
	FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 2	ECI 1	507000	2535	25.05	25.70	1.161	-	-	0.16	0.143	0.166
	FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Right Tilted	0mm	Ant 2	ECI 1	507000	2535	25.00	25.70	1.175	-	-	0.01	0.160	0.188
	FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 2	ECI 1	507000	2535	25.05	25.70	1.161	-	-	-0.06	0.356	0.413
	FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Left Cheek	0mm	Ant 2	ECI 1	507000	2535	25.00	25.70	1.175	-	-	-0.04	0.363	0.426
	FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 2	ECI 1	507000	2535	25.05	25.70	1.161	-	-	0.14	0.148	0.172
	FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Left Tilted	0mm	Ant 2	ECI 1	507000	2535	25.00	25.70	1.175	-	-	-0.09	0.149	0.175
	FR1 n38	40M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 1	ECI 1	519000	2595	18.54	18.70	1.038	-	-	0.11	0.907	0.941
	FR1 n38	40M	QPSK	50	28	DFT-SCS-30KHz	Right Cheek	0mm	Ant 1	ECI 1	519000	2595	18.48	18.70	1.052	-	-	-0.12	0.891	0.937
	FR1 n38	40M	QPSK	100	0	DFT-SCS-30KHz	Right Cheek	0mm	Ant 1	ECI 1	519000	2595	18.35	18.70	1.084	-	-	-0.06	0.854	0.926
	FR1 n38	40M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 1	ECI 1	519000	2595	18.54	18.70	1.038	-	-	-0.19	0.656	0.681
	FR1 n38	40M	QPSK	50	28	DFT-SCS-30KHz	Right Tilted	0mm	Ant 1	ECI 1	519000	2595	18.48	18.70	1.052	-	-	0.09	0.652	0.686
	FR1 n38	40M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 1	ECI 1	519000	2595	18.54	18.70	1.038	-	-	-0.08	0.382	0.396
	FR1 n38	40M	QPSK	50	28	DFT-SCS-30KHz	Left Cheek	0mm	Ant 1	ECI 1	519000	2595	18.48	18.70	1.052	-	-	0.08	0.383	0.403
	FR1 n38	40M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 1	ECI 1	519000	2595	18.54	18.70	1.038	-	-	-0.04	0.443	0.460
	FR1 n38	40M	QPSK	50	28	DFT-SCS-30KHz	Left Tilted	0mm	Ant 1	ECI 1	519000	2595	18.48	18.70	1.052	-	-	0.12	0.389	0.409
	FR1 n38	40M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 4	ECI 1	519000	2595	20.11	20.70	1.146	-	-	-0.02	0.723	0.828
15	FR1 n38	40M	QPSK	50	28	DFT-SCS-30KHz	Right Cheek	0mm	Ant 4	ECI 1	519000	2595	19.93	20.70	1.194	-	-	-0.11	0.879	**1.050**
	FR1 n38	40M	QPSK	100	0	DFT-SCS-30KHz	Right Cheek	0mm	Ant 4	ECI 1	519000	2595	19.90	20.70	1.202	-	-	-0.03	0.808	0.971
	FR1 n38	40M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 4	ECI 1	519000	2595	20.11	20.70	1.146	-	-	-0.06	0.110	0.126
	FR1 n38	40M	QPSK	50	28	DFT-SCS-30KHz	Right Tilted	0mm	Ant 4	ECI 1	519000	2595	19.93	20.70	1.194	-	-	0.08	0.108	0.129
	FR1 n38	40M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 4	ECI 1	519000	2595	20.11	20.70	1.146	-	-	-0.07	0.492	0.564
	FR1 n38	40M	QPSK	50	28	DFT-SCS-30KHz	Left Cheek	0mm	Ant 4	ECI 1	519000	2595	19.93	20.70	1.194	-	-	0.11	0.517	0.617
	FR1 n38	40M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 4	ECI 1	519000	2595	20.11	20.70	1.146	-	-	0.04	0.161	0.184
	FR1 n38	40M	QPSK	50	28	DFT-SCS-30KHz	Left Tilted	0mm	Ant 4	ECI 1	519000	2595	19.93	20.70	1.194	-	-	0.17	0.153	0.183
	FR1 n38	40M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 2	ECI 1	519000	2595	25.23	25.70	1.114	-	-	0.17	0.212	0.236
	FR1 n38	40M	QPSK	50	28	DFT-SCS-30KHz	Right Cheek	0mm	Ant 2	ECI 1	519000	2595	25.14	25.70	1.138	-	-	-0.15	0.204	0.232
	FR1 n38	40M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 2	ECI 1	519000	2595	25.23	25.70	1.114	-	-	0.18	0.167	0.186
	FR1 n38	40M	QPSK	50	28	DFT-SCS-30KHz	Right Tilted	0mm	Ant 2	ECI 1	519000	2595	25.14	25.70	1.138	-	-	0.05	0.149	0.170
	FR1 n38	40M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 2	ECI 1	519000	2595	25.23	25.70	1.114	-	-	0.1	0.388	0.432
	FR1 n38	40M	QPSK	50	28	DFT-SCS-30KHz	Left Cheek	0mm	Ant 2	ECI 1	519000	2595	25.14	25.70	1.138	-	-	0.04	0.367	0.418
	FR1 n38	40M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 2	ECI 1	519000	2595	25.23	25.70	1.114	-	-	0.15	0.130	0.145
	FR1 n38	40M	QPSK	50	28	DFT-SCS-30KHz	Left Tilted	0mm	Ant 2	ECI 1	519000	2595	25.14	25.70	1.138	-	-	0.03	0.125	0.142
	FR1 n38	40M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 3	ECI 1	519000	2595	19.58	19.70	1.028	-	-	0.14	0.564	0.580
	FR1 n38	40M	QPSK	50	28	DFT-SCS-30KHz	Right Cheek	0mm	Ant 3	ECI 1	519000	2595	19.50	19.70	1.047	-	-	-0.16	0.605	0.634
	FR1 n38	40M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 3	ECI 1	519000	2595	19.58	19.70	1.028	-	-	0.1	0.250	0.257
	FR1 n38	40M	QPSK	50	28	DFT-SCS-30KHz	Right Tilted	0mm	Ant 3	ECI 1	519000	2595	19.50	19.70	1.047	-	-	-0.1	0.264	0.276
	FR1 n38	40M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 3	ECI 1	519000	2595	19.58	19.70	1.028	-	-	-0.05	0.808	0.831
	FR1 n38	40M	QPSK	50	28	DFT-SCS-30KHz	Left Cheek	0mm	Ant 3	ECI 1	519000	2595	19.50	19.70	1.047	-	-	0.06	0.932	0.976
	FR1 n38	40M	QPSK	100	0	DFT-SCS-30KHz	Left Cheek	0mm	Ant 3	ECI 1	519000	2595	19.42	19.70	1.067	-	-	-0.09	0.895	0.955
	FR1 n38	40M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 3	ECI 1	519000	2595	19.58	19.70	1.028	-	-	0.03	0.160	0.164
	FR1 n38	40M	QPSK	50	28	DFT-SCS-30KHz	Left Tilted	0mm	Ant 3	ECI 1	519000	2595	19.50	19.70	1.047	-	-	-0.11	0.168	0.176

	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 1	ECI 1	518598	2592.99	16.93	17.50	1.140	-	-	0.15	0.501	0.571
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 1	ECI 1	518598	2592.99	16.88	17.50	1.153	-	-	-0.15	0.621	0.716
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 1	ECI 1	518598	2592.99	16.93	17.50	1.140	-	-	0.06	0.380	0.433
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 1	ECI 1	518598	2592.99	16.88	17.50	1.153	-	-	0.15	0.409	0.472
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 1	ECI 1	518598	2592.99	16.93	17.50	1.140	-	-	-0.1	0.231	0.263
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 1	ECI 1	518598	2592.99	16.88	17.50	1.153	-	-	0.17	0.264	0.305
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 1	ECI 1	518598	2592.99	16.93	17.50	1.140	-	-	0.13	0.284	0.324
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 1	ECI 1	518598	2592.99	16.88	17.50	1.153	-	-	-0.02	0.301	0.347
	FR1 n41 PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 1	ECI 1	518598	2592.99	20.07	20.50	1.104	50	1.000	0.09	0.662	0.731
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 4	ECI 1	518598	2592.99	19.09	20.50	1.384	-	-	0.1	0.608	0.841
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 4	ECI 1	518598	2592.99	19.05	20.50	1.396	-	-	0.13	0.588	0.821
	FR1 n41	100M	QPSK	270	0	DFT-SCS-30KHz	Right Cheek	0mm	Ant 4	ECI 1	518598	2592.99	18.95	20.50	1.429	-	-	-0.04	0.721	1.030
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 4	ECI 1	518598	2592.99	19.09	20.50	1.384	-	-	-0.12	0.075	0.104
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 4	ECI 1	518598	2592.99	19.05	20.50	1.396	-	-	-0.07	0.079	0.110
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 4	ECI 1	518598	2592.99	19.09	20.50	1.384	-	-	-0.03	0.328	0.454
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 4	ECI 1	518598	2592.99	19.05	20.50	1.396	-	-	-0.13	0.375	0.524
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 4	ECI 1	518598	2592.99	19.09	20.50	1.384	-	-	0.05	0.124	0.172
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 4	ECI 1	518598	2592.99	19.05	20.50	1.396	-	-	-0.15	0.117	0.163
16	FR1 n41 PC2	100M	QPSK	270	0	DFT-SCS-30KHz	Right Cheek	0mm	Ant 4	ECI 1	518598	2592.99	22.03	23.50	1.403	50	1.000	-0.03	0.770	**1.080**
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 2	ECI 1	518598	2592.99	22.42	23.50	1.282	-	-	0.07	0.113	0.145
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 2	ECI 1	518598	2592.99	22.39	23.50	1.291	-	-	0	0.097	0.125
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 2	ECI 1	518598	2592.99	22.42	23.50	1.282	-	-	-0.12	0.078	0.100
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 2	ECI 1	518598	2592.99	22.39	23.50	1.291	-	-	0.19	0.067	0.087
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 2	ECI 1	518598	2592.99	22.42	23.50	1.282	-	-	-0.01	0.221	0.283
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 2	ECI 1	518598	2592.99	22.39	23.50	1.291	-	-	-0.19	0.181	0.234
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 2	ECI 1	518598	2592.99	22.42	23.50	1.282	-	-	-0.03	0.065	0.083
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 2	ECI 1	518598	2592.99	22.39	23.50	1.291	-	-	-0.08	0.062	0.080
	FR1 n41 PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 2	ECI 1	518598	2592.99	25.45	26.50	1.274	50	1.000	0.1	0.237	0.302
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 3	ECI 1	518598	2592.99	18.75	19.50	1.189	-	-	0.12	0.400	0.475
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 3	ECI 1	518598	2592.99	18.71	19.50	1.199	-	-	-0.12	0.415	0.498
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 3	ECI 1	518598	2592.99	18.75	19.50	1.189	-	-	-0.15	0.185	0.220
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 3	ECI 1	518598	2592.99	18.71	19.50	1.199	-	-	-0.19	0.195	0.234
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 3	ECI 1	518598	2592.99	18.75	19.50	1.189	-	-	-0.13	0.542	0.644
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 3	ECI 1	518598	2592.99	18.71	19.50	1.199	-	-	-0.05	0.630	0.756
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 3	ECI 1	518598	2592.99	18.75	19.50	1.189	-	-	-0.12	0.129	0.153
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 3	ECI 1	518598	2592.99	18.71	19.50	1.199	-	-	0.18	0.144	0.173
	FR1 n41 PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 3	ECI 1	518598	2592.99	21.86	22.50	1.159	50	1.000	-0.04	0.692	0.802
3500MHz																				
	LTE Band 48	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 5	ECI 1	55830	3609	19.93	20.50	1.140	62.9	1.006	0.03	0.267	0.306
	LTE Band 48	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 5	ECI 1	55830	3609	19.92	20.50	1.143	62.9	1.006	0.09	0.265	0.305
	LTE Band 48	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 5	ECI 1	55830	3609	19.93	20.50	1.140	62.9	1.006	-0.13	0.376	0.431
	LTE Band 48	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 5	ECI 1	55830	3609	19.92	20.50	1.143	62.9	1.006	-0.09	0.382	0.439
	LTE Band 48	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	ECI 1	55830	3609	19.93	20.50	1.140	62.9	1.006	-0.18	0.346	0.397
	LTE Band 48	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 5	ECI 1	55830	3609	19.92	20.50	1.143	62.9	1.006	0.12	0.345	0.397
	LTE Band 48	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 5	ECI 1	55830	3609	19.93	20.50	1.140	62.9	1.006	0.11	0.702	0.805
	LTE Band 48	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 5	ECI 1	55340	3560	19.85	20.50	1.161	62.9	1.006	0.11	0.567	0.662
	LTE Band 48	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 5	ECI 1	56150	3641	19.86	20.50	1.159	62.9	1.006	-0.06	0.547	0.638
17	LTE Band 48	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 5	ECI 1	56640	3690	19.79	20.50	1.178	62.9	1.006	-0.03	0.829	**0.982**
	LTE Band 48	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 5	ECI 1	55830	3609	19.92	20.50	1.143	62.9	1.006	0.12	0.715	0.822
	LTE Band 48	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 5	ECI 1	55340	3560	19.89	20.50	1.151	62.9	1.006	0.02	0.687	0.795
	LTE Band 48	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 5	ECI 1	56150	3641	19.76	20.50	1.186	62.9	1.006	-0.11	0.654	0.780
	LTE Band 48	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 5	ECI 1	56640	3690	19.80	20.50	1.175	62.9	1.006	-0.11	0.709	0.838
	LTE Band 48	20M	QPSK	100	0	-	Left Tilted	0mm	Ant 5	ECI 1	55830	3609	19.90	20.50	1.148	62.9	1.006	-0.05	0.443	0.512
	LTE Band 48	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 8	ECI 1	55830	3609	21.40	22.50	1.288	62.9	1.006	-0.06	0.623	0.807
	LTE Band 48	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 8	ECI 1	55340	3560	21.29	22.50	1.321	62.9	1.006	0.01	0.570	0.758
	LTE Band 48	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 8	ECI 1	56150	3641	21.36	22.50	1.300	62.9	1.006	-0.03	0.602	0.787

	LTE Band 48	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 8	ECI 1	56640	3690	21.25	22.50	1.334	62.9	1.006	0.03	0.703	0.943
	LTE Band 48	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 8	ECI 1	55830	3609	20.38	21.50	1.294	62.9	1.006	-0.17	0.469	0.611
	LTE Band 48	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 8	ECI 1	55340	3560	20.19	21.50	1.352	62.9	1.006	0.16	0.438	0.596
	LTE Band 48	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 8	ECI 1	56150	3641	20.21	21.50	1.346	62.9	1.006	0.19	0.422	0.571
	LTE Band 48	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 8	ECI 1	56640	3690	20.04	21.50	1.400	62.9	1.006	-0.12	0.413	0.581
	LTE Band 48	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 8	ECI 1	55830	3609	20.38	21.50	1.294	62.9	1.006	0.02	0.486	0.633
	LTE Band 48	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 8	ECI 1	55830	3609	21.40	22.50	1.288	62.9	1.006	-0.11	0.295	0.382
	LTE Band 48	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 8	ECI 1	55830	3609	20.38	21.50	1.294	62.9	1.006	0.18	0.243	0.316
	LTE Band 48	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 8	ECI 1	55830	3609	21.40	22.50	1.288	62.9	1.006	0.16	0.179	0.232
	LTE Band 48	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 8	ECI 1	55830	3609	20.38	21.50	1.294	62.9	1.006	0.19	0.166	0.216
	LTE Band 48	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 8	ECI 1	55830	3609	21.40	22.50	1.288	62.9	1.006	0.13	0.187	0.242
	LTE Band 48	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 8	ECI 1	55830	3609	20.38	21.50	1.294	62.9	1.006	-0.03	0.148	0.193
	LTE Band 48	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 6	ECI 1	55830	3609	19.34	20.50	1.306	62.9	1.006	0.19	0.115	0.151
	LTE Band 48	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 6	ECI 1	55830	3609	19.31	20.50	1.315	62.9	1.006	-0.09	0.129	0.171
	LTE Band 48	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 6	ECI 1	55830	3609	19.34	20.50	1.306	62.9	1.006	-0.12	0.115	0.151
	LTE Band 48	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 6	ECI 1	55830	3609	19.31	20.50	1.315	62.9	1.006	0.07	0.114	0.151
	LTE Band 48	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 6	ECI 1	55830	3609	19.34	20.50	1.306	62.9	1.006	-0.18	0.607	0.798
	LTE Band 48	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 6	ECI 1	55340	3560	19.24	20.50	1.337	62.9	1.006	0.03	0.591	0.795
	LTE Band 48	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 6	ECI 1	56150	3641	19.15	20.50	1.365	62.9	1.006	-0.17	0.573	0.787
	LTE Band 48	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 6	ECI 1	56640	3690	19.17	20.50	1.358	62.9	1.006	0.02	0.559	0.764
	LTE Band 48	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 6	ECI 1	55830	3609	19.31	20.50	1.315	62.9	1.006	-0.06	0.613	0.811
	LTE Band 48	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 6	ECI 1	55340	3560	19.09	20.50	1.384	62.9	1.006	-0.08	0.576	0.802
	LTE Band 48	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 6	ECI 1	56150	3641	19.13	20.50	1.371	62.9	1.006	0.12	0.581	0.801
	LTE Band 48	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 6	ECI 1	56640	3690	19.08	20.50	1.387	62.9	1.006	-0.09	0.576	0.804
	LTE Band 48	20M	QPSK	100	0	-	Left Cheek	0mm	Ant 6	ECI 1	55830	3609	19.26	20.50	1.330	62.9	1.006	0.02	0.584	0.782
	LTE Band 48	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 6	ECI 1	55830	3609	19.34	20.50	1.306	62.9	1.006	0.07	0.247	0.325
	LTE Band 48	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 6	ECI 1	55830	3609	19.31	20.50	1.315	62.9	1.006	-0.15	0.261	0.345
	LTE Band 48	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 7	ECI 1	55830	3609	21.36	22.50	1.300	62.9	1.006	-0.08	0.435	0.569
	LTE Band 48	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 7	ECI 1	55830	3609	20.33	21.50	1.309	62.9	1.006	-0.04	0.339	0.446
	LTE Band 48	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 7	ECI 1	55830	3609	21.36	22.50	1.300	62.9	1.006	0.02	0.100	0.131
	LTE Band 48	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 7	ECI 1	55830	3609	20.33	21.50	1.309	62.9	1.006	-0.07	0.074	0.097
	LTE Band 48	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 7	ECI 1	55830	3609	21.36	22.50	1.300	62.9	1.006	-0.08	0.125	0.163
	LTE Band 48	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 7	ECI 1	55830	3609	20.33	21.50	1.309	62.9	1.006	0.12	0.104	0.137
	LTE Band 48	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 7	ECI 1	55830	3609	21.36	22.50	1.300	62.9	1.006	-0.07	0.051	0.067
	LTE Band 48	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 7	ECI 1	55830	3609	20.33	21.50	1.309	62.9	1.006	-0.05	0.036	0.047
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 5	ECI 1	641666	3624.99	17.82	18.50	1.169	-	-	0.13	0.507	0.593
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Right Cheek	0mm	Ant 5	ECI 1	641666	3624.99	17.77	18.50	1.183	-	-	-0.03	0.482	0.570
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 5	ECI 1	641666	3624.99	17.82	18.50	1.169	-	-	0.09	0.622	0.727
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Right Tilted	0mm	Ant 5	ECI 1	641666	3624.99	17.77	18.50	1.183	-	-	0.06	0.601	0.711
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 5	ECI 1	641666	3624.99	17.82	18.50	1.169	-	-	-0.04	0.651	0.761
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Left Cheek	0mm	Ant 5	ECI 1	641666	3624.99	17.77	18.50	1.183	-	-	0.17	0.668	0.790
18	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 5	ECI 1	641666	3624.99	17.82	18.50	1.169	-	-	-0.02	0.853	**0.998**
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 5	ECI 1	638000	3570	17.68	18.50	1.208	-	-	-0.03	0.811	0.980
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 5	ECI 1	645332	3679.98	17.72	18.50	1.197	-	-	-0.03	0.781	0.935
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Left Tilted	0mm	Ant 5	ECI 1	641666	3624.99	17.77	18.50	1.183	-	-	0.01	0.804	0.951
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Left Tilted	0mm	Ant 5	ECI 1	638000	3570	17.61	18.50	1.227	-	-	0.01	0.758	0.930
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Left Tilted	0mm	Ant 5	ECI 1	645332	3679.98	17.65	18.50	1.216	-	-	0.01	0.779	0.947
	FR1 n48	40M	QPSK	100	0	DFT-SCS-30KHz	Left Tilted	0mm	Ant 5	ECI 1	641666	3624.99	17.65	18.50	1.216	-	-	0.01	0.784	0.953
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 8	ECI 1	641666	3624.99	20.36	21.50	1.300	-	-	0.13	0.675	0.878
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 8	ECI 1	638000	3570	20.31	21.50	1.315	-	-	0.02	0.658	0.865
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 8	ECI 1	645332	3679.98	20.27	21.50	1.327	-	-	-0.12	0.654	0.868
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Right Cheek	0mm	Ant 8	ECI 1	641666	3624.99	20.32	21.50	1.312	-	-	0.03	0.638	0.837
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Right Cheek	0mm	Ant 8	ECI 1	638000	3570	20.30	21.50	1.318	-	-	0.15	0.624	0.823
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Right Cheek	0mm	Ant 8	ECI 1	645332	3679.98	20.28	21.50	1.324	-	-	-0.05	0.616	0.816
	FR1 n48	40M	QPSK	100	0	DFT-SCS-30KHz	Right Cheek	0mm	Ant 8	ECI 1	641666	3624.99	20.13	21.50	1.371	-	-	0.13	0.623	0.854
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 8	ECI 1	641666	3624.99	20.36	21.50	1.300	-	-	0.09	0.426	0.554

	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Right Tilted	0mm	Ant 8	ECI 1	641666	3624.99	20.32	21.50	1.312	-	-	-0.02	0.428	0.562
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 8	ECI 1	641666	3624.99	20.36	21.50	1.300	-	-	0.15	0.223	0.290
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Left Cheek	0mm	Ant 8	ECI 1	641666	3624.99	20.32	21.50	1.312	-	-	-0.08	0.232	0.304
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 8	ECI 1	641666	3624.99	20.36	21.50	1.300	-	-	0.06	0.199	0.259
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Left Tilted	0mm	Ant 8	ECI 1	641666	3624.99	20.32	21.50	1.312	-	-	0.15	0.207	0.272
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 6	ECI 1	641666	3624.99	17.67	18.50	1.211	-	-	-0.05	0.106	0.128
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Right Cheek	0mm	Ant 6	ECI 1	641666	3624.99	17.63	18.50	1.222	-	-	-0.18	0.103	0.126
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 6	ECI 1	641666	3624.99	17.67	18.50	1.211	-	-	-0.08	0.088	0.107
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Right Tilted	0mm	Ant 6	ECI 1	641666	3624.99	17.63	18.50	1.222	-	-	0.18	0.091	0.111
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 6	ECI 1	641666	3624.99	17.67	18.50	1.211	-	-	0.1	0.516	0.625
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Left Cheek	0mm	Ant 6	ECI 1	641666	3624.99	17.63	18.50	1.222	-	-	-0.09	0.432	0.528
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 6	ECI 1	641666	3624.99	17.67	18.50	1.211	-	-	-0.15	0.219	0.265
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Left Tilted	0mm	Ant 6	ECI 1	641666	3624.99	17.63	18.50	1.222	-	-	0.02	0.219	0.268
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 7	ECI 1	641666	3624.99	21.45	22.50	1.274	-	-	-0.16	0.480	0.611
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Right Cheek	0mm	Ant 7	ECI 1	641666	3624.99	21.31	22.50	1.315	-	-	0.15	0.497	0.654
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 7	ECI 1	641666	3624.99	21.45	22.50	1.274	-	-	-0.02	0.090	0.115
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Right Tilted	0mm	Ant 7	ECI 1	641666	3624.99	21.31	22.50	1.315	-	-	0.08	0.102	0.134
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 7	ECI 1	641666	3624.99	21.45	22.50	1.274	-	-	0.02	0.178	0.227
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Left Cheek	0mm	Ant 7	ECI 1	641666	3624.99	21.31	22.50	1.315	-	-	-0.04	0.202	0.266
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 7	ECI 1	641666	3624.99	21.45	22.50	1.274	-	-	0.17	0.049	0.062
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Left Tilted	0mm	Ant 7	ECI 1	641666	3624.99	21.31	22.50	1.315	-	-	0.18	0.054	0.071
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 5	ECI 1	656000	3840	15.80	16.50	1.175	-	-	0.01	0.228	0.268
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 5	ECI 1	656000	3840	15.71	16.50	1.199	-	-	0.04	0.219	0.263
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 5	ECI 1	656000	3840	15.80	16.50	1.175	-	-	-0.16	0.307	0.361
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 5	ECI 1	656000	3840	15.71	16.50	1.199	-	-	-0.12	0.268	0.321
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 5	ECI 1	656000	3840	15.80	16.50	1.175	-	-	-0.08	0.288	0.338
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 5	ECI 1	656000	3840	15.71	16.50	1.199	-	-	-0.18	0.282	0.338
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 5	ECI 1	656000	3840	15.80	16.50	1.175	-	-	-0.03	0.391	0.459
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 5	ECI 1	656000	3840	15.71	16.50	1.199	-	-	0.02	0.373	0.447
	FR1 n77 PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 5	ECI 1	656000	3840	18.76	19.50	1.186	50	1.000	0.02	0.374	0.443
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 5	ECI 1	633334	3500.01	15.91	16.50	1.146	-	-	-0.17	0.383	0.439
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 5	ECI 1	633334	3500.01	15.83	16.50	1.167	-	-	-0.04	0.389	0.454
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 5	ECI 1	633334	3500.01	15.91	16.50	1.146	-	-	-0.17	0.483	0.553
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 5	ECI 1	633334	3500.01	15.83	16.50	1.167	-	-	-0.07	0.488	0.569
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 5	ECI 1	633334	3500.01	15.91	16.50	1.146	-	-	0.01	0.473	0.542
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 5	ECI 1	633334	3500.01	15.83	16.50	1.167	-	-	0.04	0.506	0.590
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 5	ECI 1	633334	3500.01	15.91	16.50	1.146	-	-	0.16	0.768	0.880
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 5	ECI 1	633334	3500.01	15.83	16.50	1.167	-	-	0.1	0.643	0.750
	FR1 n77 PC3	100M	QPSK	270	0	DFT-SCS-30KHz	Left Tilted	0mm	Ant 5	ECI 1	633334	3500.01	15.75	16.50	1.189	-	-	0.03	0.671	0.797
	FR1 n77 PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 5	ECI 1	633334	3500.01	18.56	19.50	1.242	50	1.000	0.02	0.772	0.959
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 8	ECI 1	656000	3840	18.16	19.50	1.361	-	-	-0.17	0.646	0.879
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 8	ECI 1	656000	3840	18.13	19.50	1.371	-	-	-0.1	0.721	0.988
	FR1 n77 PC3	100M	QPSK	270	0	DFT-SCS-30KHz	Right Cheek	0mm	Ant 8	ECI 1	656000	3840	18.09	19.50	1.384	-	-	0.1	0.707	0.978
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 8	ECI 1	656000	3840	18.16	19.50	1.361	-	-	0.17	0.197	0.268
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 8	ECI 1	656000	3840	18.13	19.50	1.371	-	-	-0.06	0.191	0.262
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 8	ECI 1	656000	3840	18.16	19.50	1.361	-	-	0.07	0.141	0.192
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 8	ECI 1	656000	3840	18.13	19.50	1.371	-	-	0.11	0.136	0.186
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 8	ECI 1	656000	3840	18.16	19.50	1.361	-	-	-0.18	0.096	0.131
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 8	ECI 1	656000	3840	18.13	19.50	1.371	-	-	0.11	0.098	0.134
19	FR1 n77 PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 8	ECI 1	656000	3840	21.15	22.50	1.365	50	1.000	0.02	0.782	**1.067**
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 8	ECI 1	633334	3500.01	18.47	19.50	1.268	-	-	0.16	0.338	0.428
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 8	ECI 1	633334	3500.01	18.41	19.50	1.285	-	-	0.17	0.301	0.387
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 8	ECI 1	633334	3500.01	18.47	19.50	1.268	-	-	0.06	0.245	0.311
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 8	ECI 1	633334	3500.01	18.41	19.50	1.285	-	-	-0.18	0.237	0.305
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 8	ECI 1	633334	3500.01	18.47	19.50	1.268	-	-	0.06	0.119	0.151
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 8	ECI 1	633334	3500.01	18.41	19.50	1.285	-	-	0.18	0.102	0.131

