

FCC SAR Test Report

APPLICANT : Motorola Mobility LLC
EQUIPMENT : Mobile Cellular Phone
BRAND NAME : Motorola
MODEL NAME : XT2453-3, XT2453-4, XT2453-5, XT2453V
FCC ID : IHDT56AR7
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.



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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1. Statement of Compliance

The maximum results of Specific Absorption Rate (SAR) found during testing for **Motorola Mobility LLC, Mobile Cellular Phone, XT2453-3, XT2453-4, XT2453-5, XT2453V**, are as follows.

Highest 1g SAR Summary						
Equipment Class	Frequency Band		Head (Separation 0mm)	Hotspot (Separation 5mm)	Body-worn (Separation 5mm)	Highest Simultaneous Transmission 1g SAR (W/kg)
			1g SAR (W/kg)			
Licensed	GSM	GSM850	0.37	1.14	1.14	1.59
		GSM1900	0.88	1.28	0.88	
	WCDMA	WCDMA II	0.88	1.27	1.27	
		WCDMA IV	0.88	1.28	1.29	
		WCDMA V	0.24	1.09	1.09	
	LTE	LTE Band 7	0.89	1.29	1.30	
		LTE Band 12/17	0.38	1.27	0.92	
		LTE Band 13	0.35	0.97	0.97	
		LTE Band 14	0.37	1.10	1.15	
		LTE Band 25/2	0.89	1.29	1.29	
		LTE Band 26/5	0.41	1.23	1.23	
		LTE Band 30	0.89	1.27	1.29	
		LTE Band 66/4	0.89	1.29	1.29	
		LTE Band 71	0.46	1.16	0.98	
		LTE Band 41/38	0.88	1.29	1.29	
	LTE Band 48	0.90	0.63	0.90		
	5G NR	FR1 n7	0.89	1.29	1.28	
		FR1 n12	0.08	0.81	0.74	
		FR1 n14	0.24	0.78	0.78	
		FR1 n25/n2	0.89	1.27	1.28	
FR1 n26/n5		0.25	0.90	0.90		
FR1 n30		0.89	1.28	1.28		
FR1 n66		0.88	1.28	1.29		
FR1 n70		0.89	1.29	1.29		
FR1 n71		0.15	0.90	0.68		
FR1 n41		0.89	1.30	1.29		
FR1 n48	0.89	0.63	0.89			
FR1 n77/78	0.88	0.65	0.89			
DTS	WLAN	2.4GHz WLAN	1.25	0.62	1.32	1.59
NII		5GHz WLAN	1.20	0.63	1.18	1.58
DSS	Bluetooth	2.4GHz Bluetooth	0.36	0.27	0.39	1.59



Highest 10g SAR Summary				
Equipment Class	Frequency Band		Product Specific 10g SAR (W/kg) (Separation 0mm)	Highest Simultaneous Transmission 10g SAR (W/kg)
Licensed	GSM	GSM1900	1.70	3.71
	WCDMA	WCDMA II	3.13	
		WCDMA IV	2.95	
	LTE	LTE Band 7	3.19	
		LTE Band 12/17	2.30	
		LTE Band 25/2	3.19	
		LTE Band 26/5	1.50	
		LTE Band 30	3.14	
		LTE Band 66/4	3.16	
		LTE Band 41/38	2.83	
		LTE Band 48	2.50	
		5G NR	FR1 n7	
	FR1 n25/2		2.73	
	FR1 n30		3.16	
	FR1 n66		3.07	
	FR1 n70		2.73	
	FR1 n41/n38		3.14	
	FR1 n48		2.52	
FR1 n77/78	2.49			
DTS	WLAN	2.4GHz WLAN	3.00	3.71
NII		5GHz WLAN	3.18	3.71
DSS	Bluetooth	2.4GHz Bluetooth	0.81	3.71
Date of Testing:			2024/2/27 ~ 2024/4/20	

Remark:

- This device supports LTE B2 / B4 / B5 / B17 / B38 and B25 / B66 / B26 / B12 / B41. Since the supported frequency span for LTE B2 / B4 / B5 / B17 / B38 falls completely within the supports frequency span for LTE B25 / B66 / B26 / B12 / B41, both LTE bands have the same target power, and both LTE bands share the same transmission path; therefore, SAR was only assessed for LTE B25 / B66 / B26 / B12 / B41.
- This device supports 5GNR n38/n78/n5/n2 and n41/n77/n26/n25. Since the supported frequency span for 5GNR n38/n78/n5/n2 falls completely within the supports frequency span for n41/n77/n26/n25, 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/n26/n25.

Declaration of Conformity:

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

Comments and Explanations:

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

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



2. Administration Data

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

Testing Laboratory			
Test Firm	Sporton International Inc. (Kunshan)		
Test Site Location	No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300 People's Republic of China TEL : +86-512-57900158		
Test Site No.	Sporton Site No.	FCC Designation No.	FCC Test Firm Registration No.
	SAR04-KS SAR06-KS SAR07-KS	CN1257	314309

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

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

3. Guidance Applied

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

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



4. Equipment Under Test (EUT) Information

4.1 General Information

Product Feature & Specification	
Equipment Name	Mobile Cellular Phone
Brand Name	Motorola
Model Name	XT2453-3, XT2453-4, XT2453-5, XT2453V
FCC ID	IHDT56AR7
IMEI Code	IMEI1: 358394210024118 IMEI2: 358394210024126
Wireless Technology and Frequency Range	GSM850: 824 MHz ~ 849 MHz GSM1900: 1850 MHz ~ 1910 MHz WCDMA Band II: 1850 MHz ~ 1910 MHz WCDMA Band IV: 1710 MHz ~ 1755 MHz WCDMA Band V: 824 MHz ~ 849 MHz LTE Band 2: 1850 MHz ~ 1910 MHz LTE Band 4: 1710 MHz ~ 1755 MHz LTE Band 5: 824 MHz ~ 849 MHz LTE Band 7: 2500 MHz ~ 2570 MHz LTE Band 12: 699 MHz ~ 716 MHz LTE Band 13: 777 MHz ~ 787 MHz LTE Band 14: 788 MHz ~ 798 MHz LTE Band 17: 704 MHz ~ 716 MHz LTE Band 25: 1850 MHz ~ 1915 MHz LTE Band 26: 814 MHz ~ 849 MHz LTE Band 30: 2305 MHz ~ 2315 MHz LTE Band 38: 2570 MHz ~ 2620 MHz LTE Band 41: 2496 MHz ~ 2690 MHz LTE Band 48: 3550 MHz ~ 3700 MHz LTE Band 66: 1710 MHz ~ 1780 MHz LTE Band 71: 663 MHz ~ 698 MHz 5G NR n2 : 1850 MHz ~ 1910 MHz 5G NR n5: 824 MHz ~ 849 MHz 5G NR n7: 2500 MHz ~ 2570 MHz 5G NR n12 : 699 MHz ~ 716 MHz 5G NR n14 : 788 MHz ~ 798 MHz 5G NR n25 : 1850 MHz ~ 1915 MHz 5G NR n26 : 814 MHz ~ 849 MHz 5G NR n30 : 2305 MHz ~ 2315 MHz 5G NR n66: 1710 MHz ~ 1780 MHz 5G NR n70 : 1695 MHz ~ 1710 MHz 5G NR n71 : 663 MHz ~ 698 MHz 5G NR n38 : 2570 MHz ~ 2620 MHz 5G NR n41 : 2496 MHz ~ 2690 MHz 5G NR n48 : 3550 MHz ~ 3700 MHz 5G NR n77: 3450 MHz ~ 3550 MHz, 3700 MHz ~ 3980 MHz 5G NR n78: 3450 MHz ~ 3550 MHz, 3700 MHz ~ 3800 MHz WLAN 2.4GHz Band: 2412 MHz ~ 2462 MHz WLAN 5.2GHz Band: 5180 MHz ~ 5240 MHz WLAN 5.3GHz Band: 5260 MHz ~ 5320 MHz WLAN 5.5GHz Band: 5500 MHz ~ 5720 MHz WLAN 5.8GHz Band: 5745 MHz ~ 5825 MHz WLAN 6GHz U-NII-5: 5925 MHz ~ 6425 MHz WLAN 6GHz U-NII-6: 6425 MHz ~ 6525 MHz WLAN 6GHz U-NII-7: 6525 MHz ~ 6875 MHz WLAN 6GHz U-NII-8: 6875 MHz ~ 7125 MHz Bluetooth: 2402 MHz ~ 2480 MHz NFC : 13.56 MHz WPT: 110 kHz ~ 148 kHz
Mode	GSM/GPRS/EGPRS



	RMC/AMR 12.2Kbps HSDPA HSUPA DC-HSDPA HSPA+(16QAM uplink is supported) LTE: QPSK, 16QAM, 64QAM, 256QAM 5G NR : CP-OFDM / DFT-s-OFDM, PI/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM WLAN 2.4GHz 802.11b/g/n HT20/HT40 WLAN 2.4GHz 802.11ax HE20/HE40 WLAN 5GHz 802.11a/n HT20/HT40 WLAN 5GHz 802.11ac/ax VHT20/VHT40/VHT80/HE20/HE40/HE80 WLAN 6GHz 802.11ax HE20/HE40/HE80 Bluetooth BR/EDR/LE NFC: ASK WPT: ASK
HW Version	DVT2
SW Version	U3UC34.22
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). WLAN 6GHz has no hotspot function.
4. The 2.4GHz/5GHz/6GHz WLAN can transmit in MIMO/SISO 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 single SIM slots + eSIM (electronic SIM) and supports dual SIM dual standby. The WWAN radio transmission will be enabled by either one SIM at a time (single active).
7. The device implements the power management, Hall sensor 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/BT when transmit simultaneously with each other, or when transmit simultaneous with WWAN/BT, power reduction will be activated to head. For WLAN/BT when transmit simultaneous with WWAN and Proximity sensors trigger, power reduction will be activated to body-worn and Handheld.
9. For some WWAN bands, sensor on power level is higher than hotspot power level, so front/back sensor on SAR can represent hotspot conservatively.
10. This device implements antenna tuning techniques for several WWAN (cellular) operating modes and frequencies for the purpose of improving antenna efficiency over a broad range of frequencies. Specifically, these techniques are employed in the LTE and 5G NR modes. In this report SAR was measured according to the normally required SAR configurations with the tuner active and worst tune state (auto tune) was used for SAR testing. The detail descriptions of the antenna tuner and supplemental data for additional information can be referred to section 18 and appendix G.
11. This device supports HPUE for LTE Band 41 with class 2 level, HPUE power has been measured separately. For HPUE power is higher than power class 3 but with lower duty cycle, the maximum average power for class 2 and class 3 is almost the same, so we chose power class 3 full SAR testing and power class 2 verify the worst case of power class 3 SAR.
12. For 5G NR bands test, using FTM (Factory Test Mode) with default 100% duty cycle transmission to perform SAR testing.
13. 5G NR n41/n77/n78 supports HPUE, HPUE power and SAR testing performed separately.
14. 5G NR n41/n77/n78 HPUE with higher power, 5G NR n41/n77/n78 HPUE SAR can represent power class 3 level SAR.
15. 5G NR n2/n25/n41/n48/n66/n77/n78 supports UL MIMO.
16. The device supports HPUE (power class 2) under SISO mode and HPUE (power class 1.5) under UL MIMO mode for 5G NR n41/n77.
17. For 5G NR 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.
18. The device support DBS (Dual Band Simultaneous) function, when the device 2.4GHz and 5GHz or 6GHz transmit at the same time the module will limit different output power for simultaneous transmission compliance.
 19. The four model names XT2453-3, XT2453-4, XT2453-5, XT2453V are the same product except model name different for market segment.
 20. SAR and Power density test report for WLAN 6GHz U-NII-5/6/7/8 will be separately submitted. About co-located SAR with WWAN/Bluetooth always chose higher SAR of WLAN5G U-NII-1/2A/2C/3 and WLAN 6GHz U-NII-5/6/7/8.
 21. This device has NFC function and the NFC SAR report will be separately submitted.
 22. This device supports 5G NR FR1 bands as following table, including NSA mode and SA mode. NSA and SA mode performed SAR separately.

<5G NR>

Mode	Band	Duplex	SCS(KHz)	Bandwidths(BW)
NSA	n2	FDD	15	5, 10, 15, 20, 25, 30, 35, 40
	n2	FDD	30	10, 15, 20, 25, 30, 35, 40
	n5	FDD	15	5, 10, 15, 20
	n5	FDD	30	10, 15, 20
	n7	FDD	15	5, 10, 15, 20, 25, 30, 35, 40, 50
	n7	FDD	30	10, 15, 20, 25, 30, 35, 40, 50
	n12	FDD	15	5, 10, 15
	n12	FDD	30	10, 15
	n25	FDD	15	5, 10, 15, 20, 25, 30, 35, 40
	n25	FDD	30	10, 15, 20, 25, 30, 35, 40
	n26	FDD	15	5, 10, 15, 20
	n26	FDD	30	10, 15, 20
	n66	FDD	15	5, 10, 15, 20, 25, 30, 35, 40
	n66	FDD	30	10, 15, 20, 25, 30, 35, 40
	n71	FDD	15	5, 10, 15, 20
	n71	FDD	30	10, 15, 20
	n38	TDD	15	5, 10, 15, 20, 25, 30, 40
	n38	TDD	30	10, 15, 20, 25, 30, 40
	n41	TDD	15	5, 10, 15, 20, 25, 30, 35, 40, 45, 50
	n41	TDD	30	10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 80, 90, 100
	n48	TDD	15	5, 10, 15, 20, 30, 40
	n48	TDD	30	10, 15, 20, 30, 40
	n77	TDD	15	10, 15, 20, 25, 30, 40, 50
	n77	TDD	30	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100
n78	TDD	15	10, 15, 20, 25, 30, 40, 50	
n78	TDD	30	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100	
SA	n2	FDD	15	5, 10, 15, 20, 25, 30, 35, 40
	n2	FDD	30	10, 15, 20, 25, 30, 35, 40
	n5	FDD	15	5, 10, 15, 20
	n5	FDD	30	10, 15, 20
	n7	FDD	15	5, 10, 15, 20, 25, 30, 35, 40, 50
	n7	FDD	30	10, 15, 20, 25, 30, 35, 40, 50
	n12	FDD	15	5, 10, 15
	n12	FDD	30	10, 15



n14	FDD	15	5, 10
n14	FDD	30	10
n25	FDD	15	5, 10, 15, 20, 25, 30, 35, 40
n25	FDD	30	10, 15, 20, 25, 30, 35, 40
n26	FDD	15	5, 10, 15, 20
n26	FDD	30	10, 15, 20
n30	FDD	15	5, 10
n30	FDD	30	10
n66	FDD	15	5, 10, 15, 20, 25, 30, 35, 40
n66	FDD	30	10, 15, 20, 25, 30, 35, 40
n70	FDD	15	5, 10, 15
n70	FDD	30	10, 15
n71	FDD	15	5, 10, 15, 20
n71	FDD	30	10, 15, 20
n38	TDD	15	5, 10, 15, 20, 25, 30, 40
n38	TDD	30	10, 15, 20, 25, 30, 40
n41	TDD	15	5, 10, 15, 20, 25, 30, 35, 40, 45, 50
n41	TDD	30	10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 80, 90, 100
n48	TDD	15	5, 10, 15, 20, 30, 40
n48	TDD	30	10, 15, 20, 30, 40
n77	TDD	15	10, 15, 20, 25, 30, 40, 50
n77	TDD	30	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100
n78	TDD	15	10, 15, 20, 25, 30, 40, 50
n78	TDD	30	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100



4.2 General LTE SAR Test and Reporting Considerations

Summarized necessary items addressed in KDB 941225 D05 v02r05																																																															
FCC ID	IHDT56AR7																																																														
Equipment Name	Mobile Cellular Phone																																																														
Operating Frequency Range of each LTE transmission band	LTE Band 2: 1850 MHz ~ 1910 MHz LTE Band 4: 1710 MHz ~ 1755 MHz LTE Band 5: 824 MHz ~ 849 MHz LTE Band 7: 2500 MHz ~ 2570 MHz LTE Band 12: 699 MHz ~ 716 MHz LTE Band 13: 777 MHz ~ 787 MHz LTE Band 14: 788 MHz ~ 798 MHz LTE Band 17: 704 MHz ~ 716 MHz LTE Band 25: 1850 MHz ~ 1915 MHz LTE Band 26: 814 MHz ~ 849 MHz LTE Band 30: 2305 MHz ~ 2315 MHz LTE Band 38: 2570 MHz ~ 2620 MHz LTE Band 41: 2496 MHz ~ 2690 MHz LTE Band 48: 3550 MHz ~ 3700 MHz LTE Band 66: 1710 MHz ~ 1780 MHz LTE Band 71: 663 MHz ~ 698 MHz																																																														
Channel Bandwidth	LTE Band 2: 1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz LTE Band 4: 1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz LTE Band 5: 1.4MHz, 3MHz, 5MHz, 10MHz LTE Band 7: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 12: 1.4MHz, 3MHz, 5MHz, 10MHz LTE Band 13: 5MHz, 10MHz LTE Band 14: 5MHz, 10MHz LTE Band 17: 5MHz, 10MHz LTE Band 25: 1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz LTE Band 26: 1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz LTE Band 30: 5MHz, 10MHz LTE Band 38: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 41: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 48: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 66: 1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz LTE Band 71: 5MHz, 10MHz, 15MHz, 20MHz																																																														
uplink modulations used	QPSK / 16QAM / 64QAM / 256QAM																																																														
LTE Voice / Data requirements	Voice and Data																																																														
LTE Release Version	R15, Cat18																																																														
CA Support	Supported, Uplink and Downlink																																																														
LTE MPR permanently built-in by design	<p>Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 1, 2 and 3</p> <table border="1"> <thead> <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> </thead> <tbody> <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" style="text-align: center;">≥ 1</td> <td>≤ 5</td> </tr> </tbody> </table>	Modulation	Channel bandwidth / Transmission bandwidth (N _{RB})						MPR (dB)	1.4 MHz	3.0 MHz	5 MHz	10 MHz	15 MHz	20 MHz	QPSK	> 5	> 4	> 8	> 12	> 16	> 18	≤ 1	16 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 1	16 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 2	64 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 2	64 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 3	256 QAM	≥ 1						≤ 5
Modulation	Channel bandwidth / Transmission bandwidth (N _{RB})						MPR (dB)																																																								
	1.4 MHz	3.0 MHz	5 MHz	10 MHz	15 MHz	20 MHz																																																									
QPSK	> 5	> 4	> 8	> 12	> 16	> 18	≤ 1																																																								
16 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 1																																																								
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64 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 2																																																								
64 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 3																																																								
256 QAM	≥ 1						≤ 5																																																								
LTE A-MPR	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)																																																														
Spectrum plots for RB configuration	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.																																																														
Power reduction applied to satisfy SAR compliance	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.																																																														
LTE Carrier Aggregation Combinations	Inter-Band and Intra-Band possible combinations and the detail power verification please referred to section 14.																																																														
LTE Carrier Aggregation Additional Information	1. This device supports LTE Carrier Aggregation (CA) in the uplink for intra-band and inter-band with two component carriers in the uplink. SAR Measurements and conducted powers were evaluated per FCC Guidance. 2. This device supports maximum of 3 carriers in the downlink and 2 carriers in the uplink.																																																														



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		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	20407	824.7	20415	825.5	20425	826.5	20450	829	20450	829	20450	829	
M	20525	836.5	20525	836.5	20525	836.5	20525	836.5	20525	836.5	20525	836.5	
H	20643	848.3	20635	847.5	20625	846.5	20600	844	20600	844	20600	844	
LTE Band 7													
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 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	20775	2502.5	20800	2505	20825	2507.5	20850	2510	20850	2510	20850	2510	
M	21100	2535	21100	2535	21100	2535	21100	2535	21100	2535	21100	2535	
H	21425	2567.5	21400	2565	21375	2562.5	21350	2560	21350	2560	21350	2560	
LTE Band 12													
	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	23017	699.7	23025	700.5	23035	701.5	23060	704	23060	704	23060	704	
M	23095	707.5	23095	707.5	23095	707.5	23095	707.5	23095	707.5	23095	707.5	
H	23173	715.3	23165	714.5	23155	713.5	23130	711	23130	711	23130	711	
LTE Band 13													
	Bandwidth 5 MHz				Bandwidth 10 MHz				Bandwidth 15 MHz				Bandwidth 20 MHz
	Channel #		Freq.(MHz)		Channel #		Freq.(MHz)		Channel #		Freq.(MHz)		Channel #
L	23205		779.5		23230		782		23230		782		23230
M	23230		782		23230		782		23230		782		23230
H	23255		784.5		23230		782		23230		782		23230
LTE Band 14													
	Bandwidth 5 MHz				Bandwidth 10 MHz				Bandwidth 15 MHz				Bandwidth 20 MHz
	Channel #		Channel #		Channel #		Freq.(MHz)		Channel #		Freq.(MHz)		Channel #
L	23305		790.5		23330		793		23330		793		23330
M	23330		793		23330		793		23330		793		23330
H	23355		795.5		23330		793		23330		793		23330
LTE Band 17													
	Bandwidth 5 MHz				Bandwidth 10 MHz				Bandwidth 15 MHz				Bandwidth 20 MHz
	Channel #		Freq.(MHz)		Channel #		Freq. (MHz)		Channel #		Freq. (MHz)		Channel #
L	23755		706.5		23780		709		23780		709		23780
M	23790		710		23790		710		23790		710		23790
H	23825		713.5		23800		711		23800		711		23800
LTE Band 25													
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz		
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	
L	26047	1850.7	26055	1851.5	26065	1852.5	26090	1855	26115	1857.5	26140	1860	
M	26340	1880	26340	1880	26340	1880	26340	1880	26340	1880	26340	1880	
H	26683	1914.3	26675	1913.5	26665	1912.5	26640	1910	26615	1907.5	26590	1905	
LTE Band 26													
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz		
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	
L	26697	814.7	26705	815.5	26715	816.5	26740	819	26765	821.5	26790	824.5	
M	26865	831.5	26865	831.5	26865	831.5	26865	831.5	26865	831.5	26865	831.5	
H	27033	848.3	27025	847.5	27015	846.5	26990	844	26965	841.5	26940	838.5	



LTE Band 30																
	Bandwidth 5 MHz				Bandwidth 10 MHz				Bandwidth 15 MHz				Bandwidth 20 MHz			
	Channel #		Freq.(MHz)		Channel #		Freq.(MHz)		Channel #		Freq.(MHz)		Channel #		Freq.(MHz)	
L	27685		2307.5		27710		2310		27710		2310					
M	27710		2310													
H	27735		2312.5													
LTE Band 38																
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 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	37775	2572.5	37800	2575	37825	2577.5	37850	2580	37825	2577.5	37850	2580				
M	38000	2595	38000	2595	38000	2595	38000	2595	38000	2595	38000	2595				
H	38225	2617.5	38200	2615	38175	2612.5	38150	2610	38175	2612.5	38150	2610				
LTE Band 41																
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 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	39675	2498.5	39700	2501	39725	2503.5	39750	2506	39725	2503.5	39750	2506				
LM	40148	2545.8	40160	2547	40173	2548.3	40185	2549.5	40173	2548.3	40185	2549.5				
M	40620	2593	40620	2593	40620	2593	40620	2593	40620	2593	40620	2593				
HM	41093	2640.3	41080	2639	41068	2637.8	41055	2636.5	41068	2637.8	41055	2636.5				
H	41565	2687.5	41540	2685	41515	2682.5	41490	2680	41515	2682.5	41490	2680				
LTE Band 66																
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz					
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)				
L	131979	1710.7	131987	1711.5	131997	1712.5	132022	1715	132047	1717.5	132072	1720				
M	132322	1745	132322	1745	132322	1745	132322	1745	132322	1745	132322	1745				
H	132665	1779.3	132657	1778.5	132647	1777.5	132622	1775	132597	1772.5	132572	1770				
LTE Band 71																
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz		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	133147	665.5	133172	668	133197	670.5	133222	673	133197	670.5	133222	673				
M	133247	675.5	133272	678	133297	680.5	133322	683	133297	680.5	133322	683				
H	133447	695.5	133422	693	133397	690.5	133372	688	133397	690.5	133372	688				
LTE Band 48																
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 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	55265	3552.5	55290	3555	55315	3557.5	55340	3560	55315	3557.5	55340	3560				
LM	55810	3607	55815	3607.5	55820	3608	55830	3609	55820	3608	55830	3609				
MH	56170	3643	56165	3642.5	56160	3642	56150	3641	56160	3642	56150	3641				
H	56715	3697.5	56690	3695	56665	3692.5	56640	3690	56665	3692.5	56640	3690				

<For LTE Overlap Bands Description>

1) LTE Bands BW

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



2) LTE Bands tune up:

3) Band	Antenna	Head	Body-worn open	Hotspot open	Extremity open	Body-worn close	Hotspot close	Sensor Off	Default
		ECI 2	ECI 3	ECI 9	ECI 6	ECI 5	ECI 10	ECI4	Tune-up Limit
		Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	
LTE Band 2	Ant 0	24	21.9	20.1	23.4	19.5	19.6	24	24
LTE Band 25	Ant 0	24	21.9	20.1	23.4	19.5	19.6	24	24
LTE Band 4	Ant 0	24	22	22.5	23.9	21.3	17.3	24	24
LTE Band 66	Ant 0	24	22	22.5	23.9	21.3	17.3	24	24
LTE Band 5	Ant 0	23	23	23	23	22.3	21.3	23	23
LTE Band 26	Ant 0	23	23	23	23	22.3	21.3	23	23
LTE Band 12	Ant 0	23	23	23	23	23	23	23	23
LTE Band 17	Ant 0	23	23	23	23	23	23	23	23
LTE Band 38	Ant 0	25	23.2	22.6	25	23.9	22.8	25	25
LTE Band 41	Ant 0	25	23.2	22.6	25	23.9	22.8	25	25
LTE Band 41 HPUE	Ant 0	28	24.8	24.2	28	25.5	24.4	28	28

Band	Antenna	Head	Body-worn open	Hotspot open	Extremity open	Body-worn close	Hotspot close	Sensor Off	Default
		ECI 2	ECI 3	ECI 9	ECI 6	ECI 5	ECI 10	ECI4	Tune-up Limit
		Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	
LTE Band 2	Ant 1	24	20.7	19.5	23	19.7	18.2	24	24
LTE Band 25	Ant 1	24	20.7	19.5	23	19.7	18.2	24	24
LTE Band 4	Ant 1	24	21.1	19.8	23	19.9	17.8	24	24
LTE Band 66	Ant 1	24	21.1	19.8	23	19.9	17.8	24	24
LTE Band 5	Ant 1	23	23	23	23	23	23	23	23
LTE Band 26	Ant 1	23	23	23	23	23	23	23	23
LTE Band 12	Ant 1	23	23	23	23	23	23	23	23
LTE Band 17	Ant 1	23	23	23	23	23	23	23	23
LTE Band 38	Ant 1	25	22.1	20.9	25	23.6	20.4	25	25
LTE Band 41	Ant 1	25	22.1	20.9	25	23.6	20.4	25	25
LTE Band 41 HPUE	Ant 1	27	23.7	22.5	27	25.2	22	27	27

Band	Antenna	Head	Body-worn open	Hotspot open	Extremity open	Body-worn close	Hotspot close	Sensor Off	Default
		ECI 2	ECI 3	ECI 9	ECI 6	ECI 5	ECI 10	ECI4	Tune-up Limit
		Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	
LTE Band 2	Ant 2	12.1	16.4	13.1	20.2	16.4	13.3	24	24
LTE Band 25	Ant 2	12.1	16.4	13.1	20.2	16.4	13.3	24	24
LTE Band 4	Ant 2	13.5	16.2	11.3	19.7	19.2	13.8	24	24
LTE Band 66	Ant 2	13.5	16.2	11.3	19.7	19.2	13.8	24	24
LTE Band 38	Ant 2	15.5	18.9	17.3	23	20.8	16.2	25	25
LTE Band 41	Ant 2	15.5	18.9	17.3	23	20.8	16.2	25	25
LTE Band 41 HPUE	Ant 2	17.1	20.5	18.9	24.6	22.4	17.8	28	28



Band	Antenna	Head	Body-worn open	Hotspot open	Extremity open	Body-worn close	Hotspot close	Sensor Off	Default
		ECI 2	ECI 3	ECI 9	ECI 6	ECI 5	ECI 10	ECI4	Tune-up Limit
		Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	
LTE Band 2	Ant 3	16.7	20.2	18.1	21.8	22.6	19.5	24	24
LTE Band 25	Ant 3	16.7	20.2	18.1	21.8	22.6	19.5	24	24
LTE Band 4	Ant 3	15.5	20.3	18.3	20.6	24	21.2	24	24
LTE Band 66	Ant 3	15.5	20.3	18.3	20.6	24	21.2	24	24
LTE Band 38	Ant 3	18.7	21.4	16.9	22.2	22.9	18.8	24	24
LTE Band 41	Ant 3	18.7	21.4	16.9	22.2	22.9	18.8	24	24
LTE Band 41 HPUE	Ant 3	20.3	23	18.5	23.8	24.5	20.4	27	27

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

4.3 General 5G NR SAR Test and Reporting Considerations

5G NR Information	
Operating Frequency Range of each 5G NR transmission band	5G NR n2 : 1850 MHz ~ 1910 MHz 5G NR n5: 824 MHz ~ 849 MHz 5G NR n7: 2500 MHz ~ 2570 MHz 5G NR n12 : 699 MHz ~ 716 MHz 5G NR n14 : 788 MHz ~ 798 MHz 5G NR n25 : 1850 MHz ~ 1915 MHz 5G NR n26 : 814 MHz ~ 849 MHz 5G NR n30 : 2305 MHz ~ 2315 MHz 5G NR n66: 1710 MHz ~ 1780 MHz 5G NR n70 : 1695 MHz ~ 1710 MHz 5G NR n71 : 663 MHz ~ 698 MHz 5G NR 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 5G NR 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 n2	LTE B4/5/7/12/13/14/17/30/48/66/71
LTE Anchor Bands for n5	LTE B2/4/7/30/48/66
LTE Anchor Bands for n7	LTE B2/4/5/12/66
LTE Anchor Bands for n12	LTE B2/7/66
LTE Anchor Bands for n25	LTE B7/12/26/66
LTE Anchor Bands for n26	LTE B7
LTE Anchor Bands for n38	LTE B4/5/12/66/71
LTE Anchor Bands for n41	LTE B2/4/5/12/25/26/66/71
LTE Anchor Bands for n48	LTE B71
LTE Anchor Bands for n66	LTE B2/5/7/12/13/14/25/30/48/71
LTE Anchor Bands for n71	LTE B2/7/48/66
LTE Anchor Bands for n77	LTE B2/5/7/12/13/14/25/26/30/41/66
LTE Anchor Bands for n78	LTE B2/4/5/7/12/13/25/26/38/41/66/71

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)	Freq. (MHz)
L	165300	826.5	165800	829	166300	831.5	166800	834	834
M	167300	836.5	167300	836.5	167300	836.5	167300	836.5	836.5
H	169300	846.5	168800	844	168300	841.5	167800	839	839

NR Band 5 SCS30KHz							
	Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Freq. (MHz)
L	165800	829	166300	831.5	166800	834	834
M	167300	836.5	167300	836.5	167300	836.5	836.5
H	168800	844	168300	841.5	167800	839	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 12 SCS15KHz						
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	140300	701.5	140800	704	141300	706.5
M	141500	707.5	141500	707.5	141500	707.5
H	142700	713.5	142200	711	141700	708.5

NR Band 12 SCS30KHz				
	Bandwidth 10MHz		Bandwidth 15MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	140800	704	141300	706.5
M	141500	707.5	141500	707.5
H	142200	711	141700	708.5

NR Band 14 SCS15KHz				
	Bandwidth 5MHz		Bandwidth 10MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	158100	790.5	158600	793
M	158600	793		
H	159100	795.5		

NR Band 14 SCS30KHz		
	Bandwidth 10MHz	
	Ch. #	Freq. (MHz)
L	158600	793
M		
H		

NR Band 25 SCS15KHz																
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 35MHz		Bandwidth 40MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	370500	1852.5	371000	1855	371500	1857.5	372000	1860	372500	1862.5	373000	1865	373500	1867.5	374000	1870
M	376500	1882.5	376500	1882.5	376500	1882.5	376500	1882.5	376500	1882.5	376500	1882.5	376500	1882.5	376500	1882.5
H	382500	1912.5	382000	1910	381500	1907.5	381000	1905	380500	1902.5	380000	1900	379500	1897.5	379000	1895

NR Band 25 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	376500	1882.5	376500	1882.5	376500	1882.5	376500	1882.5	376500	1882.5	376500	1882.5	376500	1882.5
H	382000	1910	381500	1907.5	381000	1905	380500	1902.5	380000	1900	379500	1897.5	379000	1895

NR Band 26 SCS15KHz									
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	
L	163300	816.5	163800	819	164300	821.5	164800	824	
M	166300	831.5	166300	831.5	166300	831.5	166300	831.5	
H	169300	846.5	168800	844	168300	841.5	167800	839	



NR Band 26 SCS30KHz						
	Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	163800	819	164300	821.5	164800	824
M	166300	831.5	166300	831.5	166300	831.5
H	168800	844	168300	841.5	167800	839

NR Band 30 SCS15KHz				
	Bandwidth 5MHz		Bandwidth 10MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	461500	2307.5	462000	2310
M	462000	2310		
H	462500	2312.5		

NR Band 30 SCS30KHz		
	Bandwidth 10MHz	
	Ch. #	Freq. (MHz)
L	462000	2310
M		
H		

NR Band 66 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	342500	1712.5	343000	1715	343500	1717.5	344000	1720	344500	1722.5	345000	1725	345500	1727.5	346000	1730
M	349000	1745	349000	1745	349000	1745	349000	1745	349000	1745	349000	1745	349000	1745	349000	1745
H	355500	1777.5	355000	1775	354500	1772.5	354000	1770	353500	1767.5	353000	1765	352500	1762.5	352000	1760

NR Band 66 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	343000	1715	343500	1717.5	344000	1720	344500	1722.5	345000	1725	345500	1727.5	346000	1730
M	349000	1745	349000	1745	349000	1745	349000	1745	349000	1745	349000	1745	349000	1745
H	355000	1775	354500	1772.5	354000	1770	353500	1767.5	353000	1765	352500	1762.5	352000	1760

NR Band 70 SCS15KHz						
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	339500	1697.5	340000	1700	340500	1702.5
M	340500	1702.5	340500	1702.5		
H	341500	1707.5	341000	1705		

NR Band 70 SCS30KHz					
	Bandwidth 10MHz			Bandwidth 15MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Freq. (MHz)
L	340000	1700	340500	1702.5	1702.5
M	340500	1702.5			
H	341000	1705			

NR Band 71 SCS15KHz								
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	133100	665.5	133600	668	134100	670.5	134600	673
M	136100	680.5	136100	680.5	136100	680.5	136100	680.5
H	139100	695.5	138600	693	138100	690.5	137600	688

NR Band 71 SCS30KHz						
	Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	133600	668	134100	670.5	134600	673
M	136100	680.5	136100	680.5	136100	680.5
H	138600	693	138100	690.5	137600	688



NR Band 38 SCS15KHz														
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 40MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	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												
	Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 40MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
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 5MHz		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)	Ch. #	Freq. (MHz)
L	500502	2502.51	500202	2501.01	500700	2503.5	501204	2506.02	501702	2508.51	500502	2502.51	500202	2501.01	500700	2503.5	501204	2506.02	501702	2508.51
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
H	537000	2685	537000	2685	536496	2682.48	535998	2679.99	535500	2677.5	537000	2685	537000	2685	536496	2682.48	535998	2679.99	535500	2677.5

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	531000	2655	529998	2649.99	528996	2644.98	528000	2640

NR Band 48 SCS15KHz												
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 30MHz		Bandwidth 40MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	636834	3552.51	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	641666	3624.99
H	646500	3697.5	646332	3694.98	646166	3692.49	646000	3690	645666	3684.99	645332	3679.98

NR Band 48 SCS30KHz										
	Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 30MHz		Bandwidth 40MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
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	656000	3840	656000	3840	656000	3840
H	665000	3975	664834	3972.51	664666	3970.02	664500	3967.5	664332	3965.01	664000	3960	663668	3955.02

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	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840
H	665000	3975	664834	3972.51	664666	3970.02	664500	3967.5	664332	3965.01	664000	3960	663668	3955.02	663332	3950.01	663000	3945	662666	3940.02	662332	3935.01	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	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

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	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750	650000
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	636332	3544.98	636166	3542.49	636000	3540	635832	3537.48	635666	3534.99	635332	3529.98	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	633334
H	636332	3544.98	636166	3542.49	636000	3540	635832	3537.48	635666	3534.99	635332	3529.98	635000	3525	634666	3519.99	634332	3514.98	634000	3510	633666	3504.99			

NR Band 78 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	636332	3544.98	636166	3542.49	636000	3540	635832	3537.48	635666	3534.99	635332	3529.98	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	633334
H	636332	3544.98	636166	3542.49	636000	3540	635832	3537.48	635666	3534.99	635332	3529.98	635000	3525	634668	3520.02	634334	3515.01	634000	3510	633668	3505.02			



<For NR Overlap Bands Description>

1) NR Bands BW

Band	Duplex	SCS(KHz)	Bandwidths(BW)
n2	FDD	15	5, 10, 15, 20, 25, 30, 35, 40
n2	FDD	30	10, 15, 20, 25, 30, 35, 40
n5	FDD	15	5, 10, 15, 20
n5	FDD	30	10, 15, 20
n25	FDD	15	5, 10, 15, 20, 25, 30, 35, 40
n25	FDD	30	10, 15, 20, 25, 30, 35, 40
n26	FDD	15	5, 10, 15, 20
n26	FDD	30	10, 15, 20
n38	TDD	15	5, 10, 15, 20, 25, 30, 40
n38	TDD	30	10, 15, 20, 25, 30, 40
n41	TDD	15	5, 10, 15, 20, 25, 30, 35, 40, 45, 50
n41	TDD	30	10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 80, 90, 100
n77	TDD	15	10, 15, 20, 25, 30, 40, 50
n77	TDD	30	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100
n78	TDD	15	10, 15, 20, 25, 30, 40, 50
n78	TDD	30	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100

2) NR Bands Tune up:

Band	Antenna	Head	Body-worn open	Hotspot open	Extremity open	Body-worn close	Hotspot close	Sensor Off	Default
		ECI 2	ECI 3	ECI 9	ECI 6	ECI 5	ECI 10	ECI4	Tune-up Limit
		Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit
5G NR n2	Ant 0	24	22.1	21.3	24	21.8	20.3	24	24
5G NR n25	Ant 0	24	22.1	21.3	24	21.8	20.3	24	24
5G NR n5	Ant 0	24	24	24	24	24	23.1	24	24
5G NR n26	Ant 0	24	24	24	24	24	23.1	24	24
5G NR n38	Ant 0	24	21.3	21.5	24	20.8	19.7	24	24
5G NR n41 HPUE	Ant 0	26	21.3	21.5	26	20.8	19.7	26	26

Band	Antenna	Head	Body-worn open	Hotspot open	Extremity open	Body-worn close	Hotspot close	Sensor Off	Default
		ECI 2	ECI 3	ECI 9	ECI 6	ECI 5	ECI 10	ECI4	Tune-up Limit
		Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit
5G NR n2	Ant 1	24	24	24	24	21	19.2	24	24
5G NR n25	Ant 1	24	24	24	24	21	19.2	24	24
5G NR n5	Ant 1	24	24	24	24	24	24	24	24
5G NR n26	Ant 1	24	24	24	24	24	24	24	24
5G NR n38	Ant 1	24	20.6	20.3	24	22.1	19.3	24	24
5G NR n41 HPUE	Ant 1	26	20.6	20.3	26	22.1	19.3	26	26

Band	Antenna	Head	Body-worn open	Hotspot open	Extremity open	Body-worn close	Hotspot close	Sensor Off	Default
		ECI 2	ECI 3	ECI 9	ECI 6	ECI 5	ECI 10	ECI4	Tune-up Limit
		Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit
5G NR n2	Ant 2	15.3	17.8	13.6	21.1	18.9	13.7	24	24
5G NR n25	Ant 2	15.3	17.8	13.6	21.1	18.9	13.7	24	24
5G NR n38	Ant 2	15.8	19	14.7	21.6	19.1	14.7	24	24
5G NR n41	Ant 2	15.8	19	14.7	21.6	19.1	14.7	24	24
5G NR n41 HPUE	Ant 2	15.8	19	14.7	21.6	19.1	14.7	27	27



Band	Antenna	Head	Body-worn open	Hotspot open	Extremity open	Body-worn close	Hotspot close	Sensor Off	Default
		ECI 2	ECI 3	ECI 9	ECI 6	ECI 5	ECI 10	ECI4	Tune-up Limit
		Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	
5G NR n2	Ant 3	17.9	21.1	18.1	23.6	22.7	22.8	24	24
5G NR n25	Ant 3	17.9	21.1	18.1	23.6	22.7	22.8	24	24
5G NR n25 other Path	Ant 3	17.9	21.1	18.1	23.6	22.7	22.8	24	24
5G NR n38	Ant 3	16.8	20.7	16.1	20.1	20.2	16.1	24	24
5G NR n41 HPUE	Ant 3	16.8	20.7	16.1	20.1	20.2	16.1	25	25
5G NR n77	Ant 3	16.6	19.7	13.8	22.3	19.9	15.9	24	24
5G NR n78	Ant 3	16.6	19.7	13.8	22.3	19.9	15.9	24	24
5G NR n77 HPUE	Ant 3	16.6	19.7	13.8	22.3	19.9	15.9	27	27
5G NR n78 HPUE	Ant 3	16.6	19.7	13.8	22.3	19.9	15.9	27	27

Band	Antenna	Head	Body-worn open	Hotspot open	Extremity open	Body-worn close	Hotspot close	Sensor Off	Default
		ECI 2	ECI 3	ECI 9	ECI 6	ECI 5	ECI 10	ECI4	Tune-up Limit
		Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	
5G NR n77	Ant 4	16.2	19.3	13.8	19.1	21	13.3	24	24
5G NR n78	Ant 4	16.2	19.3	13.8	19.1	21	13.3	24	24
5G NR n77 HPUE	Ant 4	16.2	19.3	13.8	19.1	21	13.3	27	27
5G NR n78 HPUE	Ant 4	16.2	19.3	13.8	19.1	21	13.3	27	27

Band	Antenna	Head	Body-worn open	Hotspot open	Extremity open	Body-worn close	Hotspot close	Sensor Off	Default
		ECI 2	ECI 3	ECI 9	ECI 6	ECI 5	ECI 10	ECI4	Tune-up Limit
		Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	
5G NR n77	Ant 6	13.6	17.5	14.4	19.9	18.1	14.2	22	22
5G NR n78	Ant 6	13.6	17.5	14.4	19.9	18.1	14.2	22	22
5G NR n77 HPUE	Ant 6	13.6	17.5	14.4	19.9	18.1	14.2	25	25
5G NR n78 HPUE	Ant 6	13.6	17.5	14.4	19.9	18.1	14.2	25	25
5G NR n77 other Path	Ant 6	15.3	19.3	14.1	21.1	19.2	14.2	24	24
5G NR n78 other Path	Ant 6	15.3	19.3	14.1	21.1	19.2	14.2	24	24
5G NR n77 HPUE other Path	Ant 6	15.3	19.3	14.1	21.1	19.2	14.2	27	27
5G NR n78 HPUE other Path	Ant 6	15.3	19.3	14.1	21.1	19.2	14.2	27	27

Band	Antenna	Head	Body-worn open	Hotspot open	Extremity open	Body-worn close	Hotspot close	Sensor Off	Default
		ECI 2	ECI 3	ECI 9	ECI 6	ECI 5	ECI 10	ECI4	Tune-up Limit
		Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	
5G NR n77	Ant 8	17.3	17.5	14	19.1	20.6	15.5	22	22
5G NR n78	Ant 8	17.3	17.5	14	19.1	20.6	15.5	22	22
5G NR n77 HPUE	Ant 8	17.3	17.5	14	19.1	20.6	15.5	25	25
5G NR n78 HPUE	Ant 8	17.3	17.5	14	19.1	20.6	15.5	25	25

5. TA-SAR feature for RF Exposure compliance

WWAN bands and mmWave 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 P_{limit} 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) P_{limit} 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.

<SAR design target and uncertainty>

Item	Uncertainty dB (k=2)
Total uncertainty	1.5

To account for total uncertainty, SAR_{design_target} should be determined as:

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



The 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.

<Plimit for supported technologies and bands>

Band	Antenna	Head ECI 2	Head Pmax	Body-worn open ECI 3	Hotspot open ECI 9	Extremity open ECI 6	Body-Worn close ECI 5	Hotspot close ECI 10	Sensor off ECI 4	Pmax
GSM850	Ant 0	30.4	25.0	25.5	25.5	25.0	25.5	24.4	25.0	25.0
GSM850	Ant 1	35.2	25.0	26.6	26.1	25.0	28.4	26.8	25.0	25.0
GSM1900	Ant 0	34.3	21.0	23.4	20.1	21.0	23.6	21.8	21.0	21.0
GSM1900	Ant 2	15	22.0	19.9	13.9	23.6	19.1	14.3	22.0	22.0
WCDMA II	Ant 0	33.4	22.0	18.3	16.0	23.2	19.5	17.1	22.0	22.0
WCDMA II	Ant 1	31.5	22.0	17.3	17.3	21.4	18.3	16.2	22.0	22.0
WCDMA II	Ant 2	14.9	23.0	17.5	13.9	20.8	18.5	12.9	23.0	23.0
WCDMA II	Ant 3	15.1	21.0	16.9	16.3	19.7	19.0	16.4	21.0	21.0
WCDMA IV	Ant 0	52.3	22.0	21.7	18.7	23.8	20.6	17.4	22.0	22.0
WCDMA IV	Ant 1	51.7	22.0	18.1	18.1	22.0	18.2	16.6	22.0	22.0
WCDMA IV	Ant 2	15.6	23.0	16.0	13.5	20.5	20.6	15.1	23.0	23.0
WCDMA IV	Ant 3	15.7	21.0	18.9	14.9	20.0	23.0	17.1	21.0	21.0
WCDMA V	Ant 0	31.3	24.0	24.7	24.7	24.0	23.9	22.7	24.0	24.0
WCDMA V	Ant 1	37.8	24.0	27.9	26.5	24.0	26.1	24.6	24.0	24.0
LTE Band 25(2)	Ant 0	31.4	23.0	20.9	19.1	22.4	18.5	18.6	23.0	23.0
LTE Band 25(2)	Ant 1	33	23.0	19.7	18.5	22.0	18.7	17.2	23.0	23.0
LTE Band 25(2)	Ant 2	11.1	23.0	15.4	12.1	19.2	15.4	12.3	23.0	23.0
LTE Band 25(2)	Ant 3	15.7	23.0	19.2	17.1	20.8	21.6	18.5	23.0	23.0
LTE Band 66(4)	Ant 0	34.3	23.0	21.0	21.5	22.9	20.3	16.3	23.0	23.0
LTE Band 66(4)	Ant 1	31	23.0	20.1	18.8	22.0	18.9	16.8	23.0	23.0
LTE Band 66(4)	Ant 2	12.5	23.0	15.2	10.3	18.7	18.2	12.8	23.0	23.0
LTE Band 66(4)	Ant 3	14.5	23.0	19.3	17.3	19.6	23.3	20.2	23.0	23.0
LTE Band 26(5)	Ant 0	27	22.0	22.2	22.2	25.3	21.3	20.3	22.0	22.0
LTE Band 26(5)	Ant 1	34.1	22.0	23.8	22.7	22.0	23.5	22.0	22.0	22.0
LTE Band 7	Ant 0	25.8	24.0	21.2	20.8	22.7	20.2	19.6	24.0	24.0
LTE Band 7	Ant 1	33.6	23.0	21.0	20.5	22.8	20.0	17.7	23.0	23.0
LTE Band 7	Ant 2	14.4	24.0	17.0	14.0	20.2	18.5	13.2	24.0	24.0
LTE Band 7	Ant 3	15.3	24.0	18.6	14.2	18.9	20.1	15.8	24.0	24.0
LTE Band 12(17)	Ant 0	27.3	22.0	24.0	23.3	25.7	22.4	22.2	22.0	22.0
LTE Band 12(17)	Ant 1	32.3	22.0	23.4	22.0	22.0	24.6	23.1	22.0	22.0
LTE Band 13	Ant 0	27.6	22.0	23.2	23.2	26.2	22.4	21.7	22.0	22.0
LTE Band 13	Ant 1	32.8	22.0	24.6	23.8	22.0	24.2	22.7	22.0	22.0
LTE Band 14	Ant 0	27.4	22.0	22.5	22.8	25.9	22.2	22.3	22.0	22.0
LTE Band 14	Ant 1	33.5	22.0	23.5	22.7	22.0	23.6	22.0	22.0	22.0
LTE Band 30	Ant 0	29.5	24.0	21.6	20.5	22.0	21.4	20.1	24.0	24.0
LTE Band 30	Ant 1	34.1	23.0	21.4	20.3	21.4	19.4	18.0	23.0	23.0
LTE Band 30	Ant 2	13.7	23.0	16.6	13.3	20.1	17.3	13.1	23.0	23.0
LTE Band 30	Ant 3	18.5	23.0	19.8	18.3	20.4	19.7	16.9	23.0	23.0
LTE Band 71	Ant 0	27.5	23.0	24.2	23.4	26.5	24.2	22.7	23.0	23.0
LTE Band 71	Ant 1	32.8	22.0	25.4	24.0	22.0	23.9	22.4	22.0	22.0
LTE Band 41(38)	Ant 0	25.4	22.0	20.2	19.6	23.9	20.9	19.8	23.4	22.0
LTE Band 41 HPUE	Ant 0	25.4	23.4	20.2	19.6	23.9	20.9	19.8	23.4	23.4
LTE Band 41(38)	Ant 1	33	22.0	19.1	17.9	25.9	20.6	17.4	22.4	22.0
LTE Band 41 HPUE	Ant 1	33	22.4	19.1	17.9	25.9	20.6	17.4	22.4	22.4
LTE Band 41(38)	Ant 2	12.5	22.0	15.9	14.3	20.0	17.8	13.2	23.4	22.0
LTE Band 41 HPUE	Ant 2	12.5	23.4	15.9	14.3	20.0	17.8	13.2	23.4	23.4
LTE Band 41(38)	Ant 3	15.7	21.0	18.4	13.9	19.2	19.9	15.8	22.4	21.0



LTE Band 41 HPUE	Ant 3	15.7	22.4	18.4	13.9	19.2	19.9	15.8	22.4	22.4
LTE Band 48	Ant 3	14.8	21.0	18.9	13.4	20.7	21.3	14.9	21.0	21.0
LTE Band 48	Ant 4	14.8	21.0	16.3	10.7	15.8	17.8	9.8	21.0	21.0
LTE Band 48	Ant 6	14.3	21.0	14.7	10.7	19.5	17.5	15.8	21.0	21.0
LTE Band 48	Ant 8	16.9	21.0	17.3	13.7	20.4	20.6	18.4	21.0	21.0
FR1 n25(2)	Ant 0	33.5	23.0	21.1	20.3	23.7	20.8	19.3	23.0	23.0
FR1 n25(2)	Ant 1	34.6	23.0	25.2	24.2	23.0	20.0	18.2	23.0	23.0
FR1 n25(2)	Ant 2	14.3	23.0	16.8	12.6	20.1	17.9	12.7	23.0	23.0
FR1 n25(2)	Ant 3	16.9	23.0	20.1	17.1	22.6	21.7	21.8	23.0	23.0
FR1 n25(2) other Path	Ant 3	16.9	23.0	20.1	17.1	22.6	21.7	21.8	23.0	23.0
FR1 n26(5)	Ant 0	30.1	23.0	24.5	24.5	23.0	23.1	22.1	23.0	23.0
FR1 n26(5)	Ant 1	33.7	23.0	26.6	26.1	23.0	24.4	23.1	23.0	23.0
FR1 n7	Ant 0	27.6	23.0	20.7	20.3	24.5	20.1	19.0	23.0	23.0
FR1 n7	Ant 1	35.2	23.0	21.9	20.8	23.6	20.7	19.8	23.0	23.0
FR1 n7	Ant 2	15.8	23.0	19.0	14.7	21.6	18.8	15.0	23.0	23.0
FR1 n7	Ant 3	15.4	23.0	18.9	14.4	18.3	20.7	16.8	23.0	23.0
FR1 n7 other Path	Ant 3	15.4	23.0	18.9	14.4	18.3	20.7	16.8	23.0	23.0
FR1 n12	Ant 0	36.5	23.0	32.6	32.6	23.0	23.8	22.3	23.0	23.0
FR1 n12	Ant 1	35.3	23.0	26.2	25.0	23.0	25.6	24.0	23.0	23.0
FR1 n14	Ant 0	30.3	23.0	25.1	25.1	23.0	23.7	22.8	23.0	23.0
FR1 n14	Ant 1	35	23.0	26.4	25.5	23.0	24.4	23.1	23.0	23.0
FR1 n30	Ant 0	30.5	23.0	22.2	22.3	24.9	22.3	20.6	23.0	23.0
FR1 n30	Ant 1	36	23.0	22.3	20.1	22.4	20.3	16.8	23.0	23.0
FR1 n30	Ant 2	16.3	23.0	18.8	14.5	21.5	18.4	14.0	23.0	23.0
FR1 n30	Ant 3	17	23.0	21.2	18.3	20.9	21.2	18.7	23.0	23.0
FR1 n66	Ant 0	35.6	23.0	22.8	19.4	23.1	20.2	18.1	23.0	23.0
FR1 n66	Ant 1	33	23.0	22.5	21.9	24.6	21.0	16.6	23.0	23.0
FR1 n66	Ant 2	15.1	23.0	18.3	13.4	20.9	19.8	14.6	23.0	23.0
FR1 n66	Ant 3	17.5	23.0	20.6	16.8	21.9	24.4	19.9	23.0	23.0
FR1 n66 other Path	Ant 3	17.5	23.0	20.6	16.8	21.9	24.4	19.9	23.0	23.0
FR1 n70	Ant 0	36.6	23.0	22.1	19.2	23.7	20.0	17.4	23.0	23.0
FR1 n70	Ant 1	35	23.0	23.3	22.0	24.9	21.0	20.1	23.0	23.0
FR1 n70	Ant 2	15.5	23.0	18.4	14.2	21.0	19.9	14.4	23.0	23.0
FR1 n70	Ant 3	17.9	23.0	22.2	17.3	22.0	22.9	17.6	23.0	23.0
FR1 n71	Ant 0	32.3	23.0	25.8	24.5	23.0	24.2	22.8	23.0	23.0
FR1 n71	Ant 1	35.1	23.0	27.0	25.6	23.0	24.7	22.8	23.0	23.0
FR1 n38	Ant 0	26.8	23.0	20.3	20.5	25.5	19.8	18.7	23.0	23.0
FR1 n41	Ant 0	26.8	22.0	20.3	20.5	25.5	19.8	18.7	25.0	22.0
FR1 n41 HPUE	Ant 0	26.8	25.0	20.3	20.5	25.5	19.8	18.7	25.0	25.0
FR1 n38	Ant 1	33.4	23.0	19.6	19.3	23.0	21.1	18.3	23.0	23.0
FR1 n41	Ant 1	33.4	22.0	19.6	19.3	23.0	21.1	18.3	25.0	22.0
FR1 n41 HPUE	Ant 1	33.4	25.0	19.6	19.3	23.0	21.1	18.3	25.0	25.0
FR1 n41(38)	Ant 2	14.8	23.0	18.0	13.7	20.6	18.1	13.7	26.0	23.0
FR1 n41 HPUE	Ant 2	14.8	26.0	18.0	13.7	20.6	18.1	13.7	26.0	26.0
FR1 n38	Ant 3	15.8	23.0	19.7	15.1	19.1	19.2	15.1	23.0	23.0
FR1 n41	Ant 3	15.8	21.0	19.7	15.1	19.1	19.2	15.1	24.0	21.0
FR1 n41 HPUE	Ant 3	15.8	24.0	19.7	15.1	19.1	19.2	15.1	24.0	24.0
FR1 n41 other Path	Ant 3	15.8	23.0	20.1	15.1	19.4	21.0	15.4	26.0	23.0
FR1 n41 HPUE other Path	Ant 3	15.8	26.0	20.1	15.1	19.4	21.0	15.4	26.0	26.0
FR1 n48	Ant 3	15.7	23.0	20.0	14.3	19.3	21.5	14.7	23.0	23.0
FR1 n48	Ant 4	15.1	24.0	18.2	13.5	18.1	20.2	13.2	24.0	24.0
FR1 n48	Ant 6	14.8	21.0	19.7	15.3	19.9	20.5	16.8	21.0	21.0
FR1 n48 other Path	Ant 6	13.7	23.0	19.0	15.7	20.0	18.1	14.4	23.0	23.0
FR1 n48	Ant 8	16.6	21.0	19.8	15.0	18.7	20.9	15.2	21.0	21.0
FR1 n77(78)	Ant 3	15.6	23.0	18.7	12.8	21.3	18.9	14.9	26.0	23.0
FR1 n77(78)HPUE	Ant 3	15.6	25.0	18.7	12.8	21.3	18.9	14.9	26.0	26.0



FR1 n77(78)	Ant 4	15.2	23.0	18.3	12.8	18.1	20.0	12.3	26.0	23.0
FR1 n77(78)HPUE	Ant 4	15.2	25.0	18.3	12.8	18.1	20.0	12.3	26.0	26.0
FR1 n77(78)	Ant 6	12.6	21.0	16.5	13.4	18.9	17.1	13.2	24.0	21.0
FR1 n77(78)HPUE	Ant 6	12.6	23.0	16.5	13.4	18.9	17.1	13.2	24.0	24.0
FR1 n77(78) other Path	Ant 6	14.3	23.0	18.3	13.1	20.1	18.2	13.2	26.0	23.0
FR1 n77(78)HPUE other Path	Ant 6	14.3	25.0	18.3	13.1	20.1	18.2	13.2	26.0	26.0
FR1 n77(78)	Ant 8	16.3	21.0	16.5	13.0	18.1	19.6	14.5	24.0	21.0
FR1 n77(78)HPUE	Ant 8	16.3	23.0	16.5	13.0	18.1	19.6	14.5	24.0	24.0

Note:

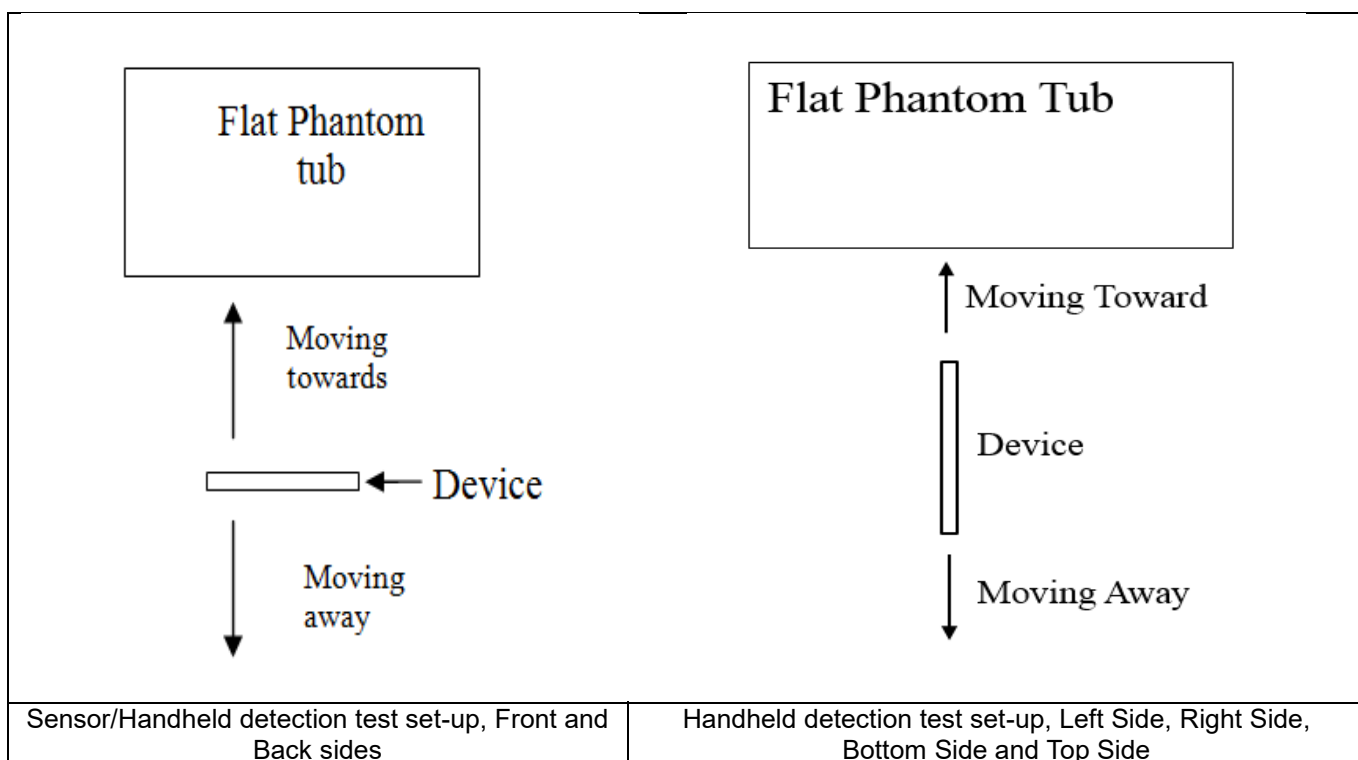
- 1) *P_{max} is used for RF tune up procedure. The maximum allowed output power is equal to P_{max} + 1.0 dB device uncertainty.
- 2) All Plimit power levels entered in the Table correspond to average power levels after accounting for duty cycle in the case TDD modulation schemes (for e.g., GSM & LTE TDD & NR TDD).
- 3) The max allowed output power is the Plimit + 1.0 dB device uncertainty, and if Plimit is higher than P_{max}, the device output power will be P_{max} instead.
- 4) When the user is talking a call-in head scenario and the receiver detect mechanism trigger is earpiece on, the maximum power level for head exposure conditions will be reduced and is less than the full power level.
- 5) The following table is duty cycle and factor used for calculating time average power.

