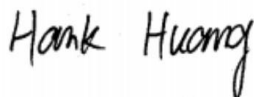


FCC SAR Test Report

APPLICANT : vivo Mobile Communication Co., Ltd.
EQUIPMENT : Mobile Phone
BRAND NAME : vivo
MODEL NAME : V2529
FCC ID : 2AUCY-V2529
STANDARD : FCC 47 CFR Part 2 (2.1093)

We, Sporton International Inc. (Shenzhen), 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. (Shenzhen), the test report shall not be reproduced except in full.



Approved by: Hank Huang

Sporton International Inc. (Shenzhen)
1/F, 2/F, Bldg 5, Shiling Industrial Zone, Xinwei Village, Xili, Nanshan, Shenzhen, 518055
People's Republic of China



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Revision History

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FA562603	Rev. 01	Initial issue of report.	Aug. 27, 2025

1. Statement of Compliance

The maximum results of Specific Absorption Rate (SAR) found during testing for **vivo Mobile Communication Co., Ltd., Mobile Phone, V2529**, are as follows.

Highest 1g SAR Summary						
Equipment Class	Frequency Band		Head (Separation 0mm)	Hotspot (Separation 10mm)	Body-worn (Separation 15mm)	Highest Simultaneous Transmission
			1g SAR (W/kg)			1g SAR (W/kg)
Licensed	GSM	GSM850	0.80	0.44	0.28	1.58
		GSM1900	0.89	0.67	0.29	
	WCDMA	WCDMA II	1.07	0.75	0.48	
		WCDMA IV	0.80	0.53	0.43	
		WCDMA V	0.76	0.37	0.25	
	LTE	LTE Band 2	0.96	0.83	0.48	
		LTE Band 7	0.83	0.48	0.60	
		LTE Band 12/17	0.69	0.32	0.24	
		LTE Band 13	0.69	0.30	0.24	
		LTE Band 26/5	0.69	0.40	0.30	
		LTE Band 66/4	0.86	0.65	0.38	
		LTE Band 41/38	0.82	0.61	0.55	
		LTE Band 42	0.98	0.61	0.48	
	5G NR	FR1 n2	1.02	0.62	0.49	
		FR1 n7	0.69	0.43	0.75	
		FR1 n26/n5	0.34	0.37	0.29	
		FR1 n66	0.93	0.45	0.50	
		FR1 n41/n38	0.95	0.80	1.07	
		FR1 n77	0.87	0.70	0.84	
		FR1 n78	1.00	0.74	1.07	
DTS	WLAN	2.4GHz WLAN	0.62	0.21	0.13	1.58
NII		5GHz WLAN	1.11	0.63	0.34	1.50
DSS	Bluetooth	2.4GHz Bluetooth	0.20	<0.10	<0.10	1.50

Highest 10g SAR Summary				
Equipment Class	Frequency Band		Product Specific 10g SAR (W/kg) (Separation 0mm)	Highest Simultaneous Transmission 10g SAR (W/kg)
Licensed	WCDMA	WCDMA IV	2.64	3.64
	LTE	LTE Band 2	2.62	
		LTE Band 7	2.12	
		LTE Band 66/4	2.50	
		LTE Band 41/38	2.98	
		LTE Band 42	2.53	
	5G NR	FR1 n2	2.61	
		FR1 n7	2.03	
		FR1 n66	2.26	
		FR1 n41/n38	2.91	
		FR1 n77	2.73	
		FR1 n78	2.92	
NII	WLAN	WLAN5GHz	1.39	3.64
Date of Testing:			2025/7/11 ~ 2025/8/10	

Remark:

1. This device supports LTE B4 / B5 / B17 / B38 and B66 / B26 / B12 / B41. Since the supported frequency span for LTE B4 / B5 / B17 / B38 falls completely within the support's frequency span for LTE 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 B66 / B26 / B12 / B41.
2. This device supports 5GNR n5 / n38 and n26 / n41. Since the supported frequency span for 5GNR n5 / n38 falls completely within the support's frequency span for n26 / n41, both 5GNR bands have the same target power, and both 5GNR bands share the same transmission path; therefore, SAR was only assessed for n26 / n41.

Declaration of Conformity:

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

Comments and Explanations:

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

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

2. Administration Data

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

Testing Laboratory			
Test Firm	Sporton International Inc. (Shenzhen)		
Test Site Location	1/F, 2/F, Bldg 5, Shiling Industrial Zone, Xinwei Village, Xili, Nanshan, Shenzhen, 518055 People's Republic of China TEL: +86-755-86379589 FAX: +86-755-86379595		
Test Site No.	Sporton Site No.	FCC Designation No.	FCC Test Firm Registration No.
	SAR02-SZ	CN1256	421272

Applicant	
Company Name	vivo Mobile Communication Co., Ltd.
Address	No.1, vivo Road, Chang'an, Dongguan, Guangdong, China

Manufacturer	
Company Name	vivo Mobile Communication Co., Ltd.
Address	No.1, vivo Road, Chang'an, Dongguan, Guangdong, China

3. Guidance Applied

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

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

4. Equipment Under Test (EUT) Information

4.1 General Information

Product Feature & Specification	
Equipment Name	Mobile Phone
Brand Name	vivo
Model Name	V2529
FCC ID	2AUCY-V2529
IMEI Code	862902089999951/862902089999944, 862902089999811/862902089999803, 862902089999332/862902089999324
Wireless Technology and Frequency Range	GSM850: 824 MHz ~ 849 MHz GSM1900: 1850 MHz ~ 1910 MHz WCDMA Band II: 1850 MHz ~ 1910 MHz WCDMA Band IV: 1710 MHz ~ 1755 MHz WCDMA Band V: 824 MHz ~ 849 MHz LTE Band 2: 1850 MHz ~ 1910 MHz LTE Band 4: 1710 MHz ~ 1755 MHz LTE Band 5: 824 MHz ~ 849 MHz LTE Band 7: 2500 MHz ~ 2570 MHz LTE Band 12: 699 MHz ~ 716 MHz LTE Band 13: 777 MHz ~ 787 MHz LTE Band 17: 704 MHz ~ 716 MHz LTE Band 26: 814 MHz ~ 849 MHz LTE Band 38: 2570 MHz ~ 2620 MHz LTE Band 41: 2496 MHz ~ 2690 MHz LTE Band 42: 3450 MHz ~ 3550 MHz LTE Band 66: 1710 MHz ~ 1780 MHz 5G NR n2: 1850 MHz ~ 1910 MHz 5G NR n5: 824 MHz ~ 849 MHz 5G NR n7: 2500 MHz ~ 2570 MHz 5G NR n26: 814 MHz ~ 849 MHz 5G NR n38: 2570 MHz ~ 2620 MHz 5G NR n41: 2496 MHz ~ 2690 MHz 5G NR n66: 1710 MHz ~ 1780 MHz 5G NR n77: 3450 MHz ~ 3550 MHz, 3700 MHz ~ 3980 MHz 5G NR n78: 3450 MHz ~ 3550 MHz, 3700 MHz ~ 3800 MHz WLAN 2.4GHz Band: 2412 MHz ~ 2462 MHz WLAN 5.2GHz Band: 5180 MHz ~ 5240 MHz WLAN 5.3GHz Band: 5260 MHz ~ 5320 MHz WLAN 5.5GHz Band: 5500 MHz ~ 5720 MHz WLAN 5.8GHz Band: 5745 MHz ~ 5825 MHz Bluetooth: 2402 MHz ~ 2480 MHz NFC : 13.56 MHz
Mode	GSM/GPRS/EGPRS RMC/AMR 12.2Kbps HSDPA HSUPA DC-HSDPA HSPA+ (16QAM uplink is supported) LTE: QPSK, 16QAM, 64QAM, 256QAM 5G NR: DFT-s-OFDM/CP-OFDM, Pi/2 BPSK/QPSK/16QAM/64QAM/256QAM WLAN 2.4GHz 802.11b/g/n HT20/HT40 WLAN 2.4GHz 802.11VHT20/VHT40 WLAN 2.4GHz 802.11ax HE20/HE40 WLAN 5GHz 802.11a/n HT20/HT40 WLAN 5GHz 802.11ac VHT20/VHT40/VHT80 WLAN 5GHz 802.11ax HE20/HE40/HE80 Bluetooth BR/EDR/LE NFC: ASK

HW Version	MP_0.1
SW Version	PD2512GF_EX_A_15.0.4.3.W30
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	Production Unit

Remark:

1. This device supports VoIP in GPRS, EGPRS, WCDMA, LTE and 5GNR (e.g. for 3rd-party VoIP), LTE supports VoLTE operation.
2. This device 2.4GHz WLAN support hotspot operation and Bluetooth support tethering applications.
3. This device 5.2GHz WLAN/5.8GHz WLAN support hotspot operation, and 5.2GHz WLAN/5.8GHz WLAN supports WiFi Direct (GC/GO), and 5.3GHz / 5.5GHz supports WiFi Direct (GC only). WLAN 6GHz has no hotspot function.
4. This device does not support DTM operation and supports GPRS/EGPRS mode up to multi-slot class 12.
5. This device supports dual SIM dual standby. The WWAN radio transmission will be enabled by either one SIM at a time (single active).
6. The device implements the power management and proximity 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 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.
7. For WLAN when transmit simultaneous with WWAN/BT antenna, the device WLAN power reduction will be activated to head, hotspot, body-worn and extremity exposure conditions.
8. This device supports HPUE mode for 5GNR n41/n78 with higher power, so HPUE mode was chosen to perform full SAR testing and HPUE SAR can represent power class 3 level SAR.
9. This device has NFC function and the NFC SAR report will be separately submitted.
10. This device supports 5GNR FR1 bands as following table, including NSA mode and SA mode. NSA and SA mode performed SAR separately.

<5G NR>

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

4.2 General LTE SAR Test and Reporting Considerations

Summarized necessary items addressed in KDB 941225 D05 v02r05																																																																													
FCC ID	2AUCY-V2529																																																																												
Equipment Name	Mobile 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 17: 704 MHz ~ 716 MHz LTE Band 26: 814 MHz ~ 849 MHz LTE Band 38: 2570 MHz ~ 2620 MHz LTE Band 41: 2496 MHz ~ 2690 MHz LTE Band 42: 3450 MHz ~ 3550 MHz LTE Band 66: 1710 MHz ~ 1780 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 17: 5MHz, 10MHz LTE Band 26:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz LTE Band 38: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 41: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 42: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 66:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz																																																																												
uplink modulations used	QPSK / 16QAM / 64QAM / 256QAM																																																																												
LTE Voice / Data requirements	Voice and Data																																																																												
LTE Release Version	R15																																																																												
CA Support	Supported, Uplink and Downlink																																																																												
LTE MPR permanently built-in by design	<table><tr><th colspan="8">Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 1, 2 and 3</th></tr><tr><th rowspan="2">Modulation</th><th colspan="6">Channel bandwidth / Transmission bandwidth (N_{RB})</th><th rowspan="2">MPR (dB)</th></tr><tr><th>1.4 MHz</th><th>3.0 MHz</th><th>5 MHz</th><th>10 MHz</th><th>15 MHz</th><th>20 MHz</th></tr><tr><td>QPSK</td><td>> 5</td><td>> 4</td><td>> 8</td><td>> 12</td><td>> 16</td><td>> 18</td><td>≤ 1</td></tr><tr><td>16 QAM</td><td>≤ 5</td><td>≤ 4</td><td>≤ 8</td><td>≤ 12</td><td>≤ 16</td><td>≤ 18</td><td>≤ 1</td></tr><tr><td>16 QAM</td><td>> 5</td><td>> 4</td><td>> 8</td><td>> 12</td><td>> 16</td><td>> 18</td><td>≤ 2</td></tr><tr><td>64 QAM</td><td>≤ 5</td><td>≤ 4</td><td>≤ 8</td><td>≤ 12</td><td>≤ 16</td><td>≤ 18</td><td>≤ 2</td></tr><tr><td>64 QAM</td><td>> 5</td><td>> 4</td><td>> 8</td><td>> 12</td><td>> 16</td><td>> 18</td><td>≤ 3</td></tr><tr><td>256 QAM</td><td colspan="6">≥ 1</td><td>≤ 5</td></tr></table>							Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 1, 2 and 3								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
Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 1, 2 and 3																																																																													
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16 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 1																																																																						
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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 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	20525	836.5	20550	839.5
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 25 MHz		Bandwidth 30 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	20875	2512.5	20900	2515
M	21100	2535	21100	2535	21100	2535	21100	2535	21100	2535	21100	2535
H	21425	2567.5	21400	2565	21375	2562.5	21350	2560	21325	2557.5	21300	2555
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	23095	707.5	23130	711
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	23105	708.5	23080	706
LTE Band 13												
	Bandwidth 5 MHz				Bandwidth 10 MHz				Bandwidth 15 MHz			
	Channel #		Freq.(MHz)		Channel #		Freq.(MHz)		Channel #		Freq.(MHz)	
L	23205		779.5		23230		782		23255		784.5	
M	23230		782		23255		784.5		23280		787	
H	23255		784.5		23280		787		23305		789.5	
LTE Band 17												
	Bandwidth 5 MHz				Bandwidth 10 MHz				Bandwidth 15 MHz			
	Channel #		Freq.(MHz)		Channel #		Freq.(MHz)		Channel #		Freq.(MHz)	
L	23755		706.5		23780		709		23805		711.5	
M	23790		710		23790		710		23790		710	
H	23825		713.5		23800		711		23825		714.5	
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
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	839

LTE Band 38												
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz					
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)				
L	37775	2572.5	37800	2575	37825	2577.5	37850	2580				
M	38000	2595	38000	2595	38000	2595	38000	2595				
H	38225	2617.5	38200	2615	38175	2612.5	38150	2610				
LTE Band 41												
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz					
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)				
L	39675	2498.5	39700	2501	39725	2503.5	39750	2506				
LM	40148	2545.8	40160	2547	40173	2548.3	40185	2549.5				
M	40620	2593	40620	2593	40620	2593	40620	2593				
HM	41093	2640.3	41080	2639	41068	2637.8	41055	2636.5				
H	41565	2687.5	41540	2685	41515	2682.5	41490	2680				
LTE Band 66												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	131979	1710.7	131987	1711.5	131997	1712.5	132022	1715	132047	1717.5	132072	1720
M	132322	1745	132322	1745	132322	1745	132322	1745	132322	1745	132322	1745
H	132665	1779.3	132657	1778.5	132647	1777.5	132622	1775	132597	1772.5	132572	1770
LTE Band 42												
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz					
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)				
L	42115	3452.5	42140	3455	42165	3457.5	42190	3460				
M	42590	3500	42590	3500	42590	3500	42590	3500				
H	43065	3547.5	43040	3545	43015	3542.5	42990	3540				

<For LTE SA Overlap Bands Description>

1) LTE Bands BW

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

2) LTE Bands tune up:

Band	Ant	Full	EC1 2	EC1 3	EC1 4	EC1 5	EC1 8/9/10
		Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit
LTE Band 5	Ant.13	25	22.5	21.5	25	25	25
LTE Band 26	Ant.13	24.7	22.7	21.2	24.7	24.7	24.7
LTE Band 12	Ant.13	24.7	24.7	23.7	24.7	24.7	24.7
LTE Band 17	Ant.13	24.7	24.2	23.2	24.7	24.7	24.7

Band	Ant	Full	EC1 2	EC1 3	EC1 4	EC1 5	EC1 8/9/10
		Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit
LTE Band 5	Ant.31	25.3	25.3	25.3	25.3	25.3	25.3
LTE Band 26	Ant.31	25	25	25	25	25	25
LTE Band 12	Ant.31	25	25	25	25	25	25
LTE Band 17	Ant.31	25	25	25	25	25	25

Band	Ant	Full	EC1 2	EC1 3	EC1 4	EC1 5	EC1 8/9/10
		Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit
LTE Band 4	Ant.13	24.7	17.7	16.2	24.7	21.2	19.7
LTE Band 66	Ant.13	24.7	17.7	16.2	24.7	21.2	19.7
LTE Band 38	Ant.13	24.7	18.2	16.7	23.7	19.7	18.2
LTE Band 41	Ant.13	25	18.5	17	24	20	18.5

Band	Ant	Full	EC1 2	EC1 3	EC1 4	EC1 5	EC1 8/9/10
		Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit
LTE Band 4	Ant.31	24.9	24.9	24.9	22.4	22.4	21.9
LTE Band 66	Ant.31	24.9	24.9	24.9	21.9	21.9	20.9
LTE Band 38	Ant.31	24.5	24.5	23.5	23.5	23.5	23.5
LTE Band 41	Ant.31	25	25	25	23.5	23.5	23.5

Band	Ant	Full	EC1 2	EC1 3	EC1 4	EC1 5	EC1 8/9/10
		Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit
LTE Band 4	Ant.11	24.9	20.9	19.4	24.9	20.9	19.9
LTE Band 66	Ant.11	24.9	20.9	19.4	24.9	21.4	19.9
LTE Band 38	Ant.11	24.5	19	18	24.5	20.5	18.5
LTE Band 41	Ant.11	25	19.5	18.5	25	21	19

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 n26: 814 MHz ~ 849 MHz 5G NR n38: 2570 MHz ~ 2620 MHz 5G NR n41: 2496 MHz ~ 2690 MHz 5G NR n66: 1710 MHz ~ 1780 MHz 5G NR n77: 3450 MHz ~ 3550 MHz, 3700 MHz ~ 3980 MHz 5G NR n78: 3450 MHz ~ 3550 MHz, 3700 MHz ~ 3800 MHz
Channel Bandwidth	The detail please refers to section 4.1 5GNR FR1 bands table.
SCS	FDD: SCS15KHz, TDD: SCS30KHz
uplink modulations used	DFT-s-OFDM: PI/2 BPSK / QPSK / 16QAM / 64QAM / 256QAM CP-OFDM: QPSK / 16QAM / 64QAM / 256QAM
A-MPR (Additional MPR) disabled for SAR Testing?	Yes
LTE Anchor Bands for n2	LTE B4/7/66
LTE Anchor Bands for n5	LTE B7
LTE Anchor Bands for n7	LTE B2/4/5/66
LTE Anchor Bands for n26	LTE B7
LTE Anchor Bands for n66	LTE B2/5/7
LTE Anchor Bands for n38	LTE B2/4/5/66
LTE Anchor Bands for n41	LTE B2/4/26/66
LTE Anchor Bands for n77	LTE B7
LTE Anchor Bands for n78	LTE B2/4/5/7/26/38/41/66

Transmission (H, M, L) channel numbers and frequencies in each 5G NR band								
NR Band 2								
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	370500	1852.5	371000	1855	371500	1857.5	372000	1860
M	376000	1880	376000	1880	376000	1880	376000	1880
H	381500	1907.5	381000	1905	380500	1902.5	380000	1900

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

NR Band 7																
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 40MHz		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	500500	2502.5	501000	2505	501500	2507.5	502000	2510	502500	2512.5	503000	2515	504000	2520	505000	2525
M	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	510000	2550	509000	2545

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

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



	NR Band 38											
	Bandwidth10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 40MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	515004	2575.02	515502	2577.51	516000	2580	516504	2582.52	517002	2585.01	518004	2590.02
M	519000	2595	519000	2595	519000	2595	519000	2595	519000	2595	519000	2595
H	522996	2614.98	522498	2612.49	522000	2610	521496	2607.48	520998	2604.99	519996	2599.98

NR Band 41																				
Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 50MHz		Bandwidth 60MHz		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)	
L	500202	2501.01	500700	2503.5	501204	2506.02	502200	2511	503202	2516.01	504204	2521.02	505200	2526	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
H	537000	2685	536496	2682.48	535998	2679.99	534996	2674.98	534000	2670	532998	2664.99	531996	2659.98	529998	2649.99	528996	2644.98	528000	2640

NR Band 77																								
	Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 50MHz		Bandwidth 60MHz		Bandwidth 70MHz		Bandwidth 80MHz		Bandwidth 90MHz		Bandwidth 100MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	647000	3705	647168	3707.52	647334	3710.01	647500	3712.5	647668	3715.02	648000	3720	648334	3725.01	648668	3730.02	649000	3735	649334	3740.01	649668	3745.02	650000	3750
M	656000	3840	656000	3840	656000	3840	656000	3840.00	656000	3840.00	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840
H	665000	3975	664834	3972.51	664668	3970.02	664500	3967.50	664334	3965.01	664000	3960	663668	3955.02	663334	3950.01	663000	3945	662668	3940.02	662334	3935.01	662000	3930

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

For <3450 MHz ~ 3550 MHz >

NR Band 77																								
	Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 50MHz		Bandwidth 60MHz		Bandwidth 70MHz		Bandwidth 80MHz		Bandwidth 90MHz		Bandwidth 100MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	630334	3455.01	630500	3457.5	630668	3460.02	630834	3462.51	631000	3465	631334	3470.01	631668	3475.02	632000	3480	632334	3485.01	632668	3490.02	633000	3495		
M	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98
H	636332	3544.98	636166	3542.49	636000	3540	635832	3537.48	635666	3534.99	635332	3529.98	635000	3525	634666	3519.99	634332	3514.98	634000	3510	633666	3504.99		

NR Band 78																								
	Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 50MHz		Bandwidth 60MHz		Bandwidth 70MHz		Bandwidth 80MHz		Bandwidth 90MHz		Bandwidth 100MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	630334	3455.01	630500	3457.5	630668	3460.02	630834	3462.51	631000	3465	631334	3470.01	631668	3475.02	632000	3480	632334	3485.01	632668	3490.02	633000	3495		
M	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98
H	636332	3544.98	636166	3542.49	636000	3540	635832	3537.48	635666	3534.99	635332	3529.98	635000	3525	634666	3519.99	634332	3514.98	634000	3510	633666	3504.99		

<For NR SA Overlap Bands Description>

1) NR Bands BW

Mode	Band	Duplex	SCS(KHz)	Bandwidths(BW)
FR1	n5	FDD	15	5, 10, 15, 20
	n26	FDD	15	5, 10, 15, 20
	n38	TDD	30	10, 15, 20, 25, 30, 40
	n41	TDD	30	10, 15, 20, 30, 40, 50, 60, 80, 90, 100

2) NR Bands Tune up:

Band	Ant	Full	EC1 2	EC1 3	EC1 4	EC1 5	EC1 8/9/10
		Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit
FR1 n5	Ant.13	25	21.5	20.5	25	25	25
FR1 n26	Ant.13	24.7	23.2	21.7	24.7	24.7	24.7

Band	Ant	Full	EC1 2	EC1 3	EC1 4	EC1 5	EC1 8/9/10
		Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit
FR1 n5	Ant.31	25.3	25.3	25.3	25.3	25.3	25.3
FR1 n26	Ant.31	25	25	25	25	25	25

Band	Ant	Full	EC1 2	EC1 3	EC1 4	EC1 5	EC1 8/9/10
		Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit
FR1 n38	Ant.13	24.7	15.7	14.7	21.7	17.2	15.2
FR1 n41	Ant.13	26.4	16.9	15.9	23.4	18.9	17.4

Band	Ant	Full	EC1 2	EC1 3	EC1 4	EC1 5	EC1 8/9/10
		Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit
FR1 n38	Ant.31	24.5	24.5	21.5	21.5	21.5	21.5
FR1 n41	Ant.31	26.5	26.5	23.5	23.5	23.5	23.5

Band	Ant	Full	EC1 2	EC1 3	EC1 4	EC1 5	EC1 8/9/10
		Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit
FR1 n38	Ant.11	24.5	17.5	15	24.5	19.5	17.5
FR1 n41	Ant.11	26.5	19.5	17	26.5	21	19

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

5. TA-SAR feature for RF Exposure compliance

WWAN and WLAN bands are all enabled with MediaTek TA-SAR Gen2 feature to improve antenna performance by applying separate SAR budgets to each predefined antenna group. 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 BT operations are not enabled with TA-SAR Gen2 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 and WLAN transmitter to ensure the product in compliance with FCC RF exposure limit over a defined time window, for SAR (transmit frequency $\leq 6\text{GHz}$). 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 Gen2 algorithm. SAR char will be entered via the MediaTek's NV suggestion to enable the TA-SAR Gen2 Feature.

<Terminologies in this report>

P_{limit}	The time-averaged RF power which corresponds to SAR _{design_target} .
P_{max}	Maximum target power level
SAR_{design_target}:	The design target for SAR compliance. It should be less than regulatory SAR limit to account for all device design related uncertainty.
SAR char	P _{limit} for all the technologies/bands for all applicable 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 Gen2 algorithm to control and manage RF exposure for $f < 6\text{GHz}$.

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

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

SPLSR_Group (Antenna Group):

Antenna Group 0 (AG0)	ANT13 & ANT11 & ANT12 & ANT21 & ANT23
Antenna Group 1 (AG1)	ANT31



The TA-SAR Gen2 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	ECI 2	ECI 3	ECI 4	ECI 5	ECI 8	ECI 9	ECI 10	Total Uncertainty dB (k=2)	Pmax*
GSM850 1 Tx slots	Ant 13	23.2	21.0	-	-	-	-	-	0.7	23.5
GSM850 2 Tx slots	Ant 13	-	-	31.0	24.5	24.5	24.5	24.5	0.7	24.5
GSM850	Ant 31	30.6	30.6	30.5	24.5	24.5	24.5	24.5	0.7	24.5
GSM1900 GPRS 2 Tx slots	Ant 13	-	-	27.9	19.5	19.0	19.0	19.0	0.7	22.0
GSM1900 EDGE 2 Tx slots	Ant 13	18.2	16.0	-	-	-	-	-	0.7	18.5
GSM1900**	Ant 31	31.8	31.8	20.5	20.5	20.5	20.5	20.5	0.7	22.0
WCDMA II	Ant 13	17.5	16.0	27.2	19.5	18.0	18.0	18.0	0.7	23.5
WCDMA II	Ant 31	31.5	31.5	20.5	20.5	19.5	19.5	19.5	0.7	23.5
WCDMA IV	Ant 13	17.0	15.0	28.2	21.0	19.0	19.0	19.0	0.7	24.0
WCDMA IV	Ant 31	35.6	35.6	21.5	21.5	21.0	21.0	21.0	0.7	24.0
WCDMA V	Ant 13	21.5	20.5	31.7	24.0	24.0	28.8	28.8	0.7	24.0
WCDMA V	Ant 31	30.4	30.4	30.6	24.0	24.0	29.2	29.2	0.7	24.0
LTE Band 2	Ant 13	17.5	16.0	27.8	19.5	18.0	18.0	18.0	0.7	24.0
LTE Band 2	Ant 31	31.5	31.5	20.0	20.0	19.0	19.0	19.0	1.0	23.5
LTE Band 2	Ant 11	28.6	22.6	38.5	20.6	18.1	18.1	18.1	1.0	23.6
LTE Band 4	Ant 13	17.0	15.5	28.8	20.5	19.0	19.0	19.0	0.7	24.0
LTE Band 4	Ant 31	35.0	35.0	21.4	21.4	20.9	20.9	20.9	1.0	23.9
LTE Band 4	Ant 11	19.9	18.4	31.0	19.9	18.9	18.9	18.9	1.0	23.9
LTE Band 66	Ant 13	17.0	15.5	28.8	20.5	19.0	19.0	19.0	0.7	24.0
LTE Band 66	Ant 31	35.0	35.0	20.9	20.9	19.9	19.9	19.9	1.0	23.9
LTE Band 66	Ant 11	19.9	18.4	31.0	20.4	18.9	18.9	18.9	1.0	23.9
LTE Band 5	Ant 13	21.8	20.8	31.8	24.3	24.3	28.9	28.9	0.7	24.3
LTE Band 5	Ant 31	29.9	29.9	30.1	24.3	24.3	29.1	29.1	1.0	24.3
LTE Band 26	Ant 13	22.0	20.5	32.0	24.0	24.0	29.3	29.3	0.7	24.0
LTE Band 26	Ant 31	30.3	30.3	29.8	24.0	24.0	29.7	29.7	1.0	24.0
LTE Band 7	Ant 13	16.0	14.5	22.0	18.5	16.0	16.0	16.0	0.7	23.5
LTE Band 7	Ant 31	27.5	27.5	20.4	20.4	20.4	20.4	20.4	1.0	23.4
LTE Band 7	Ant 11	17.4	15.9	28.3	19.4	17.9	17.9	17.9	1.0	23.4
LTE Band 12	Ant 13	26.2	23.0	31.8	24.0	24.0	31.7	31.7	0.7	24.0
LTE Band 12	Ant 31	32.3	32.3	30.7	24.0	24.0	29.6	29.6	1.0	24.0
LTE Band 17	Ant 13	23.5	22.5	31.8	24.0	24.0	31.7	31.7	0.7	24.0
LTE Band 17	Ant 31	32.3	32.3	30.7	24.0	24.0	29.6	29.6	1.0	24.0
LTE Band 13	Ant 13	26.1	23.0	32.1	24.0	24.0	31.1	31.1	0.7	24.0
LTE Band 13	Ant 31	32.6	32.6	30.7	24.0	24.0	29.7	29.7	1.0	24.0
LTE Band 38	Ant 13	15.5	14.0	21.0	17.0	15.5	15.5	15.5	0.7	22.0
LTE Band 38	Ant 31	27.3	27.3	20.5	20.5	20.5	20.5	20.5	1.0	21.5
LTE Band 38	Ant 11	16.0	15.0	27.6	17.5	15.5	15.5	15.5	1.0	21.5
LTE Band 41	Ant 13	15.8	14.3	21.3	17.3	15.8	15.8	15.8	0.7	22.3
LTE Band 41	Ant 31	27.3	27.3	20.5	20.5	20.5	20.5	20.5	1.0	22.0
LTE Band 41	Ant 11	16.5	15.5	27.6	18.0	16.0	16.0	16.0	1.0	22.0
LTE Band 42	Ant 11	16.5	15.5	24.6	17.0	15.0	15.0	15.0	0.7	21.0
LTE Band 42	Ant 12	17.5	16.0	27.2	18.5	16.5	16.5	16.5	1.0	21.0
LTE Band 42	Ant 21	15.0	14.0	22.2	18.0	17.0	17.0	17.0	1.0	18.0
LTE Band 42	Ant 23	16.5	14.0	23.5	18.0	18.0	21.0	21.0	1.0	18.0
FR1 n2	Ant 13	17.5	16.5	27.1	19.0	17.5	17.5	17.5	0.7	23.5
FR1 n2	Ant 31	31.6	31.6	20.0	20.0	18.5	18.5	18.5	1.0	23.0
FR1 n2	Ant 11	29.0	22.2	35.9	22.2	21.2	21.2	21.2	1.0	23.2

FR1 n5	Ant 13	20.8	19.8	31.9	24.3	24.3	29.6	29.6	0.7	24.3
FR1 n5	Ant 31	30.4	30.4	30.3	24.3	24.3	29.1	29.1	1.0	24.3
FR1 n26	Ant 13	22.5	21.0	34.9	24.0	24.0	33.0	33.0	0.7	24.0
FR1 n26	Ant 31	30.6	30.6	29.9	24.0	24.0	29.2	29.2	1.0	24.0
FR1 n7	Ant 13	15.5	14.5	21.5	17.0	15.5	15.5	15.5	0.7	23.5
FR1 n7	Ant 31	26.7	26.7	20.4	20.4	19.4	19.4	19.4	1.0	23.4
FR1 n7	Ant 11	17.4	15.9	28.4	18.9	17.4	17.4	17.4	1.0	23.4
FR1 n66	Ant 13	17.0	15.5	27.6	20.0	18.0	18.0	18.0	0.7	24.0
FR1 n66	Ant 31	34.5	34.5	20.4	20.4	19.4	19.4	19.4	1.0	23.9
FR1 n66	Ant 11	19.4	17.9	31.1	19.9	17.4	17.4	17.4	1.0	23.9
FR1 n38	Ant 13	15.0	14.0	21.0	16.5	14.5	14.5	14.5	0.7	24.0
FR1 n38	Ant 31	25.8	20.5	20.5	20.5	20.5	20.5	20.5	1.0	23.5
FR1 n38	Ant 11	16.5	14.0	25.5	18.5	16.5	16.5	16.5	1.0	23.5
FR1 n41_PC3	Ant 13	16.0	15.0	22.5	18.0	16.5	16.5	16.5	0.9	22.6
FR1 n41_PC2	Ant 13								0.9	25.5
FR1 n41_PC3	Ant 31	25.8	22.0	22.0	22.0	22.0	22.0	22.0	1.5	22.4
FR1 n41_PC2	Ant 31								1.5	25.0
FR1 n41_PC3	Ant 11	18.0	15.5	25.5	19.5	17.5	17.5	17.5	1.5	22.6
FR1 n41_PC2	Ant 11								1.5	25.0
FR1 n77	Ant 11	16.5	15.0	24.8	18.5	16.5	16.5	16.5	0.7	23.5
FR1 n77	Ant 12	17.2	15.2	26.9	18.7	16.7	16.7	16.7	1.0	23.2
FR1 n77	Ant 21	14.2	13.2	18.7	18.7	16.2	16.2	16.2	1.0	20.2
FR1 n77	Ant 23	15.2	13.2	19.2	19.2	17.7	17.7	17.7	1.0	20.2
FR1 n78_PC3	Ant 11	17.5	15.0	24.0	18.5	15.5	15.5	15.5	0.9	24.0
FR1 n78_PC2	Ant 11								0.9	26.0
FR1 n78_PC3	Ant 12	17.2	15.2	26.4	19.2	17.2	17.2	17.2	1.5	24.0
FR1 n78_PC2	Ant 12								1.5	25.7
FR1 n78_PC3	Ant 21	14.7	13.2	19.2	19.2	17.2	17.2	17.2	1.5	21.5
FR1 n78_PC2	Ant 21								1.5	22.2
FR1 n78_PC3	Ant 23	16.0	13.0	20.0	20.0	18.0	18.0	18.0	1.5	21.5
FR1 n78_PC2	Ant 23								1.5	22.5

Band	Antenna	Head_ Standalone	Head_ Simultaneous	Body worn_ Standalone	Body worn_ Simultaneous	Hotspot_ Standalone	Hotspot_ Simultaneous	Extremity_ Standalone	Extremity_ Simultaneous	Pmax*	Total Uncertainty dB (k=2)
WLAN 2.4G	Ant 22	17.6	13.5	24.6	15.0	22.4	15.0	15.0	15.0	15.0	2.0
WLAN 5.2G	Ant 22	15.5	13.5	22.8	16.5	20.3	16.5	17.0	17.0	17.0	2.0
WLAN 5.3G	Ant 22	15.5	14.5	22.8	16.0			21.5	16.0	16.0	2.0
WLAN 5.5G	Ant 22	14.5	11.5	15.0	12.5			15.0	12.5	17.0	2.0
WLAN 5.8G	Ant 22	14.5	13.0	15.5	14.0	15.5	14.0	18.0	18.0	18.0	2.0

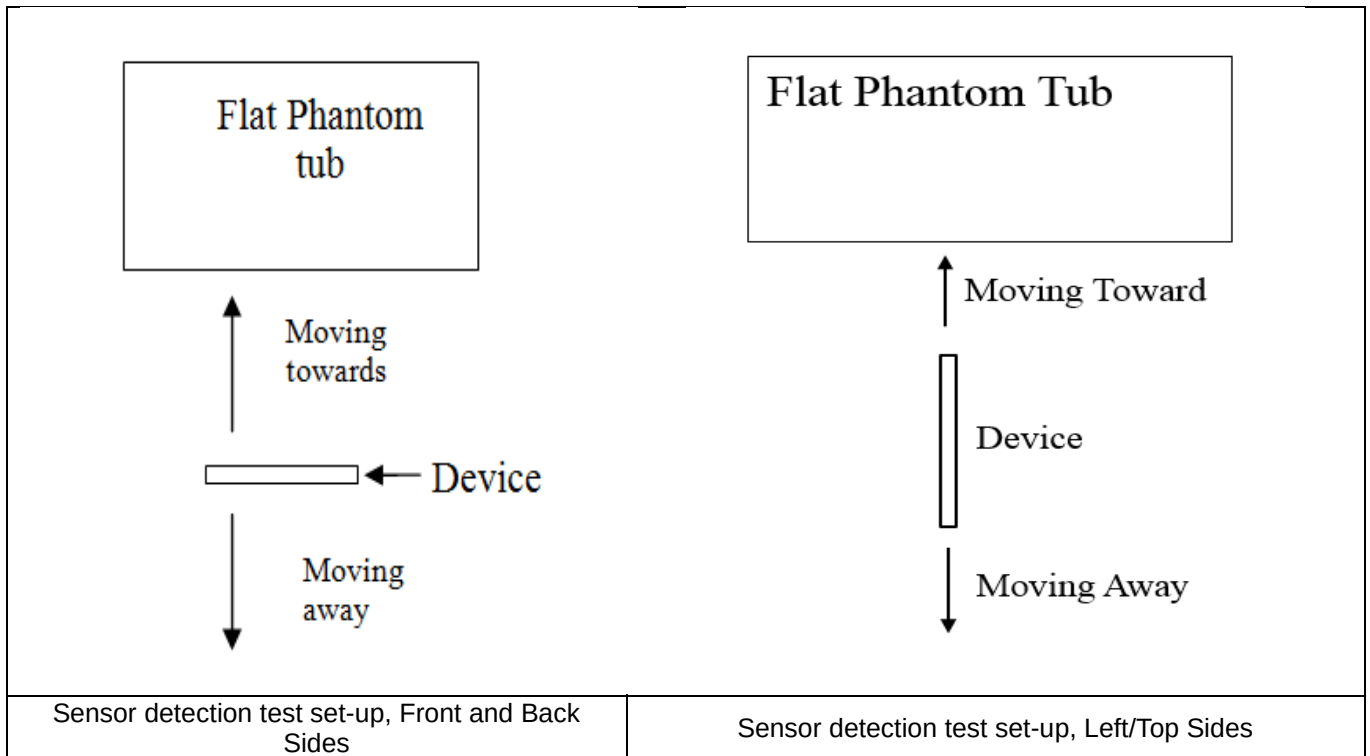
Note:

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

6. Proximity Sensor Triggering Test

<Proximity Sensor Triggering Distance>:

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



<Sensor A for ANT 13>

Proximity Sensor Triggering Distance (mm)						
Position	Front		Back		Top Side	
	Moving towards	Moving away	Moving towards	Moving away	Moving towards	Moving away
Minimum	8	8	13	13	15	15

<Sensor B for ANT11/12>

Proximity Sensor Triggering Distance (mm)						
Position	Front		Back		Left Side	
	Moving towards	Moving away	Moving towards	Moving away	Moving towards	Moving away
Minimum	8	8	14	14	16	16

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:

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

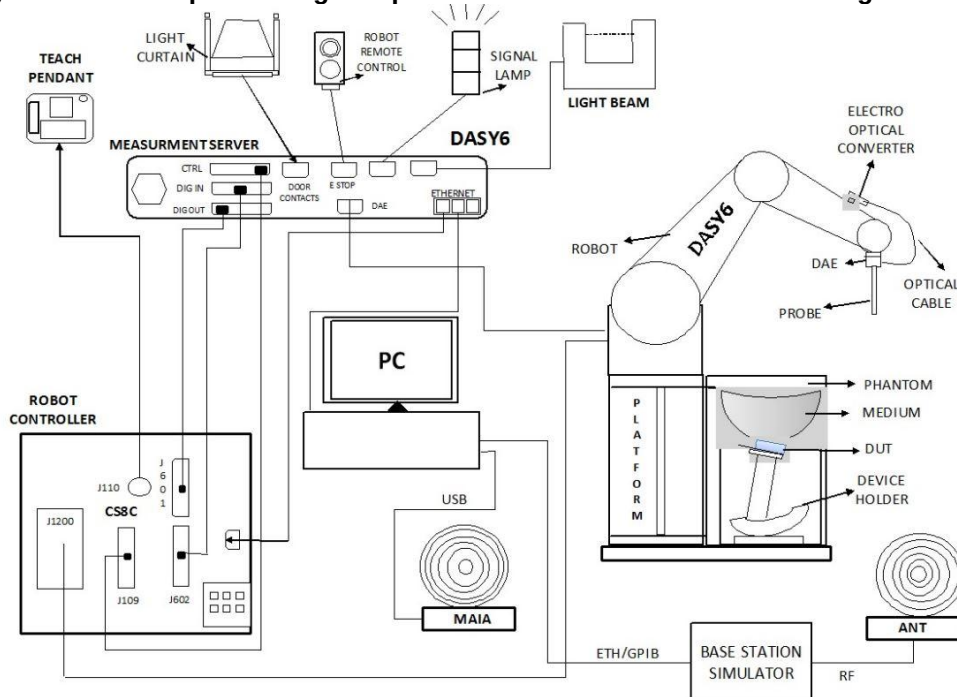
SAR is expressed in units of Watts per kilogram (W/kg)

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

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 Win7 or Win10 and the DASY5 or DASY6 software.
- Remote control and teach pendant as well as additional circuitry for robot safety such as warning lamps, etc.
- The phantom, the device holder and other accessories according to the targeted measurement.