	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 8	ECI 1	633334	3500.01	18.47	19.50	1.268	-	-	-0.19	0.091	0.115
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 8	ECI 1	633334	3500.01	18.41	19.50	1.285	-	-	0.17	0.087	0.112
	FR1 n77 PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 8	ECI 1	633334	3500.01	21.27	22.50	1.327	50	1.000	-0.19	0.353	0.469
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 6	ECI 1	656000	3840	16.21	17.50	1.346	-	-	0.03	0.080	0.108
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 6	ECI 1	656000	3840	16.14	17.50	1.368	-	-	0.12	0.068	0.093
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 6	ECI 1	656000	3840	16.21	17.50	1.346	-	-	-0.17	0.073	0.098
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 6	ECI 1	656000	3840	16.14	17.50	1.368	-	-	-0.17	0.066	0.090
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 6	ECI 1	656000	3840	16.21	17.50	1.346	-	-	0.02	0.353	0.475
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 6	ECI 1	656000	3840	16.14	17.50	1.368	-	-	-0.07	0.288	0.394
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 6	ECI 1	656000	3840	16.21	17.50	1.346	-	-	-0.03	0.162	0.218
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 6	ECI 1	656000	3840	16.14	17.50	1.368	-	-	0.02	0.151	0.207
	FR1 n77 PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 6	ECI 1	656000	3840	19.22	20.50	1.343	50	1.000	0.09	0.328	0.440
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 6	ECI 1	633334	3500.01	16.05	17.50	1.396	-	-	-0.07	0.078	0.109
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 6	ECI 1	633334	3500.01	16.00	17.50	1.413	-	-	-0.16	0.091	0.129
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 6	ECI 1	633334	3500.01	16.05	17.50	1.396	-	-	-0.03	0.061	0.085
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 6	ECI 1	633334	3500.01	16.00	17.50	1.413	-	-	0.03	0.069	0.097
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 6	ECI 1	633334	3500.01	16.05	17.50	1.396	-	-	0.1	0.353	0.493
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 6	ECI 1	633334	3500.01	16.00	17.50	1.413	-	-	-0.13	0.409	0.578
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 6	ECI 1	633334	3500.01	16.05	17.50	1.396	-	-	0.06	0.156	0.218
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 6	ECI 1	633334	3500.01	16.00	17.50	1.413	-	-	0.12	0.175	0.247
	FR1 n77 PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 6	ECI 1	633334	3500.01	19.12	20.50	1.374	50	1.000	-0.03	0.387	0.532
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 7	ECI 1	650000	3750	20.21	21.00	1.199	-	-	0.08	0.416	0.499
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 7	ECI 1	650000	3750	20.10	21.00	1.230	-	-	0.07	0.477	0.587
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 7	ECI 1	650000	3750	20.21	21.00	1.199	-	-	-0.12	0.093	0.112
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 7	ECI 1	650000	3750	20.10	21.00	1.230	-	-	0.1	0.096	0.118
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 7	ECI 1	650000	3750	20.21	21.00	1.199	-	-	-0.16	0.132	0.158
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 7	ECI 1	650000	3750	20.10	21.00	1.230	-	-	-0.1	0.140	0.172
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 7	ECI 1	650000	3750	20.21	21.00	1.199	-	-	0.17	0.039	0.047
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 7	ECI 1	650000	3750	20.10	21.00	1.230	-	-	0.12	0.039	0.048
	FR1 n77 PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 7	ECI 1	650000	3750	23.12	24.00	1.225	50	1.000	-0.14	0.521	0.638
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 7	ECI 1	633334	3500.01	20.44	21.00	1.138	-	-	-0.1	0.350	0.398
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 7	ECI 1	633334	3500.01	20.39	21.00	1.151	-	-	0.16	0.518	0.596
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 7	ECI 1	633334	3500.01	20.44	21.00	1.138	-	-	-0.09	0.300	0.341
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 7	ECI 1	633334	3500.01	20.39	21.00	1.151	-	-	-0.09	0.157	0.181
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 7	ECI 1	633334	3500.01	20.44	21.00	1.138	-	-	0.08	0.185	0.210
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 7	ECI 1	633334	3500.01	20.39	21.00	1.151	-	-	0.06	0.206	0.237
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 7	ECI 1	633334	3500.01	20.44	21.00	1.138	-	-	0.1	0.086	0.098
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 7	ECI 1	633334	3500.01	20.39	21.00	1.151	-	-	0.1	0.051	0.059
	FR1 n77 PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 7	ECI 1	633334	3500.01	23.19	24.00	1.205	50	1.000	-0.07	0.538	0.648
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 5	ECI 1	650000	3750	15.15	16.00	1.216	-	-	0.12	0.205	0.249
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 5	ECI 1	650000	3750	15.05	16.00	1.245	-	-	0.08	0.187	0.233
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 5	ECI 1	650000	3750	15.15	16.00	1.216	-	-	0.15	0.273	0.332
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 5	ECI 1	650000	3750	15.05	16.00	1.245	-	-	-0.11	0.262	0.326
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 5	ECI 1	650000	3750	15.15	16.00	1.216	-	-	-0.05	0.266	0.324
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 5	ECI 1	650000	3750	15.05	16.00	1.245	-	-	0.02	0.245	0.305
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 5	ECI 1	650000	3750	15.15	16.00	1.216	-	-	-0.05	0.385	0.468
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 5	ECI 1	650000	3750	15.05	16.00	1.245	-	-	-0.11	0.331	0.412
	FR1 n78 PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 5	ECI 1	650000	3750	17.97	19.00	1.268	50	1.000	0.02	0.398	0.505
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 5	ECI 1	633334	3500.01	15.46	16.00	1.132	-	-	0.05	0.379	0.429
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 5	ECI 1	633334	3500.01	15.43	16.00	1.140	-	-	-0.14	0.379	0.432
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 5	ECI 1	633334	3500.01	15.46	16.00	1.132	-	-	-0.17	0.550	0.623
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 5	ECI 1	633334	3500.01	15.43	16.00	1.140	-	-	0.05	0.533	0.608
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 5	ECI 1	633334	3500.01	15.46	16.00	1.132	-	-	0.13	0.484	0.548
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 5	ECI 1	633334	3500.01	15.43	16.00	1.140	-	-	0.05	0.498	0.568
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 5	ECI 1	633334	3500.01	15.46	16.00	1.132	-	-	-0.03	0.705	0.798
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 5	ECI 1	633334	3500.01	15.43	16.00	1.140	-	-	-0.12	0.674	0.769

	FR1 n78 PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 5	ECI 1	633334	3500.01	18.39	19.00	1.151	50	1.000	0.06	0.729	0.839
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 8	ECI 1	650000	3750	17.21	18.50	1.346	-	-	0.18	0.586	0.789
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 8	ECI 1	650000	3750	17.14	18.50	1.368	-	-	0.1	0.723	0.989
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 8	ECI 1	650000	3750	17.21	18.50	1.346	-	-	-0.01	0.337	0.454
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 8	ECI 1	650000	3750	17.14	18.50	1.368	-	-	0.02	0.334	0.457
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 8	ECI 1	650000	3750	17.21	18.50	1.346	-	-	0.07	0.242	0.326
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 8	ECI 1	650000	3750	17.14	18.50	1.368	-	-	-0.18	0.248	0.339
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 8	ECI 1	650000	3750	17.21	18.50	1.346	-	-	0.06	0.249	0.335
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 8	ECI 1	650000	3750	17.14	18.50	1.368	-	-	0.15	0.244	0.334
	FR1 n78 PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 8	ECI 1	650000	3750	20.06	21.50	1.393	50	1.000	-0.15	0.758	1.056
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 8	ECI 1	633334	3500.01	17.60	18.50	1.230	-	-	-0.03	0.440	0.541
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 8	ECI 1	633334	3500.01	17.52	18.50	1.253	-	-	0.08	0.502	0.629
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 8	ECI 1	633334	3500.01	17.60	18.50	1.230	-	-	-0.03	0.364	0.448
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 8	ECI 1	633334	3500.01	17.52	18.50	1.253	-	-	0.09	0.342	0.429
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 8	ECI 1	633334	3500.01	17.60	18.50	1.230	-	-	-0.02	0.171	0.210
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 8	ECI 1	633334	3500.01	17.52	18.50	1.253	-	-	0.08	0.157	0.197
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 8	ECI 1	633334	3500.01	17.60	18.50	1.230	-	-	0.13	0.152	0.187
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 8	ECI 1	633334	3500.01	17.52	18.50	1.253	-	-	-0.12	0.137	0.172
	FR1 n78 PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 8	ECI 1	633334	3500.01	20.28	21.50	1.324	50	1.000	-0.08	0.513	0.679
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 6	ECI 1	650000	3750	16.67	18.00	1.358	-	-	0.18	0.124	0.168
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 6	ECI 1	650000	3750	16.59	18.00	1.384	-	-	-0.08	0.105	0.145
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 6	ECI 1	650000	3750	16.67	18.00	1.358	-	-	0.04	0.112	0.152
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 6	ECI 1	650000	3750	16.59	18.00	1.384	-	-	-0.07	0.098	0.136
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 6	ECI 1	650000	3750	16.67	18.00	1.358	-	-	-0.09	0.533	0.724
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 6	ECI 1	650000	3750	16.59	18.00	1.384	-	-	0.13	0.507	0.701
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 6	ECI 1	650000	3750	16.67	18.00	1.358	-	-	0.11	0.267	0.363
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 6	ECI 1	650000	3750	16.59	18.00	1.384	-	-	-0.12	0.229	0.317
	FR1 n78 PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 6	ECI 1	650000	3750	20.12	21.00	1.225	50	1.000	-0.08	0.532	0.651
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 6	ECI 1	633334	3500.01	16.95	18.00	1.274	-	-	-0.16	0.099	0.126
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 6	ECI 1	633334	3500.01	16.93	18.00	1.279	-	-	-0.02	0.115	0.147
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 6	ECI 1	633334	3500.01	16.95	18.00	1.274	-	-	0.04	0.078	0.099
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 6	ECI 1	633334	3500.01	16.93	18.00	1.279	-	-	-0.18	0.090	0.115
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 6	ECI 1	633334	3500.01	16.95	18.00	1.274	-	-	-0.07	0.401	0.511
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 6	ECI 1	633334	3500.01	16.93	18.00	1.279	-	-	-0.02	0.518	0.663
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 6	ECI 1	633334	3500.01	16.95	18.00	1.274	-	-	-0.07	0.169	0.215
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 6	ECI 1	633334	3500.01	16.93	18.00	1.279	-	-	0.1	0.209	0.267
	FR1 n78 PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 6	ECI 1	633334	3500.01	20.15	21.00	1.216	50	1.000	0.05	0.500	0.608
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 7	ECI 1	650000	3750	20.27	21.50	1.327	-	-	0.12	0.456	0.605
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 7	ECI 1	650000	3750	20.24	21.50	1.337	-	-	0.02	0.741	0.990
	FR1 n78 PC3	100M	QPSK	270	0	DFT-SCS-30KHz	Right Cheek	0mm	Ant 7	ECI 1	650000	3750	20.16	21.50	1.361	-	-	0.06	0.618	0.841
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 7	ECI 1	650000	3750	20.27	21.50	1.327	-	-	-0.12	0.099	0.131
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 7	ECI 1	650000	3750	20.24	21.50	1.337	-	-	0.15	0.113	0.151
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 7	ECI 1	650000	3750	20.27	21.50	1.327	-	-	-0.07	0.175	0.232
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 7	ECI 1	650000	3750	20.24	21.50	1.337	-	-	0.04	0.183	0.245
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 7	ECI 1	650000	3750	20.27	21.50	1.327	-	-	0.04	0.044	0.058
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 7	ECI 1	650000	3750	20.24	21.50	1.337	-	-	0.1	0.046	0.061
20	FR1 n78 PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 7	ECI 1	650000	3750	22.78	24.50	1.486	50	1.000	0.06	0.726	**1.079**
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 7	ECI 1	633334	3500.01	20.92	21.50	1.143	-	-	0.07	0.498	0.569
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 7	ECI 1	633334	3500.01	20.83	21.50	1.167	-	-	-0.06	0.581	0.678
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 7	ECI 1	633334	3500.01	20.92	21.50	1.143	-	-	-0.09	0.422	0.482
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 7	ECI 1	633334	3500.01	20.83	21.50	1.167	-	-	0.02	0.241	0.281
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 7	ECI 1	633334	3500.01	20.92	21.50	1.143	-	-	-0.08	0.289	0.330
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 7	ECI 1	633334	3500.01	20.83	21.50	1.167	-	-	0.02	0.332	0.387
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 7	ECI 1	633334	3500.01	20.92	21.50	1.143	-	-	-0.08	0.116	0.133
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 7	ECI 1	633334	3500.01	20.83	21.50	1.167	-	-	-0.03	0.080	0.093
	FR1 n78 PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 7	ECI 1	633334	3500.01	23.21	24.50	1.346	50	1.000	-0.06	0.489	0.658

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
						2450MHz										
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 17	Standalone	6	2437	15.87	17.00	1.297	100	1.000	0.08	0.446	0.579
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 17	Standalone	6	2437	15.87	17.00	1.297	100	1.000	0.03	0.521	0.676
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 17	Standalone	6	2437	15.87	17.00	1.297	100	1.000	-0.08	0.600	0.778
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 17	Standalone	6	2437	15.87	17.00	1.297	100	1.000	0.03	0.672	0.872
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 17	Simultaneous (Non DBS&DBS)	6	2437	10.44	11.50	1.276	100	1.000	-0.04	0.157	0.200
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 17	Standalone	11	2462	15.71	16.50	1.199	100	1.000	-0.18	0.644	0.772
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 6	Standalone	6	2437	16.00	17.00	1.259	100	1.000	0.1	0.132	0.166
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 6	Standalone	6	2437	16.00	17.00	1.259	100	1.000	0.12	0.083	0.104
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 6	Standalone	6	2437	16.00	17.00	1.259	100	1.000	-0.07	0.654	0.823
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 6	Simultaneous (Non DBS&DBS)	6	2437	10.20	11.50	1.349	100	1.000	0.05	0.181	0.244
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 6	Standalone	11	2462	15.81	16.50	1.172	100	1.000	0.08	0.566	0.663
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 6	Standalone	6	2437	16.00	17.00	1.259	100	1.000	-0.17	0.252	0.317
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 17+6	Standalone	6	2437	18.94	20.00	1.278	100	1.000	0.14	0.474	0.606
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 17+6	Standalone	6	2437	18.94	20.00	1.278	100	1.000	-0.05	0.548	0.700
21	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 17+6	Standalone	6	2437	18.94	20.00	1.278	100	1.000	0.05	0.852	**1.089**
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 17+6	Simultaneous (Non DBS&DBS)	6	2437	13.32	14.50	1.312	100	1.000	0.01	0.196	0.257
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 17+6	Standalone	11	2462	18.76	19.50	1.186	100	1.000	0.14	0.754	0.894
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 17+6	Standalone	6	2437	18.94	20.00	1.278	100	1.000	-0.17	0.777	0.993
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 17+6	Standalone	11	2462	18.76	19.50	1.186	100	1.000	0.17	0.748	0.887
	Bluetooth	1Mbps	Right Cheek	0mm	Ant 17	Full Power	39	2441	14.53	15.50	1.251	76.6	1.087	0.08	0.224	0.305
	Bluetooth	1Mbps	Right Tilted	0mm	Ant 17	Full Power	39	2441	14.53	15.50	1.251	76.6	1.087	0.01	0.266	0.362
	Bluetooth	1Mbps	Left Cheek	0mm	Ant 17	Full Power	39	2441	14.53	15.50	1.251	76.6	1.087	0.03	0.288	0.392
22	Bluetooth	1Mbps	Left Tilted	0mm	Ant 17	Full Power	39	2441	14.53	15.50	1.251	76.6	1.087	-0.08	0.358	**0.487**
	Bluetooth	1Mbps	Left Tilted	0mm	Ant 17	Simultaneous (Non DBS&DBS)	39	2441	10.06	11.50	1.393	100	1.000	0.03	0.158	0.220
						5000MHz										
	WLAN5.3GHz	802.11n-HT40 MCS0	Right Cheek	0mm	Ant 18	Standalone	54	5270	16.27	17.00	1.183	92.86	1.077	-0.05	0.217	0.276
	WLAN5.3GHz	802.11n-HT40 MCS0	Right Tilted	0mm	Ant 18	Standalone	54	5270	16.27	17.00	1.183	92.86	1.077	0.01	0.093	0.118
	WLAN5.3GHz	802.11n-HT40 MCS0	Left Cheek	0mm	Ant 18	Standalone	54	5270	16.27	17.00	1.183	92.86	1.077	0.1	0.586	0.747
	WLAN5.3GHz	802.11n-HT40 MCS0	Left Cheek	0mm	Ant 18	Simultaneous (Non DBS&DBS)	54	5270	9.88	10.50	1.153	92.86	1.077	-0.02	0.181	0.225
	WLAN5.3GHz	802.11n-HT40 MCS0	Left Tilted	0mm	Ant 18	Standalone	54	5270	16.27	17.00	1.183	92.86	1.077	0.04	0.187	0.238
	WLAN5.3GHz	802.11n-HT40 MCS0	Right Cheek	0mm	Ant 5+18	Standalone	54	5270	19.37	20.50	1.297	92.86	1.077	0.08	0.367	0.513
	WLAN5.3GHz	802.11n-HT40 MCS0	Right Tilted	0mm	Ant 5+18	Standalone	54	5270	19.37	20.50	1.297	92.86	1.077	0.03	0.439	0.613
23	WLAN5.3GHz	802.11n-HT40 MCS0	Left Cheek	0mm	Ant 5+18	Standalone	54	5270	19.37	20.50	1.297	92.86	1.077	0.01	0.720	**1.006**
	WLAN5.3GHz	802.11n-HT40 MCS0	Left Cheek	0mm	Ant 5+18	Simultaneous (Non DBS&DBS)	54	5270	13.02	14.00	1.254	92.86	1.077	0.01	0.189	0.255
	WLAN5.3GHz	802.11n-HT40 MCS0	Left Cheek	0mm	Ant 5+18	Standalone	62	5310	19.21	20.50	1.346	92.86	1.077	-0.08	0.611	0.885
	WLAN5.3GHz	802.11n-HT40 MCS0	Left Tilted	0mm	Ant 5+18	Standalone	54	5270	19.37	20.50	1.297	92.86	1.077	0.1	0.639	0.892
	WLAN5.3GHz	802.11n-HT40 MCS0	Left Tilted	0mm	Ant 5+18	Standalone	62	5310	19.21	20.50	1.346	92.86	1.077	-0.18	0.582	0.843
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 18	Standalone	138	5690	15.60	16.50	1.230	86.98	1.150	0.08	0.094	0.133
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 18	Standalone	138	5690	15.60	16.50	1.230	86.98	1.150	0.01	0.048	0.068
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 18	Standalone	138	5690	15.60	16.50	1.230	86.98	1.150	0.03	0.317	0.448
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 18	Simultaneous (Non DBS&DBS)	138	5690	9.57	10.50	1.239	86.98	1.150	0.04	0.088	0.125
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 18	Standalone	138	5690	15.60	16.50	1.230	86.98	1.150	-0.08	0.123	0.174
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 5+18	Standalone	138	5690	19.24	20.00	1.191	87.06	1.149	0.1	0.353	0.483
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 5+18	Standalone	138	5690	19.24	20.00	1.191	87.06	1.149	0.1	0.428	0.586
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 5+18	Standalone	138	5690	19.24	20.00	1.191	87.06	1.149	0.08	0.513	0.702
24	WLAN5.5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 5+18	Standalone	138	5690	19.24	20.00	1.191	87.06	1.149	-0.03	0.737	**1.008**
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 5+18	Simultaneous (Non DBS&DBS)	138	5690	13.21	14.00	1.199	87.06	1.149	0.07	0.172	0.237
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 5+18	Standalone	122	5610	18.84	19.50	1.164	87.06	1.149	-0.09	0.636	0.850
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 18	Standalone	155	5775	15.31	16.00	1.172	86.98	1.150	0.14	0.139	0.187
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 18	Standalone	155	5775	15.31	16.00	1.172	86.98	1.150	0.06	0.108	0.146
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 18	Standalone	155	5775	15.31	16.00	1.172	86.98	1.150	-0.06	0.489	0.659

	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 18	Simultaneous (Non DBS&DBS)	155	5775	8.77	9.50	1.183	86.98	1.150	0.04	0.134	0.182
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 18	Standalone	155	5775	15.31	16.00	1.172	86.98	1.150	0.11	0.255	0.344
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 5+18	Standalone	155	5775	18.76	19.50	1.186	87.06	1.149	0.14	0.541	0.737
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 5+18	Standalone	155	5775	18.76	19.50	1.186	87.06	1.149	-0.17	0.642	0.875
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 5+18	Standalone	155	5775	18.76	19.50	1.186	87.06	1.149	0.17	0.761	1.037
25	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 5+18	Standalone	155	5775	18.76	19.50	1.186	87.06	1.149	0.07	0.782	**1.065**
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 5+18	Simultaneous (Non DBS&DBS)	155	5775	12.21	13.00	1.199	87.06	1.149	0.02	0.174	0.240

16.2 Hotspot SAR

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
835MHz																				
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Front	10mm	Ant 0	ECI 5	189	836.4	27.15	28.00	1.216	-	-	0.08	0.188	0.229
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Back	10mm	Ant 0	ECI 5	189	836.4	27.15	28.00	1.216	-	-	0.06	0.233	0.283
26	GSM850	-	-	-	-	GPRS (4 Tx slots)	Right Side	10mm	Ant 0	ECI 5	189	836.4	27.15	28.00	1.216	-	-	0.01	0.296	**0.360**
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Bottom Side	10mm	Ant 0	ECI 5	189	836.4	27.15	28.00	1.216	-	-	-0.08	0.155	0.189
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Front	10mm	Ant 1	ECI 5	189	836.4	27.35	28.50	1.303	-	-	0.1	0.134	0.175
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Back	10mm	Ant 1	ECI 5	189	836.4	27.35	28.50	1.303	-	-	-0.18	0.177	0.231
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Left Side	10mm	Ant 1	ECI 5	189	836.4	27.35	28.50	1.303	-	-	0.1	0.179	0.233
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Top Side	10mm	Ant 1	ECI 5	189	836.4	27.35	28.50	1.303	-	-	0.12	0.137	0.179
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 0	ECI 5	4182	836.4	24.42	25.00	1.143	-	-	-0.17	0.212	0.242
27	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 0	ECI 5	4182	836.4	24.42	25.00	1.143	-	-	0.01	0.270	**0.309**
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Side	10mm	Ant 0	ECI 5	4182	836.4	24.42	25.00	1.143	-	-	0.14	0.254	0.290
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Bottom Side	10mm	Ant 0	ECI 5	4182	836.4	24.42	25.00	1.143	-	-	0.11	0.155	0.177
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 1	ECI 5	4182	836.4	23.79	25.00	1.321	-	-	0.18	0.163	0.215
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 1	ECI 5	4182	836.4	23.79	25.00	1.321	-	-	0.14	0.205	0.271
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 1	ECI 5	4182	836.4	23.79	25.00	1.321	-	-	-0.17	0.195	0.258
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Top Side	10mm	Ant 1	ECI 5	4182	836.4	23.79	25.00	1.321	-	-	0.17	0.166	0.219
	LTE Band 5 Main PA	10M	QPSK	1	0	-	Front	10mm	Ant 0	ECI 5	20525	836.5	25.35	25.70	1.084	-	-	-0.17	0.258	0.280
	LTE Band 5 Main PA	10M	QPSK	25	0	-	Front	10mm	Ant 0	ECI 5	20525	836.5	24.28	24.70	1.102	-	-	-0.03	0.200	0.220
28	LTE Band 5 Main PA	10M	QPSK	1	0	-	Back	10mm	Ant 0	ECI 5	20525	836.5	25.35	25.70	1.084	-	-	0.02	0.339	**0.367**
	LTE Band 5 Main PA	10M	QPSK	25	0	-	Back	10mm	Ant 0	ECI 5	20525	836.5	24.28	24.70	1.102	-	-	-0.03	0.282	0.311
	LTE Band 5 Main PA	10M	QPSK	1	0	-	Right Side	10mm	Ant 0	ECI 5	20525	836.5	25.35	25.70	1.084	-	-	0.14	0.300	0.325
	LTE Band 5 Main PA	10M	QPSK	25	0	-	Right Side	10mm	Ant 0	ECI 5	20525	836.5	24.28	24.70	1.102	-	-	0.11	0.260	0.286
	LTE Band 5 Main PA	10M	QPSK	1	0	-	Bottom Side	10mm	Ant 0	ECI 5	20525	836.5	25.35	25.70	1.084	-	-	0.14	0.198	0.215
	LTE Band 5 Main PA	10M	QPSK	25	0	-	Bottom Side	10mm	Ant 0	ECI 5	20525	836.5	24.28	24.70	1.102	-	-	0.11	0.159	0.175
	LTE Band 5 Other PA	10M	QPSK	1	0	-	Back	10mm	Ant 0	ECI 5	20525	836.5	24.62	25.50	1.225	-	-	0.11	0.298	0.365
	LTE Band 5 Main PA	10M	QPSK	1	0	-	Front	10mm	Ant 1	ECI 5	20525	836.5	24.75	25.20	1.109	-	-	0.18	0.157	0.174
	LTE Band 5 Main PA	10M	QPSK	25	0	-	Front	10mm	Ant 1	ECI 5	20525	836.5	24.10	24.70	1.148	-	-	0.14	0.157	0.180
	LTE Band 5 Main PA	10M	QPSK	1	0	-	Back	10mm	Ant 1	ECI 5	20525	836.5	24.75	25.20	1.109	-	-	-0.17	0.241	0.267
	LTE Band 5 Main PA	10M	QPSK	25	0	-	Back	10mm	Ant 1	ECI 5	20525	836.5	24.10	24.70	1.148	-	-	0.17	0.223	0.256
	LTE Band 5 Main PA	10M	QPSK	1	0	-	Left Side	10mm	Ant 1	ECI 5	20525	836.5	24.75	25.20	1.109	-	-	0.18	0.199	0.221
	LTE Band 5 Main PA	10M	QPSK	25	0	-	Left Side	10mm	Ant 1	ECI 5	20525	836.5	24.10	24.70	1.148	-	-	0.14	0.176	0.202
	LTE Band 5 Main PA	10M	QPSK	1	0	-	Top Side	10mm	Ant 1	ECI 5	20525	836.5	24.75	25.20	1.109	-	-	-0.17	0.177	0.196
	LTE Band 5 Main PA	10M	QPSK	25	0	-	Top Side	10mm	Ant 1	ECI 5	20525	836.5	24.10	24.70	1.148	-	-	0.17	0.170	0.195
	LTE Band 5 Other PA	10M	QPSK	1	0	-	Back	10mm	Ant 1	ECI 5	20525	836.5	24.10	25.00	1.230	-	-	0.17	0.215	0.265

	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Front	10mm	Ant 0	ECI 5	167300	836.5	25.41	25.70	1.069	-	-	-0.17	0.250	0.267
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Front	10mm	Ant 0	ECI 5	167300	836.5	25.27	25.70	1.104	-	-	-0.03	0.216	0.238
29	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Back	10mm	Ant 0	ECI 5	167300	836.5	25.41	25.70	1.069	-	-	-0.01	0.332	**0.355**
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Back	10mm	Ant 0	ECI 5	167300	836.5	25.27	25.70	1.104	-	-	0.05	0.314	0.347
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Right Side	10mm	Ant 0	ECI 5	167300	836.5	25.41	25.70	1.069	-	-	0.06	0.291	0.311
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Right Side	10mm	Ant 0	ECI 5	167300	836.5	25.27	25.70	1.104	-	-	-0.09	0.244	0.269
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	10mm	Ant 0	ECI 5	167300	836.5	25.41	25.70	1.069	-	-	0.14	0.199	0.213
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Bottom Side	10mm	Ant 0	ECI 5	167300	836.5	25.27	25.70	1.104	-	-	0.11	0.182	0.201
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Front	10mm	Ant 1	ECI 5	167300	836.5	24.38	25.20	1.208	-	-	0.18	0.126	0.152
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Front	10mm	Ant 1	ECI 5	167300	836.5	24.31	25.20	1.227	-	-	0.17	0.176	0.216
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Back	10mm	Ant 1	ECI 5	167300	836.5	24.38	25.20	1.208	-	-	0.18	0.178	0.215
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Back	10mm	Ant 1	ECI 5	167300	836.5	24.31	25.20	1.227	-	-	-0.04	0.246	0.302
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Left Side	10mm	Ant 1	ECI 5	167300	836.5	24.38	25.20	1.208	-	-	-0.08	0.164	0.198
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Left Side	10mm	Ant 1	ECI 5	167300	836.5	24.31	25.20	1.227	-	-	-0.13	0.200	0.245
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Top Side	10mm	Ant 1	ECI 5	167300	836.5	24.38	25.20	1.208	-	-	-0.13	0.140	0.169
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Top Side	10mm	Ant 1	ECI 5	167300	836.5	24.31	25.20	1.227	-	-	0.17	0.189	0.232
1750MHz																				
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 1	ECI 5	1413	1732.6	18.12	19.50	1.374	-	-	0.01	0.160	0.220
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 1	ECI 5	1413	1732.6	18.12	19.50	1.374	-	-	0.1	0.210	0.289
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 1	ECI 5	1413	1732.6	18.12	19.50	1.374	-	-	-0.17	0.117	0.161
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Top Side	10mm	Ant 1	ECI 5	1413	1732.6	18.12	19.50	1.374	-	-	0.04	0.343	0.471
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 2	ECI 5	1413	1732.6	22.03	23.00	1.250	-	-	-0.08	0.458	0.573
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 2	ECI 5	1413	1732.6	22.03	23.00	1.250	-	-	0.05	0.476	0.595
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 2	ECI 5	1413	1732.6	22.03	23.00	1.250	-	-	0.06	0.178	0.223
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Bottom Side	10mm	Ant 2	ECI 5	1413	1732.6	22.03	23.00	1.250	-	-	-0.09	0.764	0.955
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Bottom Side	10mm	Ant 2	ECI 5	1312	1712.4	21.96	23.00	1.271	-	-	-0.08	0.702	0.892
30	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Bottom Side	10mm	Ant 2	ECI 5	1513	1752.6	21.97	23.00	1.268	-	-	-0.05	0.790	**1.001**
	LTE Band 4	20M	QPSK	1	0	-	Front	10mm	Ant 2	ECI 5	20175	1732.5	21.98	22.70	1.180	-	-	0.19	0.412	0.486
	LTE Band 4	20M	QPSK	50	0	-	Front	10mm	Ant 2	ECI 5	20175	1732.5	21.95	22.70	1.189	-	-	0.07	0.427	0.507
	LTE Band 4	20M	QPSK	1	0	-	Back	10mm	Ant 2	ECI 5	20175	1732.5	21.98	22.70	1.180	-	-	-0.18	0.456	0.538
	LTE Band 4	20M	QPSK	50	0	-	Back	10mm	Ant 2	ECI 5	20175	1732.5	21.95	22.70	1.189	-	-	0.03	0.458	0.544
	LTE Band 4	20M	QPSK	1	0	-	Left Side	10mm	Ant 2	ECI 5	20175	1732.5	21.98	22.70	1.180	-	-	-0.15	0.154	0.182
	LTE Band 4	20M	QPSK	50	0	-	Left Side	10mm	Ant 2	ECI 5	20175	1732.5	21.95	22.70	1.189	-	-	-0.15	0.168	0.200
	LTE Band 4	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 2	ECI 5	20175	1732.5	21.98	22.70	1.180	-	-	0.11	0.798	0.942
31	LTE Band 4	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 2	ECI 5	20175	1732.5	21.95	22.70	1.189	-	-	-0.02	0.812	**0.965**
	LTE Band 4	20M	QPSK	100	0	-	Bottom Side	10mm	Ant 2	ECI 5	20175	1732.5	21.89	22.70	1.205	-	-	-0.08	0.770	0.928
	LTE Band 66	20M	QPSK	1	0	-	Front	10mm	Ant 1	ECI 5	132322	1745	18.58	19.50	1.236	-	-	-0.08	0.158	0.195
	LTE Band 66	20M	QPSK	50	0	-	Front	10mm	Ant 1	ECI 5	132322	1745	18.57	19.50	1.239	-	-	0.17	0.157	0.194
	LTE Band 66	20M	QPSK	1	0	-	Back	10mm	Ant 1	ECI 5	132322	1745	18.58	19.50	1.236	-	-	0.18	0.214	0.264
	LTE Band 66	20M	QPSK	50	0	-	Back	10mm	Ant 1	ECI 5	132322	1745	18.57	19.50	1.239	-	-	-0.04	0.216	0.268
	LTE Band 66	20M	QPSK	1	0	-	Left Side	10mm	Ant 1	ECI 5	132322	1745	18.58	19.50	1.236	-	-	-0.08	0.095	0.117
	LTE Band 66	20M	QPSK	50	0	-	Left Side	10mm	Ant 1	ECI 5	132322	1745	18.57	19.50	1.239	-	-	-0.13	0.097	0.120
	LTE Band 66	20M	QPSK	1	0	-	Top Side	10mm	Ant 1	ECI 5	132322	1745	18.58	19.50	1.236	-	-	-0.13	0.317	0.392
	LTE Band 66B	15M	QPSK	1	74	-	Top Side	10mm	Ant 1	ECI 5	132322+ 132415	1745+ 1754.3	18.55	19.50	1.245	-	-	0.04	0.300	0.373
	LTE Band 66	20M	QPSK	50	0	-	Top Side	10mm	Ant 1	ECI 5	132322	1745	18.57	19.50	1.239	-	-	0.06	0.305	0.378
	LTE Band 66	20M	QPSK	1	0	-	Front	10mm	Ant 4	ECI 5	132322	1745	19.38	20.20	1.208	-	-	-0.03	0.225	0.272
	LTE Band 66	20M	QPSK	50	0	-	Front	10mm	Ant 4	ECI 5	132322	1745	19.36	20.20	1.213	-	-	0.08	0.221	0.268
	LTE Band 66	20M	QPSK	1	0	-	Back	10mm	Ant 4	ECI 5	132322	1745	19.38	20.20	1.208	-	-	-0.07	0.230	0.278
	LTE Band 66	20M	QPSK	50	0	-	Back	10mm	Ant 4	ECI 5	132322	1745	19.36	20.20	1.213	-	-	0.05	0.240	0.291
	LTE Band 66	20M	QPSK	1	0	-	Right Side	10mm	Ant 4	ECI 5	132322	1745	19.38	20.20	1.208	-	-	-0.11	0.438	0.529
	LTE Band 66B	15M	QPSK	1	74	-	Right Side	10mm	Ant 4	ECI 5	132322+ 132415	1745+ 1754.3	19.27	20.20	1.239	-	-	0.01	0.401	0.497
	LTE Band 66	20M	QPSK	50	0	-	Right Side	10mm	Ant 4	ECI 5	132322	1745	19.36	20.20	1.213	-	-	-0.12	0.427	0.518
	LTE Band 66	20M	QPSK	1	0	-	Top Side	10mm	Ant 4	ECI 5	132322	1745	19.38	20.20	1.208	-	-	0.03	0.024	0.029
	LTE Band 66	20M	QPSK	50	0	-	Top Side	10mm	Ant 4	ECI 5	132322	1745	19.36	20.20	1.213	-	-	-0.16	0.038	0.046
	LTE Band 66	20M	QPSK	1	0	-	Front	10mm	Ant 2	ECI 5	132322	1745	21.59	22.20	1.151	-	-	-0.03	0.347	0.399