GSM/FDD/TDD	Duty Cycle	Time average calculation factor(dB)
GSM 1TX	12.50%	-9.0
GSM 2TX	25%	-6.0
GSM 3TX	37.50%	-4.3
GSM 4TX	50%	-3.0
FDD LTE	100%	0.0
TDD LTE	63.30%	-2.0
TDD HPUE	43.30%	-3.6
NR FDD/TDD	100%	0.0

6. Proximity Sensor Triggering Test

<Proximity Sensor Triggering Distance>:

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



<Flip-Open Mode> <P-Sensor>

Proximity Sensor Triggering Distance (mm)				
Position	Front		Back	
	Moving towards	Moving away	Moving towards	Moving away
Minimum	16	21	18	24

<Handheld for ANT0>

Proximity Sensor Triggering Distance (mm)						
Position	Back		Left Side		Bottom Side	
	Moving towards	Moving away	Moving towards	Moving away	Moving towards	Moving away
Minimum	14	19	17	22	11	17

<Handheld for ANT 1>

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	11	17	13	19	9	14	14	19

<Handheld for ANT2/4>

Proximity Sensor Triggering Distance (mm)						
Position	Front		Back		Left Side	
	Moving towards	Moving away	Moving towards	Moving away	Moving towards	Moving away
Minimum	17	22	16	21	22	27

<Handheld for ANT3>

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	14	19	13	18	13	18	16	21

<Handheld for ANT 5/6/7/8>

Proximity Sensor Triggering Distance (mm)								
Position	Front		Back		Right Side		Top Side	
	Moving towards	Moving away	Moving towards	Moving away	Moving towards	Moving away	Moving towards	Moving away
Minimum	17	22	14	19	16	21	10	16

<Flip-Close Mode>

<P-Sensor>

Proximity Sensor Triggering Distance (mm)				
Position	Front		Back	
	Moving towards	Moving away	Moving towards	Moving away
Minimum	18	22	17	22

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:

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

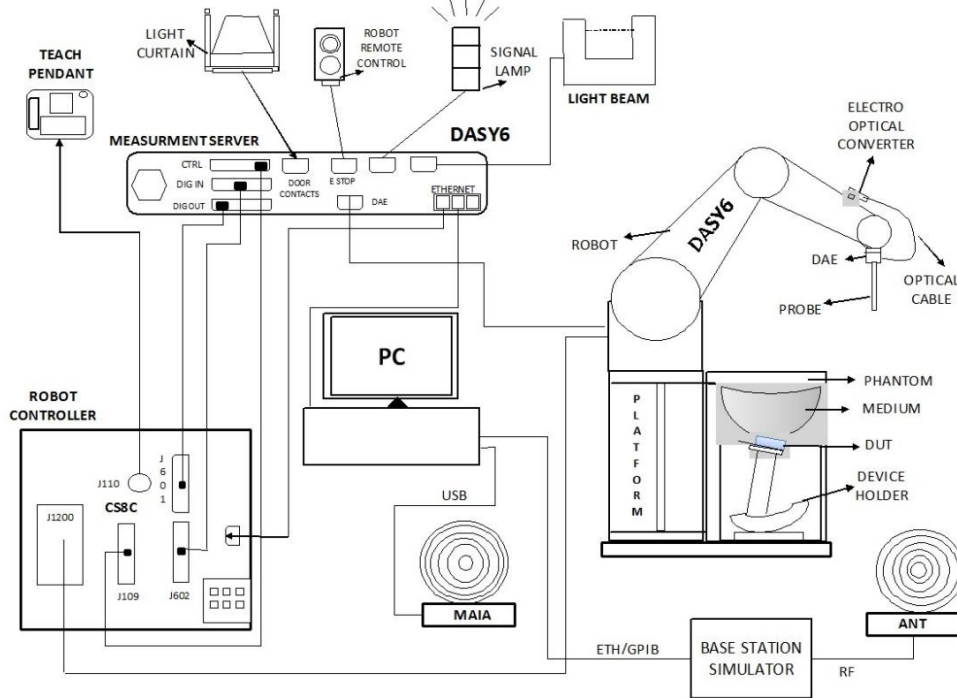
SAR is expressed in units of Watts per kilogram (W/kg)

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

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

9. System Description and Setup

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




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

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

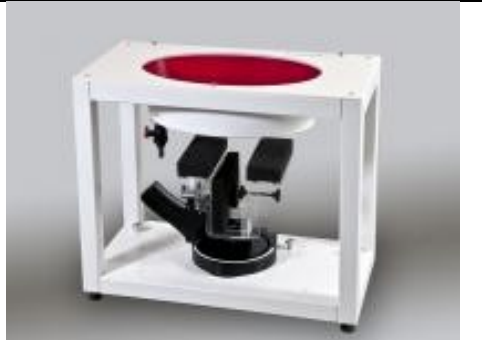
9.3 Phantom

<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 from 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	$\frac{1}{2} \cdot \delta \cdot \ln(2) \pm 0.5$ mm
Maximum probe angle from probe axis to phantom surface normal at the measurement location	$30^\circ \pm 1^\circ$	$20^\circ \pm 1^\circ$
Maximum area scan spatial resolution: $\Delta x_{Area}, \Delta y_{Area}$	≤ 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 \leq 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 to 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 whose 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 1 st two points closest to phantom surface	≤ 4 mm	3 – 4 GHz: ≤ 3 mm 4 – 5 GHz: ≤ 2.5 mm 5 – 6 GHz: ≤ 2 mm
		$\Delta z_{Zoom}(n>1)$: between subsequent points	$\leq 1.5 \cdot \Delta z_{Zoom}(n-1)$	
Minimum zoom scan volume	x, y, z		≥ 30 mm	3 – 4 GHz: ≥ 28 mm 4 – 5 GHz: ≥ 25 mm 5 – 6 GHz: ≥ 22 mm
Note: δ is the penetration depth of a plane-wave at normal incidence to the tissue medium; see draft standard IEEE P1528-2011 for details. * When zoom scan is required and the <i>reported</i> SAR from the <i>area scan based 1-g SAR estimation</i> 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 to assess overlapping SAR distributions for antennas transmitting in different frequency bands. It is equivalent to an oversized zoom scan used in standalone measurements. The measurement volume will be used to enclose all the simultaneous transmitting antennas. For antennas transmitting simultaneously in different frequency bands, the volume scan is measured separately in each frequency band. In order to sum correctly to compute the 1g aggregate SAR, the EUT remain in the same test position for all measurements and all volume scan use the same spatial resolution and grid spacing. When all volume scan were completed, the software, SEMCAD postprocessor can combine and subsequently superpose these measurement data to calculating the multiband SAR.

10.6 Power Drift Monitoring

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



11. Test Equipment List

Manufacturer	Name of Equipment	Type/Model	Serial Number	Calibration	
				Last Cal.	Due Date
SPEAG	750MHz System Validation Kit	D750V3	1087	2022/2/24	2025/2/22
SPEAG	835MHz System Validation Kit	D835V2	4d091	2022/8/19	2025/8/18
SPEAG	1750MHz System Validation Kit	D1750V2	1090	2022/2/24	2025/2/22
SPEAG	1900MHz System Validation Kit	D1900V2	5d118	2022/3/30	2025/3/29
SPEAG	2300MHz System Validation Kit	D2300V2	1055	2023/8/21	2026/8/20
SPEAG	2450MHz System Validation Kit	D2450V2	1040	2023/4/25	2026/4/24
SPEAG	2600MHz System Validation Kit	D2600V2	1112	2023/12/18	2026/12/17
SPEAG	3500MHz System Validation Kit	D3500V2	1037	2023/11/20	2026/11/19
SPEAG	3700MHz System Validation Kit	D3700V2	1008	2023/11/20	2026/11/19
SPEAG	3900MHz System Validation Kit	D3900V2	1048	2023/3/9	2026/3/8
SPEAG	5000MHz System Validation Kit	D5GHzV2	1113	2022/9/23	2025/9/22
SPEAG	Data Acquisition Electronics	DAE4	690	2023/6/20	2024/6/19
SPEAG	Data Acquisition Electronics	DAE4	1303	2023/11/20	2024/11/19
SPEAG	Data Acquisition Electronics	DAE4	1649	2023/4/24	2024/4/23
SPEAG	Dosimetric E-Field Probe	EX3DV4	7764	2023/10/5	2024/10/4
SPEAG	Dosimetric E-Field Probe	EX3DV4	7627	2023/6/6	2024/6/5
SPEAG	Dosimetric E-Field Probe	EX3DV4	7706	2024/1/24	2025/1/23
SPEAG	SAM Twin Phantom	SAM Twin	1644	NCR	NCR
SPEAG	SAM Twin Phantom	SAM Twin	2024	NCR	NCR
SPEAG	SAM Twin Phantom	SAM Twin	2022	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	1144	2023/8/17	2024/8/16
Anritsu	Vector Signal Generator	MG3710A	6201682672	2024/1/2	2025/1/1
Rohde & Schwarz	Power Meter	NRVD	102081	2023/7/5	2024/7/4
Rohde & Schwarz	Power Sensor	NRV-Z5	100538	2023/7/5	2024/7/4
Rohde & Schwarz	Power Sensor	NRV-Z5	100539	2023/7/5	2024/7/4
R&S	BLUETOOTH TESTER	CBT	101246	2023/5/15	2024/5/14
Rohde & Schwarz	Spectrum Analyzer	FSV7	101631	2023/10/11	2024/10/10
TES	DIGITAC THERMOMETER	1310	220305411	2023/7/8	2024/7/7
Testo	Thermo-Hygrometer	608-H1	1241332126	2023/7/10	2024/7/9
BONN	POWER AMPLIFIER	BLMA 0830-3	087193A	Note 1	
BONN	POWER AMPLIFIER	BLMA 2060-2	087193B	Note 1	
ARRA	Power Divider	A3200-2	N/A	Note 1	
Agilent	Dual Directional Coupler	778D	20500	Note 1	
Agilent	Dual Directional Coupler	11691D	MY48151020	Note 1	
MCL	Attenuation1	BW-S10W5+	N/A	Note 1	
MCL	Attenuation2	BW-S10W5+	N/A	Note 1	
MCL	Attenuation3	BW-S10W5+	N/A	Note 1	

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.

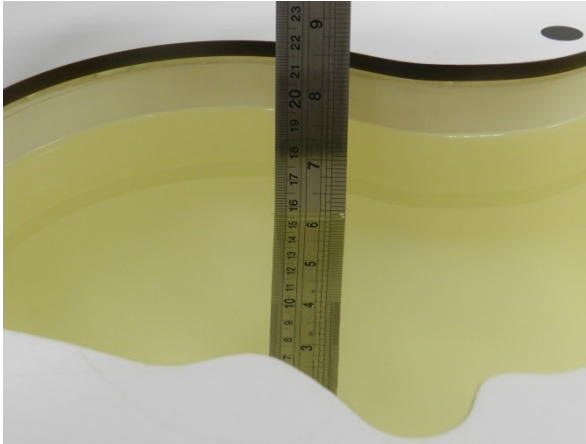


Fig 11.1 Photo of Liquid Height for Head SAR

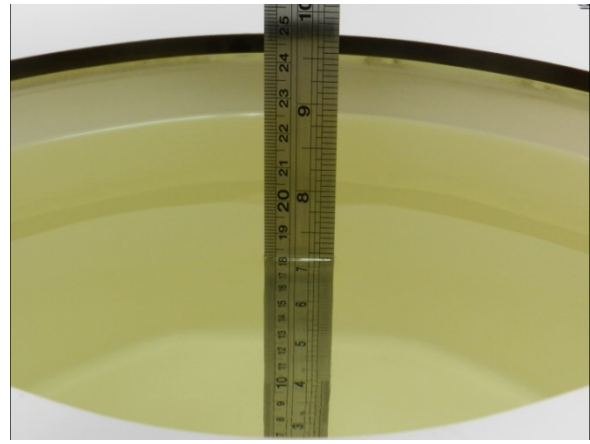


Fig 11.2 Photo of Liquid Height for Body SAR

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 (ϵ_r)
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
900	40.3	57.9	0.2	1.4	0.2	0	0.97	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. (°C)	Conductivity (σ)	Permittivity (ε _r)	Conductivity Target (σ)	Permittivity Target (ε _r)	Delta (σ) (%)	Delta (ε _r) (%)	Limit (%)	Date
750	Head	22.6	0.898	42.3	0.89	41.90	0.90	0.95	±5	2024/2/27
835	Head	22.9	0.928	42.1	0.90	41.50	3.11	1.45	±5	2024/2/28
1750	Head	22.8	1.36	40.9	1.37	40.10	-0.73	2.00	±5	2024/2/29
1900	Head	22.7	1.46	40.7	1.40	40.00	4.29	1.75	±5	2024/3/1
2300	Head	22.8	1.72	38.8	1.67	39.50	2.99	-1.77	±5	2024/3/2
2450	Head	22.7	1.87	40.8	1.80	39.20	3.89	4.08	±5	2024/3/3
2600	Head	22.6	1.98	40.6	1.96	39.00	1.02	4.10	±5	2024/3/4
3500	Head	22.9	2.88	38.5	2.91	37.90	-1.03	1.58	±5	2024/3/5
3700	Head	22.8	3.08	38.0	3.12	37.70	-1.28	0.80	±5	2024/3/6
3900	Head	22.7	3.28	37.6	3.32	37.50	-1.20	0.27	±5	2024/3/7
5250	Head	22.7	4.59	36.2	4.71	35.90	-2.55	0.84	±5	2024/3/8
5600	Head	22.8	4.96	35.7	5.07	35.50	-2.17	0.56	±5	2024/3/9
5750	Head	22.7	5.14	35.5	5.22	35.40	-1.53	0.28	±5	2024/3/10
750	Head	22.8	0.872	41.2	0.89	41.90	-2.02	-1.67	±5	2024/3/7
835	Head	22.9	0.920	40.6	0.90	41.50	2.22	-2.17	±5	2024/3/8
1750	Head	22.8	1.39	38.5	1.37	40.10	1.46	-3.99	±5	2024/3/9
1900	Head	22.7	1.45	39.9	1.40	40.00	3.57	-0.25	±5	2024/3/10
2300	Head	22.8	1.71	39.5	1.67	39.50	2.40	0.00	±5	2024/3/11
2450	Head	22.7	1.84	38.2	1.80	39.20	2.22	-2.55	±5	2024/3/12
2600	Head	22.6	1.94	37.4	1.96	39.00	-1.02	-4.10	±5	2024/3/13
3500	Head	22.9	2.79	39.6	2.91	37.90	-4.12	4.49	±5	2024/3/14
3700	Head	22.8	2.99	38.4	3.12	37.70	-4.17	1.86	±5	2024/3/15
3900	Head	22.7	3.19	38.4	3.32	37.50	-3.92	2.40	±5	2024/3/16
5250	Head	22.7	4.67	36.7	4.71	35.90	-0.85	2.23	±5	2024/3/17
5600	Head	22.8	5.07	36.0	5.07	35.50	0.00	1.41	±5	2024/3/18
5750	Head	22.7	5.25	35.8	5.22	35.40	0.57	1.13	±5	2024/3/19
750	Head	22.9	0.925	42.4	0.89	41.90	3.93	1.19	±5	2024/3/16
835	Head	22.8	0.911	42.7	0.90	41.50	1.22	2.89	±5	2024/3/17
1750	Head	22.9	1.38	40.0	1.37	40.10	0.73	-0.25	±5	2024/3/18
1900	Head	22.8	1.40	41.4	1.40	40.00	0.00	3.50	±5	2024/3/19
2300	Head	22.6	1.74	39.3	1.67	39.50	4.19	-0.51	±5	2024/3/20
2450	Head	22.9	1.79	40.7	1.80	39.20	-0.56	3.83	±5	2024/3/21
2600	Head	22.8	1.93	39.0	1.96	39.00	-1.53	0.00	±5	2024/3/22
3500	Head	22.7	2.85	38.6	2.91	37.90	-2.06	1.85	±5	2024/3/23
3700	Head	22.7	2.98	38.6	3.12	37.70	-4.49	2.39	±5	2024/3/24
3900	Head	22.8	3.18	38.3	3.32	37.50	-4.22	2.13	±5	2024/3/25
5250	Head	22.7	4.57	35.5	4.71	35.90	-2.97	-1.11	±5	2024/3/26
5600	Head	22.6	4.95	34.8	5.07	35.50	-2.37	-1.97	±5	2024/3/27
5750	Head	22.9	5.13	34.6	5.22	35.40	-1.72	-2.26	±5	2024/3/28
750	Head	22.6	0.883	41.4	0.89	41.90	-0.79	-1.19	±5	2024/3/20
835	Head	22.6	0.912	41.9	0.90	41.50	1.33	0.96	±5	2024/3/21
1750	Head	22.9	1.32	40.3	1.37	40.10	-3.65	0.50	±5	2024/3/22
1900	Head	22.6	1.41	40.2	1.40	40.00	0.71	0.50	±5	2024/3/23
2300	Head	22.7	1.72	37.8	1.67	39.50	2.99	-4.30	±5	2024/3/24
2450	Head	22.6	1.86	38.6	1.80	39.20	3.33	-1.53	±5	2024/3/25
2600	Head	22.8	1.88	39.2	1.96	39.00	-4.08	0.51	±5	2024/3/26
3500	Head	22.9	2.81	38.7	2.91	37.90	-3.44	2.11	±5	2024/3/27
3700	Head	22.9	2.99	38.4	3.12	37.70	-4.17	1.86	±5	2024/3/28
3900	Head	22.7	3.18	38.0	3.32	37.50	-4.22	1.33	±5	2024/3/29
5250	Head	22.8	4.59	35.7	4.71	35.90	-2.55	-0.56	±5	2024/3/30
5600	Head	22.8	5.05	35.0	5.07	35.50	-0.39	-1.41	±5	2024/3/31
5750	Head	22.8	5.15	34.7	5.22	35.40	-1.34	-1.98	±5	2024/3/31



750	Head	22.6	0.900	41.2	0.89	41.90	1.12	-1.67	±5	2024/3/22
835	Head	22.8	0.902	41.2	0.90	41.50	0.22	-0.72	±5	2024/3/24
1750	Head	22.7	1.400	40.7	1.37	40.10	2.19	1.50	±5	2024/3/27
1900	Head	22.9	1.420	39.0	1.40	40.00	1.43	-2.50	±5	2024/3/28
2600	Head	22.7	1.930	38.2	1.96	39.00	-1.53	-2.05	±5	2024/3/29
2450	Head	22.6	1.82	39.2	1.80	39.20	1.11	0.00	±5	2024/4/20
2600	Head	22.9	1.93	39.0	1.96	39.00	-1.53	0.00	±5	2024/4/20

12.3 System Performance Check Results

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

<1g SAR>

Date	Frequency (MHz)	Tissue Type	Input Power (mW)	Dipole S/N	Probe S/N	DAE S/N	Measured 1g SAR (W/kg)	Targeted 1g SAR (W/kg)	Normalized 1g SAR (W/kg)	Deviation (%)
2024/2/27	750	Head	50	1087	7706	1649	0.430	8.58	8.6	0.23
2024/2/28	835	Head	50	4d091	7706	1649	0.502	9.45	10.04	6.24
2024/2/29	1750	Head	50	1090	7706	1649	1.95	37.00	39	5.41
2024/3/1	1900	Head	50	5d118	7706	1649	1.81	39.30	36.2	-7.89
2024/3/2	2300	Head	50	1055	7706	1649	2.54	48.40	50.8	4.96
2024/3/3	2450	Head	50	1040	7706	1649	2.65	52.70	53	0.57
2024/3/4	2600	Head	50	1112	7706	1649	2.66	55.10	53.2	-3.45
2024/3/5	3500	Head	50	1037	7706	1649	3.13	65.40	62.6	-4.28
2024/3/6	3700	Head	50	1008	7706	1649	3.24	67.20	64.8	-3.57
2024/3/7	3900	Head	50	1048	7706	1649	3.21	69.10	64.2	-7.09
2024/3/8	5250	Head	50	1113	7706	1649	3.79	81.50	75.8	-6.99
2024/3/9	5600	Head	50	1113	7706	1649	4.01	82.60	80.2	-2.91
2024/3/10	5750	Head	50	1113	7706	1649	3.77	80.80	75.4	-6.68
2024/3/7	750	Head	50	1087	7706	1649	0.418	8.58	8.36	-2.56
2024/3/8	835	Head	50	4d091	7706	1649	0.497	9.45	9.94	5.19
2024/3/9	1750	Head	50	1090	7706	1649	1.92	37.00	38.4	3.78
2024/3/10	1900	Head	50	5d118	7706	1649	1.89	39.30	37.8	-3.82
2024/3/11	2300	Head	50	1055	7706	1649	2.47	48.40	49.4	2.07
2024/3/12	2450	Head	50	1040	7706	1649	2.61	52.70	52.2	-0.95
2024/3/13	2600	Head	50	1112	7706	1649	2.62	55.10	52.4	-4.90
2024/3/14	3500	Head	50	1037	7706	1649	3.18	65.40	63.6	-2.75
2024/3/15	3700	Head	50	1008	7706	1649	3.14	67.20	62.8	-6.55
2024/3/16	3900	Head	50	1048	7706	1649	3.25	69.10	65	-5.93
2024/3/17	5250	Head	50	1113	7706	1649	3.84	81.50	76.8	-5.77
2024/3/18	5600	Head	50	1113	7706	1649	4.11	82.60	82.2	-0.48
2024/3/19	5750	Head	50	1113	7706	1649	3.79	80.80	75.8	-6.19
2024/3/16	750	Head	50	1087	7706	1649	0.418	8.58	8.36	-2.56
2024/3/17	835	Head	50	4d091	7706	1649	0.493	9.45	9.86	4.34
2024/3/18	1750	Head	50	1090	7706	1649	1.97	37.00	39.4	6.49
2024/3/19	1900	Head	50	5d118	7706	1649	1.81	39.30	36.2	-7.89
2024/3/20	2300	Head	50	1055	7706	1649	2.47	48.40	49.4	2.07
2024/3/21	2450	Head	50	1040	7706	1649	2.54	52.70	50.8	-3.61
2024/3/22	2600	Head	50	1112	7706	1649	2.69	55.10	53.8	-2.36
2024/3/23	3500	Head	50	1037	7706	1649	3.16	65.40	63.2	-3.36
2024/3/24	3700	Head	50	1008	7706	1649	3.24	67.20	64.8	-3.57
2024/3/25	3900	Head	50	1048	7706	1649	3.26	69.10	65.2	-5.64
2024/3/26	5250	Head	50	1113	7706	1649	3.81	81.50	76.2	-6.50
2024/3/27	5600	Head	50	1113	7706	1649	4.05	82.60	81	-1.94
2024/3/28	5750	Head	50	1113	7706	1649	3.82	80.80	76.4	-5.45



2024/3/20	750	Head	50	1087	7764	690	0.398	8.58	7.96	-7.23
2024/3/21	835	Head	50	4d091	7764	690	0.502	9.45	10.04	6.24
2024/3/22	1750	Head	50	1090	7764	690	1.930	37.00	38.6	4.32
2024/3/23	1900	Head	50	5d118	7764	690	2.080	39.30	41.6	5.85
2024/3/24	2300	Head	50	1055	7764	690	2.310	48.40	46.2	-4.55
2024/3/25	2450	Head	50	1040	7764	690	2.550	52.70	51	-3.23
2024/3/26	2600	Head	50	1112	7764	690	2.680	55.10	53.6	-2.72
2024/3/27	3500	Head	50	1037	7764	690	3.390	65.40	67.8	3.67
2024/3/28	3700	Head	50	1008	7764	690	3.340	67.20	66.8	-0.60
2024/3/29	3900	Head	50	1048	7764	690	3.510	69.10	70.2	1.59
2024/3/30	5250	Head	50	1113	7764	690	3.870	81.50	77.4	-5.03
2024/3/31	5600	Head	50	1113	7764	690	3.880	82.60	77.6	-6.05
2024/3/31	5750	Head	50	1113	7764	690	3.790	80.80	75.8	-6.19
2024/3/22	750	Head	50	1087	7627	1303	0.444	8.58	8.88	3.50
2024/3/24	835	Head	50	4d091	7627	1303	0.486	9.45	9.72	2.86
2024/3/27	1750	Head	50	1090	7627	1303	1.890	37.00	37.8	2.16
2024/3/28	1900	Head	50	5d118	7627	1303	2.070	39.30	41.4	5.34
2024/3/29	2600	Head	50	1112	7627	1303	2.820	55.10	56.4	2.36
2024/4/20	2450	Head	50	1040	7706	1649	2.70	52.70	54	2.47
2024/4/20	2600	Head	50	1112	7706	1649	2.75	55.10	55	-0.18

<10g SAR>

Date	Frequency (MHz)	Tissue Type	Input Power (mW)	Dipole S/N	Probe S/N	DAE S/N	Measured 10g SAR (W/kg)	Targeted 10g SAR (W/kg)	Normalized 10g SAR (W/kg)	Deviation (%)
2024/2/27	750	Head	50	1087	7706	1649	0.285	5.65	5.7	0.88
2024/2/28	835	Head	50	4d091	7706	1649	0.329	6.22	6.58	5.79
2024/2/29	1750	Head	50	1090	7706	1649	1.01	19.50	20.2	3.59
2024/3/1	1900	Head	50	5d118	7706	1649	1.03	20.40	20.6	0.98
2024/3/2	2300	Head	50	1055	7706	1649	1.23	23.70	24.6	3.80
2024/3/3	2450	Head	50	1040	7706	1649	1.26	24.60	25.2	2.44
2024/3/4	2600	Head	50	1112	7706	1649	1.21	24.80	24.2	-2.42
2024/3/5	3500	Head	50	1037	7706	1649	1.19	24.70	23.8	-3.64
2024/3/6	3700	Head	50	1008	7706	1649	1.22	24.40	24.4	0.00
2024/3/7	3900	Head	50	1048	7706	1649	1.16	24.10	23.2	-3.73
2024/3/8	5250	Head	50	1113	7706	1649	1.14	23.30	22.8	-2.15
2024/3/9	5600	Head	50	1113	7706	1649	1.14	23.70	22.8	-3.80
2024/3/10	5750	Head	50	1113	7706	1649	1.13	23.00	22.6	-1.74
2024/3/7	750	Head	50	1087	7706	1649	0.277	5.65	5.54	-1.95
2024/3/8	835	Head	50	4d091	7706	1649	0.325	6.22	6.5	4.50
2024/3/9	1750	Head	50	1090	7706	1649	1.00	19.50	20	2.56
2024/3/10	1900	Head	50	5d118	7706	1649	1.05	20.40	21	2.94
2024/3/11	2300	Head	50	1055	7706	1649	1.20	23.70	24	1.27
2024/3/12	2450	Head	50	1040	7706	1649	1.24	24.60	24.8	0.81
2024/3/13	2600	Head	50	1112	7706	1649	1.19	24.80	23.8	-4.03
2024/3/14	3500	Head	50	1037	7706	1649	1.25	24.70	25	1.21
2024/3/15	3700	Head	50	1008	7706	1649	1.18	24.40	23.6	-3.28
2024/3/16	3900	Head	50	1048	7706	1649	1.13	24.10	22.6	-6.22
2024/3/17	5250	Head	50	1113	7706	1649	1.17	23.30	23.4	0.43
2024/3/18	5600	Head	50	1113	7706	1649	1.18	23.70	23.6	-0.42
2024/3/19	5750	Head	50	1113	7706	1649	1.14	23.00	22.8	-0.87
2024/3/16	750	Head	50	1087	7706	1649	0.276	5.65	5.52	-2.30
2024/3/17	835	Head	50	4d091	7706	1649	0.322	6.22	6.44	3.54
2024/3/18	1750	Head	50	1090	7706	1649	1.05	19.50	21	7.69
2024/3/19	1900	Head	50	5d118	7706	1649	1.07	20.40	21.4	4.90
2024/3/20	2300	Head	50	1055	7706	1649	1.20	23.70	24	1.27

2024/3/21	2450	Head	50	1040	7706	1649	1.21	24.60	24.2	-1.63
2024/3/22	2600	Head	50	1112	7706	1649	1.19	24.80	23.8	-4.03
2024/3/23	3500	Head	50	1037	7706	1649	1.18	24.70	23.6	-4.45
2024/3/24	3700	Head	50	1008	7706	1649	1.22	24.40	24.4	0.00
2024/3/25	3900	Head	50	1048	7706	1649	1.19	24.10	23.8	-1.24
2024/3/26	5250	Head	50	1113	7706	1649	1.21	23.30	24.2	3.86
2024/3/27	5600	Head	50	1113	7706	1649	1.11	23.70	22.2	-6.33
2024/3/28	5750	Head	50	1113	7706	1649	1.15	23.00	23	0.00
2024/3/20	750	Head	50	1087	7764	690	0.261	5.65	5.22	-7.61
2024/3/21	835	Head	50	4d091	7764	690	0.329	6.22	6.58	5.79
2024/3/22	1750	Head	50	1090	7764	690	1.050	19.50	21	7.69
2024/3/23	1900	Head	50	5d118	7764	690	1.100	20.40	22	7.84
2024/3/24	2300	Head	50	1055	7764	690	1.110	23.70	22.2	-6.33
2024/3/25	2450	Head	50	1040	7764	690	1.190	24.60	23.8	-3.25
2024/3/26	2600	Head	50	1112	7764	690	1.220	24.80	24.4	-1.61
2024/3/27	3500	Head	50	1037	7764	690	1.330	24.70	26.6	7.69
2024/3/28	3700	Head	50	1008	7764	690	1.280	24.40	25.6	4.92
2024/3/29	3900	Head	50	1048	7764	690	1.290	24.10	25.8	7.05
2024/3/30	5250	Head	50	1113	7764	690	1.090	23.30	21.8	-6.44
2024/3/31	5600	Head	50	1113	7764	690	1.110	23.70	22.2	-6.33
2024/3/31	5750	Head	50	1113	7764	690	1.080	23.00	21.6	-6.09
2024/3/22	750	Head	50	1087	7627	1303	0.297	5.65	5.94	5.13
2024/3/24	835	Head	50	4d091	7627	1303	0.322	6.22	6.44	3.54
2024/3/27	1750	Head	50	1090	7627	1303	0.993	19.50	19.86	1.85
2024/3/28	1900	Head	50	5d118	7627	1303	1.080	20.40	21.6	5.88
2024/3/29	2600	Head	50	1112	7627	1303	1.280	24.80	25.6	3.23
2024/4/20	2450	Head	50	1040	7706	1649	1.29	24.60	25.8	4.88
2024/4/20	2600	Head	50	1112	7706	1649	1.27	24.80	25.4	2.42

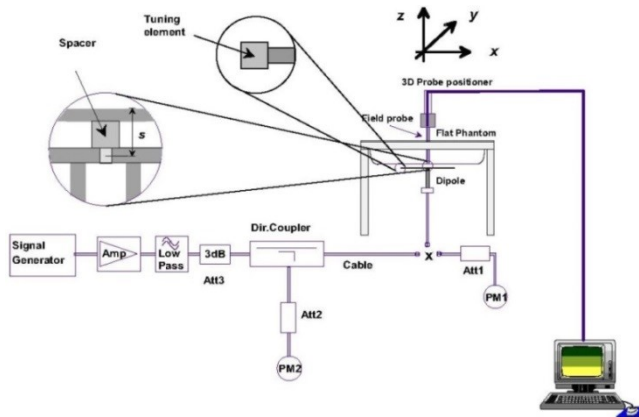


Fig 11.3.1 System Performance Check Setup



Fig 11.3.2 Setup Photo

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 w_t 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 w_b 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.

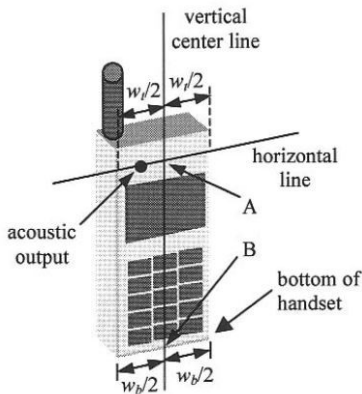


Fig 12.2.1 Handset vertical and horizontal reference lines—“fixed case”

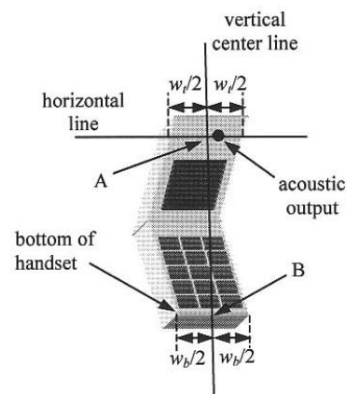


Fig 12.2.2 Handset vertical and horizontal reference lines—“clam-shell case”

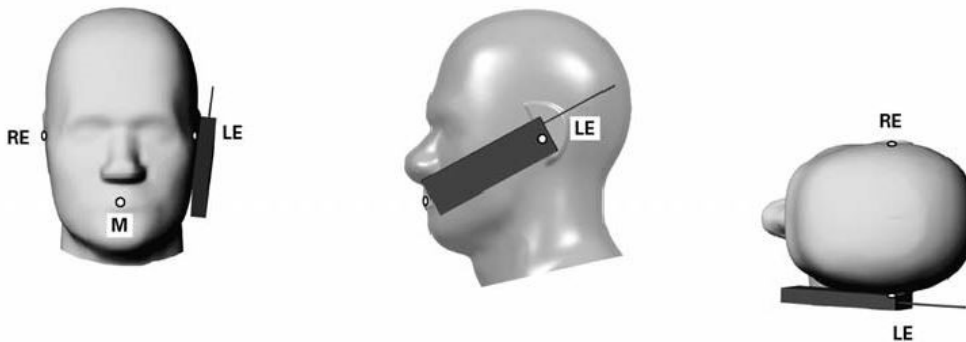


Fig 12.2.3 cheek or touch position. The reference points for the right ear (RE), left ear (LE), and mouth (M), which establish the Reference Plane for handset positioning, are indicated.

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

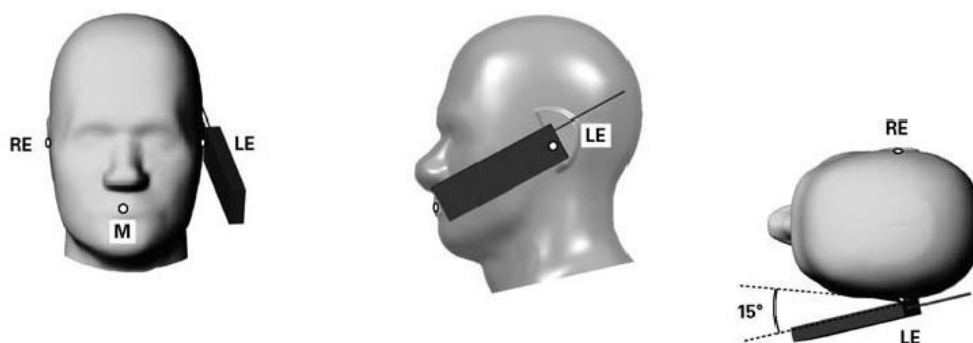


Fig 12.3.1 Tilt position. The reference points for the right ear (RE), left ear (LE), and mouth (M), which define the Reference Plane for handset positioning, are indicated.

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 $> 1.2 \text{ W/kg}$, the highest reported SAR configuration for that wireless mode and frequency band should be repeated for that body-worn accessory with a headset 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.

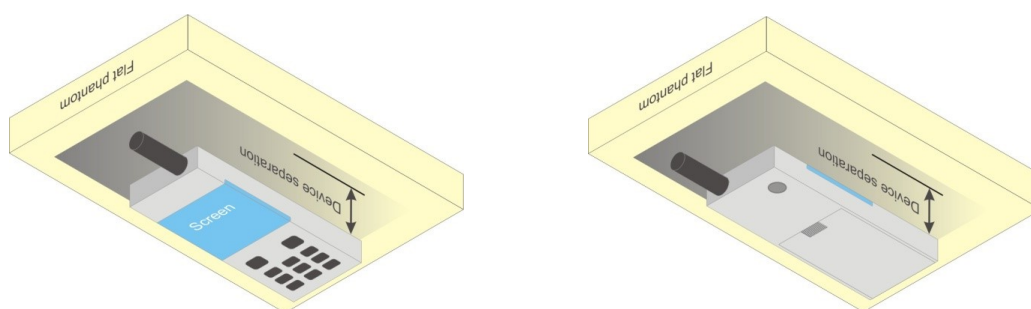


Fig 12.4 Body Worn Position

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 ($L \times W \geq 9$ 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 from 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 $\leq 1/4$ 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_o/β_d	β_{HS} (Note 1, 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: $\Delta_{ACK}, \Delta_{NACK}$ and $\Delta_{CQI} = 30/15$ 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 $\Delta_{NACK} = 30/15$ with $\beta_{HS} = 30/15 * \beta_c$, and $\Delta_{CQI} = 24/15$ with $\beta_{HS} = 24/15 * \beta_c$.

Note 3: CM = 1 for $\beta_o/\beta_d = 12/15, \beta_{HS}/\beta_c = 24/15$. 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_o/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 $\beta_c = 11/15$ and $\beta_d = 15/15$.

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-TFCL is equal to the target E-TFCL of 75 for sub-test 1, and other subtest's E-TFCL
- 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	209/25	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	β_{ed1} : 47/15 β_{ed2} : 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 $\Delta_{CQI} = 30/15$ with $\beta_{hs} = 30/15 * \beta_c$. For sub-test 5, Δ_{ACK} , Δ_{NACK} and $\Delta_{CQI} = 5/15$ with $\beta_{hs} = 5/15 * \beta_c$.

Note 2: CM = 1 for $\beta_c/\beta_d = 12/15$, $\beta_{hs}/\beta_c = 24/15$. 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, TF0) to $\beta_c = 10/15$ and $\beta_d = 15/15$.

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: $\beta_c/\beta_d=2/15$
 - b). Subtest 2: $\beta_c/\beta_d=12/15$
 - c). Subtest 3: $\beta_c/\beta_d=15/8$
 - d). Subtest 4: $\beta_c/\beta_d=15/4$
 - vi. Set Delta ACK, Delta NACK and Delta CQI = 8
 - vii. Set Ack-Nack Repetition Factor to 3
 - viii. Set CQI Feedback Cycle (k) to 4 ms
 - ix. Set CQI Repetition Factor to 2
 - x. Power Ctrl Mode = All Up bits
- d. The transmitted maximum output power was recorded.

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

C.8.1.12 Fixed Reference Channel Definition H-Set 12

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

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

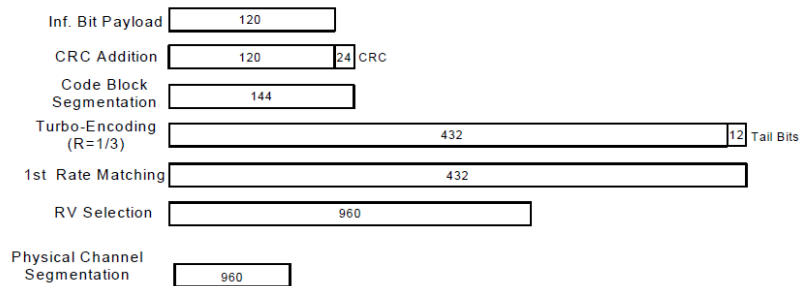


Figure C.8.19: Coding rate for Fixed reference Channel H-Set 12 (QPSK) Setup Configuration



<WCDMA Conducted Power>

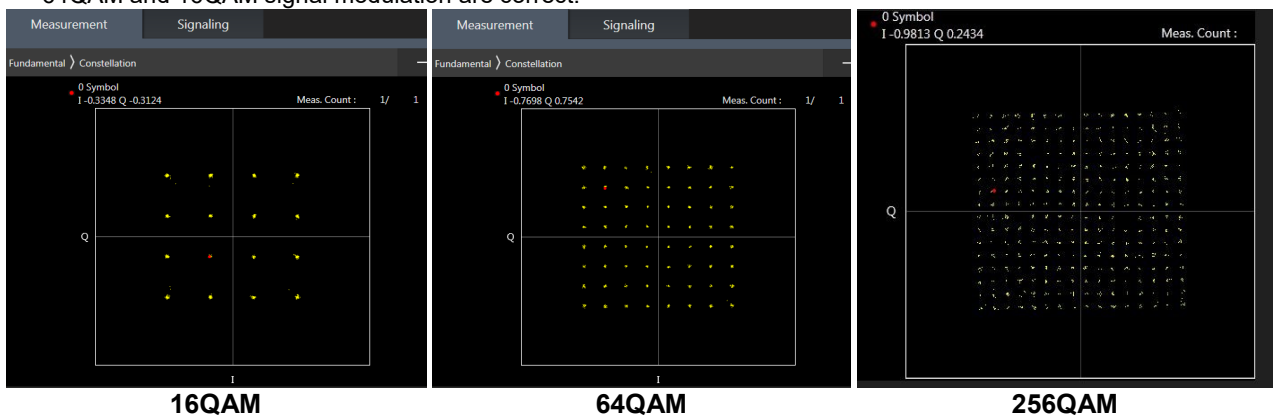
General Note:

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 $\leq \frac{1}{4}$ 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 $\frac{1}{4}$ 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 $\frac{1}{2}$ 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 $\frac{1}{2}$ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg; Per KDB 941225 D05v02r05, smaller bandwidth SAR testing is not required.
8. For LTE B4 / B5 / B12 / B17 / B26 / B38 / B71 the maximum bandwidth does not support three non-overlapping channels, per KDB 941225 D05v02r05, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.
9. LTE B2 / B4 / B5 / B17 / B38 SAR test was covered by B25 / B66 / B26 / B12 / B41; according to April 2015 TCB workshop, SAR test for overlapping LTE bands can be reduced if
 - a. the maximum output power, including tolerance, for the smaller band is \leq 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.



<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.

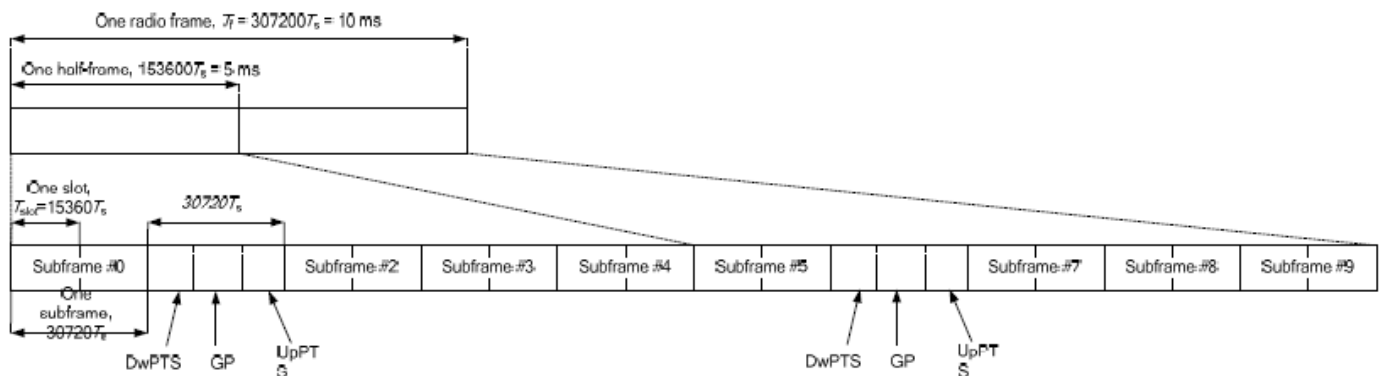


Figure 4.2-1: Frame structure type 2 (for 5 ms switch-point periodicity).