9.1 E-Field Probe

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

<EX3DV4 Probe>

Construction	Symmetric design with triangular core Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., DGBE)	
Frequency	4 MHz – 10 GHz Linearity: ± 0.2 dB (30 MHz – 10 GHz)	
Directivity	± 0.3 dB in TSL (rotation around probe axis) ± 0.5 dB in TSL (rotation normal to probe axis)	
Dynamic Range	10 μ W/g – >100 mW/g Linearity: ± 0.2 dB (noise: typically <1 μ W/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 dB) 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: $\Delta x_{\text{Area}}, \Delta y_{\text{Area}}$	≤ 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: $\Delta x_{\text{Zoom}}, \Delta y_{\text{Zoom}}$			≤ 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: $\Delta z_{\text{Zoom}}(n)$		≤ 5 mm	3 – 4 GHz: ≤ 4 mm 4 – 5 GHz: ≤ 3 mm 5 – 6 GHz: ≤ 2 mm
	graded grid	$\Delta z_{\text{Zoom}}(1)$: 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
		$\Delta z_{\text{Zoom}}(n>1)$: between subsequent points	$\leq 1.5 \cdot \Delta z_{\text{Zoom}}(n-1)$	
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	1099	Dec. 13, 2024	Dec. 12, 2025
SPEAG	835MHz System Validation Kit	D835V2	4d162	Dec. 13, 2024	Dec. 12, 2025
SPEAG	1750MHz System Validation Kit	D1750V2	1137	Oct. 15, 2024	Oct. 14, 2025
SPEAG	1900MHz System Validation Kit	D1900V2	5d182	Dec. 16, 2024	Dec. 15, 2025
SPEAG	2450MHz System Validation Kit	D2450V2	924	Nov. 03, 2023	Nov. 01, 2025
SPEAG	2600MHz System Validation Kit	D2600V2	1070	Dec. 13, 2024	Dec. 12, 2025
SPEAG	3500MHz System Validation Kit	D3500V2	1037	Nov. 20, 2023	Nov. 18, 2025
SPEAG	3700MHz System Validation Kit	D3700V2	1008	Nov. 20, 2023	Nov. 18, 2025
SPEAG	3900MHz System Validation Kit	D3900V2	1022	Aug. 18, 2022	Aug. 17, 2025
SPEAG	5000MHz System Validation Kit	D5GHzV2	1341	Dec. 12, 2024	Dec. 11, 2025
SPEAG	Data Acquisition Electronics	DAE4	1386	Aug. 30, 2024	Aug. 29, 2025
SPEAG	Dosimetric E-Field Probe	EX3DV4	3819	Aug. 22, 2024	Aug. 21, 2025
SPEAG	SAM Twin Phantom	QD 000 P40 CD	1670	NCR	NCR
SPEAG	Phone Positioner	N/A	N/A	NCR	NCR
Anritsu	Radio communication analyzer	MT8820C	6201341952	Dec. 26, 2024	Dec. 25, 2025
Anritsu	Radio communication analyzer	MT8820C	6201563813	Dec. 26, 2024	Dec. 25, 2025
Anritsu	Radio communication analyzer	MT8821C	6262314715	Jul. 03, 2025	Jul. 02, 2026
Anritsu	Radio communication analyzer	MT8821C	6272278319	Jul. 03, 2025	Jul. 02, 2026
Keysight	Network Analyzer	E5071C	MY46523671	Oct. 15, 2024	Oct. 14, 2025
Speag	Dielectric Assessment KIT	DAK-3.5	1144	Aug. 20, 2024	Aug. 19, 2025
Agilent	Signal Generator	N5181A	MY50145381	Dec. 26, 2024	Dec. 25, 2025
Anritsu	Power Sensor	MA2411B	1306099	Oct. 15, 2024	Oct. 14, 2025
Anritsu	Power Meter	ML2495A	1349001	Oct. 15, 2024	Oct. 14, 2025
Anritsu	Power Sensor	MA2411B	1218010	Oct. 14, 2024	Oct. 13, 2025
Anritsu	Power Meter	ML2495A	1339473	Dec. 26, 2024	Dec. 25, 2025
R&S	CBT BLUETOOTH TESTER	CBT	100963	Dec. 26, 2024	Dec. 25, 2025
R&S	Spectrum Analyzer	FSP7	100818	Jul. 03, 2025	Jul. 02, 2026
TES	Hygrometer	1310	200505600	Jul. 05, 2025	Jul. 04, 2026
Anymetre	Thermo-Hygrometer	JR593	2015030903	Dec. 28, 2024	Dec. 27, 2025
AR	Amplifier	5S1G4	0333096	Note 1	
Mini-Circuits	Amplifier	ZVE-3W-83+	599201528	Note 1	
Mini-Circuits	Amplifier	ZVA-183W-S+	726202215	Note 1	
SPEAG	Device Holder	N/A	N/A	Note 1	
ARRA	Power Divider	A3200-2	N/A	Note 1	
ET Industries	Dual Directional Coupler	C-058-10	N/A	Note 1	
Jinkexinhua	Attenuator	10db-8G	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.

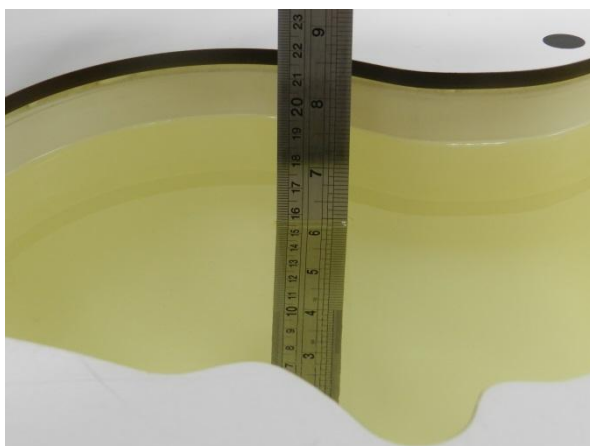


Fig 11.1 Photo of Liquid Height for Head SAR



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
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	22.4	0.881	43.800	0.89	41.90	-1.01	4.53	±5	2025/7/11
750	Head	22.3	0.883	43.900	0.89	41.90	-0.79	4.77	±5	2025/7/26
835	Head	22.1	0.911	43.500	0.90	41.50	1.22	4.82	±5	2025/7/11
835	Head	22.7	0.919	43.400	0.90	41.50	2.11	4.58	±5	2025/8/3
1750	Head	22.5	1.310	41.500	1.37	40.10	-4.38	3.49	±5	2025/7/12
1750	Head	22.4	1.350	41.700	1.37	40.10	-1.46	3.99	±5	2025/8/2
1900	Head	22.5	1.450	41.300	1.40	40.00	3.57	3.25	±5	2025/7/12
1900	Head	22.3	1.420	41.100	1.40	40.00	1.43	2.75	±5	2025/7/25
2450	Head	22.5	1.830	40.600	1.80	39.20	1.67	3.57	±5	2025/7/19
2450	Head	22.6	1.810	40.400	1.80	39.20	0.56	3.06	±5	2025/8/4
2600	Head	22.3	1.970	40.700	1.96	39.00	0.51	4.36	±5	2025/7/17
2600	Head	22.4	1.940	40.500	1.96	39.00	-1.02	3.85	±5	2025/7/30
3500	Head	22.7	2.790	39.100	2.91	37.90	-4.12	3.17	±5	2025/7/13
3500	Head	22.5	2.830	38.900	2.91	37.90	-2.75	2.64	±5	2025/8/6
3700	Head	22.2	3.130	38.600	3.12	37.70	0.32	2.39	±5	2025/7/14
3700	Head	22.7	3.150	39.000	3.12	37.70	0.96	3.45	±5	2025/7/24
3900	Head	22.3	3.260	38.300	3.33	37.51	-2.10	2.11	±5	2025/7/14
3900	Head	22.5	3.230	38.500	3.33	37.51	-3.00	2.64	±5	2025/8/6
5250	Head	22.2	4.550	36.500	4.71	35.95	-3.40	1.53	±5	2025/7/18
5250	Head	22.1	4.620	36.300	4.71	35.95	-1.91	0.97	±5	2025/8/7
5600	Head	22.3	5.050	35.300	5.07	35.50	-0.39	-0.56	±5	2025/7/20
5600	Head	22.5	5.010	35.600	5.07	35.50	-1.18	0.28	±5	2025/7/28
5800	Head	22.3	5.190	35.100	5.27	35.30	-1.52	-0.57	±5	2025/7/21
5800	Head	22.7	5.150	35.400	5.27	35.30	-2.28	0.28	±5	2025/8/10

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.

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 (%)	Measured 10g SAR (W/kg)	Targeted 10g SAR (W/kg)	Normalized 10g SAR (W/kg)	Deviation (%)
2025/7/11	750	Head	250	1099	3819	1386	2.150	8.280	8.6	3.86	1.350	5.370	5.4	0.56
2025/7/26	750	Head	250	1099	3819	1386	2.200	8.280	8.8	6.28	1.420	5.370	5.68	5.77
2025/7/11	835	Head	250	4d162	3819	1386	2.400	9.080	9.6	5.73	1.530	5.850	6.12	4.62
2025/8/3	835	Head	250	4d162	3819	1386	2.370	9.080	9.48	4.41	1.510	5.850	6.04	3.25
2025/7/12	1750	Head	250	1137	3819	1386	8.760	36.800	35.04	-4.78	4.710	19.600	18.84	-3.88
2025/8/2	1750	Head	250	1137	3819	1386	8.620	36.800	34.48	-6.30	4.590	19.600	18.36	-6.33
2025/7/12	1900	Head	250	5d182	3819	1386	9.830	39.800	39.32	-1.21	5.110	21.000	20.44	-2.67
2025/7/25	1900	Head	250	5d182	3819	1386	9.730	39.800	38.92	-2.21	5.010	21.000	20.04	-4.57
2025/7/19	2450	Head	250	924	3819	1386	12.400	52.300	49.6	-5.16	5.710	24.500	22.84	-6.78
2025/8/4	2450	Head	250	924	3819	1386	13.000	52.300	52	-0.57	6.020	24.500	24.08	-1.71
2025/7/17	2600	Head	250	1070	3819	1386	13.100	56.500	52.4	-7.26	6.060	25.200	24.24	-3.81
2025/7/30	2600	Head	250	1070	3819	1386	13.600	56.500	54.4	-3.72	6.050	25.200	24.2	-3.97
2025/7/13	3500	Head	100	1037	3819	1386	6.430	65.400	64.3	-1.68	2.410	24.700	24.1	-2.43
2025/8/6	3500	Head	100	1037	3819	1386	6.120	65.400	61.2	-6.42	2.290	24.700	22.9	-7.29
2025/7/14	3700	Head	100	1008	3819	1386	6.590	67.200	65.9	-1.93	2.400	24.400	24	-1.64
2025/7/24	3700	Head	100	1008	3819	1386	7.030	67.200	70.3	4.61	2.630	24.400	26.3	7.79
2025/7/14	3900	Head	100	1022	3819	1386	6.450	66.400	64.5	-2.86	2.250	23.700	22.5	-5.06
2025/8/6	3900	Head	100	1022	3819	1386	7.120	66.400	71.2	7.23	2.470	23.700	24.7	4.22
2025/7/18	5250	Head	100	1341	3819	1386	7.970	79.100	79.7	0.76	2.280	22.400	22.8	1.79
2025/8/7	5250	Head	100	1341	3819	1386	8.140	79.100	81.4	2.91	2.330	22.400	23.3	4.02
2025/7/20	5600	Head	100	1341	3819	1386	8.220	82.800	82.2	-0.72	2.340	23.800	23.4	-1.68
2025/7/28	5600	Head	100	1341	3819	1386	8.800	82.800	88	6.28	2.490	23.800	24.9	4.62
2025/7/21	5800	Head	100	1341	3819	1386	8.170	79.900	81.7	2.25	2.310	22.900	23.1	0.87
2025/8/10	5800	Head	100	1341	3819	1386	8.450	79.900	84.5	5.76	2.390	22.900	23.9	4.37

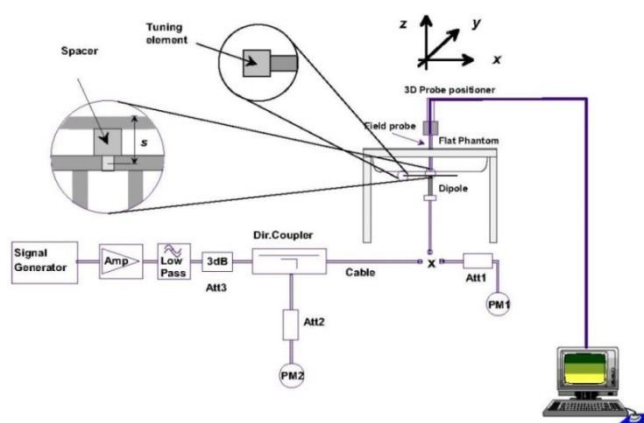


Fig 11.3.1 System Performance Check Setup



Fig 11.3.2 Setup Photo

13. RF Exposure Positions

13.1 Ear and handset reference point

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

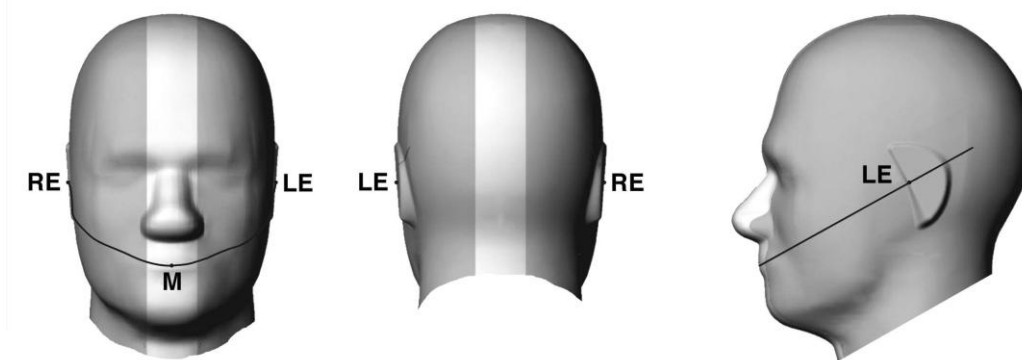


Fig 12.1.1 Front, back, and side views of SAM twin phantom

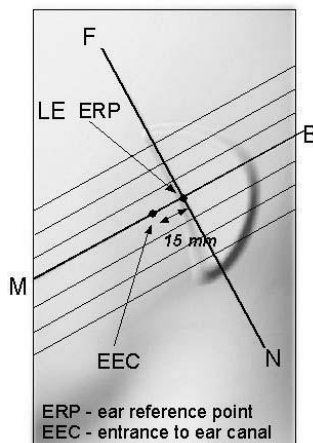


Fig 12.1.2 Close-up side view of phantom showing the ear region.

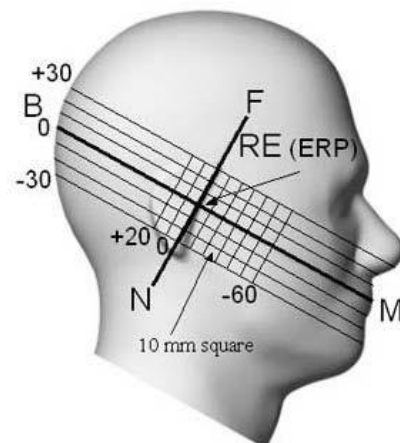


Fig 12.1.3 Side view of the phantom showing relevant markings and seven cross-sectional plane locations

13.2 Definition of the cheek position

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

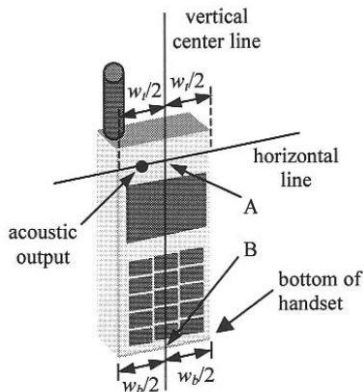


Fig 12.2.1 Handset vertical and horizontal reference lines—"fixed case"

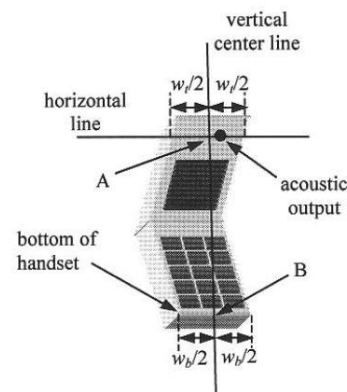


Fig 12.2.2 Handset vertical and horizontal reference lines—"clam-shell case"

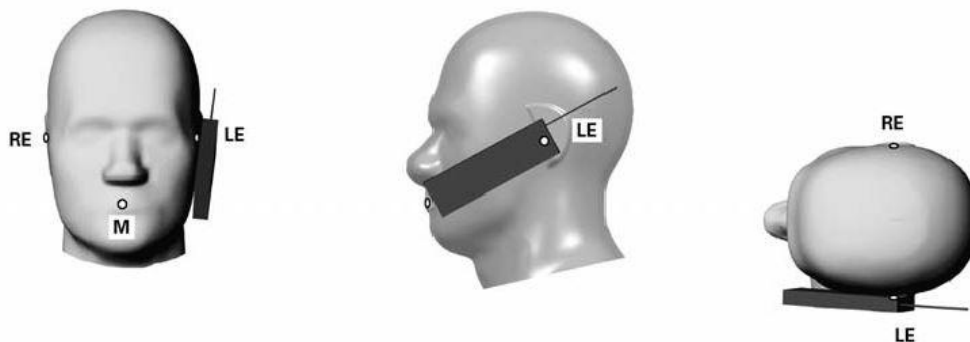


Fig 12.2.3 cheek or touch position. The reference points for the right ear (RE), left ear (LE), and mouth (M), which establish the Reference Plane for handset positioning, are indicated.

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

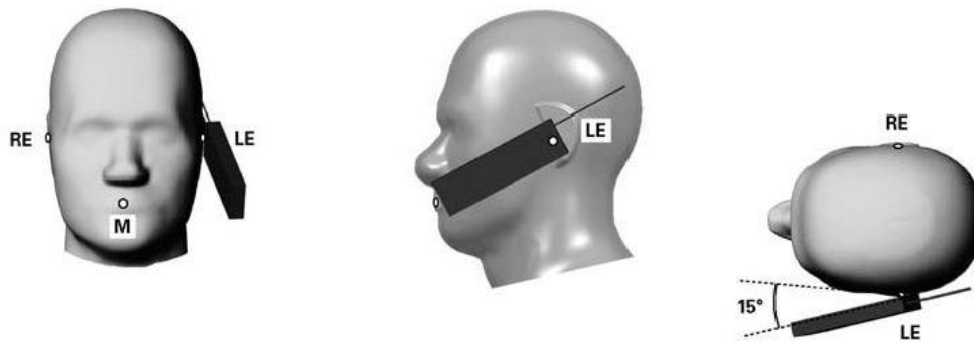


Fig 12.3.1 Tilt position. The reference points for the right ear (RE), left ear (LE), and mouth (M), which define the Reference Plane for handset positioning, are indicated.

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 handset attached to the handset.

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

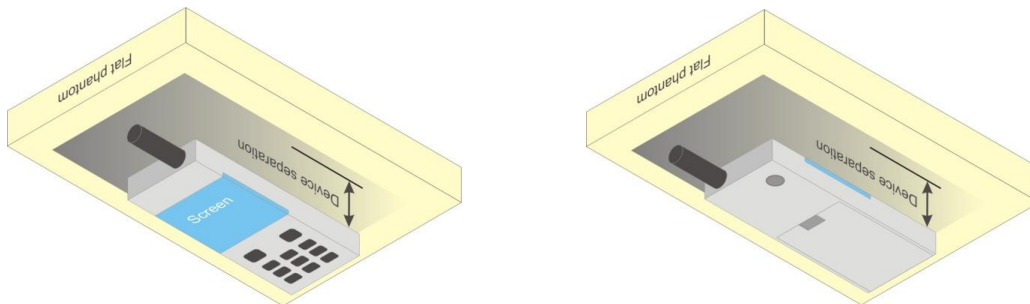


Fig 12.4 Body Worn Position

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 $\leq \frac{1}{4}$ 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_c/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: Δ_{ACK} , Δ_{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 $\beta_c/\beta_d = 12/15$, $\beta_{hs}/\beta_c = 24/15$. For all other combinations of DPDCCH, DPCCH and HS-DPCCH the MPR is based on the relative CM difference. This is applicable for only UEs that support HSDPA in release 6 and later releases.

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

Setup Configuration

HSUPA Setup Configuration:

- The EUT was connected to Base Station Agilent E5515C referred to the Setup Configuration.
- The RF path losses were compensated into the measurements.
- A call was established between EUT and Base Station with following setting * :
 - Call Configs = 5.2B, 5.9B, 5.10B, and 5.13.2B with QPSK
 - 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
 - Set Cell Power = -86 dBm
 - Set Channel Type = 12.2k + HSPA
 - Set UE Target Power
 - Power Ctrl Mode= Alternating bits
 - Set and observe the E-TFCI
 - Confirm that E-TFCI is equal to the target E-TFCI of 75 for sub-test 1, and other subtest's E-TFCI
- 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} (Note 1)	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	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, TF1) 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 Agilent E5515C 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.		

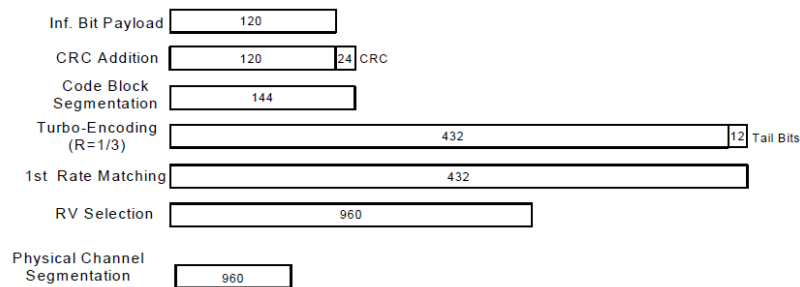


Figure C.8.19: Coding rate for Fixed reference Channel H-Set 12 (QPSK)

Setup Configuration

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

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

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

Sub-test	β_c (Note3)	β_d	β_{HS} (Note1)	β_{ec}	β_{ed} (2xSF2) (Note 4)	β_{ed} (2xSF4) (Note 4)	CM (dB) (Note 2)	MPR (dB) (Note 2)	AG Index (Note 4)	E-TFCI (Note 5)	E-TFCI (boost)
1	1	0	30/15	30/15	β_{ed1} : 30/15 β_{ed2} : 30/15	β_{ed3} : 24/15 β_{ed4} : 24/15	3.5	2.5	14	105	105

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

Setup Configuration

<WCDMA Conducted Power>

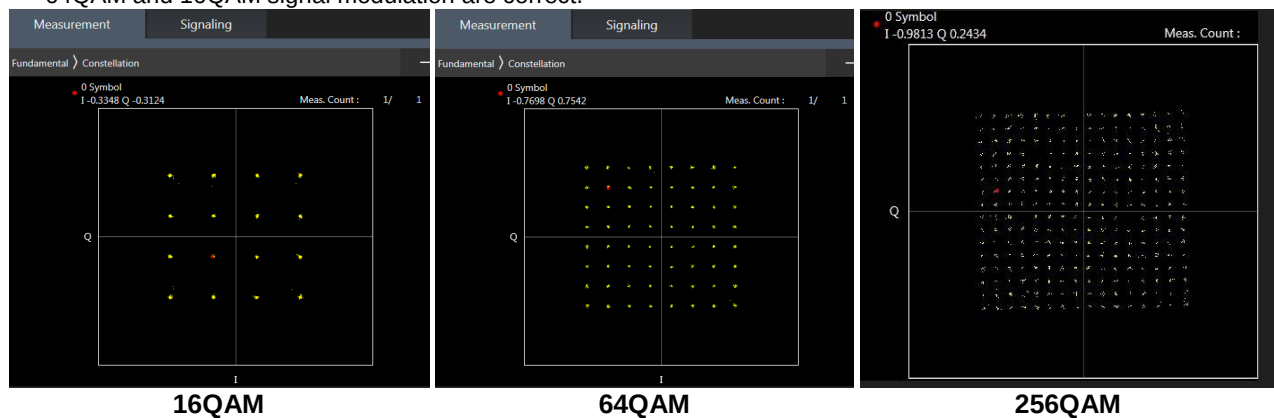
General Note:

1. Per KDB 941225 D01v03r01, for SAR testing is measured using a 12.2 kbps RMC with TPC bits configured to all "1's".
2. Per KDB 941225 D01v03r01, RMC 12.2kbps setting is used to evaluate SAR. The maximum output power and tune-up tolerance specified for production units in HSDPA / HSUPA / DC-HSDPA / HSPA+ is $\leq \frac{1}{4}$ 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 the maximum bandwidth does not support three non-overlapping channels, per KDB 941225 D05v02r05, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.
9. LTE B17 / B4 / B5 / B38 SAR test was covered by B12 / B66 / B26 / 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.

- 3GPP TS 36.211 section 4.2 for Type 2 Frame Structure and Table 4.2-2 for uplink-downlink configurations
- “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
- Establishing connections with base station simulators ensure a consistent means for testing SAR and recommended for evaluating SAR. The Anritsu MT8820C (firmware: #22.52#004) was used for LTE output power measurements and SAR testing.

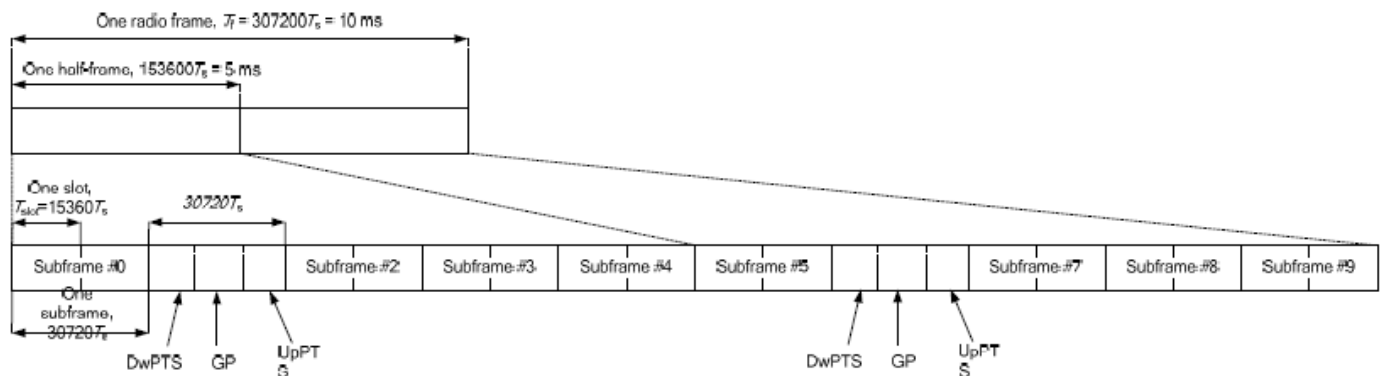


Figure 4.2-1: Frame structure type 2 (for 5 ms switch-point periodicity).

Table 4.2-2: Uplink-downlink configurations.

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

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

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

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

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

The highest duty factor is resulted from:

For LTE TDD Power class 3

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

<LTE Carrier Aggregation>

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

General Note:

1. Per Oct. 2024 TCB workshop, the downlink (DL) pertains to receiver functionality, thus it is not related to RF exposure compliance limits related to cumulative effects of different transmitters.
2. Per Oct. 2024 TCB workshop, equipment authorization applications shall refer to the worst-case UL powers resulting from all the possible modes of operations. Accordingly, CA-DL cases do not need to be analyzed separately, unless pertinent to establishing UL power setting.
3. Per Oct. 2024 TCB workshop, Manufacturer declares that TX power measurement for multiple DL CA configurations is deemed not required as the DL CA has no impact on the TX power according to preliminary scan. TX power measured in LTE standalone operation represents the worst case.
4. This device supports LTE carrier aggregation in the downlink. All uplink maximum output power with downlink carrier aggregation active does not show more than $\frac{1}{4}$ dB higher than the maximum output power without downlink carrier aggregation active, therefore SAR evaluation with downlink carrier aggregation active can be excluded.

LTE Carrier Aggregation Conducted Power (Uplink)

LTE Uplink CA	2CC Uplink Carrier Aggregation
Intra-band	Antenna Tx
CA_2C	Ant 13/31
CA_7C	Ant 13/31/11
CA_41C	Ant 13/31/11
CA_66C	Ant 13/31/11

<Intra-band>
General Note:

- The device supports intra-band uplink carrier aggregation for LTE B2/7/41/66 with a maximum of two uplink component carriers. For intra band contiguous carrier aggregation scenarios, 3GPP 36.101 table 6.2.2A-1 specifies that the aggregate maximum allowed output power is equivalent to the single carrier scenario. 3GPP 36.101 6.2.3A allows for several dB of MPR to be applied when not-contiguous RB allocation is implemented. The conducted power and MPR setting in this device are permanently implemented pre 3GPP requirement.
- 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.
- 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.

<Inter-band uplink carrier aggregation consideration>

LTE Uplink CA	2CC Uplink Carrier Aggregation			
Inter-band	LTE TX0	TX0 Ant	LTE TX1	TX1 Ant
2A-4A	2A	Ant13/31	4A	Ant11
2A-7A	2A	Ant13/31	7A	Ant11
4A-5A	4A	Ant31/11	5A	Ant13
4A-7A	4A	Ant13/31	7A	Ant11
5A-7A	5A	Ant13	7A	Ant31/11
7A-66A	7A	Ant13/31	66A	Ant11

General Note:

- The single carrier of inter band CA uplink power level is the same as Non-CA standalone LTE power level.
- The product implements MediaTek TA-SAR Gen2 feature which controls the instantaneous transmitting power for WWAN transmitter to ensure the product in compliance with RF exposure limit over a defined time window, for SAR (transmit frequency ≤ 6GHz). To control and manage transmitting power in real time and to ensure at all times the time-averaged RF exposure is compliant to the regulation requirement.
- For LTE inter-band CA mode, MediaTek TA-SAR Gen2 algorithm in WWAN adds directly the time-averaged RF exposure between two LTE bands. TA-SAR Gen2 algorithm controls the total RF exposure based 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/n26/n66/n38/n41/n77/n78 is SA and NSA mode.
2. 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
3. For 5G NR test, using FTM (Factory Test Mode) to perform SAR with default 100% transmission.
4. 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.
5. 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.
6. 5G NR supports CP-OFDM and DFT-s-OFDM modulation, for DFT-s-OFDM power is higher than CP-OFDM, so only show DFT-s-OFDM power table and chose DFT-s-OFDM to perform SAR testing.
7. 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.
8. For 5G NR inter-band CA mode, MediaTek TA-SAR Gen2 algorithm in WWAN adds directly the time-averaged RF exposure between two 5G NR bands. MediaTek algorithm controls the total RF exposure base on 5G NR inter CA 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	NR TX	NR Ant	LTE TX	LTE Ant
DC_4A_n2A	N2	Ant11	4A	Ant13/31
DC_7A_n2A	N2	Ant11	7A	Ant13/31
DC_66A_n2A	N2	Ant11	66A	Ant13/31
DC_7A_n5A	N5	Ant13	7A	Ant11/31
DC_2A_n7A	N7	Ant11	2A	Ant13/31
DC_4A_n7A	N7	Ant11	4A	Ant13/31
DC_5A_n7A	N7	Ant11	5A	Ant13/31
DC_66A_n7A	N7	Ant11	66A	Ant13/31
DC_7A_n26A	N26	Ant13	7A	Ant11/31
DC_2A_n38A	N38	Ant11	2A	Ant13/31
DC_4A_n38A	N38	Ant11	4A	Ant13/31
DC_5A_n38A	N38	Ant11	5A	Ant13/31
DC_66A_n38A	N38	Ant11	66A	Ant13/31
DC_2A_n41A	N41	Ant11	2A	Ant13/31
DC_4A_n41A	N41	Ant11	4A	Ant13/31
DC_26A_n41A	N41	Ant11	26A	Ant13/31
DC_66A_n41A	N41	Ant11	66A	Ant13/31
DC_2A_n66A	N66	Ant11	2A	Ant13/31
DC_5A_n66A	N66	Ant11	5A	Ant13/31
DC_7A_n66A	N66	Ant11	7A	Ant13/31
DC_7A_n77A	N77	Ant11/12/21/23	7A	Ant13/31
DC_2A_n78A	N78	Ant11/12/21/23	2A	Ant13/31
DC_4A_n78A	N78	Ant11/12/21/23	4A	Ant13/31
DC_5A_n78A	N78	Ant11/12/21/23	5A	Ant13/31
DC_7A_n78A	N78	Ant11/12/21/23	7A	Ant13/31
DC_26A_n78A	N78	Ant11/12/21/23	26A	Ant13/31
DC_38A_n78A	N78	Ant11/12/21/23	38A	Ant13/31
DC_41A_n78A	N78	Ant11/12/21/23	41A	Ant13/31
DC_66A_n78A	N78	Ant11/12/21/23	66A	Ant13/31

Inter-Band CA Configuration:

NR Inter CA	NR TX0	TX0 Ant	NR TX1	TX1 Ant
n7A-n78A	n7A	Ant13	n78A	Ant11

<WLAN Conducted Power>

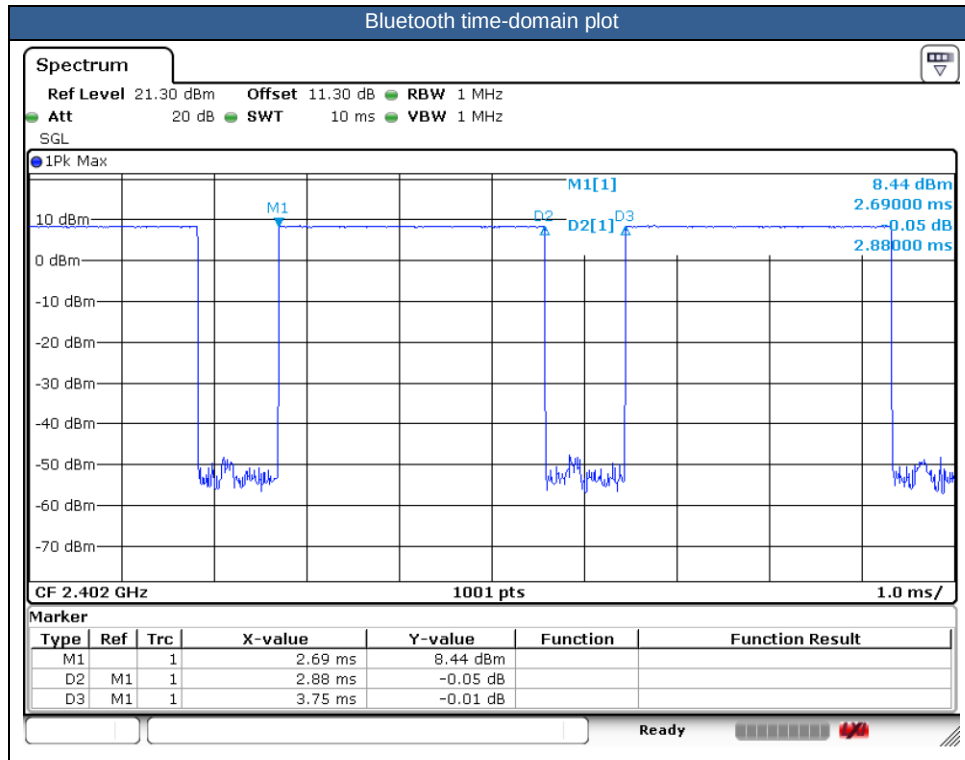
General Note:

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

<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 76.8% as following figure, according to Oct. 2016 TCB workshop for Bluetooth SAR scaling need further consideration and the maximum duty cycle is 100%, therefore the actual duty cycle will be scaled up to 100% for 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/Bluetooth signal with non-100% duty cycle, the measured SAR is scaled-up by the duty cycle scaling factor which is equal to "1/(duty cycle)"
 - c. For WWAN: Reported SAR(W/kg)= Measured SAR(W/kg)*Tune-up Scaling Factor
 - d. For WLAN/Bluetooth: Reported SAR(W/kg)= Measured SAR(W/kg)* Duty Cycle scaling factor * Tune-up scaling factor
 - e. For TDD LTE SAR measurement of power class 3, the duty cycle 1:1.59 (62.9 %) was used perform testing and considering the theoretical duty cycle of 63.3% for extended cyclic prefix in the uplink, and the theoretical duty cycle of 62.9% for normal cyclic prefix in uplink, a scaling factor of extended cyclic prefix $63.3\%/62.9\% = 1.006$ is applied to scale-up the measured SAR result. The reported TDD LTE SAR (W/kg) = Measured SAR (W/kg)* Tune-up Scaling Factor* scaling factor for extended cyclic prefix.
2. Per KDB 447498 D01v06, for each exposure position, testing of other required channels within the operating mode of a frequency band is not required when the *reported* 1-g or 10-g SAR for the mid-band or highest output power channel is:
 - ≤ 0.8 W/kg or 2.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≤ 100 MHz
 - ≤ 0.6 W/kg or 1.5 W/kg, for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz
 - ≤ 0.4 W/kg or 1.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≥ 200 MHz
3. Per KDB 865664 D01v01r04, for each frequency band, repeated SAR measurement is required when the measured SAR is ≥ 0.8 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 and proximity sensor /receiver detection/hotspot mode for SAR compliance at different exposure conditions (head, body-worn, hotspot, extremity) and the MediaTek TA-SAR will manage to ensure the power level not exceeding the associated power table. Details about the power management decision and sensor detection are provided in the operational description. And the device will invoke corresponding work scenarios power level base on frequency bands/antennas, which can refer to power table at appendix E.
5. Per KDB648474 D04v01r03, for smart phones with a display diagonal dimension > 15.0 cm or an overall diagonal dimension > 16.0 cm, when hotspot mode applies, 10-g extremity SAR is required only for the surfaces and edges with hotspot mode 1-g reported SAR > 1.2 W/kg, however, when power reduction applies to hotspot mode the measured SAR must be scaled to the maximum output power, 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 transmitter scaled to maximum output power mode for product specific 10g SAR is higher than 1.2W/kg of WCDMA Band IV, LTE Band 2/4/7/66/38/41/42, 5GNR n2/n7/n66/n38/n41/n77/n78, therefore product specific 10g SAR is necessary.
 - b. WLAN 5.3/5.5GHz tested the product specific 10g SAR since it has no hotspot mode.
 - c. When 10-g product specific 10g SAR is considered, SAR thresholds is specified in the procedures for SAR test reduction and exclusion should be multiplied by 2.5.
6. According to Nov. 2017 TCB workshop, when the reported 1gSAR for UL CA configuration is < 1.2 W/kg, UL CA 1gSAR is not required for all required test channels (PCC based).
7. SAR is not required because the distance from the antenna to the edge is > 25 mm as per KDB 941225 D06 Hotspot SAR.
8. For Phablet devices, when hotspot mode is not supported, Product specific 10-g SAR is required for all surfaces and edges with an antenna located at ≤ 25 mm from that surface or edge in direct contact with a flat phantom, to address interactive hand use exposure conditions.
9. The following table "n/a" in the result means the SAR cube is too small to be detected.