	LTE Band 66	20M	QPSK	50	0	-	Front	10mm	Ant 2	ECI 5	132322	1745	21.54	22.20	1.164	-	-	-0.15	0.346	0.403
	LTE Band 66	20M	QPSK	1	0	-	Back	10mm	Ant 2	ECI 5	132322	1745	21.59	22.20	1.151	-	-	0.02	0.374	0.430
	LTE Band 66	20M	QPSK	50	0	-	Back	10mm	Ant 2	ECI 5	132322	1745	21.54	22.20	1.164	-	-	0.07	0.364	0.424
	LTE Band 66	20M	QPSK	1	0	-	Left Side	10mm	Ant 2	ECI 5	132322	1745	21.59	22.20	1.151	-	-	0.16	0.134	0.154
	LTE Band 66	20M	QPSK	50	0	-	Left Side	10mm	Ant 2	ECI 5	132322	1745	21.54	22.20	1.164	-	-	0.13	0.132	0.154
32	LTE Band 66	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 2	ECI 5	132322	1745	21.59	22.20	1.151	-	-	-0.03	0.693	**0.798**
	LTE Band 66B	15M	QPSK	1	74	-	Bottom Side	10mm	Ant 2	ECI 5	132322+ 132415	1745+ 1754.3	21.45	22.20	1.189	-	-	0.01	0.671	0.797
	LTE Band 66	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 2	ECI 5	132322	1745	21.54	22.20	1.164	-	-	0.02	0.664	0.773
1900MHz																				
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Front	10mm	Ant 1	ECI 5	661	1880	20.30	22.00	1.479	-	-	-0.1	0.165	0.244
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Back	10mm	Ant 1	ECI 5	661	1880	20.30	22.00	1.479	-	-	0.18	0.277	0.410
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Left Side	10mm	Ant 1	ECI 5	661	1880	20.30	22.00	1.479	-	-	-0.17	0.187	0.277
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Top Side	10mm	Ant 1	ECI 5	661	1880	20.30	22.00	1.479	-	-	-0.04	0.229	0.339
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Front	10mm	Ant 2	ECI 5	661	1880	24.12	25.00	1.225	-	-	-0.01	0.354	0.434
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Back	10mm	Ant 2	ECI 5	661	1880	24.12	25.00	1.225	-	-	-0.09	0.387	0.474
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Left Side	10mm	Ant 2	ECI 5	661	1880	24.12	25.00	1.225	-	-	0.05	0.139	0.170
33	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Bottom Side	10mm	Ant 2	ECI 5	661	1880	24.12	25.00	1.225	-	-	-0.05	0.795	**0.974**
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Bottom Side	10mm	Ant 2	ECI 5	512	1850.2	23.99	25.00	1.262	-	-	-0.13	0.755	0.953
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Bottom Side	10mm	Ant 2	ECI 5	810	1909.8	24.04	25.00	1.247	-	-	0.17	0.707	0.882
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 1	ECI 5	9400	1880	17.48	19.00	1.419	-	-	0.06	0.191	0.271
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 1	ECI 5	9400	1880	17.48	19.00	1.419	-	-	-0.04	**0.331**	0.470
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 1	ECI 5	9400	1880	17.48	19.00	1.419	-	-	-0.15	0.256	0.363
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Top Side	10mm	Ant 1	ECI 5	9400	1880	17.48	19.00	1.419	-	-	0.11	0.306	0.434
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 2	ECI 5	9400	1880	21.49	22.00	1.125	-	-	0.01	0.313	0.352
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 2	ECI 5	9400	1880	21.49	22.00	1.125	-	-	0.06	0.352	0.396
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 2	ECI 5	9400	1880	21.49	22.00	1.125	-	-	0.02	0.120	0.135
34	WCDMA II	-	-	-	-	RMC 12.2Kbps	Bottom Side	10mm	Ant 2	ECI 5	9400	1880	21.49	22.00	1.125	-	-	-0.04	0.723	**0.813**
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Bottom Side	10mm	Ant 2	ECI 5	9262	1852.4	21.38	22.00	1.153	-	-	-0.16	0.701	0.809
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Bottom Side	10mm	Ant 2	ECI 5	9538	1907.6	21.47	22.00	1.130	-	-	-0.12	0.657	0.742
	LTE Band 2 Main PA	20M	QPSK	1	0	-	Front	10mm	Ant 1	ECI 5	18900	1880	18.07	19.00	1.239	-	-	-0.02	0.213	0.264
	LTE Band 2 Main PA	20M	QPSK	50	0	-	Front	10mm	Ant 1	ECI 5	18900	1880	18.05	19.00	1.245	-	-	-0.05	0.207	0.258
	LTE Band 2 Main PA	20M	QPSK	1	0	-	Back	10mm	Ant 1	ECI 5	18900	1880	18.07	19.00	1.239	-	-	-0.13	0.337	0.417
	LTE Band 2 Main PA	20M	QPSK	50	0	-	Back	10mm	Ant 1	ECI 5	18900	1880	18.05	19.00	1.245	-	-	0.08	0.351	0.437
	LTE Band 2 Main PA	20M	QPSK	1	0	-	Left Side	10mm	Ant 1	ECI 5	18900	1880	18.07	19.00	1.239	-	-	0.16	0.263	0.326
	LTE Band 2 Main PA	20M	QPSK	50	0	-	Left Side	10mm	Ant 1	ECI 5	18900	1880	18.05	19.00	1.245	-	-	0.01	0.270	0.336
	LTE Band 2 Main PA	20M	QPSK	1	0	-	Top Side	10mm	Ant 1	ECI 5	18900	1880	18.07	19.00	1.239	-	-	-0.16	0.330	0.409
	LTE Band 2 Main PA	20M	QPSK	50	0	-	Top Side	10mm	Ant 1	ECI 5	18900	1880	18.05	19.00	1.245	-	-	0.1	0.322	0.401
	LTE Band 2 Other PA	20M	QPSK	50	0	-	Back	10mm	Ant 1	ECI 5	18900	1880	17.83	19.00	1.309	-	-	-0.04	0.307	0.402
	LTE Band 2 Main PA	20M	QPSK	1	0	-	Front	10mm	Ant 4	ECI 5	18900	1880	19.61	20.70	1.285	-	-	-0.01	0.183	0.235
	LTE Band 2 Main PA	20M	QPSK	50	0	-	Front	10mm	Ant 4	ECI 5	18900	1880	19.59	20.70	1.291	-	-	-0.11	0.184	0.238
	LTE Band 2 Main PA	20M	QPSK	1	0	-	Back	10mm	Ant 4	ECI 5	18900	1880	19.61	20.70	1.285	-	-	-0.06	0.192	0.247
	LTE Band 2 Main PA	20M	QPSK	50	0	-	Back	10mm	Ant 4	ECI 5	18900	1880	19.59	20.70	1.291	-	-	-0.15	0.200	0.258
	LTE Band 2 Main PA	20M	QPSK	1	0	-	Right Side	10mm	Ant 4	ECI 5	18900	1880	19.61	20.70	1.285	-	-	0.03	0.332	0.427
	LTE Band 2 Main PA	20M	QPSK	50	0	-	Right Side	10mm	Ant 4	ECI 5	18900	1880	19.59	20.70	1.291	-	-	-0.13	0.363	0.469
	LTE Band 2 Main PA	20M	QPSK	1	0	-	Top Side	10mm	Ant 4	ECI 5	18900	1880	19.61	20.70	1.285	-	-	0.16	0.027	0.035
	LTE Band 2 Main PA	20M	QPSK	50	0	-	Top Side	10mm	Ant 4	ECI 5	18900	1880	19.59	20.70	1.291	-	-	-0.15	0.027	0.035
	LTE Band 2 Other PA	20M	QPSK	50	0	-	Right Side	10mm	Ant 4	ECI 5	18900	1880	19.79	20.20	1.099	-	-	-0.02	0.300	0.330
	LTE Band 2 Other PA	20M	QPSK	1	0	-	Front	10mm	Ant 2	ECI 5	18900	1880	21.15	22.00	1.216	-	-	-0.18	0.313	0.381
	LTE Band 2 Other PA	20M	QPSK	50	0	-	Front	10mm	Ant 2	ECI 5	18900	1880	21.14	22.00	1.219	-	-	-0.07	0.311	0.379
	LTE Band 2	20M	QPSK	1	0	-	Back	10mm	Ant 2	ECI 5	18900	1880	21.15	22.00	1.216	-	-	0.11	0.370	0.450

	Other PA																			
	LTE Band 2 Other PA	20M	QPSK	50	0	-	Back	10mm	Ant 2	ECI 5	18900	1880	21.14	22.00	1.219	-	-	-0.08	0.348	0.424
	LTE Band 2 Other PA	20M	QPSK	1	0	-	Left Side	10mm	Ant 2	ECI 5	18900	1880	21.15	22.00	1.216	-	-	-0.1	0.128	0.156
	LTE Band 2 Other PA	20M	QPSK	50	0	-	Left Side	10mm	Ant 2	ECI 5	18900	1880	21.14	22.00	1.219	-	-	-0.01	0.134	0.163
	LTE Band 2 Other PA	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 2	ECI 5	18900	1880	21.15	22.00	1.216	-	-	-0.09	0.692	0.842
	LTE Band 2 Other PA	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 2	ECI 5	18700	1860	21.10	22.00	1.230	-	-	-0.06	0.695	0.855
	LTE Band 2 Other PA	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 2	ECI 5	19100	1900	21.09	22.00	1.233	-	-	-0.17	0.662	0.816
	LTE Band 2 Other PA	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 2	ECI 5	18900	1880	21.14	22.00	1.219	-	-	-0.01	0.664	0.809
35	LTE Band 2 Other PA	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 2	ECI 5	18700	1860	21.04	22.00	1.247	-	-	-0.02	0.700	**0.873**
	LTE Band 2 Other PA	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 2	ECI 5	19100	1900	21.08	22.00	1.236	-	-	0.03	0.654	0.808
	LTE Band 2 Other PA	20M	QPSK	100	0	-	Bottom Side	10mm	Ant 2	ECI 5	18900	1880	21.12	22.00	1.225	-	-	0.1	0.654	0.801
	FR1 n2	40M	QPSK	1	1	DFT-SCS-15KHz	Front	10mm	Ant 1	ECI 5	376000	1880	18.67	19.50	1.211	-	-	0.05	0.240	0.291
	FR1 n2	40M	QPSK	108	54	DFT-SCS-15KHz	Front	10mm	Ant 1	ECI 5	376000	1880	18.61	19.50	1.227	-	-	-0.06	0.242	0.297
	FR1 n2	40M	QPSK	1	1	DFT-SCS-15KHz	Back	10mm	Ant 1	ECI 5	376000	1880	18.67	19.50	1.211	-	-	-0.13	0.371	0.449
36	FR1 n2	40M	QPSK	108	54	DFT-SCS-15KHz	Back	10mm	Ant 1	ECI 5	376000	1880	18.61	19.50	1.227	-	-	-0.14	0.407	**0.500**
	FR1 n2	40M	QPSK	1	1	DFT-SCS-15KHz	Left Side	10mm	Ant 1	ECI 5	376000	1880	18.67	19.50	1.211	-	-	-0.11	0.313	0.379
	FR1 n2	40M	QPSK	108	54	DFT-SCS-15KHz	Left Side	10mm	Ant 1	ECI 5	376000	1880	18.61	19.50	1.227	-	-	0.19	0.331	0.406
	FR1 n2	40M	QPSK	1	1	DFT-SCS-15KHz	Top Side	10mm	Ant 1	ECI 5	376000	1880	18.67	19.50	1.211	-	-	-0.14	0.405	0.490
	FR1 n2	40M	QPSK	108	54	DFT-SCS-15KHz	Top Side	10mm	Ant 1	ECI 5	376000	1880	18.61	19.50	1.227	-	-	-0.18	0.397	0.487
	FR1 n2	40M	QPSK	1	1	DFT-SCS-15KHz	Front	10mm	Ant 4	ECI 5	376000	1880	19.56	20.70	1.300	-	-	-0.06	0.132	0.172
	FR1 n2	40M	QPSK	108	54	DFT-SCS-15KHz	Front	10mm	Ant 4	ECI 5	376000	1880	19.51	20.70	1.315	-	-	-0.03	0.175	0.230
	FR1 n2	40M	QPSK	1	1	DFT-SCS-15KHz	Back	10mm	Ant 4	ECI 5	376000	1880	19.56	20.70	1.300	-	-	0.07	0.138	0.179
	FR1 n2	40M	QPSK	108	54	DFT-SCS-15KHz	Back	10mm	Ant 4	ECI 5	376000	1880	19.51	20.70	1.315	-	-	-0.12	0.184	0.242
	FR1 n2	40M	QPSK	1	1	DFT-SCS-15KHz	Right Side	10mm	Ant 4	ECI 5	376000	1880	19.56	20.70	1.300	-	-	-0.03	0.285	0.371
	FR1 n2	40M	QPSK	108	54	DFT-SCS-15KHz	Right Side	10mm	Ant 4	ECI 5	376000	1880	19.51	20.70	1.315	-	-	0.05	**0.379**	0.498
	FR1 n2	40M	QPSK	1	1	DFT-SCS-15KHz	Top Side	10mm	Ant 4	ECI 5	376000	1880	19.56	20.70	1.300	-	-	0.12	0.038	0.049
	FR1 n2	40M	QPSK	108	54	DFT-SCS-15KHz	Top Side	10mm	Ant 4	ECI 5	376000	1880	19.51	20.70	1.315	-	-	0.02	0.035	0.046
2600MHz																				
	LTE Band 7 Other PA	20M	QPSK	1	0	-	Front	10mm	Ant 1	ECI 5	21100	2535	18.52	19.20	1.169	-	-	-0.08	0.189	0.221
	LTE Band 7 Other PA	20M	QPSK	50	0	-	Front	10mm	Ant 1	ECI 5	21100	2535	18.48	19.20	1.180	-	-	0.07	0.183	0.216
	LTE Band 7 Other PA	20M	QPSK	1	0	-	Back	10mm	Ant 1	ECI 5	21100	2535	18.52	19.20	1.169	-	-	0.15	0.174	0.203
	LTE Band 7 Other PA	20M	QPSK	50	0	-	Back	10mm	Ant 1	ECI 5	21100	2535	18.48	19.20	1.180	-	-	-0.05	0.215	0.254
	LTE Band 7 Other PA	20M	QPSK	1	0	-	Left Side	10mm	Ant 1	ECI 5	21100	2535	18.52	19.20	1.169	-	-	-0.08	0.294	0.344
	LTE Band 7 Other PA	20M	QPSK	50	0	-	Left Side	10mm	Ant 1	ECI 5	21100	2535	18.48	19.20	1.180	-	-	-0.08	**0.312**	0.368
	LTE Band 7 Other PA	20M	QPSK	1	0	-	Top Side	10mm	Ant 1	ECI 5	21100	2535	18.52	19.20	1.169	-	-	-0.13	0.252	0.295
	LTE Band 7 Other PA	20M	QPSK	50	0	-	Top Side	10mm	Ant 1	ECI 5	21100	2535	18.48	19.20	1.180	-	-	0.01	0.257	0.303
	LTE Band 7 Main PA	20M	QPSK	50	0	-	Left Side	10mm	Ant 1	ECI 5	21100	2535	17.41	18.50	1.285	-	-	-0.08	0.203	0.261
	LTE Band 7C Main PA	20M	QPSK	50	50	-	Left Side	10mm	Ant 1	ECI 5	21100+ 21298	2535+ 2554.8	17.37	18.50	1.297	-	-	0.04	0.187	0.243
	LTE Band 7 Main PA	20M	QPSK	1	0	-	Front	10mm	Ant 4	ECI 5	21100	2535	20.58	22.00	1.387	-	-	-0.05	0.151	0.209
	LTE Band 7 Main PA	20M	QPSK	50	0	-	Front	10mm	Ant 4	ECI 5	21100	2535	20.53	22.00	1.403	-	-	0.14	0.163	0.229
	LTE Band 7 Main PA	20M	QPSK	1	0	-	Back	10mm	Ant 4	ECI 5	21100	2535	20.58	22.00	1.387	-	-	-0.01	0.190	0.263
	LTE Band 7 Main PA	20M	QPSK	50	0	-	Back	10mm	Ant 4	ECI 5	21100	2535	20.53	22.00	1.403	-	-	-0.12	0.156	0.219
	LTE Band 7 Main PA	20M	QPSK	1	0	-	Right Side	10mm	Ant 4	ECI 5	21100	2535	20.58	22.00	1.387	-	-	0.07	0.360	0.499
37	LTE Band 7 Main PA	20M	QPSK	50	0	-	Right Side	10mm	Ant 4	ECI 5	21100	2535	20.53	22.00	1.403	-	-	0.09	0.381	**0.534**
	LTE Band 7C Main PA	20M	QPSK	50	50	-	Right Side	10mm	Ant 4	ECI 5	21100+ 21298	2535+ 2554.8	20.48	22.00	1.419	-	-	0.01	0.371	0.526
	LTE Band 7 Main PA	20M	QPSK	1	0	-	Top Side	10mm	Ant 4	ECI 5	21100	2535	20.58	22.00	1.387	-	-	0.04	0.033	0.046
	LTE Band 7 Main PA	20M	QPSK	50	0	-	Top Side	10mm	Ant 4	ECI 5	21100	2535	20.53	22.00	1.403	-	-	0.11	0.038	0.053

	LTE Band 7 Other PA	20M	QPSK	50	0	-	Right Side	10mm	Ant 4	ECI 5	21100	2535	21.57	22.20	1.156	-	-	-0.13	0.380	0.439
	LTE Band 7 Other PA	20M	QPSK	1	0	-	Front	10mm	Ant 2	ECI 5	21100	2535	20.17	20.70	1.130	-	-	-0.11	0.258	0.291
	LTE Band 7 Other PA	20M	QPSK	50	0	-	Front	10mm	Ant 2	ECI 5	21100	2535	20.16	20.70	1.132	-	-	0.17	0.246	0.279
	LTE Band 7 Other PA	20M	QPSK	1	0	-	Back	10mm	Ant 2	ECI 5	21100	2535	20.17	20.70	1.130	-	-	-0.16	0.345	0.390
	LTE Band 7 Other PA	20M	QPSK	50	0	-	Back	10mm	Ant 2	ECI 5	21100	2535	20.16	20.70	1.132	-	-	-0.17	0.359	0.407
	LTE Band 7 Other PA	20M	QPSK	1	0	-	Left Side	10mm	Ant 2	ECI 5	21100	2535	20.17	20.70	1.130	-	-	0.11	0.103	0.116
	LTE Band 7 Other PA	20M	QPSK	50	0	-	Left Side	10mm	Ant 2	ECI 5	21100	2535	20.16	20.70	1.132	-	-	-0.05	0.105	0.119
	LTE Band 7 Other PA	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 2	ECI 5	21100	2535	20.17	20.70	1.130	-	-	-0.01	0.433	0.489
	LTE Band 7 Other PA	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 2	ECI 5	21100	2535	20.16	20.70	1.132	-	-	-0.14	0.431	0.488
	LTE Band 7 Main PA	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 2	ECI 5	21100	2535	19.08	20.50	1.387	-	-	-0.01	0.293	0.406
	LTE Band 7C Main PA	20M	QPSK	1	99	-	Bottom Side	10mm	Ant 2	ECI 5	21100+ 21298	2535+ 2554.8	18.91	20.50	1.442	-	-	-0.01	0.283	0.408
	LTE Band 38	20M	QPSK	1	0	-	Front	10mm	Ant 3	ECI 5	38000	2595	22.10	22.70	1.148	62.9	1.006	0.09	0.131	0.151
	LTE Band 38	20M	QPSK	50	0	-	Front	10mm	Ant 3	ECI 5	38000	2595	22.05	22.70	1.161	62.9	1.006	-0.16	0.129	0.151
	LTE Band 38	20M	QPSK	1	0	-	Back	10mm	Ant 3	ECI 5	38000	2595	22.10	22.70	1.148	62.9	1.006	0.05	0.161	0.186
	LTE Band 38	20M	QPSK	50	0	-	Back	10mm	Ant 3	ECI 5	38000	2595	22.05	22.70	1.161	62.9	1.006	0.08	0.161	0.188
38	LTE Band 38	20M	QPSK	1	0	-	Left Side	10mm	Ant 3	ECI 5	38000	2595	22.10	22.70	1.148	62.9	1.006	-0.08	0.321	**0.371**
	LTE Band 38C	20M	QPSK	1	99	-	Left Side	10mm	Ant 3	ECI 5	37901+ 38099	2585.01+ 2604.9	22.07	22.70	1.156	62.9	1.006	-0.08	0.301	0.350
	LTE Band 38	20M	QPSK	50	0	-	Left Side	10mm	Ant 3	ECI 5	38000	2595	22.05	22.70	1.161	62.9	1.006	-0.03	0.315	0.368
	LTE Band 38	20M	QPSK	1	0	-	Top Side	10mm	Ant 3	ECI 5	38000	2595	22.10	22.70	1.148	62.9	1.006	-0.04	0.029	0.033
	LTE Band 38	20M	QPSK	50	0	-	Top Side	10mm	Ant 3	ECI 5	38000	2595	22.05	22.70	1.161	62.9	1.006	-0.09	0.018	0.021
	LTE Band 41 Main PA	20M	QPSK	1	0	-	Front	10mm	Ant 1	ECI 5	40620	2593	20.49	20.70	1.050	62.9	1.006	0.11	0.157	0.166
	LTE Band 41 Main PA	20M	QPSK	50	0	-	Front	10mm	Ant 1	ECI 5	40620	2593	20.44	20.70	1.062	62.9	1.006	0.07	0.155	0.166
	LTE Band 41 Main PA	20M	QPSK	1	0	-	Back	10mm	Ant 1	ECI 5	40620	2593	20.49	20.70	1.050	62.9	1.006	-0.03	0.175	0.185
	LTE Band 41 Main PA	20M	QPSK	50	0	-	Back	10mm	Ant 1	ECI 5	40620	2593	20.44	20.70	1.062	62.9	1.006	0.09	0.018	0.019
	LTE Band 41 Main PA	20M	QPSK	1	0	-	Left Side	10mm	Ant 1	ECI 5	40620	2593	20.49	20.70	1.050	62.9	1.006	-0.08	0.260	0.275
	LTE Band 41C Main PA	20M	QPSK	1	99	-	Left Side	10mm	Ant 1	ECI 5	40620+ 40818	2593+ 2612.8	20.45	20.70	1.059	62.9	1.006	0.01	0.247	0.263
	LTE Band 41 Main PA	20M	QPSK	50	0	-	Left Side	10mm	Ant 1	ECI 5	40620	2593	20.44	20.70	1.062	62.9	1.006	-0.05	0.251	0.268
	LTE Band 41 Main PA	20M	QPSK	1	0	-	Top Side	10mm	Ant 1	ECI 5	40620	2593	20.49	20.70	1.050	62.9	1.006	-0.03	0.185	0.195
	LTE Band 41 Main PA	20M	QPSK	50	0	-	Top Side	10mm	Ant 1	ECI 5	40620	2593	20.44	20.70	1.062	62.9	1.006	0.17	0.186	0.199
	LTE Band 41 Other PA	20M	QPSK	1	0	-	Left Side	10mm	Ant 1	ECI 5	40620	2593	20.07	20.70	1.156	62.9	1.006	-0.14	0.231	0.269
	LTE Band 41 Main PA	20M	QPSK	1	0	-	Front	10mm	Ant 4	ECI 5	40620	2593	22.36	22.70	1.081	62.9	1.006	-0.06	0.239	0.260
	LTE Band 41 Main PA	20M	QPSK	50	0	-	Front	10mm	Ant 4	ECI 5	40620	2593	22.32	22.70	1.091	62.9	1.006	-0.15	0.238	0.261
	LTE Band 41 Main PA	20M	QPSK	1	0	-	Back	10mm	Ant 4	ECI 5	40620	2593	22.36	22.70	1.081	62.9	1.006	-0.12	0.249	0.271
	LTE Band 41 Main PA	20M	QPSK	50	0	-	Back	10mm	Ant 4	ECI 5	40620	2593	22.32	22.70	1.091	62.9	1.006	-0.16	0.260	0.285
	LTE Band 41 Main PA	20M	QPSK	1	0	-	Right Side	10mm	Ant 4	ECI 5	40620	2593	22.36	22.70	1.081	62.9	1.006	-0.03	0.515	0.560
39	LTE Band 41 Main PA	20M	QPSK	50	0	-	Right Side	10mm	Ant 4	ECI 5	40620	2593	22.32	22.70	1.091	62.9	1.006	-0.14	0.520	**0.571**
	LTE Band 41C Main PA	20M	QPSK	50	50	-	Right Side	10mm	Ant 4	ECI 5	40620+ 40818	2593+ 2612.8	22.27	22.70	1.104	62.9	1.006	0.05	0.487	0.541
	LTE Band 41 Main PA	20M	QPSK	1	0	-	Top Side	10mm	Ant 4	ECI 5	40620	2593	22.36	22.70	1.081	62.9	1.006	0.02	0.070	0.076
	LTE Band 41 Main PA	20M	QPSK	50	0	-	Top Side	10mm	Ant 4	ECI 5	40620	2593	22.32	22.70	1.091	62.9	1.006	-0.11	0.066	0.072
	LTE Band 41 Other PA	20M	QPSK	50	0	-	Right Side	10mm	Ant 4	ECI 5	40620	2593	22.08	22.70	1.153	62.9	1.006	0.18	0.478	0.555
	LTE Band 41 Main PA	20M	QPSK	1	0	-	Front	10mm	Ant 2	ECI 5	40620	2593	22.46	23.20	1.186	62.9	1.006	-0.05	0.271	0.323
	LTE Band 41 Main PA	20M	QPSK	50	0	-	Front	10mm	Ant 2	ECI 5	40620	2593	22.42	23.20	1.197	62.9	1.006	-0.04	0.268	0.323
	LTE Band 41 Main PA	20M	QPSK	1	0	-	Back	10mm	Ant 2	ECI 5	40620	2593	22.46	23.20	1.186	62.9	1.006	-0.08	0.399	0.476
	LTE Band 41 Main PA	20M	QPSK	50	0	-	Back	10mm	Ant 2	ECI 5	40620	2593	22.42	23.20	1.197	62.9	1.006	0.06	0.386	0.465
	LTE Band 41 Main PA	20M	QPSK	1	0	-	Left Side	10mm	Ant 2	ECI 5	40620	2593	22.46	23.20	1.186	62.9	1.006	-0.14	0.114	0.136