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 · Ts	2192 · Ts	2560 · Ts	7680 · Ts	2192 · Ts	2560 · Ts
1	19760 · Ts			20480 · Ts		
2	21952 · Ts			23040 · Ts		
3	24144 · Ts			25600 · Ts		
4	26336 · Ts	4384 · Ts	5120 · Ts	7680 · Ts	4384 · Ts	5120 · Ts
5	6592 · Ts			20480 · Ts		
6	19760 · Ts			23040 · Ts		
7	21952 · Ts			12800 · Ts		
8	24144 · Ts			-		
9	13168 · Ts	-	-	-	-	-

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

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

The highest duty factor is resulted from:

For LTE TDD Power class 2

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

For LTE TDD Power class 3

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

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

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



<LTE Carrier Aggregation>

General Note:

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

2CC Downlink Carrier Aggregation			3CC Downlink Carrier Aggregation		
Number	Combination	Covered by Measurement Superset	Number	Combination	Covered by Measurement Superset
1	CA_12A-30A	3CC-1	1	CA_12A-30A-66A	
2	CA_12A-48A		2	CA_12A-48C	
3	CA_12A-66A	3CC-3	3	CA_12A-66A-66A	
4	CA_12B	3CC-5	4	CA_12A-66C	
5	CA_13A-48A	3CC-6	5	CA_12B-66A	
6	CA_13A-66A	3CC-6	6	CA_13A-48A-66A	
7	CA_14A-30A	3CC-11	7	CA_13A-48C	
8	CA_14A-66A	3CC-11	8	CA_13A-66A-66A	
9	CA_17A-30A		9	CA_13A-66B	
10	CA_17A-66A		10	CA_13A-66C	
11	CA_25A-25A	3CC-17	11	CA_14A-30A-66A	
12	CA_25A-26A	3CC-17	12	CA_14A-66A-66A	
13	CA_25A-41A		14	CA_66C-71A	
14	CA_25A-66A	3CC-18	15	CA_7A-12A-66A	
15	CA_26A-41A		16	CA_7A-13A-66A	
16	CA_2A-12A	3CC-21	17	CA_25A-25A-26A	
17	CA_2A-13A	3CC-24	18	CA_25A-25A-66A	
18	CA_2A-14A	3CC-26	19	CA_25A-41C	
19	CA_2A-17A	3CC-31	20	CA_26A-41C	
20	CA_2A-2A	3CC-28	21	CA_2A-12A-30A	
21	CA_2A-30A	3CC-32	22	CA_2A-12A-66A	
22	CA_2A-38A		23	CA_2A-12B	
23	CA_2A-48A	3CC-39	24	CA_2A-13A-48A	
24	CA_2A-4A	3CC-42	25	CA_2A-13A-66A	
25	CA_2A-5A	3CC-50	26	CA_2A-14A-30A	
26	CA_2A-66A	3CC-27	27	CA_2A-14A-66A	
27	CA_2A-71A	3CC-36	28	CA_2A-2A-12A	
28	CA_2A-7A	3CC-37	29	CA_2A-2A-13A	
29	CA_2C	3CC-64	30	CA_2A-2A-14A	
30	CA_30A-66A	3CC-38	31	CA_2A-2A-17A	
31	CA_41A-41A	3CC-76	32	CA_2A-2A-30A	
32	CA_41A-48A		33	CA_2A-2A-4A	
33	CA_41C	3CC-77	34	CA_2A-2A-5A	
34	CA_48A-48A	3CC-80	35	CA_2A-2A-66A	
35	CA_48A-66A	3CC-80	36	CA_2A-2A-71A	
36	CA_48A-71A	3CC-81	37	CA_2A-2A-7A	
37	CA_48B		38	CA_2A-30A-66A	
38	CA_48C	3CC-41	39	CA_2A-48A-48A	
39	CA_4A-12A	3CC-42	40	CA_2A-48A-66A	
40	CA_4A-13A	3CC-43	41	CA_2A-48C	
41	CA_4A-17A	3CC-44	42	CA_2A-4A-12A	
42	CA_4A-30A	3CC-45	43	CA_2A-4A-13A	
43	CA_4A-48A		44	CA_2A-4A-17A	
44	CA_4A-4A	3CC-46	45	CA_2A-4A-30A	
45	CA_4A-5A	3CC-47	46	CA_2A-4A-4A	



46	CA_4A-71A	3CC-48	47	CA_2A-4A-5A	
47	CA_4A-7A	3CC-49	48	CA_2A-4A-71A	
48	CA_5A-30A	3CC-50	49	CA_2A-4A-7A	
49	CA_5A-41A		50	CA_2A-5A-30A	
50	CA_5A-48A	3CC-51	51	CA_2A-5A-48A	
51	CA_5A-66A	3CC-52	52	CA_2A-5A-66A	
52	CA_5A-7A	3CC-53	53	CA_2A-5A-7A	
53	CA_5B	3CC-54	54	CA_2A-5B	
54	CA_66A-66A	3CC-55	55	CA_2A-66A-66A	
55	CA_66A-71A	3CC-56	56	CA_2A-66A-71A	
56	CA_66B	3CC-57	57	CA_2A-66B	
57	CA_66C	3CC-58	58	CA_2A-66C	
58	CA_7A-12A	3CC-59	59	CA_2A-7A-12A	
59	CA_7A-13A	3CC-60	60	CA_2A-7A-13A	
60	CA_7A-25A	3CC-126	61	CA_2A-7A-66A	
61	CA_7A-66A	3CC-123	62	CA_2A-7A-7A	
62	CA_7A-71A		63	CA_2A-7C	
63	CA_7A-7A	3CC-101	64	CA_2C-12A	
64	CA_7B		65	CA_2C-66A	
65	CA_7C	3CC-102	66	CA_30A-66A-66A	
			67	CA_7A-25A-25A	
			68	CA_7A-25A-66A	
			69	CA_7A-66A-66A	
			70	CA_7A-7A-13A	
			71	CA_7A-7A-25A	
			72	CA_66A-66C	
			73	CA_7A-7A-66A	
			74	CA_7C-13A	
			75	CA_7C-66A	
			76	CA_41A-41A-41A	
			77	CA_41A-41C	
			78	CA_41A-48C	
			79	CA_41D	
			80	CA_48A-48A-66A	
			81	CA_48A-48A-71A	
			82	CA_48A-48C	
			83	CA_48A-66A-66A	
			84	CA_48A-66B	
			85	CA_48A-66C	
			86	CA_48C-66A	
			87	CA_48C-71A	
			88	CA_48D	
			89	CA_4A-12A-30A	
			90	CA_4A-12B	
			91	CA_4A-48C	
			92	CA_4A-4A-12A	
			93	CA_4A-4A-13A	
			94	CA_4A-4A-17A	
			95	CA_4A-4A-5A	
			96	CA_4A-4A-71A	
			97	CA_4A-4A-7A	
			98	CA_4A-5A-30A	
			99	CA_4A-7A-12A	
			100	CA_4A-7A-71A	
			101	CA_4A-7A-7A	
			102	CA_4A-7C	



			103	CA_5A-30A-66A	
			104	CA_5A-48A-48A	
			105	CA_5A-48A-66A	
			106	CA_5A-48C	
			107	CA_5A-66A-66A	
			108	CA_5A-66B	
			109	CA_5A-66C	
			110	CA_5A-7A-66A	
			111	CA_5A-7A-7A	
			112	CA_5A-7C	
			113	CA_5B-30A	
			114	CA_5B-66A	
			115	CA_66A-66A-66A	
			116	CA_66A-66A-71A	
			117	CA_66A-66B	

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.

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



LTE 4x4 MIMO (Downlink)

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

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

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

LTE Carrier Aggregation Conducted Power (Uplink)

LTE Uplink CA	2CC Uplink Carrier Aggregation			
Intra-band	Antenna Tx	ASDiv-1 Tx	ASDiv-2 Tx	ASDiv-3 Tx
CA_41C	Ant 2	Ant 3,Ant 0,Ant 1		
CA_66B	Ant 2	Ant 3,Ant 0,Ant 1		
CA_66C	Ant 2	Ant 3,Ant 0,Ant 1		
CA_5B	Ant 0	Ant 1+Ant 2/Ant 3/Ant 0		
CA_7C	Ant 2	Ant 3	Ant 0	Ant 1
CA_48B	Ant 4	Ant 6	Ant 3	Ant 8
CA_48C	Ant 4	Ant 6	Ant 3	Ant 8

<Intra-band>

General Note:

- i. The device supports intra-band uplink carrier aggregation for LTE B5/7/66/41/48 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 with other DL CA combinations active were not required since the maximum output power for this configuration was not > 0.25dB higher than the maximum output power for UL CA active.
- v. LTE CA_66B/48B test was covered by CA_66C/48C; therefore, SAR was only assessed for CA_66C/48C.

<Inter-band uplink carrier aggregation consideration>

LTE Uplink CA	2CC Uplink Carrier Aggregation			
	Main Antenna Tx	ASDiv-1 Tx	ASDiv-2 Tx	ASDiv-3 Tx
CA_12A-66A	Ant 0+Ant 2/Ant 3/Ant 1	Ant 1+Ant 2/Ant 3/Ant 0		
CA_13A-66A	Ant 0+Ant 2/Ant 3/Ant 1	Ant 1+Ant 2/Ant 3/Ant 0		
CA_14A-66A	Ant 0+Ant 2/Ant 3/Ant 1	Ant 1+Ant 2/Ant 3/Ant 0		
CA_2A-12A	Ant 2+Ant 0/Ant 1	Ant 3+Ant 0/Ant 1	Ant 0+Ant 1	Ant 1+Ant 0
CA_2A-13A	Ant 2+Ant 0/Ant 1	Ant 3+Ant 0/Ant 1	Ant 0+Ant 1	Ant 1+Ant 0
CA_2A-14A	Ant 2+Ant 0/Ant 1	Ant 3+Ant 0/Ant 1	Ant 0+Ant 1	Ant 1+Ant 0
CA_2A-48A	Ant 3+Ant 4/Ant 6/Ant 8	Ant 2+Ant 4/Ant 6/Ant 8	Ant 0+Ant 4/Ant 6/Ant 8	Ant 1+Ant 4/Ant 6/Ant 8
CA_2A-4A	Ant 2+Ant 3/Ant 0/Ant 1	Ant 3+Ant 2/Ant 0/Ant 1	Ant 0+Ant 2/Ant 3/Ant 1	Ant 1+Ant 2/Ant 3/Ant 0
CA_2A-5A	Ant 2+Ant 0/Ant 1	Ant 3+Ant 0/Ant 1	Ant 0+Ant 1	Ant 1+Ant 0
CA_2A-66A	Ant 2+Ant 3/Ant 0/Ant 1	Ant 3+Ant 2/Ant 0/Ant 1	Ant 0+Ant 2/Ant 3/Ant 1	Ant 1+Ant 2/Ant 3/Ant 0
CA_2A-71A	Ant 2+Ant 0/Ant 1	Ant 3+Ant 0/Ant 1	Ant 0+Ant 1	Ant 1+Ant 0
CA_2A-7A	Ant 2+Ant 3/Ant 0/Ant 1	Ant 3+Ant 2/Ant 0/Ant 1	Ant 0+Ant 2/Ant 3/Ant 1	Ant 1+Ant 2/Ant 3/Ant 0
CA_48A-66A	Ant 4+Ant 2/Ant 3/Ant 0/Ant 1	Ant 6+Ant 2/Ant 3/Ant 0/Ant 1	Ant 8+Ant 2/Ant 3/Ant 0/Ant 1	
CA_4A-12A	Ant 2+Ant 0/Ant 1	Ant 3+Ant 0/Ant 1	Ant 0+Ant 1	Ant 1+Ant 0
CA_4A-17A	Ant 2+Ant 0/Ant 1	Ant 3+Ant 0/Ant 1	Ant 0+Ant 1	Ant 1+Ant 0
CA_4A-5A	Ant 2+Ant 0/Ant 1	Ant 3+Ant 0/Ant 1	Ant 0+Ant 1	Ant 1+Ant 0
CA_4A-7A	Ant 2+Ant 3/Ant 0/Ant 1	Ant 3+Ant 2/Ant 0/Ant 1	Ant 0+Ant 2/Ant 3/Ant 1	Ant 1+Ant 2/Ant 3/Ant 0
CA_5A-66A	Ant 0+Ant 2/Ant 3/Ant 1	Ant 1+Ant 2/Ant 3/Ant 0		
CA_5A-7A	Ant 0+Ant 2/Ant 3/Ant 1	Ant 1+Ant 2/Ant 3/Ant 0		

General Note:

1. The single carrier of inte-band CA uplink power level is the same as Non-CA standalone LTE power level.
2. 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.
3. MediaTek’s TA-SAR algorithm controls the total RF exposure base on LTE inter CA bands to not exceed FCC limit. In Part 1 Report, simultaneous transmission compliance was evaluated with other Radios (WLAN or BT) using standalone LTE SAR mode.

5G NR Output Power (Unit: dBm)

General Note:

1. 5G NR n2/n5/n7/n12/n25/n26/n66/n71/n38/n41/n48/n77/n78 is NSA mode.
2. 5G NR n2/n5/n7/n12/n14/n25/n26/n30/n66/n70/n71/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 5G NR bands test, using FTM (Factory Test Mode) with default 100% duty cycle transmission to perform SAR testing.
5. 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.
6. 5G NR NSA mode, the power level is the same as 5G NR SA mode, so 5G NR NSA mode and SA mode power table only show one time.
7. 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.
8. 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.
9. 5G NR n41/n77/n78 supports HPUE, HPUE power and SAR testing performed separately.
10. 5G NR n41/n77/n78 HPUE with higher power, 5G NR n41/n77/n78 HPUE SAR can represent power class 3 level SAR.
11. 5G NR n2/n25/n41/n48/66/n77/n78 supports UL MIMO.
12. The device supports HPUE (power class 2) under SISO mode and HPUE (power class 1.5) under UL MIMO mode for 5G NR n41/n77.
13. For NR inter-band ULCA/MIMO mode, MediaTek's TA-SAR algorithm in WWAN adds directly the time-averaged RF exposure between two NR bands. TA-SAR algorithm controls the total RF exposure base on NR inter band ULCA /MIMO bands to not exceed FCC limit.

<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	$\leq 3.5^1$	$\leq 1.2^1$	$\leq 0.2^1$
		$\leq 0.5^2$	$\leq 0.5^2$	0 ²
	QPSK		≤ 1	0
	16 QAM		≤ 2	≤ 1
	64 QAM		≤ 2.5	
CP-OFDM	256 QAM		≤ 4.5	
	QPSK	≤ 3		≤ 1.5
	16 QAM	≤ 3		≤ 2
	64 QAM		≤ 3.5	
	256 QAM		≤ 6.5	

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

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

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

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

<EN-DC combination>

ENDC	Main Antenna Tx		ASDdiv-1 Tx	
	LTE TX	NR TX	LTE TX	NR TX
DC_41A_n77A	Ant 3	Ant 4/Ant 6/Ant 8	Ant 2/Ant 0/Ant 1	Ant 4/Ant 6/Ant 8
DC_41A_n78A	Ant 3	Ant 4/Ant 6/Ant 8	Ant 2/Ant 0/Ant 1	Ant 4/Ant 6/Ant 8
DC_66A_n41A	Ant 2	Ant 3/Ant 0/Ant 1	Ant 3	Ant 2/Ant 0/Ant 1
DC_66A_n5A	Ant 2/Ant 3/Ant 1	Ant 0	Ant 2/Ant 3/Ant 0	Ant 1
DC_12A_n25A	Ant 0	Ant 2/Ant 3/Ant 1	Ant 1	Ant 2/Ant 3/Ant 0
DC_12A_n2A	Ant 0	Ant 2/Ant 3/Ant 1	Ant 1	Ant 2/Ant 3/Ant 0
DC_12A_n38A	Ant 0	Ant 2/Ant 3/Ant 1	Ant 1	Ant 2/Ant 3/Ant 0
DC_12A_n41A	Ant 0	Ant 2/Ant 3/Ant 1	Ant 1	Ant 2/Ant 3/Ant 0
DC_12A_n66A	Ant 0	Ant 2/Ant 3/Ant 1	Ant 1	Ant 2/Ant 3/Ant 0
DC_12A_n77A	Ant 0	Ant 4/Ant 6/Ant 3/Ant 8	Ant 1	Ant 4/Ant 6/Ant 3/Ant 8
DC_12A_n78A	Ant 0	Ant 4/Ant 6/Ant 3/Ant 8	Ant 1	Ant 4/Ant 6/Ant 3/Ant 8
DC_12A_n7A	Ant 0	Ant 2/Ant 3/Ant 1	Ant 1	Ant 2/Ant 3/Ant 0
DC_13A_n2A	Ant 0	Ant 2/Ant 3/Ant 1	Ant 1	Ant 2/Ant 3/Ant 0
DC_13A_n66A	Ant 0	Ant 2/Ant 3/Ant 1	Ant 1	Ant 2/Ant 3/Ant 0
DC_13A_n77A	Ant 0	Ant 4/Ant 6/Ant 3/Ant 8	Ant 1	Ant 4/Ant 6/Ant 3/Ant 8
DC_13A_n78A	Ant 0	Ant 4/Ant 6/Ant 3/Ant 8	Ant 1	Ant 4/Ant 6/Ant 3/Ant 8
DC_14A_n2A	Ant 0	Ant 2/Ant 3/Ant 1	Ant 1	Ant 2/Ant 3/Ant 0
DC_14A_n66A	Ant 0	Ant 2/Ant 3/Ant 1	Ant 1	Ant 2/Ant 3/Ant 0
DC_14A_n77A	Ant 0	Ant 4/Ant 6/Ant 3/Ant 8	Ant 1	Ant 4/Ant 6/Ant 3/Ant 8
DC_17A_n2A	Ant 0	Ant 2/Ant 3/Ant 1	Ant 1	Ant 2/Ant 3/Ant 0
DC_25A_n41A	Ant 2	Ant 3/Ant 0/Ant 1	Ant 3	Ant 2/Ant 0/Ant 1
DC_25A_n66A	Ant 2	Ant 3/Ant 0/Ant 1	Ant 3	Ant 2/Ant 0/Ant 1
DC_25A_n77A	Ant 3	Ant 4/Ant 6/Ant 8	Ant 2/Ant 0/Ant 1	Ant 4/Ant 6/Ant 8
DC_25A_n78A	Ant 3	Ant 4/Ant 6/Ant 8	Ant 2/Ant 0/Ant 1	Ant 4/Ant 6/Ant 8
DC_26A_n25A	Ant 0	Ant 2/Ant 3/Ant 1	Ant 1	Ant 2/Ant 3/Ant 0
DC_26A_n41A	Ant 0	Ant 2/Ant 3/Ant 1	Ant 1	Ant 2/Ant 3/Ant 0
DC_26A_n77A	Ant 0	Ant 4/Ant 6/Ant 3/Ant 8	Ant 1	Ant 4/Ant 6/Ant 3/Ant 8



DC_26A_n78A	Ant 0	Ant 4/Ant 6/Ant 3/Ant 8	Ant 1	Ant 4/Ant 6/Ant 3/Ant 8
DC_2A_n12A	Ant 2/Ant 3/Ant 1	Ant 0	Ant 2/Ant 3/Ant 0	Ant 1
DC_2A_n38A	Ant 2	Ant 3/Ant 0/Ant 1	Ant 3	Ant 2/Ant 0/Ant 1
DC_2A_n41A	Ant 2	Ant 3/Ant 0/Ant 1	Ant 3	Ant 2/Ant 0/Ant 1
DC_2A_n5A	Ant 2/Ant 3/Ant 1	Ant 0	Ant 2/Ant 3/Ant 0	Ant 1
DC_2A_n66A	Ant 2	Ant 3/Ant 0/Ant 1	Ant 3	Ant 2/Ant 0/Ant 1
DC_2A_n71A	Ant 2/Ant 3/Ant 1	Ant 0	Ant 2/Ant 3/Ant 0	Ant 1
DC_2A_n77A	Ant 3	Ant 4/Ant 6/Ant 8	Ant 2/Ant 0/Ant 1	Ant 4/Ant 6/Ant 8
DC_2A_n78A	Ant 3	Ant 4/Ant 6/Ant 8	Ant 2/Ant 0/Ant 1	Ant 4/Ant 6/Ant 8
DC_2A_n7A	Ant 2	Ant 3/Ant 0/Ant 1	Ant 3	Ant 2/Ant 0/Ant 1
DC_30A_n2A	Ant 2	Ant 3/Ant 0/Ant 1	Ant 3	Ant 2/Ant 0/Ant 1
DC_30A_n5A	Ant 2/Ant 3/Ant 1	Ant 0	Ant 2/Ant 3/Ant 0	Ant 1
DC_30A_n66A	Ant 2	Ant 3/Ant 0/Ant 1	Ant 3	Ant 2/Ant 0/Ant 1
DC_30A_n77A	Ant 3	Ant 4/Ant 6/Ant 8	Ant 2/Ant 0/Ant 1	Ant 4/Ant 6/Ant 8
DC_38A_n78A	Ant 3	Ant 4/Ant 6/Ant 8	Ant 2/Ant 0/Ant 1	Ant 4/Ant 6/Ant 8
DC_48A_n2A	Ant 4/Ant 6/Ant 8	Ant 2	Ant 4/Ant 6/Ant 8	Ant 3/Ant 0/Ant 1
DC_48A_n5A	Ant 4/Ant 6/Ant 3/Ant 8	Ant 0	Ant 4/Ant 6/Ant 3/Ant 8	Ant 1
DC_48A_n66A	Ant 4/Ant 6/Ant 8	Ant 2	Ant 4/Ant 6/Ant 8	Ant 3/Ant 0/Ant 1
DC_48A_n71A	Ant 4/Ant 6/Ant 3/Ant 8	Ant 0	Ant 4/Ant 6/Ant 3/Ant 8	Ant 1
DC_4A_n2A	Ant 2	Ant 3/Ant 0/Ant 1	Ant 3	Ant 2/Ant 0/Ant 1
DC_4A_n38A	Ant 2	Ant 3/Ant 0/Ant 1	Ant 3	Ant 2/Ant 0/Ant 1
DC_4A_n41A	Ant 2	Ant 3/Ant 0/Ant 1	Ant 3	Ant 2/Ant 0/Ant 1
DC_4A_n5A	Ant 2/Ant 3/Ant 1	Ant 0	Ant 2/Ant 3/Ant 0	Ant 1
DC_4A_n78A	Ant 3	Ant 4/Ant 6/Ant 8	Ant 2/Ant 0/Ant 1	Ant 4/Ant 6/Ant 8
DC_4A_n7A	Ant 2	Ant 3/Ant 0/Ant 1	Ant 3	Ant 2/Ant 0/Ant 1
DC_5A_n2A	Ant 0	Ant 2/Ant 3/Ant 1	Ant 1	Ant 2/Ant 3/Ant 0
DC_5A_n38A	Ant 0	Ant 2/Ant 3/Ant 1	Ant 1	Ant 2/Ant 3/Ant 0
DC_5A_n41A	Ant 0	Ant 2/Ant 3/Ant 1	Ant 1	Ant 2/Ant 3/Ant 0
DC_5A_n66A	Ant 0	Ant 2/Ant 3/Ant 1	Ant 1	Ant 2/Ant 3/Ant 0
DC_5A_n77A	Ant 0	Ant 4/Ant 6/Ant 3/Ant 8	Ant 1	Ant 4/Ant 6/Ant 3/Ant 8
DC_5A_n78A	Ant 0	Ant 4/Ant 6/Ant 3/Ant 8	Ant 1	Ant 4/Ant 6/Ant 3/Ant 8
DC_5A_n7A	Ant 0	Ant 2/Ant 3/Ant 1	Ant 1	Ant 2/Ant 3/Ant 0
DC_66A_n12A	Ant 2/Ant 3/Ant 1	Ant 0	Ant 2/Ant 3/Ant 0	Ant 1
DC_66A_n25A	Ant 2	Ant 3/Ant 0/Ant 1	Ant 3	Ant 2/Ant 0/Ant 1
DC_66A_n2A	Ant 2	Ant 3/Ant 0/Ant 1	Ant 3	Ant 2/Ant 0/Ant 1
DC_66A_n38A	Ant 2	Ant 3/Ant 0/Ant 1	Ant 3	Ant 2/Ant 0/Ant 1
DC_66A_n71A	Ant 2/Ant 3/Ant 1	Ant 0	Ant 2/Ant 3/Ant 0	Ant 1
DC_66A_n77A	Ant 3	Ant 4/Ant 6/Ant 8	Ant 2/Ant 0/Ant 1	Ant 4/Ant 6/Ant 8
DC_66A_n78A	Ant 3	Ant 4/Ant 6/Ant 8	Ant 2/Ant 0/Ant 1	Ant 4/Ant 6/Ant 8
DC_66A_n7A	Ant 2	Ant 3/Ant 0/Ant 1	Ant 3	Ant 2/Ant 0/Ant 1
DC_71A_n2A	Ant 0	Ant 2/Ant 3/Ant 1	Ant 1	Ant 2/Ant 3/Ant 0
DC_71A_n38A	Ant 0	Ant 2/Ant 3/Ant 1	Ant 1	Ant 2/Ant 3/Ant 0
DC_71A_n41A	Ant 0	Ant 2/Ant 3/Ant 1	Ant 1	Ant 2/Ant 3/Ant 0
DC_71A_n48A	Ant 0	Ant 4/Ant 6/Ant 3/Ant 8	Ant 1	Ant 4/Ant 6/Ant 3/Ant 8
DC_71A_n66A	Ant 0	Ant 2/Ant 3/Ant 1	Ant 1	Ant 2/Ant 3/Ant 0
DC_71A_n78A	Ant 0	Ant 4/Ant 6/Ant 3/Ant 8	Ant 1	Ant 4/Ant 6/Ant 3/Ant 8
DC_7A_n12A	Ant 2/Ant 3/Ant 1	Ant 0	Ant 2/Ant 3/Ant 0	Ant 1
DC_7A_n25A	Ant 2	Ant 3/Ant 0/Ant 1	Ant 3	Ant 2/Ant 0/Ant 1
DC_7A_n26A	Ant 2/Ant 3/Ant 1	Ant 0	Ant 2/Ant 3/Ant 0	Ant 1
DC_7A_n2A	Ant 2	Ant 3/Ant 0/Ant 1	Ant 3	Ant 2/Ant 0/Ant 1
DC_7A_n5A	Ant 2/Ant 3/Ant 1	Ant 0	Ant 2/Ant 3/Ant 0	Ant 1
DC_7A_n66A	Ant 2	Ant 3/Ant 0/Ant 1	Ant 3	Ant 2/Ant 0/Ant 1
DC_7A_n71A	Ant 2/Ant 3/Ant 1	Ant 0	Ant 2/Ant 3/Ant 0	Ant 1
DC_7A_n77A	Ant 3	Ant 4/Ant 6/Ant 8	Ant 2/Ant 0/Ant 1	Ant 4/Ant 6/Ant 8
DC_7A_n78A	Ant 3	Ant 4/Ant 6/Ant 8	Ant 2/Ant 0/Ant 1	Ant 4/Ant 6/Ant 8

Intra-band and Inter-Band CA Configuration:

Intra-band	Antenna Tx	ASDiv-1 Tx	ASDiv-2 Tx	ASDiv-3 Tx
CA_n12A-n30A	Ant0+Ant2/Ant3/Ant1	Ant1+Ant2/Ant3/Ant0	-	-
CA_n12A-n66A	Ant0+Ant2/Ant3/Ant1	Ant1+Ant2/Ant3/Ant0	-	-
CA_n12A-n77A	Ant0+Ant4/Ant6/Ant3/Ant8	Ant1+Ant4/Ant6/Ant3/Ant8	-	-
CA_n14A-n30A	Ant0+Ant2/Ant3/Ant1	Ant1+Ant2/Ant3/Ant0	-	-
CA_n14A-n66A	Ant0+Ant2/Ant3/Ant1	Ant1+Ant2/Ant3/Ant0	-	-
CA_n14A-n77A	Ant0+Ant4/Ant6/Ant3/Ant8	Ant1+Ant4/Ant6/Ant3/Ant8	-	-
CA_n25A-n41A	Ant2+Ant3/Ant0/Ant1	Ant3+Ant2/Ant0/Ant1	Ant0+Ant2/Ant3/Ant1	Ant1+Ant2/Ant3/Ant0
CA_n25A-n48A	Ant3+Ant4/Ant6/Ant8	Ant2+Ant4/Ant6/Ant8	Ant0+Ant4/Ant6/Ant8	Ant1+Ant4/Ant6/Ant8
CA_n25A-n66A	Ant2+Ant3/Ant0/Ant1	Ant3+Ant2/Ant0/Ant1	Ant0+Ant2/Ant3/Ant1	Ant1+Ant2/Ant3/Ant0
CA_n25A-n71A	Ant2+Ant0/Ant1	Ant3+Ant0/Ant1	Ant0+Ant1	Ant1+Ant0
CA_n25A-n77A	Ant3+Ant4/Ant6/Ant8	Ant2+Ant4/Ant6/Ant8	Ant0+Ant4/Ant6/Ant8	Ant1+Ant4/Ant6/Ant8
CA_n26A-n66A	Ant0+Ant2/Ant3/Ant1	Ant1+Ant2/Ant3/Ant0	-	-
CA_n26A-n70A	Ant0+Ant2/Ant3/Ant1	Ant1+Ant2/Ant3/Ant0	-	-
CA_n26A-n77A	Ant0+Ant4/Ant6/Ant3/Ant8	Ant1+Ant4/Ant6/Ant3/Ant8	-	-
CA_n2A-n12A	Ant2+Ant0/Ant1	Ant3+Ant0/Ant1	Ant0+Ant1	Ant1+Ant0
CA_n2A-n30A	Ant2+Ant3/Ant0/Ant1	Ant3+Ant2/Ant0/Ant1	Ant0+Ant2/Ant3/Ant1	Ant1+Ant2/Ant3/Ant0
CA_n2A-n48A	Ant3+Ant4/Ant6/Ant8	Ant2+Ant4/Ant6/Ant8	Ant0+Ant4/Ant6/Ant8	Ant1+Ant4/Ant6/Ant8
CA_n2A-n5A	Ant2+Ant0/Ant1	Ant3+Ant0/Ant1	Ant0+Ant1	Ant1+Ant0
CA_n2A-n77A	Ant3+Ant4/Ant6/Ant8	Ant2+Ant4/Ant6/Ant8	Ant0+Ant4/Ant6/Ant8	Ant1+Ant4/Ant6/Ant8
CA_n30A-n66A	Ant3+Ant2/Ant0/Ant1	Ant2+Ant3/Ant0/Ant1	Ant0+Ant2/Ant3/Ant1	Ant1+Ant2/Ant3/Ant0
CA_n30A-n77A	Ant3+Ant4/Ant6/Ant8	Ant2+Ant4/Ant6/Ant8	Ant0+Ant4/Ant6/Ant8	Ant1+Ant4/Ant6/Ant8
CA_n41A-n48A	Ant3+Ant4/Ant6/Ant8	Ant2+Ant4/Ant6/Ant8	Ant0+Ant4/Ant6/Ant8	Ant1+Ant4/Ant6/Ant8
CA_n41A-n66A	Ant3+Ant2/Ant0/Ant1	Ant2+Ant3/Ant0/Ant1	Ant0+Ant2/Ant3/Ant1	Ant1+Ant2/Ant3/Ant0
CA_n41A-n71A	Ant2+Ant0/Ant1	Ant3+Ant0/Ant1	Ant0+Ant1	Ant1+Ant0
CA_n41A-n77A	Ant3+Ant4/Ant6/Ant8	Ant2+Ant4/Ant6/Ant8	Ant0+Ant4/Ant6/Ant8	Ant1+Ant4/Ant6/Ant8
CA_n41C	Ant2	Ant3	Ant0	Ant1
CA_n48A-n66A	Ant4+Ant3/Ant2/Ant0/Ant1	Ant6+Ant3/Ant2/Ant0/Ant1	Ant8+Ant3/Ant2/Ant0/Ant1	-
CA_n48A-n70A	Ant4+Ant3/Ant2/Ant0/Ant1	Ant6+Ant3/Ant2/Ant0/Ant1	Ant8+Ant3/Ant2/Ant0/Ant1	-
CA_n48A-n71A	Ant4/Ant6/Ant3/Ant8+Ant0	Ant4/Ant6/Ant3/Ant8+Ant1	-	-
CA_n48B	Ant4	Ant6	Ant3	Ant8
CA_n5A-n30A	Ant0+Ant2/Ant3/Ant1	Ant1+Ant2/Ant3/Ant0	-	-
CA_n5A-n48A	Ant0+Ant4/Ant6/Ant3/Ant8	Ant1+Ant4/Ant6/Ant3/Ant8	-	-
CA_n5A-n66A	Ant0+Ant2/Ant3/Ant1	Ant1+Ant2/Ant3/Ant0	-	-
CA_n5A-n77A	Ant0+Ant4/Ant6/Ant3/Ant8	Ant1+Ant4/Ant6/Ant3/Ant8	-	-
CA_n5B	Ant0	Ant1	-	-
CA_n66A-n71A	Ant2+Ant0/Ant1	Ant3+Ant0/Ant1	Ant0+Ant1	Ant1+Ant0
CA_n66A-n77A	Ant3+Ant4/Ant6/Ant8	Ant2+Ant4/Ant6/Ant8	Ant0+Ant4/Ant6/Ant8	Ant1+Ant4/Ant6/Ant8
CA_n70A-n71A	Ant2+Ant0/Ant1	Ant3+Ant0/Ant1	Ant0+Ant1	Ant1+Ant0
CA_n70A-n77A	Ant3+Ant4/Ant6/Ant8	Ant2+Ant4/Ant6/Ant8	Ant0+Ant4/Ant6/Ant8	Ant1+Ant4/Ant6/Ant8
CA_n71A-n77A	Ant0+Ant4/Ant6/Ant3/Ant8	Ant1+Ant4/Ant6/Ant3/Ant8	-	-

NR UL MIMO Bands Configuration:

ULMIMO	Main Antenna Tx	ASDiv Tx
5G NR n2(ULMIMO)	Ant2+Ant3	-
5G NR n25(ULMIMO)	Ant2+Ant3	-
5G NR n41(ULMIMO)	Ant2+Ant3	Ant1/Ant0+Ant3;Ant0+Ant1
5G NR n48(ULMIMO)	Ant4+Ant6	Ant4+Ant8
5G NR n66(ULMIMO)	Ant2+Ant3	-
5G NR n77(ULMIMO)	Ant4+Ant6	Ant4+Ant8
5G NR n78(ULMIMO)	Ant4+Ant6	Ant4+Ant8

<WLAN Conducted Power>

General Note:

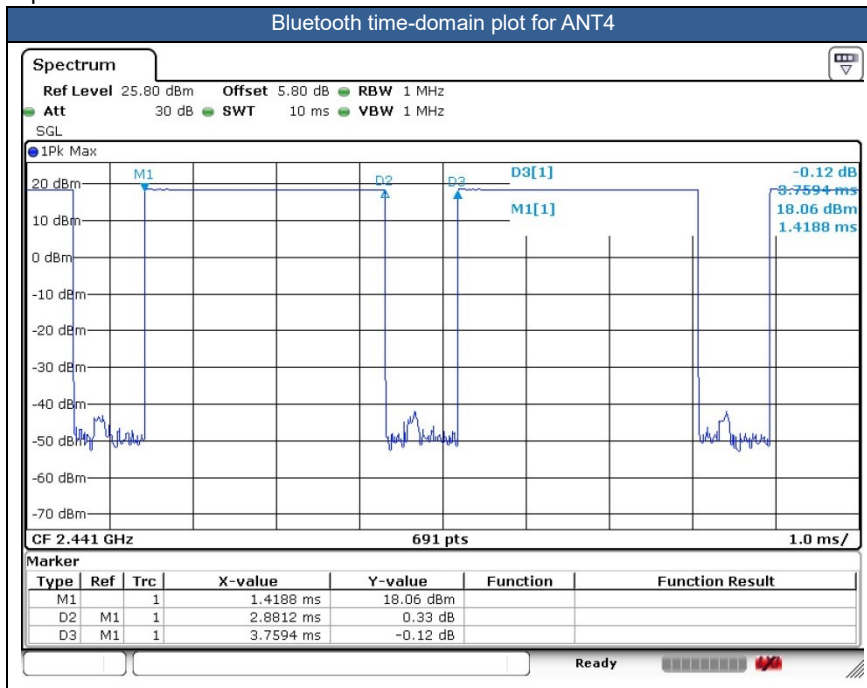
1. The maximum output power specified for production units are determined for all applicable 802.11 transmission modes in each standalone and aggregated frequency band. Maximum output power is measured for the highest maximum output power configuration(s) in each frequency band according to the default 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. The 2.4GHz/5GHz WLAN can transmit in SISO/MIMO antenna mode.
7. 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.
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 SISO antennas respectively to calculate sum of the power for MIMO mode.
9. 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 7 and the WLAN 5GHz SISO antenna 5.



<2.4GHz Bluetooth>

General Note:

1. For 2.4GHz Bluetooth SAR testing was selected 1Mbps, due to its highest average power.
2. The Bluetooth duty cycle are 76.64% as following figure, Bluetooth SAR scaling need further consideration and the theoretical duty cycle is 83.3%, therefore the actual duty cycle will be scaled up to the theoretical value of Bluetooth reported SAR calculation.





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.
 - g. For TDD LTE SAR measurement of power class 2, the duty cycle 1:2.33 (42.9 %) was used perform testing and considering the theoretical duty cycle of 43.3% for extended cyclic prefix in the uplink, and the theoretical duty cycle of 42.9% for normal cyclic prefix in uplink, a scaling factor of extended cyclic prefix 43.3%/42.9% = 1.009 is applied to scale-up the measured SAR result. The reported TDD LTE SAR (W/kg) = measured SAR (W/kg)* Tune-up Scaling Factor* scaling factor for extended cyclic prefix.
2. Per KDB 447498 D01v06, for each exposure position, testing of other required channels within the operating mode of a frequency band is not required when the reported 1-g or 10-g SAR for the mid-band or highest output power channel is:
 - ≤ 0.8 W/kg or 2.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≤ 100 MHz
 - ≤ 0.6 W/kg or 1.5 W/kg, for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz
 - ≤ 0.4 W/kg or 1.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≥ 200 MHz
3. Per KDB 865664 D01v01r04, for each frequency band, repeated SAR measurement is required when the measured SAR is ≥ 0.8 W/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, Hall sensor 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. For WLAN/BT when transmit simultaneously with each other, or when transmit simultaneous with WWAN/BT, power reduction will be activated to head. For WLAN/BT when transmit simultaneous with WWAN and Proximity sensors trigger, power reduction will be activated to body-worn and Handheld.
6. This device supports HPUE for LTE Band 41 with class 2 level, HPUE power has been measured separately. For HPUE power is higher than power class 3 but with lower duty cycle, the maximum average power for class 2 and class 3 is almost the same, so we chose power class 3 full SAR testing and power class 2 verify the worst case of power class 3 SAR.
7. 5G NR n41/n77/n78 HPUE with higher power, 5G NR n41/n77/n78 HPUE SAR can represent power class 3 level SAR.
8. The device supports HPUE (power class 2) under SISO mode and HPUE (power class 1.5) under UL MIMO mode for 5G NR n41/n77.
9. For 5G NR bands test, using FTM (Factory Test Mode) with default 100% duty cycle transmission to perform SAR testing.
10. Per KDB648474 D04v01r03, when the EUT is in flip open configuration with smart phones with a display diagonal dimension > 15.0 cm or an overall diagonal dimension > 16.0 cm, when hotspot mode applies, 10-g extremity SAR is required only for the surfaces and edges with hotspot mode 1-g reported SAR > 1.2 W/kg, however, when power reduction applies to hotspot mode the measured SAR must be scaled to the maximum output power, including tolerance, allowed for phablet modes to compare with the 1.2 W/kg SAR test reduction threshold.
 - a. For this device SAR for WWAN/WLAN transmitter scaled to maximum output power mode for product specific 10g SAR is higher than 1.2 W/kg of GSM1900, WCDMA Band II/IV, LTE Band 2/4/5/7/12/17/25/26/30/66/38/41/48, 5G NR n2/n7/ n25/n30/n66/n70/n41/n48/n77/n78, WLAN2.4/ Bluetooth/5.2GHz/5.8GHz, therefore product specific 10g SAR

is necessary.

- b. WLAN 5.3/5.5GHz/6GHz tested the product specific 10g SAR since it has no hotspot mode.
 - c. When 10-g product specific 10g SAR is considered, SAR thresholds is specified in the procedures for SAR test reduction and exclusion should be multiplied by 2.5.
11. Although the headset SAR is greater than 0.8 W/kg, the headset SAR verified the worst of the non-headset SAR and less than non-headset SAR, so there is no need to be tested other channels.
 12. Although the distance 1gSAR is greater than 0.8 W/kg at body-worn exposure conditions, the distance SAR verified the worst of the non-distance SAR and less than non-distance SAR, so there is no need to be tested other channels.
 13. According to Nov. 2017 TCB workshop, when the reported 1gSAR for UL CA configuration is <1.2 W/kg, UL CA 1gSAR is not required for all required test channels (PCC based).
 14. The EUT has two work states, flip open and flip close, SAR testing have been evaluated two states. For head mode, only flip open mode is performed SAR testing. When it is in flip close configuration since the diagonal dimension is < 160 mm, 10-g extremity SAR tests are not required. When it is in flip open configuration since the diagonal dimension is > 160 mm and < 200 mm. Therefore, 10-g extremity SAR tests are required when wireless router mode does not apply or if wireless router 1g SAR > 1.2 W/kg. Additional SAR tests for 10-g extremity SAR were evaluated per KDB 616217 Section 6.
 15. LTE Band 2/4/7/25/30/38/41/66 at ant3 and 5GNR n2/7/25/66/38/41 at ant 3, 5GNR n48/77/78 at ant 6 support different Paths for some antennas, and LTE/NR bands support Other Path only under ENDC & UL CA. For some LTE bands support different Paths for some antennas, the maximum power of Main Path is higher than and very close to the other Path, for RF exposure, the main Path was chosen to perform full SAR testing to ensure the RF exposure is compliance. Some NR bands support different Paths for some antennas, the maximum power of Main Path is less than and very close to the other Path, for RF exposure, after verification all Paths in a same position, so the worst-case Path was chosen to perform full SAR testing to ensure the RF exposure is compliance and other Paths 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 \leq 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 \leq 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 \leq 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 $\frac{1}{2}$ 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 $\frac{1}{2}$ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg; Per KDB 941225 D05v02r05, smaller bandwidth SAR testing is not required.
6. For LTE B4 / B5 / B12 / B17 / B26 / B38 / B71 the maximum bandwidth does not support three non-overlapping channels, per KDB 941225 D05v02r05, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.
7. LTE B2 / B4 / B5 / B17 / B38 SAR test was covered by B25 / B66 / B26 / B12 / B41; according to April 2015 TCB workshop, SAR test for overlapping LTE bands can be reduced if
 - a. the maximum output power, including tolerance, for the smaller band is \leq 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 $\frac{1}{2}$ 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 $\frac{1}{2}$ 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/n12/n25/n26/n66/n71/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/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 7 and the WLAN 5GHz SISO antenna 5.
8. For determination of the scaling factor for report SAR of MIMO mode, if the hot spots are separated the scaling factors are individually determined from each transmit chain. Further simplification chose the worse SAR value and the worst scaling factor from each transmit chain perform reported SAR calculation conservatively. If the hot spots are not spatially separated, the scaling factor is determined from the worst number of each transmit chain.

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	EUT Flip State	Trigger conditions
Head SAR-Standalone	ECI 2	Flip Open	Earpiece On
Hotspot Mode SAR	ECI 9	Flip Open	Hotspot On
Hotspot Mode SAR	ECI 10	Flip Close	Hotspot On
Body worn Mode SAR-Standalone	ECI 3	Flip Open	Sensor On
Body worn Mode SAR-Standalone	ECI 5	Flip Close	Sensor On
Extremity (Handheld) SAR-Standalone	ECI 6	Flip Open	Sensor On
Sensor off SAR	ECI 4	Flip Open/Flip Close	Sensor Off



16.1 Head SAR

<Flip open>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
750MHz																				
	LTE Band 71	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	ECI 2	133322	683	22.54	24.00	1.400	-	-	0.08	0.193	0.270
	LTE Band 71	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 0	ECI 2	133322	683	21.60	23.00	1.380	-	-	0.01	0.160	0.221
	LTE Band 71	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	ECI 2	133322	683	22.54	24.00	1.400	-	-	0.03	0.123	0.172
	LTE Band 71	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 0	ECI 2	133322	683	21.60	23.00	1.380	-	-	-0.08	0.098	0.135
01	LTE Band 71	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	ECI 2	133322	683	22.54	24.00	1.400	-	-	-0.02	0.327	0.458
	LTE Band 71	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 0	ECI 2	133322	683	21.60	23.00	1.380	-	-	0.1	0.264	0.364
	LTE Band 71	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	ECI 2	133322	683	22.54	24.00	1.400	-	-	-0.18	0.186	0.260
	LTE Band 71	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 0	ECI 2	133322	683	21.60	23.00	1.380	-	-	0.03	0.148	0.204
	LTE Band 71	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	ECI 2	133322	683	22.13	23.00	1.222	-	-	0.08	0.088	0.108
	LTE Band 71	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 1	ECI 2	133322	683	21.18	22.00	1.208	-	-	-0.03	0.068	0.082
	LTE Band 71	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	ECI 2	133322	683	22.13	23.00	1.222	-	-	-0.03	0.060	0.073
	LTE Band 71	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 1	ECI 2	133322	683	21.18	22.00	1.208	-	-	0.08	0.042	0.051
	LTE Band 71	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	ECI 2	133322	683	22.13	23.00	1.222	-	-	-0.07	0.074	0.090
	LTE Band 71	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 1	ECI 2	133322	683	21.18	22.00	1.208	-	-	0.05	0.054	0.065
	LTE Band 71	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	ECI 2	133322	683	22.13	23.00	1.222	-	-	-0.11	0.044	0.054
	LTE Band 71	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 1	ECI 2	133322	683	21.18	22.00	1.208	-	-	-0.12	0.036	0.043
	LTE Band 12	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	ECI 2	23095	707.5	22.21	23.00	1.199	-	-	0.08	0.208	0.249
	LTE Band 12	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 0	ECI 2	23095	707.5	21.18	22.00	1.208	-	-	-0.17	0.163	0.197
	LTE Band 12	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	ECI 2	23095	707.5	22.21	23.00	1.199	-	-	-0.03	0.149	0.179
	LTE Band 12	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 0	ECI 2	23095	707.5	21.18	22.00	1.208	-	-	0.14	0.118	0.143
02	LTE Band 12	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	ECI 2	23095	707.5	22.21	23.00	1.199	-	-	0.13	0.317	0.380
	LTE Band 12	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 0	ECI 2	23095	707.5	21.18	22.00	1.208	-	-	0.11	0.254	0.307
	LTE Band 12	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	ECI 2	23095	707.5	22.21	23.00	1.199	-	-	-0.05	0.179	0.215
	LTE Band 12	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 0	ECI 2	23095	707.5	21.18	22.00	1.208	-	-	0.18	0.147	0.178
	LTE Band 12	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	ECI 2	23095	707.5	21.76	23.00	1.330	-	-	-0.06	0.090	0.120
	LTE Band 12	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 1	ECI 2	23095	707.5	20.78	22.00	1.324	-	-	0.03	0.068	0.090
	LTE Band 12	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	ECI 2	23095	707.5	21.76	23.00	1.330	-	-	-0.16	0.060	0.080
	LTE Band 12	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 1	ECI 2	23095	707.5	20.78	22.00	1.324	-	-	-0.02	0.050	0.066
	LTE Band 12	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	ECI 2	23095	707.5	21.76	23.00	1.330	-	-	0.15	0.061	0.081
	LTE Band 12	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 1	ECI 2	23095	707.5	20.78	22.00	1.324	-	-	-0.09	0.049	0.065
	LTE Band 12	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	ECI 2	23095	707.5	21.76	23.00	1.330	-	-	0.11	0.010	0.013
	LTE Band 12	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 1	ECI 2	23095	707.5	20.78	22.00	1.324	-	-	-0.05	0.005	0.007
	LTE Band 13	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	ECI 2	23230	782	22.20	23.00	1.202	-	-	-0.17	0.194	0.233
	LTE Band 13	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 0	ECI 2	23230	782	21.17	22.00	1.211	-	-	0.17	0.151	0.183
	LTE Band 13	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	ECI 2	23230	782	22.20	23.00	1.202	-	-	-0.05	0.141	0.170
	LTE Band 13	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 0	ECI 2	23230	782	21.17	22.00	1.211	-	-	0.01	0.108	0.131
03	LTE Band 13	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	ECI 2	23230	782	22.20	23.00	1.202	-	-	-0.12	0.292	0.351
	LTE Band 13	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 0	ECI 2	23230	782	21.17	22.00	1.211	-	-	0.1	0.232	0.281
	LTE Band 13	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	ECI 2	23230	782	22.20	23.00	1.202	-	-	-0.17	0.175	0.210
	LTE Band 13	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 0	ECI 2	23230	782	21.17	22.00	1.211	-	-	0.04	0.143	0.173
	LTE Band 13	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	ECI 2	23230	782	21.92	23.00	1.282	-	-	-0.03	0.084	0.108
	LTE Band 13	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 1	ECI 2	23230	782	20.97	22.00	1.268	-	-	0.16	0.062	0.079
	LTE Band 13	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	ECI 2	23230	782	21.92	23.00	1.282	-	-	0.05	0.055	0.071
	LTE Band 13	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 1	ECI 2	23230	782	20.97	22.00	1.268	-	-	0.05	0.043	0.055
	LTE Band 13	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	ECI 2	23230	782	21.92	23.00	1.282	-	-	-0.03	0.061	0.078
	LTE Band 13	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 1	ECI 2	23230	782	20.97	22.00	1.268	-	-	-0.15	0.047	0.060
	LTE Band 13	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	ECI 2	23230	782	21.92	23.00	1.282	-	-	0.02	0.015	0.019
	LTE Band 13	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 1	ECI 2	23230	782	20.97	22.00	1.268	-	-	0.07	0.006	0.008
	LTE Band 14	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	ECI 2	23330	793	22.31	23.00	1.172	-	-	-0.08	0.196	0.230
	LTE Band 14	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 0	ECI 2	23330	793	21.31	22.00	1.172	-	-	0.05	0.153	0.179
	LTE Band 14	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	ECI 2	23330	793	22.31	23.00	1.172	-	-	0.06	0.144	0.169



	LTE Band 14	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 0	ECI 2	23330	793	21.31	22.00	1.172	-	-	-0.09	0.116	0.136
04	LTE Band 14	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	ECI 2	23330	793	22.31	23.00	1.172	-	-	-0.12	0.318	0.373
	LTE Band 14	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 0	ECI 2	23330	793	21.31	22.00	1.172	-	-	-0.08	0.247	0.290
	LTE Band 14	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	ECI 2	23330	793	22.31	23.00	1.172	-	-	0.13	0.200	0.234
	LTE Band 14	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 0	ECI 2	23330	793	21.31	22.00	1.172	-	-	0.12	0.156	0.183
	LTE Band 14	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	ECI 2	23330	793	21.95	23.00	1.274	-	-	0.01	0.071	0.090
	LTE Band 14	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 1	ECI 2	23330	793	20.98	22.00	1.265	-	-	0.13	0.055	0.070
	LTE Band 14	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	ECI 2	23330	793	21.95	23.00	1.274	-	-	-0.18	0.051	0.065
	LTE Band 14	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 1	ECI 2	23330	793	20.98	22.00	1.265	-	-	0.02	0.031	0.039
	LTE Band 14	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	ECI 2	23330	793	21.95	23.00	1.274	-	-	0.16	0.047	0.060
	LTE Band 14	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 1	ECI 2	23330	793	20.98	22.00	1.265	-	-	-0.03	0.029	0.037
	LTE Band 14	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	ECI 2	23330	793	21.95	23.00	1.274	-	-	0.07	0.021	0.027
	LTE Band 14	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 1	ECI 2	23330	793	20.98	22.00	1.265	-	-	0.02	0.011	0.014
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	ECI 2	136100	680.5	23.69	24.00	1.074	-	-	0.03	0.056	0.060
	FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	ECI 2	136100	680.5	23.50	24.00	1.122	-	-	0.18	0.078	0.088
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 0	ECI 2	136100	680.5	23.69	24.00	1.074	-	-	0.16	0.010	0.011
	FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Right Tilted	0mm	Ant 0	ECI 2	136100	680.5	23.50	24.00	1.122	-	-	-0.1	0.006	0.007
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	ECI 2	136100	680.5	23.69	24.00	1.074	-	-	0.07	0.106	0.114
05	FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	ECI 2	136100	680.5	23.50	24.00	1.122	-	-	0.01	0.134	0.150
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 0	ECI 2	136100	680.5	23.69	24.00	1.074	-	-	-0.1	0.056	0.060
	FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Left Tilted	0mm	Ant 0	ECI 2	136100	680.5	23.50	24.00	1.122	-	-	0.01	0.068	0.076
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	ECI 2	136100	680.5	23.50	24.00	1.122	-	-	-0.01	0.065	0.073
	FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	ECI 2	136100	680.5	23.39	24.00	1.151	-	-	-0.14	0.069	0.079
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	ECI 2	136100	680.5	23.50	24.00	1.122	-	-	-0.04	0.021	0.024
	FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	ECI 2	136100	680.5	23.39	24.00	1.151	-	-	-0.09	0.016	0.018
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 1	ECI 2	136100	680.5	23.50	24.00	1.122	-	-	-0.17	0.062	0.070
	FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Left Cheek	0mm	Ant 1	ECI 2	136100	680.5	23.39	24.00	1.151	-	-	-0.1	0.064	0.074
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 1	ECI 2	136100	680.5	23.50	24.00	1.122	-	-	0.18	0.030	0.034
	FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Left Tilted	0mm	Ant 1	ECI 2	136100	680.5	23.39	24.00	1.151	-	-	-0.17	0.016	0.018
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	ECI 2	141500	707.5	23.27	24.00	1.183	-	-	0.19	0.010	0.012
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	ECI 2	141500	707.5	23.24	24.00	1.191	-	-	0.07	0.008	0.010
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 0	ECI 2	141500	707.5	23.27	24.00	1.183	-	-	-0.18	0.006	0.007
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Right Tilted	0mm	Ant 0	ECI 2	141500	707.5	23.24	24.00	1.191	-	-	0.03	0.003	0.004
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	ECI 2	141500	707.5	23.27	24.00	1.183	-	-	-0.15	0.046	0.054
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	ECI 2	141500	707.5	23.24	24.00	1.191	-	-	0.03	0.048	0.057
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 0	ECI 2	141500	707.5	23.27	24.00	1.183	-	-	0.11	0.004	0.005
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Left Tilted	0mm	Ant 0	ECI 2	141500	707.5	23.24	24.00	1.191	-	-	-0.08	0.001	0.001
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	ECI 2	141500	707.5	23.01	24.00	1.256	-	-	-0.05	0.048	0.060
06	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	ECI 2	141500	707.5	22.97	24.00	1.268	-	-	-0.15	0.059	0.075
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	ECI 2	141500	707.5	23.01	24.00	1.256	-	-	-0.13	0.021	0.026
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	ECI 2	141500	707.5	22.97	24.00	1.268	-	-	-0.01	0.012	0.015
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 1	ECI 2	141500	707.5	23.01	24.00	1.256	-	-	-0.09	0.010	0.013
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Left Cheek	0mm	Ant 1	ECI 2	141500	707.5	22.97	24.00	1.268	-	-	0.05	0.008	0.010
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 1	ECI 2	141500	707.5	23.01	24.00	1.256	-	-	0.02	0.004	0.005
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Left Tilted	0mm	Ant 1	ECI 2	141500	707.5	22.97	24.00	1.268	-	-	-0.13	0.002	0.003
	FR1 n14	10M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	ECI 2	158600	793	23.63	24.00	1.089	-	-	-0.08	0.132	0.144
	FR1 n14	10M	QPSK	25	14	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	ECI 2	158600	793	23.55	24.00	1.109	-	-	-0.04	0.126	0.140
	FR1 n14	10M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 0	ECI 2	158600	793	23.63	24.00	1.089	-	-	-0.08	0.091	0.099
	FR1 n14	10M	QPSK	25	14	DFT-SCS-15KHz	Right Tilted	0mm	Ant 0	ECI 2	158600	793	23.55	24.00	1.109	-	-	0.17	0.087	0.096
07	FR1 n14	10M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	ECI 2	158600	793	23.63	24.00	1.089	-	-	0.04	0.219	0.238
	FR1 n14	10M	QPSK	25	14	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	ECI 2	158600	793	23.55	24.00	1.109	-	-	-0.04	0.210	0.233
	FR1 n14	10M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 0	ECI 2	158600	793	23.63	24.00	1.089	-	-	-0.08	0.135	0.147
	FR1 n14	10M	QPSK	25	14	DFT-SCS-15KHz	Left Tilted	0mm	Ant 0	ECI 2	158600	793	23.55	24.00	1.109	-	-	-0.13	0.131	0.145
	FR1 n14	10M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	ECI 2	158600	793	23.34	24.00	1.164	-	-	0.06	0.068	0.079
	FR1 n14	10M	QPSK	25	14	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	ECI 2	158600	793	23.27	24.00	1.183	-	-	0.02	0.069	0.082
	FR1 n14	10M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	ECI 2	158600	793	23.34	24.00	1.164	-	-	-0.04	0.049	0.057
	FR1 n14	10M	QPSK	25	14	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	ECI 2	158600	793	23.27	24.00	1.183	-	-	-0.15	0.044	0.052