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 $\leq \frac{1}{4}$ 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 $\leq \frac{1}{4}$ 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 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 $> \text{not } \frac{1}{2}$ 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 $> \text{not } \frac{1}{2}$ 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 the maximum bandwidth does not support three non-overlapping channels, per KDB 941225 D05v02r05, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.
7. LTE B17 / B4 / B5 / B38 SAR test was covered by B12 / B66 / B26 / 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 n2/n5 /n7/n26/n66/n38/n41/n77 the maximum bandwidth does not support three non-overlapping channels, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

WLAN/Bluetooth Note:

1. Per KDB 248227 D01v02r02, for 2.4GHz 802.11g/n SAR testing is not required when the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg.
2. Per KDB 248227 D01v02r02, U-NII-1 SAR testing is not required when the U-NII-2A band highest reported SAR for a test configuration is ≤ 1.2 W/kg, SAR is not required for U-NII-1 band.
3. 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.

ECI status description:

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

This WWAN/WLAN 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.

ECI	Trigger Conditions	Antenna No.	Exposure conditions	
ECI2	Receiver on	All ant	Head Standalone	Head all Position
ECI3	Receiver on+WLAN	All ant	Head Simultaneous	Head all Position
ECI4	Receiver off/Sensor off	ant 11/12/13	Sensor Trigger Distance -1mm	See by section 6
	Receiver off/Sensor off		Body-worn/Extremity Standalone	No Sensor Position
	Receiver off/Sensor off	ant 21/22/23/31	Body-worn/Extremity Standalone	Body all Position
ECI5	Receiver off/Sensor A + B on	ant 13	Body-worn/Extremity Standalone	See by section 6
	Receiver off/Sensor A + B on	ant 11/12	Body-worn/Extremity Standalone	See by section 6
ECI8	Receiver off/Sensor A + B on+WLAN	ant 13	Body-worn/Extremity Simultaneous	See by section 6
	Receiver off/Sensor A + B on+WLAN	ant 11/12	Body-worn/Extremity Simultaneous	See by section 6
ECI9	Receiver off/Sensor A on + B off +WLAN	ant 11/12	Body-worn/Extremity Simultaneous	No Sensor Position
ECI10	Receiver off/Sensor A off+WLAN	ant 13	Body-worn/Extremity Simultaneous	No Sensor Position
	Receiver off/Sensor A off+WLAN	ant 21/22/23/31	Body-worn/Extremity Simultaneous	Body all Position
	Hotspot on	All ant	Hotspot Simultaneous	Hotspot all Position

For WLAN, the following reduced power state which used at different exposure condition.

Trigger conditions	Exposure Condition
Receiver on	Head Standalone
Receiver on+ WLAN+WWAN	Head Simultaneous
Receiver off	Body-worn /Extremity Standalone
Receiver off+ WLAN+WWAN	Body-worn/Hotspot/Extremity Simultaneous



16.1 Head SAR

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
750MHz																				
01	LTE Band 12	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 13	ECI 2	23095	707.5	23.85	24.70	1.216	-	-	-0.09	0.569	0.692
	LTE Band 12	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 13	ECI 2	23095	707.5	23.85	24.70	1.216	-	-	0.19	0.559	0.680
	LTE Band 12	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 13	ECI 2	23095	707.5	23.85	24.70	1.216	-	-	-0.15	0.419	0.510
	LTE Band 12	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 13	ECI 2	23095	707.5	23.85	24.70	1.216	-	-	0.06	0.404	0.491
	LTE Band 12	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 13	ECI 3	23095	707.5	22.92	23.70	1.197	-	-	0.04	0.452	0.541
	LTE Band 12	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 13	ECI 3	23095	707.5	22.92	23.70	1.197	-	-	0.1	0.444	0.531
	LTE Band 12	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 13	ECI 3	23095	707.5	22.92	23.70	1.197	-	-	-0.06	0.333	0.399
	LTE Band 12	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 13	ECI 3	23095	707.5	22.92	23.70	1.197	-	-	0.08	0.321	0.384
	LTE Band 12	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 13	ECI 2	23095	707.5	22.83	23.70	1.222	-	-	-0.1	0.512	0.626
	LTE Band 12	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 13	ECI 2	23095	707.5	22.83	23.70	1.222	-	-	0.07	0.500	0.611
	LTE Band 12	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 13	ECI 2	23095	707.5	22.83	23.70	1.222	-	-	0.05	0.341	0.417
	LTE Band 12	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 13	ECI 2	23095	707.5	22.83	23.70	1.222	-	-	-0.11	0.332	0.406
	LTE Band 12	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 31	ECI 2	23095	707.5	24.07	25.00	1.239	-	-	-0.09	0.102	0.126
	LTE Band 12	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 31	ECI 2	23095	707.5	24.07	25.00	1.239	-	-	-0.15	0.055	0.068
	LTE Band 12	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 31	ECI 2	23095	707.5	24.07	25.00	1.239	-	-	0.1	0.136	0.168
	LTE Band 12	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 31	ECI 2	23095	707.5	24.07	25.00	1.239	-	-	0.13	0.073	0.090
	LTE Band 12	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 31	ECI 2	23095	707.5	23.05	24.00	1.245	-	-	0.16	0.083	0.103
	LTE Band 12	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 31	ECI 2	23095	707.5	23.05	24.00	1.245	-	-	-0.09	0.045	0.056
	LTE Band 12	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 31	ECI 2	23095	707.5	23.05	24.00	1.245	-	-	0.06	0.108	0.134
	LTE Band 12	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 31	ECI 2	23095	707.5	23.05	24.00	1.245	-	-	0.08	0.059	0.073
02	LTE Band 13	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 13	ECI 2	23230	782	23.56	24.70	1.300	-	-	0.17	0.534	0.694
	LTE Band 13	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 13	ECI 2	23230	782	23.56	24.70	1.300	-	-	-0.01	0.521	0.677
	LTE Band 13	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 13	ECI 2	23230	782	23.56	24.70	1.300	-	-	0.03	0.428	0.556
	LTE Band 13	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 13	ECI 2	23230	782	23.56	24.70	1.300	-	-	0	0.407	0.529
	LTE Band 13	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 13	ECI 3	23230	782	22.58	23.70	1.294	-	-	0.04	0.425	0.550
	LTE Band 13	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 13	ECI 3	23230	782	22.58	23.70	1.294	-	-	-0.05	0.406	0.525
	LTE Band 13	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 13	ECI 3	23230	782	22.58	23.70	1.294	-	-	-0.02	0.343	0.444
	LTE Band 13	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 13	ECI 3	23230	782	22.58	23.70	1.294	-	-	0.01	0.326	0.422
	LTE Band 13	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 13	ECI 2	23230	782	22.56	23.70	1.300	-	-	-0.14	0.483	0.628
	LTE Band 13	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 13	ECI 2	23230	782	22.56	23.70	1.300	-	-	0.1	0.457	0.594
	LTE Band 13	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 13	ECI 2	23230	782	22.56	23.70	1.300	-	-	0.01	0.332	0.432
	LTE Band 13	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 13	ECI 2	23230	782	22.56	23.70	1.300	-	-	0.03	0.315	0.410
	LTE Band 13	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 31	ECI 2	23230	782	23.65	25.00	1.365	-	-	0.09	0.095	0.130
	LTE Band 13	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 31	ECI 2	23230	782	23.65	25.00	1.365	-	-	-0.15	0.059	0.081
	LTE Band 13	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 31	ECI 2	23230	782	23.65	25.00	1.365	-	-	0.1	0.116	0.158
	LTE Band 13	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 31	ECI 2	23230	782	23.65	25.00	1.365	-	-	0.15	0.070	0.096
	LTE Band 13	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 31	ECI 2	23230	782	22.63	24.00	1.371	-	-	0.03	0.073	0.100
	LTE Band 13	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 31	ECI 2	23230	782	22.63	24.00	1.371	-	-	0.12	0.046	0.063
	LTE Band 13	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 31	ECI 2	23230	782	22.63	24.00	1.371	-	-	-0.18	0.091	0.125
	LTE Band 13	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 31	ECI 2	23230	782	22.63	24.00	1.371	-	-	-0.03	0.054	0.074
835MHz																				
03	GSM850	-	-	-	-	GPRS 1 TX Slot	Right Cheek	0mm	Ant 13	ECI 2	189	836.4	31.67	32.90	1.327	-	-	0.11	0.603	0.800
	GSM850	-	-	-	-	GPRS 1 TX Slot	Right Tilted	0mm	Ant 13	ECI 2	189	836.4	31.67	32.90	1.327	-	-	0.03	0.600	0.796
	GSM850	-	-	-	-	GPRS 1 TX Slot	Left Cheek	0mm	Ant 13	ECI 2	189	836.4	31.67	32.90	1.327	-	-	0	0.426	0.565
	GSM850	-	-	-	-	GPRS 1 TX Slot	Left Tilted	0mm	Ant 13	ECI 2	189	836.4	31.67	32.90	1.327	-	-	0.11	0.406	0.539
	GSM850	-	-	-	-	GPRS 1 TX Slot	Right Cheek	0mm	Ant 13	ECI 2	128	824.2	31.43	32.90	1.403	-	-	0.08	0.556	0.780
	GSM850	-	-	-	-	GPRS 1 TX Slot	Right Cheek	0mm	Ant 13	ECI 2	251	848.8	31.48	32.90	1.387	-	-	0.02	0.519	0.720
	GSM850	-	-	-	-	GPRS 1 TX Slot	Right Cheek	0mm	Ant 13	ECI 3	189	836.4	29.70	30.70	1.259	-	-	0.1	0.379	0.477
	GSM850	-	-	-	-	GPRS 1 TX Slot	Right Tilted	0mm	Ant 13	ECI 3	189	836.4	29.70	30.70	1.259	-	-	0.02	0.376	0.473



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	GSM850	-	-	-	-	GPRS 1 TX Slot	Left Cheek	0mm	Ant 13	ECI 3	189	836.4	29.70	30.70	1.259	-	-	0.08	0.272	0.342
	GSM850	-	-	-	-	GPRS 1 TX Slot	Left Tilted	0mm	Ant 13	ECI 3	189	836.4	29.70	30.70	1.259	-	-	0.07	0.254	0.320
	GSM850	-	-	-	-	GPRS 2 TX Slot	Right Cheek	0mm	Ant 31	ECI 2	189	836.4	30.62	31.20	1.143	-	-	0.17	0.186	0.213
	GSM850	-	-	-	-	GPRS 2 TX Slot	Right Tilted	0mm	Ant 31	ECI 2	189	836.4	30.62	31.20	1.143	-	-	0.05	0.122	0.139
	GSM850	-	-	-	-	GPRS 2 TX Slot	Left Cheek	0mm	Ant 31	ECI 2	189	836.4	30.62	31.20	1.143	-	-	-0.07	0.242	0.277
	GSM850	-	-	-	-	GPRS 2 TX Slot	Left Tilted	0mm	Ant 31	ECI 2	189	836.4	30.62	31.20	1.143	-	-	-0.14	0.150	0.171
04	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 13	ECI 2	4182	836.4	21.22	22.20	1.253	-	-	0.19	0.608	0.762
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 13	ECI 2	4182	836.4	21.22	22.20	1.253	-	-	-0.16	0.533	0.668
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 13	ECI 2	4182	836.4	21.22	22.20	1.253	-	-	-0.15	0.392	0.491
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 13	ECI 2	4182	836.4	21.22	22.20	1.253	-	-	0.09	0.376	0.471
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 13	ECI 3	4182	836.4	20.20	21.20	1.259	-	-	0.09	0.470	0.592
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 13	ECI 3	4182	836.4	20.20	21.20	1.259	-	-	-0.1	0.415	0.522
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 13	ECI 3	4182	836.4	20.20	21.20	1.259	-	-	-0.07	0.306	0.385
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 13	ECI 3	4182	836.4	20.20	21.20	1.259	-	-	0.08	0.295	0.371
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 31	ECI 2	4182	836.4	23.83	24.70	1.222	-	-	-0.08	0.159	0.194
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 31	ECI 2	4182	836.4	23.83	24.70	1.222	-	-	-0.13	0.095	0.116
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 31	ECI 2	4182	836.4	23.83	24.70	1.222	-	-	-0.11	0.212	0.259
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 31	ECI 2	4182	836.4	23.83	24.70	1.222	-	-	-0.18	0.124	0.152
	LTE Band 5	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 31	ECI 2	20525	836.5	24.12	25.30	1.312	-	-	0.06	0.175	0.230
	LTE Band 5	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 31	ECI 2	20525	836.5	24.12	25.30	1.312	-	-	0.18	0.106	0.139
	LTE Band 5	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 31	ECI 2	20525	836.5	24.12	25.30	1.312	-	-	-0.13	0.240	0.315
	LTE Band 5	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 31	ECI 2	20525	836.5	24.12	25.30	1.312	-	-	-0.03	0.126	0.165
	LTE Band 5	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 31	ECI 2	20525	836.5	23.10	24.30	1.318	-	-	0.16	0.140	0.185
	LTE Band 5	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 31	ECI 2	20525	836.5	23.10	24.30	1.318	-	-	0.04	0.085	0.112
	LTE Band 5	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 31	ECI 2	20525	836.5	23.10	24.30	1.318	-	-	-0.03	0.176	0.232
	LTE Band 5	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 31	ECI 2	20525	836.5	23.10	24.30	1.318	-	-	0.12	0.103	0.136
05	LTE Band 5	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 13	ECI 3	20525	836.5	20.38	21.50	1.294	-	-	0.04	0.323	0.418
	LTE Band 5	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 13	ECI 3	20525	836.5	20.38	21.50	1.294	-	-	0.01	0.311	0.402
	LTE Band 5	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 13	ECI 3	20525	836.5	20.38	21.50	1.294	-	-	0.09	0.234	0.303
	LTE Band 5	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 13	ECI 3	20525	836.5	20.38	21.50	1.294	-	-	0.03	0.227	0.294
06	LTE Band 26	15M	QPSK	1	0	-	Right Cheek	0mm	Ant 13	ECI 2	26865	831.5	21.80	22.70	1.230	-	-	-0.03	0.559	0.688
	LTE Band 26	15M	QPSK	1	0	-	Right Tilted	0mm	Ant 13	ECI 2	26865	831.5	21.80	22.70	1.230	-	-	0.12	0.535	0.658
	LTE Band 26	15M	QPSK	1	0	-	Left Cheek	0mm	Ant 13	ECI 2	26865	831.5	21.80	22.70	1.230	-	-	0.07	0.413	0.508
	LTE Band 26	15M	QPSK	1	0	-	Left Tilted	0mm	Ant 13	ECI 2	26865	831.5	21.80	22.70	1.230	-	-	0.16	0.386	0.475
	LTE Band 26	15M	QPSK	1	0	-	Right Cheek	0mm	Ant 13	ECI 3	26865	831.5	20.30	21.20	1.230	-	-	0.06	0.391	0.481
	LTE Band 26	15M	QPSK	1	0	-	Right Tilted	0mm	Ant 13	ECI 3	26865	831.5	20.30	21.20	1.230	-	-	-0.05	0.379	0.466
	LTE Band 26	15M	QPSK	1	0	-	Left Cheek	0mm	Ant 13	ECI 3	26865	831.5	20.30	21.20	1.230	-	-	-0.02	0.288	0.354
	LTE Band 26	15M	QPSK	1	0	-	Left Tilted	0mm	Ant 13	ECI 3	26865	831.5	20.30	21.20	1.230	-	-	0.1	0.268	0.330
	LTE Band 26	15M	QPSK	36	0	-	Right Cheek	0mm	Ant 13	ECI 2	26865	831.5	21.78	22.70	1.236	-	-	0.19	0.534	0.660
	LTE Band 26	15M	QPSK	36	0	-	Right Tilted	0mm	Ant 13	ECI 2	26865	831.5	21.78	22.70	1.236	-	-	0.11	0.535	0.661
	LTE Band 26	15M	QPSK	36	0	-	Left Cheek	0mm	Ant 13	ECI 2	26865	831.5	21.78	22.70	1.236	-	-	0.02	0.402	0.497
	LTE Band 26	15M	QPSK	36	0	-	Left Tilted	0mm	Ant 13	ECI 2	26865	831.5	21.78	22.70	1.236	-	-	0.08	0.378	0.467
	LTE Band 26	15M	QPSK	1	0	-	Right Cheek	0mm	Ant 31	ECI 2	26865	831.5	23.69	25.00	1.352	-	-	-0.12	0.161	0.218
	LTE Band 26	15M	QPSK	1	0	-	Right Tilted	0mm	Ant 31	ECI 2	26865	831.5	23.69	25.00	1.352	-	-	0.11	0.144	0.195
	LTE Band 26	15M	QPSK	1	0	-	Left Cheek	0mm	Ant 31	ECI 2	26865	831.5	23.69	25.00	1.352	-	-	0.11	0.196	0.265
	LTE Band 26	15M	QPSK	1	0	-	Left Tilted	0mm	Ant 31	ECI 2	26865	831.5	23.69	25.00	1.352	-	-	0.05	0.118	0.160
	LTE Band 26	15M	QPSK	36	0	-	Right Cheek	0mm	Ant 31	ECI 2	26865	831.5	22.68	24.00	1.355	-	-	0.14	0.132	0.179
	LTE Band 26	15M	QPSK	36	0	-	Right Tilted	0mm	Ant 31	ECI 2	26865	831.5	22.68	24.00	1.355	-	-	0.04	0.115	0.156
	LTE Band 26	15M	QPSK	36	0	-	Left Cheek	0mm	Ant 31	ECI 2	26865	831.5	22.68	24.00	1.355	-	-	-0.1	0.159	0.215
	LTE Band 26	15M	QPSK	36	0	-	Left Tilted	0mm	Ant 31	ECI 2	26865	831.5	22.68	24.00	1.355	-	-	0.19	0.094	0.127
	FR1 n5	20M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 31	ECI 2	167300	836.5	24.38	25.30	1.236	-	-	0.18	0.161	0.199
	FR1 n5	20M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 31	ECI 2	167300	836.5	24.38	25.30	1.236	-	-	-0.19	0.104	0.129
	FR1 n5	20M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 31	ECI 2	167300	836.5	24.38	25.30	1.236	-	-	-0.03	0.206	0.255
	FR1 n5	20M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 31	ECI 2	167300	836.5	24.38	25.30	1.236	-	-	0.19	0.120	0.148
	FR1 n5	20M	QPSK	50	28	DFT-15	Right Cheek	0mm	Ant 31	ECI 2	167300	836.5	24.35	25.30	1.245	-	-	0.14	0.162	0.202
	FR1 n5	20M	QPSK	50	28	DFT-15	Right Tilted	0mm	Ant 31	ECI 2	167300	836.5	24.35	25.30	1.245	-	-	0.14	0.101	0.126
07	FR1 n5	20M	QPSK	50	28	DFT-15	Left Cheek	0mm	Ant 31	ECI 2	167300	836.5	24.35	25.30	1.245	-	-	-0.17	0.224	0.279



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	FR1 n5	20M	QPSK	50	28	DFT-15	Left Tilted	0mm	Ant 31	ECI 2	167300	836.5	24.35	25.30	1.245	-	-	0.1	0.123	0.153
08	FR1 n26	20M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 13	ECI 2	166300	831.5	22.45	23.20	1.189	-	-	-0.14	0.288	0.342
	FR1 n26	20M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 13	ECI 2	166300	831.5	22.45	23.20	1.189	-	-	-0.03	0.285	0.339
	FR1 n26	20M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 13	ECI 2	166300	831.5	22.45	23.20	1.189	-	-	0.14	0.201	0.239
	FR1 n26	20M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 13	ECI 2	166300	831.5	22.45	23.20	1.189	-	-	-0.04	0.197	0.234
	FR1 n26	20M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 13	ECI 3	166300	831.5	20.93	21.70	1.194	-	-	0.06	0.202	0.241
	FR1 n26	20M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 13	ECI 3	166300	831.5	20.93	21.70	1.194	-	-	0.09	0.204	0.244
	FR1 n26	20M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 13	ECI 3	166300	831.5	20.93	21.70	1.194	-	-	-0.06	0.139	0.166
	FR1 n26	20M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 13	ECI 3	166300	831.5	20.93	21.70	1.194	-	-	-0.02	0.138	0.165
	FR1 n26	20M	QPSK	50	28	DFT-15	Right Cheek	0mm	Ant 13	ECI 2	166300	831.5	22.43	23.20	1.194	-	-	-0.17	0.282	0.337
	FR1 n26	20M	QPSK	50	28	DFT-15	Right Tilted	0mm	Ant 13	ECI 2	166300	831.5	22.43	23.20	1.194	-	-	-0.14	0.279	0.333
	FR1 n26	20M	QPSK	50	28	DFT-15	Left Cheek	0mm	Ant 13	ECI 2	166300	831.5	22.43	23.20	1.194	-	-	0.14	0.196	0.234
	FR1 n26	20M	QPSK	50	28	DFT-15	Left Tilted	0mm	Ant 13	ECI 2	166300	831.5	22.43	23.20	1.194	-	-	0.17	0.189	0.226
	FR1 n26	20M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 31	ECI 2	166300	831.5	24.10	25.00	1.230	-	-	-0.07	0.154	0.189
	FR1 n26	20M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 31	ECI 2	166300	831.5	24.10	25.00	1.230	-	-	-0.12	0.099	0.122
	FR1 n26	20M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 31	ECI 2	166300	831.5	24.10	25.00	1.230	-	-	-0.16	0.189	0.233
	FR1 n26	20M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 31	ECI 2	166300	831.5	24.10	25.00	1.230	-	-	-0.15	0.118	0.145
	FR1 n26	20M	QPSK	50	28	DFT-15	Right Cheek	0mm	Ant 31	ECI 2	166300	831.5	24.08	25.00	1.236	-	-	-0.11	0.159	0.197
	FR1 n26	20M	QPSK	50	28	DFT-15	Right Tilted	0mm	Ant 31	ECI 2	166300	831.5	24.08	25.00	1.236	-	-	-0.16	0.102	0.126
	FR1 n26	20M	QPSK	50	28	DFT-15	Left Cheek	0mm	Ant 31	ECI 2	166300	831.5	24.08	25.00	1.236	-	-	-0.14	0.202	0.250
	FR1 n26	20M	QPSK	50	28	DFT-15	Left Tilted	0mm	Ant 31	ECI 2	166300	831.5	24.08	25.00	1.236	-	-	0.05	0.120	0.148
1750MHz																				
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 13	ECI 2	1413	1732.6	17.07	17.70	1.156	-	-	0.02	0.497	0.575
09	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 13	ECI 2	1413	1732.6	17.07	17.70	1.156	-	-	0.12	0.690	0.798
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 13	ECI 2	1413	1732.6	17.07	17.70	1.156	-	-	0.14	0.278	0.321
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 13	ECI 2	1413	1732.6	17.07	17.70	1.156	-	-	0.02	0.343	0.397
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 13	ECI 3	1413	1732.6	15.02	15.70	1.169	-	-	-0.01	0.316	0.370
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 13	ECI 3	1413	1732.6	15.02	15.70	1.169	-	-	0.1	0.438	0.512
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 13	ECI 3	1413	1732.6	15.02	15.70	1.169	-	-	-0.09	0.176	0.206
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 13	ECI 3	1413	1732.6	15.02	15.70	1.169	-	-	0.03	0.212	0.248
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 31	ECI 2	1413	1732.6	23.48	24.70	1.324	-	-	0.07	0.053	0.070
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 31	ECI 2	1413	1732.6	23.48	24.70	1.324	-	-	0.14	0.046	0.061
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 31	ECI 2	1413	1732.6	23.48	24.70	1.324	-	-	0.18	0.060	0.079
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 31	ECI 2	1413	1732.6	23.48	24.70	1.324	-	-	0.19	0.042	0.056
	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 13	ECI 2	132322	1745	16.92	17.70	1.197	-	-	-0.03	0.648	0.775
10	LTE Band 66	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 13	ECI 2	132322	1745	16.92	17.70	1.197	-	-	0.03	0.715	0.856
	LTE Band 66C	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 13	ECI 2	132322+132124	1745+1725.2	16.84	17.70	1.219	-	-	0.02	0.550	0.670
	LTE Band 66	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 13	ECI 2	132322	1745	16.92	17.70	1.197	-	-	-0.03	0.358	0.428
	LTE Band 66	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 13	ECI 2	132322	1745	16.92	17.70	1.197	-	-	-0.1	0.450	0.539
	LTE Band 66	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 13	ECI 2	132072	1720	16.90	17.70	1.202	-	-	-0.17	0.707	0.850
	LTE Band 66	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 13	ECI 2	132572	1770	16.89	17.70	1.205	-	-	-0.16	0.708	0.853
	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 13	ECI 3	132322	1745	15.42	16.20	1.197	-	-	0.06	0.465	0.556
	LTE Band 66	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 13	ECI 3	132322	1745	15.42	16.20	1.197	-	-	-0.02	0.504	0.603
	LTE Band 66	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 13	ECI 3	132322	1745	15.42	16.20	1.197	-	-	0.08	0.256	0.306
	LTE Band 66	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 13	ECI 3	132322	1745	15.42	16.20	1.197	-	-	0.07	0.326	0.390
	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 13	ECI 2	132322	1745	16.90	17.70	1.202	-	-	0.18	0.649	0.780
	LTE Band 66	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 13	ECI 2	132322	1745	16.90	17.70	1.202	-	-	-0.16	0.703	0.845
	LTE Band 66	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 13	ECI 2	132322	1745	16.90	17.70	1.202	-	-	-0.05	0.359	0.432
	LTE Band 66	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 13	ECI 2	132322	1745	16.90	17.70	1.202	-	-	0.14	0.454	0.546
	LTE Band 66	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 13	ECI 2	132072	1720	16.90	17.70	1.202	-	-	0.06	0.708	0.851
	LTE Band 66	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 13	ECI 2	132572	1770	16.90	17.70	1.202	-	-	-0.16	0.710	0.854
	LTE Band 66	20M	QPSK	100	0	-	Right Tilted	0mm	Ant 13	ECI 2	132322	1745	16.88	17.70	1.208	-	-	-0.08	0.671	0.810
	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 31	ECI 2	132322	1745	23.85	24.90	1.274	-	-	-0.09	0.067	0.085
	LTE Band 66	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 31	ECI 2	132322	1745	23.85	24.90	1.274	-	-	-0.14	0.053	0.067
	LTE Band 66	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 31	ECI 2	132322	1745	23.85	24.90	1.274	-	-	0.16	0.070	0.089
	LTE Band 66C	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 31	ECI 2	132322+132124	1745+1725.2	23.58	24.90	1.355	-	-	-0.01	0.063	0.085
	LTE Band 66	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 31	ECI 2	132322	1745	23.85	24.90	1.274	-	-	-0.02	0.045	0.057



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	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 31	ECI 2	132322	1745	22.86	23.90	1.271	-	-	-0.16	0.055	0.070
	LTE Band 66	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 31	ECI 2	132322	1745	22.86	23.90	1.271	-	-	-0.05	0.043	0.055
	LTE Band 66	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 31	ECI 2	132322	1745	22.86	23.90	1.271	-	-	0.13	0.057	0.072
	LTE Band 66	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 31	ECI 2	132322	1745	22.86	23.90	1.271	-	-	0.01	0.034	0.043
	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 11	ECI 2	132322	1745	19.83	20.90	1.279	-	-	-0.02	0.352	0.450
	LTE Band 66	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 11	ECI 2	132322	1745	19.83	20.90	1.279	-	-	-0.01	0.096	0.123
	LTE Band 66	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 11	ECI 2	132322	1745	19.83	20.90	1.279	-	-	0.03	0.151	0.193
	LTE Band 66	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 11	ECI 2	132322	1745	19.83	20.90	1.279	-	-	-0.11	0.094	0.120
	LTE Band 66C	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 11	ECI 2	132322+ 132124	1745+ 1725.2	19.68	20.90	1.324	-	-	-0.1	0.333	0.441
	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 11	ECI 3	132322	1745	18.33	19.40	1.279	-	-	-0.13	0.240	0.307
	LTE Band 66	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 11	ECI 3	132322	1745	18.33	19.40	1.279	-	-	-0.04	0.062	0.079
	LTE Band 66	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 11	ECI 3	132322	1745	18.33	19.40	1.279	-	-	0.16	0.107	0.137
	LTE Band 66	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 11	ECI 3	132322	1745	18.33	19.40	1.279	-	-	0.06	0.067	0.086
	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 11	ECI 2	132322	1745	19.80	20.90	1.288	-	-	-0.06	0.354	0.456
	LTE Band 66	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 11	ECI 2	132322	1745	19.80	20.90	1.288	-	-	0.07	0.096	0.124
	LTE Band 66	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 11	ECI 2	132322	1745	19.80	20.90	1.288	-	-	-0.1	0.154	0.198
	LTE Band 66	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 11	ECI 2	132322	1745	19.80	20.90	1.288	-	-	-0.02	0.102	0.131
	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 11	ECI 3	132322	1745	18.31	19.40	1.285	-	-	0.03	0.245	0.315
	LTE Band 66	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 11	ECI 3	132322	1745	18.31	19.40	1.285	-	-	0.07	0.067	0.086
	LTE Band 66	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 11	ECI 3	132322	1745	18.31	19.40	1.285	-	-	-0.01	0.111	0.143
	LTE Band 66	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 11	ECI 3	132322	1745	18.31	19.40	1.285	-	-	0.09	0.071	0.091
	FR1 n66	40M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 13	ECI 2	349000	1745	16.73	17.70	1.250	-	-	-0.01	0.596	0.745
	FR1 n66	40M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 13	ECI 2	349000	1745	16.73	17.70	1.250	-	-	-0.06	0.685	0.856
	FR1 n66	40M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 13	ECI 2	349000	1745	16.73	17.70	1.250	-	-	0.06	0.350	0.438
	FR1 n66	40M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 13	ECI 2	349000	1745	16.73	17.70	1.250	-	-	0.03	0.442	0.553
	FR1 n66	40M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 13	ECI 3	349000	1745	15.23	16.20	1.250	-	-	0.13	0.422	0.528
	FR1 n66	40M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 13	ECI 3	349000	1745	15.23	16.20	1.250	-	-	0.13	0.485	0.606
	FR1 n66	40M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 13	ECI 3	349000	1745	15.23	16.20	1.250	-	-	0.01	0.248	0.310
	FR1 n66	40M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 13	ECI 3	349000	1745	15.23	16.20	1.250	-	-	-0.1	0.313	0.391
	FR1 n66	40M	QPSK	108	54	DFT-15	Right Cheek	0mm	Ant 13	ECI 2	349000	1745	16.71	17.70	1.256	-	-	0.09	0.649	0.815
11	FR1 n66	40M	QPSK	108	54	DFT-15	Right Tilted	0mm	Ant 13	ECI 2	349000	1745	16.71	17.70	1.256	-	-	-0.09	0.740	0.929
	FR1 n66	40M	QPSK	108	54	DFT-15	Left Cheek	0mm	Ant 13	ECI 2	349000	1745	16.71	17.70	1.256	-	-	0.18	0.373	0.468
	FR1 n66	40M	QPSK	108	54	DFT-15	Left Tilted	0mm	Ant 13	ECI 2	349000	1745	16.71	17.70	1.256	-	-	-0.05	0.478	0.600
	FR1 n66	40M	QPSK	108	54	DFT-15	Right Cheek	0mm	Ant 13	ECI 3	349000	1745	15.21	16.20	1.256	-	-	0.08	0.453	0.569
	FR1 n66	40M	QPSK	108	54	DFT-15	Right Tilted	0mm	Ant 13	ECI 3	349000	1745	15.21	16.20	1.256	-	-	-0.01	0.531	0.667
	FR1 n66	40M	QPSK	108	54	DFT-15	Left Cheek	0mm	Ant 13	ECI 3	349000	1745	15.21	16.20	1.256	-	-	-0.08	0.270	0.339
	FR1 n66	40M	QPSK	108	54	DFT-15	Left Tilted	0mm	Ant 13	ECI 3	349000	1745	15.21	16.20	1.256	-	-	-0.05	0.341	0.428
	FR1 n66	40M	QPSK	216	0	DFT-15	Right Cheek	0mm	Ant 13	ECI 2	349000	1745	16.70	17.70	1.259	-	-	0.04	0.601	0.757
	FR1 n66	40M	QPSK	216	0	DFT-15	Right Tilted	0mm	Ant 13	ECI 2	349000	1745	16.70	17.70	1.259	-	-	0.01	0.699	0.880
	FR1 n66	40M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 31	ECI 2	349000	1745	23.80	24.90	1.288	-	-	0.15	0.065	0.084
	FR1 n66	40M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 31	ECI 2	349000	1745	23.80	24.90	1.288	-	-	-0.13	0.053	0.068
	FR1 n66	40M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 31	ECI 2	349000	1745	23.80	24.90	1.288	-	-	-0.1	0.072	0.093
	FR1 n66	40M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 31	ECI 2	349000	1745	23.80	24.90	1.288	-	-	-0.12	0.052	0.067
	FR1 n66	40M	QPSK	108	54	DFT-15	Right Cheek	0mm	Ant 31	ECI 2	349000	1745	23.78	24.90	1.294	-	-	-0.13	0.068	0.088
	FR1 n66	40M	QPSK	108	54	DFT-15	Right Tilted	0mm	Ant 31	ECI 2	349000	1745	23.78	24.90	1.294	-	-	0.13	0.060	0.078
	FR1 n66	40M	QPSK	108	54	DFT-15	Left Cheek	0mm	Ant 31	ECI 2	349000	1745	23.78	24.90	1.294	-	-	-0.04	0.077	0.100
	FR1 n66	40M	QPSK	108	54	DFT-15	Left Tilted	0mm	Ant 31	ECI 2	349000	1745	23.78	24.90	1.294	-	-	0.02	0.056	0.072
	FR1 n66	40M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 11	ECI 2	349000	1745	19.47	20.40	1.239	-	-	-0.06	0.385	0.477
	FR1 n66	40M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 11	ECI 2	349000	1745	19.47	20.40	1.239	-	-	0.18	0.116	0.144
	FR1 n66	40M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 11	ECI 2	349000	1745	19.47	20.40	1.239	-	-	0.12	0.165	0.204
	FR1 n66	40M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 11	ECI 2	349000	1745	19.47	20.40	1.239	-	-	0.07	0.135	0.167
	FR1 n66	40M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 11	ECI 3	349000	1745	17.97	18.90	1.239	-	-	0.02	0.273	0.338
	FR1 n66	40M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 11	ECI 3	349000	1745	17.97	18.90	1.239	-	-	0.09	0.082	0.102
	FR1 n66	40M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 11	ECI 3	349000	1745	17.97	18.90	1.239	-	-	0.01	0.117	0.145
	FR1 n66	40M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 11	ECI 3	349000	1745	17.97	18.90	1.239	-	-	0.08	0.096	0.119
	FR1 n66	40M	QPSK	108	54	DFT-15	Right Cheek	0mm	Ant 11	ECI 2	349000	1745	19.45	20.40	1.245	-	-	-0.16	0.373	0.464
	FR1 n66	40M	QPSK	108	54	DFT-15	Right Tilted	0mm	Ant 11	ECI 2	349000	1745	19.45	20.40	1.245	-	-	-0.04	0.108	0.134