	LTE Band 41 Main PA	20M	QPSK	50	0	-	Left Side	10mm	Ant 2	ECI 5	40620	2593	22.42	23.20	1.197	62.9	1.006	0.01	0.115	0.138
	LTE Band 41 Main PA	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 2	ECI 5	40620	2593	22.46	23.20	1.186	62.9	1.006	0.18	0.451	0.538
	LTE Band 41C Main PA	20M	QPSK	1	99	-	Bottom Side	10mm	Ant 2	ECI 5	40620+ 40818	2593+ 2612.8	22.45	23.20	1.189	62.9	1.006	0.04	0.401	0.479
	LTE Band 41 Main PA	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 2	ECI 5	40620	2593	22.42	23.20	1.197	62.9	1.006	0.02	0.442	0.532
	LTE Band 41 Other PA	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 2	ECI 5	40620	2593	22.74	23.20	1.112	62.9	1.006	0.16	0.443	0.495
	LTE Band 41	20M	QPSK	1	0	-	Front	10mm	Ant 3	ECI 5	40620	2593	20.42	20.70	1.067	62.9	1.006	-0.02	0.150	0.161
	LTE Band 41	20M	QPSK	50	0	-	Front	10mm	Ant 3	ECI 5	40620	2593	20.37	20.70	1.079	62.9	1.006	0.07	0.150	0.163
	LTE Band 41	20M	QPSK	1	0	-	Back	10mm	Ant 3	ECI 5	40620	2593	20.42	20.70	1.067	62.9	1.006	-0.17	0.196	0.210
	LTE Band 41	20M	QPSK	50	0	-	Back	10mm	Ant 3	ECI 5	40620	2593	20.37	20.70	1.079	62.9	1.006	0.1	0.190	0.206
	LTE Band 41	20M	QPSK	1	0	-	Left Side	10mm	Ant 3	ECI 5	40620	2593	20.42	20.70	1.067	62.9	1.006	0.08	0.400	0.429
	LTE Band 41C	20M	QPSK	1	99	-	Left Side	10mm	Ant 3	ECI 5	40620+ 40818	2593+ 2612.8	20.40	20.70	1.072	62.9	1.006	0.05	0.386	0.416
	LTE Band 41	20M	QPSK	50	0	-	Left Side	10mm	Ant 3	ECI 5	40620	2593	20.37	20.70	1.079	62.9	1.006	-0.07	0.387	0.420
	LTE Band 41	20M	QPSK	1	0	-	Top Side	10mm	Ant 3	ECI 5	40620	2593	20.42	20.70	1.067	62.9	1.006	-0.13	0.013	0.014
	LTE Band 41	20M	QPSK	50	0	-	Top Side	10mm	Ant 3	ECI 5	40620	2593	20.37	20.70	1.079	62.9	1.006	-0.1	0.029	0.031
	FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Front	10mm	Ant 1	ECI 5	507000	2535	18.25	18.70	1.109	-	-	-0.04	0.156	0.173
	FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Front	10mm	Ant 1	ECI 5	507000	2535	18.21	18.70	1.119	-	-	-0.15	0.173	0.194
	FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Back	10mm	Ant 1	ECI 5	507000	2535	18.25	18.70	1.109	-	-	0.05	0.195	0.216
	FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Back	10mm	Ant 1	ECI 5	507000	2535	18.21	18.70	1.119	-	-	0.13	0.208	0.233
	FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Left Side	10mm	Ant 1	ECI 5	507000	2535	18.25	18.70	1.109	-	-	-0.14	0.275	0.305
	FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Left Side	10mm	Ant 1	ECI 5	507000	2535	18.21	18.70	1.119	-	-	0.01	0.300	0.336
	FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Top Side	10mm	Ant 1	ECI 5	507000	2535	18.25	18.70	1.109	-	-	0.18	0.243	0.270
	FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Top Side	10mm	Ant 1	ECI 5	507000	2535	18.21	18.70	1.119	-	-	0.02	0.269	0.301
	FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Front	10mm	Ant 4	ECI 5	507000	2535	20.93	21.70	1.194	-	-	0.15	0.202	0.241
	FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Front	10mm	Ant 4	ECI 5	507000	2535	20.84	21.70	1.219	-	-	0.14	0.237	0.289
	FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Back	10mm	Ant 4	ECI 5	507000	2535	20.93	21.70	1.194	-	-	-0.03	0.261	0.312
	FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Back	10mm	Ant 4	ECI 5	507000	2535	20.84	21.70	1.219	-	-	-0.14	0.280	0.341
	FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Right Side	10mm	Ant 4	ECI 5	507000	2535	20.93	21.70	1.194	-	-	0.17	0.423	0.505
40	FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Right Side	10mm	Ant 4	ECI 5	507000	2535	20.84	21.70	1.219	-	-	0.01	0.471	**0.574**
	FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Top Side	10mm	Ant 4	ECI 5	507000	2535	20.93	21.70	1.194	-	-	0.07	0.076	0.091
	FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Top Side	10mm	Ant 4	ECI 5	507000	2535	20.84	21.70	1.219	-	-	-0.04	0.045	0.055
	FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Front	10mm	Ant 2	ECI 5	507000	2535	19.62	20.20	1.143	-	-	-0.13	0.217	0.248
	FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Front	10mm	Ant 2	ECI 5	507000	2535	19.47	20.20	1.183	-	-	-0.13	0.233	0.276
	FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Back	10mm	Ant 2	ECI 5	507000	2535	19.62	20.20	1.143	-	-	-0.04	0.309	0.353
	FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Back	10mm	Ant 2	ECI 5	507000	2535	19.47	20.20	1.183	-	-	-0.15	0.353	0.418
	FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Left Side	10mm	Ant 2	ECI 5	507000	2535	19.62	20.20	1.143	-	-	0.05	0.089	0.102
	FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Left Side	10mm	Ant 2	ECI 5	507000	2535	19.47	20.20	1.183	-	-	0.13	0.091	0.108
	FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	10mm	Ant 2	ECI 5	507000	2535	19.62	20.20	1.143	-	-	0.13	0.412	0.471
	FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Bottom Side	10mm	Ant 2	ECI 5	507000	2535	19.47	20.20	1.183	-	-	0.15	0.365	0.432
	FR1 n38	40M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 1	ECI 5	519000	2595	18.54	18.70	1.038	-	-	-0.05	0.175	0.182
	FR1 n38	40M	QPSK	50	28	DFT-SCS-30KHz	Front	10mm	Ant 1	ECI 5	519000	2595	18.48	18.70	1.052	-	-	-0.04	0.183	0.193
	FR1 n38	40M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 1	ECI 5	519000	2595	18.54	18.70	1.038	-	-	0.14	0.213	0.221
	FR1 n38	40M	QPSK	50	28	DFT-SCS-30KHz	Back	10mm	Ant 1	ECI 5	519000	2595	18.48	18.70	1.052	-	-	0.03	0.213	0.224
	FR1 n38	40M	QPSK	1	1	DFT-SCS-30KHz	Left Side	10mm	Ant 1	ECI 5	519000	2595	18.54	18.70	1.038	-	-	0.16	0.332	0.344
	FR1 n38	40M	QPSK	50	28	DFT-SCS-30KHz	Left Side	10mm	Ant 1	ECI 5	519000	2595	18.48	18.70	1.052	-	-	0.01	0.314	0.330
	FR1 n38	40M	QPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 1	ECI 5	519000	2595	18.54	18.70	1.038	-	-	-0.06	0.246	0.255
	FR1 n38	40M	QPSK	50	28	DFT-SCS-30KHz	Top Side	10mm	Ant 1	ECI 5	519000	2595	18.48	18.70	1.052	-	-	0.14	0.117	0.123
	FR1 n38	40M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 4	ECI 5	519000	2595	20.11	20.70	1.146	-	-	-0.07	0.167	0.191
	FR1 n38	40M	QPSK	50	28	DFT-SCS-30KHz	Front	10mm	Ant 4	ECI 5	519000	2595	19.93	20.70	1.194	-	-	0.1	0.193	0.230
	FR1 n38	40M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 4	ECI 5	519000	2595	20.11	20.70	1.146	-	-	-0.11	0.208	0.238
	FR1 n38	40M	QPSK	50	28	DFT-SCS-30KHz	Back	10mm	Ant 4	ECI 5	519000	2595	19.93	20.70	1.194	-	-	-0.02	0.238	0.284
	FR1 n38	40M	QPSK	1	1	DFT-SCS-30KHz	Right Side	10mm	Ant 4	ECI 5	519000	2595	20.11	20.70	1.146	-	-	-0.1	0.477	0.546
41	FR1 n38	40M	QPSK	50	28	DFT-SCS-30KHz	Right Side	10mm	Ant 4	ECI 5	519000	2595	19.93	20.70	1.194	-	-	0.08	0.565	**0.675**
	FR1 n38	40M	QPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 4	ECI 5	519000	2595	20.11	20.70	1.146	-	-	0.14	0.053	0.061
	FR1 n38	40M	QPSK	50	28	DFT-SCS-30KHz	Top Side	10mm	Ant 4	ECI 5	519000	2595	19.93	20.70	1.194	-	-	0.04	0.054	0.064

	FR1 n38	40M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 2	ECI 5	519000	2595	19.81	20.20	1.094	-	-	0.09	0.225	0.246
	FR1 n38	40M	QPSK	50	28	DFT-SCS-30KHz	Front	10mm	Ant 2	ECI 5	519000	2595	19.78	20.20	1.102	-	-	-0.02	0.245	0.270
	FR1 n38	40M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 2	ECI 5	519000	2595	19.81	20.20	1.094	-	-	-0.16	0.341	0.373
	FR1 n38	40M	QPSK	50	28	DFT-SCS-30KHz	Back	10mm	Ant 2	ECI 5	519000	2595	19.78	20.20	1.102	-	-	-0.03	0.353	0.389
	FR1 n38	40M	QPSK	1	1	DFT-SCS-30KHz	Left Side	10mm	Ant 2	ECI 5	519000	2595	19.81	20.20	1.094	-	-	-0.06	0.104	0.114
	FR1 n38	40M	QPSK	50	28	DFT-SCS-30KHz	Left Side	10mm	Ant 2	ECI 5	519000	2595	19.78	20.20	1.102	-	-	0.08	0.100	0.110
	FR1 n38	40M	QPSK	1	1	DFT-SCS-30KHz	Bottom Side	10mm	Ant 2	ECI 5	519000	2595	19.81	20.20	1.094	-	-	-0.07	0.375	0.410
	FR1 n38	40M	QPSK	50	28	DFT-SCS-30KHz	Bottom Side	10mm	Ant 2	ECI 5	519000	2595	19.78	20.20	1.102	-	-	0.11	0.405	0.446
	FR1 n38	40M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 3	ECI 5	519000	2595	19.58	19.70	1.028	-	-	0.04	0.187	0.192
	FR1 n38	40M	QPSK	50	28	DFT-SCS-30KHz	Front	10mm	Ant 3	ECI 5	519000	2595	19.50	19.70	1.047	-	-	0.17	0.214	0.224
	FR1 n38	40M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 3	ECI 5	519000	2595	19.58	19.70	1.028	-	-	-0.1	0.248	0.255
	FR1 n38	40M	QPSK	50	28	DFT-SCS-30KHz	Back	10mm	Ant 3	ECI 5	519000	2595	19.50	19.70	1.047	-	-	0.17	0.276	0.289
	FR1 n38	40M	QPSK	1	1	DFT-SCS-30KHz	Left Side	10mm	Ant 3	ECI 5	519000	2595	19.58	19.70	1.028	-	-	-0.15	0.455	0.468
	FR1 n38	40M	QPSK	50	28	DFT-SCS-30KHz	Left Side	10mm	Ant 3	ECI 5	519000	2595	19.50	19.70	1.047	-	-	-0.07	0.494	0.517
	FR1 n38	40M	QPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 3	ECI 5	519000	2595	19.58	19.70	1.028	-	-	0.05	0.044	0.045
	FR1 n38	40M	QPSK	50	28	DFT-SCS-30KHz	Top Side	10mm	Ant 3	ECI 5	519000	2595	19.50	19.70	1.047	-	-	0.04	0.037	0.039
	FR1 n41 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 1	ECI 5	518598	2592.99	16.93	17.50	1.140	-	-	-0.1	0.082	0.094
	FR1 n41 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Front	10mm	Ant 1	ECI 5	518598	2592.99	16.88	17.50	1.153	-	-	0.14	0.103	0.119
	FR1 n41 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 1	ECI 5	518598	2592.99	16.93	17.50	1.140	-	-	-0.16	0.106	0.121
	FR1 n41 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 1	ECI 5	518598	2592.99	16.88	17.50	1.153	-	-	-0.02	0.121	0.140
	FR1 n41 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	10mm	Ant 1	ECI 5	518598	2592.99	16.93	17.50	1.140	-	-	0.1	0.254	0.290
	FR1 n41 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Left Side	10mm	Ant 1	ECI 5	518598	2592.99	16.88	17.50	1.153	-	-	-0.1	0.169	0.195
	FR1 n41 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 1	ECI 5	518598	2592.99	16.93	17.50	1.140	-	-	-0.05	0.131	0.149
	FR1 n41 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	10mm	Ant 1	ECI 5	518598	2592.99	16.88	17.50	1.153	-	-	-0.04	0.120	0.138
	FR1 n41 PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	10mm	Ant 1	ECI 5	518598	2592.99	20.12	20.50	1.091	50	1.000	0.01	0.278	0.303
	FR1 n41 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 4	ECI 5	518598	2592.99	19.09	20.50	1.384	-	-	0.03	0.125	0.173
	FR1 n41 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Front	10mm	Ant 4	ECI 5	518598	2592.99	19.05	20.50	1.396	-	-	-0.11	0.184	0.257
	FR1 n41 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 4	ECI 5	518598	2592.99	19.09	20.50	1.384	-	-	-0.16	0.146	0.202
	FR1 n41 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 4	ECI 5	518598	2592.99	19.05	20.50	1.396	-	-	0.15	0.218	0.304
	FR1 n41 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Right Side	10mm	Ant 4	ECI 5	518598	2592.99	19.09	20.50	1.384	-	-	-0.15	0.319	0.441
	FR1 n41 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Right Side	10mm	Ant 4	ECI 5	518598	2592.99	19.05	20.50	1.396	-	-	0.06	0.445	0.621
	FR1 n41 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 4	ECI 5	518598	2592.99	19.09	20.50	1.384	-	-	0.15	0.042	0.058
	FR1 n41 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	10mm	Ant 4	ECI 5	518598	2592.99	19.05	20.50	1.396	-	-	-0.1	0.028	0.039
42	FR1 n41 PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Right Side	10mm	Ant 4	ECI 5	518598	2592.99	22.07	23.50	1.390	50	1.000	-0.09	0.483	**0.671**
	FR1 n41 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 2	ECI 5	518598	2592.99	18.46	19.50	1.271	-	-	-0.02	0.158	0.201
	FR1 n41 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Front	10mm	Ant 2	ECI 5	518598	2592.99	18.38	19.50	1.294	-	-	0.13	0.161	0.208
	FR1 n41 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 2	ECI 5	518598	2592.99	18.46	19.50	1.271	-	-	0.1	0.221	0.281
	FR1 n41 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 2	ECI 5	518598	2592.99	18.38	19.50	1.294	-	-	0.13	0.305	0.395
	FR1 n41 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	10mm	Ant 2	ECI 5	518598	2592.99	18.46	19.50	1.271	-	-	-0.04	0.065	0.083
	FR1 n41 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Left Side	10mm	Ant 2	ECI 5	518598	2592.99	18.38	19.50	1.294	-	-	-0.12	0.095	0.123
	FR1 n41 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Bottom Side	10mm	Ant 2	ECI 5	518598	2592.99	18.46	19.50	1.271	-	-	-0.07	0.237	0.301
	FR1 n41 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Bottom Side	10mm	Ant 2	ECI 5	518598	2592.99	18.38	19.50	1.294	-	-	-0.03	0.259	0.335
	FR1 n41 PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 2	ECI 5	518598	2592.99	21.45	22.50	1.274	50	1.000	-0.13	0.326	0.415
	FR1 n41 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 3	ECI 5	518598	2592.99	18.75	19.50	1.189	-	-	-0.15	0.102	0.121
	FR1 n41 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Front	10mm	Ant 3	ECI 5	518598	2592.99	18.71	19.50	1.199	-	-	-0.11	0.124	0.149
	FR1 n41 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 3	ECI 5	518598	2592.99	18.75	19.50	1.189	-	-	0.07	0.119	0.141
	FR1 n41 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 3	ECI 5	518598	2592.99	18.71	19.50	1.199	-	-	0.05	0.149	0.179
	FR1 n41 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	10mm	Ant 3	ECI 5	518598	2592.99	18.75	19.50	1.189	-	-	-0.12	0.264	0.314
	FR1 n41 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Left Side	10mm	Ant 3	ECI 5	518598	2592.99	18.71	19.50	1.199	-	-	0.19	0.371	0.445
	FR1 n41 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 3	ECI 5	518598	2592.99	18.75	19.50	1.189	-	-	-0.01	0.027	0.032
	FR1 n41 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	10mm	Ant 3	ECI 5	518598	2592.99	18.71	19.50	1.199	-	-	-0.19	0.024	0.029
	FR1 n41 PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Left Side	10mm	Ant 3	ECI 5	518598	2592.99	21.86	22.50	1.159	50	1.000	-0.01	0.419	0.486
	3500MHz																			
	LTE Band 48	20M	QPSK	1	0	-	Front	10mm	Ant 5	ECI 5	55830	3609	19.93	20.50	1.140	62.9	1.006	0.1	0.123	0.141
	LTE Band 48	20M	QPSK	50	0	-	Front	10mm	Ant 5	ECI 5	55830	3609	19.92	20.50	1.143	62.9	1.006	0.15	0.124	0.143
	LTE Band 48	20M	QPSK	1	0	-	Back	10mm	Ant 5	ECI 5	55830	3609	19.93	20.50	1.140	62.9	1.006	0.12	0.291	0.334

	LTE Band 48	20M	QPSK	50	0	-	Back	10mm	Ant 5	ECI 5	55830	3609	19.92	20.50	1.143	62.9	1.006	-0.12	0.263	0.302
	LTE Band 48	20M	QPSK	1	0	-	Right Side	10mm	Ant 5	ECI 5	55830	3609	19.93	20.50	1.140	62.9	1.006	-0.15	0.078	0.089
	LTE Band 48	20M	QPSK	50	0	-	Right Side	10mm	Ant 5	ECI 5	55830	3609	19.92	20.50	1.143	62.9	1.006	-0.19	0.070	0.080
	LTE Band 48	20M	QPSK	1	0	-	Top Side	10mm	Ant 5	ECI 5	55830	3609	19.93	20.50	1.140	62.9	1.006	-0.13	0.402	0.461
	LTE Band 48	20M	QPSK	50	0	-	Top Side	10mm	Ant 5	ECI 5	55830	3609	19.92	20.50	1.143	62.9	1.006	-0.05	0.407	0.468
	LTE Band 48	20M	QPSK	1	0	-	Front	10mm	Ant 8	ECI 5	55830	3609	21.40	22.50	1.288	62.9	1.006	0.18	0.145	0.188
	LTE Band 48	20M	QPSK	50	0	-	Front	10mm	Ant 8	ECI 5	55830	3609	20.38	21.50	1.294	62.9	1.006	0.14	0.114	0.148
	LTE Band 48	20M	QPSK	1	0	-	Back	10mm	Ant 8	ECI 5	55830	3609	21.40	22.50	1.288	62.9	1.006	0.03	0.709	0.919
	LTE Band 48	20M	QPSK	1	0	-	Back	10mm	Ant 8	ECI 5	55340	3560	21.29	22.50	1.321	62.9	1.006	0.09	0.655	0.871
	LTE Band 48	20M	QPSK	1	0	-	Back	10mm	Ant 8	ECI 5	56150	3641	21.36	22.50	1.300	62.9	1.006	-0.13	0.758	0.991
43	LTE Band 48	20M	QPSK	1	0	-	Back	10mm	Ant 8	ECI 5	56640	3690	21.25	22.50	1.334	62.9	1.006	0.03	0.794	**1.065**
	LTE Band 48	20M	QPSK	50	0	-	Back	10mm	Ant 8	ECI 5	55830	3609	20.38	21.50	1.294	62.9	1.006	0.12	0.519	0.676
	LTE Band 48	20M	QPSK	50	0	-	Back	10mm	Ant 8	ECI 5	55340	3560	20.19	21.50	1.352	62.9	1.006	-0.05	0.495	0.673
	LTE Band 48	20M	QPSK	50	0	-	Back	10mm	Ant 8	ECI 5	56150	3641	20.21	21.50	1.346	62.9	1.006	0.03	0.487	0.659
	LTE Band 48	20M	QPSK	50	0	-	Back	10mm	Ant 8	ECI 5	56640	3690	20.04	21.50	1.400	62.9	1.006	-0.12	0.468	0.659
	LTE Band 48	20M	QPSK	100	0	-	Back	10mm	Ant 8	ECI 5	55830	3609	20.38	21.50	1.294	62.9	1.006	0.11	0.587	0.764
	LTE Band 48	20M	QPSK	1	0	-	Left Side	10mm	Ant 8	ECI 5	55830	3609	21.40	22.50	1.288	62.9	1.006	0.11	0.369	0.478
	LTE Band 48	20M	QPSK	50	0	-	Left Side	10mm	Ant 8	ECI 5	55830	3609	20.38	21.50	1.294	62.9	1.006	-0.06	0.275	0.358
	LTE Band 48	20M	QPSK	1	0	-	Top Side	10mm	Ant 8	ECI 5	55830	3609	21.40	22.50	1.288	62.9	1.006	-0.02	0.267	0.346
	LTE Band 48	20M	QPSK	50	0	-	Top Side	10mm	Ant 8	ECI 5	55830	3609	20.38	21.50	1.294	62.9	1.006	0.02	0.212	0.276
	LTE Band 48	20M	QPSK	1	0	-	Front	10mm	Ant 6	ECI 5	55830	3609	18.39	19.50	1.291	62.9	1.006	0.02	0.117	0.152
	LTE Band 48	20M	QPSK	50	0	-	Front	10mm	Ant 6	ECI 5	55830	3609	18.31	19.50	1.315	62.9	1.006	-0.11	0.112	0.148
	LTE Band 48	20M	QPSK	1	0	-	Back	10mm	Ant 6	ECI 5	55830	3609	18.39	19.50	1.291	62.9	1.006	-0.11	0.272	0.353
	LTE Band 48	20M	QPSK	50	0	-	Back	10mm	Ant 6	ECI 5	55830	3609	18.31	19.50	1.315	62.9	1.006	-0.05	0.273	0.361
	LTE Band 48	20M	QPSK	1	0	-	Right Side	10mm	Ant 6	ECI 5	55830	3609	18.39	19.50	1.291	62.9	1.006	0.03	0.333	0.433
	LTE Band 48	20M	QPSK	50	0	-	Right Side	10mm	Ant 6	ECI 5	55830	3609	18.31	19.50	1.315	62.9	1.006	-0.06	0.337	0.446
	LTE Band 48	20M	QPSK	1	0	-	Top Side	10mm	Ant 6	ECI 5	55830	3609	18.39	19.50	1.291	62.9	1.006	0.01	0.062	0.081
	LTE Band 48	20M	QPSK	50	0	-	Top Side	10mm	Ant 6	ECI 5	55830	3609	18.31	19.50	1.315	62.9	1.006	-0.03	0.054	0.071
	LTE Band 48	20M	QPSK	1	0	-	Front	10mm	Ant 7	ECI 5	55830	3609	21.36	22.50	1.300	62.9	1.006	-0.17	0.078	0.102
	LTE Band 48	20M	QPSK	50	0	-	Front	10mm	Ant 7	ECI 5	55830	3609	20.33	21.50	1.309	62.9	1.006	0.02	0.061	0.080
	LTE Band 48	20M	QPSK	1	0	-	Back	10mm	Ant 7	ECI 5	55830	3609	21.36	22.50	1.300	62.9	1.006	-0.11	0.547	0.715
	LTE Band 48	20M	QPSK	1	0	-	Back	10mm	Ant 7	ECI 5	55340	3560	21.31	22.50	1.315	62.9	1.006	0.02	0.512	0.677
	LTE Band 48	20M	QPSK	1	0	-	Back	10mm	Ant 7	ECI 5	56150	3641	21.34	22.50	1.306	62.9	1.006	-0.03	0.521	0.685
	LTE Band 48	20M	QPSK	1	0	-	Back	10mm	Ant 7	ECI 5	56640	3690	21.27	22.50	1.327	62.9	1.006	0.06	0.519	0.693
	LTE Band 48	20M	QPSK	50	0	-	Back	10mm	Ant 7	ECI 5	55830	3609	20.33	21.50	1.309	62.9	1.006	0.13	0.393	0.518
	LTE Band 48	20M	QPSK	100	0	-	Back	10mm	Ant 7	ECI 5	55830	3609	20.36	21.50	1.300	62.9	1.006	-0.11	0.524	0.685
	LTE Band 48	20M	QPSK	1	0	-	Left Side	10mm	Ant 7	ECI 5	55830	3609	21.36	22.50	1.300	62.9	1.006	0.12	0.325	0.425
	LTE Band 48	20M	QPSK	50	0	-	Left Side	10mm	Ant 7	ECI 5	55830	3609	20.33	21.50	1.309	62.9	1.006	0.19	0.258	0.340
	LTE Band 48	20M	QPSK	1	0	-	Top Side	10mm	Ant 7	ECI 5	55830	3609	21.36	22.50	1.300	62.9	1.006	-0.09	0.023	0.030
	LTE Band 48	20M	QPSK	50	0	-	Top Side	10mm	Ant 7	ECI 5	55830	3609	20.33	21.50	1.309	62.9	1.006	-0.12	0.015	0.020
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 5	ECI 5	641666	3624.99	17.82	18.50	1.169	-	-	-0.18	0.137	0.160
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Front	10mm	Ant 5	ECI 5	641666	3624.99	17.77	18.50	1.183	-	-	-0.06	0.150	0.177
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 5	ECI 5	641666	3624.99	17.82	18.50	1.169	-	-	0.07	0.299	0.350
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Back	10mm	Ant 5	ECI 5	641666	3624.99	17.77	18.50	1.183	-	-	-0.15	0.299	0.354
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Right Side	10mm	Ant 5	ECI 5	641666	3624.99	17.82	18.50	1.169	-	-	-0.15	0.068	0.080
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Right Side	10mm	Ant 5	ECI 5	641666	3624.99	17.77	18.50	1.183	-	-	-0.08	0.073	0.086
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 5	ECI 5	641666	3624.99	17.82	18.50	1.169	-	-	-0.04	0.413	0.483
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Top Side	10mm	Ant 5	ECI 5	641666	3624.99	17.77	18.50	1.183	-	-	0.02	0.439	0.519
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 8	ECI 5	641666	3624.99	19.30	20.50	1.318	-	-	-0.08	0.153	0.202
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Front	10mm	Ant 8	ECI 5	641666	3624.99	19.24	20.50	1.337	-	-	0.12	0.161	0.215
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 8	ECI 5	641666	3624.99	19.30	20.50	1.318	-	-	-0.07	0.675	0.890
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 8	ECI 5	638000	3570	19.22	20.50	1.343	-	-	0.02	0.652	0.875
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 8	ECI 5	645332	3679.98	19.19	20.50	1.352	-	-	-0.01	0.648	0.876
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Back	10mm	Ant 8	ECI 5	641666	3624.99	19.24	20.50	1.337	-	-	-0.05	0.674	0.901
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Back	10mm	Ant 8	ECI 5	638000	3570	19.11	20.50	1.377	-	-	0.02	0.654	0.901
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Back	10mm	Ant 8	ECI 5	645332	3679.98	19.12	20.50	1.374	-	-	-0.01	0.653	0.897

	FR1 n48	40M	QPSK	100	0	DFT-SCS-30KHz	Back	10mm	Ant 8	ECI 5	641666	3624.99	19.13	20.50	1.371	-	-	0.06	0.647	0.887
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Left Side	10mm	Ant 8	ECI 5	641666	3624.99	19.30	20.50	1.318	-	-	-0.04	0.247	0.326
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Left Side	10mm	Ant 8	ECI 5	641666	3624.99	19.24	20.50	1.337	-	-	0.13	0.252	0.337
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 8	ECI 5	641666	3624.99	19.30	20.50	1.318	-	-	-0.03	0.247	0.326
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Top Side	10mm	Ant 8	ECI 5	641666	3624.99	19.24	20.50	1.337	-	-	0.09	0.220	0.294
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 6	ECI 5	641666	3624.99	17.67	18.50	1.211	-	-	-0.11	0.129	0.156
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Front	10mm	Ant 6	ECI 5	641666	3624.99	17.63	18.50	1.222	-	-	0.03	0.136	0.166
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 6	ECI 5	641666	3624.99	17.67	18.50	1.211	-	-	0.09	0.320	0.387
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Back	10mm	Ant 6	ECI 5	641666	3624.99	17.63	18.50	1.222	-	-	-0.02	0.347	0.424
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Right Side	10mm	Ant 6	ECI 5	641666	3624.99	17.67	18.50	1.211	-	-	0.15	0.367	0.444
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Right Side	10mm	Ant 6	ECI 5	641666	3624.99	17.63	18.50	1.222	-	-	-0.08	0.401	0.490
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 6	ECI 5	641666	3624.99	17.67	18.50	1.211	-	-	0.06	0.065	0.079
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Top Side	10mm	Ant 6	ECI 5	641666	3624.99	17.63	18.50	1.222	-	-	0.15	0.098	0.120
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 7	ECI 5	641666	3624.99	20.94	22.00	1.276	-	-	-0.05	0.086	0.110
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Front	10mm	Ant 7	ECI 5	641666	3624.99	20.85	22.00	1.303	-	-	-0.18	0.080	0.104
44	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 7	ECI 5	641666	3624.99	20.94	22.00	1.276	-	-	-0.06	0.711	**0.908**
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 7	ECI 5	638000	3570	20.87	22.00	1.297	-	-	0.02	0.652	0.846
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 7	ECI 5	645332	3679.98	20.81	22.00	1.315	-	-	-0.01	0.648	0.852
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Back	10mm	Ant 7	ECI 5	641666	3624.99	20.85	22.00	1.303	-	-	0.1	0.678	0.884
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Back	10mm	Ant 7	ECI 5	638000	3570	20.83	22.00	1.309	-	-	0.02	0.654	0.856
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Back	10mm	Ant 7	ECI 5	645332	3679.98	20.66	22.00	1.361	-	-	-0.01	0.653	0.889
	FR1 n48	40M	QPSK	100	0	DFT-SCS-30KHz	Back	10mm	Ant 7	ECI 5	641666	3624.99	20.37	21.50	1.297	-	-	0.03	0.617	0.800
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Left Side	10mm	Ant 7	ECI 5	641666	3624.99	20.94	22.00	1.276	-	-	0.04	0.356	0.454
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Left Side	10mm	Ant 7	ECI 5	641666	3624.99	20.85	22.00	1.303	-	-	-0.09	0.374	0.487
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 7	ECI 5	641666	3624.99	20.94	22.00	1.276	-	-	-0.16	0.071	0.091
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Top Side	10mm	Ant 7	ECI 5	641666	3624.99	20.85	22.00	1.303	-	-	0.11	0.047	0.061
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 5	ECI 5	656000	3840	15.80	16.50	1.175	-	-	-0.02	0.063	0.074
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Front	10mm	Ant 5	ECI 5	656000	3840	15.71	16.50	1.199	-	-	0.08	0.050	0.060
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 5	ECI 5	656000	3840	15.80	16.50	1.175	-	-	-0.16	0.107	0.126
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 5	ECI 5	656000	3840	15.71	16.50	1.199	-	-	-0.04	0.108	0.130
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Right Side	10mm	Ant 5	ECI 5	656000	3840	15.80	16.50	1.175	-	-	0.17	0.040	0.047
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Right Side	10mm	Ant 5	ECI 5	656000	3840	15.71	16.50	1.199	-	-	0.18	0.035	0.042
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 5	ECI 5	656000	3840	15.80	16.50	1.175	-	-	0.03	0.162	0.190
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	10mm	Ant 5	ECI 5	656000	3840	15.71	16.50	1.199	-	-	0.01	0.198	0.238
	FR1 n77 PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	10mm	Ant 5	ECI 5	656000	3840	18.69	19.50	1.205	50	1.000	0.02	0.211	0.254
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 5	ECI 5	633334	3500.01	15.91	16.50	1.146	-	-	-0.16	0.096	0.110
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Front	10mm	Ant 5	ECI 5	633334	3500.01	15.83	16.50	1.167	-	-	-0.12	0.113	0.132
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 5	ECI 5	633334	3500.01	15.91	16.50	1.146	-	-	-0.08	0.220	0.252
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 5	ECI 5	633334	3500.01	15.83	16.50	1.167	-	-	-0.18	0.219	0.256
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Right Side	10mm	Ant 5	ECI 5	633334	3500.01	15.91	16.50	1.146	-	-	-0.13	0.039	0.045
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Right Side	10mm	Ant 5	ECI 5	633334	3500.01	15.83	16.50	1.167	-	-	-0.03	0.053	0.062
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 5	ECI 5	633334	3500.01	15.91	16.50	1.146	-	-	0.02	0.334	0.383
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	10mm	Ant 5	ECI 5	633334	3500.01	15.83	16.50	1.167	-	-	0.02	0.427	0.498
	FR1 n77 PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	10mm	Ant 5	ECI 5	633334	3500.01	18.79	19.50	1.178	50	1.000	0.03	0.459	0.541
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 8	ECI 5	656000	3840	16.23	17.50	1.340	-	-	-0.17	0.096	0.129
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Front	10mm	Ant 8	ECI 5	656000	3840	16.10	17.50	1.380	-	-	-0.04	0.102	0.141
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 8	ECI 5	656000	3840	16.23	17.50	1.340	-	-	-0.17	0.474	0.635
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 8	ECI 5	656000	3840	16.10	17.50	1.380	-	-	-0.07	0.635	0.877
	FR1 n77 PC3	100M	QPSK	270	0	DFT-SCS-30KHz	Back	10mm	Ant 8	ECI 5	656000	3840	16.14	17.50	1.368	-	-	0.04	0.584	0.799
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	10mm	Ant 8	ECI 5	656000	3840	16.23	17.50	1.340	-	-	0.01	0.262	0.351
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Left Side	10mm	Ant 8	ECI 5	656000	3840	16.10	17.50	1.380	-	-	0.04	0.324	0.447
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 8	ECI 5	656000	3840	16.23	17.50	1.340	-	-	-0.06	0.111	0.149
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	10mm	Ant 8	ECI 5	656000	3840	16.10	17.50	1.380	-	-	0.16	0.103	0.142
45	FR1 n77 PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 8	ECI 5	656000	3840	19.13	20.50	1.371	50	1.000	0.05	0.677	**0.928**
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 8	ECI 5	633334	3500.01	16.50	17.50	1.259	-	-	0.09	0.077	0.097
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Front	10mm	Ant 8	ECI 5	633334	3500.01	16.47	17.50	1.268	-	-	-0.13	0.077	0.098