	FR1 n14	10M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 1	ECI 2	158600	793	23.34	24.00	1.164	-	-	0.11	0.046	0.054
	FR1 n14	10M	QPSK	25	14	DFT-SCS-15KHz	Left Cheek	0mm	Ant 1	ECI 2	158600	793	23.27	24.00	1.183	-	-	-0.02	0.050	0.059
	FR1 n14	10M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 1	ECI 2	158600	793	23.34	24.00	1.164	-	-	0.1	0.024	0.028
	FR1 n14	10M	QPSK	25	14	DFT-SCS-15KHz	Left Tilted	0mm	Ant 1	ECI 2	158600	793	23.27	24.00	1.183	-	-	0.04	0.016	0.019
835MHz																				
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Right Cheek	0mm	Ant 0	ECI 2	189	836.4	27.48	29.00	1.419	-	-	0.13	0.153	0.217
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Right Tilted	0mm	Ant 0	ECI 2	189	836.4	27.48	29.00	1.419	-	-	-0.18	0.106	0.150
08	GSM850	-	-	-	-	GPRS (4 Tx slots)	Left Cheek	0mm	Ant 0	ECI 2	189	836.4	27.48	29.00	1.419	-	-	-0.11	0.257	0.365
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Left Tilted	0mm	Ant 0	ECI 2	189	836.4	27.48	29.00	1.419	-	-	-0.16	0.171	0.243
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Right Cheek	0mm	Ant 1	ECI 2	189	836.4	27.50	29.00	1.413	-	-	0.1	0.087	0.123
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Right Tilted	0mm	Ant 1	ECI 2	189	836.4	27.50	29.00	1.413	-	-	-0.04	0.065	0.092
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Left Cheek	0mm	Ant 1	ECI 2	189	836.4	27.50	29.00	1.413	-	-	-0.01	0.052	0.073
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Left Tilted	0mm	Ant 1	ECI 2	189	836.4	27.50	29.00	1.413	-	-	0.03	0.034	0.048
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 0	ECI 2	4182	836.4	24.34	25.00	1.164	-	-	-0.15	0.121	0.141
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 0	ECI 2	4182	836.4	24.34	25.00	1.164	-	-	-0.06	0.080	0.093
09	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 0	ECI 2	4182	836.4	24.34	25.00	1.164	-	-	0.05	0.205	0.239
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 0	ECI 2	4182	836.4	24.34	25.00	1.164	-	-	-0.14	0.119	0.139
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 1	ECI 2	4182	836.4	24.34	25.00	1.164	-	-	-0.02	0.046	0.054
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 1	ECI 2	4182	836.4	24.34	25.00	1.164	-	-	-0.11	0.031	0.036
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 1	ECI 2	4182	836.4	24.34	25.00	1.164	-	-	-0.06	0.021	0.024
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 1	ECI 2	4182	836.4	24.34	25.00	1.164	-	-	-0.15	0.016	0.019
	LTE Band 26	15M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	ECI 2	26865	831.5	22.22	23.00	1.197	-	-	-0.19	0.208	0.249
	LTE Band 26	15M	QPSK	36	0	-	Right Cheek	0mm	Ant 0	ECI 2	26865	831.5	21.30	22.00	1.175	-	-	0.01	0.171	0.201
	LTE Band 26	15M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	ECI 2	26865	831.5	22.22	23.00	1.197	-	-	0.06	0.132	0.158
	LTE Band 26	15M	QPSK	36	0	-	Right Tilted	0mm	Ant 0	ECI 2	26865	831.5	21.30	22.00	1.175	-	-	0.02	0.106	0.125
10	LTE Band 26	15M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	ECI 2	26865	831.5	22.22	23.00	1.197	-	-	0.17	0.340	0.407
	LTE Band 26	15M	QPSK	36	0	-	Left Cheek	0mm	Ant 0	ECI 2	26865	831.5	21.30	22.00	1.175	-	-	0.12	0.269	0.316
	LTE Band 26	15M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	ECI 2	26865	831.5	22.22	23.00	1.197	-	-	-0.16	0.183	0.219
	LTE Band 26	15M	QPSK	36	0	-	Left Tilted	0mm	Ant 0	ECI 2	26865	831.5	21.30	22.00	1.175	-	-	-0.12	0.144	0.169
	LTE Band 5B	10M	QPSK	1	49	-	Left Cheek	0mm	Ant 0	ECI 2	20476+ 20575	831.6+ 841.5	21.99	23.00	1.262	-	-	0.02	0.285	0.360
	LTE Band 26	15M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	ECI 2	26865	831.5	21.92	23.00	1.282	-	-	0.03	0.061	0.078
	LTE Band 26	15M	QPSK	36	0	-	Right Cheek	0mm	Ant 1	ECI 2	26865	831.5	20.95	22.00	1.274	-	-	-0.13	0.050	0.064
	LTE Band 26	15M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	ECI 2	26865	831.5	21.92	23.00	1.282	-	-	0.16	0.006	0.008
	LTE Band 26	15M	QPSK	36	0	-	Right Tilted	0mm	Ant 1	ECI 2	26865	831.5	20.95	22.00	1.274	-	-	-0.15	0.001	0.001
	LTE Band 26	15M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	ECI 2	26865	831.5	21.92	23.00	1.282	-	-	-0.02	0.048	0.062
	LTE Band 26	15M	QPSK	36	0	-	Left Cheek	0mm	Ant 1	ECI 2	26865	831.5	20.95	22.00	1.274	-	-	-0.09	0.032	0.041
	LTE Band 26	15M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	ECI 2	26865	831.5	21.92	23.00	1.282	-	-	0.14	0.051	0.065
	LTE Band 26	15M	QPSK	36	0	-	Left Tilted	0mm	Ant 1	ECI 2	26865	831.5	20.95	22.00	1.274	-	-	0.1	0.043	0.055
	LTE Band 5B	10M	QPSK	1	49	-	Right Cheek	0mm	Ant 1	ECI 2	20476+ 20575	831.6+ 841.5	21.72	23.00	1.343	-	-	0.02	0.045	0.060
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	ECI 2	166300	831.5	23.40	24.00	1.148	-	-	0.07	0.137	0.157
	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	ECI 2	166300	831.5	23.36	24.00	1.159	-	-	-0.02	0.140	0.162
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 0	ECI 2	166300	831.5	23.40	24.00	1.148	-	-	-0.05	0.084	0.096
	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Right Tilted	0mm	Ant 0	ECI 2	166300	831.5	23.36	24.00	1.159	-	-	-0.13	0.087	0.101
11	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	ECI 2	166300	831.5	23.40	24.00	1.148	-	-	0.03	0.220	0.253
	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	ECI 2	166300	831.5	23.36	24.00	1.159	-	-	0.16	0.217	0.251
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 0	ECI 2	166300	831.5	23.40	24.00	1.148	-	-	0.01	0.123	0.141
	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Left Tilted	0mm	Ant 0	ECI 2	166300	831.5	23.36	24.00	1.159	-	-	-0.16	0.133	0.154
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	ECI 2	166300	831.5	23.13	24.00	1.222	-	-	-0.09	0.085	0.104
	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	ECI 2	166300	831.5	23.04	24.00	1.247	-	-	0.07	0.087	0.109
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	ECI 2	166300	831.5	23.13	24.00	1.222	-	-	-0.09	0.057	0.070
	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	ECI 2	166300	831.5	23.04	24.00	1.247	-	-	-0.16	0.056	0.070
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 1	ECI 2	166300	831.5	23.13	24.00	1.222	-	-	-0.18	0.068	0.083
	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Left Cheek	0mm	Ant 1	ECI 2	166300	831.5	23.04	24.00	1.247	-	-	-0.07	0.071	0.089
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 1	ECI 2	166300	831.5	23.13	24.00	1.222	-	-	0.11	0.010	0.012
	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Left Tilted	0mm	Ant 1	ECI 2	166300	831.5	23.04	24.00	1.247	-	-	-0.08	0.006	0.007
1750MHz																				
12	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 2	ECI 2	1413	1732.6	15.58	16.60	1.265	-	-	0.02	0.693	0.876



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	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 2	ECI 2	1312	1712.4	15.52	16.60	1.282	-	-	-0.01	0.628	0.805
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 2	ECI 2	1513	1752.6	15.50	16.60	1.288	-	-	-0.09	0.614	0.791
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 2	ECI 2	1413	1732.6	15.58	16.60	1.265	-	-	-0.06	0.143	0.181
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 2	ECI 2	1413	1732.6	15.58	16.60	1.265	-	-	-0.17	0.259	0.328
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 2	ECI 2	1413	1732.6	15.58	16.60	1.265	-	-	0.14	0.074	0.094
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 3	ECI 2	1413	1732.6	15.65	16.70	1.274	-	-	0.08	0.647	0.824
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 3	ECI 2	1312	1712.4	15.60	16.70	1.288	-	-	0.01	0.662	0.853
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 3	ECI 2	1513	1752.6	15.62	16.70	1.282	-	-	0.02	0.682	0.875
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 3	ECI 2	1413	1732.6	15.65	16.70	1.274	-	-	0.03	0.557	0.709
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 3	ECI 2	1413	1732.6	15.65	16.70	1.274	-	-	0.1	0.379	0.483
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 3	ECI 2	1413	1732.6	15.65	16.70	1.274	-	-	0.12	0.466	0.593
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 0	ECI 2	1413	1732.6	22.22	23.00	1.197	-	-	0.02	0.010	0.012
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 0	ECI 2	1413	1732.6	22.22	23.00	1.197	-	-	0.01	0.006	0.007
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 0	ECI 2	1413	1732.6	22.22	23.00	1.197	-	-	-0.15	0.003	0.004
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 0	ECI 2	1413	1732.6	22.22	23.00	1.197	-	-	0.19	0.001	0.001
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 1	ECI 2	1413	1732.6	21.58	23.00	1.387	-	-	-0.04	0.021	0.029
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 1	ECI 2	1413	1732.6	21.58	23.00	1.387	-	-	-0.08	0.016	0.022
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 1	ECI 2	1413	1732.6	21.58	23.00	1.387	-	-	0.17	0.010	0.014
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 1	ECI 2	1413	1732.6	21.58	23.00	1.387	-	-	0.18	0.005	0.007
13	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	ECI 2	132322	1745	12.52	13.50	1.253	-	-	0.01	0.707	0.886
	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	ECI 2	132072	1720	12.48	13.50	1.265	-	-	-0.06	0.691	0.874
	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	ECI 2	132572	1770	12.45	13.50	1.274	-	-	0.03	0.685	0.872
	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 2	ECI 2	132322	1745	12.49	13.50	1.262	-	-	-0.03	0.666	0.840
	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 2	ECI 2	132072	1720	12.42	13.50	1.282	-	-	0.07	0.673	0.863
	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 2	ECI 2	132572	1770	12.33	13.50	1.309	-	-	-0.12	0.655	0.858
	LTE Band 66	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 2	ECI 2	132322	1745	12.44	13.50	1.276	-	-	-0.03	0.649	0.828
	LTE Band 66	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 2	ECI 2	132322	1745	12.52	13.50	1.253	-	-	0.02	0.124	0.155
	LTE Band 66	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 2	ECI 2	132322	1745	12.49	13.50	1.262	-	-	-0.03	0.103	0.130
	LTE Band 66	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 2	ECI 2	132322	1745	12.52	13.50	1.253	-	-	0.05	0.255	0.320
	LTE Band 66	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 2	ECI 2	132322	1745	12.49	13.50	1.262	-	-	-0.05	0.209	0.264
	LTE Band 66	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 2	ECI 2	132322	1745	12.52	13.50	1.253	-	-	0.01	0.069	0.086
	LTE Band 66	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 2	ECI 2	132322	1745	12.49	13.50	1.262	-	-	-0.05	0.056	0.071
	LTE Band 66C	20M	QPSK	1	99	-	Right Cheek	0mm	Ant 2	ECI 2	132322+132520	1745+1764.8	12.41	13.50	1.285	-	-	0.02	0.656	0.843
	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	ECI 2	132322	1745	14.35	15.50	1.303	-	-	-0.03	0.649	0.846
	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	ECI 2	132072	1720	14.28	15.50	1.324	-	-	0.14	0.658	0.871
	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	ECI 2	132572	1770	14.30	15.50	1.318	-	-	0.02	0.669	0.882
	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	ECI 2	132322	1745	14.33	15.50	1.309	-	-	0.11	0.617	0.808
	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	ECI 2	132072	1720	14.24	15.50	1.337	-	-	-0.05	0.636	0.850
	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	ECI 2	132572	1770	14.26	15.50	1.330	-	-	0.18	0.624	0.830
	LTE Band 66	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 3	ECI 2	132322	1745	14.28	15.50	1.324	-	-	0.14	0.622	0.824
	LTE Band 66	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 3	ECI 2	132322	1745	14.35	15.50	1.303	-	-	-0.17	0.493	0.642
	LTE Band 66	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 3	ECI 2	132322	1745	14.33	15.50	1.309	-	-	0.01	0.395	0.517
	LTE Band 66	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	ECI 2	132322	1745	14.35	15.50	1.303	-	-	-0.01	0.369	0.481
	LTE Band 66	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 3	ECI 2	132322	1745	14.33	15.50	1.309	-	-	0.06	0.300	0.393
	LTE Band 66	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 3	ECI 2	132322	1745	14.35	15.50	1.303	-	-	0.12	0.399	0.520
	LTE Band 66	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 3	ECI 2	132572+132374	1745+1770+1750.2	14.33	15.50	1.309	-	-	0.16	0.322	0.422
	LTE Band 66C	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	ECI 2	132572+132374	1770+1750.2	14.19	15.50	1.352	-	-	0.02	0.613	0.829
	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	ECI 2	132322	1745	23.37	24.00	1.156	-	-	-0.18	0.083	0.096
	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 0	ECI 2	132322	1745	22.34	23.00	1.164	-	-	0.03	0.067	0.078
	LTE Band 66	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	ECI 2	132322	1745	23.37	24.00	1.156	-	-	-0.15	0.042	0.049
	LTE Band 66	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 0	ECI 2	132322	1745	22.34	23.00	1.164	-	-	-0.15	0.034	0.040
	LTE Band 66	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	ECI 2	132322	1745	23.37	24.00	1.156	-	-	0.11	0.060	0.069
	LTE Band 66	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 0	ECI 2	132322	1745	22.34	23.00	1.164	-	-	-0.08	0.046	0.054
	LTE Band 66	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	ECI 2	132322	1745	23.37	24.00	1.156	-	-	-0.17	0.030	0.035
	LTE Band 66	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 0	ECI 2	132322	1745	22.34	23.00	1.164	-	-	-0.08	0.016	0.019
	LTE Band 66C	20M	QPSK	1	99	-	Right Cheek	0mm	Ant 0	ECI 2	132322+132520	1745+1764.8	22.76	24.00	1.330	-	-	0.02	0.042	0.056
	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	ECI 2	132322	1745	23.12	24.00	1.225	-	-	-0.08	0.165	0.202



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	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 1	ECI 2	132322	1745	22.15	23.00	1.216	-	-	-0.13	0.130	0.158
	LTE Band 66	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	ECI 2	132322	1745	23.12	24.00	1.225	-	-	-0.13	0.089	0.109
	LTE Band 66	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 1	ECI 2	132322	1745	22.15	23.00	1.216	-	-	0.06	0.070	0.085
	LTE Band 66	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	ECI 2	132322	1745	23.12	24.00	1.225	-	-	-0.03	0.118	0.145
	LTE Band 66	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 1	ECI 2	132322	1745	22.15	23.00	1.216	-	-	-0.03	0.093	0.113
	LTE Band 66	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	ECI 2	132322	1745	23.12	24.00	1.225	-	-	0.08	0.094	0.115
	LTE Band 66	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 1	ECI 2	132322	1745	22.15	23.00	1.216	-	-	-0.07	0.075	0.091
	LTE Band 66C	20M	QPSK	1	99	-	Right Cheek	0mm	Ant 1	ECI 2	132322+ 132520	1745+ 1764.8	23.04	24.00	1.247	-	-	0.01	0.142	0.177
	FR1 n70	15M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 2	ECI 2	340500	1702.5	15.68	16.50	1.208	-	-	0.03	0.729	0.880
	FR1 n70	15M	QPSK	36	22	DFT-SCS-15KHz	Right Cheek	0mm	Ant 2	ECI 2	340500	1702.5	15.62	16.50	1.225	-	-	0.08	0.673	0.824
	FR1 n70	15M	QPSK	75	0	DFT-SCS-15KHz	Right Cheek	0mm	Ant 2	ECI 2	340500	1702.5	15.57	16.50	1.239	-	-	0.01	0.659	0.816
	FR1 n70	15M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 2	ECI 2	340500	1702.5	15.68	16.50	1.208	-	-	0.03	0.166	0.200
	FR1 n70	15M	QPSK	36	22	DFT-SCS-15KHz	Right Tilted	0mm	Ant 2	ECI 2	340500	1702.5	15.62	16.50	1.225	-	-	-0.08	0.167	0.205
	FR1 n70	15M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 2	ECI 2	340500	1702.5	15.68	16.50	1.208	-	-	0.1	0.283	0.342
	FR1 n70	15M	QPSK	36	22	DFT-SCS-15KHz	Left Cheek	0mm	Ant 2	ECI 2	340500	1702.5	15.62	16.50	1.225	-	-	-0.18	0.321	0.393
	FR1 n70	15M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 2	ECI 2	340500	1702.5	15.68	16.50	1.208	-	-	0.12	0.083	0.100
	FR1 n70	15M	QPSK	36	22	DFT-SCS-15KHz	Left Tilted	0mm	Ant 2	ECI 2	340500	1702.5	15.62	16.50	1.225	-	-	0.08	0.083	0.102
	FR1 n70	15M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 3	ECI 2	340500	1702.5	17.94	18.90	1.247	-	-	0.04	0.697	0.869
14	FR1 n70	15M	QPSK	36	22	DFT-SCS-15KHz	Right Cheek	0mm	Ant 3	ECI 2	340500	1702.5	17.86	18.90	1.271	-	-	0.03	0.700	0.889
	FR1 n70	15M	QPSK	75	0	DFT-SCS-15KHz	Right Cheek	0mm	Ant 3	ECI 2	340500	1702.5	17.73	18.90	1.309	-	-	-0.01	0.646	0.846
	FR1 n70	15M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 3	ECI 2	340500	1702.5	17.94	18.90	1.247	-	-	-0.08	0.634	0.791
	FR1 n70	15M	QPSK	36	22	DFT-SCS-15KHz	Right Tilted	0mm	Ant 3	ECI 2	340500	1702.5	17.86	18.90	1.271	-	-	0.05	0.623	0.792
	FR1 n70	15M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 3	ECI 2	340500	1702.5	17.94	18.90	1.247	-	-	-0.09	0.441	0.550
	FR1 n70	15M	QPSK	36	22	DFT-SCS-15KHz	Left Cheek	0mm	Ant 3	ECI 2	340500	1702.5	17.86	18.90	1.271	-	-	-0.08	0.413	0.525
	FR1 n70	15M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 3	ECI 2	340500	1702.5	17.94	18.90	1.247	-	-	0.12	0.527	0.657
	FR1 n70	15M	QPSK	36	22	DFT-SCS-15KHz	Left Tilted	0mm	Ant 3	ECI 2	340500	1702.5	17.86	18.90	1.271	-	-	0.03	0.506	0.643
	FR1 n70	15M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	ECI 2	340500	1702.5	23.30	24.00	1.175	-	-	0.11	0.044	0.052
	FR1 n70	15M	QPSK	36	22	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	ECI 2	340500	1702.5	23.22	24.00	1.197	-	-	-0.08	0.046	0.055
	FR1 n70	15M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 0	ECI 2	340500	1702.5	23.30	24.00	1.175	-	-	-0.17	0.030	0.035
	FR1 n70	15M	QPSK	36	22	DFT-SCS-15KHz	Right Tilted	0mm	Ant 0	ECI 2	340500	1702.5	23.22	24.00	1.197	-	-	-0.08	0.024	0.029
	FR1 n70	15M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	ECI 2	340500	1702.5	23.30	24.00	1.175	-	-	-0.04	0.046	0.054
	FR1 n70	15M	QPSK	36	22	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	ECI 2	340500	1702.5	23.22	24.00	1.197	-	-	-0.08	0.047	0.056
	FR1 n70	15M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 0	ECI 2	340500	1702.5	23.30	24.00	1.175	-	-	0.17	0.020	0.023
	FR1 n70	15M	QPSK	36	22	DFT-SCS-15KHz	Left Tilted	0mm	Ant 0	ECI 2	340500	1702.5	23.22	24.00	1.197	-	-	0.18	0.012	0.014
	FR1 n70	15M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	ECI 2	340500	1702.5	23.66	24.00	1.081	-	-	0.05	0.071	0.077
	FR1 n70	15M	QPSK	36	22	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	ECI 2	340500	1702.5	23.60	24.00	1.096	-	-	-0.11	0.073	0.080
	FR1 n70	15M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	ECI 2	340500	1702.5	23.66	24.00	1.081	-	-	-0.12	0.036	0.039
	FR1 n70	15M	QPSK	36	22	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	ECI 2	340500	1702.5	23.60	24.00	1.096	-	-	0.03	0.021	0.023
	FR1 n70	15M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 1	ECI 2	340500	1702.5	23.66	24.00	1.081	-	-	-0.16	0.047	0.051
	FR1 n70	15M	QPSK	36	22	DFT-SCS-15KHz	Left Cheek	0mm	Ant 1	ECI 2	340500	1702.5	23.60	24.00	1.096	-	-	-0.02	0.051	0.056
	FR1 n70	15M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 1	ECI 2	340500	1702.5	23.66	24.00	1.081	-	-	0.15	0.030	0.032
	FR1 n70	15M	QPSK	36	22	DFT-SCS-15KHz	Left Tilted	0mm	Ant 1	ECI 2	340500	1702.5	23.60	24.00	1.096	-	-	-0.09	0.016	0.018
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 2	ECI 2	349000	1745	15.39	16.10	1.178	-	-	-0.03	0.692	0.815
15	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Right Cheek	0mm	Ant 2	ECI 2	349000	1745	15.34	16.10	1.191	-	-	0.12	0.736	0.877
	FR1 n66	40M	QPSK	216	0	DFT-SCS-15KHz	Right Cheek	0mm	Ant 2	ECI 2	349000	1745	15.27	16.10	1.211	-	-	0.11	0.676	0.818
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 2	ECI 2	349000	1745	15.39	16.10	1.178	-	-	-0.05	0.151	0.178
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Right Tilted	0mm	Ant 2	ECI 2	349000	1745	15.34	16.10	1.191	-	-	0.18	0.170	0.203
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 2	ECI 2	349000	1745	15.39	16.10	1.178	-	-	-0.17	0.342	0.403
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Left Cheek	0mm	Ant 2	ECI 2	349000	1745	15.34	16.10	1.191	-	-	0.17	0.333	0.397
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 2	ECI 2	349000	1745	15.39	16.10	1.178	-	-	0.01	0.082	0.097
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Left Tilted	0mm	Ant 2	ECI 2	349000	1745	15.34	16.10	1.191	-	-	0.1	0.086	0.102
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 3	ECI 2	349000	1745	17.62	18.50	1.225	-	-	0.07	0.714	0.874
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Right Cheek	0mm	Ant 3	ECI 2	349000	1745	17.54	18.50	1.247	-	-	0.07	0.685	0.854
	FR1 n66	40M	QPSK	216	0	DFT-SCS-15KHz	Right Cheek	0mm	Ant 3	ECI 2	349000	1745	17.47	18.50	1.268	-	-	0.18	0.648	0.821
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 3	ECI 2	349000	1745	17.62	18.50	1.225	-	-	-0.1	0.643	0.787
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Right Tilted	0mm	Ant 3	ECI 2	349000	1745	17.54	18.50	1.247	-	-	0.01	0.625	0.780
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 3	ECI 2	349000	1745	17.62	18.50	1.225	-	-	0.19	0.468	0.573



	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Left Cheek	0mm	Ant 3	ECI 2	349000	1745	17.54	18.50	1.247	-	-	0.07	0.474	0.591
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 3	ECI 2	349000	1745	17.62	18.50	1.225	-	-	0.03	0.542	0.664
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Left Tilted	0mm	Ant 3	ECI 2	349000	1745	17.54	18.50	1.247	-	-	-0.15	0.511	0.637
	FR1 n66 other Path	40M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 3	ECI 2	349000	1745	17.62	18.50	1.225	-	-	0.02	0.603	0.738
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	ECI 2	349000	1745	23.13	24.00	1.222	-	-	-0.08	0.056	0.068
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	ECI 2	349000	1745	23.05	24.00	1.245	-	-	-0.13	0.057	0.071
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 0	ECI 2	349000	1745	23.13	24.00	1.222	-	-	-0.13	0.010	0.012
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Right Tilted	0mm	Ant 0	ECI 2	349000	1745	23.05	24.00	1.245	-	-	0.06	0.006	0.007
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	ECI 2	349000	1745	23.13	24.00	1.222	-	-	-0.03	0.048	0.059
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	ECI 2	349000	1745	23.05	24.00	1.245	-	-	-0.03	0.047	0.058
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 0	ECI 2	349000	1745	23.13	24.00	1.222	-	-	0.08	0.006	0.007
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Left Tilted	0mm	Ant 0	ECI 2	349000	1745	23.05	24.00	1.245	-	-	-0.07	0.003	0.004
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	ECI 2	349000	1745	23.39	24.00	1.151	-	-	-0.05	0.089	0.102
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	ECI 2	349000	1745	23.30	24.00	1.175	-	-	-0.08	0.110	0.129
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	ECI 2	349000	1745	23.39	24.00	1.151	-	-	0.16	0.060	0.069
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	ECI 2	349000	1745	23.30	24.00	1.175	-	-	0.05	0.061	0.072
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 1	ECI 2	349000	1745	23.39	24.00	1.151	-	-	0.05	0.062	0.071
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Left Cheek	0mm	Ant 1	ECI 2	349000	1745	23.30	24.00	1.175	-	-	-0.03	0.072	0.085
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 1	ECI 2	349000	1745	23.39	24.00	1.151	-	-	-0.15	0.047	0.054
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Left Tilted	0mm	Ant 1	ECI 2	349000	1745	23.30	24.00	1.175	-	-	0.02	0.064	0.075
1900MHz																				
16	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Right Cheek	0mm	Ant 2	ECI 2	661	1880	17.79	19.00	1.321	-	-	-0.09	0.667	0.881
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Right Cheek	0mm	Ant 2	ECI 2	512	1850.2	17.70	19.00	1.349	-	-	0.05	0.639	0.862
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Right Cheek	0mm	Ant 2	ECI 2	810	1909.8	17.72	19.00	1.343	-	-	-0.11	0.645	0.866
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Right Tilted	0mm	Ant 2	ECI 2	661	1880	17.79	19.00	1.321	-	-	-0.12	0.152	0.201
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Left Cheek	0mm	Ant 2	ECI 2	661	1880	17.79	19.00	1.321	-	-	-0.02	0.239	0.316
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Left Tilted	0mm	Ant 2	ECI 2	661	1880	17.79	19.00	1.321	-	-	0.11	0.271	0.358
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Right Cheek	0mm	Ant 0	ECI 2	661	1880	24.04	25.00	1.247	-	-	0.08	0.048	0.060
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Right Tilted	0mm	Ant 0	ECI 2	661	1880	24.04	25.00	1.247	-	-	0.01	0.036	0.045
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Left Cheek	0mm	Ant 0	ECI 2	661	1880	24.04	25.00	1.247	-	-	0.03	0.030	0.037
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Left Tilted	0mm	Ant 0	ECI 2	661	1880	24.04	25.00	1.247	-	-	-0.08	0.024	0.030
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 2	ECI 2	9400	1880	14.62	15.90	1.343	-	-	0.01	0.651	0.874
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 2	ECI 2	9262	1852.4	14.58	15.90	1.355	-	-	-0.08	0.641	0.869
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 2	ECI 2	9538	1907.6	14.57	15.90	1.358	-	-	0.16	0.642	0.872
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 2	ECI 2	9400	1880	14.62	15.90	1.343	-	-	0.05	0.155	0.208
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 2	ECI 2	9400	1880	14.62	15.90	1.343	-	-	-0.15	0.339	0.455
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 2	ECI 2	9400	1880	14.62	15.90	1.343	-	-	0.16	0.080	0.107
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 3	ECI 2	9400	1880	15.10	16.10	1.259	-	-	0.1	0.664	0.836
17	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 3	ECI 2	9262	1852.4	15.05	16.10	1.274	-	-	0.06	0.687	0.875
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 3	ECI 2	9538	1907.6	15.02	16.10	1.282	-	-	0.04	0.654	0.839
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 3	ECI 2	9400	1880	15.10	16.10	1.259	-	-	0.13	0.541	0.681
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 3	ECI 2	9400	1880	15.10	16.10	1.259	-	-	-0.16	0.384	0.483
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 3	ECI 2	9400	1880	15.10	16.10	1.259	-	-	-0.14	0.434	0.546
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 0	ECI 2	9400	1880	22.30	23.00	1.175	-	-	0.1	0.079	0.093
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 0	ECI 2	9400	1880	22.30	23.00	1.175	-	-	-0.18	0.058	0.068
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 0	ECI 2	9400	1880	22.30	23.00	1.175	-	-	0.1	0.056	0.066
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 0	ECI 2	9400	1880	22.30	23.00	1.175	-	-	0.12	0.034	0.040
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 1	ECI 2	9400	1880	21.52	23.00	1.406	-	-	0.11	0.102	0.143
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 1	ECI 2	9400	1880	21.52	23.00	1.406	-	-	-0.02	0.054	0.076
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 1	ECI 2	9400	1880	21.52	23.00	1.406	-	-	0.1	0.070	0.098
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 1	ECI 2	9400	1880	21.52	23.00	1.406	-	-	0.04	0.062	0.087
18	LTE Band 25	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	ECI 2	26340	1880	10.86	12.10	1.330	-	-	0.06	0.669	0.890
	LTE Band 25	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	ECI 2	26140	1860	10.82	12.10	1.343	-	-	0.02	0.640	0.859
	LTE Band 25	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	ECI 2	26590	1905	10.84	12.10	1.337	-	-	0.16	0.649	0.867
	LTE Band 25	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 2	ECI 2	26340	1880	10.83	12.10	1.340	-	-	-0.03	0.638	0.855
	LTE Band 25	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 2	ECI 2	26140	1860	10.78	12.10	1.355	-	-	0.07	0.625	0.847
	LTE Band 25	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 2	ECI 2	26590	1905	10.75	12.10	1.365	-	-	-0.15	0.618	0.843



	LTE Band 25	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 2	ECI 2	26340	1880	10.82	12.10	1.343	-	-	0.01	0.597	0.802
	LTE Band 25	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 2	ECI 2	26340	1880	10.86	12.10	1.330	-	-	-0.01	0.111	0.148
	LTE Band 25	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 2	ECI 2	26340	1880	10.83	12.10	1.340	-	-	-0.09	0.083	0.111
	LTE Band 25	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 2	ECI 2	26340	1880	10.86	12.10	1.330	-	-	-0.17	0.179	0.238
	LTE Band 25	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 2	ECI 2	26340	1880	10.83	12.10	1.340	-	-	0.11	0.143	0.192
	LTE Band 25	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 2	ECI 2	26340	1880	10.86	12.10	1.330	-	-	0.05	0.055	0.073
	LTE Band 25	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 2	ECI 2	26340	1880	10.83	12.10	1.340	-	-	0.17	0.042	0.056
	LTE Band 25	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	ECI 2	26340	1880	15.50	16.70	1.318	-	-	0.06	0.647	0.853
	LTE Band 25	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	ECI 2	26140	1860	15.45	16.70	1.334	-	-	0.01	0.666	0.888
	LTE Band 25	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	ECI 2	26590	1905	15.48	16.70	1.324	-	-	0.02	0.635	0.841
	LTE Band 25	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	ECI 2	26340	1880	15.47	16.70	1.327	-	-	0.12	0.614	0.815
	LTE Band 25	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	ECI 2	26140	1860	15.43	16.70	1.413	-	-	-0.16	0.610	0.862
	LTE Band 25	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	ECI 2	26590	1905	15.40	16.70	1.413	-	-	-0.12	0.627	0.886
	LTE Band 25	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 3	ECI 2	26340	1880	15.44	16.70	1.337	-	-	0.07	0.603	0.806
	LTE Band 25	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 3	ECI 2	26340	1880	15.50	16.70	1.318	-	-	-0.02	0.435	0.573
	LTE Band 25	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 3	ECI 2	26340	1880	15.47	16.70	1.327	-	-	0.08	0.372	0.494
	LTE Band 25	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	ECI 2	26340	1880	15.50	16.70	1.318	-	-	0.1	0.312	0.411
	LTE Band 25	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 3	ECI 2	26340	1880	15.47	16.70	1.327	-	-	0.02	0.256	0.340
	LTE Band 25	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 3	ECI 2	26340	1880	15.50	16.70	1.318	-	-	0.03	0.383	0.505
	LTE Band 25	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 3	ECI 2	26340	1880	15.47	16.70	1.327	-	-	-0.15	0.285	0.378
	LTE Band 25	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	ECI 2	26340	1880	23.31	24.00	1.172	-	-	-0.17	0.158	0.185
	LTE Band 25	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 0	ECI 2	26340	1880	22.37	23.00	1.156	-	-	-0.03	0.136	0.157
	LTE Band 25	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	ECI 2	26340	1880	23.31	24.00	1.172	-	-	0.14	0.054	0.063
	LTE Band 25	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 0	ECI 2	26340	1880	22.37	23.00	1.156	-	-	0.11	0.047	0.054
	LTE Band 25	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	ECI 2	26340	1880	23.31	24.00	1.172	-	-	-0.05	0.115	0.135
	LTE Band 25	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 0	ECI 2	26340	1880	22.37	23.00	1.156	-	-	0.18	0.091	0.105
	LTE Band 25	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	ECI 2	26340	1880	23.31	24.00	1.172	-	-	0.14	0.078	0.091
	LTE Band 25	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 0	ECI 2	26340	1880	22.37	23.00	1.156	-	-	-0.17	0.065	0.075
	LTE Band 25	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	ECI 2	26340	1880	22.80	24.00	1.318	-	-	-0.18	0.097	0.128
	LTE Band 25	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 1	ECI 2	26340	1880	21.80	23.00	1.318	-	-	-0.11	0.079	0.104
	LTE Band 25	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	ECI 2	26340	1880	22.80	24.00	1.318	-	-	-0.16	0.054	0.071
	LTE Band 25	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 1	ECI 2	26340	1880	21.80	23.00	1.318	-	-	-0.15	0.042	0.055
	LTE Band 25	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	ECI 2	26340	1880	22.80	24.00	1.318	-	-	-0.06	0.067	0.088
	LTE Band 25	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 1	ECI 2	26340	1880	21.80	23.00	1.318	-	-	-0.14	0.057	0.075
	LTE Band 25	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	ECI 2	26340	1880	22.80	24.00	1.318	-	-	-0.19	0.065	0.086
	LTE Band 25	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 1	ECI 2	26340	1880	21.80	23.00	1.318	-	-	0.01	0.054	0.071
19	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 2	ECI 2	376500	1882.5	14.45	15.30	1.216	-	-	-0.15	0.728	0.885
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Right Cheek	0mm	Ant 2	ECI 2	376500	1882.5	14.41	15.30	1.227	-	-	0.07	0.675	0.829
	FR1 n25	40M	QPSK	216	0	DFT-SCS-15KHz	Right Cheek	0mm	Ant 2	ECI 2	376500	1882.5	14.35	15.30	1.245	-	-	0.16	0.659	0.820
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 2	ECI 2	376500	1882.5	14.45	15.30	1.216	-	-	0.13	0.194	0.236
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Right Tilted	0mm	Ant 2	ECI 2	376500	1882.5	14.41	15.30	1.227	-	-	-0.18	0.199	0.244
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 2	ECI 2	376500	1882.5	14.45	15.30	1.216	-	-	0.16	0.335	0.407
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Left Cheek	0mm	Ant 2	ECI 2	376500	1882.5	14.41	15.30	1.227	-	-	-0.03	0.352	0.432
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 2	ECI 2	376500	1882.5	14.45	15.30	1.216	-	-	0.02	0.099	0.120
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Left Tilted	0mm	Ant 2	ECI 2	376500	1882.5	14.41	15.30	1.227	-	-	0.01	0.098	0.120
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 3	ECI 2	376500	1882.5	17.12	17.90	1.197	-	-	0.03	0.736	0.881
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Right Cheek	0mm	Ant 3	ECI 2	376500	1882.5	16.88	17.90	1.265	-	-	-0.04	0.684	0.865
	FR1 n25	40M	QPSK	216	0	DFT-SCS-15KHz	Right Cheek	0mm	Ant 3	ECI 2	376500	1882.5	16.98	17.90	1.236	-	-	-0.09	0.669	0.827
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 3	ECI 2	376500	1882.5	17.12	17.90	1.197	-	-	-0.17	0.629	0.753
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Right Tilted	0mm	Ant 3	ECI 2	376500	1882.5	16.88	17.90	1.265	-	-	-0.1	0.565	0.715
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 3	ECI 2	376500	1882.5	17.12	17.90	1.197	-	-	-0.17	0.430	0.515
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Left Cheek	0mm	Ant 3	ECI 2	376500	1882.5	16.88	17.90	1.265	-	-	-0.04	0.417	0.527
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 3	ECI 2	376500	1882.5	17.12	17.90	1.197	-	-	0.06	0.480	0.574
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Left Tilted	0mm	Ant 3	ECI 2	376500	1882.5	16.88	17.90	1.265	-	-	-0.13	0.439	0.555
	FR1 n25 other Path	40M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 3	ECI 2	376500	1882.5	17.12	17.90	1.197	-	-	0.03	0.544	0.651
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	ECI 2	376500	1882.5	23.36	24.00	1.159	-	-	-0.09	0.086	0.100
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	ECI 2	376500	1882.5	23.32	24.00	1.169	-	-	0.05	0.097	0.113



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	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 0	ECI 2	376500	1882.5	23.36	24.00	1.159	-	-	0.02	0.030	0.035
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Right Tilted	0mm	Ant 0	ECI 2	376500	1882.5	23.32	24.00	1.169	-	-	-0.13	0.021	0.025
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	ECI 2	376500	1882.5	23.36	24.00	1.159	-	-	0.17	0.054	0.063
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	ECI 2	376500	1882.5	23.32	24.00	1.169	-	-	0.06	0.061	0.071
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 0	ECI 2	376500	1882.5	23.36	24.00	1.159	-	-	0.02	0.052	0.060
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Left Tilted	0mm	Ant 0	ECI 2	376500	1882.5	23.32	24.00	1.169	-	-	-0.04	0.043	0.050
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	ECI 2	376500	1882.5	23.20	24.00	1.202	-	-	0.02	0.060	0.072
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	ECI 2	376500	1882.5	23.09	24.00	1.233	-	-	0.12	0.072	0.089
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	ECI 2	376500	1882.5	23.20	24.00	1.202	-	-	-0.16	0.010	0.012
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	ECI 2	376500	1882.5	23.09	24.00	1.233	-	-	-0.12	0.005	0.006
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 1	ECI 2	376500	1882.5	23.20	24.00	1.202	-	-	0.07	0.044	0.053
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Left Cheek	0mm	Ant 1	ECI 2	376500	1882.5	23.09	24.00	1.233	-	-	-0.02	0.052	0.064
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 1	ECI 2	376500	1882.5	23.20	24.00	1.202	-	-	-0.05	0.036	0.043
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Left Tilted	0mm	Ant 1	ECI 2	376500	1882.5	23.09	24.00	1.233	-	-	-0.13	0.043	0.053
2300MHz																				
	LTE Band 30	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	ECI 2	27710	2310	13.57	14.70	1.297	-	-	0.03	0.683	0.886
	LTE Band 30	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 2	ECI 2	27710	2310	13.50	14.70	1.318	-	-	0.1	0.657	0.866
	LTE Band 30	10M	QPSK	50	0	-	Right Cheek	0mm	Ant 2	ECI 2	27710	2310	13.48	14.70	1.324	-	-	-0.09	0.636	0.842
	LTE Band 30	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 2	ECI 2	27710	2310	13.57	14.70	1.297	-	-	0.07	0.148	0.192
	LTE Band 30	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 2	ECI 2	27710	2310	13.50	14.70	1.318	-	-	-0.09	0.117	0.154
	LTE Band 30	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 2	ECI 2	27710	2310	13.57	14.70	1.297	-	-	-0.18	0.393	0.510
	LTE Band 30	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 2	ECI 2	27710	2310	13.50	14.70	1.318	-	-	-0.07	0.309	0.407
	LTE Band 30	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 2	ECI 2	27710	2310	13.57	14.70	1.297	-	-	-0.08	0.082	0.106
	LTE Band 30	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 2	ECI 2	27710	2310	13.50	14.70	1.318	-	-	-0.1	0.066	0.087
20	LTE Band 30	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	ECI 2	27710	2310	18.42	19.50	1.282	-	-	-0.08	0.695	0.891
	LTE Band 30	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 3	ECI 2	27710	2310	18.40	19.50	1.288	-	-	-0.09	0.656	0.845
	LTE Band 30	10M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	ECI 2	27710	2310	18.33	19.50	1.309	-	-	-0.06	0.623	0.816
	LTE Band 30	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 3	ECI 2	27710	2310	18.42	19.50	1.282	-	-	-0.17	0.564	0.723
	LTE Band 30	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 3	ECI 2	27710	2310	18.40	19.50	1.288	-	-	-0.01	0.557	0.718
	LTE Band 30	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	ECI 2	27710	2310	18.42	19.50	1.282	-	-	0.14	0.518	0.664
	LTE Band 30	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 3	ECI 2	27710	2310	18.40	19.50	1.288	-	-	0.03	0.416	0.536
	LTE Band 30	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 3	ECI 2	27710	2310	18.42	19.50	1.282	-	-	0.16	0.449	0.576
	LTE Band 30	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 3	ECI 2	27710	2310	18.40	19.50	1.288	-	-	-0.06	0.375	0.483
	LTE Band 30	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	ECI 2	27710	2310	24.20	25.00	1.202	-	-	-0.15	0.202	0.243
	LTE Band 30	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 0	ECI 2	27710	2310	23.31	24.00	1.172	-	-	0.16	0.169	0.198
	LTE Band 30	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	ECI 2	27710	2310	24.20	25.00	1.202	-	-	0.05	0.072	0.087
	LTE Band 30	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 0	ECI 2	27710	2310	23.31	24.00	1.172	-	-	-0.06	0.074	0.087
	LTE Band 30	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	ECI 2	27710	2310	24.20	25.00	1.202	-	-	-0.02	0.298	0.358
	LTE Band 30	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 0	ECI 2	27710	2310	23.31	24.00	1.172	-	-	-0.13	0.239	0.280
	LTE Band 30	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	ECI 2	27710	2310	24.20	25.00	1.202	-	-	-0.01	0.064	0.077
	LTE Band 30	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 0	ECI 2	27710	2310	23.31	24.00	1.172	-	-	-0.11	0.048	0.056
	LTE Band 30	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	ECI 2	27710	2310	23.31	24.00	1.172	-	-	-0.17	0.084	0.098
	LTE Band 30	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 1	ECI 2	27710	2310	22.34	23.00	1.164	-	-	-0.01	0.064	0.075
	LTE Band 30	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	ECI 2	27710	2310	23.31	24.00	1.172	-	-	-0.11	0.020	0.023
	LTE Band 30	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 1	ECI 2	27710	2310	22.34	23.00	1.164	-	-	0.14	0.016	0.019
	LTE Band 30	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	ECI 2	27710	2310	23.31	24.00	1.172	-	-	0.03	0.005	0.006
	LTE Band 30	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 1	ECI 2	27710	2310	22.34	23.00	1.164	-	-	0.1	0.002	0.002
	LTE Band 30	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	ECI 2	27710	2310	23.31	24.00	1.172	-	-	0.16	0.053	0.062
	LTE Band 30	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 1	ECI 2	27710	2310	22.34	23.00	1.164	-	-	-0.06	0.041	0.048
	FR1 n30	10M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 2	ECI 2	462000	2310	16.43	17.30	1.222	-	-	0.08	0.718	0.877
21	FR1 n30	10M	QPSK	25	14	DFT-SCS-15KHz	Right Cheek	0mm	Ant 2	ECI 2	462000	2310	16.38	17.30	1.236	-	-	-0.18	0.721	0.891
	FR1 n30	10M	QPSK	50	0	DFT-SCS-15KHz	Right Cheek	0mm	Ant 2	ECI 2	462000	2310	16.30	17.30	1.259	-	-	0.16	0.672	0.846
	FR1 n30	10M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 2	ECI 2	462000	2310	16.43	17.30	1.222	-	-	0.01	0.191	0.233
	FR1 n30	10M	QPSK	25	14	DFT-SCS-15KHz	Right Tilted	0mm	Ant 2	ECI 2	462000	2310	16.38	17.30	1.236	-	-	-0.16	0.189	0.234
	FR1 n30	10M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 2	ECI 2	462000	2310	16.43	17.30	1.222	-	-	-0.04	0.507	0.619
	FR1 n30	10M	QPSK	25	14	DFT-SCS-15KHz	Left Cheek	0mm	Ant 2	ECI 2	462000	2310	16.38	17.30	1.236	-	-	-0.01	0.415	0.513
	FR1 n30	10M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 2	ECI 2	462000	2310	16.43	17.30	1.222	-	-	-0.11	0.108	0.132



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	FR1 n30	10M	QPSK	25	14	DFT-SCS-15KHz	Left Tilted	0mm	Ant 2	ECI 2	462000	2310	16.38	17.30	1.236	-	-	-0.06	0.105	0.130
	FR1 n30	10M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 3	ECI 2	462000	2310	17.03	18.00	1.250	-	-	0.01	0.707	0.884
	FR1 n30	10M	QPSK	25	14	DFT-SCS-15KHz	Right Cheek	0mm	Ant 3	ECI 2	462000	2310	16.99	18.00	1.262	-	-	-0.13	0.693	0.874
	FR1 n30	10M	QPSK	50	0	DFT-SCS-15KHz	Right Cheek	0mm	Ant 3	ECI 2	462000	2310	16.97	18.00	1.268	-	-	0.01	0.657	0.833
	FR1 n30	10M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 3	ECI 2	462000	2310	17.03	18.00	1.250	-	-	0.16	0.691	0.864
	FR1 n30	10M	QPSK	25	14	DFT-SCS-15KHz	Right Tilted	0mm	Ant 3	ECI 2	462000	2310	16.99	18.00	1.262	-	-	-0.15	0.636	0.803
	FR1 n30	10M	QPSK	50	0	DFT-SCS-15KHz	Right Tilted	0mm	Ant 3	ECI 2	462000	2310	16.97	18.00	1.268	-	-	-0.02	0.651	0.825
	FR1 n30	10M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 3	ECI 2	462000	2310	17.03	18.00	1.250	-	-	-0.09	0.513	0.641
	FR1 n30	10M	QPSK	25	14	DFT-SCS-15KHz	Left Cheek	0mm	Ant 3	ECI 2	462000	2310	16.99	18.00	1.262	-	-	0.14	0.468	0.591
	FR1 n30	10M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 3	ECI 2	462000	2310	17.03	18.00	1.250	-	-	-0.09	0.529	0.661
	FR1 n30	10M	QPSK	25	14	DFT-SCS-15KHz	Left Tilted	0mm	Ant 3	ECI 2	462000	2310	16.99	18.00	1.262	-	-	0.07	0.484	0.611
	FR1 n30	10M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	ECI 2	462000	2310	23.49	24.00	1.125	-	-	-0.16	0.147	0.165
	FR1 n30	10M	QPSK	25	14	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	ECI 2	462000	2310	23.41	24.00	1.146	-	-	-0.18	0.131	0.150
	FR1 n30	10M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 0	ECI 2	462000	2310	23.49	24.00	1.125	-	-	-0.07	0.050	0.056
	FR1 n30	10M	QPSK	25	14	DFT-SCS-15KHz	Right Tilted	0mm	Ant 0	ECI 2	462000	2310	23.41	24.00	1.146	-	-	0.11	0.051	0.058
	FR1 n30	10M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	ECI 2	462000	2310	23.49	24.00	1.125	-	-	-0.08	0.203	0.228
	FR1 n30	10M	QPSK	25	14	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	ECI 2	462000	2310	23.41	24.00	1.146	-	-	-0.1	0.188	0.215
	FR1 n30	10M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 0	ECI 2	462000	2310	23.49	24.00	1.125	-	-	-0.01	0.010	0.011
	FR1 n30	10M	QPSK	25	14	DFT-SCS-15KHz	Left Tilted	0mm	Ant 0	ECI 2	462000	2310	23.41	24.00	1.146	-	-	-0.09	0.006	0.007
	FR1 n30	10M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	ECI 2	462000	2310	23.04	24.00	1.247	-	-	-0.16	0.052	0.065
	FR1 n30	10M	QPSK	25	14	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	ECI 2	462000	2310	22.98	24.00	1.265	-	-	0.05	0.032	0.040
	FR1 n30	10M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	ECI 2	462000	2310	23.04	24.00	1.247	-	-	-0.03	0.036	0.045
	FR1 n30	10M	QPSK	25	14	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	ECI 2	462000	2310	22.98	24.00	1.265	-	-	0.17	0.024	0.030
	FR1 n30	10M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 1	ECI 2	462000	2310	23.04	24.00	1.247	-	-	-0.15	0.010	0.012
	FR1 n30	10M	QPSK	25	14	DFT-SCS-15KHz	Left Cheek	0mm	Ant 1	ECI 2	462000	2310	22.98	24.00	1.265	-	-	0.16	0.006	0.008
	FR1 n30	10M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 1	ECI 2	462000	2310	23.04	24.00	1.247	-	-	0.05	0.008	0.010
	FR1 n30	10M	QPSK	25	14	DFT-SCS-15KHz	Left Tilted	0mm	Ant 1	ECI 2	462000	2310	22.98	24.00	1.265	-	-	-0.06	0.003	0.004

2600MHz

	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	ECI 2	21100	2535	14.35	15.40	1.274	-	-	-0.16	0.496	0.632
	LTE Band 7	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 2	ECI 2	21100	2535	14.30	15.40	1.288	-	-	0.17	0.327	0.421
	LTE Band 7	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 2	ECI 2	21100	2535	14.35	15.40	1.274	-	-	-0.06	0.083	0.106
	LTE Band 7	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 2	ECI 2	21100	2535	14.30	15.40	1.288	-	-	-0.11	0.065	0.084
	LTE Band 7	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 2	ECI 2	21100	2535	14.35	15.40	1.274	-	-	-0.06	0.649	0.827
	LTE Band 7	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 2	ECI 2	20850	2510	14.30	15.40	1.288	-	-	0.02	0.651	0.839
22	LTE Band 7	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 2	ECI 2	21350	2560	14.32	15.40	1.282	-	-	-0.08	0.696	0.893
	LTE Band 7	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 2	ECI 2	21100	2535	14.30	15.40	1.288	-	-	0.16	0.632	0.814
	LTE Band 7	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 2	ECI 2	20850	2510	14.19	15.40	1.321	-	-	0.01	0.642	0.848
	LTE Band 7	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 2	ECI 2	21350	2560	14.24	15.40	1.306	-	-	-0.04	0.635	0.829
	LTE Band 7	20M	QPSK	100	0	-	Left Cheek	0mm	Ant 2	ECI 2	21100	2535	14.27	15.40	1.297	-	-	0.13	0.611	0.793
	LTE Band 7	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 2	ECI 2	21100	2535	14.35	15.40	1.274	-	-	0.12	0.053	0.067
	LTE Band 7	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 2	ECI 2	21100	2535	14.30	15.40	1.288	-	-	0.07	0.041	0.053
	LTE Band 7C	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 2	ECI 2	21350+21152	2560+2540.2	14.20	15.40	1.318	-	-	0.06	0.662	0.873
	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	ECI 2	21100	2535	15.35	16.30	1.245	-	-	-0.05	0.396	0.493
	LTE Band 7	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	ECI 2	21100	2535	15.33	16.30	1.250	-	-	-0.12	0.319	0.399
	LTE Band 7	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 3	ECI 2	21100	2535	15.35	16.30	1.245	-	-	0.11	0.669	0.833
	LTE Band 7	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 3	ECI 2	20850	2510	15.29	16.30	1.262	-	-	-0.13	0.674	0.850
	LTE Band 7	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 3	ECI 2	21350	2560	15.33	16.30	1.250	-	-	0.06	0.708	0.885
	LTE Band 7	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 3	ECI 2	21100	2535	15.33	16.30	1.250	-	-	0.12	0.662	0.828
	LTE Band 7	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 3	ECI 2	20850	2510	15.17	16.30	1.297	-	-	-0.11	0.681	0.883
	LTE Band 7	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 3	ECI 2	21350	2560	15.31	16.30	1.256	-	-	0.17	0.649	0.815
	LTE Band 7	20M	QPSK	100	0	-	Right Tilted	0mm	Ant 3	ECI 2	21100	2535	15.29	16.30	1.262	-	-	-0.16	0.667	0.842
	LTE Band 7	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	ECI 2	21100	2535	15.35	16.30	1.245	-	-	-0.17	0.339	0.422
	LTE Band 7	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 3	ECI 2	21100	2535	15.33	16.30	1.250	-	-	-0.01	0.326	0.408
	LTE Band 7	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 3	ECI 2	21100	2535	15.35	16.30	1.245	-	-	-0.17	0.102	0.127
	LTE Band 7	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 3	ECI 2	21100	2535	15.33	16.30	1.250	-	-	0.02	0.094	0.118
	LTE Band 7C	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 3	ECI 2	21350+21152	2560+2540.2	15.19	16.30	1.291	-	-	0.02	0.625	0.807
	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	ECI 2	21100	2535	24.33	25.00	1.167	-	-	0.19	0.453	0.529