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	FR1 n66	40M	QPSK	108	54	DFT-15	Left Cheek	0mm	Ant 11	ECI 2	349000	1745	19.45	20.40	1.245	-	-	0.01	0.157	0.195
	FR1 n66	40M	QPSK	108	54	DFT-15	Left Tilted	0mm	Ant 11	ECI 2	349000	1745	19.45	20.40	1.245	-	-	-0.12	0.117	0.146
1900MHz																				
	GSM1900	-	-	-	-	EDGE 2 TX Slot	Right Cheek	0mm	Ant 13	ECI 2	661	1880	23.52	24.90	1.374	-	-	0.06	0.442	0.607
12	GSM1900	-	-	-	-	EDGE 2 TX Slot	Right Tilted	0mm	Ant 13	ECI 2	661	1880	23.52	24.90	1.374	-	-	0.16	0.647	0.889
	GSM1900	-	-	-	-	EDGE 2 TX Slot	Left Cheek	0mm	Ant 13	ECI 2	661	1880	23.52	24.90	1.374	-	-	0.18	0.270	0.371
	GSM1900	-	-	-	-	EDGE 2 TX Slot	Left Tilted	0mm	Ant 13	ECI 2	661	1880	23.52	24.90	1.374	-	-	0.02	0.349	0.480
	GSM1900	-	-	-	-	EDGE 2 TX Slot	Right Tilted	0mm	Ant 13	ECI 2	512	1850.2	23.50	24.90	1.380	-	-	0.05	0.601	0.830
	GSM1900	-	-	-	-	EDGE 2 TX Slot	Right Tilted	0mm	Ant 13	ECI 2	810	1909.8	23.47	24.90	1.390	-	-	0.02	0.623	0.866
	GSM1900	-	-	-	-	EDGE 2 TX Slot	Right Cheek	0mm	Ant 13	ECI 3	661	1880	21.55	22.70	1.303	-	-	0.07	0.278	0.362
	GSM1900	-	-	-	-	EDGE 2 TX Slot	Right Tilted	0mm	Ant 13	ECI 3	661	1880	21.55	22.70	1.303	-	-	-0.04	0.417	0.543
	GSM1900	-	-	-	-	EDGE 2 TX Slot	Left Cheek	0mm	Ant 13	ECI 3	661	1880	21.55	22.70	1.303	-	-	-0.05	0.169	0.220
	GSM1900	-	-	-	-	EDGE 2 TX Slot	Left Tilted	0mm	Ant 13	ECI 3	661	1880	21.55	22.70	1.303	-	-	0.04	0.219	0.285
	GSM1900	-	-	-	-	GPRS 2 TX Slot	Right Cheek	0mm	Ant 31	ECI 2	661	1880	27.32	28.70	1.374	-	-	0.04	0.065	0.089
	GSM1900	-	-	-	-	GPRS 2 TX Slot	Right Tilted	0mm	Ant 31	ECI 2	661	1880	27.32	28.70	1.374	-	-	0.05	0.052	0.071
	GSM1900	-	-	-	-	GPRS 2 TX Slot	Left Cheek	0mm	Ant 31	ECI 2	661	1880	27.32	28.70	1.374	-	-	-0.15	0.086	0.118
	GSM1900	-	-	-	-	GPRS 2 TX Slot	Left Tilted	0mm	Ant 31	ECI 2	661	1880	27.32	28.70	1.374	-	-	-0.04	0.045	0.062
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 13	ECI 2	9400	1880	17.15	18.20	1.274	-	-	0.02	0.528	0.672
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 13	ECI 2	9400	1880	17.15	18.20	1.274	-	-	0.04	0.636	0.810
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 13	ECI 2	9400	1880	17.15	18.20	1.274	-	-	0.19	0.305	0.388
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 13	ECI 2	9400	1880	17.15	18.20	1.274	-	-	0.07	0.407	0.518
13	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 13	ECI 2	9262	1852.4	17.13	18.20	1.279	-	-	0.15	0.835	1.068
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 13	ECI 2	9538	1907.6	17.12	18.20	1.282	-	-	-0.14	0.630	0.808
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 13	ECI 3	9400	1880	15.65	16.70	1.274	-	-	-0.01	0.371	0.472
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 13	ECI 3	9400	1880	15.65	16.70	1.274	-	-	-0.09	0.550	0.700
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 13	ECI 3	9400	1880	15.65	16.70	1.274	-	-	0.01	0.217	0.276
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 13	ECI 3	9400	1880	15.65	16.70	1.274	-	-	0.09	0.293	0.373
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 31	ECI 2	9400	1880	22.86	24.20	1.361	-	-	-0.14	0.110	0.150
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 31	ECI 2	9400	1880	22.86	24.20	1.361	-	-	-0.01	0.079	0.108
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 31	ECI 2	9400	1880	22.86	24.20	1.361	-	-	0	0.132	0.180
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 31	ECI 2	9400	1880	22.86	24.20	1.361	-	-	-0.08	0.082	0.112
	LTE Band 2	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 13	ECI 2	18900	1880	17.40	18.20	1.202	-	-	0.03	0.636	0.765
	LTE Band 2	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 13	ECI 2	18900	1880	17.40	18.20	1.202	-	-	-0.08	0.716	0.861
	LTE Band 2	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 13	ECI 2	18900	1880	17.40	18.20	1.202	-	-	-0.03	0.376	0.452
	LTE Band 2	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 13	ECI 2	18900	1880	17.40	18.20	1.202	-	-	0.17	0.472	0.567
14	LTE Band 2	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 13	ECI 2	18700	1860	17.38	18.20	1.208	-	-	-0.01	0.794	0.959
	LTE Band 2C	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 13	ECI 2	18700+18898	1860+1879.8	17.06	18.20	1.300	-	-	0.13	0.594	0.772
	LTE Band 2	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 13	ECI 2	19100	1900	17.37	18.20	1.211	-	-	-0.03	0.771	0.933
	LTE Band 2	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 13	ECI 3	18900	1880	15.87	16.70	1.211	-	-	-0.05	0.432	0.523
	LTE Band 2	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 13	ECI 3	18900	1880	15.87	16.70	1.211	-	-	-0.03	0.543	0.657
	LTE Band 2	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 13	ECI 3	18900	1880	15.87	16.70	1.211	-	-	-0.08	0.260	0.315
	LTE Band 2	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 13	ECI 3	18900	1880	15.87	16.70	1.211	-	-	-0.06	0.333	0.403
	LTE Band 2	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 13	ECI 2	18900	1880	17.38	18.20	1.208	-	-	0.06	0.637	0.769
	LTE Band 2	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 13	ECI 2	18900	1880	17.38	18.20	1.208	-	-	0.03	0.724	0.874
	LTE Band 2	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 13	ECI 2	18900	1880	17.38	18.20	1.208	-	-	0.16	0.376	0.454
	LTE Band 2	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 13	ECI 2	18900	1880	17.38	18.20	1.208	-	-	-0.02	0.479	0.579
	LTE Band 2	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 13	ECI 2	18700	1860	17.37	18.20	1.211	-	-	0.12	0.789	0.955
	LTE Band 2	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 13	ECI 2	19100	1900	17.35	18.20	1.216	-	-	0.16	0.774	0.941
	LTE Band 2	20M	QPSK	100	0	-	Right Tilted	0mm	Ant 13	ECI 2	18900	1880	17.36	18.20	1.213	-	-	0.17	0.673	0.817
	LTE Band 2	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 31	ECI 2	18900	1880	23.35	24.50	1.303	-	-	-0.19	0.121	0.158
	LTE Band 2	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 31	ECI 2	18900	1880	23.35	24.50	1.303	-	-	0.17	0.091	0.119
	LTE Band 2	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 31	ECI 2	18900	1880	23.35	24.50	1.303	-	-	-0.14	0.137	0.179
	LTE Band 2C	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 31	ECI 2	18900+19098	1880+1899.8	23.21	24.50	1.346	-	-	0.03	0.130	0.175
	LTE Band 2	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 31	ECI 2	18900	1880	23.35	24.50	1.303	-	-	-0.18	0.086	0.112
	LTE Band 2	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 31	ECI 2	18900	1880	22.36	23.50	1.300	-	-	-0.03	0.097	0.126
	LTE Band 2	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 31	ECI 2	18900	1880	22.36	23.50	1.300	-	-	-0.18	0.070	0.091
	LTE Band 2	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 31	ECI 2	18900	1880	22.36	23.50	1.300	-	-	0.19	0.108	0.140



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	LTE Band 2	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 31	ECI 2	18900	1880	22.36	23.50	1.300	-	-	-0.05	0.068	0.088
	LTE Band 2	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 11	ECI 2	18900	1880	22.92	24.60	1.472	-	-	0.09	0.245	0.361
	LTE Band 2	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 11	ECI 2	18900	1880	22.92	24.60	1.472	-	-	-	n/a	n/a
	LTE Band 2	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 11	ECI 2	18900	1880	22.92	24.60	1.472	-	-	0.09	0.079	0.116
	LTE Band 2	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 11	ECI 2	18900	1880	22.92	24.60	1.472	-	-	-	n/a	n/a
	LTE Band 2	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 11	ECI 3	18900	1880	21.93	23.60	1.469	-	-	-0.08	0.194	0.285
	LTE Band 2	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 11	ECI 3	18900	1880	21.93	23.60	1.469	-	-	-	n/a	n/a
	LTE Band 2	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 11	ECI 3	18900	1880	21.93	23.60	1.469	-	-	-0.01	0.062	0.091
	LTE Band 2	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 11	ECI 3	18900	1880	21.93	23.60	1.469	-	-	-	n/a	n/a
	LTE Band 2	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 11	ECI 2	18900	1880	21.82	23.60	1.507	-	-	0.05	0.188	0.283
	LTE Band 2	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 11	ECI 2	18900	1880	21.82	23.60	1.507	-	-	-	n/a	n/a
	LTE Band 2	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 11	ECI 2	18900	1880	21.82	23.60	1.507	-	-	0.12	0.058	0.087
	LTE Band 2	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 11	ECI 2	18900	1880	21.82	23.60	1.507	-	-	-	n/a	n/a
	FR1 n2	20M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 13	ECI 2	376000	1880	17.17	18.20	1.268	-	-	-0.11	0.642	0.814
	FR1 n2	20M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 13	ECI 2	376000	1880	17.17	18.20	1.268	-	-	0.12	0.748	0.948
	FR1 n2	20M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 13	ECI 2	376000	1880	17.17	18.20	1.268	-	-	-0.16	0.409	0.518
	FR1 n2	20M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 13	ECI 2	376000	1880	17.17	18.20	1.268	-	-	-0.04	0.488	0.619
	FR1 n2	20M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 13	ECI 2	372000	1860	17.15	18.20	1.274	-	-	0.14	0.727	0.926
	FR1 n2	20M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 13	ECI 2	380000	1900	17.13	18.20	1.279	-	-	0.13	0.679	0.869
	FR1 n2	20M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 13	ECI 2	372000	1860	17.15	18.20	1.274	-	-	0.18	0.764	0.973
	FR1 n2	20M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 13	ECI 2	380000	1900	17.13	18.20	1.279	-	-	0.1	0.709	0.907
	FR1 n2	20M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 13	ECI 3	376000	1880	15.18	16.20	1.265	-	-	0.17	0.405	0.512
	FR1 n2	20M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 13	ECI 3	376000	1880	15.18	16.20	1.265	-	-	0.19	0.472	0.597
	FR1 n2	20M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 13	ECI 3	376000	1880	15.18	16.20	1.265	-	-	-0.05	0.258	0.326
	FR1 n2	20M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 13	ECI 3	376000	1880	15.18	16.20	1.265	-	-	-0.05	0.308	0.390
	FR1 n2	20M	QPSK	50	28	DFT-15	Right Cheek	0mm	Ant 13	ECI 2	376000	1880	17.15	18.20	1.274	-	-	-0.03	0.683	0.870
15	FR1 n2	20M	QPSK	50	28	DFT-15	Right Tilted	0mm	Ant 13	ECI 2	376000	1880	17.15	18.20	1.274	-	-	-0.06	0.798	1.016
	FR1 n2	20M	QPSK	50	28	DFT-15	Left Cheek	0mm	Ant 13	ECI 2	376000	1880	17.15	18.20	1.274	-	-	0.13	0.440	0.560
	FR1 n2	20M	QPSK	50	28	DFT-15	Left Tilted	0mm	Ant 13	ECI 2	376000	1880	17.15	18.20	1.274	-	-	0.17	0.524	0.667
	FR1 n2	20M	QPSK	50	28	DFT-15	Right Cheek	0mm	Ant 13	ECI 2	372000	1860	17.13	18.20	1.279	-	-	0.09	0.776	0.993
	FR1 n2	20M	QPSK	50	28	DFT-15	Right Cheek	0mm	Ant 13	ECI 2	380000	1900	17.11	18.20	1.285	-	-	-0.04	0.724	0.931
	FR1 n2	20M	QPSK	50	28	DFT-15	Right Tilted	0mm	Ant 13	ECI 2	372000	1860	17.13	18.20	1.279	-	-	-0.04	0.790	1.011
	FR1 n2	20M	QPSK	50	28	DFT-15	Right Tilted	0mm	Ant 13	ECI 2	380000	1900	17.11	18.20	1.285	-	-	-0.09	0.756	0.972
	FR1 n2	20M	QPSK	50	28	DFT-15	Right Cheek	0mm	Ant 13	ECI 3	376000	1880	15.17	16.20	1.268	-	-	0.1	0.473	0.600
	FR1 n2	20M	QPSK	50	28	DFT-15	Right Tilted	0mm	Ant 13	ECI 3	376000	1880	15.17	16.20	1.268	-	-	0.04	0.504	0.639
	FR1 n2	20M	QPSK	50	28	DFT-15	Left Cheek	0mm	Ant 13	ECI 3	376000	1880	15.17	16.20	1.268	-	-	0.07	0.278	0.352
	FR1 n2	20M	QPSK	50	28	DFT-15	Left Tilted	0mm	Ant 13	ECI 3	376000	1880	15.17	16.20	1.268	-	-	-0.09	0.330	0.418
	FR1 n2	20M	QPSK	100	0	DFT-15	Right Cheek	0mm	Ant 13	ECI 2	376000	1880	17.13	18.20	1.279	-	-	-0.02	0.645	0.825
	FR1 n2	20M	QPSK	100	0	DFT-15	Right Tilted	0mm	Ant 13	ECI 2	376000	1880	17.13	18.20	1.279	-	-	0	0.753	0.963
	FR1 n2	20M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 31	ECI 2	376000	1880	23.05	24.00	1.245	-	-	0.11	0.101	0.126
	FR1 n2	20M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 31	ECI 2	376000	1880	23.05	24.00	1.245	-	-	-0.03	0.078	0.097
	FR1 n2	20M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 31	ECI 2	376000	1880	23.05	24.00	1.245	-	-	0.12	0.122	0.152
	FR1 n2	20M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 31	ECI 2	376000	1880	23.05	24.00	1.245	-	-	-0.11	0.077	0.096
	FR1 n2	20M	QPSK	50	28	DFT-15	Right Cheek	0mm	Ant 31	ECI 2	376000	1880	23.03	24.00	1.250	-	-	0.14	0.102	0.128
	FR1 n2	20M	QPSK	50	28	DFT-15	Right Tilted	0mm	Ant 31	ECI 2	376000	1880	23.03	24.00	1.250	-	-	0.07	0.077	0.096
	FR1 n2	20M	QPSK	50	28	DFT-15	Left Cheek	0mm	Ant 31	ECI 2	376000	1880	23.03	24.00	1.250	-	-	0.06	0.126	0.158
	FR1 n2	20M	QPSK	50	28	DFT-15	Left Tilted	0mm	Ant 31	ECI 2	376000	1880	23.03	24.00	1.250	-	-	0.17	0.074	0.093
	FR1 n2	20M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 11	ECI 2	376000	1880	23.35	24.20	1.216	-	-	-0.1	0.245	0.298
	FR1 n2	20M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 11	ECI 2	376000	1880	23.35	24.20	1.216	-	-	-0.05	0.044	0.054
	FR1 n2	20M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 11	ECI 2	376000	1880	23.35	24.20	1.216	-	-	-0.18	0.089	0.108
	FR1 n2	20M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 11	ECI 2	376000	1880	23.35	24.20	1.216	-	-	0.06	0.050	0.061
	FR1 n2	20M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 11	ECI 3	376000	1880	22.37	23.20	1.211	-	-	0.07	0.191	0.231
	FR1 n2	20M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 11	ECI 3	376000	1880	22.37	23.20	1.211	-	-	-0.06	0.036	0.044
	FR1 n2	20M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 11	ECI 3	376000	1880	22.37	23.20	1.211	-	-	0.1	0.071	0.086
	FR1 n2	20M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 11	ECI 3	376000	1880	22.37	23.20	1.211	-	-	0.04	0.040	0.048
	FR1 n2	20M	QPSK	50	28	DFT-15	Right Cheek	0mm	Ant 11	ECI 2	376000	1880	23.33	24.20	1.222	-	-	0.13	0.243	0.297
	FR1 n2	20M	QPSK	50	28	DFT-15	Right Tilted	0mm	Ant 11	ECI 2	376000	1880	23.33	24.20	1.222	-	-	0.17	0.043	0.053
	FR1 n2	20M	QPSK	50	28	DFT-15	Left Cheek	0mm	Ant 11	ECI 2	376000	1880	23.33	24.20	1.222	-	-	-0.11	0.088	0.108



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	FR1 n2	20M	QPSK	50	28	DFT-15	Left Tilted	Omm	Ant 11	ECI 2	376000	1880	23.33	24.20	1.222	-	-	0.04	0.035	0.043
2600MHz																				
16	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	Omm	Ant 13	ECI 2	21100	2535	15.80	16.70	1.230	-	-	-0.18	0.435	0.535
	LTE Band 7	20M	QPSK	1	0	-	Right Tilted	Omm	Ant 13	ECI 2	21100	2535	15.80	16.70	1.230	-	-	-0.02	0.676	0.832
	LTE Band 7C	20M	QPSK	1	0	-	Right Tilted	Omm	Ant 13	ECI 2	21100+20902	2535+2515.2	15.73	16.70	1.250	-	-	-0.07	0.562	0.703
	LTE Band 7	20M	QPSK	1	0	-	Left Cheek	Omm	Ant 13	ECI 2	21100	2535	15.80	16.70	1.230	-	-	0.17	0.191	0.235
	LTE Band 7	20M	QPSK	1	0	-	Left Tilted	Omm	Ant 13	ECI 2	21100	2535	15.80	16.70	1.230	-	-	0.05	0.255	0.314
	LTE Band 7	20M	QPSK	1	0	-	Right Tilted	Omm	Ant 13	ECI 2	20850	2510	15.78	16.70	1.236	-	-	0.15	0.526	0.650
	LTE Band 7	20M	QPSK	1	0	-	Right Tilted	Omm	Ant 13	ECI 2	21350	2560	15.77	16.70	1.239	-	-	0.18	0.590	0.731
	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	Omm	Ant 13	ECI 3	21100	2535	14.30	15.20	1.230	-	-	-0.07	0.303	0.373
	LTE Band 7	20M	QPSK	1	0	-	Right Tilted	Omm	Ant 13	ECI 3	21100	2535	14.30	15.20	1.230	-	-	-0.09	0.490	0.603
	LTE Band 7	20M	QPSK	1	0	-	Left Cheek	Omm	Ant 13	ECI 3	21100	2535	14.30	15.20	1.230	-	-	-0.09	0.138	0.170
	LTE Band 7	20M	QPSK	1	0	-	Left Tilted	Omm	Ant 13	ECI 3	21100	2535	14.30	15.20	1.230	-	-	-0.1	0.180	0.221
	LTE Band 7	20M	QPSK	50	0	-	Right Cheek	Omm	Ant 13	ECI 2	21100	2535	15.78	16.70	1.236	-	-	0.05	0.428	0.529
	LTE Band 7	20M	QPSK	50	0	-	Right Tilted	Omm	Ant 13	ECI 2	21100	2535	15.78	16.70	1.236	-	-	0.15	0.587	0.726
	LTE Band 7	20M	QPSK	50	0	-	Left Cheek	Omm	Ant 13	ECI 2	21100	2535	15.78	16.70	1.236	-	-	-0.11	0.190	0.235
	LTE Band 7	20M	QPSK	50	0	-	Left Tilted	Omm	Ant 13	ECI 2	21100	2535	15.78	16.70	1.236	-	-	-0.07	0.253	0.313
	LTE Band 7	20M	QPSK	100	0	-	Right Tilted	Omm	Ant 13	ECI 2	21100	2535	15.76	16.70	1.242	-	-	0.16	0.645	0.801
	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	Omm	Ant 31	ECI 2	21100	2535	23.40	24.40	1.259	-	-	0	0.355	0.447
	LTE Band 7C	20M	QPSK	1	0	-	Right Cheek	Omm	Ant 31	ECI 2	21100+20902	2535+2515.2	23.17	24.40	1.327	-	-	-0.05	0.333	0.442
	LTE Band 7	20M	QPSK	1	0	-	Right Tilted	Omm	Ant 31	ECI 2	21100	2535	23.40	24.40	1.259	-	-	-0.11	0.156	0.196
	LTE Band 7	20M	QPSK	1	0	-	Left Cheek	Omm	Ant 31	ECI 2	21100	2535	23.40	24.40	1.259	-	-	0.13	0.189	0.238
	LTE Band 7	20M	QPSK	1	0	-	Left Tilted	Omm	Ant 31	ECI 2	21100	2535	23.40	24.40	1.259	-	-	-0.12	0.111	0.140
	LTE Band 7	20M	QPSK	50	0	-	Right Cheek	Omm	Ant 31	ECI 2	21100	2535	22.40	23.40	1.259	-	-	-0.05	0.293	0.369
	LTE Band 7	20M	QPSK	50	0	-	Right Tilted	Omm	Ant 31	ECI 2	21100	2535	22.40	23.40	1.259	-	-	0.16	0.125	0.157
	LTE Band 7	20M	QPSK	50	0	-	Left Cheek	Omm	Ant 31	ECI 2	21100	2535	22.40	23.40	1.259	-	-	-0.1	0.154	0.194
	LTE Band 7	20M	QPSK	50	0	-	Left Tilted	Omm	Ant 31	ECI 2	21100	2535	22.40	23.40	1.259	-	-	0.11	0.093	0.117
	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	Omm	Ant 11	ECI 2	21100	2535	17.43	18.40	1.250	-	-	-0.16	0.471	0.589
	LTE Band 7	20M	QPSK	1	0	-	Right Tilted	Omm	Ant 11	ECI 2	21100	2535	17.43	18.40	1.250	-	-	-0.05	0.153	0.191
	LTE Band 7	20M	QPSK	1	0	-	Left Cheek	Omm	Ant 11	ECI 2	21100	2535	17.43	18.40	1.250	-	-	0.16	0.176	0.220
	LTE Band 7	20M	QPSK	1	0	-	Left Tilted	Omm	Ant 11	ECI 2	21100	2535	17.43	18.40	1.250	-	-	-0.11	0.098	0.123
	LTE Band 7C	20M	QPSK	1	0	-	Right Cheek	Omm	Ant 11	ECI 2	21100+20902	2535+2515.2	17.30	18.40	1.288	-	-	-0.1	0.441	0.568
	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	Omm	Ant 11	ECI 3	21100	2535	15.88	16.90	1.265	-	-	-0.16	0.333	0.421
	LTE Band 7	20M	QPSK	1	0	-	Right Tilted	Omm	Ant 11	ECI 3	21100	2535	15.88	16.90	1.265	-	-	0.04	0.108	0.137
	LTE Band 7	20M	QPSK	1	0	-	Left Cheek	Omm	Ant 11	ECI 3	21100	2535	15.88	16.90	1.265	-	-	0.03	0.125	0.158
	LTE Band 7	20M	QPSK	1	0	-	Left Tilted	Omm	Ant 11	ECI 3	21100	2535	15.88	16.90	1.265	-	-	-0.08	0.069	0.087
	LTE Band 7	20M	QPSK	50	0	-	Right Cheek	Omm	Ant 11	ECI 2	21100	2535	17.41	18.40	1.256	-	-	0.04	0.498	0.626
	LTE Band 7	20M	QPSK	50	0	-	Right Tilted	Omm	Ant 11	ECI 2	21100	2535	17.41	18.40	1.256	-	-	-0.11	0.159	0.200
	LTE Band 7	20M	QPSK	50	0	-	Left Cheek	Omm	Ant 11	ECI 2	21100	2535	17.41	18.40	1.256	-	-	-0.12	0.184	0.231
	LTE Band 7	20M	QPSK	50	0	-	Left Tilted	Omm	Ant 11	ECI 2	21100	2535	17.41	18.40	1.256	-	-	0.1	0.109	0.137
	LTE Band 7	20M	QPSK	50	0	-	Right Cheek	Omm	Ant 11	ECI 3	21100	2535	15.86	16.90	1.271	-	-	-0.01	0.345	0.438
	LTE Band 7	20M	QPSK	50	0	-	Right Tilted	Omm	Ant 11	ECI 3	21100	2535	15.86	16.90	1.271	-	-	0.02	0.111	0.141
	LTE Band 7	20M	QPSK	50	0	-	Left Cheek	Omm	Ant 11	ECI 3	21100	2535	15.86	16.90	1.271	-	-	0.07	0.128	0.163
	LTE Band 7	20M	QPSK	50	0	-	Left Tilted	Omm	Ant 11	ECI 3	21100	2535	15.86	16.90	1.271	-	-	0.04	0.076	0.097
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	Omm	Ant 13	ECI 2	40185	2549.5	17.50	18.50	1.259	62.9	1.006	0.07	0.433	0.548
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	Omm	Ant 13	ECI 2	40185	2549.5	17.50	18.50	1.259	62.9	1.006	0.17	0.548	0.694
	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	Omm	Ant 13	ECI 2	40185	2549.5	17.50	18.50	1.259	62.9	1.006	-0.05	0.180	0.228
	LTE Band 41	20M	QPSK	1	0	-	Left Tilted	Omm	Ant 13	ECI 2	40185	2549.5	17.50	18.50	1.259	62.9	1.006	0.02	0.250	0.317
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	Omm	Ant 13	ECI 2	39750	2506	17.22	18.50	1.343	62.9	1.006	0.1	0.491	0.663
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	Omm	Ant 13	ECI 2	40620	2593	17.48	18.50	1.265	62.9	1.006	-0.14	0.575	0.732
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	Omm	Ant 13	ECI 2	41055	2636.5	17.37	18.50	1.297	62.9	1.006	0.1	0.492	0.642
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	Omm	Ant 13	ECI 2	41490	2680	17.43	18.50	1.279	62.9	1.006	-0.13	0.389	0.501
	LTE Band 41C	20M	QPSK	1	0	-	Right Tilted	Omm	Ant 13	ECI 2	40620+40422	2593+2573.2	17.52	18.50	1.253	62.9	1.006	0.1	0.543	0.685
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	Omm	Ant 13	ECI 3	40185	2549.5	16.02	17.00	1.253	62.9	1.006	-0.06	0.307	0.387
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	Omm	Ant 13	ECI 3	40185	2549.5	16.02	17.00	1.253	62.9	1.006	0.17	0.388	0.489
	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	Omm	Ant 13	ECI 3	40185	2549.5	16.02	17.00	1.253	62.9	1.006	-0.06	0.127	0.160



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	LTE Band 41	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 13	ECI 3	40185	2549.5	16.02	17.00	1.253	62.9	1.006	0.07	0.177	0.223
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 13	ECI 2	40185	2549.5	17.48	18.50	1.265	62.9	1.006	0.06	0.444	0.565
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 13	ECI 2	40185	2549.5	17.48	18.50	1.265	62.9	1.006	0.06	0.562	0.715
	LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 13	ECI 2	40185	2549.5	17.48	18.50	1.265	62.9	1.006	-0.06	0.187	0.238
	LTE Band 41	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 13	ECI 2	40185	2549.5	17.48	18.50	1.265	62.9	1.006	0.04	0.253	0.322
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 13	ECI 2	39750	2506	17.21	18.50	1.346	62.9	1.006	-0.04	0.495	0.670
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 13	ECI 2	40620	2593	17.46	18.50	1.271	62.9	1.006	0.18	0.574	0.734
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 13	ECI 2	41055	2636.5	17.35	18.50	1.303	62.9	1.006	0.04	0.482	0.632
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 13	ECI 2	41490	2680	17.41	18.50	1.285	62.9	1.006	0.05	0.389	0.503
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 13	ECI 3	40185	2549.5	16.01	17.00	1.256	62.9	1.006	-0.02	0.312	0.394
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 13	ECI 3	40185	2549.5	16.01	17.00	1.256	62.9	1.006	-0.03	0.415	0.524
	LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 13	ECI 3	40185	2549.5	16.01	17.00	1.256	62.9	1.006	0.08	0.135	0.171
	LTE Band 41	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 13	ECI 3	40185	2549.5	16.01	17.00	1.256	62.9	1.006	0.06	0.181	0.229
	LTE Band 41	20M	QPSK	100	0	-	Right Tilted	0mm	Ant 13	ECI 2	40185	2549.5	17.46	18.50	1.271	62.9	1.006	-0.04	0.531	0.679
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 31	ECI 2	40185	2549.5	24.05	25.00	1.245	62.9	1.006	0.01	0.268	0.336
	LTE Band 41C	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 31	ECI 2	40185+39987	2549.5+2529.7	24.04	25.00	1.247	62.9	1.006	0.04	0.224	0.281
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 31	ECI 2	40185	2549.5	24.05	25.00	1.245	62.9	1.006	0.08	0.111	0.139
	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 31	ECI 2	40185	2549.5	24.05	25.00	1.245	62.9	1.006	0.08	0.144	0.180
	LTE Band 41	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 31	ECI 2	40185	2549.5	24.05	25.00	1.245	62.9	1.006	0	0.087	0.109
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 31	ECI 2	40185	2549.5	23.06	24.00	1.242	62.9	1.006	0.12	0.234	0.292
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 31	ECI 2	40185	2549.5	23.06	24.00	1.242	62.9	1.006	-0.08	0.096	0.120
	LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 31	ECI 2	40185	2549.5	23.06	24.00	1.242	62.9	1.006	-0.1	0.125	0.156
	LTE Band 41	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 31	ECI 2	40185	2549.5	23.06	24.00	1.242	62.9	1.006	-0.17	0.072	0.090
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 11	ECI 2	40185	2549.5	18.55	19.50	1.245	62.9	1.006	0.13	0.569	0.712
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 11	ECI 2	40185	2549.5	18.55	19.50	1.245	62.9	1.006	-0.06	0.180	0.225
	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 11	ECI 2	40185	2549.5	18.55	19.50	1.245	62.9	1.006	-0.12	0.210	0.263
	LTE Band 41	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 11	ECI 2	40185	2549.5	18.55	19.50	1.245	62.9	1.006	-0.12	0.121	0.151
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 11	ECI 2	39750	2506	18.33	19.50	1.309	62.9	1.006	0.15	0.363	0.478
17	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 11	ECI 2	40620	2593	18.05	19.50	1.396	62.9	1.006	-0.01	0.583	0.819
	LTE Band 41C	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 11	ECI 2	40620+40422	2593+2573.2	18.06	19.50	1.393	62.9	1.006	0.1	0.519	0.727
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 11	ECI 2	41055	2636.5	18.11	19.50	1.377	62.9	1.006	0.14	0.466	0.646
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 11	ECI 2	41490	2680	18.25	19.50	1.334	62.9	1.006	-0.09	0.415	0.557
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 11	ECI 3	40185	2549.5	17.55	18.50	1.245	62.9	1.006	-0.05	0.432	0.541
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 11	ECI 3	40185	2549.5	17.55	18.50	1.245	62.9	1.006	0.1	0.142	0.178
	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 11	ECI 3	40185	2549.5	17.55	18.50	1.245	62.9	1.006	-0.02	0.166	0.208
	LTE Band 41	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 11	ECI 3	40185	2549.5	17.55	18.50	1.245	62.9	1.006	-0.05	0.095	0.119
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 11	ECI 2	40185	2549.5	18.53	19.50	1.250	62.9	1.006	0.1	0.590	0.742
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 11	ECI 2	40185	2549.5	18.53	19.50	1.250	62.9	1.006	0.15	0.177	0.223
	LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 11	ECI 2	40185	2549.5	18.53	19.50	1.250	62.9	1.006	-0.02	0.207	0.260
	LTE Band 41	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 11	ECI 2	40185	2549.5	18.53	19.50	1.250	62.9	1.006	-0.11	0.120	0.151
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 11	ECI 2	39750	2506	18.31	19.50	1.315	62.9	1.006	0.1	0.384	0.508
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 11	ECI 2	40620	2593	18.03	19.50	1.403	62.9	1.006	0.15	0.571	0.806
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 11	ECI 2	41055	2636.5	18.10	19.50	1.380	62.9	1.006	-0.16	0.464	0.644
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 11	ECI 2	41490	2680	18.23	19.50	1.340	62.9	1.006	0.09	0.418	0.563
	LTE Band 41	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 11	ECI 2	40185	2549.5	18.51	19.50	1.256	62.9	1.006	0.03	0.597	0.754
	FR1 n7	50M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 13	ECI 2	507000	2535	15.37	16.20	1.211	-	-	-0.15	0.408	0.494
	FR1 n7	50M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 13	ECI 2	507000	2535	15.37	16.20	1.211	-	-	-0.14	0.517	0.626
	FR1 n7	50M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 13	ECI 2	507000	2535	15.37	16.20	1.211	-	-	0.13	0.162	0.196
	FR1 n7	50M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 13	ECI 2	507000	2535	15.37	16.20	1.211	-	-	-0.18	0.219	0.265
	FR1 n7	50M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 13	ECI 3	507000	2535	14.37	15.20	1.211	-	-	0.05	0.324	0.392
	FR1 n7	50M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 13	ECI 3	507000	2535	14.37	15.20	1.211	-	-	0.08	0.411	0.498
	FR1 n7	50M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 13	ECI 3	507000	2535	14.37	15.20	1.211	-	-	0.02	0.129	0.156
	FR1 n7	50M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 13	ECI 3	507000	2535	14.37	15.20	1.211	-	-	0.04	0.174	0.211
	FR1 n7	50M	QPSK	135	68	DFT-15	Right Cheek	0mm	Ant 13	ECI 2	507000	2535	15.35	16.20	1.216	-	-	-0.06	0.449	0.546
18	FR1 n7	50M	QPSK	135	68	DFT-15	Right Tilted	0mm	Ant 13	ECI 2	507000	2535	15.35	16.20	1.216	-	-	0.02	0.566	0.688
	FR1 n7	50M	QPSK	135	68	DFT-15	Left Cheek	0mm	Ant 13	ECI 2	507000	2535	15.35	16.20	1.216	-	-	-0.13	0.186	0.226
	FR1 n7	50M	QPSK	135	68	DFT-15	Left Tilted	0mm	Ant 13	ECI 2	507000	2535	15.35	16.20	1.216	-	-	0.18	0.247	0.300