	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 8	ECI 5	633334	3500.01	16.50	17.50	1.259	-	-	-0.17	0.251	0.316
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 8	ECI 5	633334	3500.01	16.47	17.50	1.268	-	-	-0.1	0.337	0.427
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	10mm	Ant 8	ECI 5	633334	3500.01	16.50	17.50	1.259	-	-	0.1	0.093	0.117
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Left Side	10mm	Ant 8	ECI 5	633334	3500.01	16.47	17.50	1.268	-	-	0.17	0.100	0.127
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 8	ECI 5	633334	3500.01	16.50	17.50	1.259	-	-	-0.06	0.080	0.101
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	10mm	Ant 8	ECI 5	633334	3500.01	16.47	17.50	1.268	-	-	0.07	0.109	0.138
	FR1 n77 PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 8	ECI 5	633334	3500.01	19.29	20.50	1.321	50	1.000	-0.18	0.348	0.460
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 6	ECI 5	656000	3840	16.21	17.50	1.346	-	-	-0.01	0.178	0.240
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Front	10mm	Ant 6	ECI 5	656000	3840	16.14	17.50	1.368	-	-	-0.11	0.176	0.241
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 6	ECI 5	656000	3840	16.21	17.50	1.346	-	-	0.04	0.304	0.409
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 6	ECI 5	656000	3840	16.14	17.50	1.368	-	-	0.16	0.281	0.384
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Right Side	10mm	Ant 6	ECI 5	656000	3840	16.21	17.50	1.346	-	-	0.17	0.361	0.486
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Right Side	10mm	Ant 6	ECI 5	656000	3840	16.14	17.50	1.368	-	-	0.06	0.351	0.480
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 6	ECI 5	656000	3840	16.21	17.50	1.346	-	-	-0.18	0.144	0.194
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	10mm	Ant 6	ECI 5	656000	3840	16.14	17.50	1.368	-	-	0.06	0.140	0.191
	FR1 n77 PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Right Side	10mm	Ant 6	ECI 5	656000	3840	19.22	20.50	1.343	50	1.000	0.18	0.382	0.513
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 6	ECI 5	633334	3500.01	16.05	17.50	1.396	-	-	0.17	0.102	0.142
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Front	10mm	Ant 6	ECI 5	633334	3500.01	16.00	17.50	1.413	-	-	-0.16	0.104	0.147
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 6	ECI 5	633334	3500.01	16.05	17.50	1.396	-	-	-0.08	0.218	0.304
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 6	ECI 5	633334	3500.01	16.00	17.50	1.413	-	-	0.03	0.236	0.333
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Right Side	10mm	Ant 6	ECI 5	633334	3500.01	16.05	17.50	1.396	-	-	0.12	0.272	0.380
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Right Side	10mm	Ant 6	ECI 5	633334	3500.01	16.00	17.50	1.413	-	-	-0.17	0.317	0.448
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 6	ECI 5	633334	3500.01	16.05	17.50	1.396	-	-	-0.17	0.054	0.075
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	10mm	Ant 6	ECI 5	633334	3500.01	16.00	17.50	1.413	-	-	0.02	0.055	0.078
	FR1 n77 PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Right Side	10mm	Ant 6	ECI 5	633334	3500.01	19.12	20.50	1.374	50	1.000	-0.07	0.348	0.478
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 7	ECI 5	650000	3750	13.69	14.50	1.205	-	-	-0.03	0.049	0.059
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Front	10mm	Ant 7	ECI 5	650000	3750	13.62	14.50	1.225	-	-	0.09	0.050	0.061
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 7	ECI 5	650000	3750	13.69	14.50	1.205	-	-	-0.02	0.148	0.178
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 7	ECI 5	650000	3750	13.62	14.50	1.225	-	-	-0.07	0.144	0.176
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	10mm	Ant 7	ECI 5	650000	3750	13.69	14.50	1.205	-	-	-0.16	0.106	0.128
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Left Side	10mm	Ant 7	ECI 5	650000	3750	13.62	14.50	1.225	-	-	-0.03	0.105	0.129
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 7	ECI 5	650000	3750	13.69	14.50	1.205	-	-	0.03	0.038	0.046
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	10mm	Ant 7	ECI 5	650000	3750	13.62	14.50	1.225	-	-	0.1	0.045	0.055
	FR1 n77 PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 7	ECI 5	650000	3750	16.63	17.50	1.222	50	1.000	0.03	0.154	0.188
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 7	ECI 5	633334	3500.01	13.92	14.50	1.143	-	-	0.12	0.044	0.050
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Front	10mm	Ant 7	ECI 5	633334	3500.01	13.86	14.50	1.159	-	-	-0.03	0.041	0.048
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 7	ECI 5	633334	3500.01	13.92	14.50	1.143	-	-	0.11	0.122	0.139
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 7	ECI 5	633334	3500.01	13.86	14.50	1.159	-	-	0.08	0.149	0.173
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	10mm	Ant 7	ECI 5	633334	3500.01	13.92	14.50	1.143	-	-	0.07	0.076	0.087
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Left Side	10mm	Ant 7	ECI 5	633334	3500.01	13.86	14.50	1.159	-	-	0.09	0.078	0.090
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 7	ECI 5	633334	3500.01	13.92	14.50	1.143	-	-	-0.12	0.040	0.046
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	10mm	Ant 7	ECI 5	633334	3500.01	13.86	14.50	1.159	-	-	0.1	0.040	0.046
	FR1 n77 PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 7	ECI 5	633334	3500.01	16.82	17.50	1.169	50	1.000	-0.16	0.161	0.188
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 5	ECI 5	650000	3750	15.15	16.00	1.216	-	-	0.17	0.056	0.068
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Front	10mm	Ant 5	ECI 5	650000	3750	15.05	16.00	1.245	-	-	0.12	0.044	0.055
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 5	ECI 5	650000	3750	15.15	16.00	1.216	-	-	-0.11	0.116	0.141
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 5	ECI 5	650000	3750	15.05	16.00	1.245	-	-	-0.12	0.108	0.134
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Right Side	10mm	Ant 5	ECI 5	650000	3750	15.15	16.00	1.216	-	-	-0.1	0.041	0.050
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Right Side	10mm	Ant 5	ECI 5	650000	3750	15.05	16.00	1.245	-	-	0.16	0.044	0.055
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 5	ECI 5	650000	3750	15.15	16.00	1.216	-	-	-0.09	0.214	0.260
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	10mm	Ant 5	ECI 5	650000	3750	15.05	16.00	1.245	-	-	-0.09	0.160	0.199
	FR1 n78 PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 5	ECI 5	650000	3750	17.97	19.00	1.268	50	1.000	0.08	0.220	0.279
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 5	ECI 5	633334	3500.01	15.46	16.00	1.132	-	-	0.1	0.098	0.111
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Front	10mm	Ant 5	ECI 5	633334	3500.01	15.43	16.00	1.140	-	-	0.1	0.096	0.109
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 5	ECI 5	633334	3500.01	15.46	16.00	1.132	-	-	-0.07	0.192	0.217
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 5	ECI 5	633334	3500.01	15.43	16.00	1.140	-	-	0.12	0.196	0.223

	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Right Side	10mm	Ant 5	ECI 5	633334	3500.01	15.46	16.00	1.132	-	-	0.08	0.044	0.050
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Right Side	10mm	Ant 5	ECI 5	633334	3500.01	15.43	16.00	1.140	-	-	0.15	0.044	0.050
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 5	ECI 5	633334	3500.01	15.46	16.00	1.132	-	-	-0.11	0.334	0.378
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	10mm	Ant 5	ECI 5	633334	3500.01	15.43	16.00	1.140	-	-	-0.05	0.297	0.339
	FR1 n78 PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 5	ECI 5	633334	3500.01	18.40	19.00	1.148	50	1.000	0.02	0.353	0.405
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 8	ECI 5	650000	3750	17.21	18.50	1.346	-	-	-0.11	0.088	0.118
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Front	10mm	Ant 8	ECI 5	650000	3750	17.14	18.50	1.368	-	-	0.03	0.098	0.134
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 8	ECI 5	650000	3750	17.21	18.50	1.346	-	-	0.05	0.476	0.641
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 8	ECI 5	650000	3750	17.14	18.50	1.368	-	-	-0.14	0.542	0.741
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	10mm	Ant 8	ECI 5	650000	3750	17.21	18.50	1.346	-	-	-0.17	0.204	0.275
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Left Side	10mm	Ant 8	ECI 5	650000	3750	17.14	18.50	1.368	-	-	0.05	0.263	0.360
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 8	ECI 5	650000	3750	17.21	18.50	1.346	-	-	0.13	0.160	0.215
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	10mm	Ant 8	ECI 5	650000	3750	17.14	18.50	1.368	-	-	0.05	0.143	0.196
	FR1 n78 PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 8	ECI 5	650000	3750	19.91	21.50	1.442	50	1.000	-0.03	0.532	0.767
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 8	ECI 5	633334	3500.01	17.60	18.50	1.230	-	-	0.02	0.084	0.103
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Front	10mm	Ant 8	ECI 5	633334	3500.01	17.52	18.50	1.253	-	-	0.18	0.103	0.129
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 8	ECI 5	633334	3500.01	17.60	18.50	1.230	-	-	0.1	0.282	0.347
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 8	ECI 5	633334	3500.01	17.52	18.50	1.253	-	-	-0.05	0.371	0.465
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	10mm	Ant 8	ECI 5	633334	3500.01	17.60	18.50	1.230	-	-	-0.01	0.109	0.134
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Left Side	10mm	Ant 8	ECI 5	633334	3500.01	17.52	18.50	1.253	-	-	0.02	0.127	0.159
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 8	ECI 5	633334	3500.01	17.60	18.50	1.230	-	-	0.07	0.091	0.112
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	10mm	Ant 8	ECI 5	633334	3500.01	17.52	18.50	1.253	-	-	-0.18	0.124	0.155
	FR1 n78 PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 8	ECI 5	633334	3500.01	20.28	21.50	1.324	50	1.000	0.06	0.378	0.501
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 6	ECI 5	650000	3750	16.67	18.00	1.358	-	-	-0.06	0.146	0.198
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Front	10mm	Ant 6	ECI 5	650000	3750	16.59	18.00	1.384	-	-	-0.15	0.137	0.190
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 6	ECI 5	650000	3750	16.67	18.00	1.358	-	-	-0.03	0.311	0.422
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 6	ECI 5	650000	3750	16.59	18.00	1.384	-	-	0.1	0.299	0.414
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Right Side	10mm	Ant 6	ECI 5	650000	3750	16.67	18.00	1.358	-	-	-0.05	0.395	0.537
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Right Side	10mm	Ant 6	ECI 5	650000	3750	16.59	18.00	1.384	-	-	-0.03	0.397	0.549
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 6	ECI 5	650000	3750	16.67	18.00	1.358	-	-	0.09	0.097	0.132
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	10mm	Ant 6	ECI 5	650000	3750	16.59	18.00	1.384	-	-	-0.02	0.101	0.140
	FR1 n78 PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Right Side	10mm	Ant 6	ECI 5	650000	3750	20.10	21.00	1.230	50	1.000	0.08	0.466	0.573
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 6	ECI 5	633334	3500.01	16.95	18.00	1.274	-	-	-0.12	0.096	0.122
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Front	10mm	Ant 6	ECI 5	633334	3500.01	16.93	18.00	1.279	-	-	-0.08	0.098	0.125
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 6	ECI 5	633334	3500.01	16.95	18.00	1.274	-	-	-0.16	0.228	0.290
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 6	ECI 5	633334	3500.01	16.93	18.00	1.279	-	-	0.18	0.247	0.316
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Right Side	10mm	Ant 6	ECI 5	633334	3500.01	16.95	18.00	1.274	-	-	-0.08	0.281	0.358
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Right Side	10mm	Ant 6	ECI 5	633334	3500.01	16.93	18.00	1.279	-	-	0.04	0.354	0.453
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 6	ECI 5	633334	3500.01	16.95	18.00	1.274	-	-	-0.07	0.040	0.051
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	10mm	Ant 6	ECI 5	633334	3500.01	16.93	18.00	1.279	-	-	0.13	0.043	0.055
	FR1 n78 PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Right Side	10mm	Ant 6	ECI 5	633334	3500.01	20.15	21.00	1.216	50	1.000	-0.07	0.385	0.468
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 7	ECI 5	650000	3750	19.28	20.50	1.324	-	-	-0.12	0.141	0.187
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Front	10mm	Ant 7	ECI 5	650000	3750	19.24	20.50	1.337	-	-	-0.08	0.143	0.191
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 7	ECI 5	650000	3750	19.28	20.50	1.324	-	-	-0.16	0.560	0.742
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 7	ECI 5	650000	3750	19.24	20.50	1.337	-	-	0.03	0.586	0.783
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	10mm	Ant 7	ECI 5	650000	3750	19.28	20.50	1.324	-	-	0.04	0.354	0.469
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Left Side	10mm	Ant 7	ECI 5	650000	3750	19.24	20.50	1.337	-	-	-0.18	0.378	0.505
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 7	ECI 5	650000	3750	19.28	20.50	1.324	-	-	-0.07	0.082	0.109
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	10mm	Ant 7	ECI 5	650000	3750	19.24	20.50	1.337	-	-	-0.14	0.083	0.111
46	FR1 n78 PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 7	ECI 5	650000	3750	21.87	23.50	1.455	50	1.000	-0.03	0.578	**0.841**
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 7	ECI 5	633334	3500.01	19.91	20.50	1.146	-	-	0.1	0.082	0.094
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Front	10mm	Ant 7	ECI 5	633334	3500.01	19.85	20.50	1.161	-	-	0.05	0.094	0.109
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 7	ECI 5	633334	3500.01	19.91	20.50	1.146	-	-	0.18	0.407	0.466
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 7	ECI 5	633334	3500.01	19.85	20.50	1.161	-	-	0.12	0.509	0.591
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	10mm	Ant 7	ECI 5	633334	3500.01	19.91	20.50	1.146	-	-	0.02	0.262	0.300
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Left Side	10mm	Ant 7	ECI 5	633334	3500.01	19.85	20.50	1.161	-	-	0.04	0.295	0.343

	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 7	ECI 5	633334	3500.01	19.91	20.50	1.146	-	-	-0.12	0.089	0.102
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	10mm	Ant 7	ECI 5	633334	3500.01	19.85	20.50	1.161	-	-	0.15	0.069	0.080
	FR1 n78 PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 7	ECI 5	633334	3500.01	22.51	23.50	1.256	50	1.000	-0.19	0.513	0.644

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
2450MHz																
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 17	Full Power	6	2437	19.00	20.00	1.259	100	1.000	-0.01	0.253	0.319
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 17	Full Power	6	2437	19.00	20.00	1.259	100	1.000	-0.08	0.360	0.453
	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	Ant 17	Full Power	6	2437	19.00	20.00	1.259	100	1.000	0.05	0.056	0.070
	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	Ant 17	Full Power	6	2437	19.00	20.00	1.259	100	1.000	0.06	0.530	0.667
	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	Ant 17	Simultaneous(Non DBS&DBS)	6	2437	14.55	15.50	1.245	100	1.000	0.03	0.164	0.204
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 6	Full Power	6	2437	19.10	20.00	1.230	100	1.000	-0.08	0.223	0.274
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 6	Full Power	6	2437	19.10	20.00	1.230	100	1.000	0.13	0.415	0.511
	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	Ant 6	Full Power	6	2437	19.10	20.00	1.230	100	1.000	0.12	0.524	0.645
	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	Ant 6	Simultaneous(Non DBS&DBS)	6	2437	14.47	15.50	1.268	100	1.000	-0.01	0.186	0.236
	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	Ant 6	Full Power	6	2437	19.10	20.00	1.230	100	1.000	0.03	0.112	0.138
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 17+6	Full Power	6	2437	22.06	23.00	1.242	100	1.000	0.16	0.388	0.482
47	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 17+6	Full Power	6	2437	22.06	23.00	1.242	100	1.000	-0.18	0.716	**0.889**
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 17+6	Simultaneous(Non DBS&DBS)	6	2437	17.51	18.50	1.256	100	1.000	0.02	0.217	0.273
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 17+6	Full Power	11	2462	21.91	22.50	1.146	100	1.000	-0.1	0.445	0.510
	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	Ant 17+6	Full Power	6	2437	22.06	23.00	1.242	100	1.000	0.07	0.633	0.786
	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	Ant 17+6	Full Power	6	2437	22.06	23.00	1.242	100	1.000	0.18	0.520	0.646
	Bluetooth	1Mbps	Front	10mm	Ant 17	Full Power	39	2441	14.53	15.50	1.251	76.6	1.087	0.08	0.065	0.088
	Bluetooth	1Mbps	Back	10mm	Ant 17	Full Power	39	2441	14.53	15.50	1.251	76.6	1.087	0.01	0.123	0.167
	Bluetooth	1Mbps	Right Side	10mm	Ant 17	Full Power	39	2441	14.53	15.50	1.251	76.6	1.087	0.03	0.113	0.154
48	Bluetooth	1Mbps	Top Side	10mm	Ant 17	Full Power	39	2441	14.53	15.50	1.251	76.6	1.087	-0.08	0.177	**0.241**
5000MHz																
	WLAN5.2GHz	802.11n-HT40 MCS0	Front	10mm	Ant 18	Standalone	38	5190	16.27	17.00	1.183	92.86	1.077	-0.1	0.175	0.223
	WLAN5.2GHz	802.11n-HT40 MCS0	Back	10mm	Ant 18	Standalone	38	5190	16.27	17.00	1.183	92.86	1.077	0.01	0.332	0.423
	WLAN5.2GHz	802.11n-HT40 MCS0	Right Side	10mm	Ant 18	Standalone	38	5190	16.27	17.00	1.183	92.86	1.077	-0.15	0.617	0.786
	WLAN5.2GHz	802.11n-HT40 MCS0	Right Side	10mm	Ant 18	Simultaneous(Non DBS&DBS)	38	5190	9.82	10.50	1.169	92.86	1.077	0.01	0.184	0.232
	WLAN5.2GHz	802.11n-HT40 MCS0	Front	10mm	Ant 5+18	Standalone	38	5190	19.24	20.00	1.191	92.86	1.077	-0.18	0.259	0.332
	WLAN5.2GHz	802.11n-HT40 MCS0	Back	10mm	Ant 5+18	Standalone	38	5190	19.24	20.00	1.191	92.86	1.077	0.03	0.410	0.526
49	WLAN5.2GHz	802.11n-HT40 MCS0	Right Side	10mm	Ant 5+18	Standalone	38	5190	19.24	20.00	1.191	92.86	1.077	0.02	0.820	**1.052**
	WLAN5.2GHz	802.11n-HT40 MCS0	Right Side	10mm	Ant 5+18	Simultaneous(Non DBS&DBS)	38	5190	12.70	13.50	1.203	92.86	1.077	0.06	0.185	0.240
	WLAN5.2GHz	802.11n-HT40 MCS0	Right Side	10mm	Ant 5+18	Standalone	46	5230	19.08	20.00	1.235	92.86	1.077	-0.15	0.604	0.803
	WLAN5.2GHz	802.11n-HT40 MCS0	Top Side	10mm	Ant 5+18	Standalone	38	5190	19.24	20.00	1.191	92.86	1.077	0.11	0.504	0.647
	WLAN5.8GHz	802.11a 6Mbps	Front	10mm	Ant 18	Standalone	165	5825	16.42	17.50	1.282	97.21	1.029	-0.17	0.143	0.189
	WLAN5.8GHz	802.11a 6Mbps	Back	10mm	Ant 18	Standalone	165	5825	16.42	17.50	1.282	97.21	1.029	0.04	0.303	0.400
	WLAN5.8GHz	802.11a 6Mbps	Right Side	10mm	Ant 18	Standalone	165	5825	16.42	17.50	1.282	97.21	1.029	-0.01	0.421	0.556
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Side	10mm	Ant 18	Simultaneous(Non DBS&DBS)	155	5775	9.81	10.50	1.172	87.06	1.149	0.02	0.141	0.190
	WLAN5.8GHz	802.11a 6Mbps	Front	10mm	Ant 5+18	Standalone	165	5825	19.52	20.50	1.254	97.21	1.029	0.05	0.266	0.343
	WLAN5.8GHz	802.11a 6Mbps	Back	10mm	Ant 5+18	Standalone	165	5825	19.52	20.50	1.254	97.21	1.029	0.06	0.419	0.541
	WLAN5.8GHz	802.11a 6Mbps	Right Side	10mm	Ant 5+18	Standalone	165	5825	19.52	20.50	1.254	97.21	1.029	-0.08	0.558	0.720
50	WLAN5.8GHz	802.11a 6Mbps	Top Side	10mm	Ant 5+18	Standalone	165	5825	19.52	20.50	1.254	97.21	1.029	0.02	0.792	**1.022**
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Top Side	10mm	Ant 5+18	Simultaneous(Non DBS&DBS)	155	5775	13.28	14.00	1.179	87.06	1.149	-0.01	0.208	0.282
	WLAN5.8GHz	802.11a 6Mbps	Top Side	10mm	Ant 5+18	Standalone	149	5745	19.23	20.00	1.194	97.21	1.029	0.12	0.625	0.768

16.3 Body Worn Accessory SAR

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
835MHz																				
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Front	15mm	Ant 0	ECI 4	189	836.4	27.15	28.00	1.216	-	-	0.08	0.164	0.199
51	GSM850	-	-	-	-	GPRS (4 Tx slots)	Back	15mm	Ant 0	ECI 4	189	836.4	27.15	28.00	1.216	-	-	-0.02	0.196	**0.238**
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Front	15mm	Ant 1	ECI 4	189	836.4	27.35	28.50	1.303	-	-	-0.08	0.091	0.119
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Back	15mm	Ant 1	ECI 4	189	836.4	27.35	28.50	1.303	-	-	-0.08	0.098	0.128
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 0	ECI 4	4182	836.4	24.42	25.00	1.143	-	-	-0.18	0.154	0.176
52	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 0	ECI 4	4182	836.4	24.42	25.00	1.143	-	-	-0.02	0.172	**0.197**
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 1	ECI 4	4182	836.4	24.22	25.50	1.343	-	-	0.08	0.096	0.129
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 1	ECI 4	4182	836.4	24.22	25.50	1.343	-	-	-0.17	0.118	0.158
	LTE Band 5 Main PA	10M	QPSK	1	0	-	Front	15mm	Ant 0	ECI 4	20525	836.5	25.35	25.70	1.084	-	-	-0.18	0.177	0.192
	LTE Band 5 Main PA	10M	QPSK	25	0	-	Front	15mm	Ant 0	ECI 4	20525	836.5	24.28	24.70	1.102	-	-	0.06	0.142	0.156
53	LTE Band 5 Main PA	10M	QPSK	1	0	-	Back	15mm	Ant 0	ECI 4	20525	836.5	25.35	25.70	1.084	-	-	0.04	0.225	**0.244**
	LTE Band 5 Main PA	10M	QPSK	25	0	-	Back	15mm	Ant 0	ECI 4	20525	836.5	24.28	24.70	1.102	-	-	0.01	0.168	0.185
	LTE Band 5 Other PA	10M	QPSK	1	0	-	Back	15mm	Ant 0	ECI 4	20525	836.5	24.62	25.50	1.225	-	-	-0.03	0.196	0.240
	LTE Band 5 Main PA	10M	QPSK	1	0	-	Front	15mm	Ant 1	ECI 4	20525	836.5	25.15	25.70	1.135	-	-	0.05	0.116	0.132
	LTE Band 5 Main PA	10M	QPSK	25	0	-	Front	15mm	Ant 1	ECI 4	20525	836.5	24.10	24.70	1.148	-	-	-0.03	0.091	0.104
	LTE Band 5 Main PA	10M	QPSK	1	0	-	Back	15mm	Ant 1	ECI 4	20525	836.5	25.15	25.70	1.135	-	-	0.09	0.141	0.160
	LTE Band 5 Main PA	10M	QPSK	25	0	-	Back	15mm	Ant 1	ECI 4	20525	836.5	24.10	24.70	1.148	-	-	0.04	0.112	0.129
	LTE Band 5 Other PA	10M	QPSK	1	0	-	Back	15mm	Ant 1	ECI 4	20525	836.5	24.58	25.50	1.236	-	-	-0.06	0.127	0.157
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Front	15mm	Ant 0	ECI 4	167300	836.5	25.41	25.70	1.069	-	-	-0.18	0.189	0.202
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Front	15mm	Ant 0	ECI 4	167300	836.5	25.27	25.70	1.104	-	-	0.05	0.158	0.174
54	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Back	15mm	Ant 0	ECI 4	167300	836.5	25.41	25.70	1.069	-	-	-0.01	0.227	**0.243**
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Back	15mm	Ant 0	ECI 4	167300	836.5	25.27	25.70	1.104	-	-	-0.08	0.184	0.203
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Front	15mm	Ant 1	ECI 4	167300	836.5	24.91	25.70	1.199	-	-	-0.08	0.094	0.113
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Front	15mm	Ant 1	ECI 4	167300	836.5	24.83	25.70	1.222	-	-	0.05	0.119	0.145
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Back	15mm	Ant 1	ECI 4	167300	836.5	24.91	25.70	1.199	-	-	0.08	0.120	0.144
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Back	15mm	Ant 1	ECI 4	167300	836.5	24.83	25.70	1.222	-	-	0.02	0.145	0.177
1750MHz																				
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 1	ECI 4	1413	1732.6	23.58	25.00	1.387	-	-	0.11	0.317	0.440
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 1	ECI 4	1413	1732.6	23.58	25.00	1.387	-	-	-0.05	**0.337**	0.467
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 2	ECI 4	1413	1732.6	23.98	25.00	1.265	-	-	0.14	0.401	0.507
55	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 2	ECI 4	1413	1732.6	23.98	25.00	1.265	-	-	-0.17	0.438	**0.554**
	LTE Band 66	20M	QPSK	1	0	-	Front	15mm	Ant 1	ECI 4	132322	1745	24.49	25.50	1.262	-	-	-0.05	0.383	0.483
	LTE Band 66	20M	QPSK	50	0	-	Front	15mm	Ant 1	ECI 4	132322	1745	23.36	24.50	1.300	-	-	0.01	0.286	0.372
	LTE Band 66	20M	QPSK	1	0	-	Back	15mm	Ant 1	ECI 4	132322	1745	24.49	25.50	1.262	-	-	0.1	0.433	0.546
	LTE Band 66B	15M	QPSK	1	74	-	Back	15mm	Ant 1	ECI 4	132322+ 132415	1745+ 1754.3	24.41	25.50	1.285	-	-	-0.01	0.412	0.530
	LTE Band 66	20M	QPSK	50	0	-	Back	15mm	Ant 1	ECI 4	132322	1745	23.36	24.50	1.300	-	-	-0.17	0.343	0.446
	LTE Band 66	20M	QPSK	1	0	-	Front	15mm	Ant 4	ECI 4	132322	1745	22.88	23.70	1.208	-	-	-0.01	0.274	0.331
	LTE Band 66	20M	QPSK	50	0	-	Front	15mm	Ant 4	ECI 4	132322	1745	22.81	23.70	1.227	-	-	-0.08	0.260	0.319
	LTE Band 66	20M	QPSK	1	0	-	Back	15mm	Ant 4	ECI 4	132322	1745	22.88	23.70	1.208	-	-	0.05	0.279	0.337
	LTE Band 66	20M	QPSK	50	0	-	Back	15mm	Ant 4	ECI 4	132322	1745	22.81	23.70	1.227	-	-	0.06	0.282	0.346
	LTE Band 66B	15M	QPSK	36	39	-	Back	15mm	Ant 4	ECI 4	132322+ 132415	1745+ 1754.3	22.62	23.70	1.282	-	-	0.04	0.272	0.349
	LTE Band 66	20M	QPSK	1	0	-	Front	15mm	Ant 2	ECI 4	132322	1745	24.95	25.70	1.189	-	-	-0.08	0.513	0.610
	LTE Band 66	20M	QPSK	50	0	-	Front	15mm	Ant 2	ECI 4	132322	1745	23.89	24.70	1.205	-	-	0.13	0.392	0.472
56	LTE Band 66	20M	QPSK	1	0	-	Back	15mm	Ant 2	ECI 4	132322	1745	24.95	25.70	1.189	-	-	-0.09	0.561	**0.667**
	LTE Band 66B	15M	QPSK	1	74	-	Back	15mm	Ant 2	ECI 4	132322+ 132415	1745+ 1754.3	24.84	25.70	1.219	-	-	0.05	0.536	0.653
	LTE Band 66	20M	QPSK	50	0	-	Back	15mm	Ant 2	ECI 4	132322	1745	23.89	24.70	1.205	-	-	0.03	0.445	0.536