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LTE Band 7	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 0	EI 2	21100	2535	23.41	24.00	1.146	-	-	-0.14	0.405	0.464
LTE Band 7	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	EI 2	21100	2535	24.33	25.00	1.167	-	-	-0.18	0.254	0.296
LTE Band 7	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 0	EI 2	21100	2535	23.41	24.00	1.146	-	-	-0.06	0.227	0.260
LTE Band 7	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	EI 2	21100	2535	24.33	25.00	1.167	-	-	-0.09	0.726	0.847
LTE Band 7	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	EI 2	20850	2510	23.98	25.00	1.265	-	-	0.16	0.648	0.820
LTE Band 7	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	EI 2	21350	2560	24.28	25.00	1.180	-	-	0.01	0.650	0.767
LTE Band 7	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 0	EI 2	21100	2535	23.41	24.00	1.146	-	-	-0.04	0.613	0.702
LTE Band 7	20M	QPSK	100	0	-	Left Cheek	0mm	Ant 0	EI 2	21100	2535	23.31	24.00	1.172	-	-	0.12	0.610	0.715
LTE Band 7	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	EI 2	21100	2535	24.33	25.00	1.167	-	-	0.07	0.192	0.224
LTE Band 7	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 0	EI 2	21100	2535	23.41	24.00	1.146	-	-	0.08	0.171	0.196
LTE Band 7C	20M	QPSK	1	99	-	Left Cheek	0mm	Ant 0	EI 2	21100+21298	2535+2554.8	22.66	24.00	1.361	-	-	0.01	0.556	0.757
LTE Band 7	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	EI 2	21100	2535	23.67	24.00	1.079	-	-	-0.04	0.104	0.112
LTE Band 7	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 1	EI 2	21100	2535	22.73	23.00	1.064	-	-	0.15	0.079	0.084
LTE Band 7	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	EI 2	21100	2535	23.67	24.00	1.079	-	-	0.09	0.032	0.035
LTE Band 7	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 1	EI 2	21100	2535	22.73	23.00	1.064	-	-	-0.16	0.021	0.022
LTE Band 7	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	EI 2	21100	2535	23.67	24.00	1.079	-	-	0.05	0.057	0.061
LTE Band 7	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 1	EI 2	21100	2535	22.73	23.00	1.064	-	-	0.08	0.042	0.045
LTE Band 7	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	EI 2	21100	2535	23.67	24.00	1.079	-	-	-0.18	0.010	0.011
LTE Band 7	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 1	EI 2	21100	2535	22.73	23.00	1.064	-	-	-0.03	0.005	0.005
LTE Band 7C	20M	QPSK	1	99	-	Right Cheek	0mm	Ant 1	EI 2	21100+21298	2535+2554.8	22.63	24.00	1.371	-	-	0.05	0.065	0.089
LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	EI 2	40620	2593	14.85	15.50	1.161	62.9	1.006	0.08	0.248	0.290
LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 2	EI 2	40620	2593	14.79	15.50	1.178	62.9	1.006	0.07	0.196	0.232
LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 2	EI 2	40620	2593	14.85	15.50	1.161	62.9	1.006	-0.03	0.048	0.056
LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 2	EI 2	40620	2593	14.79	15.50	1.178	62.9	1.006	0.01	0.039	0.046
LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 2	EI 2	40620	2593	14.85	15.50	1.161	62.9	1.006	-0.1	0.660	0.771
LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 2	EI 2	39750	2506	14.78	15.50	1.180	62.9	1.006	0.05	0.653	0.775
LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 2	EI 2	40185	2549.5	14.82	15.50	1.169	62.9	1.006	0.06	0.672	0.791
LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 2	EI 2	41055	2636.5	14.81	15.50	1.172	62.9	1.006	0.07	0.650	0.766
LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 2	EI 2	41490	2680	14.80	15.50	1.175	62.9	1.006	0.1	0.710	0.839
LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 2	EI 2	40620	2593	14.79	15.50	1.178	62.9	1.006	0.15	0.662	0.784
LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 2	EI 2	39750	2506	14.68	15.50	1.208	62.9	1.006	-0.05	0.680	0.826
LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 2	EI 2	40185	2549.5	14.72	15.50	1.197	62.9	1.006	-0.08	0.646	0.778
LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 2	EI 2	41055	2636.5	14.77	15.50	1.183	62.9	1.006	-0.08	0.640	0.762
LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 2	EI 2	41490	2680	14.67	15.50	1.211	62.9	1.006	-0.13	0.653	0.795
LTE Band 41	20M	QPSK	100	0	-	Left Cheek	0mm	Ant 2	EI 2	40620	2593	14.74	15.50	1.191	62.9	1.006	0.01	0.633	0.759
LTE Band 41	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 2	EI 2	40620	2593	14.85	15.50	1.161	62.9	1.006	-0.11	0.030	0.035
LTE Band 41	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 2	EI 2	40620	2593	14.79	15.50	1.178	62.9	1.006	0.03	0.024	0.028
LTE Band 41 HPUE	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 2	EI 2	41490	2680	15.96	17.10	1.300	42.9	1.009	-0.18	0.669	0.878
LTE Band 41C	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 2	EI 2	41490+41292	2680+2660.2	14.70	15.50	1.202	62.9	1.006	0.06	0.512	0.619
LTE Band 41C HPUE	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 2	EI 2	41490+41292	2680+2660.2	15.79	17.10	1.352	42.9	1.009	0.01	0.628	0.857
LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	EI 2	40620	2593	18.20	18.70	1.122	62.9	1.006	0.1	0.597	0.674
LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	EI 2	39750	2506	18.16	18.70	1.132	62.9	1.006	-0.04	0.535	0.609
LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	EI 2	40185	2549.5	18.12	18.70	1.143	62.9	1.006	0.15	0.587	0.675
LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	EI 2	41055	2636.5	18.14	18.70	1.138	62.9	1.006	0.09	0.655	0.750
LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	EI 2	41490	2680	18.15	18.70	1.135	62.9	1.006	-0.16	0.626	0.715
LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	EI 2	40620	2593	18.15	18.70	1.135	62.9	1.006	0.05	0.581	0.663
LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	EI 2	39750	2506	18.11	18.70	1.146	62.9	1.006	0.08	0.634	0.731
LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	EI 2	40185	2549.5	17.97	18.70	1.183	62.9	1.006	-0.18	0.578	0.688
LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	EI 2	41055	2636.5	18.04	18.70	1.164	62.9	1.006	-0.03	0.617	0.723
LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	EI 2	41490	2680	18.00	18.70	1.175	62.9	1.006	-0.04	0.596	0.704
LTE Band 41	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 3	EI 2	40620	2593	18.12	18.70	1.143	62.9	1.006	-0.09	0.589	0.677
LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 3	EI 2	40620	2593	18.20	18.70	1.122	62.9	1.006	0.18	0.684	0.772
LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 3	EI 2	39750	2506	18.16	18.70	1.132	62.9	1.006	0.11	0.656	0.747
LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 3	EI 2	40185	2549.5	18.12	18.70	1.143	62.9	1.006	0.07	0.647	0.744
LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 3	EI 2	41055	2636.5	18.14	18.70	1.138	62.9	1.006	0.01	0.720	0.824
LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 3	EI 2	41490	2680	18.15	18.70	1.135	62.9	1.006	-0.03	0.684	0.781
LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 3	EI 2	40620	2593	18.15	18.70	1.135	62.9	1.006	0.09	0.556	0.635



	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 3	ECI 2	39750	2506	18.11	18.70	1.146	62.9	1.006	-0.08	0.555	0.640
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 3	ECI 2	40185	2549.5	17.97	18.70	1.183	62.9	1.006	-0.05	0.520	0.619
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 3	ECI 2	41055	2636.5	18.04	18.70	1.164	62.9	1.006	-0.03	0.574	0.672
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 3	ECI 2	41490	2680	18.00	18.70	1.175	62.9	1.006	0.17	0.537	0.635
	LTE Band 41	20M	QPSK	100	0	-	Right Tilted	0mm	Ant 3	ECI 2	40620	2593	18.12	18.70	1.143	62.9	1.006	-0.14	0.556	0.639
	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	ECI 2	40620	2593	18.20	18.70	1.122	62.9	1.006	0.06	0.363	0.410
	LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 3	ECI 2	40620	2593	18.15	18.70	1.135	62.9	1.006	-0.03	0.292	0.333
	LTE Band 41	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 3	ECI 2	40620	2593	18.20	18.70	1.122	62.9	1.006	-0.05	0.446	0.503
	LTE Band 41	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 3	ECI 2	40620	2593	18.15	18.70	1.135	62.9	1.006	0.01	0.313	0.357
23	LTE Band 41 HPUE	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 3	ECI 2	41055	2636.5	19.39	20.30	1.233	42.9	1.009	0.02	0.707	0.880
	LTE Band 41C	20M	QPSK	1	99	-	Right Tilted	0mm	Ant 3	ECI 2	41055+41253	2636.5+2656.3	17.98	18.70	1.180	62.9	1.006	0.17	0.645	0.766
	LTE Band 41C HPUE	20M	QPSK	1	99	-	Right Tilted	0mm	Ant 3	ECI 2	41055+41253	2636.5+2656.3	19.20	20.30	1.288	42.9	1.009	-0.14	0.661	0.859
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	ECI 2	40620	2593	24.56	25.00	1.107	62.9	1.006	-0.12	0.180	0.200
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 0	ECI 2	40620	2593	23.67	24.00	1.079	62.9	1.006	0.07	0.151	0.164
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	ECI 2	40620	2593	24.56	25.00	1.107	62.9	1.006	0.09	0.101	0.112
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 0	ECI 2	40620	2593	23.67	24.00	1.079	62.9	1.006	0.04	0.080	0.087
	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	ECI 2	40620	2593	24.56	25.00	1.107	62.9	1.006	0.02	0.437	0.486
	LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 0	ECI 2	40620	2593	23.67	24.00	1.079	62.9	1.006	0.11	0.342	0.371
	LTE Band 41	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	ECI 2	40620	2593	24.56	25.00	1.107	62.9	1.006	-0.13	0.072	0.080
	LTE Band 41	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 0	ECI 2	40620	2593	23.67	24.00	1.079	62.9	1.006	0.12	0.056	0.061
	LTE Band 41 HPUE	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	ECI 2	40620	2593	27.00	28.00	1.259	42.9	1.009	0.07	0.529	0.672
	LTE Band 41 HPUE	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	ECI 2	39750	2506	26.88	28.00	1.294	42.9	1.009	-0.17	0.512	0.669
	LTE Band 41 HPUE	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	ECI 2	40185	2549.5	26.87	28.00	1.297	42.9	1.009	0.17	0.506	0.662
	LTE Band 41 HPUE	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	ECI 2	41055	2636.5	26.81	28.00	1.315	42.9	1.009	-0.05	0.487	0.646
	LTE Band 41 HPUE	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	ECI 2	41490	2680	26.88	28.00	1.294	42.9	1.009	0.01	0.475	0.620
	LTE Band 41C	20M	QPSK	1	99	-	Left Cheek	0mm	Ant 0	ECI 2	40620+40818	2593+2612.8	22.85	24.00	1.303	62.9	1.006	0.06	0.376	0.493
	LTE Band 41C HPUE	20M	QPSK	1	99	-	Left Cheek	0mm	Ant 0	ECI 2	40620+40818	2593+2612.8	25.91	27.00	1.285	42.9	1.009	0.02	0.503	0.652
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	ECI 2	40620	2593	23.76	25.00	1.330	62.9	1.006	-0.09	0.076	0.102
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 1	ECI 2	40620	2593	22.75	24.00	1.334	62.9	1.006	0.18	0.061	0.082
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	ECI 2	40620	2593	23.76	25.00	1.330	62.9	1.006	0.11	0.030	0.040
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 1	ECI 2	40620	2593	22.75	24.00	1.334	62.9	1.006	0.07	0.022	0.030
	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	ECI 2	40620	2593	23.76	25.00	1.330	62.9	1.006	-0.03	0.006	0.008
	LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 1	ECI 2	40620	2593	22.75	24.00	1.334	62.9	1.006	0.09	0.003	0.004
	LTE Band 41	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	ECI 2	40620	2593	23.76	25.00	1.330	62.9	1.006	-0.08	0.005	0.007
	LTE Band 41	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 1	ECI 2	40620	2593	22.75	24.00	1.334	62.9	1.006	-0.05	0.001	0.001
	LTE Band 41 HPUE	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	ECI 2	40620	2593	26.17	27.00	1.211	42.9	1.009	-0.03	0.093	0.114
	LTE Band 41C	20M	QPSK	1	99	-	Right Cheek	0mm	Ant 1	ECI 2	40620+40818	2593+2612.8	22.61	24.00	1.377	62.9	1.006	0.08	0.063	0.087
	LTE Band 41C HPUE	20M	QPSK	1	99	-	Right Cheek	0mm	Ant 1	ECI 2	40620+40818	2593+2612.8	25.91	27.00	1.285	42.9	1.009	0.01	0.075	0.097
	FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 2	ECI 2	507000	2535	16.01	16.80	1.199	-	-	-0.13	0.482	0.578
	FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Right Cheek	0mm	Ant 2	ECI 2	507000	2535	15.97	16.80	1.211	-	-	-0.01	0.467	0.565
	FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 2	ECI 2	507000	2535	16.01	16.80	1.199	-	-	0.19	0.106	0.127
	FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Right Tilted	0mm	Ant 2	ECI 2	507000	2535	15.97	16.80	1.211	-	-	-0.14	0.091	0.110
	FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 2	ECI 2	507000	2535	16.01	16.80	1.199	-	-	-0.18	0.694	0.832
24	FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Left Cheek	0mm	Ant 2	ECI 2	507000	2535	15.97	16.80	1.211	-	-	0.09	0.731	0.885
	FR1 n7	50M	QPSK	270	0	DFT-SCS-15KHz	Left Cheek	0mm	Ant 2	ECI 2	507000	2535	15.90	16.80	1.230	-	-	-0.06	0.718	0.883
	FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 2	ECI 2	507000	2535	16.01	16.80	1.199	-	-	0.02	0.066	0.079
	FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Left Tilted	0mm	Ant 2	ECI 2	507000	2535	15.97	16.80	1.211	-	-	0.16	0.057	0.069
	FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 3	ECI 2	507000	2535	15.62	16.40	1.197	-	-	-0.12	0.675	0.808
	FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Right Cheek	0mm	Ant 3	ECI 2	507000	2535	15.53	16.40	1.222	-	-	-0.03	0.689	0.842
	FR1 n7	50M	QPSK	270	0	DFT-SCS-15KHz	Right Cheek	0mm	Ant 3	ECI 2	507000	2535	15.52	16.40	1.225	-	-	0.02	0.623	0.763
	FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 3	ECI 2	507000	2535	15.62	16.40	1.197	-	-	0.12	0.684	0.819
	FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Right Tilted	0mm	Ant 3	ECI 2	507000	2535	15.53	16.40	1.222	-	-	0.02	0.722	0.882
	FR1 n7	50M	QPSK	270	0	DFT-SCS-15KHz	Right Tilted	0mm	Ant 3	ECI 2	507000	2535	15.52	16.40	1.225	-	-	0.02	0.677	0.829
	FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 3	ECI 2	507000	2535	15.62	16.40	1.197	-	-	-0.03	0.345	0.413
	FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Left Cheek	0mm	Ant 3	ECI 2	507000	2535	15.53	16.40	1.222	-	-	0.02	0.386	0.472
	FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 3	ECI 2	507000	2535	15.62	16.40	1.197	-	-	0.05	0.382	0.457



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	FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Left Tilted	0mm	Ant 3	ECI 2	507000	2535	15.53	16.40	1.222	-	-	0.01	0.433	0.529
	FR1 n7 other Path	50M	QPSK	135	68	DFT-SCS-15KHz	Right Tilted	0mm	Ant 3	ECI 2	507000	2535	15.53	16.40	1.222	-	-	-0.06	0.603	0.737
	FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	ECI 2	507000	2535	23.32	24.00	1.169	-	-	-0.11	0.215	0.251
	FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	ECI 2	507000	2535	23.28	24.00	1.180	-	-	0.17	0.226	0.267
	FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 0	ECI 2	507000	2535	23.32	24.00	1.169	-	-	-0.16	0.123	0.144
	FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Right Tilted	0mm	Ant 0	ECI 2	507000	2535	23.28	24.00	1.180	-	-	-0.17	0.122	0.144
	FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	ECI 2	507000	2535	23.32	24.00	1.169	-	-	0.11	0.376	0.440
	FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	ECI 2	507000	2535	23.28	24.00	1.180	-	-	-0.05	0.372	0.439
	FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 0	ECI 2	507000	2535	23.32	24.00	1.169	-	-	-0.01	0.090	0.105
	FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Left Tilted	0mm	Ant 0	ECI 2	507000	2535	23.28	24.00	1.180	-	-	-0.14	0.085	0.100
	FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	ECI 2	507000	2535	22.88	24.00	1.294	-	-	-0.14	0.060	0.078
	FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	ECI 2	507000	2535	22.81	24.00	1.315	-	-	0.06	0.057	0.075
	FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	ECI 2	507000	2535	22.88	24.00	1.294	-	-	-0.06	0.010	0.013
	FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	ECI 2	507000	2535	22.81	24.00	1.315	-	-	-0.15	0.006	0.008
	FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 1	ECI 2	507000	2535	22.88	24.00	1.294	-	-	-0.12	0.021	0.027
	FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Left Cheek	0mm	Ant 1	ECI 2	507000	2535	22.81	24.00	1.315	-	-	-0.16	0.016	0.021
	FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 1	ECI 2	507000	2535	22.88	24.00	1.294	-	-	-0.03	0.019	0.025
	FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Left Tilted	0mm	Ant 1	ECI 2	507000	2535	22.81	24.00	1.315	-	-	0.17	0.011	0.014
	FR1 n41 HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 2	ECI 2	518598	2592.99	15.13	15.80	1.167	-	-	0.01	0.337	0.393
	FR1 n41 HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 2	ECI 2	518598	2592.99	15.05	15.80	1.189	-	-	-0.04	0.314	0.373
	FR1 n41 HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 2	ECI 2	518598	2592.99	15.13	15.80	1.167	-	-	0.12	0.061	0.071
	FR1 n41 HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 2	ECI 2	518598	2592.99	15.05	15.80	1.189	-	-	0.07	0.058	0.069
	FR1 n41 HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 2	ECI 2	518598	2592.99	15.13	15.80	1.167	-	-	0.19	0.713	0.832
	FR1 n41 HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 2	ECI 2	518598	2592.99	15.05	15.80	1.189	-	-	0.01	0.737	0.876
	FR1 n41 HPUE	100M	QPSK	270	0	DFT-SCS-30KHz	Left Cheek	0mm	Ant 2	ECI 2	518598	2592.99	15.01	15.80	1.199	-	-	-0.06	0.577	0.692
	FR1 n41 HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 2	ECI 2	518598	2592.99	15.13	15.80	1.167	-	-	0.02	0.041	0.048
	FR1 n41 HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 2	ECI 2	518598	2592.99	15.05	15.80	1.189	-	-	-0.03	0.038	0.045
	FR1 n41 HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 3	ECI 2	518598	2592.99	15.97	16.80	1.211	-	-	0.15	0.669	0.810
	FR1 n41 HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 3	ECI 2	518598	2592.99	15.94	16.80	1.219	-	-	-0.05	0.675	0.823
	FR1 n41 HPUE	100M	QPSK	270	0	DFT-SCS-30KHz	Right Cheek	0mm	Ant 3	ECI 2	518598	2592.99	15.82	16.80	1.253	-	-	-0.08	0.647	0.811
	FR1 n41 HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 3	ECI 2	518598	2592.99	15.97	16.80	1.211	-	-	-0.08	0.698	0.845
25	FR1 n41 HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 3	ECI 2	518598	2592.99	15.94	16.80	1.219	-	-	0.02	0.726	0.885
	FR1 n41 HPUE	100M	QPSK	270	0	DFT-SCS-30KHz	Right Tilted	0mm	Ant 3	ECI 2	518598	2592.99	15.82	16.80	1.253	-	-	-0.13	0.654	0.820
	FR1 n41 HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 3	ECI 2	518598	2592.99	15.97	16.80	1.211	-	-	0.01	0.337	0.408
	FR1 n41 HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 3	ECI 2	518598	2592.99	15.94	16.80	1.219	-	-	-0.11	0.409	0.499
	FR1 n41 HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 3	ECI 2	518598	2592.99	15.97	16.80	1.211	-	-	-0.05	0.389	0.471
	FR1 n41 HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 3	ECI 2	518598	2592.99	15.94	16.80	1.219	-	-	0.14	0.482	0.588
	FR1 n41 HPUE other Path	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 3	ECI 2	518598	2592.99	15.94	16.80	1.219	-	-	0.01	0.716	0.873
	FR1 n41 HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 0	ECI 2	518598	2592.99	24.99	26.00	1.262	-	-	-0.12	0.270	0.341
	FR1 n41 HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 0	ECI 2	518598	2592.99	24.87	26.00	1.297	-	-	-0.17	0.326	0.423
	FR1 n41 HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 0	ECI 2	518598	2592.99	24.99	26.00	1.262	-	-	0.08	0.147	0.185
	FR1 n41 HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 0	ECI 2	518598	2592.99	24.87	26.00	1.297	-	-	0.01	0.170	0.221
	FR1 n41 HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 0	ECI 2	518598	2592.99	24.99	26.00	1.262	-	-	0.02	0.637	0.804
	FR1 n41 HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 0	ECI 2	518598	2592.99	24.87	26.00	1.297	-	-	-0.11	0.655	0.850
	FR1 n41 HPUE	100M	QPSK	270	0	DFT-SCS-30KHz	Left Cheek	0mm	Ant 0	ECI 2	518598	2592.99	23.79	25.00	1.321	-	-	-0.01	0.507	0.670
	FR1 n41 HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 0	ECI 2	518598	2592.99	24.99	26.00	1.262	-	-	0.09	0.103	0.130
	FR1 n41 HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 0	ECI 2	518598	2592.99	24.87	26.00	1.297	-	-	0.1	0.126	0.163
	FR1 n41 HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 1	ECI 2	518598	2592.99	24.76	26.00	1.330	-	-	0.01	0.072	0.096
	FR1 n41 HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 1	ECI 2	518598	2592.99	24.64	26.00	1.368	-	-	0.18	0.135	0.185
	FR1 n41 HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 1	ECI 2	518598	2592.99	24.76	26.00	1.330	-	-	-0.11	0.026	0.035
	FR1 n41 HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 1	ECI 2	518598	2592.99	24.64	26.00	1.368	-	-	-0.05	0.041	0.056
	FR1 n41 HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 1	ECI 2	518598	2592.99	24.76	26.00	1.330	-	-	-0.04	0.002	0.003
	FR1 n41 HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 1	ECI 2	518598	2592.99	24.64	26.00	1.368	-	-	-0.08	0.001	0.001
	FR1 n41 HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 1	ECI 2	518598	2592.99	24.76	26.00	1.330	-	-	0.02	0.010	0.013
	FR1 n41 HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 1	ECI 2	518598	2592.99	24.64	26.00	1.368	-	-	-0.14	0.006	0.008
3500-3900MHz																				
	LTE Band 48	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	ECI 2	55830	3609	16.64	17.80	1.306	62.9	1.006	0.06	0.676	0.888



LTE Band 48	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	ECI 2	55340	3560	16.60	17.80	1.318	62.9	1.006	0.08	0.665	0.882
LTE Band 48	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	ECI 2	56150	3641	16.58	17.80	1.324	62.9	1.006	-0.12	0.655	0.873
LTE Band 48	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	ECI 2	56640	3690	16.56	17.80	1.330	62.9	1.006	-0.13	0.628	0.841
LTE Band 48	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	ECI 2	55830	3609	16.60	17.80	1.318	62.9	1.006	-0.1	0.562	0.745
LTE Band 48	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	ECI 2	55340	3560	16.55	17.80	1.334	62.9	1.006	-0.07	0.545	0.731
LTE Band 48	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	ECI 2	56150	3641	16.51	17.80	1.346	62.9	1.006	0.11	0.540	0.731
LTE Band 48	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	ECI 2	56640	3690	16.55	17.80	1.334	62.9	1.006	-0.17	0.540	0.724
LTE Band 48	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 4	ECI 2	55830	3609	16.58	17.80	1.324	62.9	1.006	0.01	0.554	0.738
LTE Band 48	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	ECI 2	55830	3609	16.64	17.80	1.306	62.9	1.006	0.1	0.181	0.238
LTE Band 48	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	ECI 2	55830	3609	16.60	17.80	1.318	62.9	1.006	0.12	0.146	0.194
LTE Band 48	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	ECI 2	55830	3609	16.64	17.80	1.306	62.9	1.006	-0.14	0.222	0.292
LTE Band 48	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 4	ECI 2	55830	3609	16.60	17.80	1.318	62.9	1.006	-0.04	0.181	0.240
LTE Band 48	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 4	ECI 2	55830	3609	16.64	17.80	1.306	62.9	1.006	-0.04	0.107	0.141
LTE Band 48	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 4	ECI 2	55830	3609	16.60	17.80	1.318	62.9	1.006	0.13	0.093	0.123
LTE Band 48C	20M	QPSK	1	99	-	Right Cheek	0mm	Ant 4	ECI 2	55830+56020	3609+3628.8	16.54	17.80	1.337	62.9	1.006	0.06	0.623	0.838
LTE Band 48	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 6	ECI 2	55830	3609	15.93	17.30	1.371	62.9	1.006	-0.07	0.280	0.386
LTE Band 48	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 6	ECI 2	55830	3609	15.88	17.30	1.387	62.9	1.006	0.1	0.219	0.306
LTE Band 48	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 6	ECI 2	55830	3609	15.93	17.30	1.371	62.9	1.006	-0.11	0.332	0.458
LTE Band 48	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 6	ECI 2	55830	3609	15.88	17.30	1.387	62.9	1.006	-0.02	0.254	0.354
LTE Band 48	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 6	ECI 2	55830	3609	15.93	17.30	1.371	62.9	1.006	-0.1	0.595	0.821
LTE Band 48	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 6	ECI 2	55340	3560	15.89	17.30	1.384	62.9	1.006	0.13	0.576	0.802
LTE Band 48	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 6	ECI 2	56150	3641	15.86	17.30	1.393	62.9	1.006	-0.08	0.593	0.831
LTE Band 48	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 6	ECI 2	56640	3690	15.90	17.30	1.380	62.9	1.006	0.08	0.567	0.787
LTE Band 48	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 6	ECI 2	55830	3609	15.88	17.30	1.387	62.9	1.006	0.14	0.546	0.762
LTE Band 48	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 6	ECI 2	55340	3560	15.80	17.30	1.413	62.9	1.006	-0.04	0.538	0.765
LTE Band 48	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 6	ECI 2	56150	3641	15.83	17.30	1.403	62.9	1.006	0.12	0.522	0.737
LTE Band 48	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 6	ECI 2	56640	3690	15.86	17.30	1.393	62.9	1.006	0.09	0.520	0.729
LTE Band 48	20M	QPSK	100	0	-	Left Cheek	0mm	Ant 6	ECI 2	55830	3609	15.86	17.30	1.393	62.9	1.006	0.11	0.535	0.750
LTE Band 48	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 6	ECI 2	55830	3609	15.93	17.30	1.371	62.9	1.006	0.06	0.652	0.899
LTE Band 48	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 6	ECI 2	55340	3560	15.89	17.30	1.384	62.9	1.006	-0.02	0.618	0.860
LTE Band 48	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 6	ECI 2	56150	3641	15.86	17.30	1.393	62.9	1.006	-0.16	0.634	0.889
LTE Band 48	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 6	ECI 2	56640	3690	15.90	17.30	1.380	62.9	1.006	-0.03	0.609	0.846
LTE Band 48	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 6	ECI 2	55830	3609	15.88	17.30	1.387	62.9	1.006	0.04	0.585	0.816
LTE Band 48	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 6	ECI 2	55340	3560	15.80	17.30	1.413	62.9	1.006	-0.06	0.576	0.819
LTE Band 48	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 6	ECI 2	56150	3641	15.83	17.30	1.403	62.9	1.006	0.08	0.564	0.796
LTE Band 48	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 6	ECI 2	56640	3690	15.86	17.30	1.393	62.9	1.006	-0.07	0.553	0.775
LTE Band 48	20M	QPSK	100	0	-	Left Tilted	0mm	Ant 6	ECI 2	55830	3609	15.86	17.30	1.393	62.9	1.006	-0.13	0.524	0.734
LTE Band 48C	20M	QPSK	1	99	-	Left Tilted	0mm	Ant 6	ECI 2	55830+56020	3609+3628.8	15.81	17.30	1.409	62.9	1.006	0.02	0.605	0.858
LTE Band 48	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	ECI 2	55830	3609	16.69	17.80	1.291	62.9	1.006	-0.05	0.623	0.809
LTE Band 48	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	ECI 2	55340	3560	16.66	17.80	1.300	62.9	1.006	0.04	0.608	0.795
LTE Band 48	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	ECI 2	56150	3641	16.62	17.80	1.312	62.9	1.006	0.17	0.589	0.778
LTE Band 48	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	ECI 2	56640	3690	16.64	17.80	1.306	62.9	1.006	-0.1	0.613	0.805
LTE Band 48	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	ECI 2	55830	3609	16.66	17.80	1.300	62.9	1.006	-0.04	0.583	0.763
LTE Band 48	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	ECI 2	55340	3560	16.64	17.80	1.306	62.9	1.006	0.17	0.556	0.731
LTE Band 48	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	ECI 2	56150	3641	16.56	17.80	1.330	62.9	1.006	-0.15	0.576	0.771
LTE Band 48	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	ECI 2	56640	3690	16.63	17.80	1.309	62.9	1.006	0.18	0.538	0.709
LTE Band 48	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 3	ECI 2	55830	3609	16.62	17.80	1.312	62.9	1.006	0.05	0.561	0.741
LTE Band 48	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 3	ECI 2	55830	3609	16.69	17.80	1.291	62.9	1.006	0.03	0.689	0.895
LTE Band 48	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 3	ECI 2	55340	3560	16.66	17.80	1.300	62.9	1.006	0.04	0.666	0.871
LTE Band 48	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 3	ECI 2	56150	3641	16.62	17.80	1.312	62.9	1.006	0.15	0.654	0.863
LTE Band 48	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 3	ECI 2	56640	3690	16.64	17.80	1.306	62.9	1.006	0.03	0.638	0.838
LTE Band 48	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 3	ECI 2	55830	3609	16.66	17.80	1.300	62.9	1.006	0.14	0.615	0.804
LTE Band 48	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 3	ECI 2	55340	3560	16.64	17.80	1.306	62.9	1.006	-0.1	0.631	0.829
LTE Band 48	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 3	ECI 2	56150	3641	16.56	17.80	1.330	62.9	1.006	0.14	0.625	0.837
LTE Band 48	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 3	ECI 2	56640	3690	16.63	17.80	1.309	62.9	1.006	-0.16	0.619	0.815
LTE Band 48	20M	QPSK	100	0	-	Right Tilted	0mm	Ant 3	ECI 2	55830	3609	16.62	17.80	1.312	62.9	1.006	0.14	0.608	0.803
LTE Band 48	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	ECI 2	55830	3609	16.69	17.80	1.291	62.9	1.006	0.03	0.334	0.434



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	LTE Band 48	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 3	ECI 2	55830	3609	16.66	17.80	1.300	62.9	1.006	0.16	0.245	0.320
	LTE Band 48	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 3	ECI 2	55830	3609	16.69	17.80	1.291	62.9	1.006	0.01	0.383	0.498
	LTE Band 48	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 3	ECI 2	55830	3609	16.66	17.80	1.300	62.9	1.006	-0.06	0.280	0.366
	LTE Band 48C	20M	QPSK	1	99	-	Right Tilted	0mm	Ant 3	ECI 2	55830+ 56020	3609+ 3628.8	16.58	17.80	1.324	62.9	1.006	0.06	0.625	0.833
	LTE Band 48	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 8	ECI 2	55830	3609	18.67	19.90	1.327	62.9	1.006	0.14	0.562	0.750
	LTE Band 48	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 8	ECI 2	55340	3560	18.62	19.90	1.343	62.9	1.006	-0.02	0.558	0.754
	LTE Band 48	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 8	ECI 2	56150	3641	18.65	19.90	1.334	62.9	1.006	0.1	0.549	0.736
	LTE Band 48	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 8	ECI 2	56640	3690	18.61	19.90	1.346	62.9	1.006	-0.1	0.532	0.720
	LTE Band 48	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 8	ECI 2	55830	3609	18.65	19.90	1.334	62.9	1.006	-0.09	0.496	0.665
	LTE Band 48	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 8	ECI 2	55340	3560	18.56	19.90	1.361	62.9	1.006	-0.05	0.503	0.689
	LTE Band 48	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 8	ECI 2	56150	3641	18.64	19.90	1.337	62.9	1.006	-0.04	0.485	0.652
	LTE Band 48	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 8	ECI 2	56640	3690	18.59	19.90	1.352	62.9	1.006	0.01	0.477	0.649
	LTE Band 48	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 8	ECI 2	55830	3609	18.61	19.90	1.346	62.9	1.006	-0.09	0.463	0.627
	LTE Band 48	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 8	ECI 2	55830	3609	18.67	19.90	1.327	62.9	1.006	-0.09	0.097	0.130
	LTE Band 48	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 8	ECI 2	55830	3609	18.65	19.90	1.334	62.9	1.006	-0.12	0.089	0.119
26	LTE Band 48	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 8	ECI 2	55830	3609	18.67	19.90	1.327	62.9	1.006	0.09	0.674	0.900
	LTE Band 48	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 8	ECI 2	55340	3560	18.62	19.90	1.343	62.9	1.006	0.03	0.635	0.858
	LTE Band 48	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 8	ECI 2	56150	3641	18.65	19.90	1.334	62.9	1.006	-0.11	0.628	0.842
	LTE Band 48	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 8	ECI 2	56640	3690	18.61	19.90	1.346	62.9	1.006	-0.16	0.617	0.835
	LTE Band 48	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 8	ECI 2	55830	3609	18.65	19.90	1.334	62.9	1.006	-0.06	0.620	0.832
	LTE Band 48	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 8	ECI 2	55340	3560	18.56	19.90	1.361	62.9	1.006	0.15	0.595	0.815
	LTE Band 48	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 8	ECI 2	56150	3641	18.64	19.90	1.337	62.9	1.006	-0.15	0.584	0.785
	LTE Band 48	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 8	ECI 2	56640	3690	18.59	19.90	1.352	62.9	1.006	0.06	0.576	0.783
	LTE Band 48	20M	QPSK	100	0	-	Left Cheek	0mm	Ant 8	ECI 2	55830	3609	18.61	19.90	1.346	62.9	1.006	0.15	0.566	0.766
	LTE Band 48	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 8	ECI 2	55830	3609	18.67	19.90	1.327	62.9	1.006	-0.19	0.168	0.224
	LTE Band 48	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 8	ECI 2	55830	3609	18.65	19.90	1.334	62.9	1.006	0.09	0.156	0.209
	LTE Band 48C	20M	QPSK	1	99	-	Left Cheek	0mm	Ant 8	ECI 2	55830+ 56020	3609+ 3628.8	18.57	19.90	1.358	62.9	1.006	0.02	0.635	0.868
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 4	ECI 2	641666	3624.99	15.26	16.10	1.213	-	-	0.12	0.723	0.877
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 4	ECI 2	638000	3570	15.23	16.10	1.222	-	-	-0.02	0.708	0.865
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 4	ECI 2	645332	3679.98	15.21	16.10	1.227	-	-	0.09	0.657	0.806
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Right Cheek	0mm	Ant 4	ECI 2	641666	3624.99	15.23	16.10	1.222	-	-	0.01	0.689	0.842
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Right Cheek	0mm	Ant 4	ECI 2	638000	3570	15.17	16.10	1.239	-	-	0.08	0.555	0.688
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Right Cheek	0mm	Ant 4	ECI 2	645332	3679.98	15.14	16.10	1.247	-	-	0.01	0.625	0.780
	FR1 n48	40M	QPSK	100	0	DFT-SCS-30KHz	Right Cheek	0mm	Ant 4	ECI 2	641666	3624.99	15.19	16.10	1.233	-	-	0.18	0.663	0.818
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 4	ECI 2	641666	3624.99	15.26	16.10	1.213	-	-	0.02	0.315	0.382
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Right Tilted	0mm	Ant 4	ECI 2	641666	3624.99	15.23	16.10	1.222	-	-	0.16	0.227	0.277
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 4	ECI 2	641666	3624.99	15.26	16.10	1.213	-	-	-0.02	0.239	0.290
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Left Cheek	0mm	Ant 4	ECI 2	641666	3624.99	15.23	16.10	1.222	-	-	0.07	0.230	0.281
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 4	ECI 2	641666	3624.99	15.26	16.10	1.213	-	-	0.1	0.175	0.212
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Left Tilted	0mm	Ant 4	ECI 2	641666	3624.99	15.23	16.10	1.222	-	-	0.08	0.128	0.156
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 6	ECI 2	641666	3624.99	14.90	15.80	1.230	-	-	0.01	0.281	0.346
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Right Cheek	0mm	Ant 6	ECI 2	641666	3624.99	14.85	15.80	1.245	-	-	-0.04	0.302	0.376
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 6	ECI 2	641666	3624.99	14.90	15.80	1.230	-	-	-0.09	0.330	0.406
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Right Tilted	0mm	Ant 6	ECI 2	641666	3624.99	14.85	15.80	1.245	-	-	0.05	0.359	0.447
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 6	ECI 2	641666	3624.99	14.90	15.80	1.230	-	-	0.02	0.595	0.732
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Left Cheek	0mm	Ant 6	ECI 2	641666	3624.99	14.85	15.80	1.245	-	-	-0.12	0.613	0.763
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 6	ECI 2	641666	3624.99	14.90	15.80	1.230	-	-	-0.05	0.692	0.851
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 6	ECI 2	638000	3570	14.79	15.80	1.262	-	-	0.03	0.584	0.737
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 6	ECI 2	645332	3679.98	14.89	15.80	1.233	-	-	-0.08	0.633	0.781
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Left Tilted	0mm	Ant 6	ECI 2	641666	3624.99	14.85	15.80	1.245	-	-	-0.01	0.704	0.876
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Left Tilted	0mm	Ant 6	ECI 2	638000	3570	14.74	15.80	1.276	-	-	-0.08	0.589	0.752
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Left Tilted	0mm	Ant 6	ECI 2	645332	3679.98	14.70	15.80	1.288	-	-	0.1	0.611	0.787
	FR1 n48	40M	QPSK	100	0	DFT-SCS-30KHz	Left Tilted	0mm	Ant 6	ECI 2	641666	3624.99	14.72	15.80	1.282	-	-	-0.07	0.657	0.842
	FR1 n48 other Path	40M	QPSK	50	28	DFT-SCS-30KHz	Left Tilted	0mm	Ant 6	ECI 2	641666	3624.99	13.75	14.70	1.245	-	-	0.02	0.689	0.857
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 3	ECI 2	641666	3624.99	15.83	16.70	1.222	-	-	-0.04	0.631	0.771
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Right Cheek	0mm	Ant 3	ECI 2	641666	3624.99	15.77	16.70	1.239	-	-	0.12	0.629	0.779
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 3	ECI 2	641666	3624.99	15.83	16.70	1.222	-	-	0.03	0.718	0.877



	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 3	ECI 2	638000	3570	15.75	16.70	1.245	-	-	-0.18	0.631	0.785
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 3	ECI 2	645332	3679.98	15.77	16.70	1.239	-	-	0.1	0.678	0.840
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Right Tilted	0mm	Ant 3	ECI 2	641666	3624.99	15.77	16.70	1.239	-	-	-0.02	0.682	0.845
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Right Tilted	0mm	Ant 3	ECI 2	638000	3570	15.72	16.70	1.253	-	-	0.12	0.623	0.781
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Right Tilted	0mm	Ant 3	ECI 2	645332	3679.98	15.60	16.70	1.288	-	-	0.08	0.657	0.846
	FR1 n48	40M	QPSK	100	0	DFT-SCS-30KHz	Right Tilted	0mm	Ant 3	ECI 2	641666	3624.99	15.69	16.70	1.262	-	-	-0.16	0.653	0.824
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 3	ECI 2	641666	3624.99	15.83	16.70	1.222	-	-	-0.03	0.361	0.441
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Left Cheek	0mm	Ant 3	ECI 2	641666	3624.99	15.77	16.70	1.239	-	-	-0.06	0.348	0.431
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 3	ECI 2	641666	3624.99	15.83	16.70	1.222	-	-	-0.07	0.436	0.533
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Left Tilted	0mm	Ant 3	ECI 2	641666	3624.99	15.77	16.70	1.239	-	-	0.11	0.400	0.496
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 8	ECI 2	641666	3624.99	16.71	17.60	1.227	-	-	0.15	0.599	0.735
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Right Cheek	0mm	Ant 8	ECI 2	641666	3624.99	16.62	17.60	1.253	-	-	-0.15	0.590	0.739
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 8	ECI 2	641666	3624.99	16.71	17.60	1.227	-	-	0.15	0.102	0.125
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Right Tilted	0mm	Ant 8	ECI 2	641666	3624.99	16.62	17.60	1.253	-	-	-0.1	0.094	0.118
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 8	ECI 2	641666	3624.99	16.71	17.60	1.227	-	-	0.17	0.695	0.853
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 8	ECI 2	638000	3570	16.59	17.60	1.262	-	-	0.17	0.611	0.771
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 8	ECI 2	645332	3679.98	16.66	17.60	1.242	-	-	0.09	0.645	0.801
27	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Left Cheek	0mm	Ant 8	ECI 2	641666	3624.99	16.62	17.60	1.253	-	-	0.05	0.708	0.887
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Left Cheek	0mm	Ant 8	ECI 2	638000	3570	16.47	17.60	1.297	-	-	-0.17	0.657	0.852
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Left Cheek	0mm	Ant 8	ECI 2	645332	3679.98	16.54	17.60	1.276	-	-	-0.03	0.623	0.795
	FR1 n48	40M	QPSK	100	0	DFT-SCS-30KHz	Left Cheek	0mm	Ant 8	ECI 2	641666	3624.99	16.56	17.60	1.271	-	-	0.13	0.646	0.821
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 8	ECI 2	641666	3624.99	16.71	17.60	1.227	-	-	-0.02	0.177	0.217
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Left Tilted	0mm	Ant 8	ECI 2	641666	3624.99	16.62	17.60	1.253	-	-	0.02	0.163	0.204
	FR1 n77 Part 270 HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 4	ECI 2	656000	3840	15.31	16.20	1.227	-	-	-0.05	0.588	0.722
	FR1 n77 Part 270 HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 4	ECI 2	656000	3840	15.26	16.20	1.242	-	-	-0.13	0.572	0.710
	FR1 n77 Part 270 HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 4	ECI 2	656000	3840	15.31	16.20	1.227	-	-	-0.07	0.152	0.187
	FR1 n77 Part 270 HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 4	ECI 2	656000	3840	15.26	16.20	1.242	-	-	0.11	0.167	0.207
	FR1 n77 Part 270 HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 4	ECI 2	656000	3840	15.31	16.20	1.227	-	-	0.01	0.233	0.286
	FR1 n77 Part 270 HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 4	ECI 2	656000	3840	15.26	16.20	1.242	-	-	0.1	0.249	0.309
	FR1 n77 Part 270 HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 4	ECI 2	656000	3840	15.31	16.20	1.227	-	-	-0.07	0.086	0.106
	FR1 n77 Part 270 HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 4	ECI 2	656000	3840	15.26	16.20	1.242	-	-	0.18	0.086	0.107
28	FR1 n77 Part 27Q HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 4	ECI 2	633334	3500.01	15.19	16.20	1.262	-	-	0.04	0.698	0.881
	FR1 n77 Part 27Q HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 4	ECI 2	633334	3500.01	15.10	16.20	1.288	-	-	0.15	0.662	0.853
	FR1 n77 Part 27Q HPUE	100M	QPSK	270	0	DFT-SCS-30KHz	Right Cheek	0mm	Ant 4	ECI 2	633334	3500.01	15.05	16.20	1.303	-	-	0.14	0.636	0.829
	FR1 n77 Part 27Q HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 4	ECI 2	633334	3500.01	15.19	16.20	1.262	-	-	-0.03	0.554	0.699
	FR1 n77 Part 27Q HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 4	ECI 2	633334	3500.01	15.10	16.20	1.288	-	-	-0.14	0.539	0.694
	FR1 n77 Part 27Q HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 4	ECI 2	633334	3500.01	15.19	16.20	1.262	-	-	0.11	0.188	0.237
	FR1 n77 Part 27Q HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 4	ECI 2	633334	3500.01	15.10	16.20	1.288	-	-	0.07	0.200	0.258
	FR1 n77 Part 27Q HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 4	ECI 2	633334	3500.01	15.19	16.20	1.262	-	-	-0.18	0.292	0.368
	FR1 n77 Part 27Q HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 4	ECI 2	633334	3500.01	15.10	16.20	1.288	-	-	-0.13	0.269	0.347
	FR1 n77 Part 270 HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 6	ECI 2	656000	3840	12.26	13.60	1.361	-	-	0.1	0.266	0.362
	FR1 n77 Part 270 HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 6	ECI 2	656000	3840	12.22	13.60	1.374	-	-	-0.11	0.250	0.344
	FR1 n77 Part 270 HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 6	ECI 2	656000	3840	12.26	13.60	1.361	-	-	-0.1	0.338	0.460
	FR1 n77 Part 270 HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 6	ECI 2	656000	3840	12.22	13.60	1.374	-	-	0.14	0.308	0.423
	FR1 n77 Part 270 HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 6	ECI 2	656000	3840	12.26	13.60	1.361	-	-	-0.05	0.560	0.762
	FR1 n77 Part 270 HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 6	ECI 2	656000	3840	12.22	13.60	1.374	-	-	-0.04	0.507	0.697
	FR1 n77 Part 270 HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 6	ECI 2	656000	3840	12.26	13.60	1.361	-	-	0.01	0.644	0.877
	FR1 n77 Part 270 HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 6	ECI 2	656000	3840	12.22	13.60	1.374	-	-	0.03	0.632	0.868
	FR1 n77 Part 270 HPUE	100M	QPSK	270	0	DFT-SCS-30KHz	Left Tilted	0mm	Ant 6	ECI 2	656000	3840	12.14	13.60	1.400	-	-	0.16	0.614	0.859
	FR1 n77 Part 270 HPUE Other Path	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 6	ECI 2	656000	3840	14.25	15.30	1.274	-	-	0.02	0.678	0.863
	FR1 n77 Part 27Q HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 6	ECI 2	633334	3500.01	12.81	13.60	1.199	-	-	-0.06	0.199	0.239
	FR1 n77 Part 27Q HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 6	ECI 2	633334	3500.01	12.78	13.60	1.208	-	-	0.14	0.207	0.250
	FR1 n77 Part 27Q HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 6	ECI 2	633334	3500.01	12.81	13.60	1.199	-	-	-0.09	0.243	0.291
	FR1 n77 Part 27Q HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 6	ECI 2	633334	3500.01	12.78	13.60	1.208	-	-	-0.12	0.262	0.316
	FR1 n77 Part 27Q HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 6	ECI 2	633334	3500.01	12.81	13.60	1.199	-	-	-0.19	0.383	0.459
	FR1 n77 Part 27Q HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 6	ECI 2	633334	3500.01	12.78	13.60	1.208	-	-	0.09	0.414	0.500
	FR1 n77 Part 27Q HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 6	ECI 2	633334	3500.01	12.81	13.60	1.199	-	-	-0.08	0.437	0.524



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FR1 n77 Part 27Q HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 6	ECI 2	633334	3500.01	12.78	13.60	1.208	-	-	-0.09	0.477	0.576
FR1 n77 Part 27Q HPUE Other Path	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 6	ECI 2	633334	3500.01	14.12	15.30	1.312	-	-	0.01	0.575	0.755
FR1 n77 Part 27Q HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 3	ECI 2	656000	3840	15.76	16.60	1.213	-	-	-0.15	0.708	0.859
FR1 n77 Part 27Q HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 3	ECI 2	656000	3840	15.71	16.60	1.227	-	-	0.04	0.674	0.827
FR1 n77 Part 27Q HPUE	100M	QPSK	270	0	DFT-SCS-30KHz	Right Cheek	0mm	Ant 3	ECI 2	656000	3840	15.65	16.60	1.245	-	-	0.17	0.623	0.775
FR1 n77 Part 27Q HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 3	ECI 2	656000	3840	15.76	16.60	1.213	-	-	-0.1	0.721	0.875
FR1 n77 Part 27Q HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 3	ECI 2	656000	3840	15.71	16.60	1.227	-	-	0.17	0.655	0.804
FR1 n77 Part 27Q HPUE	100M	QPSK	270	0	DFT-SCS-30KHz	Right Tilted	0mm	Ant 3	ECI 2	656000	3840	15.65	16.60	1.245	-	-	-0.15	0.623	0.775
FR1 n77 Part 27Q HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 3	ECI 2	656000	3840	15.76	16.60	1.213	-	-	0.18	0.349	0.423
FR1 n77 Part 27Q HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 3	ECI 2	656000	3840	15.71	16.60	1.227	-	-	0.05	0.331	0.406
FR1 n77 Part 27Q HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 3	ECI 2	656000	3840	15.76	16.60	1.213	-	-	0.15	0.407	0.494
FR1 n77 Part 27Q HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 3	ECI 2	656000	3840	15.71	16.60	1.227	-	-	0.03	0.390	0.479
FR1 n77 Part 27Q HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 3	ECI 2	633334	3500.01	15.86	16.60	1.186	-	-	-0.16	0.566	0.671
FR1 n77 Part 27Q HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 3	ECI 2	633334	3500.01	15.80	16.60	1.202	-	-	-0.02	0.613	0.737
FR1 n77 Part 27Q HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 3	ECI 2	633334	3500.01	15.86	16.60	1.186	-	-	-0.1	0.669	0.793
FR1 n77 Part 27Q HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 3	ECI 2	633334	3500.01	15.80	16.60	1.202	-	-	-0.01	0.682	0.820
FR1 n77 Part 27Q HPUE	100M	QPSK	270	0	DFT-SCS-30KHz	Right Tilted	0mm	Ant 3	ECI 2	633334	3500.01	15.72	16.60	1.225	-	-	-0.05	0.582	0.713
FR1 n77 Part 27Q HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 3	ECI 2	633334	3500.01	15.86	16.60	1.186	-	-	-0.04	0.304	0.360
FR1 n77 Part 27Q HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 3	ECI 2	633334	3500.01	15.80	16.60	1.202	-	-	0.01	0.329	0.396
FR1 n77 Part 27Q HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 3	ECI 2	633334	3500.01	15.86	16.60	1.186	-	-	0.03	0.399	0.473
FR1 n77 Part 27Q HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 3	ECI 2	633334	3500.01	15.80	16.60	1.202	-	-	-0.11	0.416	0.500
FR1 n77 Part 27Q HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 8	ECI 2	656000	3840	16.59	17.30	1.178	-	-	0.13	0.581	0.684
FR1 n77 Part 27Q HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 8	ECI 2	656000	3840	16.55	17.30	1.189	-	-	-0.04	0.618	0.734
FR1 n77 Part 27Q HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 8	ECI 2	656000	3840	16.59	17.30	1.178	-	-	-0.07	0.087	0.102
FR1 n77 Part 27Q HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 8	ECI 2	656000	3840	16.55	17.30	1.189	-	-	-0.03	0.094	0.112
FR1 n77 Part 27Q HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 8	ECI 2	656000	3840	16.59	17.30	1.178	-	-	-0.13	0.692	0.815
FR1 n77 Part 27Q HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 8	ECI 2	656000	3840	16.55	17.30	1.189	-	-	-0.04	0.735	0.874
FR1 n77 Part 27Q HPUE	100M	QPSK	270	0	DFT-SCS-30KHz	Left Cheek	0mm	Ant 8	ECI 2	656000	3840	16.44	17.30	1.219	-	-	0.05	0.664	0.809
FR1 n77 Part 27Q HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 8	ECI 2	656000	3840	16.59	17.30	1.178	-	-	-0.15	0.138	0.163
FR1 n77 Part 27Q HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 8	ECI 2	656000	3840	16.55	17.30	1.189	-	-	-0.11	0.145	0.172
FR1 n77 Part 27Q HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 8	ECI 2	633334	3500.01	16.84	17.30	1.112	-	-	-0.12	0.569	0.633
FR1 n77 Part 27Q HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 8	ECI 2	633334	3500.01	16.77	17.30	1.130	-	-	0.19	0.575	0.650
FR1 n77 Part 27Q HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 8	ECI 2	633334	3500.01	16.84	17.30	1.112	-	-	-0.19	0.097	0.108
FR1 n77 Part 27Q HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 8	ECI 2	633334	3500.01	16.77	17.30	1.130	-	-	-0.03	0.101	0.114
FR1 n77 Part 27Q HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 8	ECI 2	633334	3500.01	16.84	17.30	1.112	-	-	-0.08	0.679	0.755
FR1 n77 Part 27Q HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 8	ECI 2	633334	3500.01	16.77	17.30	1.130	-	-	-0.07	0.686	0.775
FR1 n77 Part 27Q HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 8	ECI 2	633334	3500.01	16.84	17.30	1.112	-	-	0.15	0.182	0.202
FR1 n77 Part 27Q HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 8	ECI 2	633334	3500.01	16.77	17.30	1.130	-	-	0.12	0.178	0.201



Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
WLAN/BT																
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 5+7(7)	Standalone	6	2437	14.35	16.00	1.462	100	1.000	0.08	0.458	0.670
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 5+7(7)	Standalone	6	2437	14.35	16.00	1.462	100	1.000	-0.08	0.425	0.621
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 5+7(7)	Standalone	6	2437	14.35	16.00	1.462	100	1.000	-0.18	0.793	1.160
29	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 5+7(7)	Standalone	11	2462	14.10	16.00	1.549	100	1.000	-0.07	0.808	1.251
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 5+7(7)	Standalone	1	2412	14.20	16.00	1.514	100	1.000	0.1	0.731	1.106
	WLAN2.4GHz	802.11n-HT40 MCS0	Left Cheek	0mm	Ant 5+7(7)	Standalone	6	2437	14.30	16.00	1.479	94.09	1.063	0.06	0.712	1.119
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 5+7(7)	Standalone	6	2437	14.35	16.00	1.462	100	1.000	0.12	0.329	0.481
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 5+7(5)	WWAN+non DBS	6	2437	7.86	9.50	1.459	100	1.000	-0.03	0.158	0.230
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 5+7(5)	WWAN+non DBS	6	2437	7.86	9.50	1.459	100	1.000	0.14	0.147	0.214
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 5+7(5)	WWAN+non DBS	6	2437	7.86	9.50	1.459	100	1.000	-0.08	0.243	0.354
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 5+7(5)	WWAN+non DBS	6	2437	7.86	9.50	1.459	100	1.000	0.11	0.114	0.166
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 7	DBS only	6	2437	12.23	14.00	1.503	100	1.000	-0.05	0.275	0.413
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 7	DBS only	6	2437	12.23	14.00	1.503	100	1.000	0.18	0.255	0.383
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 7	DBS only	6	2437	12.23	14.00	1.503	100	1.000	0.01	0.484	0.728
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 7	DBS only	6	2437	12.23	14.00	1.503	100	1.000	0.14	0.197	0.296
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 7	WWAN+DBS	6	2437	6.32	8.00	1.472	100	1.000	-0.08	0.070	0.103
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 7	WWAN+DBS	6	2437	6.32	8.00	1.472	100	1.000	-0.17	0.065	0.096
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 7	WWAN+DBS	6	2437	6.32	8.00	1.472	100	1.000	-0.08	0.123	0.181
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 7	WWAN+DBS	6	2437	6.32	8.00	1.472	100	1.000	-0.04	0.050	0.074
	Bluetooth	1Mbps	Right Cheek	0mm	Ant 7	Standalone	39	2441	8.48	9.50	1.265	76.64	1.087	0.03	0.083	0.114
	Bluetooth	1Mbps	Right Tilted	0mm	Ant 7	Standalone	39	2441	8.48	9.50	1.265	76.64	1.087	0.18	0.034	0.047
30	Bluetooth	1Mbps	Left Cheek	0mm	Ant 7	Standalone	39	2441	8.48	9.50	1.265	76.64	1.087	-0.02	0.265	0.364
	Bluetooth	1Mbps	Left Tilted	0mm	Ant 7	Standalone	39	2441	8.48	9.50	1.265	76.64	1.087	-0.1	0.063	0.087
	Bluetooth	1Mbps	Right Cheek	0mm	Ant 7	Simultaneous	39	2441	7.50	8.50	1.259	76.64	1.087	0.03	0.058	0.079
	Bluetooth	1Mbps	Right Tilted	0mm	Ant 7	Simultaneous	39	2441	7.50	8.50	1.259	76.64	1.087	0.18	0.024	0.033
	Bluetooth	1Mbps	Left Cheek	0mm	Ant 7	Simultaneous	39	2441	7.50	8.50	1.259	76.64	1.087	-0.02	0.185	0.253
	Bluetooth	1Mbps	Left Tilted	0mm	Ant 7	Simultaneous	39	2441	7.50	8.50	1.259	76.64	1.087	-0.1	0.044	0.060
	WLAN5.3GHz	802.11n-HT40 MCS0	Right Cheek	0mm	Ant 5+7(5)	Standalone	54	5270	16.35	18.00	1.462	93.7	1.067	-0.17	0.475	0.741
	WLAN5.3GHz	802.11n-HT40 MCS0	Right Tilted	0mm	Ant 5+7(5)	Standalone	54	5270	16.35	18.00	1.462	93.7	1.067	-0.05	0.495	0.772
31	WLAN5.3GHz	802.11n-HT40 MCS0	Left Cheek	0mm	Ant 5+7(5)	Standalone	54	5270	16.35	18.00	1.462	93.7	1.067	-0.09	0.715	1.116
	WLAN5.3GHz	802.11n-HT40 MCS0	Left Cheek	0mm	Ant 5+7(5)	Standalone	62	5310	16.13	18.00	1.538	93.7	1.067	0.1	0.574	0.942
	WLAN5.3GHz	802.11n-HT40 MCS0	Left Tilted	0mm	Ant 5+7(5)	Standalone	54	5270	16.35	18.00	1.462	93.7	1.067	-0.17	0.657	1.025
	WLAN5.3GHz	802.11n-HT40 MCS0	Left Tilted	0mm	Ant 5+7(5)	Standalone	62	5310	16.13	18.00	1.538	93.7	1.067	0.04	0.566	0.929
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 5+7(5)	WWAN+non DBS	58	5290	12.84	14.50	1.466	88.19	1.134	-0.01	0.152	0.253
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 5+7(5)	WWAN+non DBS	58	5290	12.84	14.50	1.466	88.19	1.134	-0.08	0.159	0.264
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 5+7(5)	WWAN+non DBS	58	5290	12.84	14.50	1.466	88.19	1.134	-0.02	0.229	0.381
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 5+7(5)	WWAN+non DBS	58	5290	12.84	14.50	1.466	88.19	1.134	0.05	0.211	0.351
	WLAN5.3GHz	802.11n-HT40 MCS0	Right Cheek	0mm	Ant 5	DBS only	54	5270	14.42	16.00	1.439	93.7	1.067	0.06	0.339	0.520
	WLAN5.3GHz	802.11n-HT40 MCS0	Right Tilted	0mm	Ant 5	DBS only	54	5270	14.42	16.00	1.439	93.7	1.067	-0.09	0.354	0.543
	WLAN5.3GHz	802.11n-HT40 MCS0	Left Cheek	0mm	Ant 5	DBS only	54	5270	14.42	16.00	1.439	93.7	1.067	-0.05	0.501	0.769
	WLAN5.3GHz	802.11n-HT40 MCS0	Left Tilted	0mm	Ant 5	DBS only	54	5270	14.42	16.00	1.439	93.7	1.067	-0.08	0.470	0.722
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 5	WWAN+DBS	58	5290	8.32	10.00	1.472	88.19	1.134	-0.08	0.078	0.130
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 5	WWAN+DBS	58	5290	8.32	10.00	1.472	88.19	1.134	0.17	0.082	0.137
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 5	WWAN+DBS	58	5290	8.32	10.00	1.472	88.19	1.134	0.18	0.118	0.197
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 5	WWAN+DBS	58	5290	8.32	10.00	1.472	88.19	1.134	-0.04	0.108	0.180
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 5+7(5)	Standalone	138	5690	15.25	17.00	1.496	88.19	1.134	0.13	0.479	0.813
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 5+7(5)	Standalone	122	5610	15.18	17.00	1.521	88.19	1.134	0.02	0.479	0.826
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 5+7(5)	Standalone	138	5690	15.25	17.00	1.496	88.19	1.134	0.16	0.518	0.879
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 5+7(5)	Standalone	122	5610	15.18	17.00	1.521	88.19	1.134	-0.1	0.514	0.886
32	WLAN5.5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 5+7(5)	Standalone	138	5690	15.25	17.00	1.496	88.19	1.134	-0.07	0.702	1.191
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 5+7(5)	Standalone	122	5610	15.18	17.00	1.521	88.19	1.134	-0.15	0.531	0.916
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 5+7(5)	Standalone	138	5690	15.25	17.00	1.496	88.19	1.134	0.19	0.693	1.176



	WLAN5.5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 5+7(5)	Standalone	122	5610	15.18	17.00	1.521	88.19	1.134	0.03	0.651	1.123
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 5+7(7)	WWAN+non DBS	138	5690	10.86	12.50	1.459	88.19	1.134	-0.15	0.158	0.261
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 5+7(7)	WWAN+non DBS	138	5690	10.86	12.50	1.459	88.19	1.134	-0.15	0.171	0.283
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 5+7(7)	WWAN+non DBS	138	5690	10.86	12.50	1.459	88.19	1.134	-0.06	0.232	0.384
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 5+7(7)	WWAN+non DBS	138	5690	10.86	12.50	1.459	88.19	1.134	0.11	0.229	0.379
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 5	DBS only	138	5690	13.42	15.00	1.439	88.19	1.134	-0.08	0.365	0.596
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 5	DBS only	138	5690	13.42	15.00	1.439	88.19	1.134	-0.17	0.394	0.643
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 5	DBS only	138	5690	13.42	15.00	1.439	88.19	1.134	-0.04	0.463	0.755
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 5	DBS only	138	5690	13.42	15.00	1.439	88.19	1.134	-0.08	0.427	0.697
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 5	WWAN+DBS	138	5690	7.38	9.00	1.452	88.19	1.134	0.08	0.079	0.130
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 5	WWAN+DBS	138	5690	7.38	9.00	1.452	88.19	1.134	0.01	0.086	0.142
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 5	WWAN+DBS	138	5690	7.38	9.00	1.452	88.19	1.134	0.03	0.116	0.191
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 5	WWAN+DBS	138	5690	7.38	9.00	1.452	88.19	1.134	-0.08	0.115	0.189
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 5+7(5)	Standalone	155	5775	14.25	16.00	1.496	88.19	1.134	0.08	0.418	0.709
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 5+7(5)	Standalone	155	5775	14.25	16.00	1.496	88.19	1.134	-0.07	0.441	0.748
33	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 5+7(5)	Standalone	155	5775	14.25	16.00	1.496	88.19	1.134	-0.03	0.705	1.196
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 5+7(5)	Standalone	155	5775	14.25	16.00	1.496	88.19	1.134	0.05	0.649	1.101
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 5+7(5)	WWAN+non DBS	155	5775	9.33	11.00	1.469	88.19	1.134	-0.11	0.134	0.223
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 5+7(5)	WWAN+non DBS	155	5775	9.33	11.00	1.469	88.19	1.134	-0.12	0.141	0.235
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 5+7(5)	WWAN+non DBS	155	5775	9.33	11.00	1.469	88.19	1.134	0.03	0.225	0.375
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 5+7(5)	WWAN+non DBS	155	5775	9.33	11.00	1.469	88.19	1.134	-0.16	0.207	0.345
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 5	DBS only	155	5775	12.35	14.00	1.462	88.19	1.134	-0.06	0.304	0.504
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 5	DBS only	155	5775	12.35	14.00	1.462	88.19	1.134	-0.04	0.321	0.532
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 5	DBS only	155	5775	12.35	14.00	1.462	88.19	1.134	-0.04	0.475	0.788
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 5	DBS only	155	5775	12.35	14.00	1.462	88.19	1.134	-0.09	0.472	0.783
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 5	WWAN+DBS	155	5775	6.33	8.00	1.469	88.19	1.134	-0.08	0.066	0.110
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 5	WWAN+DBS	155	5775	6.33	8.00	1.469	88.19	1.134	0.1	0.070	0.117
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 5	WWAN+DBS	155	5775	6.33	8.00	1.469	88.19	1.134	0.06	0.112	0.187
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 5	WWAN+DBS	155	5775	6.33	8.00	1.469	88.19	1.134	-0.18	0.103	0.172



16.2 Hotspot SAR

< Flip Open >

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	EUT Flip State	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
750MHz																					
	LTE Band 71	20M	QPSK	1	0	-	Front	5mm	Ant 0	ECI 9	133322	683	open	22.54	24.00	1.400	-	-	0.08	0.633	0.886
	LTE Band 71	20M	QPSK	50	0	-	Front	5mm	Ant 0	ECI 9	133322	683	open	21.60	23.00	1.380	-	-	0.01	0.469	0.647
	LTE Band 71	20M	QPSK	100	0	-	Front	5mm	Ant 0	ECI 9	133322	683	open	21.61	23.00	1.377	-	-	0.03	0.432	0.595
	LTE Band 71	20M	QPSK	1	0	-	Back	5mm	Ant 0	ECI 9	133322	683	open	22.54	24.00	1.400	-	-	-0.08	0.745	1.043
	LTE Band 71	20M	QPSK	50	0	-	Back	5mm	Ant 0	ECI 9	133322	683	open	21.60	23.00	1.380	-	-	-0.08	0.598	0.825
	LTE Band 71	20M	QPSK	100	0	-	Back	5mm	Ant 0	ECI 9	133322	683	open	21.61	23.00	1.377	-	-	0.1	0.542	0.746
34	LTE Band 71	20M	QPSK	1	0	-	Left Side	5mm	Ant 0	ECI 9	133322	683	open	22.54	24.00	1.400	-	-	-0.02	0.827	1.157
	LTE Band 71	20M	QPSK	50	0	-	Left Side	5mm	Ant 0	ECI 9	133322	683	open	21.60	23.00	1.380	-	-	-0.18	0.598	0.825
	LTE Band 71	20M	QPSK	100	0	-	Left Side	5mm	Ant 0	ECI 9	133322	683	open	21.61	23.00	1.377	-	-	0.1	0.497	0.684
	LTE Band 71	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 0	ECI 9	133322	683	open	22.54	24.00	1.400	-	-	0.12	0.381	0.533
	LTE Band 71	20M	QPSK	50	0	-	Bottom Side	5mm	Ant 0	ECI 9	133322	683	open	21.60	23.00	1.380	-	-	0.08	0.250	0.345
	LTE Band 71	20M	QPSK	1	0	-	Front	5mm	Ant 1	ECI 9	133322	683	open	22.13	23.00	1.222	-	-	0.07	0.403	0.492
	LTE Band 71	20M	QPSK	50	0	-	Front	5mm	Ant 1	ECI 9	133322	683	open	21.18	22.00	1.208	-	-	0.06	0.321	0.388
	LTE Band 71	20M	QPSK	1	0	-	Back	5mm	Ant 1	ECI 9	133322	683	open	22.13	23.00	1.222	-	-	0.01	0.477	0.583
	LTE Band 71	20M	QPSK	50	0	-	Back	5mm	Ant 1	ECI 9	133322	683	open	21.18	22.00	1.208	-	-	-0.01	0.383	0.463
	LTE Band 71	20M	QPSK	1	0	-	Right Side	5mm	Ant 1	ECI 9	133322	683	open	22.13	23.00	1.222	-	-	-0.06	0.413	0.505
	LTE Band 71	20M	QPSK	50	0	-	Right Side	5mm	Ant 1	ECI 9	133322	683	open	21.18	22.00	1.208	-	-	-0.04	0.331	0.400
	LTE Band 71	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 1	ECI 9	133322	683	open	22.13	23.00	1.222	-	-	0.02	0.664	0.811
	LTE Band 71	20M	QPSK	50	0	-	Bottom Side	5mm	Ant 1	ECI 9	133322	683	open	21.18	22.00	1.208	-	-	-0.09	0.527	0.637
	LTE Band 71	20M	QPSK	100	0	-	Bottom Side	5mm	Ant 1	ECI 9	133322	683	open	21.14	22.00	1.219	-	-	-0.17	0.532	0.649
	LTE Band 12	10M	QPSK	1	0	-	Front	5mm	Ant 0	ECI 9	23095	707.5	open	22.21	23.00	1.199	-	-	0.18	0.600	0.720
	LTE Band 12	10M	QPSK	25	0	-	Front	5mm	Ant 0	ECI 9	23095	707.5	open	21.18	22.00	1.208	-	-	0.14	0.473	0.571
	LTE Band 12	10M	QPSK	1	0	-	Back	5mm	Ant 0	ECI 9	23095	707.5	open	22.21	23.00	1.199	-	-	0.17	0.702	0.842
	LTE Band 12	10M	QPSK	25	0	-	Back	5mm	Ant 0	ECI 9	23095	707.5	open	21.18	22.00	1.208	-	-	-0.05	0.546	0.659
	LTE Band 12	10M	QPSK	50	0	-	Back	5mm	Ant 0	ECI 9	23095	707.5	open	21.09	22.00	1.233	-	-	0.01	0.559	0.689
	LTE Band 12	10M	QPSK	1	0	-	Left Side	5mm	Ant 0	ECI 9	23095	707.5	open	22.21	23.00	1.199	-	-	-0.02	0.800	0.960
	LTE Band 12	10M	QPSK	25	0	-	Left Side	5mm	Ant 0	ECI 9	23095	707.5	open	21.18	22.00	1.208	-	-	0.1	0.662	0.800
	LTE Band 12	10M	QPSK	50	0	-	Left Side	5mm	Ant 0	ECI 9	23095	707.5	open	21.09	22.00	1.233	-	-	-0.17	0.680	0.839
	LTE Band 12	10M	QPSK	1	0	-	Bottom Side	5mm	Ant 0	ECI 9	23095	707.5	open	22.21	23.00	1.199	-	-	0.04	0.430	0.516
	LTE Band 12	10M	QPSK	25	0	-	Bottom Side	5mm	Ant 0	ECI 9	23095	707.5	open	21.18	22.00	1.208	-	-	-0.01	0.303	0.366
	LTE Band 12	10M	QPSK	1	0	-	Front	5mm	Ant 1	ECI 9	23095	707.5	open	21.76	23.00	1.330	-	-	-0.1	0.582	0.774
	LTE Band 12	10M	QPSK	25	0	-	Front	5mm	Ant 1	ECI 9	23095	707.5	open	20.78	22.00	1.324	-	-	0.18	0.463	0.613
	LTE Band 12	10M	QPSK	1	0	-	Back	5mm	Ant 1	ECI 9	23095	707.5	open	21.76	23.00	1.330	-	-	-0.17	0.737	0.981
	LTE Band 12	10M	QPSK	25	0	-	Back	5mm	Ant 1	ECI 9	23095	707.5	open	20.78	22.00	1.324	-	-	-0.04	0.552	0.731
	LTE Band 12	10M	QPSK	50	0	-	Back	5mm	Ant 1	ECI 9	23095	707.5	open	20.73	22.00	1.340	-	-	-0.05	0.576	0.772
	LTE Band 12	10M	QPSK	1	0	-	Right Side	5mm	Ant 1	ECI 9	23095	707.5	open	21.76	23.00	1.330	-	-	0.09	0.440	0.585
	LTE Band 12	10M	QPSK	25	0	-	Right Side	5mm	Ant 1	ECI 9	23095	707.5	open	20.78	22.00	1.324	-	-	-0.13	0.347	0.460
35	LTE Band 12	10M	QPSK	1	0	-	Bottom Side	5mm	Ant 1	ECI 9	23095	707.5	open	21.76	23.00	1.330	-	-	0.01	0.955	1.271
	LTE Band 12	10M	QPSK	25	0	-	Bottom Side	5mm	Ant 1	ECI 9	23095	707.5	open	20.78	22.00	1.324	-	-	-0.01	0.754	0.999
	LTE Band 12	10M	QPSK	50	0	-	Bottom Side	5mm	Ant 1	ECI 9	23095	707.5	open	20.73	22.00	1.340	-	-	-0.09	0.753	1.009
	LTE Band 13	10M	QPSK	1	0	-	Front	5mm	Ant 0	ECI 9	23230	782	open	22.20	23.00	1.202	-	-	0.03	0.744	0.894
	LTE Band 13	10M	QPSK	25	0	-	Front	5mm	Ant 0	ECI 9	23230	782	open	21.17	22.00	1.211	-	-	0.18	0.552	0.668
	LTE Band 13	10M	QPSK	50	0	-	Front	5mm	Ant 0	ECI 9	23230	782	open	21.10	22.00	1.230	-	-	0.16	0.564	0.694
36	LTE Band 13	10M	QPSK	1	0	-	Back	5mm	Ant 0	ECI 9	23230	782	open	22.20	23.00	1.202	-	-	-0.17	0.810	0.974
	LTE Band 13	10M	QPSK	25	0	-	Back	5mm	Ant 0	ECI 9	23230	782	open	21.17	22.00	1.211	-	-	-0.1	0.630	0.763
	LTE Band 13	10M	QPSK	50	0	-	Back	5mm	Ant 0	ECI 9	23230	782	open	21.10	22.00	1.230	-	-	0.07	0.644	0.792
	LTE Band 13	10M	QPSK	1	0	-	Left Side	5mm	Ant 0	ECI 9	23230	782	open	22.20	23.00	1.202	-	-	0.18	0.756	0.909
	LTE Band 13	10M	QPSK	25	0	-	Left Side	5mm	Ant 0	ECI 9	23230	782	open	21.17	22.00	1.211	-	-	-0.1	0.576	0.697
	LTE Band 13	10M	QPSK	50	0	-	Left Side	5mm	Ant 0	ECI 9	23230	782	open	21.10	22.00	1.230	-	-	0.01	0.582	0.716



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	LTE Band 13	10M	QPSK	1	0	-	Bottom Side	5mm	Ant 0	ECI 9	23230	782	open	22.20	23.00	1.202	-	-	-0.15	0.389	0.468
	LTE Band 13	10M	QPSK	25	0	-	Bottom Side	5mm	Ant 0	ECI 9	23230	782	open	21.17	22.00	1.211	-	-	0.19	0.257	0.311
	LTE Band 13	10M	QPSK	1	0	-	Front	5mm	Ant 1	ECI 9	23230	782	open	21.92	23.00	1.282	-	-	0.05	0.350	0.449
	LTE Band 13	10M	QPSK	25	0	-	Front	5mm	Ant 1	ECI 9	23230	782	open	20.97	22.00	1.268	-	-	0.02	0.274	0.347
	LTE Band 13	10M	QPSK	1	0	-	Back	5mm	Ant 1	ECI 9	23230	782	open	21.92	23.00	1.282	-	-	-0.13	0.545	0.699
	LTE Band 13	10M	QPSK	25	0	-	Back	5mm	Ant 1	ECI 9	23230	782	open	20.97	22.00	1.268	-	-	0.17	0.431	0.546
	LTE Band 13	10M	QPSK	1	0	-	Right Side	5mm	Ant 1	ECI 9	23230	782	open	21.92	23.00	1.282	-	-	0.06	0.310	0.398
	LTE Band 13	10M	QPSK	25	0	-	Right Side	5mm	Ant 1	ECI 9	23230	782	open	20.97	22.00	1.268	-	-	0.06	0.244	0.309
	LTE Band 13	10M	QPSK	1	0	-	Bottom Side	5mm	Ant 1	ECI 9	23230	782	open	21.92	23.00	1.282	-	-	0.01	0.659	0.845
	LTE Band 13	10M	QPSK	25	0	-	Bottom Side	5mm	Ant 1	ECI 9	23230	782	open	20.97	22.00	1.268	-	-	-0.04	0.518	0.657
	LTE Band 13	10M	QPSK	50	0	-	Bottom Side	5mm	Ant 1	ECI 9	23230	782	open	20.88	22.00	1.294	-	-	-0.15	0.516	0.668
	LTE Band 14	10M	QPSK	1	0	-	Front	5mm	Ant 0	ECI 9	23330	793	open	22.31	23.00	1.172	-	-	0.11	0.726	0.851
	LTE Band 14	10M	QPSK	25	0	-	Front	5mm	Ant 0	ECI 9	23330	793	open	21.31	22.00	1.172	-	-	-0.08	0.548	0.642
	LTE Band 14	10M	QPSK	50	0	-	Front	5mm	Ant 0	ECI 9	23330	793	open	21.25	22.00	1.189	-	-	-0.17	0.537	0.638
	LTE Band 14	10M	QPSK	1	0	-	Back	5mm	Ant 0	ECI 9	23330	793	open	22.31	23.00	1.172	-	-	-0.08	0.854	1.001
	LTE Band 14	10M	QPSK	25	0	-	Back	5mm	Ant 0	ECI 9	23330	793	open	21.31	22.00	1.172	-	-	-0.04	0.703	0.824
	LTE Band 14	10M	QPSK	50	0	-	Back	5mm	Ant 0	ECI 9	23330	793	open	21.25	22.00	1.189	-	-	-0.08	0.675	0.802
	LTE Band 14	10M	QPSK	1	0	-	Left Side	5mm	Ant 0	ECI 9	23330	793	open	22.31	23.00	1.172	-	-	-0.08	0.905	1.061
	LTE Band 14	10M	QPSK	25	0	-	Left Side	5mm	Ant 0	ECI 9	23330	793	open	21.31	22.00	1.172	-	-	0.17	0.612	0.717
	LTE Band 14	10M	QPSK	50	0	-	Left Side	5mm	Ant 0	ECI 9	23330	793	open	21.25	22.00	1.189	-	-	0.18	0.562	0.668
	LTE Band 14	10M	QPSK	1	0	-	Bottom Side	5mm	Ant 0	ECI 9	23330	793	open	22.31	23.00	1.172	-	-	-0.04	0.429	0.503
	LTE Band 14	10M	QPSK	25	0	-	Bottom Side	5mm	Ant 0	ECI 9	23330	793	open	21.31	22.00	1.172	-	-	-0.08	0.379	0.444
	LTE Band 14	10M	QPSK	1	0	-	Front	5mm	Ant 1	ECI 9	23330	793	open	21.95	23.00	1.274	-	-	0.11	0.475	0.605
	LTE Band 14	10M	QPSK	25	0	-	Front	5mm	Ant 1	ECI 9	23330	793	open	20.98	22.00	1.265	-	-	-0.02	0.360	0.455
	LTE Band 14	10M	QPSK	1	0	-	Back	5mm	Ant 1	ECI 9	23330	793	open	21.95	23.00	1.274	-	-	0.1	0.682	0.869
	LTE Band 14	10M	QPSK	25	0	-	Back	5mm	Ant 1	ECI 9	23330	793	open	20.98	22.00	1.265	-	-	0.04	0.556	0.703
	LTE Band 14	10M	QPSK	50	0	-	Back	5mm	Ant 1	ECI 9	23330	793	open	20.94	22.00	1.276	-	-	0.13	0.565	0.721
	LTE Band 14	10M	QPSK	1	0	-	Right Side	5mm	Ant 1	ECI 9	23330	793	open	21.95	23.00	1.274	-	-	-0.18	0.338	0.430
	LTE Band 14	10M	QPSK	25	0	-	Right Side	5mm	Ant 1	ECI 9	23330	793	open	20.98	22.00	1.265	-	-	-0.11	0.267	0.338
37	LTE Band 14	10M	QPSK	1	0	-	Bottom Side	5mm	Ant 1	ECI 9	23330	793	open	21.95	23.00	1.274	-	-	-0.03	0.865	1.102
	LTE Band 14	10M	QPSK	25	0	-	Bottom Side	5mm	Ant 1	ECI 9	23330	793	open	20.98	22.00	1.265	-	-	-0.16	0.680	0.860
	LTE Band 14	10M	QPSK	50	0	-	Bottom Side	5mm	Ant 1	ECI 9	23330	793	open	20.94	22.00	1.276	-	-	-0.15	0.689	0.879
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 0	ECI 9	136100	680.5	open	23.69	24.00	1.074	-	-	0.08	0.479	0.514
	FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Front	5mm	Ant 0	ECI 9	136100	680.5	open	23.50	24.00	1.122	-	-	-0.07	0.482	0.541
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 0	ECI 9	136100	680.5	open	23.69	24.00	1.074	-	-	0.05	0.581	0.624
	FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Back	5mm	Ant 0	ECI 9	136100	680.5	open	23.50	24.00	1.122	-	-	-0.11	0.586	0.658
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Left Side	5mm	Ant 0	ECI 9	136100	680.5	open	23.69	24.00	1.074	-	-	0.03	0.793	0.852
38	FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Left Side	5mm	Ant 0	ECI 9	136100	680.5	open	23.50	24.00	1.122	-	-	0.01	0.804	0.902
	FR1 n71	20M	QPSK	100	0	DFT-SCS-15KHz	Left Side	5mm	Ant 0	ECI 9	136100	680.5	open	22.42	23.00	1.143	-	-	-0.16	0.549	0.627
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	5mm	Ant 0	ECI 9	136100	680.5	open	23.69	24.00	1.074	-	-	-0.02	0.399	0.429
	FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Bottom Side	5mm	Ant 0	ECI 9	136100	680.5	open	23.50	24.00	1.122	-	-	0.15	0.457	0.513
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 1	ECI 9	136100	680.5	open	23.50	24.00	1.122	-	-	-0.06	0.352	0.395
	FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Front	5mm	Ant 1	ECI 9	136100	680.5	open	23.39	24.00	1.151	-	-	-0.14	0.257	0.296
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 1	ECI 9	136100	680.5	open	23.50	24.00	1.122	-	-	-0.19	0.451	0.506
	FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Back	5mm	Ant 1	ECI 9	136100	680.5	open	23.39	24.00	1.151	-	-	0.01	0.415	0.478
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Right Side	5mm	Ant 1	ECI 9	136100	680.5	open	23.50	24.00	1.122	-	-	0.06	0.336	0.377
	FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Right Side	5mm	Ant 1	ECI 9	136100	680.5	open	23.39	24.00	1.151	-	-	0.02	0.287	0.330
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	5mm	Ant 1	ECI 9	136100	680.5	open	23.50	24.00	1.122	-	-	0.01	0.632	0.709
	FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Bottom Side	5mm	Ant 1	ECI 9	136100	680.5	open	23.39	24.00	1.151	-	-	0.12	0.554	0.638
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 0	ECI 9	141500	707.5	open	23.27	24.00	1.183	-	-	-0.09	0.089	0.105
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Front	5mm	Ant 0	ECI 9	141500	707.5	open	23.24	24.00	1.191	-	-	0.11	0.100	0.119
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 0	ECI 9	141500	707.5	open	23.27	24.00	1.183	-	-	-0.05	0.094	0.111
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Back	5mm	Ant 0	ECI 9	141500	707.5	open	23.24	24.00	1.191	-	-	-0.01	0.117	0.139
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Left Side	5mm	Ant 0	ECI 9	141500	707.5	open	23.27	24.00	1.183	-	-	-0.08	0.060	0.071
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Left Side	5mm	Ant 0	ECI 9	141500	707.5	open	23.24	24.00	1.191	-	-	0.16	0.079	0.094
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	5mm	Ant 0	ECI 9	141500	707.5	open	23.27	24.00	1.183	-	-	0.05	0.054	0.064



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	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Bottom Side	5mm	Ant 0	ECl 9	141500	707.5	open	23.24	24.00	1.191	-	-	0.05	0.082	0.098
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 1	ECl 9	141500	707.5	open	23.01	24.00	1.256	-	-	-0.12	0.360	0.452
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Front	5mm	Ant 1	ECl 9	141500	707.5	open	22.97	24.00	1.268	-	-	0.07	0.263	0.333
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 1	ECl 9	141500	707.5	open	23.01	24.00	1.256	-	-	-0.02	0.461	0.579
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Back	5mm	Ant 1	ECl 9	141500	707.5	open	22.97	24.00	1.268	-	-	-0.05	0.424	0.537
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Right Side	5mm	Ant 1	ECl 9	141500	707.5	open	23.01	24.00	1.256	-	-	-0.13	0.343	0.431
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Right Side	5mm	Ant 1	ECl 9	141500	707.5	open	22.97	24.00	1.268	-	-	0.08	0.293	0.371
39	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	5mm	Ant 1	ECl 9	141500	707.5	open	23.01	24.00	1.256	-	-	-0.01	0.646	0.811
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Bottom Side	5mm	Ant 1	ECl 9	141500	707.5	open	22.97	24.00	1.268	-	-	0.16	0.566	0.717
	FR1 n12	15M	QPSK	75	0	DFT-SCS-15KHz	Bottom Side	5mm	Ant 1	ECl 9	141500	707.5	open	21.81	23.00	1.315	-	-	0.01	0.523	0.688
	FR1 n14	10M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 0	ECl 9	158600	793	open	23.63	24.00	1.089	-	-	-0.03	0.639	0.696
	FR1 n14	10M	QPSK	25	14	DFT-SCS-15KHz	Front	5mm	Ant 0	ECl 9	158600	793	open	23.55	24.00	1.109	-	-	-0.15	0.566	0.628
40	FR1 n14	10M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 0	ECl 9	158600	793	open	23.63	24.00	1.089	-	-	0.01	0.718	0.782
	FR1 n14	10M	QPSK	25	14	DFT-SCS-15KHz	Back	5mm	Ant 0	ECl 9	158600	793	open	23.55	24.00	1.109	-	-	0.07	0.683	0.758
	FR1 n14	10M	QPSK	1	1	DFT-SCS-15KHz	Left Side	5mm	Ant 0	ECl 9	158600	793	open	23.63	24.00	1.089	-	-	0.13	0.642	0.699
	FR1 n14	10M	QPSK	25	14	DFT-SCS-15KHz	Left Side	5mm	Ant 0	ECl 9	158600	793	open	23.55	24.00	1.109	-	-	-0.18	0.629	0.698
	FR1 n14	10M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	5mm	Ant 0	ECl 9	158600	793	open	23.63	24.00	1.089	-	-	0.16	0.422	0.460
	FR1 n14	10M	QPSK	25	14	DFT-SCS-15KHz	Bottom Side	5mm	Ant 0	ECl 9	158600	793	open	23.55	24.00	1.109	-	-	-0.03	0.414	0.459
	FR1 n14	10M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 1	ECl 9	158600	793	open	23.34	24.00	1.164	-	-	0.08	0.365	0.425
	FR1 n14	10M	QPSK	25	14	DFT-SCS-15KHz	Front	5mm	Ant 1	ECl 9	158600	793	open	23.27	24.00	1.183	-	-	0.01	0.325	0.384
	FR1 n14	10M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 1	ECl 9	158600	793	open	23.34	24.00	1.164	-	-	0.03	0.489	0.569
	FR1 n14	10M	QPSK	25	14	DFT-SCS-15KHz	Back	5mm	Ant 1	ECl 9	158600	793	open	23.27	24.00	1.183	-	-	-0.08	0.495	0.586
	FR1 n14	10M	QPSK	1	1	DFT-SCS-15KHz	Right Side	5mm	Ant 1	ECl 9	158600	793	open	23.34	24.00	1.164	-	-	-0.08	0.261	0.304
	FR1 n14	10M	QPSK	25	14	DFT-SCS-15KHz	Right Side	5mm	Ant 1	ECl 9	158600	793	open	23.27	24.00	1.183	-	-	0.1	0.253	0.299
	FR1 n14	10M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	5mm	Ant 1	ECl 9	158600	793	open	23.34	24.00	1.164	-	-	0.01	0.615	0.716
	FR1 n14	10M	QPSK	25	14	DFT-SCS-15KHz	Bottom Side	5mm	Ant 1	ECl 9	158600	793	open	23.27	24.00	1.183	-	-	-0.18	0.503	0.595
835MHz																					
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Front	5mm	Ant 0	ECl 9	189	836.4	open	27.48	29.00	1.419	-	-	0.12	0.663	0.941
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Front	5mm	Ant 0	ECl 9	128	824.2	open	27.46	29.00	1.426	-	-	0.08	0.649	0.925
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Front	5mm	Ant 0	ECl 9	251	848.8	open	27.42	29.00	1.439	-	-	-0.17	0.599	0.862
41	GSM850	-	-	-	-	GPRS (4 Tx slots)	Back	5mm	Ant 0	ECl 9	189	836.4	open	27.48	29.00	1.419	-	-	-0.08	0.802	1.138
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Back	5mm	Ant 0	ECl 9	128	824.2	open	27.46	29.00	1.426	-	-	-0.03	0.771	1.099
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Back	5mm	Ant 0	ECl 9	251	848.8	open	27.42	29.00	1.439	-	-	0.14	0.767	1.104
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Left Side	5mm	Ant 0	ECl 9	189	836.4	open	27.48	29.00	1.419	-	-	0.11	0.625	0.887
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Left Side	5mm	Ant 0	ECl 9	128	824.2	open	27.46	29.00	1.426	-	-	-0.05	0.613	0.874
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Left Side	5mm	Ant 0	ECl 9	251	848.8	open	27.42	29.00	1.439	-	-	0.18	0.594	0.855
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Bottom Side	5mm	Ant 0	ECl 9	189	836.4	open	27.48	29.00	1.419	-	-	0.14	0.424	0.602
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Front	5mm	Ant 1	ECl 9	189	836.4	open	27.50	29.00	1.413	-	-	-0.15	0.346	0.489
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Back	5mm	Ant 1	ECl 9	189	836.4	open	27.50	29.00	1.413	-	-	0.11	0.628	0.887
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Back	5mm	Ant 1	ECl 9	128	824.2	open	27.48	29.00	1.419	-	-	-0.08	0.644	0.914
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Back	5mm	Ant 1	ECl 9	251	848.8	open	27.46	29.00	1.426	-	-	-0.17	0.626	0.892
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Right Side	5mm	Ant 1	ECl 9	189	836.4	open	27.50	29.00	1.413	-	-	-0.08	0.290	0.410
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Bottom Side	5mm	Ant 1	ECl 9	189	836.4	open	27.50	29.00	1.413	-	-	-0.04	0.655	0.925
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Bottom Side	5mm	Ant 1	ECl 9	128	824.2	open	27.48	29.00	1.419	-	-	-0.08	0.671	0.952
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Bottom Side	5mm	Ant 1	ECl 9	251	848.8	open	27.46	29.00	1.426	-	-	0.06	0.694	0.989
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Front	5mm	Ant 0	ECl 9	4182	836.4	open	24.34	25.00	1.164	-	-	-0.17	0.802	0.934
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Front	5mm	Ant 0	ECl 9	4132	826.4	open	24.26	25.00	1.186	-	-	0.03	0.758	0.899
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Front	5mm	Ant 0	ECl 9	4233	846.6	open	24.29	25.00	1.178	-	-	0.02	0.786	0.926
42	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 0	ECl 9	4182	836.4	open	24.34	25.00	1.164	-	-	-0.15	0.936	1.090
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 0	ECl 9	4132	826.4	open	24.26	25.00	1.186	-	-	0.01	0.900	1.067
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 0	ECl 9	4233	846.6	open	24.29	25.00	1.178	-	-	0.1	0.875	1.030
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Side	5mm	Ant 0	ECl 9	4182	836.4	open	24.34	25.00	1.164	-	-	0.17	0.630	0.733



	WCDMA V	-	-	-	-	RMC 12.2Kbps	Bottom Side	5mm	Ant 0	ECI 9	4182	836.4	open	24.34	25.00	1.164	-	-	-0.05	0.484	0.563
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Front	5mm	Ant 1	ECI 9	4182	836.4	open	24.34	25.00	1.164	-	-	0.17	0.327	0.381
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 1	ECI 9	4182	836.4	open	24.34	25.00	1.164	-	-	0.18	0.531	0.618
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Side	5mm	Ant 1	ECI 9	4182	836.4	open	24.34	25.00	1.164	-	-	-0.04	0.218	0.254
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Bottom Side	5mm	Ant 1	ECI 9	4182	836.4	open	24.34	25.00	1.164	-	-	0.01	0.622	0.724
	LTE Band 26	15M	QPSK	1	0	-	Front	5mm	Ant 0	ECI 9	26865	831.5	open	22.22	23.00	1.197	-	-	-0.17	0.660	0.790
	LTE Band 26	15M	QPSK	36	0	-	Front	5mm	Ant 0	ECI 9	26865	831.5	open	21.30	22.00	1.175	-	-	0.04	0.550	0.646
43	LTE Band 26	15M	QPSK	1	0	-	Back	5mm	Ant 0	ECI 9	26865	831.5	open	22.22	23.00	1.197	-	-	-0.09	1.030	1.233
	LTE Band 26	15M	QPSK	36	0	-	Back	5mm	Ant 0	ECI 9	26865	831.5	open	21.30	22.00	1.175	-	-	-0.08	0.839	0.986
	LTE Band 26	15M	QPSK	75	0	-	Back	5mm	Ant 0	ECI 9	26865	831.5	open	21.29	22.00	1.178	-	-	0.05	0.817	0.962
	LTE Band 26	15M	QPSK	1	0	-	Left Side	5mm	Ant 0	ECI 9	26865	831.5	open	22.22	23.00	1.197	-	-	0.06	0.993	1.188
	LTE Band 26	15M	QPSK	36	0	-	Left Side	5mm	Ant 0	ECI 9	26865	831.5	open	21.30	22.00	1.175	-	-	-0.09	0.783	0.920
	LTE Band 26	15M	QPSK	75	0	-	Left Side	5mm	Ant 0	ECI 9	26865	831.5	open	21.29	22.00	1.178	-	-	-0.08	0.762	0.897
	LTE Band 26	15M	QPSK	1	0	-	Bottom Side	5mm	Ant 0	ECI 9	26865	831.5	open	22.22	23.00	1.197	-	-	0.13	0.546	0.653
	LTE Band 26	15M	QPSK	36	0	-	Bottom Side	5mm	Ant 0	ECI 9	26865	831.5	open	21.30	22.00	1.175	-	-	0.12	0.262	0.308
	LTE Band 5B	10M	QPSK	1	49	-	Back	5mm	Ant 0	ECI 9	20476+20575	831.6+841.5	open	21.99	23.00	1.262	-	-	-0.09	0.943	1.190
	LTE Band 26	15M	QPSK	1	0	-	Front	5mm	Ant 1	ECI 9	26865	831.5	open	21.92	23.00	1.282	-	-	-0.08	0.452	0.580
	LTE Band 26	15M	QPSK	36	0	-	Front	5mm	Ant 1	ECI 9	26865	831.5	open	20.95	22.00	1.274	-	-	-0.13	0.355	0.452
	LTE Band 26	15M	QPSK	1	0	-	Back	5mm	Ant 1	ECI 9	26865	831.5	open	21.92	23.00	1.282	-	-	-0.13	0.665	0.853
	LTE Band 26	15M	QPSK	36	0	-	Back	5mm	Ant 1	ECI 9	26865	831.5	open	20.95	22.00	1.274	-	-	0.06	0.526	0.670
	LTE Band 26	15M	QPSK	75	0	-	Back	5mm	Ant 1	ECI 9	26865	831.5	open	20.80	22.00	1.318	-	-	-0.03	0.528	0.696
	LTE Band 26	15M	QPSK	1	0	-	Right Side	5mm	Ant 1	ECI 9	26865	831.5	open	21.92	23.00	1.282	-	-	-0.03	0.306	0.392
	LTE Band 26	15M	QPSK	36	0	-	Right Side	5mm	Ant 1	ECI 9	26865	831.5	open	20.95	22.00	1.274	-	-	0.08	0.237	0.302
	LTE Band 26	15M	QPSK	1	0	-	Bottom Side	5mm	Ant 1	ECI 9	26865	831.5	open	21.92	23.00	1.282	-	-	0.01	0.857	1.099
	LTE Band 26	15M	QPSK	36	0	-	Bottom Side	5mm	Ant 1	ECI 9	26865	831.5	open	20.95	22.00	1.274	-	-	-0.07	0.673	0.857
	LTE Band 26	15M	QPSK	75	0	-	Bottom Side	5mm	Ant 1	ECI 9	26865	831.5	open	20.80	22.00	1.318	-	-	0.05	0.679	0.895
	LTE Band 5B	10M	QPSK	1	49	-	Bottom Side	5mm	Ant 1	ECI 9	20476+20575	831.6+841.5	open	21.72	23.00	1.343	-	-	0.01	0.759	1.019
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 0	ECI 9	166300	831.5	open	23.40	24.00	1.148	-	-	0.07	0.732	0.840
	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Front	5mm	Ant 0	ECI 9	166300	831.5	open	23.36	24.00	1.159	-	-	0.18	0.759	0.880
	FR1 n26	20M	QPSK	100	0	DFT-SCS-15KHz	Front	5mm	Ant 0	ECI 9	166300	831.5	open	22.28	23.00	1.180	-	-	-0.1	0.580	0.685
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 0	ECI 9	166300	831.5	open	23.40	24.00	1.148	-	-	0.01	0.720	0.827
44	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Back	5mm	Ant 0	ECI 9	166300	831.5	open	23.36	24.00	1.159	-	-	-0.02	0.778	0.902
	FR1 n5B	10M	QPSK	25	27	DFT-SCS-15KHz	Back	5mm	Ant 0	ECI 9	166300+168280	831.5+841.5	open	22.71	24.00	1.346	-	-	0.01	0.646	0.869
	FR1 n26	20M	QPSK	100	0	DFT-SCS-15KHz	Back	5mm	Ant 0	ECI 9	166300	831.5	open	22.28	23.00	1.180	-	-	-0.15	0.616	0.727
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Left Side	5mm	Ant 0	ECI 9	166300	831.5	open	23.40	24.00	1.148	-	-	0.19	0.682	0.783
	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Left Side	5mm	Ant 0	ECI 9	166300	831.5	open	23.36	24.00	1.159	-	-	0.07	0.706	0.818
	FR1 n26	20M	QPSK	100	0	DFT-SCS-15KHz	Left Side	5mm	Ant 0	ECI 9	166300	831.5	open	22.28	23.00	1.180	-	-	-0.18	0.507	0.598
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	5mm	Ant 0	ECI 9	166300	831.5	open	23.40	24.00	1.148	-	-	0.03	0.365	0.419
	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Bottom Side	5mm	Ant 0	ECI 9	166300	831.5	open	23.36	24.00	1.159	-	-	-0.15	0.420	0.487
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 1	ECI 9	166300	831.5	open	23.13	24.00	1.222	-	-	-0.11	0.307	0.375
	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Front	5mm	Ant 1	ECI 9	166300	831.5	open	23.04	24.00	1.247	-	-	-0.12	0.289	0.360
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 1	ECI 9	166300	831.5	open	23.13	24.00	1.222	-	-	0.03	0.454	0.555
	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Back	5mm	Ant 1	ECI 9	166300	831.5	open	23.04	24.00	1.247	-	-	-0.16	0.454	0.566
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Right Side	5mm	Ant 1	ECI 9	166300	831.5	open	23.13	24.00	1.222	-	-	-0.02	0.204	0.249
	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Right Side	5mm	Ant 1	ECI 9	166300	831.5	open	23.04	24.00	1.247	-	-	0.15	0.193	0.241
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	5mm	Ant 1	ECI 9	166300	831.5	open	23.13	24.00	1.222	-	-	-0.09	0.464	0.567
	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Bottom Side	5mm	Ant 1	ECI 9	166300	831.5	open	23.04	24.00	1.247	-	-	0.18	0.504	0.629
1750MHz																					
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	5mm	Ant 2	ECI 9	1413	1732.6	open	13.50	14.50	1.259	-	-	0.11	0.278	0.350
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 2	ECI 9	1413	1732.6	open	13.50	14.50	1.259	-	-	0.16	0.215	0.271
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Side	5mm	Ant 2	ECI 9	1413	1732.6	open	13.50	14.50	1.259	-	-	-0.05	0.488	0.614
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Top Side	5mm	Ant 2	ECI 9	1413	1732.6	open	13.50	14.50	1.259	-	-	0.02	0.023	0.029
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	5mm	Ant 3	ECI 9	1413	1732.6	open	14.65	15.90	1.334	-	-	0.17	0.188	0.251
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 3	ECI 9	1413	1732.6	open	14.65	15.90	1.334	-	-	-0.05	0.192	0.256
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Side	5mm	Ant 3	ECI 9	1413	1732.6	open	14.65	15.90	1.334	-	-	0.01	0.125	0.167



	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Top Side	5mm	Ant 3	ECI 9	1413	1732.6	open	14.65	15.90	1.334	-	-	0.1	0.466	0.621
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	5mm	Ant 0	ECI 9	1413	1732.6	open	18.60	19.70	1.288	-	-	-0.15	0.452	0.582
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 0	ECI 9	1413	1732.6	open	18.60	19.70	1.288	-	-	-0.09	0.516	0.665
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Side	5mm	Ant 0	ECI 9	1413	1732.6	open	18.60	19.70	1.288	-	-	-0.13	0.954	1.229
45	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Side	5mm	Ant 0	ECI 9	1312	1712.4	open	18.58	19.70	1.294	-	-	0.06	0.992	1.284
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Side	5mm	Ant 0	ECI 9	1513	1752.6	open	18.55	19.70	1.303	-	-	0.17	0.954	1.243
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Bottom Side	5mm	Ant 0	ECI 9	1413	1732.6	open	18.60	19.70	1.288	-	-	0.06	0.365	0.470
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	5mm	Ant 1	ECI 9	1413	1732.6	open	18.05	19.10	1.274	-	-	0.19	0.554	0.706
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 1	ECI 9	1312	1712.4	open	18.00	19.10	1.288	-	-	-0.14	0.865	1.114
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 1	ECI 9	1513	1752.6	open	17.98	19.10	1.294	-	-	-0.18	0.847	1.096
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 1	ECI 9	1413	1732.6	open	18.05	19.10	1.274	-	-	-0.06	0.936	1.192
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Side	5mm	Ant 1	ECI 9	1413	1732.6	open	18.05	19.10	1.274	-	-	0.02	0.227	0.289
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Bottom Side	5mm	Ant 1	ECI 9	1413	1732.6	open	18.05	19.10	1.274	-	-	0.16	0.964	1.228
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Bottom Side	5mm	Ant 1	ECI 9	1312	1712.4	open	18.00	19.10	1.288	-	-	0.01	0.935	1.205
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Bottom Side	5mm	Ant 1	ECI 9	1513	1752.6	open	17.98	19.10	1.294	-	-	0.03	0.981	1.270
	LTE Band 66	20M	QPSK	1	0	-	Front	5mm	Ant 2	ECI 9	132322	1745	open	10.13	11.30	1.309	-	-	-0.03	0.259	0.339
	LTE Band 66	20M	QPSK	50	0	-	Front	5mm	Ant 2	ECI 9	132322	1745	open	10.10	11.30	1.318	-	-	-0.03	0.223	0.294
	LTE Band 66	20M	QPSK	1	0	-	Back	5mm	Ant 2	ECI 9	132322	1745	open	10.13	11.30	1.309	-	-	-0.1	0.089	0.117
	LTE Band 66	20M	QPSK	50	0	-	Back	5mm	Ant 2	ECI 9	132322	1745	open	10.10	11.30	1.318	-	-	0.18	0.072	0.095
	LTE Band 66	20M	QPSK	1	0	-	Left Side	5mm	Ant 2	ECI 9	132322	1745	open	10.13	11.30	1.309	-	-	-0.08	0.476	0.623
	LTE Band 66	20M	QPSK	50	0	-	Left Side	5mm	Ant 2	ECI 9	132322	1745	open	10.10	11.30	1.318	-	-	0.02	0.385	0.508
	LTE Band 66	20M	QPSK	1	0	-	Top Side	5mm	Ant 2	ECI 9	132322	1745	open	10.13	11.30	1.309	-	-	0.11	0.032	0.042
	LTE Band 66	20M	QPSK	50	0	-	Top Side	5mm	Ant 2	ECI 9	132322	1745	open	10.10	11.30	1.318	-	-	-0.02	0.021	0.028
	LTE Band 66C	20M	QPSK	1	99	-	Left Side	5mm	Ant 2	ECI 9	132322+132520	1745+1764.8	open	10.00	11.30	1.349	-	-	0.03	0.452	0.610
	LTE Band 66	20M	QPSK	1	0	-	Front	5mm	Ant 3	ECI 9	132322	1745	open	17.30	18.30	1.259	-	-	-0.08	0.111	0.140
	LTE Band 66	20M	QPSK	50	0	-	Front	5mm	Ant 3	ECI 9	132322	1745	open	17.26	18.30	1.271	-	-	0.05	0.074	0.094
	LTE Band 66	20M	QPSK	1	0	-	Back	5mm	Ant 3	ECI 9	132322	1745	open	17.30	18.30	1.259	-	-	0.06	0.233	0.293
	LTE Band 66	20M	QPSK	50	0	-	Back	5mm	Ant 3	ECI 9	132322	1745	open	17.26	18.30	1.271	-	-	0.13	0.187	0.238
	LTE Band 66	20M	QPSK	1	0	-	Left Side	5mm	Ant 3	ECI 9	132322	1745	open	17.30	18.30	1.259	-	-	0.07	0.058	0.073
	LTE Band 66	20M	QPSK	50	0	-	Left Side	5mm	Ant 3	ECI 9	132322	1745	open	17.26	18.30	1.271	-	-	0.18	0.044	0.056
	LTE Band 66	20M	QPSK	1	0	-	Top Side	5mm	Ant 3	ECI 9	132322	1745	open	17.30	18.30	1.259	-	-	-0.07	0.489	0.616
	LTE Band 66	20M	QPSK	50	0	-	Top Side	5mm	Ant 3	ECI 9	132322	1745	open	17.26	18.30	1.271	-	-	-0.1	0.449	0.570
	LTE Band 66C	20M	QPSK	1	99	-	Top Side	5mm	Ant 3	ECI 9	132322+132520	1745+1764.8	open	17.19	18.30	1.291	-	-	-0.07	0.446	0.576
	LTE Band 66	20M	QPSK	1	0	-	Front	5mm	Ant 0	ECI 9	132322	1745	open	21.25	22.50	1.334	-	-	-0.02	0.430	0.573
	LTE Band 66	20M	QPSK	50	0	-	Front	5mm	Ant 0	ECI 9	132322	1745	open	21.20	22.50	1.349	-	-	0.1	0.342	0.461
	LTE Band 66	20M	QPSK	1	0	-	Back	5mm	Ant 0	ECI 9	132322	1745	open	21.25	22.50	1.334	-	-	0.13	0.476	0.635
	LTE Band 66	20M	QPSK	50	0	-	Back	5mm	Ant 0	ECI 9	132322	1745	open	21.20	22.50	1.349	-	-	-0.18	0.384	0.518
	LTE Band 66	20M	QPSK	1	0	-	Left Side	5mm	Ant 0	ECI 9	132322	1745	open	21.25	22.50	1.334	-	-	-0.16	0.933	1.244
46	LTE Band 66	20M	QPSK	1	0	-	Left Side	5mm	Ant 0	ECI 9	132072	1720	open	21.21	22.50	1.346	-	-	0.03	0.959	1.291
	LTE Band 66	20M	QPSK	1	0	-	Left Side	5mm	Ant 0	ECI 9	132572	1770	open	21.23	22.50	1.340	-	-	0.01	0.893	1.196
	LTE Band 66	20M	QPSK	50	0	-	Left Side	5mm	Ant 0	ECI 9	132322	1745	open	21.20	22.50	1.349	-	-	-0.15	0.875	1.180
	LTE Band 66	20M	QPSK	50	0	-	Left Side	5mm	Ant 0	ECI 9	132072	1720	open	21.12	22.50	1.374	-	-	-0.14	0.890	1.223
	LTE Band 66	20M	QPSK	50	0	-	Left Side	5mm	Ant 0	ECI 9	132572	1770	open	21.15	22.50	1.365	-	-	0.06	0.856	1.168
	LTE Band 66	20M	QPSK	100	0	-	Left Side	5mm	Ant 0	ECI 9	132322	1745	open	21.19	22.50	1.352	-	-	-0.06	0.835	1.129
	LTE Band 66	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 0	ECI 9	132322	1745	open	21.25	22.50	1.334	-	-	0.12	0.699	0.932
	LTE Band 66	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 0	ECI 9	132072	1720	open	21.21	22.50	1.346	-	-	0.07	0.656	0.883
	LTE Band 66	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 0	ECI 9	132572	1770	open	21.23	22.50	1.340	-	-	-0.13	0.688	0.922
	LTE Band 66	20M	QPSK	50	0	-	Bottom Side	5mm	Ant 0	ECI 9	132322	1745	open	21.20	22.50	1.349	-	-	-0.16	0.646	0.871
	LTE Band 66	20M	QPSK	50	0	-	Bottom Side	5mm	Ant 0	ECI 9	132072	1720	open	21.12	22.50	1.374	-	-	-0.02	0.654	0.899
	LTE Band 66	20M	QPSK	50	0	-	Bottom Side	5mm	Ant 0	ECI 9	132572	1770	open	21.15	22.50	1.365	-	-	0.08	0.665	0.907
	LTE Band 66	20M	QPSK	100	0	-	Bottom Side	5mm	Ant 0	ECI 9	132322	1745	open	21.19	22.50	1.352	-	-	-0.12	0.598	0.809
	LTE Band 66	20M	QPSK	1	99	-	Left Side	5mm	Ant 0	ECI 9	132072+132270	1720+1739.8	open	21.13	22.50	1.371	-	-	0.06	0.867	1.189
	LTE Band 66	20M	QPSK	1	0	-	Front	5mm	Ant 1	ECI 9	132322	1745	open	18.66	19.80	1.300	-	-	-0.04	0.788	1.025
	LTE Band 66	20M	QPSK	1	0	-	Front	5mm	Ant 1	ECI 9	132072	1720	open	18.63	19.80	1.309	-	-	0.13	0.816	1.068
	LTE Band 66	20M	QPSK	1	0	-	Front	5mm	Ant 1	ECI 9	132572	1770	open	18.62	19.80	1.312	-	-	0.12	0.803	1.054