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	FR1 n7	50M	QPSK	135	68	DFT-15	Right Cheek	0mm	Ant 13	ECI 3	507000	2535	14.35	15.20	1.216	-	-	0.09	0.362	0.440
	FR1 n7	50M	QPSK	135	68	DFT-15	Right Tilted	0mm	Ant 13	ECI 3	507000	2535	14.35	15.20	1.216	-	-	-0.05	0.441	0.536
	FR1 n7	50M	QPSK	135	68	DFT-15	Left Cheek	0mm	Ant 13	ECI 3	507000	2535	14.35	15.20	1.216	-	-	0.04	0.150	0.182
	FR1 n7	50M	QPSK	135	68	DFT-15	Left Tilted	0mm	Ant 13	ECI 3	507000	2535	14.35	15.20	1.216	-	-	0.08	0.196	0.238
	FR1 n7	50M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 31	ECI 2	507000	2535	23.55	24.40	1.216	-	-	0.02	0.348	0.423
	FR1 n7	50M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 31	ECI 2	507000	2535	23.55	24.40	1.216	-	-	-0.03	0.158	0.192
	FR1 n7	50M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 31	ECI 2	507000	2535	23.55	24.40	1.216	-	-	-0.15	0.179	0.218
	FR1 n7	50M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 31	ECI 2	507000	2535	23.55	24.40	1.216	-	-	0.07	0.132	0.161
	FR1 n7	50M	QPSK	135	68	DFT-15	Right Cheek	0mm	Ant 31	ECI 2	507000	2535	23.53	24.40	1.222	-	-	0.17	0.431	0.527
	FR1 n7	50M	QPSK	135	68	DFT-15	Right Tilted	0mm	Ant 31	ECI 2	507000	2535	23.53	24.40	1.222	-	-	-0.11	0.193	0.236
	FR1 n7	50M	QPSK	135	68	DFT-15	Left Cheek	0mm	Ant 31	ECI 2	507000	2535	23.53	24.40	1.222	-	-	0.19	0.216	0.264
	FR1 n7	50M	QPSK	135	68	DFT-15	Left Tilted	0mm	Ant 31	ECI 2	507000	2535	23.53	24.40	1.222	-	-	-0.07	0.155	0.189
	FR1 n7	50M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 11	ECI 2	507000	2535	17.46	18.40	1.242	-	-	0.05	0.410	0.509
	FR1 n7	50M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 11	ECI 2	507000	2535	17.46	18.40	1.242	-	-	-0.03	0.131	0.163
	FR1 n7	50M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 11	ECI 2	507000	2535	17.46	18.40	1.242	-	-	0.13	0.126	0.156
	FR1 n7	50M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 11	ECI 2	507000	2535	17.46	18.40	1.242	-	-	-0.12	0.066	0.082
	FR1 n7	50M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 11	ECI 3	507000	2535	15.95	16.90	1.245	-	-	-0.05	0.290	0.361
	FR1 n7	50M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 11	ECI 3	507000	2535	15.95	16.90	1.245	-	-	0.06	0.093	0.116
	FR1 n7	50M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 11	ECI 3	507000	2535	15.95	16.90	1.245	-	-	-0.07	0.089	0.111
	FR1 n7	50M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 11	ECI 3	507000	2535	15.95	16.90	1.245	-	-	0.17	0.047	0.058
	FR1 n7	50M	QPSK	135	68	DFT-15	Right Cheek	0mm	Ant 11	ECI 2	507000	2535	17.45	18.40	1.245	-	-	-0.02	0.531	0.661
	FR1 n7	50M	QPSK	135	68	DFT-15	Right Tilted	0mm	Ant 11	ECI 2	507000	2535	17.45	18.40	1.245	-	-	0.07	0.160	0.199
	FR1 n7	50M	QPSK	135	68	DFT-15	Left Cheek	0mm	Ant 11	ECI 2	507000	2535	17.45	18.40	1.245	-	-	0.14	0.163	0.203
	FR1 n7	50M	QPSK	135	68	DFT-15	Left Tilted	0mm	Ant 11	ECI 2	507000	2535	17.45	18.40	1.245	-	-	0.09	0.089	0.111
	FR1 n7	50M	QPSK	135	68	DFT-15	Right Cheek	0mm	Ant 11	ECI 3	507000	2535	15.93	16.90	1.250	-	-	-0.08	0.371	0.464
	FR1 n7	50M	QPSK	135	68	DFT-15	Right Tilted	0mm	Ant 11	ECI 3	507000	2535	15.93	16.90	1.250	-	-	0.02	0.114	0.143
	FR1 n7	50M	QPSK	135	68	DFT-15	Left Cheek	0mm	Ant 11	ECI 3	507000	2535	15.93	16.90	1.250	-	-	0.01	0.115	0.144
	FR1 n7	50M	QPSK	135	68	DFT-15	Left Tilted	0mm	Ant 11	ECI 3	507000	2535	15.93	16.90	1.250	-	-	0.07	0.063	0.079
	FR1 n41	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 13	ECI 2	518598	2592.99	15.52	16.90	1.374	-	-	-0.09	0.453	0.622
	FR1 n41	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 13	ECI 2	518598	2592.99	15.52	16.90	1.374	-	-	-0.16	0.560	0.769
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 13	ECI 2	518598	2592.99	15.52	16.90	1.374	-	-	0.18	0.191	0.262
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 13	ECI 2	518598	2592.99	15.52	16.90	1.374	-	-	0.18	0.265	0.364
	FR1 n41	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 13	ECI 3	518598	2592.99	14.53	15.90	1.371	-	-	-0.16	0.360	0.494
	FR1 n41	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 13	ECI 3	518598	2592.99	14.53	15.90	1.371	-	-	-0.01	0.445	0.610
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 13	ECI 3	518598	2592.99	14.53	15.90	1.371	-	-	-0.02	0.152	0.208
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 13	ECI 3	518598	2592.99	14.53	15.90	1.371	-	-	0	0.210	0.288
	FR1 n41	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 13	ECI 2	518598	2592.99	15.50	16.90	1.380	-	-	0.09	0.480	0.663
	FR1 n41	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 13	ECI 2	518598	2592.99	15.50	16.90	1.380	-	-	0.18	0.584	0.806
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 13	ECI 2	518598	2592.99	15.50	16.90	1.380	-	-	0.01	0.198	0.273
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 13	ECI 2	518598	2592.99	15.50	16.90	1.380	-	-	-0.19	0.276	0.381
	FR1 n41	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 13	ECI 3	518598	2592.99	14.51	15.90	1.377	-	-	0.04	0.390	0.537
	FR1 n41	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 13	ECI 3	518598	2592.99	14.51	15.90	1.377	-	-	-0.06	0.467	0.643
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 13	ECI 3	518598	2592.99	14.51	15.90	1.377	-	-	-0.07	0.159	0.219
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 13	ECI 3	518598	2592.99	14.51	15.90	1.377	-	-	-0.02	0.219	0.302
	FR1 n41	100M	QPSK	270	0	DFT-30	Right Cheek	0mm	Ant 13	ECI 2	518598	2592.99	15.48	16.90	1.387	-	-	-0.02	0.453	0.628
	FR1 n41	100M	QPSK	270	0	DFT-30	Right Tilted	0mm	Ant 13	ECI 2	518598	2592.99	15.48	16.90	1.387	-	-	0	0.567	0.786
	FR1 n41	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 31	ECI 2	518598	2592.99	25.05	26.50	1.396	-	-	-0.03	0.639	0.892
	FR1 n41	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 31	ECI 2	518598	2592.99	25.05	26.50	1.396	-	-	0.11	0.214	0.299
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 31	ECI 2	518598	2592.99	25.05	26.50	1.396	-	-	0.12	0.288	0.402
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 31	ECI 2	518598	2592.99	25.05	26.50	1.396	-	-	0.19	0.214	0.299
	FR1 n41	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 31	ECI 3	518598	2592.99	22.05	23.50	1.396	-	-	-0.16	0.320	0.447
	FR1 n41	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 31	ECI 3	518598	2592.99	22.05	23.50	1.396	-	-	-0.01	0.107	0.149
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 31	ECI 3	518598	2592.99	22.05	23.50	1.396	-	-	0.17	0.144	0.201
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 31	ECI 3	518598	2592.99	22.05	23.50	1.396	-	-	0.04	0.107	0.149
19	FR1 n41	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 31	ECI 2	518598	2592.99	25.03	26.50	1.403	-	-	-0.18	0.676	0.948
	FR1 n41	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 31	ECI 2	518598	2592.99	25.03	26.00	1.250	-	-	-0.01	0.246	0.308
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 31	ECI 2	518598	2592.99	25.03	26.50	1.403	-	-	-0.11	0.310	0.435
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 31	ECI 2	518598	2592.99	25.03	26.50	1.403	-	-	-0.18	0.258	0.362



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	FR1 n41	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 31	ECI 3	518598	2592.99	22.03	23.50	1.403	-	-	0.15	0.339	0.476
	FR1 n41	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 31	ECI 3	518598	2592.99	22.03	23.50	1.403	-	-	0.12	0.123	0.173
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 31	ECI 3	518598	2592.99	22.03	23.50	1.403	-	-	-0.07	0.155	0.217
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 31	ECI 3	518598	2592.99	22.03	23.50	1.403	-	-	-0.01	0.129	0.181
	FR1 n41	100M	QPSK	270	0	DFT-30	Right Cheek	0mm	Ant 31	ECI 2	518598	2592.99	23.93	25.50	1.435	-	-	-0.02	0.638	0.916
	FR1 n41	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 11	ECI 2	518598	2592.99	17.94	19.50	1.432	-	-	0.18	0.605	0.866
	FR1 n41	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 11	ECI 2	518598	2592.99	17.94	19.50	1.432	-	-	0	0.205	0.294
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 11	ECI 2	518598	2592.99	17.94	19.50	1.432	-	-	0.17	0.228	0.327
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 11	ECI 2	518598	2592.99	17.94	19.50	1.432	-	-	-0.17	0.110	0.158
	FR1 n41	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 11	ECI 3	518598	2592.99	15.43	17.00	1.435	-	-	-0.02	0.340	0.488
	FR1 n41	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 11	ECI 3	518598	2592.99	15.43	17.00	1.435	-	-	-0.03	0.115	0.165
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 11	ECI 3	518598	2592.99	15.43	17.00	1.435	-	-	0.1	0.128	0.184
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 11	ECI 3	518598	2592.99	15.43	17.00	1.435	-	-	-0.19	0.055	0.079
	FR1 n41	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 11	ECI 2	518598	2592.99	17.93	19.50	1.435	-	-	-0.18	0.654	0.939
	FR1 n41	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 11	ECI 2	518598	2592.99	17.93	19.50	1.435	-	-	0.1	0.204	0.293
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 11	ECI 2	518598	2592.99	17.93	19.50	1.435	-	-	0.14	0.232	0.333
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 11	ECI 2	518598	2592.99	17.93	19.50	1.435	-	-	-0.07	0.103	0.148
	FR1 n41	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 11	ECI 3	518598	2592.99	15.41	17.00	1.442	-	-	0.08	0.361	0.521
	FR1 n41	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 11	ECI 3	518598	2592.99	15.41	17.00	1.442	-	-	0.02	0.115	0.166
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 11	ECI 3	518598	2592.99	15.41	17.00	1.442	-	-	0.06	0.130	0.187
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 11	ECI 3	518598	2592.99	15.41	17.00	1.442	-	-	-0.1	0.057	0.082
	FR1 n41	100M	QPSK	270	0	DFT-30	Right Cheek	0mm	Ant 11	ECI 2	518598	2592.99	17.90	19.50	1.445	-	-	-0.1	0.617	0.892
3300MHz-4100MHz																				
	LTE Band 42 Part27Q	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 11	ECI 2	42590	3500	18.83	19.20	1.089	62.9	1.006	0.16	0.591	0.647
	LTE Band 42 Part27Q	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 11	ECI 2	42590	3500	18.83	19.20	1.089	62.9	1.006	-0.03	0.142	0.156
	LTE Band 42 Part27Q	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 11	ECI 2	42590	3500	18.83	19.20	1.089	62.9	1.006	0.15	0.199	0.218
	LTE Band 42 Part27Q	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 11	ECI 2	42590	3500	18.83	19.20	1.089	62.9	1.006	0.14	0.056	0.061
	LTE Band 42 Part27Q	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 11	ECI 3	42590	3500	17.83	18.20	1.089	62.9	1.006	-0.04	0.469	0.514
	LTE Band 42 Part27Q	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 11	ECI 3	42590	3500	17.83	18.20	1.089	62.9	1.006	0.17	0.110	0.121
	LTE Band 42 Part27Q	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 11	ECI 3	42590	3500	17.83	18.20	1.089	62.9	1.006	0.03	0.150	0.164
	LTE Band 42 Part27Q	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 11	ECI 3	42590	3500	17.83	18.20	1.089	62.9	1.006	-0.06	0.044	0.048
	LTE Band 42 Part27Q	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 11	ECI 2	42590	3500	18.81	19.20	1.094	62.9	1.006	0.01	0.593	0.653
	LTE Band 42 Part27Q	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 11	ECI 2	42590	3500	18.81	19.20	1.094	62.9	1.006	0	0.141	0.155
	LTE Band 42 Part27Q	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 11	ECI 2	42590	3500	18.81	19.20	1.094	62.9	1.006	0.01	0.190	0.209
	LTE Band 42 Part27Q	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 11	ECI 2	42590	3500	18.81	19.20	1.094	62.9	1.006	0.05	0.063	0.069
	LTE Band 42 Part27Q	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 11	ECI 3	42590	3500	17.81	18.20	1.094	62.9	1.006	0.06	0.471	0.518
	LTE Band 42 Part27Q	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 11	ECI 3	42590	3500	17.81	18.20	1.094	62.9	1.006	-0.09	0.112	0.123
	LTE Band 42 Part27Q	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 11	ECI 3	42590	3500	17.81	18.20	1.094	62.9	1.006	-0.14	0.151	0.166
	LTE Band 42 Part27Q	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 11	ECI 3	42590	3500	17.81	18.20	1.094	62.9	1.006	-0.18	0.050	0.055
	LTE Band 42 Part27Q	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 12	ECI 2	42590	3500	20.02	20.50	1.117	62.9	1.006	-0.02	0.531	0.597
	LTE Band 42 Part27Q	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 12	ECI 2	42590	3500	20.02	20.50	1.117	62.9	1.006	-0.06	0.375	0.421
	LTE Band 42 Part27Q	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 12	ECI 2	42590	3500	20.02	20.50	1.117	62.9	1.006	0.15	0.171	0.192
	LTE Band 42 Part27Q	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 12	ECI 2	42590	3500	20.02	20.50	1.117	62.9	1.006	-0.15	0.148	0.166
	LTE Band 42 Part27Q	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 12	ECI 3	42590	3500	18.53	19.00	1.114	62.9	1.006	-0.01	0.376	0.421
	LTE Band 42 Part27Q	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 12	ECI 3	42590	3500	18.53	19.00	1.114	62.9	1.006	0.04	0.265	0.297
	LTE Band 42 Part27Q	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 12	ECI 3	42590	3500	18.53	19.00	1.114	62.9	1.006	0.09	0.121	0.136
	LTE Band 42 Part27Q	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 12	ECI 3	42590	3500	18.53	19.00	1.114	62.9	1.006	0.14	0.103	0.115
	LTE Band 42 Part27Q	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 12	ECI 2	42590	3500	20.00	20.50	1.122	62.9	1.006	-0.11	0.536	0.605
	LTE Band 42 Part27Q	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 12	ECI 2	42590	3500	20.00	20.50	1.122	62.9	1.006	-0.05	0.378	0.427
	LTE Band 42 Part27Q	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 12	ECI 2	42590	3500	20.00	20.50	1.122	62.9	1.006	-0.15	0.173	0.195
	LTE Band 42 Part27Q	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 12	ECI 2	42590	3500	20.00	20.50	1.122	62.9	1.006	0.06	0.149	0.168
	LTE Band 42 Part27Q	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 12	ECI 3	42590	3500	18.51	19.00	1.119	62.9	1.006	-0.17	0.379	0.427
	LTE Band 42 Part27Q	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 12	ECI 3	42590	3500	18.51	19.00	1.119	62.9	1.006	-0.1	0.268	0.302
	LTE Band 42 Part27Q	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 12	ECI 3	42590	3500	18.51	19.00	1.119	62.9	1.006	-0.02	0.122	0.137
	LTE Band 42 Part27Q	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 12	ECI 3	42590	3500	18.51	19.00	1.119	62.9	1.006	0.08	0.105	0.118
	LTE Band 42 Part27Q	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 21	ECI 2	42590	3500	17.23	18.00	1.194	62.9	1.006	-0.11	0.341	0.410
	LTE Band 42 Part27Q	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 21	ECI 2	42590	3500	17.23	18.00	1.194	62.9	1.006	-0.14	0.392	0.471
	LTE Band 42 Part27Q	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 21	ECI 2	42590	3500	17.23	18.00	1.194	62.9	1.006	0.09	0.514	0.617



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	LTE Band 42 Part27Q	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 21	ECI 2	42590	3500	17.23	18.00	1.194	62.9	1.006	0.08	0.567	0.681
	LTE Band 42 Part27Q	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 21	ECI 3	42590	3500	16.26	17.00	1.186	62.9	1.006	0	0.271	0.323
	LTE Band 42 Part27Q	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 21	ECI 3	42590	3500	16.26	17.00	1.186	62.9	1.006	-0.01	0.305	0.364
	LTE Band 42 Part27Q	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 21	ECI 3	42590	3500	16.26	17.00	1.186	62.9	1.006	0.16	0.408	0.487
	LTE Band 42 Part27Q	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 21	ECI 3	42590	3500	16.26	17.00	1.186	62.9	1.006	-0.05	0.450	0.537
	LTE Band 42 Part27Q	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 21	ECI 2	42590	3500	17.20	18.00	1.202	62.9	1.006	-0.07	0.345	0.417
	LTE Band 42 Part27Q	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 21	ECI 2	42590	3500	17.20	18.00	1.202	62.9	1.006	0.05	0.389	0.470
	LTE Band 42 Part27Q	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 21	ECI 2	42590	3500	17.20	18.00	1.202	62.9	1.006	0.11	0.518	0.627
	LTE Band 42 Part27Q	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 21	ECI 2	42590	3500	17.20	18.00	1.202	62.9	1.006	0.01	0.566	0.685
	LTE Band 42 Part27Q	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 21	ECI 3	42590	3500	16.25	17.00	1.189	62.9	1.006	0.17	0.274	0.328
	LTE Band 42 Part27Q	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 21	ECI 3	42590	3500	16.25	17.00	1.189	62.9	1.006	-0.02	0.309	0.369
	LTE Band 42 Part27Q	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 21	ECI 3	42590	3500	16.25	17.00	1.189	62.9	1.006	0.19	0.411	0.491
	LTE Band 42 Part27Q	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 21	ECI 3	42590	3500	16.25	17.00	1.189	62.9	1.006	-0.18	0.450	0.538
	LTE Band 42 Part27Q	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 23	ECI 2	42590	3500	18.95	19.50	1.135	62.9	1.006	0	0.227	0.259
	LTE Band 42 Part27Q	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 23	ECI 2	42590	3500	18.95	19.50	1.135	62.9	1.006	-0.13	0.104	0.119
20	LTE Band 42 Part27Q	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 23	ECI 2	42590	3500	18.95	19.50	1.135	62.9	1.006	0.07	0.854	0.975
	LTE Band 42 Part27Q	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 23	ECI 2	42590	3500	18.95	19.50	1.135	62.9	1.006	0.19	0.238	0.272
	LTE Band 42 Part27Q	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 23	ECI 3	42590	3500	16.45	17.00	1.135	62.9	1.006	-0.07	0.143	0.163
	LTE Band 42 Part27Q	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 23	ECI 3	42590	3500	16.45	17.00	1.135	62.9	1.006	-0.06	0.066	0.075
	LTE Band 42 Part27Q	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 23	ECI 3	42590	3500	16.45	17.00	1.135	62.9	1.006	0.18	0.394	0.450
	LTE Band 42 Part27Q	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 23	ECI 3	42590	3500	16.45	17.00	1.135	62.9	1.006	-0.15	0.150	0.171
	LTE Band 42 Part27Q	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 23	ECI 2	42590	3500	18.86	19.50	1.159	62.9	1.006	0.11	0.183	0.213
	LTE Band 42 Part27Q	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 23	ECI 2	42590	3500	18.86	19.50	1.159	62.9	1.006	-0.12	0.085	0.099
	LTE Band 42 Part27Q	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 23	ECI 2	42590	3500	18.86	19.50	1.159	62.9	1.006	-0.08	0.700	0.816
	LTE Band 42 Part27Q	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 23	ECI 2	42590	3500	18.86	19.50	1.159	62.9	1.006	-0.15	0.192	0.224
	LTE Band 42 Part27Q	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 23	ECI 2	42590	3500	18.85	19.50	1.161	62.9	1.006	0.18	0.702	0.820
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 11	ECI 2	633332	3499.98	16.31	17.20	1.227	-	-	0	0.585	0.718
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 11	ECI 2	633332	3499.98	16.31	17.20	1.227	-	-	-0.07	0.155	0.190
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 11	ECI 2	633332	3499.98	16.31	17.20	1.227	-	-	0.02	0.187	0.230
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 11	ECI 2	633332	3499.98	16.31	17.20	1.227	-	-	-0.16	0.065	0.080
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 11	ECI 3	633332	3499.98	14.81	15.70	1.227	-	-	0.14	0.414	0.508
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 11	ECI 3	633332	3499.98	14.81	15.70	1.227	-	-	-0.18	0.110	0.135
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 11	ECI 3	633332	3499.98	14.81	15.70	1.227	-	-	-0.16	0.132	0.162
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 11	ECI 3	633332	3499.98	14.81	15.70	1.227	-	-	-0.14	0.046	0.056
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 11	ECI 2	633332	3499.98	16.30	17.20	1.230	-	-	-0.11	0.681	0.838
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 11	ECI 2	633332	3499.98	16.30	17.20	1.230	-	-	0.03	0.159	0.196
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 11	ECI 2	633332	3499.98	16.30	17.20	1.230	-	-	-0.08	0.202	0.249
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 11	ECI 2	633332	3499.98	16.30	17.20	1.230	-	-	0.07	0.067	0.082
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 11	ECI 3	633332	3499.98	14.80	15.70	1.230	-	-	0.09	0.444	0.546
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 11	ECI 3	633332	3499.98	14.80	15.70	1.230	-	-	-0.03	0.113	0.139
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 11	ECI 3	633332	3499.98	14.80	15.70	1.230	-	-	-0.08	0.145	0.178
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 11	ECI 3	633332	3499.98	14.80	15.70	1.230	-	-	0.05	0.048	0.059
	FR1 n77 Part27Q	100M	QPSK	270	0	DFT-30	Right Cheek	0mm	Ant 11	ECI 2	633332	3499.98	16.28	17.20	1.236	-	-	0.01	0.602	0.744
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 11	ECI 2	656000	3840	16.34	17.20	1.219	-	-	0.01	0.586	0.714
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 11	ECI 2	656000	3840	16.34	17.20	1.219	-	-	-0.08	0.140	0.171
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 11	ECI 2	656000	3840	16.34	17.20	1.219	-	-	-0.06	0.172	0.210
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 11	ECI 2	656000	3840	16.34	17.20	1.219	-	-	-0.19	0.063	0.077
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 11	ECI 3	656000	3840	14.82	15.70	1.225	-	-	-0.01	0.415	0.508
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 11	ECI 3	656000	3840	14.82	15.70	1.225	-	-	-0.13	0.099	0.121
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 11	ECI 3	656000	3840	14.82	15.70	1.225	-	-	-0.14	0.122	0.149
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 11	ECI 3	656000	3840	14.82	15.70	1.225	-	-	-0.19	0.045	0.055
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 11	ECI 2	656000	3840	16.33	17.20	1.222	-	-	-0.11	0.623	0.761
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 11	ECI 2	656000	3840	16.33	17.20	1.222	-	-	-0.15	0.146	0.178
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 11	ECI 2	656000	3840	16.33	17.20	1.222	-	-	-0.08	0.180	0.220
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 11	ECI 2	656000	3840	16.33	17.20	1.222	-	-	-0.09	0.065	0.079
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 11	ECI 3	656000	3840	14.80	15.70	1.230	-	-	-0.09	0.441	0.543
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 11	ECI 3	656000	3840	14.80	15.70	1.230	-	-	-0.16	0.103	0.127
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 11	ECI 3	656000	3840	14.80	15.70	1.230	-	-	0.09	0.127	0.156



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FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 11	ECI 3	656000	3840	14.80	15.70	1.230	-	-	0.09	0.046	0.057
FR1 n77 Part27O	100M	QPSK	270	0	DFT-30	Right Cheek	0mm	Ant 11	ECI 2	656000	3840	16.31	17.20	1.227	-	-	-0.16	0.588	0.722
FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 12	ECI 2	633332	3499.98	17.22	18.20	1.253	-	-	-0.19	0.512	0.642
FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 12	ECI 2	633332	3499.98	17.22	18.20	1.253	-	-	0.07	0.340	0.426
FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 12	ECI 2	633332	3499.98	17.22	18.20	1.253	-	-	0.15	0.162	0.203
FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 12	ECI 2	633332	3499.98	17.22	18.20	1.253	-	-	-0.17	0.162	0.203
FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 12	ECI 3	633332	3499.98	15.21	16.20	1.256	-	-	0.05	0.323	0.406
FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 12	ECI 3	633332	3499.98	15.21	16.20	1.256	-	-	0.05	0.215	0.270
FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 12	ECI 3	633332	3499.98	15.21	16.20	1.256	-	-	0.12	0.102	0.128
FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 12	ECI 3	633332	3499.98	15.21	16.20	1.256	-	-	0.14	0.092	0.116
FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 12	ECI 2	633332	3499.98	17.20	18.20	1.259	-	-	0.17	0.568	0.715
FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 12	ECI 2	633332	3499.98	17.20	18.20	1.259	-	-	-0.08	0.361	0.454
FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 12	ECI 2	633332	3499.98	17.20	18.20	1.259	-	-	0.01	0.176	0.222
FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 12	ECI 2	633332	3499.98	17.20	18.20	1.259	-	-	-0.12	0.151	0.190
FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 12	ECI 3	633332	3499.98	15.20	16.20	1.259	-	-	0.06	0.358	0.451
FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 12	ECI 3	633332	3499.98	15.20	16.20	1.259	-	-	0.02	0.228	0.287
FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 12	ECI 3	633332	3499.98	15.20	16.20	1.259	-	-	0.1	0.111	0.140
FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 12	ECI 3	633332	3499.98	15.20	16.20	1.259	-	-	0.05	0.095	0.120
FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 12	ECI 2	656000	3840	17.23	18.20	1.250	-	-	0.1	0.651	0.814
FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 12	ECI 2	656000	3840	17.23	18.20	1.250	-	-	0.01	0.366	0.458
FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 12	ECI 2	656000	3840	17.23	18.20	1.250	-	-	0.05	0.191	0.239
FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 12	ECI 2	656000	3840	17.23	18.20	1.250	-	-	-0.17	0.164	0.205
FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 12	ECI 3	656000	3840	15.22	16.20	1.253	-	-	-0.1	0.402	0.504
FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 12	ECI 3	656000	3840	15.22	16.20	1.253	-	-	-0.06	0.232	0.291
FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 12	ECI 3	656000	3840	15.22	16.20	1.253	-	-	0.03	0.118	0.148
FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 12	ECI 3	656000	3840	15.22	16.20	1.253	-	-	-0.02	0.106	0.133
FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 12	ECI 2	656000	3840	17.21	18.20	1.256	-	-	-0.01	0.588	0.739
FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 12	ECI 2	656000	3840	17.21	18.20	1.256	-	-	0.06	0.325	0.408
FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 12	ECI 2	656000	3840	17.21	18.20	1.256	-	-	0.13	0.172	0.216
FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 12	ECI 2	656000	3840	17.21	18.20	1.256	-	-	0.04	0.149	0.187
FR1 n77 Part27O	100M	QPSK	270	0	DFT-30	Right Cheek	0mm	Ant 12	ECI 2	656000	3840	17.19	18.20	1.262	-	-	-0.19	0.614	0.775
FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 21	ECI 2	633332	3499.98	14.49	15.20	1.178	-	-	-0.09	0.258	0.304
FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 21	ECI 2	633332	3499.98	14.49	15.20	1.178	-	-	0.04	0.300	0.353
FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 21	ECI 2	633332	3499.98	14.49	15.20	1.178	-	-	-0.01	0.412	0.485
FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 21	ECI 2	633332	3499.98	14.49	15.20	1.178	-	-	-0.08	0.451	0.531
FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 21	ECI 3	633332	3499.98	13.47	14.20	1.183	-	-	-0.03	0.205	0.243
FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 21	ECI 3	633332	3499.98	13.47	14.20	1.183	-	-	0.06	0.238	0.282
FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 21	ECI 3	633332	3499.98	13.47	14.20	1.183	-	-	-0.18	0.327	0.387
FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 21	ECI 3	633332	3499.98	13.47	14.20	1.183	-	-	0.1	0.358	0.424
FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 21	ECI 2	633332	3499.98	14.47	15.20	1.183	-	-	-0.07	0.290	0.343
FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 21	ECI 2	633332	3499.98	14.47	15.20	1.183	-	-	0.12	0.338	0.400
FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 21	ECI 2	633332	3499.98	14.47	15.20	1.183	-	-	-0.16	0.467	0.552
FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 21	ECI 2	633332	3499.98	14.47	15.20	1.183	-	-	0.12	0.505	0.597
FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 21	ECI 3	633332	3499.98	13.45	14.20	1.189	-	-	0.04	0.233	0.277
FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 21	ECI 3	633332	3499.98	13.45	14.20	1.189	-	-	0.05	0.271	0.322
FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 21	ECI 3	633332	3499.98	13.45	14.20	1.189	-	-	0.07	0.377	0.448
FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 21	ECI 3	633332	3499.98	13.45	14.20	1.189	-	-	-0.03	0.397	0.472
FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 21	ECI 2	656000	3840	14.16	15.20	1.271	-	-	0.04	0.268	0.341
FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 21	ECI 2	656000	3840	14.16	15.20	1.271	-	-	0.19	0.295	0.375
FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 21	ECI 2	656000	3840	14.16	15.20	1.271	-	-	-0.17	0.432	0.549
FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 21	ECI 2	656000	3840	14.16	15.20	1.271	-	-	-0.08	0.452	0.574
FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 21	ECI 3	656000	3840	13.15	14.20	1.274	-	-	0.01	0.213	0.271
FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 21	ECI 3	656000	3840	13.15	14.20	1.274	-	-	0.1	0.234	0.298
FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 21	ECI 3	656000	3840	13.15	14.20	1.274	-	-	0.09	0.343	0.437
FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 21	ECI 3	656000	3840	13.15	14.20	1.274	-	-	-0.08	0.359	0.457
FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 21	ECI 2	656000	3840	14.15	15.20	1.274	-	-	0.03	0.252	0.321
FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 21	ECI 2	656000	3840	14.15	15.20	1.274	-	-	0.19	0.278	0.354
FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 21	ECI 2	656000	3840	14.15	15.20	1.274	-	-	0.13	0.427	0.544



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	FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 21	ECI 2	656000	3840	14.15	15.20	1.274	-	-	-0.14	0.442	0.563
	FR1 n77 Part27O	100M	QPSK	270	0	DFT-30	Left Cheek	0mm	Ant 21	ECI 2	656000	3840	14.13	15.20	1.279	-	-	0.11	0.420	0.537
	FR1 n77 Part27O	100M	QPSK	270	0	DFT-30	Left Tilted	0mm	Ant 21	ECI 2	656000	3840	14.13	15.20	1.279	-	-	-0.17	0.427	0.546
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 23	ECI 2	633332	3499.98	15.18	16.20	1.265	-	-	-0.03	0.106	0.134
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 23	ECI 2	633332	3499.98	15.18	16.20	1.265	-	-	0.09	0.050	0.063
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 23	ECI 2	633332	3499.98	15.18	16.20	1.265	-	-	0.02	0.276	0.349
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 23	ECI 2	633332	3499.98	15.18	16.20	1.265	-	-	0.04	0.105	0.133
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 23	ECI 3	633332	3499.98	13.18	14.20	1.265	-	-	0.03	0.067	0.085
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 23	ECI 3	633332	3499.98	13.18	14.20	1.265	-	-	0.16	0.032	0.040
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 23	ECI 3	633332	3499.98	13.18	14.20	1.265	-	-	-0.05	0.174	0.220
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 23	ECI 3	633332	3499.98	13.18	14.20	1.265	-	-	0	0.066	0.083
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 23	ECI 2	633332	3499.98	15.17	16.20	1.268	-	-	-0.1	0.123	0.156
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 23	ECI 2	633332	3499.98	15.17	16.20	1.268	-	-	-0.04	0.066	0.084
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 23	ECI 2	633332	3499.98	15.17	16.20	1.268	-	-	-0.19	0.366	0.464
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 23	ECI 2	633332	3499.98	15.17	16.20	1.268	-	-	-0.04	0.140	0.177
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 23	ECI 3	633332	3499.98	13.17	14.20	1.268	-	-	0.06	0.078	0.099
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 23	ECI 3	633332	3499.98	13.17	14.20	1.268	-	-	0	0.041	0.052
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 23	ECI 3	633332	3499.98	13.17	14.20	1.268	-	-	-0.19	0.231	0.293
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 23	ECI 3	633332	3499.98	13.17	14.20	1.268	-	-	-0.02	0.088	0.112
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 23	ECI 2	656000	3840	14.95	16.20	1.334	-	-	0.13	0.256	0.341
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 23	ECI 2	656000	3840	14.95	16.20	1.334	-	-	-0.14	0.076	0.101
21	FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 23	ECI 2	656000	3840	14.95	16.20	1.334	-	-	0.18	0.651	0.868
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 23	ECI 2	656000	3840	14.95	16.20	1.334	-	-	-0.01	0.191	0.255
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 23	ECI 3	656000	3840	12.92	14.20	1.343	-	-	-0.1	0.158	0.212
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 23	ECI 3	656000	3840	12.92	14.20	1.343	-	-	-0.08	0.048	0.064
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 23	ECI 3	656000	3840	12.92	14.20	1.343	-	-	0.03	0.390	0.524
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 23	ECI 3	656000	3840	12.92	14.20	1.343	-	-	0.02	0.123	0.165
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 23	ECI 2	656000	3840	14.93	16.20	1.340	-	-	-0.04	0.248	0.332
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 23	ECI 2	656000	3840	14.93	16.20	1.340	-	-	-0.18	0.067	0.090
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 23	ECI 2	656000	3840	14.93	16.20	1.340	-	-	0.19	0.603	0.808
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 23	ECI 2	656000	3840	14.93	16.20	1.340	-	-	-0.06	0.174	0.233
	FR1 n77 Part27O	100M	QPSK	270	0	DFT-30	Left Cheek	0mm	Ant 23	ECI 2	656000	3840	14.91	16.20	1.346	-	-	-0.02	0.615	0.828
	FR1 n78 Part27Q	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 11	ECI 2	633332	3499.98	17.48	18.40	1.236	-	-	-0.14	0.621	0.768
	FR1 n78 Part27Q	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 11	ECI 2	633332	3499.98	17.48	18.40	1.236	-	-	0.07	0.174	0.215
	FR1 n78 Part27Q	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 11	ECI 2	633332	3499.98	17.48	18.40	1.236	-	-	-0.19	0.207	0.256
	FR1 n78 Part27Q	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 11	ECI 2	633332	3499.98	17.48	18.40	1.236	-	-	-0.08	0.072	0.089
	FR1 n78 Part27Q	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 11	ECI 3	633332	3499.98	14.98	15.90	1.236	-	-	0.11	0.349	0.431
	FR1 n78 Part27Q	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 11	ECI 3	633332	3499.98	14.98	15.90	1.236	-	-	-0.04	0.098	0.121
	FR1 n78 Part27Q	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 11	ECI 3	633332	3499.98	14.98	15.90	1.236	-	-	-0.14	0.116	0.143
	FR1 n78 Part27Q	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 11	ECI 3	633332	3499.98	14.98	15.90	1.236	-	-	-0.15	0.040	0.049
	FR1 n78 Part27Q	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 11	ECI 2	633332	3499.98	17.47	18.40	1.239	-	-	0.01	0.684	0.847
	FR1 n78 Part27Q	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 11	ECI 2	633332	3499.98	17.47	18.40	1.239	-	-	0.18	0.178	0.221
	FR1 n78 Part27Q	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 11	ECI 2	633332	3499.98	17.47	18.40	1.239	-	-	0.06	0.228	0.282
	FR1 n78 Part27Q	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 11	ECI 2	633332	3499.98	17.47	18.40	1.239	-	-	-0.05	0.079	0.098
	FR1 n78 Part27Q	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 11	ECI 3	633332	3499.98	14.97	15.90	1.239	-	-	-0.09	0.384	0.476
	FR1 n78 Part27Q	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 11	ECI 3	633332	3499.98	14.97	15.90	1.239	-	-	0.1	0.100	0.124
	FR1 n78 Part27Q	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 11	ECI 3	633332	3499.98	14.97	15.90	1.239	-	-	-0.07	0.128	0.159
	FR1 n78 Part27Q	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 11	ECI 3	633332	3499.98	14.97	15.90	1.239	-	-	0.11	0.045	0.056
	FR1 n78 Part27Q	100M	QPSK	270	0	DFT-30	Right Cheek	0mm	Ant 11	ECI 2	633332	3499.98	17.45	18.40	1.245	-	-	-0.03	0.672	0.836
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 11	ECI 2	650000	3750	17.25	18.40	1.303	-	-	0.03	0.641	0.835
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 11	ECI 2	650000	3750	17.25	18.40	1.303	-	-	-0.07	0.153	0.199
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 11	ECI 2	650000	3750	17.25	18.40	1.303	-	-	0.01	0.188	0.245
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 11	ECI 2	650000	3750	17.25	18.40	1.303	-	-	-0.15	0.069	0.090
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 11	ECI 3	650000	3750	14.74	15.90	1.306	-	-	-0.13	0.360	0.470
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 11	ECI 3	650000	3750	14.74	15.90	1.306	-	-	-0.14	0.086	0.112
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 11	ECI 3	650000	3750	14.74	15.90	1.306	-	-	-0.09	0.106	0.138
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 11	ECI 3	650000	3750	14.74	15.90	1.306	-	-	-0.04	0.039	0.051
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 11	ECI 2	650000	3750	17.23	18.40	1.309	-	-	0.01	0.745	0.975