1900MHz																				
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Front	15mm	Ant 1	ECI 4	661	1880	23.78	25.50	1.486	-	-	-0.1	0.156	0.232
57	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Back	15mm	Ant 1	ECI 4	661	1880	23.78	25.50	1.486	-	-	0.08	0.249	**0.370**
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Front	15mm	Ant 2	ECI 4	661	1880	24.12	25.00	1.225	-	-	-0.1	0.199	0.244
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Back	15mm	Ant 2	ECI 4	661	1880	24.12	25.00	1.225	-	-	0.01	0.215	0.263
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 1	ECI 4	9400	1880	23.51	25.00	1.409	-	-	0.19	0.316	0.445
58	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 1	ECI 4	9400	1880	23.51	25.00	1.409	-	-	0.09	0.489	**0.689**
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 2	ECI 4	9400	1880	24.49	25.00	1.125	-	-	-0.15	0.380	0.427
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 2	ECI 4	9400	1880	24.49	25.00	1.125	-	-	0.11	0.453	0.509
	LTE Band 2 Main PA	20M	QPSK	1	0	-	Front	15mm	Ant 1	ECI 4	18900	1880	24.35	25.50	1.303	-	-	-0.17	0.501	0.653
	LTE Band 2 Main PA	20M	QPSK	50	0	-	Front	15mm	Ant 1	ECI 4	18900	1880	23.29	24.50	1.321	-	-	-0.08	0.379	0.501
59	LTE Band 2 Main PA	20M	QPSK	1	0	-	Back	15mm	Ant 1	ECI 4	18900	1880	24.35	25.50	1.303	-	-	0.04	0.657	**0.856**
	LTE Band 2 Main PA	20M	QPSK	1	0	-	Back	15mm	Ant 1	ECI 4	18700	1860	24.29	25.50	1.321	-	-	0.17	0.624	0.824
	LTE Band 2 Main PA	20M	QPSK	1	0	-	Back	15mm	Ant 1	ECI 4	19100	1900	24.33	25.50	1.309	-	-	0.18	0.631	0.826
	LTE Band 2 Main PA	20M	QPSK	50	0	-	Back	15mm	Ant 1	ECI 4	18900	1880	23.29	24.50	1.321	-	-	-0.08	0.551	0.728
	LTE Band 2 Main PA	20M	QPSK	100	0	-	Back	15mm	Ant 1	ECI 4	18900	1880	23.18	24.50	1.355	-	-	-0.04	0.550	0.745
	LTE Band 2 Other PA	20M	QPSK	1	0	-	Back	15mm	Ant 1	ECI 4	18900	1880	24.32	25.50	1.312	-	-	-0.08	0.619	0.812
	LTE Band 2 Main PA	20M	QPSK	1	0	-	Front	15mm	Ant 4	ECI 4	18900	1880	23.56	24.70	1.300	-	-	-0.13	0.230	0.299
	LTE Band 2 Main PA	20M	QPSK	50	0	-	Front	15mm	Ant 4	ECI 4	18900	1880	23.55	24.70	1.303	-	-	0.06	0.206	0.268
	LTE Band 2 Main PA	20M	QPSK	1	0	-	Back	15mm	Ant 4	ECI 4	18900	1880	23.56	24.70	1.300	-	-	-0.03	0.249	0.324
	LTE Band 2 Main PA	20M	QPSK	50	0	-	Back	15mm	Ant 4	ECI 4	18900	1880	23.55	24.70	1.303	-	-	-0.03	0.238	0.310
	LTE Band 2 Other PA	20M	QPSK	1	0	-	Back	15mm	Ant 4	ECI 4	18900	1880	23.75	24.70	1.245	-	-	0.08	0.241	0.300
	LTE Band 2 Other PA	20M	QPSK	1	0	-	Front	15mm	Ant 2	ECI 4	18900	1880	24.77	25.50	1.183	-	-	0.05	0.380	0.450
	LTE Band 2 Other PA	20M	QPSK	50	0	-	Front	15mm	Ant 2	ECI 4	18900	1880	23.70	24.50	1.202	-	-	-0.11	0.308	0.370
	LTE Band 2 Other PA	20M	QPSK	1	0	-	Back	15mm	Ant 2	ECI 4	18900	1880	24.77	25.50	1.183	-	-	-0.12	0.453	0.536
	LTE Band 2 Other PA	20M	QPSK	50	0		Back	15mm	Ant 2	ECI 4	18900	1880	23.70	24.50	1.202	-	-	0.03	0.360	0.433
	FR1 n2	40M	QPSK	1	1	DFT-SCS-15KHz	Front	15mm	Ant 1	ECI 4	376000	1880	24.72	25.50	1.197	-	-	-0.02	0.463	0.554
	FR1 n2	40M	QPSK	108	54	DFT-SCS-15KHz	Front	15mm	Ant 1	ECI 4	376000	1880	24.67	25.50	1.211	-	-	0.15	0.456	0.552
	FR1 n2	40M	QPSK	1	1	DFT-SCS-15KHz	Back	15mm	Ant 1	ECI 4	376000	1880	24.72	25.50	1.197	-	-	-0.09	0.679	0.813
60	FR1 n2	40M	QPSK	108	54	DFT-SCS-15KHz	Back	15mm	Ant 1	ECI 4	376000	1880	24.67	25.50	1.211	-	-	-0.04	0.694	**0.840**
	FR1 n2	40M	QPSK	216	0	DFT-SCS-15KHz	Back	15mm	Ant 1	ECI 4	376000	1880	23.66	25.50	1.528	-	-	-0.05	0.353	0.539
	FR1 n2	40M	QPSK	1	1	DFT-SCS-15KHz	Front	15mm	Ant 4	ECI 4	376000	1880	24.60	25.70	1.288	-	-	0.16	0.216	0.278
	FR1 n2	40M	QPSK	108	54	DFT-SCS-15KHz	Front	15mm	Ant 4	ECI 4	376000	1880	24.47	25.70	1.327	-	-	0.05	0.278	0.369
	FR1 n2	40M	QPSK	1	1	DFT-SCS-15KHz	Back	15mm	Ant 4	ECI 4	376000	1880	24.60	25.70	1.288	-	-	0.05	0.237	0.305
	FR1 n2	40M	QPSK	108	54	DFT-SCS-15KHz	Back	15mm	Ant 4	ECI 4	376000	1880	24.47	25.70	1.327	-	-	-0.03	0.301	0.400
2600MHz																				
	LTE Band 7 Other PA	20M	QPSK	1	0	-	Front	15mm	Ant 1	ECI 4	21100	2535	25.09	25.70	1.151	-	-	0.07	0.355	0.409
	LTE Band 7 Other PA	20M	QPSK	50	0	-	Front	15mm	Ant 1	ECI 4	21100	2535	24.07	24.70	1.156	-	-	0.16	0.345	0.399
	LTE Band 7 Other PA	20M	QPSK	1	0	-	Back	15mm	Ant 1	ECI 4	21100	2535	25.09	25.70	1.151	-	-	0.13	0.419	0.482
	LTE Band 7 Other PA	20M	QPSK	50	0	-	Back	15mm	Ant 1	ECI 4	21100	2535	24.07	24.70	1.156	-	-	0.03	0.431	0.498
	LTE Band 7 Main PA	20M	QPSK	50	0	-	Back	15mm	Ant 1	ECI 4	21100	2535	22.87	24.00	1.297	-	-	-0.18	0.338	0.438
	LTE Band 7C Main PA	20M	QPSK	50	50	-	Back	15mm	Ant 1	ECI 4	21100+ 21298	2535+ 2554.8	22.58	24.00	1.387	-	-	0.05	0.314	0.435
	LTE Band 7 Main PA	20M	QPSK	1	0	-	Front	15mm	Ant 4	ECI 4	21100	2535	20.58	22.00	1.387	-	-	-0.03	0.072	0.100
	LTE Band 7 Main PA	20M	QPSK	50	0	-	Front	15mm	Ant 4	ECI 4	21100	2535	20.53	22.00	1.403	-	-	0.07	0.066	0.093
	LTE Band 7 Main PA	20M	QPSK	1	0	-	Back	15mm	Ant 4	ECI 4	21100	2535	20.58	22.00	1.387	-	-	-0.06	0.081	0.112
	LTE Band 7 Main PA	20M	QPSK	50	0	-	Back	15mm	Ant 4	ECI 4	21100	2535	20.53	22.00	1.403	-	-	0.01	0.098	0.137
	LTE Band 7C Main PA	20M	QPSK	50	50	-	Back	15mm	Ant 4	ECI 4	21100+ 21298	2535+ 2554.8	20.51	22.00	1.409	-	-	0.05	0.074	0.104

	LTE Band 7 Other PA	20M	QPSK	50	0	-	Back	15mm	Ant 4	ECI 4	21100	2535	21.57	22.20	1.156	-	-	-0.01	0.083	0.096
	LTE Band 7 Main PA	20M	QPSK	1	0	-	Front	15mm	Ant 2	ECI 4	21100	2535	23.98	25.50	1.419	-	-	-0.04	0.264	0.375
	LTE Band 7 Main PA	20M	QPSK	50	0	-	Front	15mm	Ant 2	ECI 4	21100	2535	22.93	24.50	1.435	-	-	-0.09	0.269	0.386
	LTE Band 7 Main PA	20M	QPSK	1	0	-	Back	15mm	Ant 2	ECI 4	21100	2535	23.98	25.50	1.419	-	-	-0.17	0.351	0.498
61	LTE Band 7 Main PA	20M	QPSK	50	0	-	Back	15mm	Ant 2	ECI 4	21100	2535	22.93	24.50	1.435	-	-	-0.06	0.522	**0.749**
	LTE Band 7C Main PA	20M	QPSK	50	50	-	Back	15mm	Ant 2	ECI 4	21100+ 21298	2535+ 2554.8	22.91	24.50	1.442	-	-	0.02	0.500	0.721
	LTE Band 7 Other PA	20M	QPSK	50	0	-	Back	15mm	Ant 2	ECI 4	21100	2535	24.07	24.70	1.156	-	-	-0.05	0.521	0.602
	LTE Band 38 Main PA	20M	QPSK	1	0	-	Front	15mm	Ant 4	ECI 4	38000	2595	23.42	24.20	1.197	62.9	1.006	-0.04	0.075	0.090
	LTE Band 38 Main PA	20M	QPSK	50	0	-	Front	15mm	Ant 4	ECI 4	38000	2595	23.32	24.20	1.225	62.9	1.006	-0.05	0.075	0.092
62	LTE Band 38 Main PA	20M	QPSK	1	0	-	Back	15mm	Ant 4	ECI 4	38000	2595	23.42	24.20	1.197	62.9	1.006	0.08	0.175	**0.211**
	LTE Band 38C Main PA	20M	QPSK	1	99	-	Back	15mm	Ant 4	ECI 4	37901+ 38099	2585.1+ 2604.9	23.41	24.20	1.199	62.9	1.006	0.02	0.157	0.189
	LTE Band 38 Main PA	20M	QPSK	50	0	-	Back	15mm	Ant 4	ECI 4	38000	2595	23.32	24.20	1.225	62.9	1.006	-0.13	0.092	0.113
	LTE Band 38 Other PA	20M	QPSK	1	0	-	Back	15mm	Ant 4	ECI 4	38000	2595	23.52	24.20	1.169	62.9	1.006	-0.02	0.132	0.155
	LTE Band 41 Main PA	20M	QPSK	1	0	-	Front	15mm	Ant 1	ECI 4	40620	2593	25.36	25.70	1.081	62.9	1.006	0.05	0.238	0.259
	LTE Band 41 Main PA	20M	QPSK	50	0	-	Front	15mm	Ant 1	ECI 4	40620	2593	24.25	24.70	1.109	62.9	1.006	0.02	0.184	0.205
	LTE Band 41 Main PA	20M	QPSK	1	0	-	Back	15mm	Ant 1	ECI 4	40620	2593	25.36	25.70	1.081	62.9	1.006	-0.13	0.299	0.325
	LTE Band 41C Main PA	20M	QPSK	1	99	-	Back	15mm	Ant 1	ECI 4	40620+ 40818	2593+ 2612.8	25.33	25.70	1.089	62.9	1.006	0.05	0.275	0.301
	LTE Band 41 Main PA	20M	QPSK	50	0	-	Back	15mm	Ant 1	ECI 4	40620	2593	24.25	24.70	1.109	62.9	1.006	0.17	0.238	0.266
	LTE Band 41 Other PA	20M	QPSK	1	0	-	Back	15mm	Ant 1	ECI 4	40620	2593	24.99	25.70	1.178	62.9	1.006	0.06	0.271	0.321
	LTE Band 41 Main PA	20M	QPSK	1	0	-	Front	15mm	Ant 4	ECI 4	40620	2593	23.45	23.70	1.059	62.9	1.006	-0.04	0.132	0.141
	LTE Band 41 Main PA	20M	QPSK	50	0	-	Front	15mm	Ant 4	ECI 4	40620	2593	23.43	23.70	1.064	62.9	1.006	-0.15	0.136	0.146
	LTE Band 41 Main PA	20M	QPSK	1	0	-	Back	15mm	Ant 4	ECI 4	40620	2593	23.45	23.70	1.059	62.9	1.006	0.11	0.166	0.177
	LTE Band 41C Main PA	20M	QPSK	50	50	-	Back	15mm	Ant 4	ECI 4	40620+ 40818	2593+ 2612.8	23.37	23.70	1.079	62.9	1.006	0.04	0.147	0.160
	LTE Band 41 Other PA	20M	QPSK	1	0	-	Back	15mm	Ant 4	ECI 4	40620	2593	23.10	23.70	1.148	62.9	1.006	0.1	0.151	0.174
	LTE Band 41 Main PA	20M	QPSK	1	0	-	Front	15mm	Ant 2	ECI 4	40620	2593	24.67	25.70	1.268	62.9	1.006	0.13	0.299	0.381
	LTE Band 41 Main PA	20M	QPSK	50	0	-	Front	15mm	Ant 2	ECI 4	40620	2593	23.62	24.70	1.282	62.9	1.006	-0.18	0.234	0.302
63	LTE Band 41 Main PA	20M	QPSK	1	0	-	Back	15mm	Ant 2	ECI 4	40620	2593	24.67	25.70	1.268	62.9	1.006	0.03	0.426	**0.543**
	LTE Band 41C Main PA	20M	QPSK	1	99	-	Back	15mm	Ant 2	ECI 4	40620+ 40818	2593+ 2612.8	24.60	25.70	1.288	62.9	1.006	0.01	0.407	0.527
	LTE Band 41 Main PA	20M	QPSK	50	0	-	Back	15mm	Ant 2	ECI 4	40620	2593	23.62	24.70	1.282	62.9	1.006	-0.16	0.333	0.430
	LTE Band 41 Other PA	20M	QPSK	1	0	-	Back	15mm	Ant 2	ECI 4	40620	2593	25.17	25.70	1.130	62.9	1.006	-0.15	0.393	0.447
	LTE Band 41	20M	QPSK	1	0	-	Front	15mm	Ant 3	ECI 4	40620	2593	25.32	25.70	1.091	62.9	1.006	-0.14	0.202	0.222
	LTE Band 41	20M	QPSK	50	0	-	Front	15mm	Ant 3	ECI 4	40620	2593	24.34	24.70	1.086	62.9	1.006	-0.19	0.157	0.172
	LTE Band 41	20M	QPSK	1	0	-	Back	15mm	Ant 3	ECI 4	40620	2593	25.32	25.70	1.091	62.9	1.006	0.01	0.253	0.278
	LTE Band 41C	20M	QPSK	1	99	-	Back	15mm	Ant 3	ECI 4	40620+ 40818	2593+ 2612.8	25.28	25.70	1.102	62.9	1.006	-0.05	0.232	0.257
	LTE Band 41	20M	QPSK	50	0	-	Back	15mm	Ant 3	ECI 4	40620	2593	24.34	24.70	1.086	62.9	1.006	0.06	0.194	0.212
	FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Front	15mm	Ant 1	ECI 4	507000	2535	25.11	25.70	1.146	-	-	0.12	0.381	0.436
	FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Front	15mm	Ant 1	ECI 4	507000	2535	25.01	25.70	1.172	-	-	-0.16	0.420	0.492
	FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Back	15mm	Ant 1	ECI 4	507000	2535	25.11	25.70	1.146	-	-	-0.12	0.471	0.540
	FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Back	15mm	Ant 1	ECI 4	507000	2535	25.01	25.70	1.172	-	-	0.07	0.526	0.617
	FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Front	15mm	Ant 4	ECI 4	507000	2535	20.93	21.70	1.194	-	-	-0.05	0.071	0.085
	FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Front	15mm	Ant 4	ECI 4	507000	2535	20.84	21.70	1.219	-	-	-0.13	0.075	0.091
	FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Back	15mm	Ant 4	ECI 4	507000	2535	20.93	21.70	1.194	-	-	0.08	0.081	0.097
	FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Back	15mm	Ant 4	ECI 4	507000	2535	20.84	21.70	1.219	-	-	-0.01	0.088	0.107
	FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Front	15mm	Ant 2	ECI 4	507000	2535	25.05	25.70	1.161	-	-	0.01	0.522	0.606
	FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Front	15mm	Ant 2	ECI 4	507000	2535	25.00	25.70	1.175	-	-	-0.16	0.560	0.658
	FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Back	15mm	Ant 2	ECI 4	507000	2535	25.05	25.70	1.161	-	-	0.1	0.732	0.850

64	FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Back	15mm	Ant 2	ECI 4	507000	2535	25.00	25.70	1.175	-	-	-0.15	0.797	**0.936**
	FR1 n7	50M	QPSK	270	0	DFT-SCS-15KHz	Back	15mm	Ant 2	ECI 4	507000	2535	23.88	24.70	1.208	-	-	-0.01	0.672	0.812
	FR1 n38	40M	QPSK	1	1	DFT-SCS-30KHz	Front	15mm	Ant 1	ECI 4	519000	2595	25.41	25.70	1.069	-	-	-0.11	0.406	0.434
	FR1 n38	40M	QPSK	50	28	DFT-SCS-30KHz	Front	15mm	Ant 1	ECI 4	519000	2595	25.36	25.70	1.081	-	-	-0.06	0.410	0.443
	FR1 n38	40M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 1	ECI 4	519000	2595	25.41	25.70	1.069	-	-	-0.15	0.483	0.516
	FR1 n38	40M	QPSK	50	28	DFT-SCS-30KHz	Back	15mm	Ant 1	ECI 4	519000	2595	25.36	25.70	1.081	-	-	0.03	0.494	0.534
	FR1 n38	40M	QPSK	1	1	DFT-SCS-30KHz	Front	15mm	Ant 4	ECI 4	519000	2595	21.61	22.20	1.146	-	-	0.16	0.103	0.118
	FR1 n38	40M	QPSK	50	28	DFT-SCS-30KHz	Front	15mm	Ant 4	ECI 4	519000	2595	21.58	22.20	1.153	-	-	-0.15	0.124	0.143
	FR1 n38	40M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 4	ECI 4	519000	2595	21.61	22.20	1.146	-	-	-0.02	0.124	0.142
	FR1 n38	40M	QPSK	50	28	DFT-SCS-30KHz	Back	15mm	Ant 4	ECI 4	519000	2595	21.58	22.20	1.153	-	-	0.11	0.152	0.175
	FR1 n38	40M	QPSK	1	1	DFT-SCS-30KHz	Front	15mm	Ant 2	ECI 4	519000	2595	25.23	25.70	1.114	-	-	0.14	0.471	0.525
	FR1 n38	40M	QPSK	50	28	DFT-SCS-30KHz	Front	15mm	Ant 2	ECI 4	519000	2595	25.14	25.70	1.138	-	-	0.1	0.455	0.518
65	FR1 n38	40M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 2	ECI 4	519000	2595	25.23	25.70	1.114	-	-	-0.09	0.787	**0.877**
	FR1 n38	40M	QPSK	50	28	DFT-SCS-30KHz	Back	15mm	Ant 2	ECI 4	519000	2595	25.14	25.70	1.138	-	-	0.07	0.708	0.805
	FR1 n38	40M	QPSK	100	0	DFT-SCS-30KHz	Back	15mm	Ant 2	ECI 4	519000	2595	24.23	24.70	1.114	-	-	-0.09	0.666	0.742
	FR1 n38	40M	QPSK	1	1	DFT-SCS-30KHz	Front	15mm	Ant 3	ECI 4	519000	2595	25.65	25.70	1.012	-	-	-0.18	0.411	0.416
	FR1 n38	40M	QPSK	50	28	DFT-SCS-30KHz	Front	15mm	Ant 3	ECI 4	519000	2595	25.56	25.70	1.033	-	-	-0.07	0.426	0.440
	FR1 n38	40M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 3	ECI 4	519000	2595	25.65	25.70	1.012	-	-	0.11	0.471	0.476
	FR1 n38	40M	QPSK	50	28	DFT-SCS-30KHz	Back	15mm	Ant 3	ECI 4	519000	2595	25.56	25.70	1.033	-	-	-0.08	0.509	0.526
	FR1 n41 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Front	15mm	Ant 1	ECI 4	518598	2592.99	22.56	23.00	1.107	-	-	-0.01	0.198	0.219
	FR1 n41 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Front	15mm	Ant 1	ECI 4	518598	2592.99	22.53	23.00	1.114	-	-	-0.09	0.237	0.264
	FR1 n41 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 1	ECI 4	518598	2592.99	22.56	23.00	1.107	-	-	-0.06	0.245	0.271
	FR1 n41 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 1	ECI 4	518598	2592.99	22.53	23.00	1.114	-	-	-0.17	0.285	0.318
	FR1 n41 PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 1	ECI 4	518598	2592.99	25.71	26.00	1.069	50	1.000	-0.01	0.315	0.337
	FR1 n41 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Front	15mm	Ant 4	ECI 4	518598	2592.99	19.09	20.50	1.384	-	-	0.14	0.054	0.075
	FR1 n41 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Front	15mm	Ant 4	ECI 4	518598	2592.99	19.05	20.50	1.396	-	-	0.03	0.073	0.102
	FR1 n41 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 4	ECI 4	518598	2592.99	19.09	20.50	1.384	-	-	0.1	0.063	0.087
	FR1 n41 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 4	ECI 4	518598	2592.99	19.05	20.50	1.396	-	-	0.16	0.087	0.121
	FR1 n41 PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 4	ECI 4	518598	2592.99	22.07	23.50	1.390	50	1.000	-0.06	0.094	0.131
	FR1 n41 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Front	15mm	Ant 2	ECI 4	518598	2592.99	22.42	23.50	1.282	-	-	0.02	0.192	0.246
	FR1 n41 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Front	15mm	Ant 2	ECI 4	518598	2592.99	22.39	23.50	1.291	-	-	-0.16	0.221	0.285
	FR1 n41 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 2	ECI 4	518598	2592.99	22.42	23.50	1.282	-	-	0.05	0.282	0.362
	FR1 n41 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 2	ECI 4	518598	2592.99	22.39	23.50	1.291	-	-	-0.03	0.368	0.475
	FR1 n41 PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 2	ECI 4	518598	2592.99	25.36	26.50	1.300	50	1.000	0.17	0.394	0.512
	FR1 n41 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Front	15mm	Ant 3	ECI 4	518598	2592.99	23.42	24.00	1.143	-	-	0.16	0.262	0.299
	FR1 n41 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Front	15mm	Ant 3	ECI 4	518598	2592.99	23.38	24.00	1.153	-	-	0.05	0.287	0.331
	FR1 n41 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 3	ECI 4	518598	2592.99	23.42	24.00	1.143	-	-	-0.06	0.296	0.338
	FR1 n41 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 3	ECI 4	518598	2592.99	23.38	24.00	1.153	-	-	-0.13	0.421	0.486
66	FR1 n41 PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 3	ECI 4	518598	2592.99	26.40	27.00	1.148	50	1.000	-0.09	0.459	**0.527**
									3500MHz											
	LTE Band 48	20M	QPSK	1	0	-	Front	15mm	Ant 5	ECI 4	55830	3609	23.37	24.00	1.156	62.9	1.006	-0.14	0.128	0.149
	LTE Band 48	20M	QPSK	50	0	-	Front	15mm	Ant 5	ECI 4	55830	3609	22.32	23.00	1.169	62.9	1.006	-0.18	0.099	0.116
	LTE Band 48	20M	QPSK	1	0	-	Back	15mm	Ant 5	ECI 4	55830	3609	23.37	24.00	1.156	62.9	1.006	-0.06	0.301	0.350
	LTE Band 48	20M	QPSK	50	0	-	Back	15mm	Ant 5	ECI 4	55830	3609	22.32	23.00	1.169	62.9	1.006	0.02	0.232	0.273
	LTE Band 48	20M	QPSK	1	0	-	Front	15mm	Ant 8	ECI 4	55830	3609	21.40	22.50	1.288	62.9	1.006	0.01	0.081	0.105
	LTE Band 48	20M	QPSK	50	0	-	Front	15mm	Ant 8	ECI 4	55830	3609	20.38	21.50	1.294	62.9	1.006	-0.04	0.064	0.083
67	LTE Band 48	20M	QPSK	1	0	-	Back	15mm	Ant 8	ECI 4	55830	3609	21.40	22.50	1.288	62.9	1.006	-0.04	0.365	**0.473**
	LTE Band 48	20M	QPSK	50	0	-	Back	15mm	Ant 8	ECI 4	55830	3609	20.38	21.50	1.294	62.9	1.006	0.12	0.299	0.389
	LTE Band 48	20M	QPSK	1	0	-	Front	15mm	Ant 6	ECI 4	55830	3609	18.39	19.50	1.291	62.9	1.006	0.08	0.050	0.065
	LTE Band 48	20M	QPSK	50	0	-	Front	15mm	Ant 6	ECI 4	55830	3609	18.31	19.50	1.315	62.9	1.006	0.19	0.059	0.078
	LTE Band 48	20M	QPSK	1	0	-	Back	15mm	Ant 6	ECI 4	55830	3609	18.39	19.50	1.291	62.9	1.006	-0.06	0.133	0.173
	LTE Band 48	20M	QPSK	50	0	-	Back	15mm	Ant 6	ECI 4	55830	3609	18.31	19.50	1.315	62.9	1.006	-0.03	0.142	0.188
	LTE Band 48	20M	QPSK	1	0	-	Front	15mm	Ant 7	ECI 4	55830	3609	21.36	22.50	1.300	62.9	1.006	0.07	0.041	0.054
	LTE Band 48	20M	QPSK	50	0	-	Front	15mm	Ant 7	ECI 4	55830	3609	20.33	21.50	1.309	62.9	1.006	-0.12	0.031	0.041
	LTE Band 48	20M	QPSK	1	0	-	Back	15mm	Ant 7	ECI 4	55830	3609	21.36	22.50	1.300	62.9	1.006	-0.03	0.251	0.328
	LTE Band 48	20M	QPSK	50	0	-	Back	15mm	Ant 7	ECI 4	55830	3609	20.33	21.50	1.309	62.9	1.006	0.02	0.199	0.262

	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Front	15mm	Ant 5	ECI 4	641666	3624.99	23.28	24.00	1.180	-	-	0.02	0.173	0.204
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Front	15mm	Ant 5	ECI 4	641666	3624.99	23.19	24.00	1.205	-	-	-0.03	0.179	0.216
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 5	ECI 4	641666	3624.99	23.28	24.00	1.180	-	-	0.12	0.343	0.405
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Back	15mm	Ant 5	ECI 4	641666	3624.99	23.19	24.00	1.205	-	-	-0.1	0.353	0.425
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Front	15mm	Ant 8	ECI 4	641666	3624.99	21.32	22.50	1.312	-	-	0.05	0.119	0.156
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Front	15mm	Ant 8	ECI 4	641666	3624.99	21.10	22.50	1.380	-	-	0.07	0.124	0.171
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 8	ECI 4	641666	3624.99	21.32	22.50	1.312	-	-	0.15	0.511	0.671
68	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Back	15mm	Ant 8	ECI 4	641666	3624.99	21.10	22.50	1.380	-	-	-0.06	0.541	**0.747**
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Front	15mm	Ant 6	ECI 4	641666	3624.99	18.72	19.50	1.197	-	-	-0.13	0.095	0.114
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Front	15mm	Ant 6	ECI 4	641666	3624.99	18.67	19.50	1.211	-	-	0.01	0.106	0.128
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 6	ECI 4	641666	3624.99	18.72	19.50	1.197	-	-	-0.11	0.237	0.284
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Back	15mm	Ant 6	ECI 4	641666	3624.99	18.67	19.50	1.211	-	-	0.03	0.258	0.312
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Front	15mm	Ant 7	ECI 4	641666	3624.99	21.45	22.50	1.274	-	-	0.14	0.066	0.084
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Front	15mm	Ant 7	ECI 4	641666	3624.99	21.31	22.50	1.315	-	-	-0.01	0.054	0.071
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 7	ECI 4	641666	3624.99	21.45	22.50	1.274	-	-	-0.12	0.364	0.464
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Back	15mm	Ant 7	ECI 4	641666	3624.99	21.31	22.50	1.315	-	-	0.07	0.371	0.488
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Front	15mm	Ant 5	ECI 4	656000	3840	22.69	23.50	1.205	-	-	0.04	0.165	0.199
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Front	15mm	Ant 5	ECI 4	656000	3840	22.62	23.50	1.225	-	-	0.11	0.172	0.211
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 5	ECI 4	656000	3840	22.69	23.50	1.205	-	-	-0.13	0.352	0.424
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 5	ECI 4	656000	3840	22.62	23.50	1.225	-	-	0.12	0.342	0.419
	FR1 n77 PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 5	ECI 4	656000	3840	25.65	26.50	1.216	50	1.000	-0.11	0.382	0.465
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Front	15mm	Ant 5	ECI 4	633334	3500.01	22.77	23.50	1.183	-	-	-0.16	0.235	0.278
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Front	15mm	Ant 5	ECI 4	633334	3500.01	22.73	23.50	1.194	-	-	-0.17	0.244	0.291
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 5	ECI 4	633334	3500.01	22.77	23.50	1.183	-	-	0.11	0.497	0.588
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 5	ECI 4	633334	3500.01	22.73	23.50	1.194	-	-	-0.05	0.584	0.697
	FR1 n77 PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 5	ECI 4	633334	3500.01	25.53	26.50	1.250	50	1.000	0.09	0.607	0.759
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Front	15mm	Ant 8	ECI 4	656000	3840	20.33	21.50	1.309	-	-	-0.14	0.097	0.127
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Front	15mm	Ant 8	ECI 4	656000	3840	20.24	21.50	1.337	-	-	-0.15	0.106	0.142
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 8	ECI 4	656000	3840	20.33	21.50	1.309	-	-	-0.12	0.587	0.768
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 8	ECI 4	656000	3840	20.24	21.50	1.337	-	-	-0.17	0.728	0.973
	FR1 n77 PC3	100M	QPSK	270	0	DFT-SCS-30KHz	Back	15mm	Ant 8	ECI 4	656000	3840	20.15	21.50	1.365	-	-	0.01	0.497	0.678
69	FR1 n77 PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 8	ECI 4	656000	3840	23.28	24.50	1.324	50	1.000	0.02	0.769	**1.018**
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Front	15mm	Ant 8	ECI 4	633334	3500.01	20.49	21.50	1.262	-	-	-0.01	0.084	0.106
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Front	15mm	Ant 8	ECI 4	633334	3500.01	20.33	21.50	1.309	-	-	0.09	0.088	0.115
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 8	ECI 4	633334	3500.01	20.49	21.50	1.262	-	-	0.1	0.238	0.300
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 8	ECI 4	633334	3500.01	20.33	21.50	1.309	-	-	-0.04	0.344	0.450
	FR1 n77 PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 8	ECI 4	633334	3500.01	23.35	24.50	1.303	50	1.000	0.09	0.360	0.469
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Front	15mm	Ant 6	ECI 4	656000	3840	17.18	18.50	1.355	-	-	0.05	0.086	0.117
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Front	15mm	Ant 6	ECI 4	656000	3840	17.15	18.50	1.365	-	-	0.08	0.067	0.091
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 6	ECI 4	656000	3840	17.18	18.50	1.355	-	-	-0.18	0.154	0.209
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 6	ECI 4	656000	3840	17.15	18.50	1.365	-	-	-0.03	0.198	0.270
	FR1 n77 PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 6	ECI 4	656000	3840	20.10	21.50	1.380	50	1.000	-0.04	0.212	0.293
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Front	15mm	Ant 6	ECI 4	633334	3500.01	17.03	18.50	1.403	-	-	0.18	0.064	0.090
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Front	15mm	Ant 6	ECI 4	633334	3500.01	16.94	18.50	1.432	-	-	0.11	0.060	0.086
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 6	ECI 4	633334	3500.01	17.03	18.50	1.403	-	-	0.07	0.138	0.194
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 6	ECI 4	633334	3500.01	16.94	18.50	1.432	-	-	-0.03	0.165	0.236
	FR1 n77 PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 6	ECI 4	633334	3500.01	20.18	21.50	1.355	50	1.000	0.09	0.178	0.241
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Front	15mm	Ant 7	ECI 4	650000	3750	20.21	21.00	1.199	-	-	-0.05	0.074	0.089
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Front	15mm	Ant 7	ECI 4	650000	3750	20.10	21.00	1.230	-	-	-0.03	0.086	0.106
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 7	ECI 4	650000	3750	20.21	21.00	1.199	-	-	0.17	0.267	0.320
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 7	ECI 4	650000	3750	20.10	21.00	1.230	-	-	-0.14	0.207	0.255
	FR1 n77 PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 7	ECI 4	650000	3750	23.20	24.00	1.202	50	1.000	-0.09	0.307	0.369
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Front	15mm	Ant 7	ECI 4	633334	3500.01	20.44	21.00	1.138	-	-	-0.06	0.071	0.081
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Front	15mm	Ant 7	ECI 4	633334	3500.01	20.39	21.00	1.151	-	-	-0.15	0.075	0.086
	FR1 n77 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 7	ECI 4	633334	3500.01	20.44	21.00	1.138	-	-	-0.12	0.267	0.304
	FR1 n77 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 7	ECI 4	633334	3500.01	20.39	21.00	1.151	-	-	-0.16	0.298	0.343