	LTE Band 66	20M	QPSK	50	0	-	Front	5mm	Ant 1	ECl 9	132322	1745	open	18.64	19.80	1.306	-	-	0.07	0.735	0.960
	LTE Band 66	20M	QPSK	50	0	-	Front	5mm	Ant 1	ECl 9	132072	1720	open	18.52	19.80	1.343	-	-	0.08	0.749	1.006
	LTE Band 66	20M	QPSK	50	0	-	Front	5mm	Ant 1	ECl 9	132572	1770	open	18.49	19.80	1.352	-	-	0.19	0.761	1.029
	LTE Band 66	20M	QPSK	100	0	-	Front	5mm	Ant 1	ECl 9	132322	1745	open	18.59	19.80	1.321	-	-	-0.06	0.732	0.967
	LTE Band 66	20M	QPSK	1	0	-	Back	5mm	Ant 1	ECl 9	132322	1745	open	18.66	19.80	1.300	-	-	0.11	0.912	1.186
	LTE Band 66	20M	QPSK	1	0	-	Back	5mm	Ant 1	ECl 9	132072	1720	open	18.63	19.80	1.309	-	-	-0.03	0.897	1.174
	LTE Band 66	20M	QPSK	1	0	-	Back	5mm	Ant 1	ECl 9	132572	1770	open	18.62	19.80	1.312	-	-	0.07	0.941	1.235
	LTE Band 66	20M	QPSK	50	0	-	Back	5mm	Ant 1	ECl 9	132322	1745	open	18.64	19.80	1.306	-	-	-0.12	0.836	1.092
	LTE Band 66	20M	QPSK	50	0	-	Back	5mm	Ant 1	ECl 9	132072	1720	open	18.52	19.80	1.343	-	-	-0.03	0.812	1.090
	LTE Band 66	20M	QPSK	50	0	-	Back	5mm	Ant 1	ECl 9	132572	1770	open	18.49	19.80	1.352	-	-	0.02	0.788	1.065
	LTE Band 66	20M	QPSK	100	0	-	Back	5mm	Ant 1	ECl 9	132322	1745	open	18.59	19.80	1.321	-	-	0.12	0.736	0.972
	LTE Band 66	20M	QPSK	1	0	-	Right Side	5mm	Ant 1	ECl 9	132322	1745	open	18.66	19.80	1.300	-	-	0.02	0.249	0.324
	LTE Band 66	20M	QPSK	50	0	-	Right Side	5mm	Ant 1	ECl 9	132322	1745	open	18.64	19.80	1.306	-	-	-0.03	0.199	0.260
	LTE Band 66	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 1	ECl 9	132322	1745	open	18.66	19.80	1.300	-	-	-0.05	0.958	1.246
	LTE Band 66	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 1	ECl 9	132072	1720	open	18.63	19.80	1.309	-	-	-0.1	0.960	1.257
	LTE Band 66	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 1	ECl 9	132572	1770	open	18.62	19.80	1.312	-	-	-0.01	0.970	1.273
	LTE Band 66	20M	QPSK	50	0	-	Bottom Side	5mm	Ant 1	ECl 9	132322	1745	open	18.64	19.80	1.306	-	-	0.05	0.936	1.223
	LTE Band 66	20M	QPSK	50	0	-	Bottom Side	5mm	Ant 1	ECl 9	132072	1720	open	18.52	19.80	1.343	-	-	-0.01	0.928	1.246
	LTE Band 66	20M	QPSK	50	0	-	Bottom Side	5mm	Ant 1	ECl 9	132572	1770	open	18.49	19.80	1.352	-	-	0.07	0.917	1.240
	LTE Band 66	20M	QPSK	100	0	-	Bottom Side	5mm	Ant 1	ECl 9	132322	1745	open	18.59	19.80	1.321	-	-	0.15	0.893	1.180
	LTE Band 66	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 1	ECl 9	132572+ 132374	1770+ 1750.2	open	18.42	19.80	1.374	-	-	-0.01	0.864	1.187
	FR1 n70	15M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 2	ECl 9	340500	1702.5	open	14.27	15.20	1.239	-	-	-0.16	0.305	0.378
	FR1 n70	15M	QPSK	36	22	DFT-SCS-15KHz	Front	5mm	Ant 2	ECl 9	340500	1702.5	open	14.19	15.20	1.262	-	-	0.1	0.296	0.374
	FR1 n70	15M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 2	ECl 9	340500	1702.5	open	14.27	15.20	1.239	-	-	-0.01	0.262	0.325
	FR1 n70	15M	QPSK	36	22	DFT-SCS-15KHz	Back	5mm	Ant 2	ECl 9	340500	1702.5	open	14.19	15.20	1.262	-	-	0.05	0.259	0.327
	FR1 n70	15M	QPSK	1	1	DFT-SCS-15KHz	Left Side	5mm	Ant 2	ECl 9	340500	1702.5	open	14.27	15.20	1.239	-	-	-0.06	0.460	0.570
	FR1 n70	15M	QPSK	36	22	DFT-SCS-15KHz	Left Side	5mm	Ant 2	ECl 9	340500	1702.5	open	14.19	15.20	1.262	-	-	-0.16	0.496	0.626
	FR1 n70	15M	QPSK	1	1	DFT-SCS-15KHz	Top Side	5mm	Ant 2	ECl 9	340500	1702.5	open	14.27	15.20	1.239	-	-	0.03	0.045	0.056
	FR1 n70	15M	QPSK	36	22	DFT-SCS-15KHz	Top Side	5mm	Ant 2	ECl 9	340500	1702.5	open	14.19	15.20	1.262	-	-	-0.13	0.047	0.059
	FR1 n70	15M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 3	ECl 9	340500	1702.5	open	17.45	18.30	1.216	-	-	-0.07	0.234	0.285
	FR1 n70	15M	QPSK	36	22	DFT-SCS-15KHz	Front	5mm	Ant 3	ECl 9	340500	1702.5	open	17.42	18.30	1.225	-	-	0.05	0.213	0.261
	FR1 n70	15M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 3	ECl 9	340500	1702.5	open	17.45	18.30	1.216	-	-	-0.12	0.265	0.322
	FR1 n70	15M	QPSK	36	22	DFT-SCS-15KHz	Back	5mm	Ant 3	ECl 9	340500	1702.5	open	17.42	18.30	1.225	-	-	0.03	0.258	0.316
	FR1 n70	15M	QPSK	1	1	DFT-SCS-15KHz	Left Side	5mm	Ant 3	ECl 9	340500	1702.5	open	17.45	18.30	1.216	-	-	-0.02	0.168	0.204
	FR1 n70	15M	QPSK	36	22	DFT-SCS-15KHz	Left Side	5mm	Ant 3	ECl 9	340500	1702.5	open	17.42	18.30	1.225	-	-	0.15	0.164	0.201
	FR1 n70	15M	QPSK	1	1	DFT-SCS-15KHz	Top Side	5mm	Ant 3	ECl 9	340500	1702.5	open	17.45	18.30	1.216	-	-	-0.01	0.512	0.623
	FR1 n70	15M	QPSK	36	22	DFT-SCS-15KHz	Top Side	5mm	Ant 3	ECl 9	340500	1702.5	open	17.42	18.30	1.225	-	-	0.11	0.487	0.596
	FR1 n70	15M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 0	ECl 9	340500	1702.5	open	18.75	20.20	1.396	-	-	-0.13	0.414	0.578
	FR1 n70	15M	QPSK	36	22	DFT-SCS-15KHz	Front	5mm	Ant 0	ECl 9	340500	1702.5	open	18.74	20.20	1.400	-	-	0.16	0.366	0.512
	FR1 n70	15M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 0	ECl 9	340500	1702.5	open	18.75	20.20	1.396	-	-	-0.02	0.425	0.593
	FR1 n70	15M	QPSK	36	22	DFT-SCS-15KHz	Back	5mm	Ant 0	ECl 9	340500	1702.5	open	18.74	20.20	1.400	-	-	-0.09	0.373	0.522
47	FR1 n70	15M	QPSK	1	1	DFT-SCS-15KHz	Left Side	5mm	Ant 0	ECl 9	340500	1702.5	open	18.75	20.20	1.396	-	-	0.01	0.923	1.289
	FR1 n70	15M	QPSK	36	22	DFT-SCS-15KHz	Left Side	5mm	Ant 0	ECl 9	340500	1702.5	open	18.74	20.20	1.400	-	-	0.1	0.815	1.141
	FR1 n70	15M	QPSK	75	0	DFT-SCS-15KHz	Left Side	5mm	Ant 0	ECl 9	340500	1702.5	open	18.60	20.20	1.445	-	-	-0.09	0.763	1.103
	FR1 n70	15M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	5mm	Ant 0	ECl 9	340500	1702.5	open	18.75	20.20	1.396	-	-	0.07	0.305	0.426
	FR1 n70	15M	QPSK	36	22	DFT-SCS-15KHz	Bottom Side	5mm	Ant 0	ECl 9	340500	1702.5	open	18.74	20.20	1.400	-	-	-0.09	0.261	0.365
	FR1 n70	15M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 1	ECl 9	340500	1702.5	open	22.11	23.00	1.227	-	-	-0.14	0.646	0.793
	FR1 n70	15M	QPSK	36	22	DFT-SCS-15KHz	Front	5mm	Ant 1	ECl 9	340500	1702.5	open	22.08	23.00	1.236	-	-	-0.15	0.613	0.758
	FR1 n70	15M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 1	ECl 9	340500	1702.5	open	22.11	23.00	1.227	-	-	-0.17	0.868	1.065
	FR1 n70	15M	QPSK	36	22	DFT-SCS-15KHz	Back	5mm	Ant 1	ECl 9	340500	1702.5	open	22.08	23.00	1.236	-	-	0.08	0.876	1.083
	FR1 n70	15M	QPSK	75	0	DFT-SCS-15KHz	Back	5mm	Ant 1	ECl 9	340500	1702.5	open	22.05	23.00	1.245	-	-	0.01	0.672	0.836
	FR1 n70	15M	QPSK	1	1	DFT-SCS-15KHz	Right Side	5mm	Ant 1	ECl 9	340500	1702.5	open	22.11	23.00	1.227	-	-	0.02	0.269	0.330
	FR1 n70	15M	QPSK	36	22	DFT-SCS-15KHz	Right Side	5mm	Ant 1	ECl 9	340500	1702.5	open	22.08	23.00	1.236	-	-	-0.11	0.253	0.313
	FR1 n70	15M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	5mm	Ant 1	ECl 9	340500	1702.5	open	22.11	23.00	1.227	-	-	-0.01	0.954	1.171
	FR1 n70	15M	QPSK	36	22	DFT-SCS-15KHz	Bottom Side	5mm	Ant 1	ECl 9	340500	1702.5	open	22.08	23.00	1.236	-	-	0.13	1.040	1.285
	FR1 n70	15M	QPSK	75	0	DFT-SCS-15KHz	Bottom Side	5mm	Ant 1	ECl 9	340500	1702.5	open	22.05	23.00	1.245	-	-	0.09	0.952	1.185



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	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 2	ECl 9	349000	1745	open	13.36	14.40	1.271	-	-	0.08	0.270	0.343
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Front	5mm	Ant 2	ECl 9	349000	1745	open	13.30	14.40	1.288	-	-	0.01	0.315	0.406
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 2	ECl 9	349000	1745	open	13.36	14.40	1.271	-	-	-0.08	0.237	0.301
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Back	5mm	Ant 2	ECl 9	349000	1745	open	13.30	14.40	1.288	-	-	-0.08	0.265	0.341
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Left Side	5mm	Ant 2	ECl 9	349000	1745	open	13.36	14.40	1.271	-	-	-0.18	0.405	0.515
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Left Side	5mm	Ant 2	ECl 9	349000	1745	open	13.30	14.40	1.288	-	-	0.01	0.481	0.620
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Top Side	5mm	Ant 2	ECl 9	349000	1745	open	13.36	14.40	1.271	-	-	0.12	0.044	0.056
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Top Side	5mm	Ant 2	ECl 9	349000	1745	open	13.30	14.40	1.288	-	-	0.08	0.043	0.055
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 3	ECl 9	349000	1745	open	16.60	17.80	1.318	-	-	0.16	0.276	0.364
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Front	5mm	Ant 3	ECl 9	349000	1745	open	16.53	17.80	1.340	-	-	0.13	0.265	0.355
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 3	ECl 9	349000	1745	open	16.60	17.80	1.318	-	-	0.02	0.283	0.373
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Back	5mm	Ant 3	ECl 9	349000	1745	open	16.53	17.80	1.340	-	-	0.16	0.288	0.386
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Left Side	5mm	Ant 3	ECl 9	349000	1745	open	16.60	17.80	1.318	-	-	0.07	0.181	0.239
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Left Side	5mm	Ant 3	ECl 9	349000	1745	open	16.53	17.80	1.340	-	-	0.03	0.189	0.253
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Top Side	5mm	Ant 3	ECl 9	349000	1745	open	16.60	17.80	1.318	-	-	0.02	0.470	0.620
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Top Side	5mm	Ant 3	ECl 9	349000	1745	open	16.53	17.80	1.340	-	-	-0.01	0.440	0.589
	FR1 n66 other Path	40M	QPSK	1	1	DFT-SCS-15KHz	Top Side	5mm	Ant 3	ECl 9	349000	1745	open	16.60	17.80	1.318	-	-	0.03	0.304	0.401
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 0	ECl 9	349000	1745	open	19.74	20.40	1.164	-	-	-0.01	0.472	0.549
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Front	5mm	Ant 0	ECl 9	349000	1745	open	19.67	20.40	1.183	-	-	-0.11	0.458	0.542
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 0	ECl 9	349000	1745	open	19.74	20.40	1.164	-	-	0.03	0.520	0.605
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Back	5mm	Ant 0	ECl 9	349000	1745	open	19.67	20.40	1.183	-	-	0.1	0.525	0.621
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Left Side	5mm	Ant 0	ECl 9	349000	1745	open	19.74	20.40	1.164	-	-	-0.01	1.090	1.269
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Left Side	5mm	Ant 0	ECl 9	349000	1745	open	19.67	20.40	1.183	-	-	-0.06	1.030	1.219
	FR1 n66	40M	QPSK	216	0	DFT-SCS-15KHz	Left Side	5mm	Ant 0	ECl 9	349000	1745	open	19.59	20.40	1.205	-	-	0.02	0.905	1.091
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	5mm	Ant 0	ECl 9	349000	1745	open	19.74	20.40	1.164	-	-	-0.16	0.381	0.444
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Bottom Side	5mm	Ant 0	ECl 9	349000	1745	open	19.67	20.40	1.183	-	-	0.05	0.370	0.438
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 1	ECl 9	349000	1745	open	21.91	22.90	1.256	-	-	0.08	0.615	0.772
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Front	5mm	Ant 1	ECl 9	349000	1745	open	21.88	22.90	1.265	-	-	0.01	0.603	0.763
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 1	ECl 9	349000	1745	open	21.91	22.90	1.256	-	-	-0.08	0.779	0.978
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Back	5mm	Ant 1	ECl 9	349000	1745	open	21.88	22.90	1.265	-	-	-0.08	0.830	1.050
	FR1 n66	40M	QPSK	216	0	DFT-SCS-15KHz	Back	5mm	Ant 1	ECl 9	349000	1745	open	21.76	22.90	1.300	-	-	0.1	0.708	0.921
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Right Side	5mm	Ant 1	ECl 9	349000	1745	open	21.91	22.90	1.256	-	-	-0.18	0.250	0.314
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Right Side	5mm	Ant 1	ECl 9	349000	1745	open	21.88	22.90	1.265	-	-	0.1	0.302	0.382
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	5mm	Ant 1	ECl 9	349000	1745	open	21.91	22.90	1.256	-	-	0.12	0.937	1.177
48	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Bottom Side	5mm	Ant 1	ECl 9	349000	1745	open	21.88	22.90	1.265	-	-	0.05	1.010	1.277
	FR1 n66	40M	QPSK	216	0	DFT-SCS-15KHz	Bottom Side	5mm	Ant 1	ECl 9	349000	1745	open	21.76	22.90	1.300	-	-	0.08	0.915	1.190
1900MHz																					
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Front	5mm	Ant 2	ECl 9	661	1880	open	16.76	17.90	1.300	-	-	-0.05	0.283	0.368
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Back	5mm	Ant 2	ECl 9	661	1880	open	16.76	17.90	1.300	-	-	-0.17	0.241	0.313
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Left Side	5mm	Ant 2	ECl 9	661	1880	open	16.76	17.90	1.300	-	-	-0.03	0.475	0.618
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Top Side	5mm	Ant 2	ECl 9	661	1880	open	16.76	17.90	1.300	-	-	0.06	0.032	0.042
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Front	5mm	Ant 0	ECl 9	661	1880	open	23.10	24.10	1.259	-	-	-0.11	0.493	0.621
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Back	5mm	Ant 0	ECl 9	661	1880	open	23.10	24.10	1.259	-	-	0.03	0.596	0.750
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Left Side	5mm	Ant 0	ECl 9	661	1880	open	23.10	24.10	1.259	-	-	-0.01	0.950	1.196
49	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Left Side	5mm	Ant 0	ECl 9	512	1850.2	open	23.00	24.10	1.288	-	-	0.06	0.991	1.277
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Left Side	5mm	Ant 0	ECl 9	810	1909.8	open	23.06	24.10	1.271	-	-	-0.12	0.945	1.201
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Bottom Side	5mm	Ant 0	ECl 9	661	1880	open	23.10	24.10	1.259	-	-	0.07	0.659	0.830
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Bottom Side	5mm	Ant 0	ECl 9	512	1850.2	open	23.00	24.10	1.288	-	-	0.09	0.630	0.812
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Bottom Side	5mm	Ant 0	ECl 9	810	1909.8	open	23.06	24.10	1.271	-	-	0.04	0.632	0.803
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	5mm	Ant 2	ECl 9	9400	1880	open	13.63	14.90	1.340	-	-	-0.1	0.275	0.368
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 2	ECl 9	9400	1880	open	13.63	14.90	1.340	-	-	-0.1	0.238	0.319
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Side	5mm	Ant 2	ECl 9	9400	1880	open	13.63	14.90	1.340	-	-	0.08	0.466	0.624
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Top Side	5mm	Ant 2	ECl 9	9400	1880	open	13.63	14.90	1.340	-	-	-0.18	0.041	0.055



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	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	5mm	Ant 3	ECl 9	9400	1880	open	16.06	17.30	1.330	-	-	-0.18	0.314	0.418
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 3	ECl 9	9400	1880	open	16.06	17.30	1.330	-	-	-0.15	0.331	0.440
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Side	5mm	Ant 3	ECl 9	9400	1880	open	16.06	17.30	1.330	-	-	-0.19	0.386	0.514
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Top Side	5mm	Ant 3	ECl 9	9400	1880	open	16.06	17.30	1.330	-	-	0.01	0.467	0.621
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	5mm	Ant 0	ECl 9	9400	1880	open	15.95	17.00	1.274	-	-	0.11	0.509	0.648
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 0	ECl 9	9400	1880	open	15.95	17.00	1.274	-	-	-0.11	0.593	0.755
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Side	5mm	Ant 0	ECl 9	9400	1880	open	15.95	17.00	1.274	-	-	-0.17	0.964	1.228
50	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Side	5mm	Ant 0	ECl 9	9262	1852.4	open	15.90	17.00	1.288	-	-	0.02	0.986	1.270
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Side	5mm	Ant 0	ECl 9	9538	1907.6	open	15.87	17.00	1.297	-	-	0.11	0.936	1.214
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Bottom Side	5mm	Ant 0	ECl 9	9400	1880	open	15.95	17.00	1.274	-	-	-0.05	0.696	0.886
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Bottom Side	5mm	Ant 0	ECl 9	9262	1852.4	open	15.90	17.00	1.288	-	-	-0.01	0.683	0.880
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Bottom Side	5mm	Ant 0	ECl 9	9538	1907.6	open	15.87	17.00	1.297	-	-	-0.14	0.642	0.833
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	5mm	Ant 1	ECl 9	9400	1880	open	17.20	18.30	1.288	-	-	-0.12	0.561	0.723
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 1	ECl 9	9400	1880	open	17.20	18.30	1.288	-	-	-0.07	0.948	1.221
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 1	ECl 9	9262	1852.4	open	17.16	18.30	1.300	-	-	0.01	0.976	1.269
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 1	ECl 9	9538	1907.6	open	17.15	18.30	1.303	-	-	0.1	0.935	1.218
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Side	5mm	Ant 1	ECl 9	9400	1880	open	17.20	18.30	1.288	-	-	-0.11	0.223	0.287
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Bottom Side	5mm	Ant 1	ECl 9	9400	1880	open	17.20	18.30	1.288	-	-	-0.02	0.894	1.152
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Bottom Side	5mm	Ant 1	ECl 9	9262	1852.4	open	17.16	18.30	1.300	-	-	-0.1	0.903	1.174
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Bottom Side	5mm	Ant 1	ECl 9	9538	1907.6	open	17.15	18.30	1.303	-	-	0.14	0.857	1.117
	LTE Band 25	20M	QPSK	1	0	-	Front	5mm	Ant 2	ECl 9	26340	1880	open	12.00	13.10	1.288	-	-	0.17	0.323	0.416
	LTE Band 25	20M	QPSK	50	0	-	Front	5mm	Ant 2	ECl 9	26340	1880	open	11.97	13.10	1.297	-	-	-0.08	0.256	0.332
	LTE Band 25	20M	QPSK	1	0	-	Back	5mm	Ant 2	ECl 9	26340	1880	open	12.00	13.10	1.288	-	-	-0.03	0.274	0.353
	LTE Band 25	20M	QPSK	50	0	-	Back	5mm	Ant 2	ECl 9	26340	1880	open	11.97	13.10	1.297	-	-	-0.07	0.224	0.291
	LTE Band 25	20M	QPSK	1	0	-	Left Side	5mm	Ant 2	ECl 9	26340	1880	open	12.00	13.10	1.288	-	-	-0.03	0.477	0.614
	LTE Band 25	20M	QPSK	50	0	-	Left Side	5mm	Ant 2	ECl 9	26340	1880	open	11.97	13.10	1.297	-	-	-0.02	0.438	0.568
	LTE Band 25	20M	QPSK	1	0	-	Top Side	5mm	Ant 2	ECl 9	26340	1880	open	12.00	13.10	1.288	-	-	-0.05	0.039	0.050
	LTE Band 25	20M	QPSK	50	0	-	Top Side	5mm	Ant 2	ECl 9	26340	1880	open	11.97	13.10	1.297	-	-	-0.08	0.030	0.039
	LTE Band 25	20M	QPSK	1	0	-	Front	5mm	Ant 3	ECl 9	26340	1880	open	17.08	18.10	1.265	-	-	0.1	0.378	0.478
	LTE Band 25	20M	QPSK	50	0	-	Front	5mm	Ant 3	ECl 9	26340	1880	open	17.06	18.10	1.271	-	-	0.06	0.286	0.363
	LTE Band 25	20M	QPSK	1	0	-	Back	5mm	Ant 3	ECl 9	26340	1880	open	17.08	18.10	1.265	-	-	0.03	0.461	0.583
	LTE Band 25	20M	QPSK	50	0	-	Back	5mm	Ant 3	ECl 9	26340	1880	open	17.06	18.10	1.271	-	-	-0.15	0.354	0.450
	LTE Band 25	20M	QPSK	1	0	-	Left Side	5mm	Ant 3	ECl 9	26340	1880	open	17.08	18.10	1.265	-	-	0.1	0.433	0.548
	LTE Band 25	20M	QPSK	50	0	-	Left Side	5mm	Ant 3	ECl 9	26340	1880	open	17.06	18.10	1.271	-	-	-0.09	0.349	0.443
	LTE Band 25	20M	QPSK	1	0	-	Top Side	5mm	Ant 3	ECl 9	26340	1880	open	17.08	18.10	1.265	-	-	0.11	0.488	0.617
	LTE Band 25	20M	QPSK	50	0	-	Top Side	5mm	Ant 3	ECl 9	26340	1880	open	17.06	18.10	1.271	-	-	-0.1	0.373	0.474
	LTE Band 25	20M	QPSK	1	0	-	Front	5mm	Ant 0	ECl 9	26340	1880	open	18.90	20.10	1.318	-	-	0.09	0.525	0.692
	LTE Band 25	20M	QPSK	50	0	-	Front	5mm	Ant 0	ECl 9	26340	1880	open	18.87	20.10	1.327	-	-	0.15	0.422	0.560
	LTE Band 25	20M	QPSK	1	0	-	Back	5mm	Ant 0	ECl 9	26340	1880	open	18.90	20.10	1.318	-	-	0.08	0.612	0.807
	LTE Band 25	20M	QPSK	1	0	-	Back	5mm	Ant 0	ECl 9	26140	1860	open	18.86	20.10	1.330	-	-	-0.18	0.619	0.824
	LTE Band 25	20M	QPSK	1	0	-	Back	5mm	Ant 0	ECl 9	26590	1905	open	18.84	20.10	1.337	-	-	-0.03	0.584	0.781
	LTE Band 25	20M	QPSK	50	0	-	Back	5mm	Ant 0	ECl 9	26340	1880	open	18.87	20.10	1.327	-	-	-0.04	0.501	0.665
	LTE Band 25	20M	QPSK	100	0	-	Back	5mm	Ant 0	ECl 9	26340	1880	open	18.85	20.10	1.334	-	-	0.11	0.508	0.677
	LTE Band 25	20M	QPSK	1	0	-	Left Side	5mm	Ant 0	ECl 9	26340	1880	open	18.90	20.10	1.318	-	-	0.07	0.937	1.235
51	LTE Band 25	20M	QPSK	1	0	-	Left Side	5mm	Ant 0	ECl 9	26140	1860	open	18.86	20.10	1.330	-	-	0.18	0.968	1.288
	LTE Band 25	20M	QPSK	1	0	-	Left Side	5mm	Ant 0	ECl 9	26590	1905	open	18.84	20.10	1.337	-	-	-0.03	0.940	1.256
	LTE Band 25	20M	QPSK	50	0	-	Left Side	5mm	Ant 0	ECl 9	26340	1880	open	18.87	20.10	1.327	-	-	0.09	0.871	1.156
	LTE Band 25	20M	QPSK	50	0	-	Left Side	5mm	Ant 0	ECl 9	26140	1860	open	18.74	20.10	1.368	-	-	-0.08	0.876	1.198
	LTE Band 25	20M	QPSK	50	0	-	Left Side	5mm	Ant 0	ECl 9	26590	1905	open	18.80	20.10	1.349	-	-	-0.05	0.852	1.149
	LTE Band 25	20M	QPSK	100	0	-	Left Side	5mm	Ant 0	ECl 9	26340	1880	open	18.85	20.10	1.334	-	-	-0.03	0.841	1.121
	LTE Band 25	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 0	ECl 9	26340	1880	open	18.90	20.10	1.318	-	-	0.17	0.532	0.701
	LTE Band 25	20M	QPSK	50	0	-	Bottom Side	5mm	Ant 0	ECl 9	26340	1880	open	18.87	20.10	1.327	-	-	-0.06	0.429	0.569
	LTE Band 25	20M	QPSK	1	0	-	Front	5mm	Ant 1	ECl 9	26340	1880	open	18.36	19.50	1.300	-	-	-0.09	0.785	1.021
	LTE Band 25	20M	QPSK	1	0	-	Front	5mm	Ant 1	ECl 9	26140	1860	open	18.32	19.50	1.312	-	-	-0.09	0.727	0.954
	LTE Band 25	20M	QPSK	1	0	-	Front	5mm	Ant 1	ECl 9	26590	1905	open	18.34	19.50	1.306	-	-	-0.12	0.796	1.040
	LTE Band 25	20M	QPSK	50	0	-	Front	5mm	Ant 1	ECl 9	26340	1880	open	18.31	19.50	1.315	-	-	-0.06	0.746	0.981



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	LTE Band 25	20M	QPSK	50	0	-	Front	5mm	Ant 1	ECl 9	26140	1860	open	18.30	19.50	1.318	-	-	-0.19	0.712	0.939
	LTE Band 25	20M	QPSK	50	0	-	Front	5mm	Ant 1	ECl 9	26590	1905	open	18.23	19.50	1.340	-	-	0.09	0.739	0.990
	LTE Band 25	20M	QPSK	100	0	-	Front	5mm	Ant 1	ECl 9	26340	1880	open	18.28	19.50	1.324	-	-	0.13	0.736	0.975
	LTE Band 25	20M	QPSK	1	0	-	Back	5mm	Ant 1	ECl 9	26340	1880	open	18.36	19.50	1.300	-	-	-0.08	0.943	1.226
	LTE Band 25	20M	QPSK	1	0	-	Back	5mm	Ant 1	ECl 9	26140	1860	open	18.32	19.50	1.312	-	-	0.08	0.931	1.222
	LTE Band 25	20M	QPSK	1	0	-	Back	5mm	Ant 1	ECl 9	26590	1905	open	18.34	19.50	1.306	-	-	-0.04	0.977	1.276
	LTE Band 25	20M	QPSK	50	0	-	Back	5mm	Ant 1	ECl 9	26340	1880	open	18.31	19.50	1.315	-	-	0.12	0.850	1.118
	LTE Band 25	20M	QPSK	50	0	-	Back	5mm	Ant 1	ECl 9	26140	1860	open	18.30	19.50	1.318	-	-	0.09	0.854	1.126
	LTE Band 25	20M	QPSK	50	0	-	Back	5mm	Ant 1	ECl 9	26590	1905	open	18.23	19.50	1.340	-	-	-0.02	0.857	1.148
	LTE Band 25	20M	QPSK	100	0	-	Back	5mm	Ant 1	ECl 9	26340	1880	open	18.28	19.50	1.324	-	-	-0.16	0.816	1.081
	LTE Band 25	20M	QPSK	1	0	-	Right Side	5mm	Ant 1	ECl 9	26340	1880	open	18.36	19.50	1.300	-	-	-0.03	0.294	0.382
	LTE Band 25	20M	QPSK	50	0	-	Right Side	5mm	Ant 1	ECl 9	26340	1880	open	18.31	19.50	1.315	-	-	-0.07	0.233	0.306
	LTE Band 25	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 1	ECl 9	26340	1880	open	18.36	19.50	1.300	-	-	0.17	0.915	1.190
	LTE Band 25	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 1	ECl 9	26140	1860	open	18.32	19.50	1.312	-	-	-0.1	0.896	1.176
	LTE Band 25	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 1	ECl 9	26590	1905	open	18.34	19.50	1.306	-	-	0.01	0.985	1.287
	LTE Band 25	20M	QPSK	50	0	-	Bottom Side	5mm	Ant 1	ECl 9	26340	1880	open	18.31	19.50	1.315	-	-	0.17	0.831	1.093
	LTE Band 25	20M	QPSK	50	0	-	Bottom Side	5mm	Ant 1	ECl 9	26140	1860	open	18.30	19.50	1.318	-	-	-0.15	0.843	1.111
	LTE Band 25	20M	QPSK	50	0	-	Bottom Side	5mm	Ant 1	ECl 9	26590	1905	open	18.23	19.50	1.340	-	-	0.18	0.858	1.149
	LTE Band 25	20M	QPSK	100	0	-	Bottom Side	5mm	Ant 1	ECl 9	26340	1880	open	18.28	19.50	1.324	-	-	0.05	0.834	1.105
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 2	ECl 9	376500	1882.5	open	12.52	13.60	1.282	-	-	-0.1	0.255	0.327
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Front	5mm	Ant 2	ECl 9	376500	1882.5	open	12.46	13.60	1.300	-	-	0.18	0.267	0.347
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 2	ECl 9	376500	1882.5	open	12.52	13.60	1.282	-	-	-0.04	0.230	0.295
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Back	5mm	Ant 2	ECl 9	376500	1882.5	open	12.46	13.60	1.300	-	-	-0.05	0.243	0.316
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Left Side	5mm	Ant 2	ECl 9	376500	1882.5	open	12.52	13.60	1.282	-	-	-0.13	0.419	0.537
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Left Side	5mm	Ant 2	ECl 9	376500	1882.5	open	12.46	13.60	1.300	-	-	-0.04	0.475	0.618
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Top Side	5mm	Ant 2	ECl 9	376500	1882.5	open	12.52	13.60	1.282	-	-	-0.09	0.027	0.035
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Top Side	5mm	Ant 2	ECl 9	376500	1882.5	open	12.46	13.60	1.300	-	-	0.05	0.025	0.033
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 3	ECl 9	376500	1882.5	open	17.12	18.10	1.253	-	-	0.13	0.330	0.414
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Front	5mm	Ant 3	ECl 9	376500	1882.5	open	16.92	18.10	1.312	-	-	0.12	0.304	0.399
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 3	ECl 9	376500	1882.5	open	17.12	18.10	1.253	-	-	0.08	0.364	0.456
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Back	5mm	Ant 3	ECl 9	376500	1882.5	open	16.92	18.10	1.312	-	-	0.19	0.322	0.423
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Left Side	5mm	Ant 3	ECl 9	376500	1882.5	open	17.12	18.10	1.253	-	-	-0.08	0.245	0.307
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Left Side	5mm	Ant 3	ECl 9	376500	1882.5	open	16.92	18.10	1.312	-	-	-0.03	0.258	0.339
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Top Side	5mm	Ant 3	ECl 9	376500	1882.5	open	17.12	18.10	1.253	-	-	-0.11	0.491	0.615
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Top Side	5mm	Ant 3	ECl 9	376500	1882.5	open	16.92	18.10	1.312	-	-	-0.12	0.438	0.575
	FR1 n25 other Path	40M	QPSK	1	1	DFT-SCS-15KHz	Top Side	5mm	Ant 3	ECl 9	376500	1882.5	open	17.12	18.10	1.253	-	-	0.03	0.315	0.395
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 0	ECl 9	376500	1882.5	open	20.31	21.30	1.256	-	-	0.1	0.583	0.732
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Front	5mm	Ant 0	ECl 9	376500	1882.5	open	20.28	21.30	1.265	-	-	0.11	0.560	0.708
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 0	ECl 9	376500	1882.5	open	20.31	21.30	1.256	-	-	0.18	0.727	0.913
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Back	5mm	Ant 0	ECl 9	376500	1882.5	open	20.28	21.30	1.265	-	-	0.12	0.710	0.898
	FR1 n25	40M	QPSK	216	0	DFT-SCS-15KHz	Back	5mm	Ant 0	ECl 9	376500	1882.5	open	20.19	21.30	1.291	-	-	0.07	0.588	0.759
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Left Side	5mm	Ant 0	ECl 9	376500	1882.5	open	20.31	21.30	1.256	-	-	0.15	0.838	1.053
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Left Side	5mm	Ant 0	ECl 9	376500	1882.5	open	20.28	21.30	1.265	-	-	0.14	0.744	0.941
	FR1 n25	40M	QPSK	216	0	DFT-SCS-15KHz	Left Side	5mm	Ant 0	ECl 9	376500	1882.5	open	20.19	21.30	1.291	-	-	-0.03	0.594	0.767
52	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	5mm	Ant 0	ECl 9	376500	1882.5	open	20.31	21.30	1.256	-	-	0.01	1.010	1.269
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Bottom Side	5mm	Ant 0	ECl 9	376500	1882.5	open	20.28	21.30	1.265	-	-	-0.14	0.999	1.263
	FR1 n25	40M	QPSK	216	0	DFT-SCS-15KHz	Bottom Side	5mm	Ant 0	ECl 9	376500	1882.5	open	20.19	21.30	1.291	-	-	0.17	0.777	1.003
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 1	ECl 9	376500	1882.5	open	23.20	24.00	1.202	-	-	0.08	0.529	0.636
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Front	5mm	Ant 1	ECl 9	376500	1882.5	open	23.09	24.00	1.233	-	-	0.01	0.531	0.655
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 1	ECl 9	376500	1882.5	open	23.20	24.00	1.202	-	-	0.03	0.606	0.729
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Back	5mm	Ant 1	ECl 9	376500	1882.5	open	23.09	24.00	1.233	-	-	-0.08	0.626	0.772
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Right Side	5mm	Ant 1	ECl 9	376500	1882.5	open	23.20	24.00	1.202	-	-	0.1	0.269	0.323
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Right Side	5mm	Ant 1	ECl 9	376500	1882.5	open	23.09	24.00	1.233	-	-	-0.18	0.311	0.383
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	5mm	Ant 1	ECl 9	376500	1882.5	open	23.20	24.00	1.202	-	-	0.02	0.808	0.971
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Bottom Side	5mm	Ant 1	ECl 9	376500	1882.5	open	23.09	24.00	1.233	-	-	0.1	0.755	0.931
	FR1 n25	40M	QPSK	216	0	DFT-SCS-15KHz	Bottom Side	5mm	Ant 1	ECl 9	376500	1882.5	open	22.01	23.00	1.256	-	-	0.12	0.633	0.795



2300MHz																					
	LTE Band 30	10M	QPSK	1	0	-	Front	5mm	Ant 2	ECI 9	27710	2310	open	13.11	14.30	1.315	-	-	0.08	0.306	0.402
	LTE Band 30	10M	QPSK	25	0	-	Front	5mm	Ant 2	ECI 9	27710	2310	open	13.09	14.30	1.321	-	-	-0.17	0.245	0.324
	LTE Band 30	10M	QPSK	1	0	-	Back	5mm	Ant 2	ECI 9	27710	2310	open	13.11	14.30	1.315	-	-	0.14	0.292	0.384
	LTE Band 30	10M	QPSK	25	0	-	Back	5mm	Ant 2	ECI 9	27710	2310	open	13.09	14.30	1.321	-	-	0.11	0.240	0.317
	LTE Band 30	10M	QPSK	1	0	-	Left Side	5mm	Ant 2	ECI 9	27710	2310	open	13.11	14.30	1.315	-	-	-0.18	0.477	0.627
	LTE Band 30	10M	QPSK	25	0	-	Left Side	5mm	Ant 2	ECI 9	27710	2310	open	13.09	14.30	1.321	-	-	0.18	0.385	0.509
	LTE Band 30	10M	QPSK	1	0	-	Top Side	5mm	Ant 2	ECI 9	27710	2310	open	13.11	14.30	1.315	-	-	-0.17	0.028	0.037
	LTE Band 30	10M	QPSK	25	0	-	Top Side	5mm	Ant 2	ECI 9	27710	2310	open	13.09	14.30	1.321	-	-	0.17	0.022	0.029
	LTE Band 30	10M	QPSK	1	0	-	Front	5mm	Ant 3	ECI 9	27710	2310	open	18.02	19.30	1.343	-	-	0.08	0.372	0.500
	LTE Band 30	10M	QPSK	25	0	-	Front	5mm	Ant 3	ECI 9	27710	2310	open	17.97	19.30	1.358	-	-	0.01	0.365	0.496
	LTE Band 30	10M	QPSK	1	0	-	Back	5mm	Ant 3	ECI 9	27710	2310	open	18.02	19.30	1.343	-	-	0.19	0.468	0.628
	LTE Band 30	10M	QPSK	25	0	-	Back	5mm	Ant 3	ECI 9	27710	2310	open	17.97	19.30	1.358	-	-	-0.08	0.439	0.596
	LTE Band 30	10M	QPSK	1	0	-	Left Side	5mm	Ant 3	ECI 9	27710	2310	open	18.02	19.30	1.343	-	-	0.1	0.144	0.193
	LTE Band 30	10M	QPSK	25	0	-	Left Side	5mm	Ant 3	ECI 9	27710	2310	open	17.97	19.30	1.358	-	-	-0.18	0.143	0.194
	LTE Band 30	10M	QPSK	1	0	-	Top Side	5mm	Ant 3	ECI 9	27710	2310	open	18.02	19.30	1.343	-	-	0.1	0.401	0.538
	LTE Band 30	10M	QPSK	25	0	-	Top Side	5mm	Ant 3	ECI 9	27710	2310	open	17.97	19.30	1.358	-	-	0.12	0.401	0.545
	LTE Band 30	10M	QPSK	1	0	-	Front	5mm	Ant 0	ECI 9	27710	2310	open	20.35	21.50	1.303	-	-	0.07	0.667	0.869
	LTE Band 30	10M	QPSK	25	0	-	Front	5mm	Ant 0	ECI 9	27710	2310	open	20.31	21.50	1.315	-	-	-0.18	0.631	0.830
	LTE Band 30	10M	QPSK	50	0	-	Front	5mm	Ant 0	ECI 9	27710	2310	open	20.25	21.50	1.334	-	-	0.03	0.596	0.795
	LTE Band 30	10M	QPSK	1	0	-	Back	5mm	Ant 0	ECI 9	27710	2310	open	20.35	21.50	1.303	-	-	-0.15	0.739	0.963
	LTE Band 30	10M	QPSK	25	0	-	Back	5mm	Ant 0	ECI 9	27710	2310	open	20.31	21.50	1.315	-	-	-0.15	0.714	0.939
	LTE Band 30	10M	QPSK	50	0	-	Back	5mm	Ant 0	ECI 9	27710	2310	open	20.25	21.50	1.334	-	-	0.11	0.688	0.917
	LTE Band 30	10M	QPSK	1	0	-	Left Side	5mm	Ant 0	ECI 9	27710	2310	open	20.35	21.50	1.303	-	-	-0.08	0.335	0.437
	LTE Band 30	10M	QPSK	25	0	-	Left Side	5mm	Ant 0	ECI 9	27710	2310	open	20.31	21.50	1.315	-	-	-0.17	0.270	0.355
53	LTE Band 30	10M	QPSK	1	0	-	Bottom Side	5mm	Ant 0	ECI 9	27710	2310	open	20.35	21.50	1.303	-	-	0.01	0.976	1.272
	LTE Band 30	10M	QPSK	25	0	-	Bottom Side	5mm	Ant 0	ECI 9	27710	2310	open	20.31	21.50	1.315	-	-	-0.04	0.958	1.260
	LTE Band 30	10M	QPSK	50	0	-	Bottom Side	5mm	Ant 0	ECI 9	27710	2310	open	20.25	21.50	1.334	-	-	-0.08	0.942	1.256
	LTE Band 30	10M	QPSK	1	0	-	Front	5mm	Ant 1	ECI 9	27710	2310	open	20.21	21.30	1.285	-	-	0.08	0.649	0.834
	LTE Band 30	10M	QPSK	25	0	-	Front	5mm	Ant 1	ECI 9	27710	2310	open	20.14	21.30	1.306	-	-	0.01	0.621	0.811
	LTE Band 30	10M	QPSK	50	0	-	Front	5mm	Ant 1	ECI 9	27710	2310	open	20.07	21.30	1.327	-	-	0.03	0.575	0.763
	LTE Band 30	10M	QPSK	1	0	-	Back	5mm	Ant 1	ECI 9	27710	2310	open	20.21	21.30	1.285	-	-	-0.08	0.787	1.012
	LTE Band 30	10M	QPSK	25	0	-	Back	5mm	Ant 1	ECI 9	27710	2310	open	20.14	21.30	1.306	-	-	-0.08	0.728	0.951
	LTE Band 30	10M	QPSK	50	0	-	Back	5mm	Ant 1	ECI 9	27710	2310	open	20.07	21.30	1.327	-	-	0.1	0.702	0.932
	LTE Band 30	10M	QPSK	1	0	-	Right Side	5mm	Ant 1	ECI 9	27710	2310	open	20.21	21.30	1.285	-	-	-0.18	0.664	0.853
	LTE Band 30	10M	QPSK	25	0	-	Right Side	5mm	Ant 1	ECI 9	27710	2310	open	20.14	21.30	1.306	-	-	0.1	0.636	0.831
	LTE Band 30	10M	QPSK	50	0	-	Right Side	5mm	Ant 1	ECI 9	27710	2310	open	20.07	21.30	1.327	-	-	0.12	0.593	0.787
	LTE Band 30	10M	QPSK	1	0	-	Bottom Side	5mm	Ant 1	ECI 9	27710	2310	open	20.21	21.30	1.285	-	-	0.18	0.986	1.267
	LTE Band 30	10M	QPSK	25	0	-	Bottom Side	5mm	Ant 1	ECI 9	27710	2310	open	20.14	21.30	1.306	-	-	0.08	0.962	1.257
	LTE Band 30	10M	QPSK	50	0	-	Bottom Side	5mm	Ant 1	ECI 9	27710	2310	open	20.07	21.30	1.327	-	-	-0.17	0.907	1.204
	FR1 n30	10M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 2	ECI 9	462000	2310	open	14.44	15.50	1.276	-	-	-0.09	0.374	0.477
	FR1 n30	10M	QPSK	25	14	DFT-SCS-15KHz	Front	5mm	Ant 2	ECI 9	462000	2310	open	14.36	15.50	1.300	-	-	-0.08	0.332	0.432
	FR1 n30	10M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 2	ECI 9	462000	2310	open	14.44	15.50	1.276	-	-	0.12	0.344	0.439
	FR1 n30	10M	QPSK	25	14	DFT-SCS-15KHz	Back	5mm	Ant 2	ECI 9	462000	2310	open	14.36	15.50	1.300	-	-	0.03	0.346	0.450
	FR1 n30	10M	QPSK	1	1	DFT-SCS-15KHz	Left Side	5mm	Ant 2	ECI 9	462000	2310	open	14.44	15.50	1.276	-	-	-0.09	0.486	0.620
	FR1 n30	10M	QPSK	25	14	DFT-SCS-15KHz	Left Side	5mm	Ant 2	ECI 9	462000	2310	open	14.36	15.50	1.300	-	-	0.16	0.456	0.593
	FR1 n30	10M	QPSK	1	1	DFT-SCS-15KHz	Top Side	5mm	Ant 2	ECI 9	462000	2310	open	14.44	15.50	1.276	-	-	0.07	0.036	0.046
	FR1 n30	10M	QPSK	25	14	DFT-SCS-15KHz	Top Side	5mm	Ant 2	ECI 9	462000	2310	open	14.36	15.50	1.300	-	-	0.18	0.035	0.046
	FR1 n30	10M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 3	ECI 9	462000	2310	open	18.49	19.30	1.205	-	-	0.04	0.354	0.427
	FR1 n30	10M	QPSK	25	14	DFT-SCS-15KHz	Front	5mm	Ant 3	ECI 9	462000	2310	open	18.45	19.30	1.216	-	-	-0.01	0.343	0.417
	FR1 n30	10M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 3	ECI 9	462000	2310	open	18.49	19.30	1.205	-	-	0.05	0.343	0.413
	FR1 n30	10M	QPSK	25	14	DFT-SCS-15KHz	Back	5mm	Ant 3	ECI 9	462000	2310	open	18.45	19.30	1.216	-	-	0.06	0.311	0.378
	FR1 n30	10M	QPSK	1	1	DFT-SCS-15KHz	Left Side	5mm	Ant 3	ECI 9	462000	2310	open	18.49	19.30	1.205	-	-	-0.08	0.191	0.230
	FR1 n30	10M	QPSK	25	14	DFT-SCS-15KHz	Left Side	5mm	Ant 3	ECI 9	462000	2310	open	18.45	19.30	1.216	-	-	0.13	0.177	0.215
	FR1 n30	10M	QPSK	1	1	DFT-SCS-15KHz	Top Side	5mm	Ant 3	ECI 9	462000	2310	open	18.49	19.30	1.205	-	-	-0.02	0.511	0.616
	FR1 n30	10M	QPSK	25	14	DFT-SCS-15KHz	Top Side	5mm	Ant 3	ECI 9	462000	2310	open	18.45	19.30	1.216	-	-	0.12	0.450	0.547



	FR1 n30	10M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 0	ECl 9	462000	2310	open	22.37	23.30	1.239	-	-	0.08	0.705	0.873
	FR1 n30	10M	QPSK	25	14	DFT-SCS-15KHz	Front	5mm	Ant 0	ECl 9	462000	2310	open	22.31	23.30	1.256	-	-	-0.07	0.645	0.810
	FR1 n30	10M	QPSK	50	0	DFT-SCS-15KHz	Front	5mm	Ant 0	ECl 9	462000	2310	open	22.25	23.00	1.189	-	-	0.05	0.588	0.699
	FR1 n30	10M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 0	ECl 9	462000	2310	open	22.37	23.30	1.239	-	-	-0.11	0.788	0.976
	FR1 n30	10M	QPSK	25	14	DFT-SCS-15KHz	Back	5mm	Ant 0	ECl 9	462000	2310	open	22.31	23.30	1.256	-	-	-0.12	0.747	0.938
	FR1 n30	10M	QPSK	50	0	DFT-SCS-15KHz	Back	5mm	Ant 0	ECl 9	462000	2310	open	22.25	23.00	1.189	-	-	0.03	0.632	0.751
	FR1 n30	10M	QPSK	1	1	DFT-SCS-15KHz	Left Side	5mm	Ant 0	ECl 9	462000	2310	open	22.37	23.30	1.239	-	-	-0.16	0.385	0.477
	FR1 n30	10M	QPSK	25	14	DFT-SCS-15KHz	Left Side	5mm	Ant 0	ECl 9	462000	2310	open	22.31	23.30	1.256	-	-	-0.02	0.381	0.479
	FR1 n30	10M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	5mm	Ant 0	ECl 9	462000	2310	open	22.37	23.30	1.239	-	-	-0.01	1.030	1.276
	FR1 n30	10M	QPSK	25	14	DFT-SCS-15KHz	Bottom Side	5mm	Ant 0	ECl 9	462000	2310	open	22.31	23.30	1.256	-	-	0.15	0.906	1.138
	FR1 n30	10M	QPSK	50	0	DFT-SCS-15KHz	Bottom Side	5mm	Ant 0	ECl 9	462000	2310	open	22.25	23.00	1.189	-	-	-0.09	0.710	0.844
	FR1 n30	10M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 1	ECl 9	462000	2310	open	20.01	21.10	1.285	-	-	0.04	0.536	0.689
	FR1 n30	10M	QPSK	25	14	DFT-SCS-15KHz	Front	5mm	Ant 1	ECl 9	462000	2310	open	19.97	21.10	1.297	-	-	-0.01	0.531	0.689
	FR1 n30	10M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 1	ECl 9	462000	2310	open	20.01	21.10	1.285	-	-	0.05	0.600	0.771
	FR1 n30	10M	QPSK	25	14	DFT-SCS-15KHz	Back	5mm	Ant 1	ECl 9	462000	2310	open	19.97	21.10	1.297	-	-	0.06	0.586	0.760
	FR1 n30	10M	QPSK	1	1	DFT-SCS-15KHz	Right Side	5mm	Ant 1	ECl 9	462000	2310	open	20.01	21.10	1.285	-	-	-0.08	0.479	0.616
	FR1 n30	10M	QPSK	25	14	DFT-SCS-15KHz	Right Side	5mm	Ant 1	ECl 9	462000	2310	open	19.97	21.10	1.297	-	-	0.13	0.512	0.664
54	FR1 n30	10M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	5mm	Ant 1	ECl 9	462000	2310	open	20.01	21.10	1.285	-	-	-0.03	0.999	1.284
	FR1 n30	10M	QPSK	25	14	DFT-SCS-15KHz	Bottom Side	5mm	Ant 1	ECl 9	462000	2310	open	19.97	21.10	1.297	-	-	0.03	0.956	1.240
	FR1 n30	10M	QPSK	50	0	DFT-SCS-15KHz	Bottom Side	5mm	Ant 1	ECl 9	462000	2310	open	19.80	21.10	1.349	-	-	0.18	0.889	1.199
2600MHz																					
	LTE Band 7	20M	QPSK	1	0	-	Front	5mm	Ant 2	ECl 9	21100	2535	open	13.75	15.00	1.334	-	-	-0.15	0.289	0.385
	LTE Band 7	20M	QPSK	50	0	-	Front	5mm	Ant 2	ECl 9	21100	2535	open	13.72	15.00	1.343	-	-	-0.17	0.268	0.360
	LTE Band 7	20M	QPSK	1	0	-	Back	5mm	Ant 2	ECl 9	21100	2535	open	13.75	15.00	1.334	-	-	0.17	0.263	0.351
	LTE Band 7	20M	QPSK	50	0	-	Back	5mm	Ant 2	ECl 9	21100	2535	open	13.72	15.00	1.343	-	-	-0.08	0.214	0.287
	LTE Band 7	20M	QPSK	1	0	-	Left Side	5mm	Ant 2	ECl 9	21100	2535	open	13.75	15.00	1.334	-	-	0.12	0.466	0.621
	LTE Band 7	20M	QPSK	50	0	-	Left Side	5mm	Ant 2	ECl 9	21100	2535	open	13.72	15.00	1.343	-	-	0.08	0.371	0.498
	LTE Band 7	20M	QPSK	1	0	-	Top Side	5mm	Ant 2	ECl 9	21100	2535	open	13.75	15.00	1.334	-	-	-0.12	0.023	0.031
	LTE Band 7	20M	QPSK	50	0	-	Top Side	5mm	Ant 2	ECl 9	21100	2535	open	13.72	15.00	1.343	-	-	0.03	0.018	0.024
	LTE Band 7C	20M	QPSK	1	99	-	Left Side	5mm	Ant 2	ECl 9	21100+ 21298	2535+ 2554.8	open	13.60	15.00	1.380	-	-	0.12	0.412	0.569
	LTE Band 7	20M	QPSK	1	0	-	Front	5mm	Ant 3	ECl 9	21100	2535	open	13.85	15.20	1.365	-	-	0.11	0.197	0.269
	LTE Band 7	20M	QPSK	50	0	-	Front	5mm	Ant 3	ECl 9	21100	2535	open	13.79	15.20	1.384	-	-	0.16	0.134	0.185
	LTE Band 7	20M	QPSK	1	0	-	Back	5mm	Ant 3	ECl 9	21100	2535	open	13.85	15.20	1.365	-	-	-0.15	0.247	0.337
	LTE Band 7	20M	QPSK	50	0	-	Back	5mm	Ant 3	ECl 9	21100	2535	open	13.79	15.20	1.384	-	-	0.16	0.224	0.310
	LTE Band 7	20M	QPSK	1	0	-	Left Side	5mm	Ant 3	ECl 9	21100	2535	open	13.85	15.20	1.365	-	-	0.16	0.077	0.105
	LTE Band 7	20M	QPSK	50	0	-	Left Side	5mm	Ant 3	ECl 9	21100	2535	open	13.79	15.20	1.384	-	-	0.06	0.068	0.094
	LTE Band 7	20M	QPSK	1	0	-	Top Side	5mm	Ant 3	ECl 9	21100	2535	open	13.85	15.20	1.365	-	-	-0.08	0.456	0.622
	LTE Band 7	20M	QPSK	50	0	-	Top Side	5mm	Ant 3	ECl 9	21100	2535	open	13.79	15.20	1.384	-	-	-0.17	0.381	0.527
	LTE Band 7C	20M	QPSK	1	99	-	Top Side	5mm	Ant 3	ECl 9	21100+ 21298	2535+ 2554.8	open	13.76	15.20	1.393	-	-	-0.08	0.406	0.566
	LTE Band 7	20M	QPSK	1	0	-	Front	5mm	Ant 0	ECl 9	21100	2535	open	20.50	21.80	1.349	-	-	0.08	0.575	0.776
	LTE Band 7	20M	QPSK	50	0	-	Front	5mm	Ant 0	ECl 9	21100	2535	open	20.46	21.80	1.361	-	-	-0.08	0.571	0.777
	LTE Band 7	20M	QPSK	1	0	-	Back	5mm	Ant 0	ECl 9	21100	2535	open	20.50	21.80	1.349	-	-	0.1	0.720	0.971
	LTE Band 7	20M	QPSK	1	0	-	Back	5mm	Ant 0	ECl 9	20850	2510	open	20.45	21.80	1.365	-	-	0.12	0.763	1.041
	LTE Band 7	20M	QPSK	1	0	-	Back	5mm	Ant 0	ECl 9	21350	2560	open	20.48	21.80	1.355	-	-	0.08	0.832	1.128
	LTE Band 7	20M	QPSK	50	0	-	Back	5mm	Ant 0	ECl 9	21100	2535	open	20.46	21.80	1.361	-	-	-0.17	0.709	0.965
	LTE Band 7	20M	QPSK	50	0	-	Back	5mm	Ant 0	ECl 9	20850	2510	open	20.40	21.80	1.380	-	-	-0.03	0.670	0.925
	LTE Band 7	20M	QPSK	50	0	-	Back	5mm	Ant 0	ECl 9	21350	2560	open	20.42	21.80	1.374	-	-	0.14	0.728	1.000
	LTE Band 7	20M	QPSK	100	0	-	Back	5mm	Ant 0	ECl 9	21100	2535	open	20.43	21.80	1.371	-	-	0.11	0.705	0.966
	LTE Band 7	20M	QPSK	1	0	-	Left Side	5mm	Ant 0	ECl 9	21100	2535	open	20.50	21.80	1.349	-	-	-0.05	0.846	1.141
	LTE Band 7	20M	QPSK	1	0	-	Left Side	5mm	Ant 0	ECl 9	20850	2510	open	20.45	21.80	1.365	-	-	0.18	0.864	1.179
55	LTE Band 7	20M	QPSK	1	0	-	Left Side	5mm	Ant 0	ECl 9	21350	2560	open	20.48	21.80	1.355	-	-	0.05	0.948	1.285
	LTE Band 7	20M	QPSK	50	0	-	Left Side	5mm	Ant 0	ECl 9	21100	2535	open	20.46	21.80	1.361	-	-	0.14	0.735	1.001
	LTE Band 7	20M	QPSK	50	0	-	Left Side	5mm	Ant 0	ECl 9	20850	2510	open	20.40	21.80	1.380	-	-	-0.17	0.752	1.038
	LTE Band 7	20M	QPSK	50	0	-	Left Side	5mm	Ant 0	ECl 9	21350	2560	open	20.42	21.80	1.374	-	-	0.17	0.785	1.079
	LTE Band 7	20M	QPSK	100	0	-	Left Side	5mm	Ant 0	ECl 9	21100	2535	open	20.43	21.80	1.371	-	-	-0.05	0.657	0.901
	LTE Band 7	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 0	ECl 9	21100	2535	open	20.50	21.80	1.349	-	-	0.01	0.862	1.163