FCC SAR Test Report

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FR1 n78 Part27O	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 11	ECI 2	650000	3750	17.23	18.40	1.309	-	-	-0.19	0.192	0.251
FR1 n78 Part27O	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 11	ECI 2	650000	3750	17.23	18.40	1.309	-	-	-0.14	0.218	0.285
FR1 n78 Part27O	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 11	ECI 2	650000	3750	17.23	18.40	1.309	-	-	0.03	0.080	0.105
FR1 n78 Part27O	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 11	ECI 3	650000	3750	14.71	15.90	1.315	-	-	-0.05	0.414	0.545
FR1 n78 Part27O	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 11	ECI 3	650000	3750	14.71	15.90	1.315	-	-	-0.06	0.109	0.143
FR1 n78 Part27O	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 11	ECI 3	650000	3750	14.71	15.90	1.315	-	-	-0.04	0.125	0.164
FR1 n78 Part27O	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 11	ECI 3	650000	3750	14.71	15.90	1.315	-	-	-0.08	0.045	0.059
FR1 n78 Part27O	100M	QPSK	270	0	DFT-30	Right Cheek	0mm	Ant 11	ECI 2	650000	3750	17.21	18.40	1.315	-	-	0.11	0.695	0.914
FR1 n78 Part27Q	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 12	ECI 2	633332	3499.98	17.21	18.70	1.409	-	-	-0.18	0.502	0.707
FR1 n78 Part27Q	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 12	ECI 2	633332	3499.98	17.21	18.70	1.409	-	-	0.05	0.342	0.482
FR1 n78 Part27Q	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 12	ECI 2	633332	3499.98	17.21	18.70	1.409	-	-	0.19	0.167	0.235
FR1 n78 Part27Q	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 12	ECI 2	633332	3499.98	17.21	18.70	1.409	-	-	-0.03	0.142	0.200
FR1 n78 Part27Q	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 12	ECI 3	633332	3499.98	15.20	16.70	1.413	-	-	-0.04	0.317	0.448
FR1 n78 Part27Q	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 12	ECI 3	633332	3499.98	15.20	16.70	1.413	-	-	-0.19	0.216	0.305
FR1 n78 Part27Q	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 12	ECI 3	633332	3499.98	15.20	16.70	1.413	-	-	-0.19	0.105	0.148
FR1 n78 Part27Q	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 12	ECI 3	633332	3499.98	15.20	16.70	1.413	-	-	-0.06	0.090	0.127
FR1 n78 Part27Q	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 12	ECI 2	633332	3499.98	17.20	18.70	1.413	-	-	0.08	0.548	0.774
FR1 n78 Part27Q	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 12	ECI 2	633332	3499.98	17.20	18.70	1.413	-	-	-0.06	0.363	0.513
FR1 n78 Part27Q	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 12	ECI 2	633332	3499.98	17.20	18.70	1.413	-	-	-0.18	0.178	0.251
FR1 n78 Part27Q	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 12	ECI 2	633332	3499.98	17.20	18.70	1.413	-	-	-0.08	0.151	0.213
FR1 n78 Part27Q	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 12	ECI 3	633332	3499.98	15.18	16.70	1.419	-	-	0.02	0.346	0.491
FR1 n78 Part27Q	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 12	ECI 3	633332	3499.98	15.18	16.70	1.419	-	-	-0.07	0.229	0.325
FR1 n78 Part27Q	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 12	ECI 3	633332	3499.98	15.18	16.70	1.419	-	-	-0.05	0.112	0.159
FR1 n78 Part27Q	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 12	ECI 3	633332	3499.98	15.18	16.70	1.419	-	-	-0.19	0.095	0.135
FR1 n78 Part27O	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 12	ECI 2	650000	3750	17.13	18.70	1.435	-	-	-0.19	0.631	0.906
FR1 n78 Part27O	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 12	ECI 2	650000	3750	17.13	18.70	1.435	-	-	0.17	0.373	0.535
FR1 n78 Part27O	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 12	ECI 2	650000	3750	17.13	18.70	1.435	-	-	0.16	0.188	0.270
FR1 n78 Part27O	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 12	ECI 2	650000	3750	17.13	18.70	1.435	-	-	-0.18	0.159	0.228
FR1 n78 Part27O	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 12	ECI 3	650000	3750	15.13	16.70	1.435	-	-	-0.12	0.398	0.571
FR1 n78 Part27O	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 12	ECI 3	650000	3750	15.13	16.70	1.435	-	-	0.11	0.235	0.337
FR1 n78 Part27O	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 12	ECI 3	650000	3750	15.13	16.70	1.435	-	-	-0.03	0.119	0.171
FR1 n78 Part27O	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 12	ECI 3	650000	3750	15.13	16.70	1.435	-	-	-0.14	0.100	0.144
FR1 n78 Part27O	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 12	ECI 2	650000	3750	17.11	18.70	1.442	-	-	-0.18	0.641	0.924
FR1 n78 Part27O	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 12	ECI 2	650000	3750	17.11	18.70	1.442	-	-	-0.06	0.374	0.539
FR1 n78 Part27O	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 12	ECI 2	650000	3750	17.11	18.70	1.442	-	-	0.16	0.193	0.278
FR1 n78 Part27O	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 12	ECI 2	650000	3750	17.11	18.70	1.442	-	-	-0.02	0.160	0.231
FR1 n78 Part27O	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 12	ECI 3	650000	3750	15.11	16.70	1.442	-	-	0.08	0.406	0.585
FR1 n78 Part27O	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 12	ECI 3	650000	3750	15.11	16.70	1.442	-	-	-0.09	0.240	0.346
FR1 n78 Part27O	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 12	ECI 3	650000	3750	15.11	16.70	1.442	-	-	0.07	0.123	0.177
FR1 n78 Part27O	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 12	ECI 3	650000	3750	15.11	16.70	1.442	-	-	-0.06	0.103	0.149
FR1 n78 Part27O	100M	QPSK	270	0	DFT-30	Right Cheek	0mm	Ant 12	ECI 2	650000	3750	17.10	18.70	1.445	-	-	0.03	0.633	0.915
FR1 n78 Part27Q	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 21	ECI 2	633332	3499.98	15.53	16.20	1.167	-	-	-0.05	0.284	0.331
FR1 n78 Part27Q	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 21	ECI 2	633332	3499.98	15.53	16.20	1.167	-	-	0.19	0.351	0.410
FR1 n78 Part27Q	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 21	ECI 2	633332	3499.98	15.53	16.20	1.167	-	-	0.14	0.414	0.483
FR1 n78 Part27Q	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 21	ECI 2	633332	3499.98	15.53	16.20	1.167	-	-	-0.1	0.472	0.551
FR1 n78 Part27Q	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 21	ECI 3	633332	3499.98	14.02	14.70	1.169	-	-	0.08	0.201	0.235
FR1 n78 Part27Q	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 21	ECI 3	633332	3499.98	14.02	14.70	1.169	-	-	0.17	0.248	0.290
FR1 n78 Part27Q	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 21	ECI 3	633332	3499.98	14.02	14.70	1.169	-	-	-0.15	0.293	0.343
FR1 n78 Part27Q	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 21	ECI 3	633332	3499.98	14.02	14.70	1.169	-	-	0.09	0.334	0.391
FR1 n78 Part27Q	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 21	ECI 2	633332	3499.98	15.51	16.20	1.172	-	-	0.08	0.335	0.393
FR1 n78 Part27Q	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 21	ECI 2	633332	3499.98	15.51	16.20	1.172	-	-	-0.18	0.414	0.485
FR1 n78 Part27Q	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 21	ECI 2	633332	3499.98	15.51	16.20	1.172	-	-	-0.13	0.488	0.572
FR1 n78 Part27Q	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 21	ECI 2	633332	3499.98	15.51	16.20	1.172	-	-	0.03	0.556	0.652
FR1 n78 Part27Q	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 21	ECI 3	633332	3499.98	14.00	14.70	1.175	-	-	0.13	0.237	0.278
FR1 n78 Part27Q	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 21	ECI 3	633332	3499.98	14.00	14.70	1.175	-	-	-0.12	0.293	0.344
FR1 n78 Part27Q	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 21	ECI 3	633332	3499.98	14.00	14.70	1.175	-	-	0.08	0.345	0.405
FR1 n78 Part27Q	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 21	ECI 3	633332	3499.98	14.00	14.70	1.175	-	-	-0.16	0.394	0.463
FR1 n78 Part27O	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 21	ECI 2	650000	3750	15.09	16.20	1.291	-	-	-0.06	0.331	0.427



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	FR1 n78 Part27O	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 21	ECI 2	650000	3750	15.09	16.20	1.291	-	-	-0.15	0.383	0.495
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 21	ECI 2	650000	3750	15.09	16.20	1.291	-	-	0.16	0.533	0.688
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 21	ECI 2	650000	3750	15.09	16.20	1.291	-	-	0.15	0.567	0.732
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 21	ECI 3	650000	3750	13.58	14.70	1.294	-	-	-0.01	0.232	0.300
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 21	ECI 3	650000	3750	13.58	14.70	1.294	-	-	0.04	0.270	0.349
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 21	ECI 3	650000	3750	13.58	14.70	1.294	-	-	0.03	0.375	0.485
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 21	ECI 3	650000	3750	13.58	14.70	1.294	-	-	-0.08	0.393	0.509
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 21	ECI 2	650000	3750	15.07	16.20	1.297	-	-	0.03	0.304	0.394
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 21	ECI 2	650000	3750	15.07	16.20	1.297	-	-	0.1	0.352	0.457
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 21	ECI 2	650000	3750	15.07	16.20	1.297	-	-	0.08	0.490	0.636
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 21	ECI 2	650000	3750	15.07	16.20	1.297	-	-	0.14	0.521	0.676
	FR1 n78 Part27Q	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 23	ECI 2	633332	3499.98	16.20	17.50	1.349	-	-	0.17	0.104	0.140
	FR1 n78 Part27Q	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 23	ECI 2	633332	3499.98	16.20	17.50	1.349	-	-	0.03	0.054	0.073
	FR1 n78 Part27Q	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 23	ECI 2	633332	3499.98	16.20	17.50	1.349	-	-	-0.06	0.323	0.436
	FR1 n78 Part27Q	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 23	ECI 2	633332	3499.98	16.20	17.50	1.349	-	-	-0.03	0.103	0.139
	FR1 n78 Part27Q	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 23	ECI 3	633332	3499.98	13.21	14.50	1.346	-	-	0.08	0.052	0.070
	FR1 n78 Part27Q	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 23	ECI 3	633332	3499.98	13.21	14.50	1.346	-	-	0.1	0.027	0.036
	FR1 n78 Part27Q	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 23	ECI 3	633332	3499.98	13.21	14.50	1.346	-	-	0.06	0.162	0.218
	FR1 n78 Part27Q	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 23	ECI 3	633332	3499.98	13.21	14.50	1.346	-	-	-0.15	0.052	0.070
	FR1 n78 Part27Q	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 23	ECI 2	633332	3499.98	16.18	17.50	1.355	-	-	0	0.123	0.167
	FR1 n78 Part27Q	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 23	ECI 2	633332	3499.98	16.18	17.50	1.355	-	-	-0.17	0.064	0.087
	FR1 n78 Part27Q	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 23	ECI 2	633332	3499.98	16.18	17.50	1.355	-	-	0.09	0.382	0.518
	FR1 n78 Part27Q	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 23	ECI 2	633332	3499.98	16.18	17.50	1.355	-	-	0.15	0.122	0.165
	FR1 n78 Part27Q	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 23	ECI 3	633332	3499.98	13.20	14.50	1.349	-	-	0.18	0.062	0.084
	FR1 n78 Part27Q	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 23	ECI 3	633332	3499.98	13.20	14.50	1.349	-	-	-0.16	0.033	0.045
	FR1 n78 Part27Q	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 23	ECI 3	633332	3499.98	13.20	14.50	1.349	-	-	-0.03	0.191	0.258
	FR1 n78 Part27Q	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 23	ECI 3	633332	3499.98	13.20	14.50	1.349	-	-	0.18	0.061	0.082
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 23	ECI 2	650000	3750	15.88	17.50	1.452	-	-	-0.19	0.197	0.286
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 23	ECI 2	650000	3750	15.88	17.50	1.452	-	-	0.15	0.072	0.105
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 23	ECI 2	650000	3750	15.88	17.50	1.452	-	-	0.02	0.636	0.924
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 23	ECI 2	650000	3750	15.88	17.50	1.452	-	-	0.09	0.145	0.211
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 23	ECI 3	650000	3750	12.68	14.50	1.521	-	-	-0.11	0.099	0.151
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 23	ECI 3	650000	3750	12.68	14.50	1.521	-	-	0.19	0.036	0.055
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 23	ECI 3	650000	3750	12.68	14.50	1.521	-	-	0.13	0.319	0.485
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 23	ECI 3	650000	3750	12.68	14.50	1.521	-	-	0.16	0.073	0.111
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 23	ECI 2	650000	3750	15.87	17.50	1.455	-	-	-0.07	0.227	0.330
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 23	ECI 2	650000	3750	15.87	17.50	1.455	-	-	-0.1	0.083	0.121
22	FR1 n78 Part27O	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 23	ECI 2	650000	3750	15.87	17.50	1.455	-	-	0.08	0.690	1.004
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 23	ECI 2	650000	3750	15.87	17.50	1.455	-	-	0.16	0.167	0.243
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 23	ECI 3	650000	3750	12.66	14.50	1.528	-	-	0.08	0.115	0.176
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 23	ECI 3	650000	3750	12.66	14.50	1.528	-	-	-0.06	0.041	0.063
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 23	ECI 3	650000	3750	12.66	14.50	1.528	-	-	-0.02	0.339	0.518
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 23	ECI 3	650000	3750	12.66	14.50	1.528	-	-	0.04	0.084	0.128
	FR1 n78 Part27O	100M	QPSK	270	0	DFT-30	Left Cheek	0mm	Ant 23	ECI 2	650000	3750	15.85	17.50	1.462	-	-	0.01	0.680	0.994



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																
	Bluetooth	DH5 1Mbps	Right Cheek	0mm	Ant 22	Full	39	2441	9.30	11.00	1.479	76.8	1.302	-0.1	0.051	0.098
	Bluetooth	DH5 1Mbps	Right Tilted	0mm	Ant 22	Full	39	2441	9.30	11.00	1.479	76.8	1.302	-0.14	0.051	0.098
23	Bluetooth	DH5 1Mbps	Left Cheek	0mm	Ant 22	Full	39	2441	9.30	11.00	1.479	76.8	1.302	0.17	0.101	0.195
	Bluetooth	DH5 1Mbps	Left Tilted	0mm	Ant 22	Full	39	2441	9.30	11.00	1.479	76.8	1.302	0.09	0.076	0.146
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 22	Full	6	2437	15.20	17.00	1.514	99.58	1.004	0.14	0.272	0.413
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 22	Full	6	2437	15.20	17.00	1.514	99.58	1.004	-0.19	0.317	0.482
24	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 22	Full	6	2437	15.20	17.00	1.514	99.58	1.004	-0.18	0.410	0.623
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 22	Full	6	2437	15.20	17.00	1.514	99.58	1.004	-0.04	0.366	0.556
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 22	Simultaneous	6	2437	13.70	15.50	1.514	99.58	1.004	-0.06	0.193	0.293
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 22	Simultaneous	6	2437	13.70	15.50	1.514	99.58	1.004	-0.13	0.224	0.340
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 22	Simultaneous	6	2437	13.70	15.50	1.514	99.58	1.004	-0.18	0.290	0.441
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 22	Simultaneous	6	2437	13.70	15.50	1.514	99.58	1.004	-0.02	0.259	0.394
	WLAN5.3GHz	802.11n-HT40 MCS0	Right Cheek	0mm	Ant 22	Standalone	54	5270	15.65	17.50	1.531	91.18	1.097	0.13	0.173	0.291
	WLAN5.3GHz	802.11n-HT40 MCS0	Right Tilted	0mm	Ant 22	Standalone	54	5270	15.65	17.50	1.531	91.18	1.097	-0.16	0.199	0.334
25	WLAN5.3GHz	802.11n-HT40 MCS0	Left Cheek	0mm	Ant 22	Standalone	54	5270	15.65	17.50	1.531	91.18	1.097	0.14	0.402	0.675
	WLAN5.3GHz	802.11n-HT40 MCS0	Left Tilted	0mm	Ant 22	Standalone	54	5270	15.65	17.50	1.531	91.18	1.097	0.05	0.326	0.548
	WLAN5.3GHz	802.11n-HT40 MCS0	Right Cheek	0mm	Ant 22	Simultaneous	54	5270	14.78	16.50	1.486	91.18	1.097	0.06	0.151	0.246
	WLAN5.3GHz	802.11n-HT40 MCS0	Right Tilted	0mm	Ant 22	Simultaneous	54	5270	14.78	16.50	1.486	91.18	1.097	0.02	0.174	0.284
	WLAN5.3GHz	802.11n-HT40 MCS0	Left Cheek	0mm	Ant 22	Simultaneous	54	5270	14.78	16.50	1.486	91.18	1.097	0.03	0.241	0.393
	WLAN5.3GHz	802.11n-HT40 MCS0	Left Tilted	0mm	Ant 22	Simultaneous	54	5270	14.78	16.50	1.486	91.18	1.097	-0.01	0.284	0.463
	WLAN5.5GHz	802.11n-HT40 MCS0	Right Cheek	0mm	Ant 22	Standalone	142	5710	14.72	16.50	1.507	91.18	1.097	-0.06	0.326	0.539
	WLAN5.5GHz	802.11n-HT40 MCS0	Right Tilted	0mm	Ant 22	Standalone	142	5710	14.72	16.50	1.507	91.18	1.097	-0.18	0.411	0.679
	WLAN5.5GHz	802.11n-HT40 MCS0	Left Cheek	0mm	Ant 22	Standalone	142	5710	14.72	16.50	1.507	91.18	1.097	-0.14	0.418	0.691
	WLAN5.5GHz	802.11n-HT40 MCS0	Left Tilted	0mm	Ant 22	Standalone	142	5710	14.72	16.50	1.507	91.18	1.097	0.02	0.589	0.973
26	WLAN5.5GHz	802.11n-HT40 MCS0	Left Tilted	0mm	Ant 22	Standalone	110	5550	14.65	16.50	1.531	91.18	1.097	0.06	0.663	1.114
	WLAN5.5GHz	802.11n-HT40 MCS0	Left Tilted	0mm	Ant 22	Standalone	126	5630	14.60	16.50	1.549	91.18	1.097	-0.1	0.605	1.028
	WLAN5.5GHz	802.11n-HT40 MCS0	Left Tilted	0mm	Ant 22	Standalone	102	5510	11.15	13.00	1.531	91.18	1.097	0.04	0.320	0.537
	WLAN5.5GHz	802.11n-HT40 MCS0	Left Tilted	0mm	Ant 22	Standalone	134	5670	11.16	13.00	1.527	91.18	1.097	0.09	0.389	0.652
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 22	Simultaneous	138	5690	11.72	13.50	1.507	86.84	1.152	0.06	0.155	0.269
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 22	Simultaneous	138	5690	11.72	13.50	1.507	86.84	1.152	-0.01	0.196	0.340
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 22	Simultaneous	138	5690	11.72	13.50	1.507	86.84	1.152	0.05	0.199	0.345
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 22	Simultaneous	138	5690	11.72	13.50	1.507	86.84	1.152	0.02	0.317	0.550
	WLAN5.8GHz	802.11n-HT40 MCS0	Right Cheek	0mm	Ant 22	Standalone	151	5755	14.65	16.50	1.531	91.18	1.097	0.1	0.308	0.517
	WLAN5.8GHz	802.11n-HT40 MCS0	Right Tilted	0mm	Ant 22	Standalone	151	5755	14.65	16.50	1.531	91.18	1.097	-0.16	0.402	0.675
	WLAN5.8GHz	802.11n-HT40 MCS0	Left Cheek	0mm	Ant 22	Standalone	151	5755	14.65	16.50	1.531	91.18	1.097	0.15	0.428	0.719
27	WLAN5.8GHz	802.11n-HT40 MCS0	Left Tilted	0mm	Ant 22	Standalone	151	5755	14.65	16.50	1.531	91.18	1.097	0.02	0.580	0.974
	WLAN5.8GHz	802.11n-HT40 MCS0	Left Tilted	0mm	Ant 22	Standalone	159	5795	14.65	16.50	1.531	91.18	1.097	0.05	0.530	0.890
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 22	Simultaneous	155	5775	13.23	15.00	1.503	86.84	1.152	0.03	0.158	0.273
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 22	Simultaneous	155	5775	13.23	15.00	1.503	86.84	1.152	-0.05	0.206	0.357
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 22	Simultaneous	155	5775	13.23	15.00	1.503	86.84	1.152	0.01	0.227	0.393
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 22	Simultaneous	155	5775	13.23	15.00	1.503	86.84	1.152	0.08	0.307	0.532



16.2 Hotspot SAR

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
750MHz																				
	LTE Band 12	10M	QPSK	1	0	-	Front	10mm	Ant 13	ECI 10	23095	707.5	23.85	24.70	1.216	-	-	0	0.110	0.134
	LTE Band 12	10M	QPSK	1	0	-	Back	10mm	Ant 13	ECI 10	23095	707.5	23.85	24.70	1.216	-	-	-0.18	0.157	0.191
	LTE Band 12	10M	QPSK	1	0	-	Left Side	10mm	Ant 13	ECI 10	23095	707.5	23.85	24.70	1.216	-	-	-0.1	0.138	0.168
	LTE Band 12	10M	QPSK	1	0	-	Top Side	10mm	Ant 13	ECI 10	23095	707.5	23.85	24.70	1.216	-	-	-0.15	0.123	0.150
	LTE Band 12	10M	QPSK	25	0	-	Front	10mm	Ant 13	ECI 10	23095	707.5	22.83	23.70	1.222	-	-	-0.03	0.091	0.111
	LTE Band 12	10M	QPSK	25	0	-	Back	10mm	Ant 13	ECI 10	23095	707.5	22.83	23.70	1.222	-	-	0.04	0.128	0.156
	LTE Band 12	10M	QPSK	25	0	-	Left Side	10mm	Ant 13	ECI 10	23095	707.5	22.83	23.70	1.222	-	-	-0.14	0.109	0.133
	LTE Band 12	10M	QPSK	25	0	-	Top Side	10mm	Ant 13	ECI 10	23095	707.5	22.83	23.70	1.222	-	-	-0.06	0.095	0.116
	LTE Band 12	10M	QPSK	1	0	-	Front	10mm	Ant 31	ECI 10	23095	707.5	24.07	25.00	1.239	-	-	0.03	0.164	0.203
	LTE Band 12	10M	QPSK	1	0	-	Back	10mm	Ant 31	ECI 10	23095	707.5	24.07	25.00	1.239	-	-	-0.06	0.210	0.260
28	LTE Band 12	10M	QPSK	1	0	-	Left Side	10mm	Ant 31	ECI 10	23095	707.5	24.07	25.00	1.239	-	-	-0.04	0.255	0.316
	LTE Band 12	10M	QPSK	1	0	-	Right Side	10mm	Ant 31	ECI 10	23095	707.5	24.07	25.00	1.239	-	-	0.03	0.150	0.186
	LTE Band 12	10M	QPSK	1	0	-	Bottom Side	10mm	Ant 31	ECI 10	23095	707.5	24.07	25.00	1.239	-	-	-0.17	0.193	0.239
	LTE Band 12	10M	QPSK	25	0	-	Front	10mm	Ant 31	ECI 10	23095	707.5	23.05	24.00	1.245	-	-	0.15	0.132	0.164
	LTE Band 12	10M	QPSK	25	0	-	Back	10mm	Ant 31	ECI 10	23095	707.5	23.05	24.00	1.245	-	-	0.17	0.170	0.212
	LTE Band 12	10M	QPSK	25	0	-	Left Side	10mm	Ant 31	ECI 10	23095	707.5	23.05	24.00	1.245	-	-	0.04	0.202	0.251
	LTE Band 12	10M	QPSK	25	0	-	Right Side	10mm	Ant 31	ECI 10	23095	707.5	23.05	24.00	1.245	-	-	-0.09	0.117	0.146
	LTE Band 12	10M	QPSK	25	0	-	Bottom Side	10mm	Ant 31	ECI 10	23095	707.5	23.05	24.00	1.245	-	-	0.17	0.160	0.199
	LTE Band 13	10M	QPSK	1	0	-	Front	10mm	Ant 13	ECI 10	23230	782	23.56	24.70	1.300	-	-	0.15	0.131	0.170
	LTE Band 13	10M	QPSK	1	0	-	Back	10mm	Ant 13	ECI 10	23230	782	23.56	24.70	1.300	-	-	0.12	0.171	0.222
	LTE Band 13	10M	QPSK	1	0	-	Left Side	10mm	Ant 13	ECI 10	23230	782	23.56	24.70	1.300	-	-	0.05	0.091	0.118
	LTE Band 13	10M	QPSK	1	0	-	Top Side	10mm	Ant 13	ECI 10	23230	782	23.56	24.70	1.300	-	-	-0.02	0.149	0.194
	LTE Band 13	10M	QPSK	25	0	-	Front	10mm	Ant 13	ECI 10	23230	782	22.56	23.70	1.300	-	-	-0.17	0.104	0.135
	LTE Band 13	10M	QPSK	25	0	-	Back	10mm	Ant 13	ECI 10	23230	782	22.56	23.70	1.300	-	-	-0.11	0.136	0.177
	LTE Band 13	10M	QPSK	25	0	-	Left Side	10mm	Ant 13	ECI 10	23230	782	22.56	23.70	1.300	-	-	-0.07	0.073	0.095
	LTE Band 13	10M	QPSK	25	0	-	Top Side	10mm	Ant 13	ECI 10	23230	782	22.56	23.70	1.300	-	-	0.05	0.115	0.150
	LTE Band 13	10M	QPSK	1	0	-	Front	10mm	Ant 31	ECI 10	23230	782	23.65	25.00	1.365	-	-	-0.09	0.127	0.173
	LTE Band 13	10M	QPSK	1	0	-	Back	10mm	Ant 31	ECI 10	23230	782	23.65	25.00	1.365	-	-	0.14	0.164	0.224
29	LTE Band 13	10M	QPSK	1	0	-	Left Side	10mm	Ant 31	ECI 10	23230	782	23.65	25.00	1.365	-	-	0.08	0.223	0.304
	LTE Band 13	10M	QPSK	1	0	-	Right Side	10mm	Ant 31	ECI 10	23230	782	23.65	25.00	1.365	-	-	-0.08	0.088	0.120
	LTE Band 13	10M	QPSK	1	0	-	Bottom Side	10mm	Ant 31	ECI 10	23230	782	23.65	25.00	1.365	-	-	0.03	0.203	0.277
	LTE Band 13	10M	QPSK	25	0	-	Front	10mm	Ant 31	ECI 10	23230	782	22.63	24.00	1.371	-	-	-0.01	0.126	0.173
	LTE Band 13	10M	QPSK	25	0	-	Back	10mm	Ant 31	ECI 10	23230	782	22.63	24.00	1.371	-	-	0.02	0.163	0.223
	LTE Band 13	10M	QPSK	25	0	-	Left Side	10mm	Ant 31	ECI 10	23230	782	22.63	24.00	1.371	-	-	0.12	0.171	0.234
	LTE Band 13	10M	QPSK	25	0	-	Right Side	10mm	Ant 31	ECI 10	23230	782	22.63	24.00	1.371	-	-	-0.03	0.087	0.119
	LTE Band 13	10M	QPSK	25	0	-	Bottom Side	10mm	Ant 31	ECI 10	23230	782	22.63	24.00	1.371	-	-	-0.12	0.184	0.252
835MHz																				
	GSM850	-	-	-	-	GPRS 2 TX Slot	Front	10mm	Ant 13	ECI 10	189	836.4	30.50	31.20	1.175	-	-	-0.07	0.298	0.350
30	GSM850	-	-	-	-	GPRS 2 TX Slot	Back	10mm	Ant 13	ECI 10	189	836.4	30.50	31.20	1.175	-	-	-0.01	0.378	0.444
	GSM850	-	-	-	-	GPRS 2 TX Slot	Left Side	10mm	Ant 13	ECI 10	189	836.4	30.50	31.20	1.175	-	-	-0.08	0.155	0.182
	GSM850	-	-	-	-	GPRS 2 TX Slot	Top Side	10mm	Ant 13	ECI 10	189	836.4	30.50	31.20	1.175	-	-	0.03	0.361	0.424
	GSM850	-	-	-	-	GPRS 2 TX Slot	Front	10mm	Ant 31	ECI 10	189	836.4	30.62	31.20	1.143	-	-	0.04	0.222	0.254
	GSM850	-	-	-	-	GPRS 2 TX Slot	Back	10mm	Ant 31	ECI 10	189	836.4	30.62	31.20	1.143	-	-	-0.15	0.317	0.362
	GSM850	-	-	-	-	GPRS 2 TX Slot	Left Side	10mm	Ant 31	ECI 10	189	836.4	30.62	31.20	1.143	-	-	0.04	0.236	0.270
	GSM850	-	-	-	-	GPRS 2 TX Slot	Right Side	10mm	Ant 31	ECI 10	189	836.4	30.62	31.20	1.143	-	-	-0.14	0.118	0.135
	GSM850	-	-	-	-	GPRS 2 TX Slot	Bottom Side	10mm	Ant 31	ECI 10	189	836.4	30.62	31.20	1.143	-	-	-0.05	0.329	0.376
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 13	ECI 10	4182	836.4	23.64	24.70	1.276	-	-	0.09	0.214	0.273
31	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 13	ECI 10	4182	836.4	23.64	24.70	1.276	-	-	-0.18	0.293	0.374
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 13	ECI 10	4182	836.4	23.64	24.70	1.276	-	-	0.1	0.088	0.112
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Top Side	10mm	Ant 13	ECI 10	4182	836.4	23.64	24.70	1.276	-	-	-0.18	0.285	0.364



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	WCDMA V	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 31	ECI 10	4182	836.4	23.83	24.70	1.222	-	-	-0.07	0.209	0.255
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 31	ECI 10	4182	836.4	23.83	24.70	1.222	-	-	-0.1	0.271	0.331
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 31	ECI 10	4182	836.4	23.83	24.70	1.222	-	-	-0.04	0.204	0.249
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Side	10mm	Ant 31	ECI 10	4182	836.4	23.83	24.70	1.222	-	-	-0.05	0.111	0.136
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Bottom Side	10mm	Ant 31	ECI 10	4182	836.4	23.83	24.70	1.222	-	-	-0.06	0.283	0.346
	LTE Band 5	10M	QPSK	1	0	-	Front	10mm	Ant 13	ECI 10	20525	836.5	23.86	25.00	1.300	-	-	0.18	0.228	0.296
32	LTE Band 5	10M	QPSK	1	0	-	Back	10mm	Ant 13	ECI 10	20525	836.5	23.86	25.00	1.300	-	-	-0.17	0.305	0.397
	LTE Band 5	10M	QPSK	1	0	-	Left Side	10mm	Ant 13	ECI 10	20525	836.5	23.86	25.00	1.300	-	-	0.16	0.096	0.125
	LTE Band 5	10M	QPSK	1	0	-	Top Side	10mm	Ant 13	ECI 10	20525	836.5	23.86	25.00	1.300	-	-	-0.01	0.296	0.385
	LTE Band 5	10M	QPSK	25	0	-	Front	10mm	Ant 13	ECI 10	20525	836.5	22.86	24.00	1.300	-	-	-0.15	0.191	0.248
	LTE Band 5	10M	QPSK	25	0	-	Back	10mm	Ant 13	ECI 10	20525	836.5	22.86	24.00	1.300	-	-	0.18	0.260	0.338
	LTE Band 5	10M	QPSK	25	0	-	Left Side	10mm	Ant 13	ECI 10	20525	836.5	22.86	24.00	1.300	-	-	0.16	0.080	0.104
	LTE Band 5	10M	QPSK	25	0	-	Top Side	10mm	Ant 13	ECI 10	20525	836.5	22.86	24.00	1.300	-	-	0.08	0.249	0.324
	LTE Band 5	10M	QPSK	1	0	-	Front	10mm	Ant 31	ECI 10	20525	836.5	24.12	25.30	1.312	-	-	0.12	0.216	0.283
	LTE Band 5	10M	QPSK	1	0	-	Back	10mm	Ant 31	ECI 10	20525	836.5	24.12	25.30	1.312	-	-	0.07	0.282	0.370
	LTE Band 5	10M	QPSK	1	0	-	Left Side	10mm	Ant 31	ECI 10	20525	836.5	24.12	25.30	1.312	-	-	0.05	0.223	0.293
	LTE Band 5	10M	QPSK	1	0	-	Right Side	10mm	Ant 31	ECI 10	20525	836.5	24.12	25.30	1.312	-	-	-0.13	0.126	0.165
	LTE Band 5	10M	QPSK	1	0	-	Bottom Side	10mm	Ant 31	ECI 10	20525	836.5	24.12	25.30	1.312	-	-	0.18	0.290	0.381
	LTE Band 5	10M	QPSK	25	0	-	Front	10mm	Ant 31	ECI 10	20525	836.5	23.10	24.30	1.318	-	-	0.1	0.177	0.233
	LTE Band 5	10M	QPSK	25	0	-	Back	10mm	Ant 31	ECI 10	20525	836.5	23.10	24.30	1.318	-	-	0.01	0.227	0.299
	LTE Band 5	10M	QPSK	25	0	-	Left Side	10mm	Ant 31	ECI 10	20525	836.5	23.10	24.30	1.318	-	-	0.19	0.179	0.236
	LTE Band 5	10M	QPSK	25	0	-	Right Side	10mm	Ant 31	ECI 10	20525	836.5	23.10	24.30	1.318	-	-	0.15	0.103	0.136
	LTE Band 5	10M	QPSK	25	0	-	Bottom Side	10mm	Ant 31	ECI 10	20525	836.5	23.10	24.30	1.318	-	-	-0.14	0.250	0.330
	LTE Band 26	15M	QPSK	1	0	-	Front	10mm	Ant 13	ECI 10	26865	831.5	23.74	24.70	1.247	-	-	0.06	0.191	0.238
32	LTE Band 26	15M	QPSK	1	0	-	Back	10mm	Ant 13	ECI 10	26865	831.5	23.74	24.70	1.247	-	-	0.07	0.271	0.338
	LTE Band 26	15M	QPSK	1	0	-	Left Side	10mm	Ant 13	ECI 10	26865	831.5	23.74	24.70	1.247	-	-	-0.16	0.090	0.112
	LTE Band 26	15M	QPSK	1	0	-	Top Side	10mm	Ant 13	ECI 10	26865	831.5	23.74	24.70	1.247	-	-	-0.16	0.264	0.329
	LTE Band 26	15M	QPSK	36	0	-	Front	10mm	Ant 13	ECI 10	26865	831.5	22.73	23.70	1.250	-	-	-0.09	0.162	0.203
	LTE Band 26	15M	QPSK	36	0	-	Back	10mm	Ant 13	ECI 10	26865	831.5	22.73	23.70	1.250	-	-	-0.01	0.227	0.284
	LTE Band 26	15M	QPSK	36	0	-	Left Side	10mm	Ant 13	ECI 10	26865	831.5	22.73	23.70	1.250	-	-	0.08	0.073	0.091
	LTE Band 26	15M	QPSK	36	0	-	Top Side	10mm	Ant 13	ECI 10	26865	831.5	22.73	23.70	1.250	-	-	0.02	0.224	0.280
	LTE Band 26	15M	QPSK	1	0	-	Front	10mm	Ant 31	ECI 10	26865	831.5	23.69	25.00	1.352	-	-	0	0.158	0.214
	LTE Band 26	15M	QPSK	1	0	-	Back	10mm	Ant 31	ECI 10	26865	831.5	23.69	25.00	1.352	-	-	0.1	0.226	0.306
	LTE Band 26	15M	QPSK	1	0	-	Left Side	10mm	Ant 31	ECI 10	26865	831.5	23.69	25.00	1.352	-	-	0.19	0.180	0.243
	LTE Band 26	15M	QPSK	1	0	-	Right Side	10mm	Ant 31	ECI 10	26865	831.5	23.69	25.00	1.352	-	-	-0.07	0.102	0.138
	LTE Band 26	15M	QPSK	1	0	-	Bottom Side	10mm	Ant 31	ECI 10	26865	831.5	23.69	25.00	1.352	-	-	-0.08	0.223	0.302
	LTE Band 26	15M	QPSK	36	0	-	Front	10mm	Ant 31	ECI 10	26865	831.5	22.68	24.00	1.355	-	-	-0.07	0.134	0.182
	LTE Band 26	15M	QPSK	36	0	-	Back	10mm	Ant 31	ECI 10	26865	831.5	22.68	24.00	1.355	-	-	0.16	0.186	0.252
	LTE Band 26	15M	QPSK	36	0	-	Left Side	10mm	Ant 31	ECI 10	26865	831.5	22.68	24.00	1.355	-	-	-0.17	0.147	0.199
	LTE Band 26	15M	QPSK	36	0	-	Right Side	10mm	Ant 31	ECI 10	26865	831.5	22.68	24.00	1.355	-	-	0.18	0.084	0.114
	LTE Band 26	15M	QPSK	36	0	-	Bottom Side	10mm	Ant 31	ECI 10	26865	831.5	22.68	24.00	1.355	-	-	0.09	0.188	0.255
	FR1 n5	20M	QPSK	1	1	DFT-15	Front	10mm	Ant 13	ECI 10	167300	836.5	24.15	25.00	1.216	-	-	-0.1	0.183	0.223
	FR1 n5	20M	QPSK	1	1	DFT-15	Back	10mm	Ant 13	ECI 10	167300	836.5	24.15	25.00	1.216	-	-	-0.15	0.238	0.289
	FR1 n5	20M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 13	ECI 10	167300	836.5	24.15	25.00	1.216	-	-	-0.1	0.087	0.106
	FR1 n5	20M	QPSK	1	1	DFT-15	Top Side	10mm	Ant 13	ECI 10	167300	836.5	24.15	25.00	1.216	-	-	-0.14	0.254	0.309
	FR1 n5	20M	QPSK	50	28	DFT-15	Front	10mm	Ant 13	ECI 10	167300	836.5	24.13	25.00	1.222	-	-	-0.13	0.200	0.244
	FR1 n5	20M	QPSK	50	28	DFT-15	Back	10mm	Ant 13	ECI 10	167300	836.5	24.13	25.00	1.222	-	-	-0.18	0.259	0.316
	FR1 n5	20M	QPSK	50	28	DFT-15	Left Side	10mm	Ant 13	ECI 10	167300	836.5	24.13	25.00	1.222	-	-	-0.05	0.095	0.116
	FR1 n5	20M	QPSK	50	28	DFT-15	Top Side	10mm	Ant 13	ECI 10	167300	836.5	24.13	25.00	1.222	-	-	-0.17	0.277	0.338
	FR1 n5	20M	QPSK	1	1	DFT-15	Front	10mm	Ant 31	ECI 10	167300	836.5	24.38	25.30	1.236	-	-	0.02	0.191	0.236
	FR1 n5	20M	QPSK	1	1	DFT-15	Back	10mm	Ant 31	ECI 10	167300	836.5	24.38	25.30	1.236	-	-	-0.16	0.280	0.346
	FR1 n5	20M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 31	ECI 10	167300	836.5	24.38	25.30	1.236	-	-	-0.09	0.211	0.261
	FR1 n5	20M	QPSK	1	1	DFT-15	Right Side	10mm	Ant 31	ECI 10	167300	836.5	24.38	25.30	1.236	-	-	0.08	0.124	0.153
	FR1 n5	20M	QPSK	1	1	DFT-15	Bottom Side	10mm	Ant 31	ECI 10	167300	836.5	24.38	25.30	1.236	-	-	-0.12	0.258	0.319
	FR1 n5	20M	QPSK	50	28	DFT-15	Front	10mm	Ant 31	ECI 10	167300	836.5	24.35	25.30	1.245	-	-	0.03	0.209	0.260
34	FR1 n5	20M	QPSK	50	28	DFT-15	Back	10mm	Ant 31	ECI 10	167300	836.5	24.35	25.30	1.245	-	-	-0.09	0.300	0.373