	FR1 n77 PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 7	ECI 4	633334	3500.01	23.19	24.00	1.205	50	1.000	-0.02	0.300	0.362
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Front	15mm	Ant 5	ECI 4	650000	3750	23.55	24.50	1.245	-	-	0.17	0.216	0.269
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Front	15mm	Ant 5	ECI 4	650000	3750	23.52	24.50	1.253	-	-	0.02	0.203	0.254
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 5	ECI 4	650000	3750	23.55	24.50	1.245	-	-	-0.05	0.514	0.640
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 5	ECI 4	650000	3750	23.52	24.50	1.253	-	-	0.18	0.424	0.531
	FR1 n78 PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 5	ECI 4	650000	3750	26.41	27.50	1.285	50	1.000	-0.11	0.534	0.686
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Front	15mm	Ant 5	ECI 4	633334	3500.01	23.84	24.50	1.164	-	-	-0.04	0.285	0.332
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Front	15mm	Ant 5	ECI 4	633334	3500.01	23.77	24.50	1.183	-	-	-0.08	0.290	0.343
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 5	ECI 4	633334	3500.01	23.84	24.50	1.164	-	-	0.18	0.602	0.701
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 5	ECI 4	633334	3500.01	23.77	24.50	1.183	-	-	-0.14	0.723	0.855
	FR1 n78 PC3	100M	QPSK	270	0	DFT-SCS-30KHz	Back	15mm	Ant 5	ECI 4	633334	3500.01	23.70	24.50	1.202	-	-	-0.14	0.671	0.807
	FR1 n78 PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 5	ECI 4	633334	3500.01	26.62	27.50	1.225	50	1.000	0.03	0.752	0.921
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Front	15mm	Ant 8	ECI 4	650000	3750	19.93	21.00	1.279	-	-	0.02	0.116	0.148
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Front	15mm	Ant 8	ECI 4	650000	3750	19.86	21.00	1.300	-	-	0.16	0.130	0.169
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 8	ECI 4	650000	3750	19.93	21.00	1.279	-	-	0.06	0.640	0.819
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 8	ECI 4	650000	3750	19.86	21.00	1.300	-	-	-0.02	0.692	0.900
	FR1 n78 PC3	100M	QPSK	270	0	DFT-SCS-30KHz	Back	15mm	Ant 8	ECI 4	650000	3750	19.91	21.00	1.285	-	-	-0.04	0.699	0.898
70	FR1 n78 PC2	100M	QPSK	270	0	DFT-SCS-30KHz	Back	15mm	Ant 8	ECI 4	650000	3750	22.68	24.00	1.355	50	1.000	0.07	0.705	**0.955**
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Front	15mm	Ant 8	ECI 4	633334	3500.01	20.10	21.00	1.230	-	-	0.08	0.082	0.101
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Front	15mm	Ant 8	ECI 4	633334	3500.01	20.03	21.00	1.250	-	-	-0.13	0.094	0.118
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 8	ECI 4	633334	3500.01	20.10	21.00	1.230	-	-	-0.1	0.231	0.284
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 8	ECI 4	633334	3500.01	20.03	21.00	1.250	-	-	-0.07	0.326	0.408
	FR1 n78 PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 8	ECI 4	633334	3500.01	22.89	24.00	1.291	50	1.000	0.11	0.341	0.440
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Front	15mm	Ant 6	ECI 4	650000	3750	17.21	18.50	1.346	-	-	0.01	0.065	0.087
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Front	15mm	Ant 6	ECI 4	650000	3750	17.06	18.50	1.393	-	-	0.1	0.064	0.089
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 6	ECI 4	650000	3750	17.21	18.50	1.346	-	-	0.11	0.189	0.254
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 6	ECI 4	650000	3750	17.06	18.50	1.393	-	-	-0.07	0.167	0.233
	FR1 n78 PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 6	ECI 4	650000	3750	20.60	21.50	1.230	50	1.000	0.18	0.212	0.261
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Front	15mm	Ant 6	ECI 4	633334	3500.01	17.47	18.50	1.268	-	-	0.07	0.062	0.079
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Front	15mm	Ant 6	ECI 4	633334	3500.01	17.43	18.50	1.279	-	-	0.15	0.072	0.092
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 6	ECI 4	633334	3500.01	17.47	18.50	1.268	-	-	0.14	0.144	0.183
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 6	ECI 4	633334	3500.01	17.43	18.50	1.279	-	-	-0.03	0.168	0.215
	FR1 n78 PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 6	ECI 4	633334	3500.01	20.60	21.50	1.230	50	1.000	-0.14	0.178	0.219
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Front	15mm	Ant 7	ECI 4	650000	3750	22.79	24.00	1.321	-	-	0.11	0.059	0.078
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Front	15mm	Ant 7	ECI 4	650000	3750	22.70	24.00	1.349	-	-	0.07	0.077	0.104
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 7	ECI 4	650000	3750	22.79	24.00	1.321	-	-	-0.04	0.399	0.527
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 7	ECI 4	650000	3750	22.70	24.00	1.349	-	-	-0.18	0.594	0.801
	FR1 n78 PC3	100M	QPSK	270	0	DFT-SCS-30KHz	Back	15mm	Ant 7	ECI 4	650000	3750	22.69	24.00	1.352	-	-	0.07	0.568	0.768
	FR1 n78 PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 7	ECI 4	650000	3750	24.90	26.50	1.445	50	1.000	-0.13	0.523	0.756
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Front	15mm	Ant 7	ECI 4	633334	3500.01	23.06	24.00	1.242	-	-	-0.13	0.089	0.111
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Front	15mm	Ant 7	ECI 4	633334	3500.01	22.99	24.00	1.262	-	-	-0.04	0.099	0.125
	FR1 n78 PC3	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 7	ECI 4	633334	3500.01	23.06	24.00	1.242	-	-	-0.15	0.492	0.611
	FR1 n78 PC3	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 7	ECI 4	633334	3500.01	22.99	24.00	1.262	-	-	-0.09	0.587	0.741
	FR1 n78 PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 7	ECI 4	633334	3500.01	25.26	26.50	1.330	50	1.000	0.05	0.531	0.706

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
2450MHz																
	WLAN2.4GHz	802.11b 1Mbps	Front	15mm	Ant 17	Full Power	6	2437	19.00	20.00	1.259	100	1.000	0.03	0.131	0.165
	WLAN2.4GHz	802.11b 1Mbps	Back	15mm	Ant 17	Full Power	6	2437	19.00	20.00	1.259	100	1.000	0.18	0.179	0.225
	WLAN2.4GHz	802.11b 1Mbps	Front	15mm	Ant 6	Full Power	6	2437	19.10	20.00	1.230	100	1.000	-0.1	0.112	0.138
	WLAN2.4GHz	802.11b 1Mbps	Back	15mm	Ant 6	Full Power	6	2437	19.10	20.00	1.230	100	1.000	0.07	0.188	0.231
	WLAN2.4GHz	802.11b 1Mbps	Front	15mm	Ant 17+6	Full Power	6	2437	22.06	23.00	1.242	100	1.000	-0.1	0.175	0.217
71	WLAN2.4GHz	802.11b 1Mbps	Back	15mm	Ant 17+6	Full Power	6	2437	22.06	23.00	1.242	100	1.000	0.03	0.307	**0.381**
	Bluetooth	1Mbps	Front	15mm	Ant 17	Full Power	39	2441	14.53	15.50	1.251	76.6	1.087	-0.15	0.039	0.053
72	Bluetooth	1Mbps	Back	15mm	Ant 17	Full Power	39	2441	14.53	15.50	1.251	76.6	1.087	0.19	0.046	**0.063**
5000MHz																
	WLAN5.3GHz	802.11ax-HE40 MCS0	Front	15mm	Ant 18	Full Power	54	5270	18.00	19.00	1.259	92.24	1.084	-0.18	0.154	0.210
	WLAN5.3GHz	802.11ax-HE40 MCS0	Back	15mm	Ant 18	Full Power	54	5270	18.00	19.00	1.259	92.24	1.084	0.03	0.283	0.386
	WLAN5.3GHz	802.11ax-HE40 MCS0	Front	15mm	Ant 5+18	Full Power	54	5270	21.11	22.00	1.227	93.1	1.074	-0.15	0.289	0.381
73	WLAN5.3GHz	802.11ax-HE40 MCS0	Back	15mm	Ant 5+18	Full Power	54	5270	21.11	22.00	1.227	93.1	1.074	0.02	0.358	**0.472**
	WLAN5.5GHz	802.11ax-HE80 MCS0	Front	15mm	Ant 18	Full Power	138	5690	17.60	19.00	1.380	86.9	1.151	-0.08	0.195	0.310
	WLAN5.5GHz	802.11ax-HE80 MCS0	Back	15mm	Ant 18	Full Power	138	5690	17.60	19.00	1.380	86.9	1.151	-0.17	0.221	0.351
	WLAN5.5GHz	802.11ax-HE80 MCS0	Front	15mm	Ant 5+18	Full Power	138	5690	21.25	22.00	1.188	86.9	1.151	0.03	0.106	0.145
74	WLAN5.5GHz	802.11ax-HE80 MCS0	Back	15mm	Ant 5+18	Full Power	138	5690	21.25	22.00	1.188	86.9	1.151	0.01	0.257	**0.351**
	WLAN5.8GHz	802.11a 6Mbps	Front	15mm	Ant 18	Full Power	165	5825	19.00	19.50	1.122	97.21	1.029	-0.08	0.172	0.199
	WLAN5.8GHz	802.11a 6Mbps	Back	15mm	Ant 18	Full Power	165	5825	19.00	19.50	1.122	97.21	1.029	0.17	0.334	0.386
	WLAN5.8GHz	802.11a 6Mbps	Back	15mm	Ant 18	Simultaneous (Non DBS&DBS)	165	5825	17.44	18.50	1.276	97.21	1.029	0.05	0.215	0.282
	WLAN5.8GHz	802.11a 6Mbps	Front	15mm	Ant 5+18	Full Power	165	5825	22.16	23.00	1.213	97.21	1.029	-0.04	0.314	0.392
75	WLAN5.8GHz	802.11a 6Mbps	Back	15mm	Ant 5+18	Full Power	165	5825	22.16	23.00	1.213	97.21	1.029	0.05	0.447	**0.558**
	WLAN5.8GHz	802.11a 6Mbps	Back	15mm	Ant 5+18	Simultaneous (Non DBS&DBS)	165	5825	20.51	21.50	1.256	97.21	1.029	0.01	0.366	0.473

16.4 Product specific 10g SAR

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)
5000MHz																
	WLAN5.3GHz	802.11n-HT40 MCS0	Front	0mm	Ant 18	Standalone	54	5270	16.27	17.00	1.183	92.86	1.077	0.08	0.500	0.637
	WLAN5.3GHz	802.11n-HT40 MCS0	Back	0mm	Ant 18	Standalone	54	5270	16.27	17.00	1.183	92.86	1.077	0.01	0.429	0.547
	WLAN5.3GHz	802.11n-HT40 MCS0	Right Side	0mm	Ant 18	Standalone	54	5270	16.27	17.00	1.183	92.86	1.077	0.03	0.609	0.776
	WLAN5.3GHz	802.11n-HT40 MCS0	Front	0mm	Ant 5+18	Standalone	54	5270	19.37	20.50	1.297	92.86	1.077	-0.08	0.740	1.033
	WLAN5.3GHz	802.11n-HT40 MCS0	Back	0mm	Ant 5+18	Standalone	54	5270	19.37	20.50	1.297	92.86	1.077	0.1	0.606	0.846
	WLAN5.3GHz	802.11n-HT40 MCS0	Right Side	0mm	Ant 5+18	Standalone	54	5270	19.37	20.50	1.297	92.86	1.077	-0.18	1.11	1.550
76	WLAN5.3GHz	802.11n-HT40 MCS0	Top Side	0mm	Ant 5+18	Standalone	54	5270	19.37	20.50	1.297	92.86	1.077	0.12	1.76	**2.458**
	WLAN5.3GHz	802.11n-HT40 MCS0	Top Side	0mm	Ant 5+18	Standalone	62	5310	19.21	20.50	1.346	92.86	1.077	0.08	1.69	2.449
	WLAN5.5GHz	802.11n-HT40 MCS0	Front	0mm	Ant 18	Standalone	102	5510	16.61	17.50	1.227	92.86	1.077	-0.03	0.491	0.649
	WLAN5.5GHz	802.11n-HT40 MCS0	Back	0mm	Ant 18	Standalone	102	5510	16.61	17.50	1.227	92.86	1.077	0.14	0.383	0.506
	WLAN5.5GHz	802.11n-HT40 MCS0	Right Side	0mm	Ant 18	Standalone	102	5510	16.61	17.50	1.227	92.86	1.077	0.11	1.31	1.732
	WLAN5.5GHz	802.11n-HT40 MCS0	Front	0mm	Ant 5+18	Standalone	102	5510	19.79	20.50	1.177	92.86	1.077	0.14	0.431	0.546
	WLAN5.5GHz	802.11n-HT40 MCS0	Back	0mm	Ant 5+18	Standalone	102	5510	19.79	20.50	1.177	92.86	1.077	-0.17	0.334	0.423
	WLAN5.5GHz	802.11n-HT40 MCS0	Right Side	0mm	Ant 5+18	Standalone	102	5510	19.79	20.50	1.177	92.86	1.077	0.17	1.04	1.318
77	WLAN5.5GHz	802.11n-HT40 MCS0	Top Side	0mm	Ant 5+18	Standalone	102	5510	19.79	20.50	1.177	92.86	1.077	0.01	1.75	**2.217**
	WLAN5.5GHz	802.11n-HT40 MCS0	Top Side	0mm	Ant 5+18	Standalone	142	5710	19.78	20.50	1.179	92.86	1.077	0.1	1.56	1.981

16.5 Repeated SAR Measurement

<1g>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Ratio	Reported 1g SAR (W/kg)
1st	LTE Band 5	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	ECI 1	20525	836.5	25.15	25.70	1.135	-	-	0.04	0.894	1	1.015
2nd	LTE Band 5	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	ECI 1	20525	836.5	25.15	25.70	1.135	-	-	0.03	0.867	1.031	0.984
1st	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 1	ECI 1	132322	1745	18.57	19.50	1.239	-	-	0.01	0.859	1	1.064
2nd	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 1	ECI 1	132322	1745	18.57	19.50	1.239	-	-	0.03	0.836	1.028	1.036
1st	LTE Band 2	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 1	ECI 1	18700	1860	18.04	19.00	1.247	-	-	0.02	0.862	1	1.075
2nd	LTE Band 2	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 1	ECI 1	18700	1860	18.04	19.00	1.247	-	-	0.04	0.843	1.023	1.052
1st	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	ECI 1	40620	2593	22.32	22.70	1.091	62.9	1.006	0.06	0.962	1	1.056
2nd	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	ECI 1	40620	2593	22.32	22.70	1.091	62.9	1.006	0.01	0.943	1.020	1.035
1st	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 5	ECI 1	641666	3624.99	17.82	18.50	1.169	-	-	-0.02	0.853	1	0.998
2nd	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 5	ECI 1	641666	3624.99	17.82	18.50	1.169	-	-	0.01	0.827	1.031	0.967
1st	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 5	ECI 1	638000	3570	17.68	18.50	1.208	-	-	-0.03	0.811	1	0.980
2nd	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 5	ECI 1	638000	3570	17.68	18.50	1.208	-	-	0.04	0.803	1.010	0.970
1st	WLAN2.4GHz	-	-	-	-	802.11b 1Mbps	Left Cheek	0mm	Ant 17+6	Standalone	6	2437	18.94	20.00	1.278	100	1.000	0.05	0.852	1	1.089
2nd	WLAN2.4GHz	-	-	-	-	802.11b 1Mbps	Left Cheek	0mm	Ant 17+6	Standalone	6	2437	18.94	20.00	1.278	100	1.000	0.01	0.827	1.030	1.057
1st	WLAN5.2GHz	-	-	-	-	802.11n-HT40 MCS0	Right Side	10mm	Ant 5+18	Standalone	38	5190	19.24	20.00	1.191	92.86	1.077	0.02	0.820	1	1.052
2nd	WLAN5.2GHz	-	-	-	-	802.11n-HT40 MCS0	Right Side	10mm	Ant 5+18	Standalone	38	5190	19.24	20.00	1.191	92.86	1.077	0.04	0.795	1.031	1.020

General Note:

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

16.6 NR Linearity Data Analysis

General Note:
This device support Power Class 2 and Power Class 3 operations for 5GNR n41/n77/n78. The highest available duty cycle for Power Class 2 operation is 43.3% using UL-DL configuration 1. Per FCC Guidance based on the device behavior, all SAR tests were performed using Power Class 3. Power Class 2 is tested using the highest SAR test configuration in Power Class 3 for each 5GNR configuration and exposure condition combination, according to the highest time averaged power for all applicable uplink-downlink configurations in Power Class 2. When the reported SAR vs. output power is linearly scaled with < 10% discrepancy between power classes and all reported SAR are < 1.4 W/kg for 1g and < 3.5 W/kg for 10g, Separate SAR testing for Power Class 2 is not required.

NR n41(HPUE) Ant 1-Linearity Data for Head			NR n41(HPUE) Ant 2-Linearity Data for Head		
	NR n41 (Power Class 3)	NR n41 (Power Class 2)		NR n41 (Power Class 3)	NR n41 (Power Class 2)
Maximum Tune up Power (dBm)	17.50	20.50	Maximum Tune up Power (dBm)	23.50	26.50
Reported 1g SAR (W/kg)	0.716	0.731	Reported 1g SAR (W/kg)	0.283	0.302
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	56.23	56.10	Frame Averaged (mW)	223.87	223.34
Linearity SAR (W/kg)	0.714		Linearity SAR (W/kg)	0.282	
% deviation from expected linearity		2.34%	% deviation from expected linearity		6.97%
NR n41(HPUE) Ant 1-Linearity Data for Body-worn			**NR n41(HPUE) Ant 2-Linearity Data for Body-worn**		
	NR n41 (Power Class 3)	NR n41 (Power Class 2)		NR n41 (Power Class 3)	NR n41 (Power Class 2)
Maximum Tune up Power (dBm)	23.00	26.00	Maximum Tune up Power (dBm)	23.50	26.50
Reported 1g SAR (W/kg)	0.318	0.337	Reported 1g SAR (W/kg)	0.475	0.512
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	199.53	199.05	Frame Averaged (mW)	223.87	223.34
Linearity SAR (W/kg)	0.317		Linearity SAR (W/kg)	0.474	
% deviation from expected linearity		6.23%	% deviation from expected linearity		8.05%
NR n41(HPUE) Ant 1-Linearity Data for Hotspot			**NR n41(HPUE) Ant 2-Linearity Data for Hotspot**		
	NR n41 (Power Class 3)	NR n41 (Power Class 2)		NR n41 (Power Class 3)	NR n41 (Power Class 2)
Maximum Tune up Power (dBm)	17.50	20.50	Maximum Tune up Power (dBm)	19.50	22.50
Reported 1g SAR (W/kg)	0.290	0.303	Reported 1g SAR (W/kg)	0.395	0.415
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	56.23	56.10	Frame Averaged (mW)	89.13	88.91
Linearity SAR (W/kg)	0.289		Linearity SAR (W/kg)	0.394	
% deviation from expected linearity		4.73%	% deviation from expected linearity		5.31%
NR n77(HPUE) Part27O-Linearity Data for Head Ant5			**NR n77(HPUE) Part27O-Linearity Data for Head Ant6**		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)		NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	16.50	19.50	Maximum Tune up Power (dBm)	17.50	20.50
Reported 1g SAR (W/kg)	0.459	0.443	Reported 1g SAR (W/kg)	0.475	0.440
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	44.67	44.56	Frame Averaged (mW)	56.23	56.10
Linearity SAR (W/kg)	0.458		Linearity SAR (W/kg)	0.474	
% deviation from expected linearity		-3.26%	% deviation from expected linearity		-7.15%
NR n77(HPUE) Part27Q-Linearity Data for Head Ant5			**NR n77(HPUE) Part27Q-Linearity Data for Head Ant6**		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)		NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	16.50	19.50	Maximum Tune up Power (dBm)	17.50	20.50
Reported 1g SAR (W/kg)	0.880	0.959	Reported 1g SAR (W/kg)	0.578	0.532
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	44.67	44.56	Frame Averaged (mW)	56.23	56.10
Linearity SAR (W/kg)	0.878		Linearity SAR (W/kg)	0.577	
% deviation from expected linearity		9.24%	% deviation from expected linearity		-7.74%
NR n77(HPUE) Part27O-Linearity Data for Hotspot Ant5			**NR n77(HPUE) Part27O-Linearity Data for Hotspot Ant6**		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)		NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	16.50	19.50	Maximum Tune up Power (dBm)	17.50	20.50
Reported 1g SAR (W/kg)	0.238	0.254	Reported 1g SAR (W/kg)	0.486	0.513
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%

Frame Averaged (mW)	44.67	44.56	Frame Averaged (mW)	56.23	56.10
Linearity SAR (W/kg)	0.237		Linearity SAR (W/kg)	0.485	
% deviation from expected linearity		6.98%	% deviation from expected linearity		5.81%
NR n77(HPUE) Part27Q-Linearity Data for Hotspot Ant5			**NR n77(HPUE) Part27Q-Linearity Data for Hotspot Ant6**		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)		NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	16.50	19.50	Maximum Tune up Power (dBm)	17.50	20.50
Reported 1g SAR (W/kg)	0.498	0.541	Reported 1g SAR (W/kg)	0.448	0.478
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	44.67	44.56	Frame Averaged (mW)	56.23	56.10
Linearity SAR (W/kg)	0.497		Linearity SAR (W/kg)	0.447	
% deviation from expected linearity		8.89%	% deviation from expected linearity		6.95%
NR n77(HPUE) Part27O-Linearity Data for Body-worn Ant5			**NR n77(HPUE) Part27O-Linearity Data for Body-worn Ant6**		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)		NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	23.50	26.50	Maximum Tune up Power (dBm)	18.50	21.50
Reported 1g SAR (W/kg)	0.424	0.465	Reported 1g SAR (W/kg)	0.270	0.293
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	223.87	223.34	Frame Averaged (mW)	70.79	70.63
Linearity SAR (W/kg)	0.423		Linearity SAR (W/kg)	0.269	
% deviation from expected linearity		9.93%	% deviation from expected linearity		8.78%
NR n77(HPUE) Part27Q-Linearity Data for Body-worn Ant5			**NR n77(HPUE) Part27Q-Linearity Data for Body-worn Ant6**		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)		NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	23.50	26.50	Maximum Tune up Power (dBm)	18.50	21.50
Reported 1g SAR (W/kg)	0.697	0.759	Reported 1g SAR (W/kg)	0.236	0.241
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	223.87	223.34	Frame Averaged (mW)	70.79	70.63
Linearity SAR (W/kg)	0.695		Linearity SAR (W/kg)	0.235	
% deviation from expected linearity		9.15%	% deviation from expected linearity		2.36%
NR n78(HPUE) Part27O-Linearity Data for Head Ant5			**NR n78(HPUE) Part27O-Linearity Data for Head Ant6**		
	NR n78 (Power Class 3)	NR n78 (Power Class 2)		NR n78 (Power Class 3)	NR n78 (Power Class 2)
Maximum Tune up Power (dBm)	16.00	19.00	Maximum Tune up Power (dBm)	18.00	21.00
Reported 1g SAR (W/kg)	0.468	0.505	Reported 1g SAR (W/kg)	0.724	0.651
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	39.81	39.72	Frame Averaged (mW)	63.10	62.95
Linearity SAR (W/kg)	0.467		Linearity SAR (W/kg)	0.722	
% deviation from expected linearity		8.16%	% deviation from expected linearity		-9.87%
NR n78(HPUE) Part27Q-Linearity Data for Head Ant5			**NR n78(HPUE) Part27Q-Linearity Data for Head Ant6**		
	NR n78 (Power Class 3)	NR n78 (Power Class 2)		NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	16.00	19.00	Maximum Tune up Power (dBm)	18.00	21.00
Reported 1g SAR (W/kg)	0.798	0.839	Reported 1g SAR (W/kg)	0.663	0.608
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	39.81	39.72	Frame Averaged (mW)	63.10	62.95
Linearity SAR (W/kg)	0.796		Linearity SAR (W/kg)	0.661	
% deviation from expected linearity		5.39%	% deviation from expected linearity		-8.08%
NR n78(HPUE) Part27O-Linearity Data for Hotspot Ant5			**NR n78(HPUE) Part27O-Linearity Data for Hotspot Ant6**		
	NR n78 (Power Class 3)	NR n78 (Power Class 2)		NR n78 (Power Class 3)	NR n78 (Power Class 2)
Maximum Tune up Power (dBm)	16.00	19.00	Maximum Tune up Power (dBm)	18.00	21.00
Reported 1g SAR (W/kg)	0.260	0.279	Reported 1g SAR (W/kg)	0.549	0.573
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	39.81	39.72	Frame Averaged (mW)	63.10	62.95
Linearity SAR (W/kg)	0.259		Linearity SAR (W/kg)	0.548	
% deviation from expected linearity		7.56%	% deviation from expected linearity		4.62%
NR n78(HPUE) Part27Q-Linearity Data for Hotspot Ant5			**NR n78(HPUE) Part27Q-Linearity Data for Hotspot Ant6**		
	NR n78 (Power Class 3)	NR n78 (Power Class 2)		NR n78 (Power Class 3)	NR n78 (Power Class 2)

Maximum Tune up Power (dBm)	16.00	19.00	Maximum Tune up Power (dBm)	18.00	21.00
Reported 1g SAR (W/kg)	0.378	0.405	Reported 1g SAR (W/kg)	0.453	0.468
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	39.81	39.72	Frame Averaged (mW)	63.10	62.95
Linearity SAR (W/kg)	0.377		Linearity SAR (W/kg)	0.452	
% deviation from expected linearity		7.40%	% deviation from expected linearity		3.56%

NR n78(HPUE) Part27O-Linearity Data for Body-worn Ant5			NR n78(HPUE) Part27O-Linearity Data for Body-worn Ant6		
	NR n78 (Power Class 3)	NR n78 (Power Class 2)		NR n78 (Power Class 3)	NR n78 (Power Class 2)
Maximum Tune up Power (dBm)	24.50	27.50	Maximum Tune up Power (dBm)	18.50	21.50
Reported 1g SAR (W/kg)	0.640	0.686	Reported 1g SAR (W/kg)	0.254	0.261
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	281.84	281.17	Frame Averaged (mW)	70.79	70.63
Linearity SAR (W/kg)	0.638		Linearity SAR (W/kg)	0.253	
% deviation from expected linearity		7.44%	% deviation from expected linearity		3.00%

NR n78(HPUE) Part27Q-Linearity Data for Body-worn Ant5			NR n78(HPUE) Part27Q-Linearity Data for Body-worn Ant6		
	NR n78 (Power Class 3)	NR n78 (Power Class 2)		NR n78 (Power Class 3)	NR n78 (Power Class 2)
Maximum Tune up Power (dBm)	24.50	27.50	Maximum Tune up Power (dBm)	18.50	21.50
Reported 1g SAR (W/kg)	0.855	0.921	Reported 1g SAR (W/kg)	0.215	0.219
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	281.84	281.17	Frame Averaged (mW)	70.79	70.63
Linearity SAR (W/kg)	0.853		Linearity SAR (W/kg)	0.214	
% deviation from expected linearity		7.98%	% deviation from expected linearity		2.10%

NR n41(HPUE) Ant 3-Linearity Data for Head			NR n41(HPUE) Ant 4-Linearity Data for Head		
	NR n41 (Power Class 3)	NR n41 (Power Class 2)		NR n41 (Power Class 3)	NR n41 (Power Class 2)
Maximum Tune up Power (dBm)	19.50	22.50	Maximum Tune up Power (dBm)	20.50	23.50
Reported 1g SAR (W/kg)	0.756	0.802	Reported 1g SAR (W/kg)	1.030	1.080
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	89.13	88.91	Frame Averaged (mW)	112.20	111.94
Linearity SAR (W/kg)	0.754		Linearity SAR (W/kg)	1.028	
% deviation from expected linearity		6.34%	% deviation from expected linearity		5.10%

NR n41(HPUE) Ant 3-Linearity Data for Body-worn			NR n41(HPUE) Ant 4-Linearity Data for Body-worn		
	NR n41 (Power Class 3)	NR n41 (Power Class 2)		NR n41 (Power Class 3)	NR n41 (Power Class 2)
Maximum Tune up Power (dBm)	24.00	27.00	Maximum Tune up Power (dBm)	20.50	23.50
Reported 1g SAR (W/kg)	0.486	0.527	Reported 1g SAR (W/kg)	0.121	0.131
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	251.19	250.59	Frame Averaged (mW)	112.20	111.94
Linearity SAR (W/kg)	0.485		Linearity SAR (W/kg)	0.121	
% deviation from expected linearity		8.69%	% deviation from expected linearity		8.52%

NR n41(HPUE) Ant 3-Linearity Data for Hotspot			NR n41(HPUE) Ant 4-Linearity Data for Hotspot		
	NR n41 (Power Class 3)	NR n41 (Power Class 2)		NR n41 (Power Class 3)	NR n41 (Power Class 2)
Maximum Tune up Power (dBm)	19.50	22.50	Maximum Tune up Power (dBm)	20.50	23.50
Reported 1g SAR (W/kg)	0.445	0.486	Reported 1g SAR (W/kg)	0.621	0.671
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	89.13	88.91	Frame Averaged (mW)	112.20	111.94
Linearity SAR (W/kg)	0.444		Linearity SAR (W/kg)	0.620	
% deviation from expected linearity		9.47%	% deviation from expected linearity		8.31%