LTE Band 7	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 0	ECI 9	20850	2510	open	20.45	21.80	1.365	-	-	0.1	0.856	1.168
LTE Band 7	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 0	ECI 9	21350	2560	open	20.48	21.80	1.355	-	-	-0.17	0.903	1.224
LTE Band 7	20M	QPSK	50	0	-	Bottom Side	5mm	Ant 0	ECI 9	21100	2535	open	20.46	21.80	1.361	-	-	0.04	0.851	1.159
LTE Band 7	20M	QPSK	50	0	-	Bottom Side	5mm	Ant 0	ECI 9	20850	2510	open	20.40	21.80	1.380	-	-	-0.01	0.820	1.132
LTE Band 7	20M	QPSK	50	0	-	Bottom Side	5mm	Ant 0	ECI 9	21350	2560	open	20.42	21.80	1.374	-	-	-0.08	0.821	1.128
LTE Band 7	20M	QPSK	100	0	-	Bottom Side	5mm	Ant 0	ECI 9	21100	2535	open	20.43	21.80	1.371	-	-	0.05	0.825	1.131
LTE Band 7	20M	QPSK	1	0	-	Left Side	5mm	Ant 0	ECI 9	21350+	2560+	open	20.28	21.80	1.419	-	-	0.05	0.834	1.183
LTE Band 7	20M	QPSK	1	0	-	Front	5mm	Ant 1	ECI 9	21100	2535	open	20.30	21.50	1.318	-	-	0.16	0.763	1.006
LTE Band 7	20M	QPSK	1	0	-	Front	5mm	Ant 1	ECI 9	20850	2510	open	20.25	21.50	1.334	-	-	-0.15	0.745	0.993
LTE Band 7	20M	QPSK	1	0	-	Front	5mm	Ant 1	ECI 9	21350	2560	open	20.28	21.50	1.324	-	-	-0.02	0.879	1.164
LTE Band 7	20M	QPSK	50	0	-	Front	5mm	Ant 1	ECI 9	21100	2535	open	20.26	21.50	1.330	-	-	-0.09	0.613	0.816
LTE Band 7	20M	QPSK	50	0	-	Front	5mm	Ant 1	ECI 9	20850	2510	open	20.12	21.50	1.374	-	-	0.14	0.650	0.893
LTE Band 7	20M	QPSK	50	0	-	Front	5mm	Ant 1	ECI 9	21350	2560	open	20.14	21.50	1.368	-	-	0.1	0.700	0.957
LTE Band 7	20M	QPSK	100	0	-	Front	5mm	Ant 1	ECI 9	21100	2535	open	20.23	21.50	1.340	-	-	-0.09	0.613	0.821
LTE Band 7	20M	QPSK	1	0	-	Back	5mm	Ant 1	ECI 9	21100	2535	open	20.30	21.50	1.318	-	-	0.07	0.831	1.095
LTE Band 7	20M	QPSK	1	0	-	Back	5mm	Ant 1	ECI 9	20850	2510	open	20.25	21.50	1.334	-	-	-0.09	0.816	1.088
LTE Band 7	20M	QPSK	1	0	-	Back	5mm	Ant 1	ECI 9	21350	2560	open	20.28	21.50	1.324	-	-	-0.16	0.865	1.146
LTE Band 7	20M	QPSK	50	0	-	Back	5mm	Ant 1	ECI 9	21100	2535	open	20.26	21.50	1.330	-	-	-0.18	0.638	0.849
LTE Band 7	20M	QPSK	50	0	-	Back	5mm	Ant 1	ECI 9	20850	2510	open	20.12	21.50	1.374	-	-	-0.07	0.618	0.849
LTE Band 7	20M	QPSK	50	0	-	Back	5mm	Ant 1	ECI 9	21350	2560	open	20.14	21.50	1.368	-	-	0.11	0.676	0.925
LTE Band 7	20M	QPSK	100	0	-	Back	5mm	Ant 1	ECI 9	21100	2535	open	20.23	21.50	1.340	-	-	-0.08	0.633	0.848
LTE Band 7	20M	QPSK	1	0	-	Right Side	5mm	Ant 1	ECI 9	21100	2535	open	20.30	21.50	1.318	-	-	-0.1	0.903	1.190
LTE Band 7	20M	QPSK	1	0	-	Right Side	5mm	Ant 1	ECI 9	20850	2510	open	20.25	21.50	1.334	-	-	-0.01	0.876	1.168
LTE Band 7	20M	QPSK	1	0	-	Right Side	5mm	Ant 1	ECI 9	21350	2560	open	20.28	21.50	1.324	-	-	0.04	0.966	1.279
LTE Band 7	20M	QPSK	50	0	-	Right Side	5mm	Ant 1	ECI 9	21100	2535	open	20.26	21.50	1.330	-	-	-0.09	0.715	0.951
LTE Band 7	20M	QPSK	50	0	-	Right Side	5mm	Ant 1	ECI 9	20850	2510	open	20.12	21.50	1.374	-	-	-0.06	0.676	0.929
LTE Band 7	20M	QPSK	50	0	-	Right Side	5mm	Ant 1	ECI 9	21350	2560	open	20.14	21.50	1.368	-	-	-0.17	0.778	1.064
LTE Band 7	20M	QPSK	100	0	-	Right Side	5mm	Ant 1	ECI 9	21100	2535	open	20.23	21.50	1.340	-	-	-0.01	0.710	0.951
LTE Band 7	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 1	ECI 9	21100	2535	open	20.30	21.50	1.318	-	-	-0.11	0.816	1.076
LTE Band 7	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 1	ECI 9	20850	2510	open	20.25	21.50	1.334	-	-	0.14	0.767	1.023
LTE Band 7	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 1	ECI 9	21350	2560	open	20.28	21.50	1.324	-	-	0.03	0.773	1.024
LTE Band 7	20M	QPSK	50	0	-	Bottom Side	5mm	Ant 1	ECI 9	21100	2535	open	20.26	21.50	1.330	-	-	0.1	0.638	0.849
LTE Band 7	20M	QPSK	50	0	-	Bottom Side	5mm	Ant 1	ECI 9	20850	2510	open	20.12	21.50	1.374	-	-	0.16	0.662	0.910
LTE Band 7	20M	QPSK	50	0	-	Bottom Side	5mm	Ant 1	ECI 9	21350	2560	open	20.14	21.50	1.368	-	-	-0.06	0.613	0.838
LTE Band 7	20M	QPSK	100	0	-	Bottom Side	5mm	Ant 1	ECI 9	21100	2535	open	20.23	21.50	1.340	-	-	0.02	0.638	0.855
LTE Band 7	20M	QPSK	1	0	-	Right Side	5mm	Ant 1	ECI 9	21350+	2560+	open	20.11	21.50	1.377	-	-	0.04	0.856	1.179
LTE Band 41	20M	QPSK	1	0	-	Front	5mm	Ant 2	ECI 9	40620	2593	open	16.65	17.30	1.161	62.9	1.006	0.18	0.507	0.592
LTE Band 41	20M	QPSK	50	0	-	Front	5mm	Ant 2	ECI 9	40620	2593	open	16.63	17.30	1.167	62.9	1.006	-0.04	0.475	0.558
LTE Band 41	20M	QPSK	1	0	-	Back	5mm	Ant 2	ECI 9	40620	2593	open	16.65	17.30	1.161	62.9	1.006	-0.04	0.339	0.396
LTE Band 41	20M	QPSK	50	0	-	Back	5mm	Ant 2	ECI 9	40620	2593	open	16.63	17.30	1.167	62.9	1.006	-0.09	0.261	0.306
LTE Band 41	20M	QPSK	1	0	-	Left Side	5mm	Ant 2	ECI 9	40620	2593	open	16.65	17.30	1.161	62.9	1.006	-0.14	0.437	0.511
LTE Band 41	20M	QPSK	50	0	-	Left Side	5mm	Ant 2	ECI 9	40620	2593	open	16.63	17.30	1.167	62.9	1.006	0.1	0.339	0.398
LTE Band 41	20M	QPSK	1	0	-	Top Side	5mm	Ant 2	ECI 9	40620	2593	open	16.65	17.30	1.161	62.9	1.006	-0.15	0.018	0.021
LTE Band 41	20M	QPSK	50	0	-	Top Side	5mm	Ant 2	ECI 9	40620	2593	open	16.63	17.30	1.167	62.9	1.006	-0.06	0.014	0.016
LTE Band 41 HPUE	20M	QPSK	1	0	-	Front	5mm	Ant 2	ECI 9	40620	2593	open	17.90	18.90	1.259	42.9	1.009	0.16	0.465	0.591
LTE Band 41	20M	QPSK	1	99	-	Front	5mm	Ant 2	ECI 9	40620+	2593+	open	16.50	17.30	1.202	62.9	1.006	0.18	0.452	0.547
LTE Band 41 HPUE	20M	QPSK	1	99	-	Front	5mm	Ant 2	ECI 9	40620+	2593+	open	17.81	18.90	1.285	42.9	1.009	0.16	0.412	0.534
LTE Band 41	20M	QPSK	1	0	-	Front	5mm	Ant 3	ECI 9	40620	2593	open	16.17	16.90	1.183	62.9	1.006	-0.06	0.237	0.282
LTE Band 41	20M	QPSK	50	0	-	Front	5mm	Ant 3	ECI 9	40620	2593	open	16.14	16.90	1.191	62.9	1.006	0.02	0.190	0.228
LTE Band 41	20M	QPSK	1	0	-	Back	5mm	Ant 3	ECI 9	40620	2593	open	16.17	16.90	1.183	62.9	1.006	-0.05	0.263	0.313
LTE Band 41	20M	QPSK	50	0	-	Back	5mm	Ant 3	ECI 9	40620	2593	open	16.14	16.90	1.191	62.9	1.006	-0.16	0.209	0.250
LTE Band 41	20M	QPSK	1	0	-	Left Side	5mm	Ant 3	ECI 9	40620	2593	open	16.17	16.90	1.183	62.9	1.006	-0.06	0.112	0.133
LTE Band 41	20M	QPSK	50	0	-	Left Side	5mm	Ant 3	ECI 9	40620	2593	open	16.14	16.90	1.191	62.9	1.006	-0.15	0.092	0.110
LTE Band 41	20M	QPSK	1	0	-	Top Side	5mm	Ant 3	ECI 9	40620	2593	open	16.17	16.90	1.183	62.9	1.006	-0.08	0.496	0.590
LTE Band 41	20M	QPSK	50	0	-	Top Side	5mm	Ant 3	ECI 9	40620	2593	open	16.14	16.90	1.191	62.9	1.006	-0.07	0.393	0.471



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	LTE Band 41 HPUE	20M	QPSK	1	0	-	Top Side	5mm	Ant 3	ECI 9	40620	2593	open	17.39	18.50	1.291	42.9	1.009	0.05	0.477	0.621
	LTE Band 41 HPUE	20M	QPSK	1	0	-	Top Side	5mm	Ant 3	ECI 9	39750	2506	open	17.32	18.50	1.312	42.9	1.009	-0.1	0.454	0.601
	LTE Band 41 HPUE	20M	QPSK	1	0	-	Top Side	5mm	Ant 3	ECI 9	40185	2549.5	open	17.35	18.50	1.303	42.9	1.009	0.14	0.438	0.576
	LTE Band 41 HPUE	20M	QPSK	1	0	-	Top Side	5mm	Ant 3	ECI 9	41055	2636.5	open	17.33	18.50	1.309	42.9	1.009	-0.14	0.465	0.614
	LTE Band 41 HPUE	20M	QPSK	1	0	-	Top Side	5mm	Ant 3	ECI 9	41490	2680	open	17.30	18.50	1.318	42.9	1.009	0.03	0.458	0.609
	LTE Band 41	20M	QPSK	1	99	-	Top Side	5mm	Ant 3	ECI 9	40620+ 40818	2593+ 2612.8	open	16.08	16.90	1.208	62.9	1.006	-0.08	0.442	0.537
	LTE Band 41 HPUE	20M	QPSK	1	99	-	Top Side	5mm	Ant 3	ECI 9	40620+ 40818	2593+ 2612.8	open	17.24	18.50	1.337	42.9	1.009	0.05	0.438	0.591
	LTE Band 41	20M	QPSK	1	0	-	Front	5mm	Ant 0	ECI 9	40620	2593	open	21.88	22.60	1.180	62.9	1.006	-0.04	0.464	0.551
	LTE Band 41	20M	QPSK	50	0	-	Front	5mm	Ant 0	ECI 9	40620	2593	open	21.81	22.60	1.199	62.9	1.006	-0.03	0.443	0.535
	LTE Band 41	20M	QPSK	1	0	-	Back	5mm	Ant 0	ECI 9	40620	2593	open	21.88	22.60	1.180	62.9	1.006	-0.12	0.692	0.822
	LTE Band 41	20M	QPSK	1	0	-	Back	5mm	Ant 0	ECI 9	39750	2506	open	21.82	22.60	1.197	62.9	1.006	0.03	0.564	0.679
	LTE Band 41	20M	QPSK	1	0	-	Back	5mm	Ant 0	ECI 9	40185	2549.5	open	21.85	22.60	1.189	62.9	1.006	-0.16	0.636	0.760
	LTE Band 41	20M	QPSK	1	0	-	Back	5mm	Ant 0	ECI 9	41055	2636.5	open	21.83	22.60	1.194	62.9	1.006	-0.02	0.709	0.852
	LTE Band 41	20M	QPSK	1	0	-	Back	5mm	Ant 0	ECI 9	41490	2680	open	21.80	22.60	1.202	62.9	1.006	0.15	0.580	0.701
	LTE Band 41	20M	QPSK	50	0	-	Back	5mm	Ant 0	ECI 9	40620	2593	open	21.81	22.60	1.199	62.9	1.006	-0.09	0.550	0.664
	LTE Band 41	20M	QPSK	50	0	-	Back	5mm	Ant 0	ECI 9	39750	2506	open	21.73	22.60	1.222	62.9	1.006	0.11	0.547	0.672
	LTE Band 41	20M	QPSK	50	0	-	Back	5mm	Ant 0	ECI 9	40185	2549.5	open	21.71	22.60	1.227	62.9	1.006	-0.05	0.504	0.622
	LTE Band 41	20M	QPSK	50	0	-	Back	5mm	Ant 0	ECI 9	41055	2636.5	open	21.70	22.60	1.230	62.9	1.006	-0.08	0.564	0.698
	LTE Band 41	20M	QPSK	50	0	-	Back	5mm	Ant 0	ECI 9	41490	2680	open	21.74	22.60	1.219	62.9	1.006	0.16	0.526	0.645
	LTE Band 41	20M	QPSK	100	0	-	Back	5mm	Ant 0	ECI 9	40620	2593	open	21.80	22.60	1.202	62.9	1.006	0.05	0.552	0.668
	LTE Band 41	20M	QPSK	1	0	-	Left Side	5mm	Ant 0	ECI 9	40620	2593	open	21.88	22.60	1.180	62.9	1.006	0.05	0.982	1.166
	LTE Band 41	20M	QPSK	1	0	-	Left Side	5mm	Ant 0	ECI 9	39750	2506	open	21.82	22.60	1.197	62.9	1.006	-0.03	0.958	1.153
	LTE Band 41	20M	QPSK	1	0	-	Left Side	5mm	Ant 0	ECI 9	40185	2549.5	open	21.85	22.60	1.189	62.9	1.006	-0.15	0.920	1.100
	LTE Band 41	20M	QPSK	1	0	-	Left Side	5mm	Ant 0	ECI 9	41055	2636.5	open	21.83	22.60	1.194	62.9	1.006	0.01	1.010	1.213
	LTE Band 41	20M	QPSK	1	0	-	Left Side	5mm	Ant 0	ECI 9	41490	2680	open	21.80	22.60	1.202	62.9	1.006	0.02	0.960	1.161
	LTE Band 41	20M	QPSK	50	0	-	Left Side	5mm	Ant 0	ECI 9	40620	2593	open	21.81	22.60	1.199	62.9	1.006	0.07	0.692	0.835
	LTE Band 41	20M	QPSK	50	0	-	Left Side	5mm	Ant 0	ECI 9	39750	2506	open	21.73	22.60	1.222	62.9	1.006	0.16	0.676	0.831
	LTE Band 41	20M	QPSK	50	0	-	Left Side	5mm	Ant 0	ECI 9	40185	2549.5	open	21.71	22.60	1.227	62.9	1.006	0.13	0.658	0.813
	LTE Band 41	20M	QPSK	50	0	-	Left Side	5mm	Ant 0	ECI 9	41055	2636.5	open	21.70	22.60	1.230	62.9	1.006	-0.18	0.704	0.871
	LTE Band 41	20M	QPSK	50	0	-	Left Side	5mm	Ant 0	ECI 9	41490	2680	open	21.74	22.60	1.219	62.9	1.006	0.02	0.710	0.871
	LTE Band 41	20M	QPSK	100	0	-	Left Side	5mm	Ant 0	ECI 9	40620	2593	open	21.80	22.60	1.202	62.9	1.006	0.16	0.692	0.837
	LTE Band 41	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 0	ECI 9	40620	2593	open	21.88	22.60	1.180	62.9	1.006	-0.03	0.725	0.861
	LTE Band 41	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 0	ECI 9	39750	2506	open	21.82	22.60	1.197	62.9	1.006	0.07	0.753	0.907
	LTE Band 41	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 0	ECI 9	40185	2549.5	open	21.85	22.60	1.189	62.9	1.006	0.03	0.742	0.887
	LTE Band 41	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 0	ECI 9	41055	2636.5	open	21.83	22.60	1.194	62.9	1.006	0.01	0.714	0.858
	LTE Band 41	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 0	ECI 9	41490	2680	open	21.80	22.60	1.202	62.9	1.006	-0.01	0.736	0.890
	LTE Band 41	20M	QPSK	50	0	-	Bottom Side	5mm	Ant 0	ECI 9	40620	2593	open	21.81	22.60	1.199	62.9	1.006	-0.06	0.580	0.700
	LTE Band 41	20M	QPSK	50	0	-	Bottom Side	5mm	Ant 0	ECI 9	39750	2506	open	21.73	22.60	1.222	62.9	1.006	-0.04	0.603	0.741
	LTE Band 41	20M	QPSK	50	0	-	Bottom Side	5mm	Ant 0	ECI 9	40185	2549.5	open	21.71	22.60	1.227	62.9	1.006	-0.09	0.586	0.724
	LTE Band 41	20M	QPSK	50	0	-	Bottom Side	5mm	Ant 0	ECI 9	41055	2636.5	open	21.70	22.60	1.230	62.9	1.006	-0.17	0.569	0.704
	LTE Band 41	20M	QPSK	50	0	-	Bottom Side	5mm	Ant 0	ECI 9	41490	2680	open	21.74	22.60	1.219	62.9	1.006	-0.1	0.597	0.732
	LTE Band 41	20M	QPSK	100	0	-	Bottom Side	5mm	Ant 0	ECI 9	40620	2593	open	21.80	22.60	1.202	62.9	1.006	0.18	0.580	0.701
56	LTE Band 41 HPUE	20M	QPSK	1	0	-	Left Side	5mm	Ant 0	ECI 9	41055	2636.5	open	23.08	24.20	1.294	42.9	1.009	0.06	0.985	1.286
	LTE Band 41	20M	QPSK	1	99	-	Left Side	5mm	Ant 0	ECI 9	41055+ 41253	2636.5+ 2656.3	open	21.68	22.60	1.236	62.9	1.006	0.01	0.953	1.185
	LTE Band 41 HPUE	20M	QPSK	1	99	-	Left Side	5mm	Ant 0	ECI 9	41055+ 41253	2636.5+ 2656.3	open	22.91	24.20	1.346	42.9	1.009	0.06	0.871	1.183
	LTE Band 41	20M	QPSK	1	0	-	Front	5mm	Ant 1	ECI 9	40620	2593	open	19.82	20.90	1.282	62.9	1.006	-0.04	0.672	0.867
	LTE Band 41	20M	QPSK	1	0	-	Front	5mm	Ant 1	ECI 9	39750	2506	open	19.75	20.90	1.303	62.9	1.006	0.13	0.654	0.857
	LTE Band 41	20M	QPSK	1	0	-	Front	5mm	Ant 1	ECI 9	40185	2549.5	open	19.80	20.90	1.288	62.9	1.006	0.12	0.571	0.740
	LTE Band 41	20M	QPSK	1	0	-	Front	5mm	Ant 1	ECI 9	41055	2636.5	open	19.78	20.90	1.294	62.9	1.006	0.07	0.767	0.999
	LTE Band 41	20M	QPSK	1	0	-	Front	5mm	Ant 1	ECI 9	41490	2680	open	19.79	20.90	1.291	62.9	1.006	0.08	0.779	1.012
	LTE Band 41	20M	QPSK	50	0	-	Front	5mm	Ant 1	ECI 9	40620	2593	open	19.81	20.90	1.285	62.9	1.006	0.19	0.528	0.683
	LTE Band 41	20M	QPSK	50	0	-	Front	5mm	Ant 1	ECI 9	39750	2506	open	19.69	20.90	1.321	62.9	1.006	-0.06	0.539	0.716
	LTE Band 41	20M	QPSK	50	0	-	Front	5mm	Ant 1	ECI 9	40185	2549.5	open	19.76	20.90	1.300	62.9	1.006	-0.01	0.528	0.691
	LTE Band 41	20M	QPSK	50	0	-	Front	5mm	Ant 1	ECI 9	41055	2636.5	open	19.73	20.90	1.309	62.9	1.006	-0.03	0.599	0.789
	LTE Band 41	20M	QPSK	50	0	-	Front	5mm	Ant 1	ECI 9	41490	2680	open	19.68	20.90	1.324	62.9	1.006	0.07	0.526	0.701



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LTE Band 41	20M	QPSK	100	0	-	Front	5mm	Ant 1	ECl 9	40620	2593	open	19.79	20.90	1.291	62.9	1.006	-0.12	0.518	0.673
LTE Band 41	20M	QPSK	1	0	-	Back	5mm	Ant 1	ECl 9	40620	2593	open	19.82	20.90	1.282	62.9	1.006	-0.03	0.610	0.787
LTE Band 41	20M	QPSK	1	0	-	Back	5mm	Ant 1	ECl 9	39750	2506	open	19.75	20.90	1.303	62.9	1.006	0.02	0.599	0.785
LTE Band 41	20M	QPSK	1	0	-	Back	5mm	Ant 1	ECl 9	40185	2549.5	open	19.80	20.90	1.288	62.9	1.006	0.12	0.565	0.732
LTE Band 41	20M	QPSK	1	0	-	Back	5mm	Ant 1	ECl 9	41055	2636.5	open	19.78	20.90	1.294	62.9	1.006	0.02	0.672	0.875
LTE Band 41	20M	QPSK	1	0	-	Back	5mm	Ant 1	ECl 9	41490	2680	open	19.79	20.90	1.291	62.9	1.006	-0.03	0.628	0.816
LTE Band 41	20M	QPSK	50	0	-	Back	5mm	Ant 1	ECl 9	40620	2593	open	19.81	20.90	1.285	62.9	1.006	-0.05	0.481	0.622
LTE Band 41	20M	QPSK	50	0	-	Back	5mm	Ant 1	ECl 9	39750	2506	open	19.69	20.90	1.321	62.9	1.006	-0.1	0.499	0.663
LTE Band 41	20M	QPSK	50	0	-	Back	5mm	Ant 1	ECl 9	40185	2549.5	open	19.76	20.90	1.300	62.9	1.006	0.05	0.445	0.582
LTE Band 41	20M	QPSK	50	0	-	Back	5mm	Ant 1	ECl 9	41055	2636.5	open	19.73	20.90	1.309	62.9	1.006	0.11	0.540	0.711
LTE Band 41	20M	QPSK	50	0	-	Back	5mm	Ant 1	ECl 9	41490	2680	open	19.68	20.90	1.324	62.9	1.006	0.07	0.588	0.783
LTE Band 41	20M	QPSK	100	0	-	Back	5mm	Ant 1	ECl 9	40620	2593	open	19.79	20.90	1.291	62.9	1.006	0.15	0.481	0.625
LTE Band 41	20M	QPSK	1	0	-	Right Side	5mm	Ant 1	ECl 9	40620	2593	open	19.82	20.90	1.282	62.9	1.006	-0.05	0.844	1.089
LTE Band 41	20M	QPSK	1	0	-	Right Side	5mm	Ant 1	ECl 9	39750	2506	open	19.75	20.90	1.303	62.9	1.006	-0.08	0.893	1.171
LTE Band 41	20M	QPSK	1	0	-	Right Side	5mm	Ant 1	ECl 9	40185	2549.5	open	19.80	20.90	1.288	62.9	1.006	-0.08	0.866	1.122
LTE Band 41	20M	QPSK	1	0	-	Right Side	5mm	Ant 1	ECl 9	41055	2636.5	open	19.78	20.90	1.294	62.9	1.006	-0.13	0.874	1.138
LTE Band 41	20M	QPSK	1	0	-	Right Side	5mm	Ant 1	ECl 9	41490	2680	open	19.79	20.90	1.291	62.9	1.006	0.1	0.985	1.279
LTE Band 41	20M	QPSK	50	0	-	Right Side	5mm	Ant 1	ECl 9	40620	2593	open	19.81	20.90	1.285	62.9	1.006	0.01	0.593	0.767
LTE Band 41	20M	QPSK	50	0	-	Right Side	5mm	Ant 1	ECl 9	39750	2506	open	19.69	20.90	1.321	62.9	1.006	-0.11	0.575	0.764
LTE Band 41	20M	QPSK	50	0	-	Right Side	5mm	Ant 1	ECl 9	40185	2549.5	open	19.76	20.90	1.300	62.9	1.006	0.03	0.536	0.701
LTE Band 41	20M	QPSK	50	0	-	Right Side	5mm	Ant 1	ECl 9	41055	2636.5	open	19.73	20.90	1.309	62.9	1.006	-0.05	0.627	0.826
LTE Band 41	20M	QPSK	50	0	-	Right Side	5mm	Ant 1	ECl 9	41490	2680	open	19.68	20.90	1.324	62.9	1.006	0.14	0.659	0.878
LTE Band 41	20M	QPSK	100	0	-	Right Side	5mm	Ant 1	ECl 9	40620	2593	open	19.79	20.90	1.291	62.9	1.006	-0.01	0.588	0.764
LTE Band 41	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 1	ECl 9	40620	2593	open	19.82	20.90	1.282	62.9	1.006	-0.12	0.338	0.436
LTE Band 41	20M	QPSK	50	0	-	Bottom Side	5mm	Ant 1	ECl 9	40620	2593	open	19.81	20.90	1.285	62.9	1.006	-0.13	0.266	0.344
LTE Band 41 HPUE	20M	QPSK	1	0	-	Right Side	5mm	Ant 1	ECl 9	41490	2680	open	21.09	22.50	1.384	42.9	1.009	-0.17	0.913	1.275
LTE Band 41	20M	QPSK	1	0	-	Right Side	5mm	Ant 1	ECl 9	41490+41292	2680+2660.2	open	19.64	20.90	1.337	62.9	1.006	0.1	0.881	1.185
LTE Band 41 HPUE	20M	QPSK	1	0	-	Right Side	5mm	Ant 1	ECl 9	41490+41292	2680+2660.2	open	20.95	22.50	1.429	42.9	1.009	-0.17	0.823	1.187
FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 2	ECl 9	507000	2535	open	14.45	15.70	1.334	-	-	0.16	0.315	0.420
FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Front	5mm	Ant 2	ECl 9	507000	2535	open	14.28	15.70	1.387	-	-	-0.1	0.276	0.383
FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 2	ECl 9	507000	2535	open	14.45	15.70	1.334	-	-	0.18	0.247	0.329
FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Back	5mm	Ant 2	ECl 9	507000	2535	open	14.28	15.70	1.387	-	-	-0.1	0.231	0.320
FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Left Side	5mm	Ant 2	ECl 9	507000	2535	open	14.45	15.70	1.334	-	-	-0.04	0.468	0.624
FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Left Side	5mm	Ant 2	ECl 9	507000	2535	open	14.28	15.70	1.387	-	-	-0.15	0.435	0.603
FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Top Side	5mm	Ant 2	ECl 9	507000	2535	open	14.45	15.70	1.334	-	-	0.07	0.025	0.033
FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Top Side	5mm	Ant 2	ECl 9	507000	2535	open	14.28	15.70	1.387	-	-	-0.18	0.014	0.019
FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 3	ECl 9	507000	2535	open	14.76	15.40	1.159	-	-	0.13	0.196	0.227
FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Front	5mm	Ant 3	ECl 9	507000	2535	open	14.67	15.40	1.183	-	-	0.12	0.251	0.297
FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 3	ECl 9	507000	2535	open	14.76	15.40	1.159	-	-	0.08	0.218	0.253
FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Back	5mm	Ant 3	ECl 9	507000	2535	open	14.67	15.40	1.183	-	-	0.19	0.259	0.306
FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Left Side	5mm	Ant 3	ECl 9	507000	2535	open	14.76	15.40	1.159	-	-	0.01	0.092	0.107
FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Left Side	5mm	Ant 3	ECl 9	507000	2535	open	14.67	15.40	1.183	-	-	-0.03	0.112	0.133
FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Top Side	5mm	Ant 3	ECl 9	507000	2535	open	14.76	15.40	1.159	-	-	-0.12	0.477	0.553
FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Top Side	5mm	Ant 3	ECl 9	507000	2535	open	14.67	15.40	1.183	-	-	0.01	0.525	0.621
FR1 n7 other Path	50M	QPSK	135	68	DFT-SCS-15KHz	Top Side	5mm	Ant 3	ECl 9	507000	2535	open	14.67	15.40	1.183	-	-	0.05	0.290	0.343
FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 0	ECl 9	507000	2535	open	20.25	21.30	1.274	-	-	0.02	0.580	0.739
FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Front	5mm	Ant 0	ECl 9	507000	2535	open	20.23	21.30	1.279	-	-	0.12	0.564	0.722
FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 0	ECl 9	507000	2535	open	20.25	21.30	1.274	-	-	-0.16	0.757	0.964
FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Back	5mm	Ant 0	ECl 9	507000	2535	open	20.23	21.30	1.279	-	-	-0.12	0.724	0.926
FR1 n7	50M	QPSK	270	0	DFT-SCS-15KHz	Back	5mm	Ant 0	ECl 9	507000	2535	open	20.23	21.30	1.279	-	-	0.02	0.712	0.911
FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Left Side	5mm	Ant 0	ECl 9	507000	2535	open	20.25	21.30	1.274	-	-	0.07	0.657	0.837
FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Left Side	5mm	Ant 0	ECl 9	507000	2535	open	20.23	21.30	1.279	-	-	-0.02	0.650	0.832
FR1 n7	50M	QPSK	270	0	DFT-SCS-15KHz	Left Side	5mm	Ant 0	ECl 9	507000	2535	open	20.23	21.30	1.279	-	-	0.01	0.632	0.809
FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	5mm	Ant 0	ECl 9	507000	2535	open	20.25	21.30	1.274	-	-	0.02	1.000	1.274
FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Bottom Side	5mm	Ant 0	ECl 9	507000	2535	open	20.23	21.30	1.279	-	-	-0.05	0.991	1.268
FR1 n7	50M	QPSK	270	0	DFT-SCS-15KHz	Bottom Side	5mm	Ant 0	ECl 9	507000	2535	open	20.23	21.30	1.279	-	-	-0.13	0.920	1.177



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	FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 1	ECI 9	507000	2535	open	20.92	21.80	1.225	-	-	-0.11	0.734	0.899
	FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Front	5mm	Ant 1	ECI 9	507000	2535	open	20.85	21.80	1.245	-	-	-0.01	0.786	0.978
	FR1 n7	50M	QPSK	270	0	DFT-SCS-15KHz	Front	5mm	Ant 1	ECI 9	507000	2535	open	20.65	21.80	1.303	-	-	0.09	0.620	0.808
	FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 1	ECI 9	507000	2535	open	20.92	21.80	1.225	-	-	0.1	0.717	0.878
	FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Back	5mm	Ant 1	ECI 9	507000	2535	open	20.85	21.80	1.245	-	-	-0.04	0.818	1.018
	FR1 n7	50M	QPSK	270	0	DFT-SCS-15KHz	Back	5mm	Ant 1	ECI 9	507000	2535	open	20.65	21.80	1.303	-	-	0.15	0.623	0.812
	FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Right Side	5mm	Ant 1	ECI 9	507000	2535	open	20.92	21.80	1.225	-	-	0.09	0.950	1.163
57	FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Right Side	5mm	Ant 1	ECI 9	507000	2535	open	20.85	21.80	1.245	-	-	-0.06	1.040	1.294
	FR1 n7	50M	QPSK	270	0	DFT-SCS-15KHz	Right Side	5mm	Ant 1	ECI 9	507000	2535	open	20.65	21.80	1.303	-	-	-0.16	0.748	0.975
	FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	5mm	Ant 1	ECI 9	507000	2535	open	20.92	21.80	1.225	-	-	0.05	0.799	0.978
	FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Bottom Side	5mm	Ant 1	ECI 9	507000	2535	open	20.85	21.80	1.245	-	-	0.08	0.761	0.947
	FR1 n7	50M	QPSK	270	0	DFT-SCS-15KHz	Bottom Side	5mm	Ant 1	ECI 9	507000	2535	open	20.65	21.80	1.303	-	-	-0.18	0.601	0.783
	FR1 n41 HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Front	5mm	Ant 2	ECI 9	518598	2592.99	open	13.69	14.70	1.262	-	-	0.17	0.302	0.381
	FR1 n41 HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Front	5mm	Ant 2	ECI 9	518598	2592.99	open	13.57	14.70	1.297	-	-	0.18	0.281	0.365
	FR1 n41 HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Back	5mm	Ant 2	ECI 9	518598	2592.99	open	13.69	14.70	1.262	-	-	-0.08	0.270	0.341
	FR1 n41 HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Back	5mm	Ant 2	ECI 9	518598	2592.99	open	13.57	14.70	1.297	-	-	-0.13	0.280	0.363
	FR1 n41 HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	5mm	Ant 2	ECI 9	518598	2592.99	open	13.69	14.70	1.262	-	-	0.06	0.450	0.568
	FR1 n41 HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Left Side	5mm	Ant 2	ECI 9	518598	2592.99	open	13.57	14.70	1.297	-	-	-0.05	0.476	0.617
	FR1 n41 HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	5mm	Ant 2	ECI 9	518598	2592.99	open	13.69	14.70	1.262	-	-	-0.03	0.030	0.038
	FR1 n41 HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	5mm	Ant 2	ECI 9	518598	2592.99	open	13.57	14.70	1.297	-	-	0.08	0.012	0.016
	FR1 n41 HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Front	5mm	Ant 3	ECI 9	518598	2592.99	open	14.75	16.10	1.365	-	-	-0.11	0.211	0.288
	FR1 n41 HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Front	5mm	Ant 3	ECI 9	518598	2592.99	open	14.67	16.10	1.390	-	-	0.03	0.198	0.275
	FR1 n41 HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Back	5mm	Ant 3	ECI 9	518598	2592.99	open	14.75	16.10	1.365	-	-	-0.05	0.199	0.272
	FR1 n41 HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Back	5mm	Ant 3	ECI 9	518598	2592.99	open	14.67	16.10	1.390	-	-	0.14	0.175	0.243
	FR1 n41 HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	5mm	Ant 3	ECI 9	518598	2592.99	open	14.75	16.10	1.365	-	-	-0.01	0.116	0.158
	FR1 n41 HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Left Side	5mm	Ant 3	ECI 9	518598	2592.99	open	14.67	16.10	1.390	-	-	-0.12	0.090	0.125
	FR1 n41 HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	5mm	Ant 3	ECI 9	518598	2592.99	open	14.75	16.10	1.365	-	-	0.07	0.419	0.572
	FR1 n41 HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	5mm	Ant 3	ECI 9	518598	2592.99	open	14.67	16.10	1.390	-	-	0.02	0.447	0.621
	FR1 n41 HPUE other Path	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	5mm	Ant 3	ECI 9	518598	2592.99	open	14.67	16.10	1.390	-	-	0.01	0.429	0.596
	FR1 n41 HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Front	5mm	Ant 0	ECI 9	518598	2592.99	open	20.34	21.50	1.306	-	-	-0.16	0.460	0.601
	FR1 n41 HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Front	5mm	Ant 0	ECI 9	518598	2592.99	open	20.21	21.50	1.346	-	-	0.1	0.446	0.600
	FR1 n41 HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Back	5mm	Ant 0	ECI 9	518598	2592.99	open	20.34	21.50	1.306	-	-	-0.04	0.589	0.769
	FR1 n41 HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Back	5mm	Ant 0	ECI 9	518598	2592.99	open	20.21	21.50	1.346	-	-	-0.01	0.579	0.779
	FR1 n41 HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	5mm	Ant 0	ECI 9	518598	2592.99	open	20.34	21.50	1.306	-	-	0.02	0.667	0.871
	FR1 n41 HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Left Side	5mm	Ant 0	ECI 9	518598	2592.99	open	20.21	21.50	1.346	-	-	-0.11	0.636	0.856
	FR1 n41 HPUE	100M	QPSK	270	0	DFT-SCS-30KHz	Left Side	5mm	Ant 0	ECI 9	518598	2592.99	open	20.14	21.50	1.368	-	-	0.02	0.612	0.837
	FR1 n41 HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Bottom Side	5mm	Ant 0	ECI 9	518598	2592.99	open	20.34	21.50	1.306	-	-	-0.05	0.977	1.276
	FR1 n41 HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Bottom Side	5mm	Ant 0	ECI 9	518598	2592.99	open	20.21	21.50	1.346	-	-	-0.06	0.902	1.214
	FR1 n41 HPUE	100M	QPSK	270	0	DFT-SCS-30KHz	Bottom Side	5mm	Ant 0	ECI 9	518598	2592.99	open	20.14	21.50	1.368	-	-	-0.15	0.857	1.172
	FR1 n41 HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Front	5mm	Ant 1	ECI 9	518598	2592.99	open	18.82	20.30	1.406	-	-	-0.05	0.680	0.956
	FR1 n41 HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Front	5mm	Ant 1	ECI 9	518598	2592.99	open	18.77	20.30	1.422	-	-	-0.03	0.753	1.071
	FR1 n41 HPUE	100M	QPSK	270	0	DFT-SCS-30KHz	Front	5mm	Ant 1	ECI 9	518598	2592.99	open	18.62	20.30	1.472	-	-	0.17	0.613	0.903
	FR1 n41 HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Back	5mm	Ant 1	ECI 9	518598	2592.99	open	18.82	20.30	1.406	-	-	-0.14	0.583	0.820
	FR1 n41 HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Back	5mm	Ant 1	ECI 9	518598	2592.99	open	18.77	20.30	1.422	-	-	0.06	0.612	0.870
	FR1 n41 HPUE	100M	QPSK	270	0	DFT-SCS-30KHz	Back	5mm	Ant 1	ECI 9	518598	2592.99	open	18.62	20.30	1.472	-	-	-0.06	0.502	0.739
	FR1 n41 HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Right Side	5mm	Ant 1	ECI 9	518598	2592.99	open	18.82	20.30	1.406	-	-	-0.15	0.840	1.181
58	FR1 n41 HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Right Side	5mm	Ant 1	ECI 9	518598	2592.99	open	18.77	20.30	1.422	-	-	0.06	0.911	1.296
	FR1 n41C HPUE	100M	QPSK	180	93	DFT-SCS-30KHz	Right Side	5mm	Ant 1	ECI 9	514602+ 528546	2573.01+ 2642.73	open	18.57	20.30	1.489	-	-	0.01	0.801	1.193
	FR1 n41 HPUE	100M	QPSK	270	0	DFT-SCS-30KHz	Right Side	5mm	Ant 1	ECI 9	518598	2592.99	open	18.62	20.30	1.472	-	-	-0.12	0.743	1.094
	FR1 n41 HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Bottom Side	5mm	Ant 1	ECI 9	518598	2592.99	open	18.82	20.30	1.406	-	-	-0.16	0.425	0.598
	FR1 n41 HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Bottom Side	5mm	Ant 1	ECI 9	518598	2592.99	open	18.77	20.30	1.422	-	-	-0.03	0.334	0.475
3500-3900MHz																					
	LTE Band 48	20M	QPSK	1	0	-	Front	5mm	Ant 4	ECI 9	55830	3609	open	12.60	13.70	1.288	62.9	1.006	0.06	0.196	0.254
	LTE Band 48	20M	QPSK	50	0	-	Front	5mm	Ant 4	ECI 9	55830	3609	open	12.57	13.70	1.297	62.9	1.006	0.1	0.159	0.207
	LTE Band 48	20M	QPSK	1	0	-	Back	5mm	Ant 4	ECI 9	55830	3609	open	12.60	13.70	1.288	62.9	1.006	-0.07	0.167	0.216
	LTE Band 48	20M	QPSK	50	0	-	Back	5mm	Ant 4	ECI 9	55830	3609	open	12.57	13.70	1.297	62.9	1.006	0.1	0.136	0.177



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	LTE Band 48	20M	QPSK	1	0	-	Left Side	5mm	Ant 4	ECI 9	55830	3609	open	12.60	13.70	1.288	62.9	1.006	0.07	0.480	0.622
	LTE Band 48	20M	QPSK	1	0	-	Left Side	5mm	Ant 4	ECI 9	55340	3560	open	12.58	13.70	1.294	62.9	1.006	0.09	0.482	0.628
	LTE Band 48	20M	QPSK	1	0	-	Left Side	5mm	Ant 4	ECI 9	56150	3641	open	12.55	13.70	1.303	62.9	1.006	0.15	0.460	0.603
	LTE Band 48	20M	QPSK	1	0	-	Left Side	5mm	Ant 4	ECI 9	56640	3690	open	12.54	13.70	1.306	62.9	1.006	0.14	0.461	0.606
	LTE Band 48	20M	QPSK	50	0	-	Left Side	5mm	Ant 4	ECI 9	55830	3609	open	12.57	13.70	1.297	62.9	1.006	-0.03	0.396	0.517
	LTE Band 48	20M	QPSK	100	0	-	Left Side	5mm	Ant 4	ECI 9	55830	3609	open	12.52	13.70	1.312	62.9	1.006	0.07	0.397	0.524
	LTE Band 48	20M	QPSK	1	0	-	Top Side	5mm	Ant 4	ECI 9	55830	3609	open	12.60	13.70	1.288	62.9	1.006	-0.04	0.106	0.137
	LTE Band 48	20M	QPSK	50	0	-	Top Side	5mm	Ant 4	ECI 9	55830	3609	open	12.57	13.70	1.297	62.9	1.006	0.03	0.088	0.115
	LTE Band 48	20M	QPSK	1	99	-	Left Side	5mm	Ant 4	ECI 9	55340+55538	3560+3579.8	open	12.32	13.70	1.374	62.9	1.006	0.09	0.413	0.571
	LTE Band 48	20M	QPSK	1	0	-	Front	5mm	Ant 6	ECI 9	55830	3609	open	12.52	13.70	1.312	62.9	1.006	0.15	0.201	0.265
	LTE Band 48	20M	QPSK	50	0	-	Front	5mm	Ant 6	ECI 9	55830	3609	open	12.50	13.70	1.318	62.9	1.006	-0.19	0.172	0.228
	LTE Band 48	20M	QPSK	1	0	-	Back	5mm	Ant 6	ECI 9	55830	3609	open	12.52	13.70	1.312	62.9	1.006	0.14	0.209	0.276
	LTE Band 48	20M	QPSK	50	0	-	Back	5mm	Ant 6	ECI 9	55830	3609	open	12.50	13.70	1.318	62.9	1.006	-0.09	0.174	0.231
	LTE Band 48	20M	QPSK	1	0	-	Right Side	5mm	Ant 6	ECI 9	55830	3609	open	12.52	13.70	1.312	62.9	1.006	-0.06	0.041	0.054
	LTE Band 48	20M	QPSK	50	0	-	Right Side	5mm	Ant 6	ECI 9	55830	3609	open	12.50	13.70	1.318	62.9	1.006	-0.02	0.033	0.044
	LTE Band 48	20M	QPSK	1	0	-	Top Side	5mm	Ant 6	ECI 9	55830	3609	open	12.52	13.70	1.312	62.9	1.006	0.02	0.458	0.605
	LTE Band 48	20M	QPSK	1	0	-	Top Side	5mm	Ant 6	ECI 9	55340	3560	open	12.45	13.70	1.334	62.9	1.006	0.12	0.446	0.598
	LTE Band 48	20M	QPSK	1	0	-	Top Side	5mm	Ant 6	ECI 9	56150	3641	open	12.47	13.70	1.327	62.9	1.006	0.02	0.424	0.566
59	LTE Band 48	20M	QPSK	1	0	-	Top Side	5mm	Ant 6	ECI 9	56640	3690	open	12.49	13.70	1.321	62.9	1.006	0.06	0.477	0.634
	LTE Band 48	20M	QPSK	50	0	-	Top Side	5mm	Ant 6	ECI 9	55830	3609	open	12.50	13.70	1.318	62.9	1.006	-0.11	0.314	0.416
	LTE Band 48	20M	QPSK	100	0	-	Top Side	5mm	Ant 6	ECI 9	55830	3609	open	12.46	13.70	1.330	62.9	1.006	-0.06	0.312	0.418
	LTE Band 48C	20M	QPSK	1	0	-	Top Side	5mm	Ant 6	ECI 9	56640+56442	3690+3670.2	open	12.33	13.70	1.371	62.9	1.006	0.06	0.421	0.581
	LTE Band 48	20M	QPSK	1	0	-	Front	5mm	Ant 3	ECI 9	55830	3609	open	15.25	16.40	1.303	62.9	1.006	0.04	0.189	0.248
	LTE Band 48	20M	QPSK	50	0	-	Front	5mm	Ant 3	ECI 9	55830	3609	open	15.24	16.40	1.306	62.9	1.006	0.03	0.154	0.202
	LTE Band 48	20M	QPSK	1	0	-	Back	5mm	Ant 3	ECI 9	55830	3609	open	15.25	16.40	1.303	62.9	1.006	-0.1	0.188	0.246
	LTE Band 48	20M	QPSK	50	0	-	Back	5mm	Ant 3	ECI 9	55830	3609	open	15.24	16.40	1.306	62.9	1.006	0.07	0.153	0.201
	LTE Band 48	20M	QPSK	1	0	-	Left Side	5mm	Ant 3	ECI 9	55830	3609	open	15.25	16.40	1.303	62.9	1.006	-0.11	0.037	0.049
	LTE Band 48	20M	QPSK	50	0	-	Left Side	5mm	Ant 3	ECI 9	55830	3609	open	15.24	16.40	1.306	62.9	1.006	0.04	0.030	0.039
	LTE Band 48	20M	QPSK	1	0	-	Top Side	5mm	Ant 3	ECI 9	55830	3609	open	15.25	16.40	1.303	62.9	1.006	0.16	0.462	0.606
	LTE Band 48	20M	QPSK	1	0	-	Top Side	5mm	Ant 3	ECI 9	55340	3560	open	15.22	16.40	1.312	62.9	1.006	0.03	0.471	0.622
	LTE Band 48	20M	QPSK	1	0	-	Top Side	5mm	Ant 3	ECI 9	56150	3641	open	15.20	16.40	1.318	62.9	1.006	0.17	0.456	0.605
	LTE Band 48	20M	QPSK	1	0	-	Top Side	5mm	Ant 3	ECI 9	56640	3690	open	15.23	16.40	1.309	62.9	1.006	0.06	0.439	0.578
	LTE Band 48	20M	QPSK	50	0	-	Top Side	5mm	Ant 3	ECI 9	55830	3609	open	15.24	16.40	1.306	62.9	1.006	-0.18	0.317	0.417
	LTE Band 48	20M	QPSK	100	0	-	Top Side	5mm	Ant 3	ECI 9	55830	3609	open	15.21	16.40	1.315	62.9	1.006	0.17	0.320	0.423
	LTE Band 48C	20M	QPSK	1	99	-	Top Side	5mm	Ant 3	ECI 9	55340+55538	3560+3579.8	open	15.11	16.40	1.346	62.9	1.006	0.03	0.421	0.570
	LTE Band 48	20M	QPSK	1	0	-	Front	5mm	Ant 8	ECI 9	55830	3609	open	15.68	16.70	1.265	62.9	1.006	-0.08	0.307	0.391
	LTE Band 48	20M	QPSK	50	0	-	Front	5mm	Ant 8	ECI 9	55830	3609	open	15.67	16.70	1.268	62.9	1.006	0.04	0.257	0.328
	LTE Band 48	20M	QPSK	1	0	-	Back	5mm	Ant 8	ECI 9	55830	3609	open	15.68	16.70	1.265	62.9	1.006	-0.12	0.342	0.435
	LTE Band 48	20M	QPSK	50	0	-	Back	5mm	Ant 8	ECI 9	55830	3609	open	15.67	16.70	1.268	62.9	1.006	-0.02	0.238	0.304
	LTE Band 48	20M	QPSK	1	0	-	Right Side	5mm	Ant 8	ECI 9	55830	3609	open	15.68	16.70	1.265	62.9	1.006	-0.07	0.474	0.603
	LTE Band 48	20M	QPSK	1	0	-	Right Side	5mm	Ant 8	ECI 9	55340	3560	open	15.66	16.70	1.271	62.9	1.006	0.1	0.456	0.583
	LTE Band 48	20M	QPSK	1	0	-	Right Side	5mm	Ant 8	ECI 9	56150	3641	open	15.62	16.70	1.282	62.9	1.006	0.05	0.474	0.611
	LTE Band 48	20M	QPSK	1	0	-	Right Side	5mm	Ant 8	ECI 9	56640	3690	open	15.60	16.70	1.288	62.9	1.006	-0.17	0.485	0.629
	LTE Band 48	20M	QPSK	50	0	-	Right Side	5mm	Ant 8	ECI 9	55830	3609	open	15.67	16.70	1.268	62.9	1.006	0.18	0.395	0.504
	LTE Band 48	20M	QPSK	100	0	-	Right Side	5mm	Ant 8	ECI 9	55830	3609	open	15.64	16.70	1.276	62.9	1.006	-0.12	0.392	0.503
	LTE Band 48	20M	QPSK	1	0	-	Top Side	5mm	Ant 8	ECI 9	55830	3609	open	15.68	16.70	1.265	62.9	1.006	0.15	0.071	0.090
	LTE Band 48	20M	QPSK	50	0	-	Top Side	5mm	Ant 8	ECI 9	55830	3609	open	15.67	16.70	1.268	62.9	1.006	-0.07	0.058	0.074
	LTE Band 48C	20M	QPSK	1	0	-	Right Side	5mm	Ant 8	ECI 9	56640+56442	3690+3670.2	open	15.40	16.70	1.349	62.9	1.006	-0.17	0.421	0.571
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Front	5mm	Ant 4	ECI 9	641666	3624.99	open	12.99	14.50	1.416	-	-	-0.19	0.178	0.252
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Front	5mm	Ant 4	ECI 9	641666	3624.99	open	12.94	14.50	1.432	-	-	0.09	0.176	0.252
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Back	5mm	Ant 4	ECI 9	641666	3624.99	open	12.99	14.50	1.416	-	-	-0.08	0.143	0.202
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Back	5mm	Ant 4	ECI 9	641666	3624.99	open	12.94	14.50	1.432	-	-	0.08	0.130	0.186
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Left Side	5mm	Ant 4	ECI 9	641666	3624.99	open	12.99	14.50	1.416	-	-	0.12	0.389	0.551
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Left Side	5mm	Ant 4	ECI 9	641666	3624.99	open	12.94	14.50	1.432	-	-	-0.09	0.430	0.616
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Top Side	5mm	Ant 4	ECI 9	641666	3624.99	open	12.99	14.50	1.416	-	-	-0.02	0.058	0.082