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	FR1 n5	20M	QPSK	50	28	DFT-15	Left Side	10mm	Ant 31	ECI 10	167300	836.5	24.35	25.30	1.245	-	-	-0.17	0.231	0.287
	FR1 n5	20M	QPSK	50	28	DFT-15	Right Side	10mm	Ant 31	ECI 10	167300	836.5	24.35	25.30	1.245	-	-	-0.18	0.136	0.169
	FR1 n5	20M	QPSK	50	28	DFT-15	Bottom Side	10mm	Ant 31	ECI 10	167300	836.5	24.35	25.30	1.245	-	-	0.09	0.282	0.351
	FR1 n26	20M	QPSK	1	1	DFT-15	Front	10mm	Ant 13	ECI 10	166300	831.5	23.90	24.70	1.202	-	-	0	0.094	0.113
	FR1 n26	20M	QPSK	1	1	DFT-15	Back	10mm	Ant 13	ECI 10	166300	831.5	23.90	24.70	1.202	-	-	-0.06	0.120	0.144
	FR1 n26	20M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 13	ECI 10	166300	831.5	23.90	24.70	1.202	-	-	-0.16	0.048	0.058
	FR1 n26	20M	QPSK	1	1	DFT-15	Top Side	10mm	Ant 13	ECI 10	166300	831.5	23.90	24.70	1.202	-	-	-0.07	0.107	0.129
	FR1 n26	20M	QPSK	50	28	DFT-15	Front	10mm	Ant 13	ECI 10	166300	831.5	23.88	24.70	1.208	-	-	-0.03	0.093	0.112
	FR1 n26	20M	QPSK	50	28	DFT-15	Back	10mm	Ant 13	ECI 10	166300	831.5	23.88	24.70	1.208	-	-	0.14	0.119	0.144
	FR1 n26	20M	QPSK	50	28	DFT-15	Left Side	10mm	Ant 13	ECI 10	166300	831.5	23.88	24.70	1.208	-	-	0.18	0.048	0.058
	FR1 n26	20M	QPSK	50	28	DFT-15	Top Side	10mm	Ant 13	ECI 10	166300	831.5	23.88	24.70	1.208	-	-	-0.08	0.106	0.128
	FR1 n26	20M	QPSK	1	1	DFT-15	Front	10mm	Ant 31	ECI 10	166300	831.5	24.10	25.00	1.230	-	-	0.09	0.158	0.194
	FR1 n26	20M	QPSK	1	1	DFT-15	Back	10mm	Ant 31	ECI 10	166300	831.5	24.10	25.00	1.230	-	-	0.18	0.244	0.300
	FR1 n26	20M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 31	ECI 10	166300	831.5	24.10	25.00	1.230	-	-	-0.02	0.176	0.217
	FR1 n26	20M	QPSK	1	1	DFT-15	Right Side	10mm	Ant 31	ECI 10	166300	831.5	24.10	25.00	1.230	-	-	0.09	0.105	0.129
	FR1 n26	20M	QPSK	1	1	DFT-15	Bottom Side	10mm	Ant 31	ECI 10	166300	831.5	24.10	25.00	1.230	-	-	-0.15	0.237	0.292
	FR1 n26	20M	QPSK	50	28	DFT-15	Front	10mm	Ant 31	ECI 10	166300	831.5	24.08	25.00	1.236	-	-	0.15	0.185	0.229
35	FR1 n26	20M	QPSK	50	28	DFT-15	Back	10mm	Ant 31	ECI 10	166300	831.5	24.08	25.00	1.236	-	-	0.09	0.278	0.344
	FR1 n26	20M	QPSK	50	28	DFT-15	Left Side	10mm	Ant 31	ECI 10	166300	831.5	24.08	25.00	1.236	-	-	0.11	0.206	0.255
	FR1 n26	20M	QPSK	50	28	DFT-15	Right Side	10mm	Ant 31	ECI 10	166300	831.5	24.08	25.00	1.236	-	-	-0.08	0.123	0.152
	FR1 n26	20M	QPSK	50	28	DFT-15	Bottom Side	10mm	Ant 31	ECI 10	166300	831.5	24.08	25.00	1.236	-	-	0.08	0.277	0.342
1750MHz																				
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 13	ECI 10	1413	1732.6	19.02	19.70	1.169	-	-	0.03	0.202	0.236
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 13	ECI 10	1413	1732.6	19.02	19.70	1.169	-	-	0.06	0.233	0.272
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 13	ECI 10	1413	1732.6	19.02	19.70	1.169	-	-	-0.05	0.051	0.060
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Top Side	10mm	Ant 13	ECI 10	1413	1732.6	19.02	19.70	1.169	-	-	0.08	0.361	0.422
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 31	ECI 10	1413	1732.6	20.56	21.70	1.300	-	-	-0.16	0.172	0.224
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 31	ECI 10	1413	1732.6	20.56	21.70	1.300	-	-	0.12	0.314	0.408
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 31	ECI 10	1413	1732.6	20.56	21.70	1.300	-	-	-	n/a	n/a
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Side	10mm	Ant 31	ECI 10	1413	1732.6	20.56	21.70	1.300	-	-	-0.08	0.068	0.088
36	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Bottom Side	10mm	Ant 31	ECI 10	1413	1732.6	20.56	21.70	1.300	-	-	-0.18	0.411	0.534
	LTE Band 4	20M	QPSK	1	0	-	Front	10mm	Ant 31	ECI 10	20175	1732.5	20.78	21.90	1.294	-	-	-0.02	0.186	0.241
	LTE Band 4	20M	QPSK	1	0	-	Back	10mm	Ant 31	ECI 10	20175	1732.5	20.78	21.90	1.294	-	-	-0.03	0.335	0.434
	LTE Band 4	20M	QPSK	1	0	-	Left Side	10mm	Ant 31	ECI 10	20175	1732.5	20.78	21.90	1.294	-	-	-	n/a	n/a
	LTE Band 4	20M	QPSK	1	0	-	Right Side	10mm	Ant 31	ECI 10	20175	1732.5	20.78	21.90	1.294	-	-	0.19	0.070	0.091
37	LTE Band 4	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 31	ECI 10	20175	1732.5	20.78	21.90	1.294	-	-	0.07	0.456	0.590
	LTE Band 4	20M	QPSK	50	0	-	Front	10mm	Ant 31	ECI 10	20175	1732.5	20.76	21.90	1.300	-	-	-0.07	0.188	0.244
	LTE Band 4	20M	QPSK	50	0	-	Back	10mm	Ant 31	ECI 10	20175	1732.5	20.76	21.90	1.300	-	-	-0.04	0.336	0.437
	LTE Band 4	20M	QPSK	50	0	-	Left Side	10mm	Ant 31	ECI 10	20175	1732.5	20.76	21.90	1.300	-	-	-	n/a	n/a
	LTE Band 4	20M	QPSK	50	0	-	Right Side	10mm	Ant 31	ECI 10	20175	1732.5	20.76	21.90	1.300	-	-	0.02	0.070	0.091
	LTE Band 4	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 31	ECI 10	20175	1732.5	20.76	21.90	1.300	-	-	0.07	0.450	0.585
	LTE Band 66	20M	QPSK	1	0	-	Front	10mm	Ant 13	ECI 10	132322	1745	18.92	19.70	1.197	-	-	0.15	0.205	0.245
	LTE Band 66	20M	QPSK	1	0	-	Back	10mm	Ant 13	ECI 10	132322	1745	18.92	19.70	1.197	-	-	-0.06	0.241	0.288
	LTE Band 66	20M	QPSK	1	0	-	Left Side	10mm	Ant 13	ECI 10	132322	1745	18.92	19.70	1.197	-	-	-0.04	0.059	0.071
	LTE Band 66	20M	QPSK	1	0	-	Top Side	10mm	Ant 13	ECI 10	132322	1745	18.92	19.70	1.197	-	-	-0.17	0.374	0.448
	LTE Band 66	20M	QPSK	50	0	-	Front	10mm	Ant 13	ECI 10	132322	1745	18.90	19.70	1.202	-	-	0.04	0.203	0.244
	LTE Band 66	20M	QPSK	50	0	-	Back	10mm	Ant 13	ECI 10	132322	1745	18.90	19.70	1.202	-	-	0.06	0.243	0.292
	LTE Band 66	20M	QPSK	50	0	-	Left Side	10mm	Ant 13	ECI 10	132322	1745	18.90	19.70	1.202	-	-	0.17	0.059	0.071
	LTE Band 66	20M	QPSK	50	0	-	Top Side	10mm	Ant 13	ECI 10	132322	1745	18.90	19.70	1.202	-	-	-0.16	0.377	0.453
	LTE Band 66C	20M	QPSK	1	0	-	Top Side	10mm	Ant 13	ECI 10	132322+ 132124	1745+ 1725.2	18.77	19.70	1.239	-	-	-0.17	0.365	0.452
	LTE Band 66	20M	QPSK	1	0	-	Front	10mm	Ant 31	ECI 10	132322	1745	19.90	20.90	1.259	-	-	-0.06	0.204	0.257
	LTE Band 66	20M	QPSK	1	0	-	Back	10mm	Ant 31	ECI 10	132322	1745	19.90	20.90	1.259	-	-	-0.07	0.380	0.478
	LTE Band 66	20M	QPSK	1	0	-	Left Side	10mm	Ant 31	ECI 10	132322	1745	19.90	20.90	1.259	-	-	-	n/a	n/a
	LTE Band 66	20M	QPSK	1	0	-	Right Side	10mm	Ant 31	ECI 10	132322	1745	19.90	20.90	1.259	-	-	-0.03	0.084	0.106
38	LTE Band 66	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 31	ECI 10	132322	1745	19.90	20.90	1.259	-	-	-0.12	0.514	0.647
	LTE Band 66C	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 31	ECI 10	132322+	1745+	19.75	20.90	1.303	-	-	0.06	0.421	0.549



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											132124	1725.2								
	LTE Band 66	20M	QPSK	50	0	-	Front	10mm	Ant 31	ECI 10	132322	1745	19.88	20.90	1.265	-	-	-0.17	0.217	0.274
	LTE Band 66	20M	QPSK	50	0	-	Back	10mm	Ant 31	ECI 10	132322	1745	19.88	20.90	1.265	-	-	0.19	0.388	0.491
	LTE Band 66	20M	QPSK	50	0	-	Left Side	10mm	Ant 31	ECI 10	132322	1745	19.88	20.90	1.265	-	-	-	n/a	n/a
	LTE Band 66	20M	QPSK	50	0	-	Right Side	10mm	Ant 31	ECI 10	132322	1745	19.88	20.90	1.265	-	-	0.19	0.082	0.104
	LTE Band 66	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 31	ECI 10	132322	1745	19.88	20.90	1.265	-	-	-0.12	0.510	0.645
	LTE Band 66	20M	QPSK	1	0	-	Front	10mm	Ant 11	ECI 10	132322	1745	18.82	19.90	1.282	-	-	-0.05	0.080	0.103
	LTE Band 66	20M	QPSK	1	0	-	Back	10mm	Ant 11	ECI 10	132322	1745	18.82	19.90	1.282	-	-	0.02	0.124	0.159
	LTE Band 66	20M	QPSK	1	0	-	Left Side	10mm	Ant 11	ECI 10	132322	1745	18.82	19.90	1.282	-	-	0.13	0.133	0.171
	LTE Band 66	20M	QPSK	1	0	-	Top Side	10mm	Ant 11	ECI 10	132322	1745	18.82	19.90	1.282	-	-	-	n/a	n/a
	LTE Band 66	20M	QPSK	50	0	-	Front	10mm	Ant 11	ECI 10	132322	1745	18.80	19.90	1.288	-	-	-0.15	0.084	0.108
	LTE Band 66	20M	QPSK	50	0	-	Back	10mm	Ant 11	ECI 10	132322	1745	18.80	19.90	1.288	-	-	-0.18	0.127	0.164
	LTE Band 66	20M	QPSK	50	0	-	Left Side	10mm	Ant 11	ECI 10	132322	1745	18.80	19.90	1.288	-	-	0.06	0.139	0.179
	LTE Band 66C	20M	QPSK	1	0	-	Left Side	10mm	Ant 11	ECI 10	132322+ 132124	1745+ 1725.2	18.32	19.90	1.439	-	-	-0.06	0.119	0.171
	LTE Band 66	20M	QPSK	50	0	-	Top Side	10mm	Ant 11	ECI 10	132322	1745	18.80	19.90	1.288	-	-	-	n/a	n/a
	FR1 n66	40M	QPSK	1	1	DFT-15	Front	10mm	Ant 13	ECI 10	349000	1745	17.72	18.70	1.253	-	-	-0.07	0.148	0.185
	FR1 n66	40M	QPSK	1	1	DFT-15	Back	10mm	Ant 13	ECI 10	349000	1745	17.72	18.70	1.253	-	-	0.12	0.158	0.198
	FR1 n66	40M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 13	ECI 10	349000	1745	17.72	18.70	1.253	-	-	-	n/a	n/a
	FR1 n66	40M	QPSK	1	1	DFT-15	Top Side	10mm	Ant 13	ECI 10	349000	1745	17.72	18.70	1.253	-	-	-0.02	0.269	0.337
	FR1 n66	40M	QPSK	108	54	DFT-15	Front	10mm	Ant 13	ECI 10	349000	1745	17.70	18.70	1.259	-	-	-0.06	0.177	0.223
	FR1 n66	40M	QPSK	108	54	DFT-15	Back	10mm	Ant 13	ECI 10	349000	1745	17.70	18.70	1.259	-	-	0.16	0.189	0.238
	FR1 n66	40M	QPSK	108	54	DFT-15	Left Side	10mm	Ant 13	ECI 10	349000	1745	17.70	18.70	1.259	-	-	-	n/a	n/a
	FR1 n66	40M	QPSK	108	54	DFT-15	Top Side	10mm	Ant 13	ECI 10	349000	1745	17.70	18.70	1.259	-	-	-0.18	0.322	0.405
	FR1 n66	40M	QPSK	1	1	DFT-15	Front	10mm	Ant 31	ECI 10	349000	1745	19.33	20.40	1.279	-	-	-0.07	0.141	0.180
	FR1 n66	40M	QPSK	1	1	DFT-15	Back	10mm	Ant 31	ECI 10	349000	1745	19.33	20.40	1.279	-	-	0.06	0.282	0.361
	FR1 n66	40M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 31	ECI 10	349000	1745	19.33	20.40	1.279	-	-	-	n/a	n/a
	FR1 n66	40M	QPSK	1	1	DFT-15	Right Side	10mm	Ant 31	ECI 10	349000	1745	19.33	20.40	1.279	-	-	0.03	0.054	0.069
	FR1 n66	40M	QPSK	1	1	DFT-15	Bottom Side	10mm	Ant 31	ECI 10	349000	1745	19.33	20.40	1.279	-	-	-0.14	0.348	0.445
	FR1 n66	40M	QPSK	108	54	DFT-15	Front	10mm	Ant 31	ECI 10	349000	1745	19.31	20.40	1.285	-	-	0.1	0.154	0.198
	FR1 n66	40M	QPSK	108	54	DFT-15	Back	10mm	Ant 31	ECI 10	349000	1745	19.31	20.40	1.285	-	-	-0.1	0.308	0.396
	FR1 n66	40M	QPSK	108	54	DFT-15	Left Side	10mm	Ant 31	ECI 10	349000	1745	19.31	20.40	1.285	-	-	-	n/a	n/a
	FR1 n66	40M	QPSK	108	54	DFT-15	Right Side	10mm	Ant 31	ECI 10	349000	1745	19.31	20.40	1.285	-	-	0.05	0.059	0.076
39	FR1 n66	40M	QPSK	108	54	DFT-15	Bottom Side	10mm	Ant 31	ECI 10	349000	1745	19.31	20.40	1.285	-	-	-0.14	0.351	0.451
	FR1 n66	40M	QPSK	1	1	DFT-15	Front	10mm	Ant 11	ECI 10	349000	1745	17.48	18.40	1.236	-	-	-0.18	0.058	0.072
	FR1 n66	40M	QPSK	1	1	DFT-15	Back	10mm	Ant 11	ECI 10	349000	1745	17.48	18.40	1.236	-	-	-0.12	0.090	0.111
	FR1 n66	40M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 11	ECI 10	349000	1745	17.48	18.40	1.236	-	-	-0.09	0.104	0.129
	FR1 n66	40M	QPSK	1	1	DFT-15	Top Side	10mm	Ant 11	ECI 10	349000	1745	17.48	18.40	1.236	-	-	-	n/a	n/a
	FR1 n66	40M	QPSK	108	54	DFT-15	Front	10mm	Ant 11	ECI 10	349000	1745	17.46	18.40	1.242	-	-	0.13	0.059	0.073
	FR1 n66	40M	QPSK	108	54	DFT-15	Back	10mm	Ant 11	ECI 10	349000	1745	17.46	18.40	1.242	-	-	-0.14	0.091	0.113
	FR1 n66	40M	QPSK	108	54	DFT-15	Left Side	10mm	Ant 11	ECI 10	349000	1745	17.46	18.40	1.242	-	-	-0.11	0.105	0.130
	FR1 n66	40M	QPSK	108	54	DFT-15	Top Side	10mm	Ant 11	ECI 10	349000	1745	17.46	18.40	1.242	-	-	-	n/a	n/a
1900MHz																				
	GSM1900	-	-	-	-	GPRS 2 TX Slot	Front	10mm	Ant 13	ECI 10	661	1880	24.87	25.70	1.211	-	-	-0.09	0.154	0.186
	GSM1900	-	-	-	-	GPRS 2 TX Slot	Back	10mm	Ant 13	ECI 10	661	1880	24.87	25.70	1.211	-	-	0.17	0.221	0.268
	GSM1900	-	-	-	-	GPRS 2 TX Slot	Left Side	10mm	Ant 13	ECI 10	661	1880	24.87	25.70	1.211	-	-	0.07	0.043	0.052
	GSM1900	-	-	-	-	GPRS 2 TX Slot	Top Side	10mm	Ant 13	ECI 10	661	1880	24.87	25.70	1.211	-	-	0.07	0.360	0.436
	GSM1900	-	-	-	-	GPRS 2 TX Slot	Front	10mm	Ant 31	ECI 10	661	1880	25.88	27.20	1.355	-	-	-0.01	0.179	0.243
	GSM1900	-	-	-	-	GPRS 2 TX Slot	Back	10mm	Ant 31	ECI 10	661	1880	25.88	27.20	1.355	-	-	0.1	0.371	0.503
	GSM1900	-	-	-	-	GPRS 2 TX Slot	Left Side	10mm	Ant 31	ECI 10	661	1880	25.88	27.20	1.355	-	-	0.14	0.054	0.073
	GSM1900	-	-	-	-	GPRS 2 TX Slot	Right Side	10mm	Ant 31	ECI 10	661	1880	25.88	27.20	1.355	-	-	-0.05	0.097	0.131
40	GSM1900	-	-	-	-	GPRS 2 TX Slot	Bottom Side	10mm	Ant 31	ECI 10	661	1880	25.88	27.20	1.355	-	-	-0.06	0.495	0.671
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 13	ECI 10	9400	1880	17.62	18.70	1.282	-	-	-0.09	0.144	0.185
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 13	ECI 10	9400	1880	17.62	18.70	1.282	-	-	-0.15	0.218	0.280
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 13	ECI 10	9400	1880	17.62	18.70	1.282	-	-	-0.01	0.042	0.054
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Top Side	10mm	Ant 13	ECI 10	9400	1880	17.62	18.70	1.282	-	-	-0.19	0.327	0.419
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 31	ECI 10	9400	1880	18.95	20.20	1.334	-	-	-0.05	0.227	0.303



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	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 31	ECI 10	9400	1880	18.95	20.20	1.334	-	-	-0.1	0.435	0.580
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 31	ECI 10	9400	1880	18.95	20.20	1.334	-	-	-0.09	0.069	0.092
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Side	10mm	Ant 31	ECI 10	9400	1880	18.95	20.20	1.334	-	-	-0.04	0.120	0.160
41	WCDMA II	-	-	-	-	RMC 12.2Kbps	Bottom Side	10mm	Ant 31	ECI 10	9400	1880	18.95	20.20	1.334	-	-	0.16	0.560	0.747
	LTE Band 2	20M	QPSK	1	0	-	Front	10mm	Ant 13	ECI 10	18900	1880	17.91	18.70	1.199	-	-	0.02	0.136	0.163
	LTE Band 2	20M	QPSK	1	0	-	Back	10mm	Ant 13	ECI 10	18900	1880	17.91	18.70	1.199	-	-	0.07	0.204	0.245
	LTE Band 2	20M	QPSK	1	0	-	Left Side	10mm	Ant 13	ECI 10	18900	1880	17.91	18.70	1.199	-	-	0.16	0.041	0.049
	LTE Band 2	20M	QPSK	1	0	-	Top Side	10mm	Ant 13	ECI 10	18900	1880	17.91	18.70	1.199	-	-	-0.11	0.312	0.374
	LTE Band 2	20M	QPSK	50	0	-	Front	10mm	Ant 13	ECI 10	18900	1880	17.90	18.70	1.202	-	-	0.11	0.137	0.165
	LTE Band 2	20M	QPSK	50	0	-	Back	10mm	Ant 13	ECI 10	18900	1880	17.90	18.70	1.202	-	-	0.18	0.204	0.245
	LTE Band 2	20M	QPSK	50	0	-	Left Side	10mm	Ant 13	ECI 10	18900	1880	17.90	18.70	1.202	-	-	0.08	0.044	0.053
	LTE Band 2	20M	QPSK	50	0	-	Top Side	10mm	Ant 13	ECI 10	18900	1880	17.90	18.70	1.202	-	-	-0.07	0.321	0.386
	LTE Band 2C	20M	QPSK	1	0	-	Top Side	10mm	Ant 13	ECI 10	18900+19098	1880+1899.8	17.53	18.70	1.309	-	-	-0.13	0.285	0.373
	LTE Band 2	20M	QPSK	1	0	-	Front	10mm	Ant 31	ECI 10	18900	1880	18.91	20.00	1.285	-	-	0.09	0.256	0.329
	LTE Band 2	20M	QPSK	1	0	-	Back	10mm	Ant 31	ECI 10	18900	1880	18.91	20.00	1.285	-	-	0.06	0.479	0.616
	LTE Band 2	20M	QPSK	1	0	-	Left Side	10mm	Ant 31	ECI 10	18900	1880	18.91	20.00	1.285	-	-	-0.17	0.076	0.098
	LTE Band 2	20M	QPSK	1	0	-	Right Side	10mm	Ant 31	ECI 10	18900	1880	18.91	20.00	1.285	-	-	-0.18	0.129	0.166
42	LTE Band 2	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 31	ECI 10	18900	1880	18.91	20.00	1.285	-	-	0.06	0.647	0.832
	LTE Band 2C	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 31	ECI 10	18900+19098	1880+1899.8	18.75	20.00	1.334	-	-	0.07	0.572	0.763
	LTE Band 2	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 31	ECI 10	18900	1880	18.89	20.00	1.291	-	-	0.01	0.584	0.754
	LTE Band 2	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 31	ECI 10	18900	1880	18.87	20.00	1.297	-	-	0.04	0.579	0.751
	LTE Band 2	20M	QPSK	50	0	-	Front	10mm	Ant 31	ECI 10	18900	1880	18.90	20.00	1.288	-	-	0.03	0.248	0.319
	LTE Band 2	20M	QPSK	50	0	-	Back	10mm	Ant 31	ECI 10	18900	1880	18.90	20.00	1.288	-	-	0	0.477	0.614
	LTE Band 2	20M	QPSK	50	0	-	Left Side	10mm	Ant 31	ECI 10	18900	1880	18.90	20.00	1.288	-	-	-0.13	0.073	0.094
	LTE Band 2	20M	QPSK	50	0	-	Right Side	10mm	Ant 31	ECI 10	18900	1880	18.90	20.00	1.288	-	-	0.13	0.128	0.165
	LTE Band 2	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 31	ECI 10	18900	1880	18.90	20.00	1.288	-	-	0.09	0.634	0.817
	LTE Band 2	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 31	ECI 10	18900	1880	18.87	20.00	1.297	-	-	0.09	0.571	0.741
	LTE Band 2	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 31	ECI 10	18900	1880	18.85	20.00	1.303	-	-	0.05	0.558	0.727
	LTE Band 2	20M	QPSK	100	0	-	Bottom Side	10mm	Ant 31	ECI 10	18900	1880	18.88	20.00	1.294	-	-	0.02	0.611	0.791
	LTE Band 2	20M	QPSK	1	0	-	Front	10mm	Ant 11	ECI 10	18900	1880	17.45	19.10	1.462	-	-	-	n/a	n/a
	LTE Band 2	20M	QPSK	1	0	-	Back	10mm	Ant 11	ECI 10	18900	1880	17.45	19.10	1.462	-	-	-	n/a	n/a
	LTE Band 2	20M	QPSK	1	0	-	Left Side	10mm	Ant 11	ECI 10	18900	1880	17.45	19.10	1.462	-	-	0.16	0.039	0.057
	LTE Band 2	20M	QPSK	1	0	-	Top Side	10mm	Ant 11	ECI 10	18900	1880	17.45	19.10	1.462	-	-	-	n/a	n/a
	LTE Band 2	20M	QPSK	50	0	-	Front	10mm	Ant 11	ECI 10	18900	1880	17.43	19.10	1.469	-	-	-	n/a	n/a
	LTE Band 2	20M	QPSK	50	0	-	Back	10mm	Ant 11	ECI 10	18900	1880	17.43	19.10	1.469	-	-	-	n/a	n/a
	LTE Band 2	20M	QPSK	50	0	-	Left Side	10mm	Ant 11	ECI 10	18900	1880	17.43	19.10	1.469	-	-	-0.07	0.039	0.057
	LTE Band 2	20M	QPSK	50	0	-	Top Side	10mm	Ant 11	ECI 10	18900	1880	17.43	19.10	1.469	-	-	-	n/a	n/a
	FR1 n2	20M	QPSK	1	1	DFT-15	Front	10mm	Ant 13	ECI 10	376000	1880	17.17	18.20	1.268	-	-	0.07	0.121	0.153
	FR1 n2	20M	QPSK	1	1	DFT-15	Back	10mm	Ant 13	ECI 10	376000	1880	17.17	18.20	1.268	-	-	-0.09	0.166	0.210
	FR1 n2	20M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 13	ECI 10	376000	1880	17.17	18.20	1.268	-	-	-	n/a	n/a
	FR1 n2	20M	QPSK	1	1	DFT-15	Top Side	10mm	Ant 13	ECI 10	376000	1880	17.17	18.20	1.268	-	-	0.02	0.285	0.361
	FR1 n2	20M	QPSK	50	28	DFT-15	Front	10mm	Ant 13	ECI 10	376000	1880	17.15	18.20	1.274	-	-	-0.15	0.130	0.166
	FR1 n2	20M	QPSK	50	28	DFT-15	Back	10mm	Ant 13	ECI 10	376000	1880	17.15	18.20	1.274	-	-	0.07	0.179	0.228
	FR1 n2	20M	QPSK	50	28	DFT-15	Left Side	10mm	Ant 13	ECI 10	376000	1880	17.15	18.20	1.274	-	-	-	n/a	n/a
	FR1 n2	20M	QPSK	50	28	DFT-15	Top Side	10mm	Ant 13	ECI 10	376000	1880	17.15	18.20	1.274	-	-	0.16	0.307	0.391
	FR1 n2	20M	QPSK	1	1	DFT-15	Front	10mm	Ant 31	ECI 10	376000	1880	18.58	19.50	1.236	-	-	-0.18	0.174	0.215
	FR1 n2	20M	QPSK	1	1	DFT-15	Back	10mm	Ant 31	ECI 10	376000	1880	18.58	19.50	1.236	-	-	0.07	0.383	0.473
	FR1 n2	20M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 31	ECI 10	376000	1880	18.58	19.50	1.236	-	-	0.05	0.058	0.072
	FR1 n2	20M	QPSK	1	1	DFT-15	Right Side	10mm	Ant 31	ECI 10	376000	1880	18.58	19.50	1.236	-	-	-0.03	0.105	0.130
43	FR1 n2	20M	QPSK	1	1	DFT-15	Bottom Side	10mm	Ant 31	ECI 10	376000	1880	18.58	19.50	1.236	-	-	-0.16	0.505	0.624
	FR1 n2	20M	QPSK	50	28	DFT-15	Front	10mm	Ant 31	ECI 10	376000	1880	18.57	19.50	1.239	-	-	0.01	0.169	0.209
	FR1 n2	20M	QPSK	50	28	DFT-15	Back	10mm	Ant 31	ECI 10	376000	1880	18.57	19.50	1.239	-	-	-0.08	0.372	0.461
	FR1 n2	20M	QPSK	50	28	DFT-15	Left Side	10mm	Ant 31	ECI 10	376000	1880	18.57	19.50	1.239	-	-	-0.05	0.056	0.069
	FR1 n2	20M	QPSK	50	28	DFT-15	Right Side	10mm	Ant 31	ECI 10	376000	1880	18.57	19.50	1.239	-	-	-0.15	0.102	0.126
	FR1 n2	20M	QPSK	50	28	DFT-15	Bottom Side	10mm	Ant 31	ECI 10	376000	1880	18.57	19.50	1.239	-	-	-0.15	0.490	0.607



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	FR1 n2	20M	QPSK	1	1	DFT-15	Front	10mm	Ant 11	ECI 10	376000	1880	21.37	22.20	1.211	-	-	-	n/a	n/a
	FR1 n2	20M	QPSK	1	1	DFT-15	Back	10mm	Ant 11	ECI 10	376000	1880	21.37	22.20	1.211	-	-	0.1	0.049	0.059
	FR1 n2	20M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 11	ECI 10	376000	1880	21.37	22.20	1.211	-	-	-0.1	0.093	0.113
	FR1 n2	20M	QPSK	1	1	DFT-15	Top Side	10mm	Ant 11	ECI 10	376000	1880	21.37	22.20	1.211	-	-	-	n/a	n/a
	FR1 n2	20M	QPSK	50	28	DFT-15	Front	10mm	Ant 11	ECI 10	376000	1880	21.35	22.20	1.216	-	-	-	n/a	n/a
	FR1 n2	20M	QPSK	50	28	DFT-15	Back	10mm	Ant 11	ECI 10	376000	1880	21.35	22.20	1.216	-	-	0.07	0.053	0.064
	FR1 n2	20M	QPSK	50	28	DFT-15	Left Side	10mm	Ant 11	ECI 10	376000	1880	21.35	22.20	1.216	-	-	0.14	0.100	0.122
	FR1 n2	20M	QPSK	50	28	DFT-15	Top Side	10mm	Ant 11	ECI 10	376000	1880	21.35	22.20	1.216	-	-	-	n/a	n/a
2600MHz																				
	LTE Band 7	20M	QPSK	1	0	-	Front	10mm	Ant 13	ECI 10	21100	2535	15.80	16.70	1.230	-	-	0	0.096	0.118
	LTE Band 7	20M	QPSK	1	0	-	Back	10mm	Ant 13	ECI 10	21100	2535	15.80	16.70	1.230	-	-	0.03	0.309	0.380
	LTE Band 7	20M	QPSK	1	0	-	Left Side	10mm	Ant 13	ECI 10	21100	2535	15.80	16.70	1.230	-	-	0.09	0.082	0.101
44	LTE Band 7	20M	QPSK	1	0	-	Top Side	10mm	Ant 13	ECI 10	21100	2535	15.80	16.70	1.230	-	-	-0.17	0.393	0.483
	LTE Band 7C	20M	QPSK	1	0	-	Top Side	10mm	Ant 13	ECI 10	21100+20902	2535+2515.2	15.73	16.70	1.250	-	-	0.01	0.379	0.474
	LTE Band 7	20M	QPSK	50	0	-	Front	10mm	Ant 13	ECI 10	21100	2535	15.78	16.70	1.236	-	-	-0.12	0.101	0.125
	LTE Band 7	20M	QPSK	50	0	-	Back	10mm	Ant 13	ECI 10	21100	2535	15.78	16.70	1.236	-	-	-0.11	0.314	0.388
	LTE Band 7	20M	QPSK	50	0	-	Left Side	10mm	Ant 13	ECI 10	21100	2535	15.78	16.70	1.236	-	-	-0.12	0.082	0.101
	LTE Band 7	20M	QPSK	50	0	-	Top Side	10mm	Ant 13	ECI 10	21100	2535	15.78	16.70	1.236	-	-	-0.17	0.376	0.465
	LTE Band 7	20M	QPSK	1	0	-	Front	10mm	Ant 31	ECI 10	21100	2535	20.50	21.40	1.230	-	-	-0.19	0.238	0.293
	LTE Band 7	20M	QPSK	1	0	-	Back	10mm	Ant 31	ECI 10	21100	2535	20.50	21.40	1.230	-	-	0.04	0.305	0.375
	LTE Band 7	20M	QPSK	1	0	-	Left Side	10mm	Ant 31	ECI 10	21100	2535	20.50	21.40	1.230	-	-	-0.17	0.043	0.053
	LTE Band 7	20M	QPSK	1	0	-	Right Side	10mm	Ant 31	ECI 10	21100	2535	20.50	21.40	1.230	-	-	-0.06	0.160	0.197
	LTE Band 7	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 31	ECI 10	21100	2535	20.50	21.40	1.230	-	-	-0.13	0.232	0.285
	LTE Band 7	20M	QPSK	50	0	-	Front	10mm	Ant 31	ECI 10	21100	2535	20.48	21.40	1.236	-	-	0.04	0.240	0.297
	LTE Band 7	20M	QPSK	50	0	-	Back	10mm	Ant 31	ECI 10	21100	2535	20.48	21.40	1.236	-	-	-0.17	0.316	0.391
	LTE Band 7C	20M	QPSK	1	0	-	Back	10mm	Ant 31	ECI 10	21100+20902	2535+2515.2	20.29	21.40	1.291	-	-	-0.06	0.298	0.385
	LTE Band 7	20M	QPSK	50	0	-	Left Side	10mm	Ant 31	ECI 10	21100	2535	20.48	21.40	1.236	-	-	-0.02	0.043	0.053
	LTE Band 7	20M	QPSK	50	0	-	Right Side	10mm	Ant 31	ECI 10	21100	2535	20.48	21.40	1.236	-	-	-0.05	0.170	0.210
	LTE Band 7	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 31	ECI 10	21100	2535	20.48	21.40	1.236	-	-	-0.07	0.241	0.298
	LTE Band 7	20M	QPSK	1	0	-	Front	10mm	Ant 11	ECI 10	21100	2535	17.88	18.90	1.265	-	-	0.1	0.137	0.173
	LTE Band 7	20M	QPSK	1	0	-	Back	10mm	Ant 11	ECI 10	21100	2535	17.88	18.90	1.265	-	-	0.1	0.172	0.218
	LTE Band 7	20M	QPSK	1	0	-	Left Side	10mm	Ant 11	ECI 10	21100	2535	17.88	18.90	1.265	-	-	0.18	0.177	0.224
	LTE Band 7	20M	QPSK	1	0	-	Top Side	10mm	Ant 11	ECI 10	21100	2535	17.88	18.90	1.265	-	-	0.05	0.059	0.075
	LTE Band 7	20M	QPSK	50	0	-	Front	10mm	Ant 11	ECI 10	21100	2535	17.86	18.90	1.271	-	-	-0.19	0.145	0.184
	LTE Band 7	20M	QPSK	50	0	-	Back	10mm	Ant 11	ECI 10	21100	2535	17.86	18.90	1.271	-	-	0.19	0.187	0.238
	LTE Band 7C	20M	QPSK	1	0	-	Back	10mm	Ant 11	ECI 10	21100+20902	2535+2515.2	17.79	18.90	1.291	-	-	0.1	0.137	0.177
	LTE Band 7	20M	QPSK	50	0	-	Left Side	10mm	Ant 11	ECI 10	21100	2535	17.86	18.90	1.271	-	-	0.13	0.184	0.234
	LTE Band 7	20M	QPSK	50	0	-	Top Side	10mm	Ant 11	ECI 10	21100	2535	17.86	18.90	1.271	-	-	-0.02	0.054	0.069
	LTE Band 38	20M	QPSK	1	0	-	Front	10mm	Ant 13	ECI 10	38000	2595	17.08	18.20	1.294	62.9	1.006	0.07	0.092	0.120
	LTE Band 38	20M	QPSK	1	0	-	Back	10mm	Ant 13	ECI 10	38000	2595	17.08	18.20	1.294	62.9	1.006	0.01	0.333	0.434
	LTE Band 38	20M	QPSK	1	0	-	Left Side	10mm	Ant 13	ECI 10	38000	2595	17.08	18.20	1.294	62.9	1.006	-0.07	0.077	0.100
	LTE Band 38	20M	QPSK	1	0	-	Top Side	10mm	Ant 13	ECI 10	38000	2595	17.08	18.20	1.294	62.9	1.006	-0.1	0.396	0.516
	LTE Band 38	20M	QPSK	50	0	-	Front	10mm	Ant 13	ECI 10	38000	2595	17.06	18.20	1.300	62.9	1.006	0.05	0.087	0.114
	LTE Band 38	20M	QPSK	50	0	-	Back	10mm	Ant 13	ECI 10	38000	2595	17.06	18.20	1.300	62.9	1.006	0.04	0.331	0.433
	LTE Band 38	20M	QPSK	50	0	-	Left Side	10mm	Ant 13	ECI 10	38000	2595	17.06	18.20	1.300	62.9	1.006	-0.09	0.080	0.105
	LTE Band 38	20M	QPSK	50	0	-	Top Side	10mm	Ant 13	ECI 10	38000	2595	17.06	18.20	1.300	62.9	1.006	-0.06	0.397	0.519
	LTE Band 38	20M	QPSK	1	0	-	Front	10mm	Ant 31	ECI 10	38000	2595	22.36	23.50	1.300	62.9	1.006	-0.01	0.404	0.528
45	LTE Band 38	20M	QPSK	1	0	-	Back	10mm	Ant 31	ECI 10	38000	2595	22.36	23.50	1.300	62.9	1.006	-0.15	0.468	0.612
	LTE Band 38	20M	QPSK	1	0	-	Left Side	10mm	Ant 31	ECI 10	38000	2595	22.36	23.50	1.300	62.9	1.006	-0.01	0.053	0.069
	LTE Band 38	20M	QPSK	1	0	-	Right Side	10mm	Ant 31	ECI 10	38000	2595	22.36	23.50	1.300	62.9	1.006	0.02	0.292	0.382
	LTE Band 38	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 31	ECI 10	38000	2595	22.36	23.50	1.300	62.9	1.006	0.19	0.350	0.458
	LTE Band 38	20M	QPSK	50	0	-	Front	10mm	Ant 31	ECI 10	38000	2595	22.35	23.50	1.303	62.9	1.006	0.15	0.326	0.427
	LTE Band 38	20M	QPSK	50	0	-	Back	10mm	Ant 31	ECI 10	38000	2595	22.35	23.50	1.303	62.9	1.006	-0.19	0.393	0.515
	LTE Band 38	20M	QPSK	50	0	-	Left Side	10mm	Ant 31	ECI 10	38000	2595	22.35	23.50	1.303	62.9	1.006	0.1	0.039	0.051
	LTE Band 38	20M	QPSK	50	0	-	Right Side	10mm	Ant 31	ECI 10	38000	2595	22.35	23.50	1.303	62.9	1.006	0.1	0.235	0.308