NR n77(HPUE) Part27O-Linearity Data for Head Ant7			NR n77(HPUE) Part27O-Linearity Data for Head Ant8		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)		NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	21.00	24.00	Maximum Tune up Power (dBm)	19.50	22.50
Reported 1g SAR (W/kg)	0.587	0.638	Reported 1g SAR (W/kg)	0.988	1.067
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	125.89	125.59	Frame Averaged (mW)	89.13	88.91
Linearity SAR (W/kg)	0.586		Linearity SAR (W/kg)	0.986	

% deviation from expected linearity		8.95%	% deviation from expected linearity		8.25%
NR n77(HPUE) Part27Q-Linearity Data for Head Ant7			**NR n77(HPUE) Part27Q-Linearity Data for Head Ant8**		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)		NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	21.00	24.00	Maximum Tune up Power (dBm)	19.50	22.50
Reported 1g SAR (W/kg)	0.596	0.648	Reported 1g SAR (W/kg)	0.428	0.469
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	125.89	125.59	Frame Averaged (mW)	89.13	88.91
Linearity SAR (W/kg)	0.595		Linearity SAR (W/kg)	0.427	
% deviation from expected linearity		8.98%	% deviation from expected linearity		9.84%
NR n77(HPUE) Part27O-Linearity Data for Hotspot Ant7			**NR n77(HPUE) Part27O-Linearity Data for Hotspot Ant8**		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)		NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	14.50	17.50	Maximum Tune up Power (dBm)	17.50	20.50
Reported 1g SAR (W/kg)	0.178	0.188	Reported 1g SAR (W/kg)	0.877	0.928
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	28.18	28.12	Frame Averaged (mW)	56.23	56.10
Linearity SAR (W/kg)	0.178		Linearity SAR (W/kg)	0.875	
% deviation from expected linearity		5.87%	% deviation from expected linearity		6.07%
NR n77(HPUE) Part27Q-Linearity Data for Hotspot Ant7			**NR n77(HPUE) Part27Q-Linearity Data for Hotspot Ant8**		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)		NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	14.50	17.50	Maximum Tune up Power (dBm)	17.50	20.50
Reported 1g SAR (W/kg)	0.173	0.188	Reported 1g SAR (W/kg)	0.427	0.460
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	28.18	28.12	Frame Averaged (mW)	56.23	56.10
Linearity SAR (W/kg)	0.173		Linearity SAR (W/kg)	0.426	
% deviation from expected linearity		8.93%	% deviation from expected linearity		7.98%
NR n77(HPUE)- Part27OLinearity Data for Body-worn Ant7			**NR n77(HPUE)- Part27OLinearity Data for Body-worn Ant8**		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)		NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	21.00	24.00	Maximum Tune up Power (dBm)	21.50	24.50
Reported 1g SAR (W/kg)	0.344	0.369	Reported 1g SAR (W/kg)	0.973	1.018
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	125.89	125.59	Frame Averaged (mW)	141.25	140.92
Linearity SAR (W/kg)	0.343		Linearity SAR (W/kg)	0.971	
% deviation from expected linearity		7.52%	% deviation from expected linearity		4.87%
NR n77(HPUE) Part27Q-Linearity Data for Body-worn Ant7			**NR n77(HPUE) Part27Q-Linearity Data for Body-worn Ant8**		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)		NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	21.00	24.00	Maximum Tune up Power (dBm)	21.50	24.50
Reported 1g SAR (W/kg)	0.343	0.362	Reported 1g SAR (W/kg)	0.450	0.469
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	125.89	125.59	Frame Averaged (mW)	141.25	140.92
Linearity SAR (W/kg)	0.342		Linearity SAR (W/kg)	0.449	
% deviation from expected linearity		5.79%	% deviation from expected linearity		4.47%
NR n78(HPUE) Part27O-Linearity Data for Head Ant7			**NR n78(HPUE) Part27O-Linearity Data for Head Ant8**		
	NR n78 (Power Class 3)	NR n78 (Power Class 2)		NR n78 (Power Class 3)	NR n78 (Power Class 2)
Maximum Tune up Power (dBm)	21.50	24.50	Maximum Tune up Power (dBm)	18.50	21.50
Reported 1g SAR (W/kg)	0.990	1.079	Reported 1g SAR (W/kg)	0.989	1.056
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	141.25	140.92	Frame Averaged (mW)	70.79	70.63
Linearity SAR (W/kg)	0.988		Linearity SAR (W/kg)	0.987	
% deviation from expected linearity		9.25%	% deviation from expected linearity		7.03%
NR n78(HPUE) Part27Q-Linearity Data for Head Ant7			**NR n78(HPUE) Part27Q-Linearity Data for Head Ant8**		
	NR n78 (Power Class 3)	NR n78 (Power Class 2)		NR n78 (Power Class 3)	NR n78 (Power Class 2)
Maximum Tune up Power (dBm)	21.50	24.50	Maximum Tune up Power (dBm)	18.50	21.50
Reported 1g SAR (W/kg)	0.678	0.658	Reported 1g SAR (W/kg)	0.629	0.679

Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	141.25	140.92	Frame Averaged (mW)	70.79	70.63
Linearity SAR (W/kg)	0.676		Linearity SAR (W/kg)	0.628	
% deviation from expected linearity		-2.72%	% deviation from expected linearity		8.21%
NR n78(HPUE) Part27O-Linearity Data for Hotspot Ant7			**NR n78(HPUE) Part27O-Linearity Data for Hotspot Ant8**		
	NR n78 (Power Class 3)	NR n78 (Power Class 2)		NR n78 (Power Class 3)	NR n78 (Power Class 2)
Maximum Tune up Power (dBm)	20.50	23.50	Maximum Tune up Power (dBm)	18.50	21.50
Reported 1g SAR (W/kg)	0.783	0.841	Reported 1g SAR (W/kg)	0.741	0.767
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	112.20	111.94	Frame Averaged (mW)	70.79	70.63
Linearity SAR (W/kg)	0.781		Linearity SAR (W/kg)	0.739	
% deviation from expected linearity		7.66%	% deviation from expected linearity		3.75%
NR n78(HPUE) Part27Q-Linearity Data for Hotspot Ant7			**NR n78(HPUE) Part27Q-Linearity Data for Hotspot Ant8**		
	NR n78 (Power Class 3)	NR n78 (Power Class 2)		NR n78 (Power Class 3)	NR n78 (Power Class 2)
Maximum Tune up Power (dBm)	20.50	23.50	Maximum Tune up Power (dBm)	18.50	21.50
Reported 1g SAR (W/kg)	0.591	0.644	Reported 1g SAR (W/kg)	0.465	0.501
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	112.20	111.94	Frame Averaged (mW)	70.79	70.63
Linearity SAR (W/kg)	0.590		Linearity SAR (W/kg)	0.464	
% deviation from expected linearity		9.23%	% deviation from expected linearity		8.00%
NR n78(HPUE) Part27O-Linearity Data for Body-worn Ant7			**NR n78(HPUE) Part27O-Linearity Data for Body-worn Ant8**		
	NR n78 (Power Class 3)	NR n78 (Power Class 2)		NR n78 (Power Class 3)	NR n78 (Power Class 2)
Maximum Tune up Power (dBm)	24.00	26.50	Maximum Tune up Power (dBm)	21.00	24.00
Reported 1g SAR (W/kg)	0.801	0.756	Reported 1g SAR (W/kg)	0.900	0.955
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	251.19	223.34	Frame Averaged (mW)	125.89	125.59
Linearity SAR (W/kg)	0.712		Linearity SAR (W/kg)	0.898	
% deviation from expected linearity		6.15%	% deviation from expected linearity		6.36%
NR n78(HPUE) Part27Q-Linearity Data for Body-worn Ant7			**NR n78(HPUE) Part27Q-Linearity Data for Body-worn Ant8**		
	NR n78 (Power Class 3)	NR n78 (Power Class 2)		NR n78 (Power Class 3)	NR n78 (Power Class 2)
Maximum Tune up Power (dBm)	24.00	26.50	Maximum Tune up Power (dBm)	21.00	24.00
Reported 1g SAR (W/kg)	0.741	0.706	Reported 1g SAR (W/kg)	0.408	0.440
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	251.19	223.34	Frame Averaged (mW)	125.89	125.59
Linearity SAR (W/kg)	0.659		Linearity SAR (W/kg)	0.407	
% deviation from expected linearity		7.16%	% deviation from expected linearity		8.10%

17. Simultaneous Transmission Analysis

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

General Note:

1. This device supports VoIP in GPRS, EGPRS, WCDMA and LTE (e.g. for 3rd-party VoIP), LTE supports VoLTE operation.
2. WWAN above includes 5G NR bands and EN-DC combination.
3. The 2.4GHz/5GHz WLAN can transmit in SISO and MIMO antenna mode.
4. WLAN2.4GHz/WLAN5GHz MIMO SAR can represent SISO SAR to do co-located SAR analysis.
5. For EN-DC mode, MediaTek TA-SAR algorithm in WWAN adds directly the time-averaged RF exposure from 4G(LTE) and time-averaged RF exposure from 5G NR. TA-SAR algorithm controls the total RF exposure from both 4G and 5G NR to not exceed SAR exposure limit. Therefore, simultaneous transmission compliance between 4G+5G NR operation is demonstrated in the Part 2 Report during algorithm validation. In this Report, simultaneous transmission compliance was evaluated individually with other Radios (WLAN or BT) using one of 4G or 5G NR.
6. EUT will choose each GSM, WCDMA, LTE and 5GNR according to the network signal condition; therefore, they will not operate simultaneously at any moment.
7. This device 2.4GHz WLAN support hotspot operation and Bluetooth support tethering applications.
8. This device 5.2GHz WLAN/5.8GHz WLAN support hotspot operation, and 5.2GHz WLAN/5.8GHz WLAN supports WLAN Direct (GC/GO), and 5.3GHz / 5.5GHz supports WLAN Direct (GC only).
9. According to the EUT characteristic, WLAN2.4GHz and Bluetooth share the same antenna so can't transmit simultaneously; WLAN2.4GHz ANT6 and Bluetooth ANT17 can transmit simultaneously.
10. According to the EUT characteristic, WLAN5GHz and Bluetooth can transmit simultaneously.
11. According to the EUT characteristic, WLAN 5GHz ant18 and WLAN 2.4GHz ant17 can transmit simultaneously.
12. According to the EUT characteristic, WLAN 5GHz + WLAN 2.4GHz + Bluetooth cannot transmit simultaneously.
13. NFC can transmit simultaneously with other Radios in extremity exposure condition.
14. The worst case 5 GHz WLAN SAR for each configuration was used for SAR summation.
15. When stand-alone SAR is not required for a transmitter or antenna, its SAR is considered zero in the SAR summing process to assess Multi-band transmission SAR compliance.
16. The maximum SAR summation is calculated based on the same configuration and test position.
17. For simultaneously analysis, since the SAR summation of 3 transmitters can cover others combination of 2 transmitters, therefore in this section did not additional to evaluate 2TX combination of simultaneously transmission.
18. For standalone WWAN, always choose the highest SAR among all WWAN bands within all antennas for each exposure position to perform simultaneous transmission analysis with WLAN/BT. This is the worst co-located analysis and can represent each band.
19. Per KDB 447498 D01v06, simultaneous transmission SAR is compliant if,
    i) 1g Scalar SAR summation < 1.6W/kg and 10g Scalar SAR summation < 4.0W/kg.
    ii) SPLSR = (SAR1 + SAR2)^1.5 / (min. separation distance, mm), and the peak separation distance is determined from the square root of [(x1-x2)2 + (y1-y2)2 + (z1-z2)2], where (x1, y1, z1) and (x2, y2, z2) are the coordinates of the extrapolated peak SAR locations in the zoom scan.
    iii) If SPLSR ≤ 0.04 for 1g SAR and SPLSR≤ 0.10 for 10g SAR, simultaneously transmission SAR measurement is not necessary.
    iv) Simultaneously transmission SAR measurement, and the reported multi-band 1g SAR < 1.6W/kg and 10g SAR

< 4.0W/kg.

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

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

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

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

$$x*A + y*B + m \le 1$$
$$x + y = g \le 1$$
$$g + m \le 1$$

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

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

$$x * A + y * B + m \le 1.0 \quad (1)$$

$$x * A + y * B \le x * \max(A, B) + (g-x) * \max(A, B) \le \max(A, B)$$

$$x * A + (g-x) * B + m \le \max(A, B) + m \le 1.0 \quad (2)$$

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

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

Else, if A + m > 1.0 and/or B + m > 1.0, then the followings need to hold true for compliance:
i. A and m are decoupled based on the SPLSR criteria, and
ii. y * B + m ≤ 1.0, and
iii. x% * A + y * B ≤ 1.0
Note iii. is covered in Part 2 report; i. and ii. should be addressed in Part 2 report.

17.2 Head Exposure Conditions

WWAN Band	Exposure Position	1	2	3	4	5	6	8	9	10	11	1+6+8	1+3+8	1+2+5	1+4	9+10
		WWAN	WLAN2.4GHz Ant 17	WLAN2.4GHz Ant 6	WLAN2.4GHz Ant 17+6	WLAN5GHz Ant 18	WLAN5GHz Ant 5+18	Bluetooth Ant 17	WLAN2.4GHz Ant 17	WLAN5GHz Ant 18	WLAN5GHz Ant 5+18	Summed	Summed	Summed	Summed	Summed
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)
All Bands Ant 0	Right Cheek	0.290	0.200	0.244	0.257	0.225	0.255	0.220	0.579	0.276	0.737	0.77	0.75	0.72	0.55	0.86
	Right Tilted	0.175	0.200	0.244	0.257	0.225	0.255	0.220	0.676	0.146	0.875	0.65	0.64	0.60	0.43	0.82
	Left Cheek	0.246	0.200	0.244	0.257	0.225	0.255	0.220	0.778	0.747	1.037	0.72	0.71	0.67	0.50	1.53
	Left Tilted	0.133	0.200	0.244	0.257	0.225	0.255	0.220	0.872	0.344	1.065	0.61	0.60	0.56	0.39	1.22
All Bands Ant 1	Right Cheek	1.085	0.200	0.244	0.257	0.225	0.255	0.220	0.579	0.276	0.737	1.56	1.55	1.51	1.34	0.86
	Right Tilted	0.968	0.200	0.244	0.257	0.225	0.255	0.220	0.676	0.146	0.875	1.44	1.43	1.39	1.23	0.82
	Left Cheek	0.628	0.200	0.244	0.257	0.225	0.255	0.220	0.778	0.747	1.037	1.10	1.09	1.05	0.89	1.53
	Left Tilted	0.805	0.200	0.244	0.257	0.225	0.255	0.220	0.872	0.344	1.065	1.28	1.27	1.23	1.06	1.22
All Bands Ant 2	Right Cheek	0.296	0.200	0.244	0.257	0.225	0.255	0.220	0.579	0.276	0.737	0.77	0.76	0.72	0.55	0.86
	Right Tilted	0.188	0.200	0.244	0.257	0.225	0.255	0.220	0.676	0.146	0.875	0.66	0.65	0.61	0.45	0.82
	Left Cheek	0.432	0.200	0.244	0.257	0.225	0.255	0.220	0.778	0.747	1.037	0.91	0.90	0.86	0.69	1.53
	Left Tilted	0.189	0.200	0.244	0.257	0.225	0.255	0.220	0.872	0.344	1.065	0.66	0.65	0.61	0.45	1.22
All Bands Ant 3	Right Cheek	0.634	0.200	0.244	0.257	0.225	0.255	0.220	0.579	0.276	0.737	1.11	1.10	1.06	0.89	0.86
	Right Tilted	0.276	0.200	0.244	0.257	0.225	0.255	0.220	0.676	0.146	0.875	0.75	0.74	0.70	0.53	0.82
	Left Cheek	1.074	0.200	0.244	0.257	0.225	0.255	0.220	0.778	0.747	1.037	1.55	1.54	1.50	1.33	1.53
	Left Tilted	0.176	0.200	0.244	0.257	0.225	0.255	0.220	0.872	0.344	1.065	0.65	0.64	0.60	0.43	1.22
All Bands Ant 4	Right Cheek	1.094	0.200	0.244	0.257	0.225	0.255	0.220	0.579	0.276	0.737	1.57	1.56	1.52	1.35	0.86
	Right Tilted	0.218	0.200	0.244	0.257	0.225	0.255	0.220	0.676	0.146	0.875	0.69	0.68	0.64	0.48	0.82
	Left Cheek	1.059	0.200	0.244	0.257	0.225	0.255	0.220	0.778	0.747	1.037	1.53	1.52	1.48	1.32	1.53
	Left Tilted	0.425	0.200	0.244	0.257	0.225	0.255	0.220	0.872	0.344	1.065	0.90	0.89	0.85	0.68	1.22
All Bands Ant 5	Right Cheek	0.593	0.200	0.244	0.257	0.225	0.255	0.220	0.579	0.276	0.737	1.07	1.06	1.02	0.85	0.86
	Right Tilted	0.727	0.200	0.244	0.257	0.225	0.255	0.220	0.676	0.146	0.875	1.20	1.19	1.15	0.98	0.82
	Left Cheek	0.790	0.200	0.244	0.257	0.225	0.255	0.220	0.778	0.747	1.037	1.27	1.25	1.22	1.05	1.53
	Left Tilted	0.998	0.200	0.244	0.257	0.225	0.255	0.220	0.872	0.344	1.065	1.47	1.46	1.42	1.26	1.22
All Bands Ant 6	Right Cheek	0.171	0.200	0.244	0.257	0.225	0.255	0.220	0.579	0.276	0.737	0.65	0.64	0.60	0.43	0.86
	Right Tilted	0.152	0.200	0.244	0.257	0.225	0.255	0.220	0.676	0.146	0.875	0.63	0.62	0.58	0.41	0.82
	Left Cheek	0.811	0.200	0.244	0.257	0.225	0.255	0.220	0.778	0.747	1.037	1.29	1.28	1.24	1.07	1.53
	Left Tilted	0.363	0.200	0.244	0.257	0.225	0.255	0.220	0.872	0.344	1.065	0.84	0.83	0.79	0.62	1.22
All Bands Ant 7	Right Cheek	1.079	0.200	0.244	0.257	0.225	0.255	0.220	0.579	0.276	0.737	1.55	1.54	1.50	1.34	0.86
	Right Tilted	0.482	0.200	0.244	0.257	0.225	0.255	0.220	0.676	0.146	0.875	0.96	0.95	0.91	0.74	0.82
	Left Cheek	0.387	0.200	0.244	0.257	0.225	0.255	0.220	0.778	0.747	1.037	0.86	0.85	0.81	0.64	1.53
	Left Tilted	0.133	0.200	0.244	0.257	0.225	0.255	0.220	0.872	0.344	1.065	0.61	0.60	0.56	0.39	1.22
All Bands Ant 8	Right Cheek	1.067	0.200	0.244	0.257	0.225	0.255	0.220	0.579	0.276	0.737	1.54	1.53	1.49	1.32	0.86
	Right Tilted	0.562	0.200	0.244	0.257	0.225	0.255	0.220	0.676	0.146	0.875	1.04	1.03	0.99	0.82	0.82
	Left Cheek	0.339	0.200	0.244	0.257	0.225	0.255	0.220	0.778	0.747	1.037	0.81	0.80	0.76	0.60	1.53
	Left Tilted	0.335	0.200	0.244	0.257	0.225	0.255	0.220	0.872	0.344	1.065	0.81	0.80	0.76	0.59	1.22

17.3 Hotspot Exposure Conditions

WWAN Band	Exposure Position	1	2	3	4	5	6	8	9	10	11	1+6+8	1+3+8	1+2+5	1+4	9+10
		WWAN	WLAN2.4GHz Ant 17	WLAN2.4GHz Ant 6	WLAN2.4GHz Ant 17+6	WLAN5GHz Ant 18	WLAN5GHz Ant 5+18	Bluetooth Ant 17	WLAN2.4GHz Ant 17	WLAN5GHz Ant 18	WLAN5GHz Ant 5+18	Summed	Summed	Summed	Summed	Summed
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)
All Bands Ant 0	Front	0.280	0.204	0.236	0.273	0.232	0.282	0.088	0.319	0.223	0.343	0.65	0.60	0.72	0.55	0.54
	Back	0.367	0.204	0.236	0.273	0.232	0.282	0.167	0.453	0.423	0.541	0.82	0.77	0.80	0.64	0.88
	Left Side											0.00	0.00	0.00	0.00	0.00
	Right Side	0.360	0.204	0.236	0.273	0.232	0.282	0.154	0.070	0.786	1.052	0.80	0.75	0.80	0.63	0.86
	Top Side		0.204	0.236	0.273		0.282	0.241	0.667		1.022	0.52	0.48	0.20	0.27	0.67
	Bottom Side	0.215										0.22	0.22	0.22	0.22	0.00
All Bands Ant 1	Front	0.297	0.204	0.236	0.273	0.232	0.282	0.088	0.319	0.223	0.343	0.67	0.62	0.73	0.57	0.54
	Back	0.500	0.204	0.236	0.273	0.232	0.282	0.167	0.453	0.423	0.541	0.95	0.90	0.94	0.77	0.88
	Left Side	0.406										0.41	0.41	0.41	0.41	0.00
	Right Side		0.204	0.236	0.273	0.232	0.282	0.154	0.070	0.786	1.052	0.44	0.39	0.44	0.27	0.86
	Top Side	0.490	0.204	0.236	0.273		0.282	0.241	0.667		1.022	1.01	0.97	0.69	0.76	0.67
	Bottom Side											0.00	0.00	0.00	0.00	0.00
All Bands Ant 2	Front	0.573	0.204	0.236	0.273	0.232	0.282	0.088	0.319	0.223	0.343	0.94	0.90	1.01	0.85	0.54
	Back	0.595	0.204	0.236	0.273	0.232	0.282	0.167	0.453	0.423	0.541	1.04	1.00	1.03	0.87	0.88
	Left Side	0.223										0.22	0.22	0.22	0.22	0.00
	Right Side		0.204	0.236	0.273	0.232	0.282	0.154	0.070	0.786	1.052	0.44	0.39	0.44	0.27	0.86
	Top Side		0.204	0.236	0.273		0.282	0.241	0.667		1.022	0.52	0.48	0.20	0.27	0.67
	Bottom Side	1.001										1.00	1.00	1.00	1.00	0.00
All Bands Ant 3	Front	0.192	0.204	0.236	0.273	0.232	0.282	0.088	0.319	0.223	0.343	0.56	0.52	0.63	0.47	0.54
	Back	0.289	0.204	0.236	0.273	0.232	0.282	0.167	0.453	0.423	0.541	0.74	0.69	0.73	0.56	0.88
	Left Side	0.517										0.52	0.52	0.52	0.52	0.00
	Right Side		0.204	0.236	0.273	0.232	0.282	0.154	0.070	0.786	1.052	0.44	0.39	0.44	0.27	0.86
	Top Side	0.045	0.204	0.236	0.273		0.282	0.241	0.667		1.022	0.57	0.52	0.25	0.32	0.67
	Bottom Side											0.00	0.00	0.00	0.00	0.00
All Bands Ant 4	Front	0.289	0.204	0.236	0.273	0.232	0.282	0.088	0.319	0.223	0.343	0.66	0.61	0.73	0.56	0.54
	Back	0.341	0.204	0.236	0.273	0.232	0.282	0.167	0.453	0.423	0.541	0.79	0.74	0.78	0.61	0.88
	Left Side											0.00	0.00	0.00	0.00	0.00
	Right Side	0.675	0.204	0.236	0.273	0.232	0.282	0.154	0.070	0.786	1.052	1.11	1.07	1.11	0.95	0.86
	Top Side	0.091	0.204	0.236	0.273		0.282	0.241	0.667		1.022	0.61	0.57	0.30	0.36	0.67
	Bottom Side											0.00	0.00	0.00	0.00	0.00
All Bands Ant 5	Front	0.177	0.204	0.236	0.273	0.232	0.282	0.088	0.319	0.223	0.343	0.55	0.50	0.61	0.45	0.54
	Back	0.354	0.204	0.236	0.273	0.232	0.282	0.167	0.453	0.423	0.541	0.80	0.76	0.79	0.63	0.88
	Left Side											0.00	0.00	0.00	0.00	0.00
	Right Side	0.089	0.204	0.236	0.273	0.232	0.282	0.154	0.070	0.786	1.052	0.53	0.48	0.53	0.36	0.86
	Top Side	0.541	0.204	0.236	0.273		0.282	0.241	0.667		1.022	1.06	1.02	0.75	0.81	0.67
	Bottom Side											0.00	0.00	0.00	0.00	0.00
All Bands Ant 6	Front	0.241	0.204	0.236	0.273	0.232	0.282	0.088	0.319	0.223	0.343	0.61	0.57	0.68	0.51	0.54
	Back	0.424	0.204	0.236	0.273	0.232	0.282	0.167	0.453	0.423	0.541	0.87	0.83	0.86	0.70	0.88
	Left Side											0.00	0.00	0.00	0.00	0.00
	Right Side	0.573	0.204	0.236	0.273	0.232	0.282	0.154	0.070	0.786	1.052	1.01	0.96	1.01	0.85	0.86
	Top Side	0.194	0.204	0.236	0.273		0.282	0.241	0.667		1.022	0.72	0.67	0.40	0.47	0.67
	Bottom Side											0.00	0.00	0.00	0.00	0.00
All Bands Ant 7	Front	0.191	0.204	0.236	0.273	0.232	0.282	0.088	0.319	0.223	0.343	0.56	0.52	0.63	0.46	0.54
	Back	0.908	0.204	0.236	0.273	0.232	0.282	0.167	0.453	0.423	0.541	1.36	1.31	1.34	1.18	0.88
	Left Side	0.505										0.51	0.51	0.51	0.51	0.00
	Right Side		0.204	0.236	0.273	0.232	0.282	0.154	0.070	0.786	1.052	0.44	0.39	0.44	0.27	0.86
	Top Side	0.111	0.204	0.236	0.273		0.282	0.241	0.667		1.022	0.63	0.59	0.32	0.38	0.67
	Bottom Side											0.00	0.00	0.00	0.00	0.00
All	Front	0.215	0.204	0.236	0.273	0.232	0.282	0.088	0.319	0.223	0.343	0.59	0.54	0.65	0.49	0.54

Bands Ant 8	Back	1.065	0.204	0.236	0.273	0.232	0.282	0.167	0.453	0.423	0.541	1.51	1.47	1.50	1.34	0.88
	Left Side	0.478										0.48	0.48	0.48	0.48	0.00
	Right Side		0.204	0.236	0.273	0.232	0.282	0.154	0.070	0.786	1.052	0.44	0.39	0.44	0.27	0.86
	Top Side	0.346	0.204	0.236	0.273		0.282	0.241	0.667		1.022	0.87	0.82	0.55	0.62	0.67
	Bottom Side											0.00	0.00	0.00	0.00	0.00

17.4 Body-Worn Accessory Exposure Conditions

WWAN Band	Exposure Position	1	2	3	4	5	6	8	9	1+6+8	1+3+8	1+2+5	1+4	2+9
		WWAN	WLAN2.4GHz Ant 17	WLAN2.4GHz Ant 6	WLAN2.4GHz Ant 17+6	WLAN5GHz Ant 18	WLAN5GHz Ant 5+18	Bluetooth Ant 17	WLAN5GHz Ant 18	Summed	Summed	Summed	Summed	Summed
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)
All Bands Ant 0	Front	0.202	0.165	0.138	0.217	0.310	0.473	0.053	0.310	0.73	0.39	0.68	0.42	0.48
	Back	0.244	0.225	0.231	0.381	0.351	0.473	0.063	0.386	0.78	0.54	0.82	0.63	0.61
All Bands Ant 1	Front	0.653	0.165	0.138	0.217	0.310	0.473	0.053	0.310	1.18	0.84	1.13	0.87	0.48
	Back	0.856	0.225	0.231	0.381	0.351	0.473	0.063	0.386	1.39	1.15	1.43	1.24	0.61
All Bands Ant 2	Front	0.658	0.165	0.138	0.217	0.310	0.473	0.053	0.310	1.18	0.85	1.13	0.88	0.48
	Back	0.936	0.225	0.231	0.381	0.351	0.473	0.063	0.386	1.47	1.23	1.51	1.32	0.61
All Bands Ant 3	Front	0.440	0.165	0.138	0.217	0.310	0.473	0.053	0.310	0.97	0.63	0.92	0.66	0.48
	Back	0.527	0.225	0.231	0.381	0.351	0.473	0.063	0.386	1.06	0.82	1.10	0.91	0.61
All Bands Ant 4	Front	0.369	0.165	0.138	0.217	0.310	0.473	0.053	0.310	0.90	0.56	0.84	0.59	0.48
	Back	0.400	0.225	0.231	0.381	0.351	0.473	0.063	0.386	0.94	0.69	0.98	0.78	0.61
All Bands Ant 5	Front	0.343	0.165	0.138	0.217	0.310	0.473	0.053	0.310	0.87	0.53	0.82	0.56	0.48
	Back	0.921	0.225	0.231	0.381	0.351	0.473	0.063	0.386	1.46	1.22	1.50	1.30	0.61
All Bands Ant 6	Front	0.128	0.165	0.138	0.217	0.310	0.473	0.053	0.310	0.65	0.32	0.60	0.35	0.48
	Back	0.312	0.225	0.231	0.381	0.351	0.473	0.063	0.386	0.85	0.61	0.89	0.69	0.61
All Bands Ant 7	Front	0.125	0.165	0.138	0.217	0.310	0.473	0.053	0.310	0.65	0.32	0.60	0.34	0.48
	Back	0.801	0.225	0.231	0.381	0.351	0.473	0.063	0.386	1.34	1.10	1.38	1.18	0.61
All Bands Ant 8	Front	0.171	0.165	0.138	0.217	0.310	0.473	0.053	0.310	0.70	0.36	0.65	0.39	0.48
	Back	1.018	0.225	0.231	0.381	0.351	0.473	0.063	0.386	1.55	1.31	**1.59**	1.40	0.61

17.5 Product specific 10g SAR Exposure Conditions

Remark:

1. For WLAN2.4GHz/ Bluetooth Product specific 10g stand-alone SAR is not required for a transmitter or antenna, due to 1g hotspot SAR is <1.2W/kg.

WWAN Band	Exposure Position	1	2	3	1+2+3
		WLAN5GHz Ant 18	WLAN5GHz Ant 18+5	NFC	Summed
		10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)
All Bandss	Front	0.649	1.033	0.002	1.68
	Back	0.547	0.846	0.009	1.40
	Left side			0.001	0.00
	Right side	1.732	1.550	0.003	**3.29**
	Top side		2.458	0.002	2.46
	Bottom side			0.001	0.00

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

18. Uncertainty Assessment

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

19. References

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

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

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

[4] SPEAG DASY System Handbook

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

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

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

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

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

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

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

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

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

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

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