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	LTE Band 38	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 31	ECI 10	38000	2595	22.35	23.50	1.303	62.9	1.006	0.19	0.286	0.375
	LTE Band 38	20M	QPSK	1	0	-	Front	10mm	Ant 11	ECI 10	38000	2595	17.28	18.50	1.324	62.9	1.006	0.18	0.228	0.304
	LTE Band 38	20M	QPSK	1	0	-	Back	10mm	Ant 11	ECI 10	38000	2595	17.28	18.50	1.324	62.9	1.006	0.1	0.389	0.518
	LTE Band 38	20M	QPSK	1	0	-	Left Side	10mm	Ant 11	ECI 10	38000	2595	17.28	18.50	1.324	62.9	1.006	-0.13	0.422	0.562
	LTE Band 38	20M	QPSK	1	0	-	Top Side	10mm	Ant 11	ECI 10	38000	2595	17.28	18.50	1.324	62.9	1.006	0.01	0.061	0.081
	LTE Band 38	20M	QPSK	50	0	-	Front	10mm	Ant 11	ECI 10	38000	2595	17.26	18.50	1.330	62.9	1.006	-0.03	0.221	0.296
	LTE Band 38	20M	QPSK	50	0	-	Back	10mm	Ant 11	ECI 10	38000	2595	17.26	18.50	1.330	62.9	1.006	-0.11	0.387	0.518
	LTE Band 38	20M	QPSK	50	0	-	Left Side	10mm	Ant 11	ECI 10	38000	2595	17.26	18.50	1.330	62.9	1.006	-0.1	0.439	0.588
	LTE Band 38	20M	QPSK	50	0	-	Top Side	10mm	Ant 11	ECI 10	38000	2595	17.26	18.50	1.330	62.9	1.006	0.09	0.061	0.082
	LTE Band 41	20M	QPSK	1	0	-	Front	10mm	Ant 13	ECI 10	40185	2549.5	17.56	18.50	1.242	62.9	1.006	0.13	0.094	0.117
	LTE Band 41	20M	QPSK	1	0	-	Back	10mm	Ant 13	ECI 10	40185	2549.5	17.56	18.50	1.242	62.9	1.006	0.07	0.311	0.388
	LTE Band 41	20M	QPSK	1	0	-	Left Side	10mm	Ant 13	ECI 10	40185	2549.5	17.56	18.50	1.242	62.9	1.006	0.14	0.070	0.087
46	LTE Band 41	20M	QPSK	1	0	-	Top Side	10mm	Ant 13	ECI 10	40185	2549.5	17.56	18.50	1.242	62.9	1.006	-0.05	0.377	0.471
	LTE Band 41C	20M	QPSK	1	0	-	Top Side	10mm	Ant 13	ECI 10	40185+39987	2549.5+2529.7	17.50	18.50	1.259	62.9	1.006	0.05	0.354	0.448
	LTE Band 41	20M	QPSK	50	0	-	Front	10mm	Ant 13	ECI 10	40185	2549.5	17.55	18.50	1.245	62.9	1.006	0	0.093	0.116
	LTE Band 41	20M	QPSK	50	0	-	Back	10mm	Ant 13	ECI 10	40185	2549.5	17.55	18.50	1.245	62.9	1.006	-0.18	0.318	0.398
	LTE Band 41	20M	QPSK	50	0	-	Left Side	10mm	Ant 13	ECI 10	40185	2549.5	17.55	18.50	1.245	62.9	1.006	-0.07	0.077	0.096
	LTE Band 41	20M	QPSK	50	0	-	Top Side	10mm	Ant 13	ECI 10	40185	2549.5	17.55	18.50	1.245	62.9	1.006	-0.05	0.360	0.451
	LTE Band 41	20M	QPSK	1	0	-	Front	10mm	Ant 31	ECI 10	40185	2549.5	22.67	23.50	1.211	62.9	1.006	0.07	0.230	0.280
	LTE Band 41	20M	QPSK	1	0	-	Back	10mm	Ant 31	ECI 10	40185	2549.5	22.67	23.50	1.211	62.9	1.006	0.19	0.281	0.342
	LTE Band 41	20M	QPSK	1	0	-	Left Side	10mm	Ant 31	ECI 10	40185	2549.5	22.67	23.50	1.211	62.9	1.006	-0.1	0.035	0.043
	LTE Band 41	20M	QPSK	1	0	-	Right Side	10mm	Ant 31	ECI 10	40185	2549.5	22.67	23.50	1.211	62.9	1.006	0	0.153	0.186
	LTE Band 41	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 31	ECI 10	40185	2549.5	22.67	23.50	1.211	62.9	1.006	-	n/a	n/a
	LTE Band 41	20M	QPSK	50	0	-	Front	10mm	Ant 31	ECI 10	40185	2549.5	22.65	23.50	1.216	62.9	1.006	0.16	0.237	0.290
	LTE Band 41	20M	QPSK	50	0	-	Back	10mm	Ant 31	ECI 10	40185	2549.5	22.65	23.50	1.216	62.9	1.006	0.02	0.293	0.358
	LTE Band 41C	20M	QPSK	1	0	-	Back	10mm	Ant 31	ECI 10	40185+39987	2549.5+2529.7	22.60	23.50	1.230	62.9	1.006	0.04	0.280	0.347
	LTE Band 41	20M	QPSK	50	0	-	Left Side	10mm	Ant 31	ECI 10	40185	2549.5	22.65	23.50	1.216	62.9	1.006	0.06	0.035	0.043
	LTE Band 41	20M	QPSK	50	0	-	Right Side	10mm	Ant 31	ECI 10	40185	2549.5	22.65	23.50	1.216	62.9	1.006	-0.16	0.167	0.204
	LTE Band 41	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 31	ECI 10	40185	2549.5	22.65	23.50	1.216	62.9	1.006	-	n/a	n/a
	LTE Band 41	20M	QPSK	1	0	-	Front	10mm	Ant 11	ECI 10	40185	2549.5	18.12	19.00	1.225	62.9	1.006	-0.14	0.150	0.185
	LTE Band 41	20M	QPSK	1	0	-	Back	10mm	Ant 11	ECI 10	40185	2549.5	18.12	19.00	1.225	62.9	1.006	-0.18	0.208	0.256
	LTE Band 41	20M	QPSK	1	0	-	Left Side	10mm	Ant 11	ECI 10	40185	2549.5	18.12	19.00	1.225	62.9	1.006	-0.14	0.210	0.259
	LTE Band 41	20M	QPSK	1	0	-	Top Side	10mm	Ant 11	ECI 10	40185	2549.5	18.12	19.00	1.225	62.9	1.006	0.1	0.059	0.073
	LTE Band 41	20M	QPSK	50	0	-	Front	10mm	Ant 11	ECI 10	40185	2549.5	18.10	19.00	1.230	62.9	1.006	0.17	0.158	0.196
	LTE Band 41	20M	QPSK	50	0	-	Back	10mm	Ant 11	ECI 10	40185	2549.5	18.10	19.00	1.230	62.9	1.006	0.17	0.222	0.275
	LTE Band 41	20M	QPSK	50	0	-	Left Side	10mm	Ant 11	ECI 10	40185	2549.5	18.10	19.00	1.230	62.9	1.006	0.05	0.228	0.282
	LTE Band 41C	20M	QPSK	1	0	-	Left Side	10mm	Ant 11	ECI 10	40185+39987	2549.5+2529.7	17.55	19.00	1.396	62.9	1.006	-0.1	0.128	0.180
	LTE Band 41	20M	QPSK	50	0	-	Top Side	10mm	Ant 11	ECI 10	40185	2549.5	18.10	19.00	1.230	62.9	1.006	0.19	0.060	0.074
	FR1 n7	50M	QPSK	1	1	DFT-15	Front	10mm	Ant 13	ECI 10	507000	2535	15.37	16.20	1.211	-	-	0.13	0.083	0.100
	FR1 n7	50M	QPSK	1	1	DFT-15	Back	10mm	Ant 13	ECI 10	507000	2535	15.37	16.20	1.211	-	-	-0.11	0.241	0.292
	FR1 n7	50M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 13	ECI 10	507000	2535	15.37	16.20	1.211	-	-	0.04	0.053	0.064
	FR1 n7	50M	QPSK	1	1	DFT-15	Top Side	10mm	Ant 13	ECI 10	507000	2535	15.37	16.20	1.211	-	-	-0.08	0.331	0.401
	FR1 n7	50M	QPSK	135	68	DFT-15	Front	10mm	Ant 13	ECI 10	507000	2535	15.35	16.20	1.216	-	-	0.08	0.095	0.116
	FR1 n7	50M	QPSK	135	68	DFT-15	Back	10mm	Ant 13	ECI 10	507000	2535	15.35	16.20	1.216	-	-	-0.08	0.276	0.336
	FR1 n7	50M	QPSK	135	68	DFT-15	Left Side	10mm	Ant 13	ECI 10	507000	2535	15.35	16.20	1.216	-	-	-0.05	0.061	0.074
47	FR1 n7	50M	QPSK	135	68	DFT-15	Top Side	10mm	Ant 13	ECI 10	507000	2535	15.35	16.20	1.216	-	-	0.15	0.356	0.433
	FR1 n7	50M	QPSK	1	1	DFT-15	Front	10mm	Ant 31	ECI 10	507000	2535	19.58	20.40	1.208	-	-	0.17	0.176	0.213
	FR1 n7	50M	QPSK	1	1	DFT-15	Back	10mm	Ant 31	ECI 10	507000	2535	19.58	20.40	1.208	-	-	-0.13	0.241	0.291
	FR1 n7	50M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 31	ECI 10	507000	2535	19.58	20.40	1.208	-	-	0.08	0.033	0.040
	FR1 n7	50M	QPSK	1	1	DFT-15	Right Side	10mm	Ant 31	ECI 10	507000	2535	19.58	20.40	1.208	-	-	-0.17	0.117	0.141
	FR1 n7	50M	QPSK	1	1	DFT-15	Bottom Side	10mm	Ant 31	ECI 10	507000	2535	19.58	20.40	1.208	-	-	-0.09	0.174	0.210
	FR1 n7	50M	QPSK	135	68	DFT-15	Front	10mm	Ant 31	ECI 10	507000	2535	19.57	20.40	1.211	-	-	-0.06	0.202	0.245
	FR1 n7	50M	QPSK	135	68	DFT-15	Back	10mm	Ant 31	ECI 10	507000	2535	19.57	20.40	1.211	-	-	-0.14	0.277	0.335
	FR1 n7	50M	QPSK	135	68	DFT-15	Left Side	10mm	Ant 31	ECI 10	507000	2535	19.57	20.40	1.211	-	-	0.1	0.038	0.046
	FR1 n7	50M	QPSK	135	68	DFT-15	Right Side	10mm	Ant 31	ECI 10	507000	2535	19.57	20.40	1.211	-	-	0.08	0.135	0.163



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	FR1 n7	50M	QPSK	135	68	DFT-15	Bottom Side	10mm	Ant 31	ECI 10	507000	2535	19.57	20.40	1.211	-	-	0.1	0.200	0.242
	FR1 n7	50M	QPSK	1	1	DFT-15	Front	10mm	Ant 11	ECI 10	507000	2535	17.46	18.40	1.242	-	-	0.12	0.091	0.113
	FR1 n7	50M	QPSK	1	1	DFT-15	Back	10mm	Ant 11	ECI 10	507000	2535	17.46	18.40	1.242	-	-	-0.18	0.111	0.138
	FR1 n7	50M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 11	ECI 10	507000	2535	17.46	18.40	1.242	-	-	0.11	0.125	0.155
	FR1 n7	50M	QPSK	1	1	DFT-15	Top Side	10mm	Ant 11	ECI 10	507000	2535	17.46	18.40	1.242	-	-	0.09	0.045	0.056
	FR1 n7	50M	QPSK	135	68	DFT-15	Front	10mm	Ant 11	ECI 10	507000	2535	17.45	18.40	1.245	-	-	0.09	0.126	0.157
	FR1 n7	50M	QPSK	135	68	DFT-15	Back	10mm	Ant 11	ECI 10	507000	2535	17.45	18.40	1.245	-	-	0.07	0.164	0.204
	FR1 n7	50M	QPSK	135	68	DFT-15	Left Side	10mm	Ant 11	ECI 10	507000	2535	17.45	18.40	1.245	-	-	0.08	0.210	0.261
	FR1 n7	50M	QPSK	135	68	DFT-15	Top Side	10mm	Ant 11	ECI 10	507000	2535	17.45	18.40	1.245	-	-	-0.06	0.051	0.063
	FR1 n41	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 13	ECI 10	518598	2592.99	16.03	17.40	1.371	-	-	-0.18	0.109	0.149
	FR1 n41	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 13	ECI 10	518598	2592.99	16.03	17.40	1.371	-	-	-0.19	0.339	0.465
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 13	ECI 10	518598	2592.99	16.03	17.40	1.371	-	-	0.19	0.081	0.111
	FR1 n41	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 13	ECI 10	518598	2592.99	16.03	17.40	1.371	-	-	-0.07	0.469	0.643
	FR1 n41	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 13	ECI 10	518598	2592.99	16.01	17.40	1.377	-	-	-0.05	0.119	0.164
	FR1 n41	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 13	ECI 10	518598	2592.99	16.01	17.40	1.377	-	-	-0.11	0.370	0.510
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 13	ECI 10	518598	2592.99	16.01	17.40	1.377	-	-	-0.18	0.088	0.121
	FR1 n41	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 13	ECI 10	518598	2592.99	16.01	17.40	1.377	-	-	-0.11	0.512	0.705
	FR1 n41	100M	QPSK	270	0	DFT-30	Top Side	10mm	Ant 13	ECI 10	518598	2592.99	16.00	17.40	1.380	-	-	0.03	0.483	0.667
	FR1 n41	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 31	ECI 10	518598	2592.99	22.07	23.50	1.390	-	-	0.01	0.373	0.518
	FR1 n41	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 31	ECI 10	518598	2592.99	22.07	23.50	1.390	-	-	-0.19	0.523	0.727
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 31	ECI 10	518598	2592.99	22.07	23.50	1.390	-	-	-0.17	0.051	0.071
	FR1 n41	100M	QPSK	1	1	DFT-30	Right Side	10mm	Ant 31	ECI 10	518598	2592.99	22.07	23.50	1.390	-	-	0.1	0.257	0.357
	FR1 n41	100M	QPSK	1	1	DFT-30	Bottom Side	10mm	Ant 31	ECI 10	518598	2592.99	22.07	23.50	1.390	-	-	-0.05	0.357	0.496
	FR1 n41	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 31	ECI 10	518598	2592.99	22.05	23.50	1.396	-	-	-0.02	0.409	0.571
48	FR1 n41	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 31	ECI 10	518598	2592.99	22.05	23.50	1.396	-	-	-0.12	0.573	0.800
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 31	ECI 10	518598	2592.99	22.05	23.50	1.396	-	-	-0.06	0.055	0.077
	FR1 n41	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 31	ECI 10	518598	2592.99	22.05	23.50	1.396	-	-	0.08	0.282	0.394
	FR1 n41	100M	QPSK	135	69	DFT-30	Bottom Side	10mm	Ant 31	ECI 10	518598	2592.99	22.05	23.50	1.396	-	-	0.18	0.391	0.546
	FR1 n41	100M	QPSK	270	0	DFT-30	Back	10mm	Ant 31	ECI 10	518598	2592.99	22.03	23.50	1.403	-	-	0.19	0.536	0.752
	FR1 n41	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 11	ECI 10	518598	2592.99	17.44	19.00	1.432	-	-	0.1	0.136	0.195
	FR1 n41	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 11	ECI 10	518598	2592.99	17.44	19.00	1.432	-	-	-0.12	0.220	0.315
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 11	ECI 10	518598	2592.99	17.44	19.00	1.432	-	-	-0.08	0.266	0.381
	FR1 n41	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 11	ECI 10	518598	2592.99	17.44	19.00	1.432	-	-	-0.09	0.039	0.056
	FR1 n41	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 11	ECI 10	518598	2592.99	17.43	19.00	1.435	-	-	0.04	0.185	0.266
	FR1 n41	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 11	ECI 10	518598	2592.99	17.43	19.00	1.435	-	-	-0.1	0.298	0.428
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 11	ECI 10	518598	2592.99	17.43	19.00	1.435	-	-	-0.06	0.361	0.518
	FR1 n41	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 11	ECI 10	518598	2592.99	17.43	19.00	1.435	-	-	-0.04	0.053	0.076
3300MHz-4100MHz																				
	LTE Band 42 Part27Q	20M	QPSK	1	0	-	Front	10mm	Ant 11	ECI 10	42590	3500	17.33	17.70	1.089	62.9	1.006	0.19	0.134	0.147
	LTE Band 42 Part27Q	20M	QPSK	1	0	-	Back	10mm	Ant 11	ECI 10	42590	3500	17.33	17.70	1.089	62.9	1.006	-0.15	0.230	0.252
	LTE Band 42 Part27Q	20M	QPSK	1	0	-	Left Side	10mm	Ant 11	ECI 10	42590	3500	17.33	17.70	1.089	62.9	1.006	-0.17	0.430	0.471
	LTE Band 42 Part27Q	20M	QPSK	1	0	-	Top Side	10mm	Ant 11	ECI 10	42590	3500	17.33	17.70	1.089	62.9	1.006	0.03	0.028	0.031
	LTE Band 42 Part27Q	20M	QPSK	50	0	-	Front	10mm	Ant 11	ECI 10	42590	3500	17.31	17.70	1.094	62.9	1.006	0.19	0.128	0.141
	LTE Band 42 Part27Q	20M	QPSK	50	0	-	Back	10mm	Ant 11	ECI 10	42590	3500	17.31	17.70	1.094	62.9	1.006	-0.11	0.230	0.253
	LTE Band 42 Part27Q	20M	QPSK	50	0	-	Left Side	10mm	Ant 11	ECI 10	42590	3500	17.31	17.70	1.094	62.9	1.006	-0.02	0.437	0.481
	LTE Band 42 Part27Q	20M	QPSK	50	0	-	Top Side	10mm	Ant 11	ECI 10	42590	3500	17.31	17.70	1.094	62.9	1.006	-0.12	0.031	0.034
	LTE Band 42 Part27Q	20M	QPSK	1	0	-	Front	10mm	Ant 12	ECI 10	42590	3500	19.09	19.50	1.099	62.9	1.006	0.04	0.171	0.189
	LTE Band 42 Part27Q	20M	QPSK	1	0	-	Back	10mm	Ant 12	ECI 10	42590	3500	19.09	19.50	1.099	62.9	1.006	-0.17	0.234	0.259
	LTE Band 42 Part27Q	20M	QPSK	1	0	-	Left Side	10mm	Ant 12	ECI 10	42590	3500	19.09	19.50	1.099	62.9	1.006	-0.01	0.174	0.192
	LTE Band 42 Part27Q	20M	QPSK	1	0	-	Top Side	10mm	Ant 12	ECI 10	42590	3500	19.09	19.50	1.099	62.9	1.006	0.04	0.117	0.129
	LTE Band 42 Part27Q	20M	QPSK	50	0	-	Front	10mm	Ant 12	ECI 10	42590	3500	19.07	19.50	1.104	62.9	1.006	-0.01	0.167	0.185
	LTE Band 42 Part27Q	20M	QPSK	50	0	-	Back	10mm	Ant 12	ECI 10	42590	3500	19.07	19.50	1.104	62.9	1.006	0.11	0.232	0.258
	LTE Band 42 Part27Q	20M	QPSK	50	0	-	Left Side	10mm	Ant 12	ECI 10	42590	3500	19.07	19.50	1.104	62.9	1.006	-0.03	0.169	0.188
	LTE Band 42 Part27Q	20M	QPSK	50	0	-	Top Side	10mm	Ant 12	ECI 10	42590	3500	19.07	19.50	1.104	62.9	1.006	0.03	0.114	0.127
	LTE Band 42 Part27Q	20M	QPSK	1	0	-	Front	10mm	Ant 21	ECI 10	42590	3500	19.33	20.00	1.167	62.9	1.006	0.09	0.198	0.232
49	LTE Band 42 Part27Q	20M	QPSK	1	0	-	Back	10mm	Ant 21	ECI 10	42590	3500	19.33	20.00	1.167	62.9	1.006	0.09	0.521	0.612



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LTE Band 42 Part27Q	20M	QPSK	1	0	-	Right Side	10mm	Ant 21	ECI 10	42590	3500	19.33	20.00	1.167	62.9	1.006	0.12	0.065	0.076
LTE Band 42 Part27Q	20M	QPSK	1	0	-	Top Side	10mm	Ant 21	ECI 10	42590	3500	19.33	20.00	1.167	62.9	1.006	-0.18	0.414	0.486
LTE Band 42 Part27Q	20M	QPSK	50	0	-	Front	10mm	Ant 21	ECI 10	42590	3500	19.31	20.00	1.172	62.9	1.006	0.17	0.187	0.221
LTE Band 42 Part27Q	20M	QPSK	50	0	-	Back	10mm	Ant 21	ECI 10	42590	3500	19.31	20.00	1.172	62.9	1.006	-0.17	0.506	0.597
LTE Band 42 Part27Q	20M	QPSK	50	0	-	Right Side	10mm	Ant 21	ECI 10	42590	3500	19.31	20.00	1.172	62.9	1.006	-0.11	0.060	0.071
LTE Band 42 Part27Q	20M	QPSK	50	0	-	Top Side	10mm	Ant 21	ECI 10	42590	3500	19.31	20.00	1.172	62.9	1.006	-0.11	0.396	0.467
LTE Band 42 Part27Q	20M	QPSK	1	0	-	Front	10mm	Ant 23	ECI 10	42590	3500	19.94	21.00	1.276	62.9	1.006	-0.15	0.110	0.141
LTE Band 42 Part27Q	20M	QPSK	1	0	-	Back	10mm	Ant 23	ECI 10	42590	3500	19.94	21.00	1.276	62.9	1.006	-0.09	0.320	0.411
LTE Band 42 Part27Q	20M	QPSK	1	0	-	Right Side	10mm	Ant 23	ECI 10	42590	3500	19.94	21.00	1.276	62.9	1.006	0.12	0.241	0.309
LTE Band 42 Part27Q	20M	QPSK	1	0	-	Top Side	10mm	Ant 23	ECI 10	42590	3500	19.94	21.00	1.276	62.9	1.006	-0.13	0.071	0.091
LTE Band 42 Part27Q	20M	QPSK	50	0	-	Front	10mm	Ant 23	ECI 10	42590	3500	18.86	20.00	1.300	62.9	1.006	0.12	0.088	0.115
LTE Band 42 Part27Q	20M	QPSK	50	0	-	Back	10mm	Ant 23	ECI 10	42590	3500	18.86	20.00	1.300	62.9	1.006	0.07	0.261	0.341
LTE Band 42 Part27Q	20M	QPSK	50	0	-	Right Side	10mm	Ant 23	ECI 10	42590	3500	18.86	20.00	1.300	62.9	1.006	0.08	0.198	0.259
LTE Band 42 Part27Q	20M	QPSK	50	0	-	Top Side	10mm	Ant 23	ECI 10	42590	3500	18.86	20.00	1.300	62.9	1.006	0.13	0.070	0.092
FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 11	ECI 10	633332	3499.98	16.31	17.20	1.227	-	-	-0.14	0.117	0.144
FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 11	ECI 10	633332	3499.98	16.31	17.20	1.227	-	-	0.16	0.207	0.254
FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 11	ECI 10	633332	3499.98	16.31	17.20	1.227	-	-	0.04	0.383	0.470
FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 11	ECI 10	633332	3499.98	16.31	17.20	1.227	-	-	-0.12	0.036	0.044
FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 11	ECI 10	633332	3499.98	16.30	17.20	1.230	-	-	0.06	0.141	0.173
FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 11	ECI 10	633332	3499.98	16.30	17.20	1.230	-	-	0.03	0.253	0.311
FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 11	ECI 10	633332	3499.98	16.30	17.20	1.230	-	-	0.18	0.436	0.536
FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 11	ECI 10	633332	3499.98	16.30	17.20	1.230	-	-	0.07	0.037	0.046
FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 11	ECI 10	656000	3840	16.32	17.20	1.225	-	-	0.03	0.119	0.146
FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 11	ECI 10	656000	3840	16.32	17.20	1.225	-	-	-0.17	0.227	0.278
FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 11	ECI 10	656000	3840	16.32	17.20	1.225	-	-	-0.07	0.355	0.435
FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 11	ECI 10	656000	3840	16.32	17.20	1.225	-	-	-0.04	0.028	0.034
FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 11	ECI 10	656000	3840	16.30	17.20	1.230	-	-	0.13	0.127	0.156
FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 11	ECI 10	656000	3840	16.30	17.20	1.230	-	-	0.17	0.243	0.299
FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 11	ECI 10	656000	3840	16.30	17.20	1.230	-	-	-0.02	0.363	0.447
FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 11	ECI 10	656000	3840	16.30	17.20	1.230	-	-	0.01	0.031	0.038
FR1 n77 Part27Q	100M	QPSK	270	0	DFT-30	Back	10mm	Ant 11	ECI 10	656000	3840	16.28	17.20	1.236	-	-	-0.12	0.225	0.278
FR1 n77 Part27Q	100M	QPSK	270	0	DFT-30	Left Side	10mm	Ant 11	ECI 10	656000	3840	16.28	17.20	1.236	-	-	0.06	0.336	0.415
FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 12	ECI 10	633332	3499.98	16.71	17.70	1.256	-	-	-0.17	0.122	0.153
FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 12	ECI 10	633332	3499.98	16.71	17.70	1.256	-	-	0.1	0.152	0.191
FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 12	ECI 10	633332	3499.98	16.71	17.70	1.256	-	-	0.09	0.120	0.151
FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 12	ECI 10	633332	3499.98	16.71	17.70	1.256	-	-	-0.14	0.082	0.103
FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 12	ECI 10	633332	3499.98	16.70	17.70	1.259	-	-	-0.03	0.138	0.174
FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 12	ECI 10	633332	3499.98	16.70	17.70	1.259	-	-	0.07	0.156	0.196
FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 12	ECI 10	633332	3499.98	16.70	17.70	1.259	-	-	-0.05	0.130	0.164
FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 12	ECI 10	633332	3499.98	16.70	17.70	1.259	-	-	-0.1	0.091	0.115
FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 12	ECI 10	656000	3840	16.73	17.70	1.250	-	-	0.15	0.106	0.133
FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 12	ECI 10	656000	3840	16.73	17.70	1.250	-	-	-0.11	0.126	0.158
FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 12	ECI 10	656000	3840	16.73	17.70	1.250	-	-	-0.15	0.147	0.184
FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 12	ECI 10	656000	3840	16.73	17.70	1.250	-	-	0.13	0.069	0.086
FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 12	ECI 10	656000	3840	16.71	17.70	1.256	-	-	0.04	0.088	0.111
FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 12	ECI 10	656000	3840	16.71	17.70	1.256	-	-	-0.1	0.122	0.153
FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 12	ECI 10	656000	3840	16.71	17.70	1.256	-	-	0.01	0.124	0.156
FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 12	ECI 10	656000	3840	16.71	17.70	1.256	-	-	0.19	0.069	0.087
FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 21	ECI 10	633332	3499.98	16.48	17.20	1.180	-	-	0.06	0.168	0.198
FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 21	ECI 10	633332	3499.98	16.48	17.20	1.180	-	-	-0.01	0.293	0.346
FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Right Side	10mm	Ant 21	ECI 10	633332	3499.98	16.48	17.20	1.180	-	-	-0.19	0.051	0.060
FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 21	ECI 10	633332	3499.98	16.48	17.20	1.180	-	-	0.15	0.330	0.390
FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 21	ECI 10	633332	3499.98	16.47	17.20	1.183	-	-	0.01	0.188	0.222
FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 21	ECI 10	633332	3499.98	16.47	17.20	1.183	-	-	-0.14	0.323	0.382
FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 21	ECI 10	633332	3499.98	16.47	17.20	1.183	-	-	-0.01	0.064	0.076
FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 21	ECI 10	633332	3499.98	16.47	17.20	1.183	-	-	0.07	0.409	0.484



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	FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 21	ECI 10	656000	3840	16.16	17.20	1.271	-	-	0.14	0.189	0.240
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 21	ECI 10	656000	3840	16.16	17.20	1.271	-	-	0.01	0.302	0.384
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Right Side	10mm	Ant 21	ECI 10	656000	3840	16.16	17.20	1.271	-	-	0.04	0.076	0.097
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 21	ECI 10	656000	3840	16.16	17.20	1.271	-	-	-0.07	0.255	0.324
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 21	ECI 10	656000	3840	16.15	17.20	1.274	-	-	0.04	0.206	0.262
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 21	ECI 10	656000	3840	16.15	17.20	1.274	-	-	0.14	0.251	0.320
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 21	ECI 10	656000	3840	16.15	17.20	1.274	-	-	0	0.065	0.083
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 21	ECI 10	656000	3840	16.15	17.20	1.274	-	-	0.16	0.246	0.313
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 23	ECI 10	633332	3499.98	17.68	18.70	1.265	-	-	-0.01	0.087	0.110
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 23	ECI 10	633332	3499.98	17.68	18.70	1.265	-	-	-0.17	0.214	0.271
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Right Side	10mm	Ant 23	ECI 10	633332	3499.98	17.68	18.70	1.265	-	-	0.02	0.209	0.264
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 23	ECI 10	633332	3499.98	17.68	18.70	1.265	-	-	-0.01	0.051	0.065
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 23	ECI 10	633332	3499.98	17.67	18.70	1.268	-	-	-0.05	0.112	0.142
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 23	ECI 10	633332	3499.98	17.67	18.70	1.268	-	-	-0.14	0.328	0.416
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 23	ECI 10	633332	3499.98	17.67	18.70	1.268	-	-	0.11	0.253	0.321
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 23	ECI 10	633332	3499.98	17.67	18.70	1.268	-	-	-0.08	0.070	0.089
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 23	ECI 10	656000	3840	17.43	18.70	1.340	-	-	0.11	0.289	0.387
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 23	ECI 10	656000	3840	17.43	18.70	1.340	-	-	-0.02	0.400	0.536
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Right Side	10mm	Ant 23	ECI 10	656000	3840	17.43	18.70	1.340	-	-	0.01	0.511	0.685
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 23	ECI 10	656000	3840	17.43	18.70	1.340	-	-	0.12	0.131	0.175
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 23	ECI 10	656000	3840	17.41	18.70	1.346	-	-	0.07	0.292	0.393
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 23	ECI 10	656000	3840	17.41	18.70	1.346	-	-	-0.06	0.420	0.565
50	FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 23	ECI 10	656000	3840	17.41	18.70	1.346	-	-	0.1	0.519	0.699
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 23	ECI 10	656000	3840	17.41	18.70	1.346	-	-	0.04	0.141	0.190
	FR1 n77 Part27O	100M	QPSK	270	0	DFT-30	Back	10mm	Ant 23	ECI 10	656000	3840	17.40	18.70	1.349	-	-	0.11	0.397	0.536
	FR1 n77 Part27O	100M	QPSK	270	0	DFT-30	Right Side	10mm	Ant 23	ECI 10	656000	3840	17.40	18.70	1.349	-	-	0.12	0.483	0.652
	FR1 n78 Part27Q	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 11	ECI 10	633332	3499.98	15.48	16.40	1.236	-	-	-0.09	0.129	0.159
	FR1 n78 Part27Q	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 11	ECI 10	633332	3499.98	15.48	16.40	1.236	-	-	-0.02	0.201	0.248
	FR1 n78 Part27Q	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 11	ECI 10	633332	3499.98	15.48	16.40	1.236	-	-	-0.03	0.324	0.400
	FR1 n78 Part27Q	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 11	ECI 10	633332	3499.98	15.48	16.40	1.236	-	-	0.04	0.035	0.043
	FR1 n78 Part27Q	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 11	ECI 10	633332	3499.98	15.47	16.40	1.239	-	-	0.09	0.137	0.170
	FR1 n78 Part27Q	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 11	ECI 10	633332	3499.98	15.47	16.40	1.239	-	-	-0.18	0.240	0.297
	FR1 n78 Part27Q	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 11	ECI 10	633332	3499.98	15.47	16.40	1.239	-	-	0.17	0.403	0.499
	FR1 n78 Part27Q	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 11	ECI 10	633332	3499.98	15.47	16.40	1.239	-	-	0.15	0.046	0.057
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 11	ECI 10	650000	3750	15.24	16.40	1.306	-	-	-0.01	0.140	0.183
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 11	ECI 10	650000	3750	15.24	16.40	1.306	-	-	0.03	0.284	0.371
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 11	ECI 10	650000	3750	15.24	16.40	1.306	-	-	0.13	0.393	0.513
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 11	ECI 10	650000	3750	15.24	16.40	1.306	-	-	-	n/a	n/a
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 11	ECI 10	650000	3750	15.21	16.40	1.315	-	-	-0.03	0.125	0.164
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 11	ECI 10	650000	3750	15.21	16.40	1.315	-	-	0.16	0.246	0.324
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 11	ECI 10	650000	3750	15.21	16.40	1.315	-	-	-0.16	0.347	0.456
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 11	ECI 10	650000	3750	15.21	16.40	1.315	-	-	-	n/a	n/a
	FR1 n78 Part27Q	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 12	ECI 10	633332	3499.98	17.21	18.70	1.409	-	-	-0.18	0.151	0.213
	FR1 n78 Part27Q	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 12	ECI 10	633332	3499.98	17.21	18.70	1.409	-	-	-0.07	0.174	0.245
	FR1 n78 Part27Q	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 12	ECI 10	633332	3499.98	17.21	18.70	1.409	-	-	0.18	0.154	0.217
	FR1 n78 Part27Q	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 12	ECI 10	633332	3499.98	17.21	18.70	1.409	-	-	-0.12	0.097	0.137
	FR1 n78 Part27Q	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 12	ECI 10	633332	3499.98	17.20	18.70	1.413	-	-	-0.15	0.157	0.222
	FR1 n78 Part27Q	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 12	ECI 10	633332	3499.98	17.20	18.70	1.413	-	-	-0.11	0.177	0.250
	FR1 n78 Part27Q	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 12	ECI 10	633332	3499.98	17.20	18.70	1.413	-	-	0.12	0.154	0.218
	FR1 n78 Part27Q	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 12	ECI 10	633332	3499.98	17.20	18.70	1.413	-	-	0.09	0.107	0.151
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 12	ECI 10	650000	3750	17.13	18.70	1.435	-	-	0.18	0.139	0.200
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 12	ECI 10	650000	3750	17.13	18.70	1.435	-	-	-0.19	0.161	0.231
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 12	ECI 10	650000	3750	17.13	18.70	1.435	-	-	-0.02	0.180	0.258
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 12	ECI 10	650000	3750	17.13	18.70	1.435	-	-	-0.04	0.112	0.161
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 12	ECI 10	650000	3750	17.11	18.70	1.442	-	-	-0.06	0.127	0.183
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 12	ECI 10	650000	3750	17.11	18.70	1.442	-	-	-0.09	0.146	0.211



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	FR1 n78 Part27O	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 12	ECI 10	650000	3750	17.11	18.70	1.442	-	-	0.14	0.183	0.264
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 12	ECI 10	650000	3750	17.11	18.70	1.442	-	-	-0.12	0.102	0.147
	FR1 n78 Part27Q	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 21	ECI 10	633332	3499.98	18.03	18.70	1.167	-	-	-0.09	0.209	0.244
	FR1 n78 Part27Q	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 21	ECI 10	633332	3499.98	18.03	18.70	1.167	-	-	-0.03	0.348	0.406
	FR1 n78 Part27Q	100M	QPSK	1	1	DFT-30	Right Side	10mm	Ant 21	ECI 10	633332	3499.98	18.03	18.70	1.167	-	-	0.06	0.072	0.084
	FR1 n78 Part27Q	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 21	ECI 10	633332	3499.98	18.03	18.70	1.167	-	-	-0.05	0.444	0.518
	FR1 n78 Part27Q	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 21	ECI 10	633332	3499.98	18.01	18.70	1.172	-	-	-0.02	0.250	0.293
	FR1 n78 Part27Q	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 21	ECI 10	633332	3499.98	18.01	18.70	1.172	-	-	-0.07	0.425	0.498
	FR1 n78 Part27Q	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 21	ECI 10	633332	3499.98	18.01	18.70	1.172	-	-	-0.11	0.088	0.103
	FR1 n78 Part27Q	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 21	ECI 10	633332	3499.98	18.01	18.70	1.172	-	-	0.06	0.471	0.552
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 21	ECI 10	650000	3750	17.58	18.70	1.294	-	-	0.07	0.292	0.378
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 21	ECI 10	650000	3750	17.58	18.70	1.294	-	-	-0.01	0.489	0.633
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-30	Right Side	10mm	Ant 21	ECI 10	650000	3750	17.58	18.70	1.294	-	-	-0.1	0.116	0.150
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 21	ECI 10	650000	3750	17.58	18.70	1.294	-	-	0.14	0.458	0.593
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 21	ECI 10	650000	3750	17.57	18.70	1.297	-	-	0.08	0.273	0.354
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 21	ECI 10	650000	3750	17.57	18.70	1.297	-	-	0.17	0.467	0.606
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 21	ECI 10	650000	3750	17.57	18.70	1.297	-	-	0.16	0.113	0.147
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 21	ECI 10	650000	3750	17.57	18.70	1.297	-	-	-0.09	0.406	0.527
	FR1 n78 Part27Q	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 23	ECI 10	633332	3499.98	18.21	19.50	1.346	-	-	0.08	0.086	0.116
	FR1 n78 Part27Q	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 23	ECI 10	633332	3499.98	18.21	19.50	1.346	-	-	0	0.220	0.296
	FR1 n78 Part27Q	100M	QPSK	1	1	DFT-30	Right Side	10mm	Ant 23	ECI 10	633332	3499.98	18.21	19.50	1.346	-	-	-0.16	0.183	0.246
	FR1 n78 Part27Q	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 23	ECI 10	633332	3499.98	18.21	19.50	1.346	-	-	0.1	0.047	0.063
	FR1 n78 Part27Q	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 23	ECI 10	633332	3499.98	18.20	19.50	1.349	-	-	0	0.112	0.151
	FR1 n78 Part27Q	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 23	ECI 10	633332	3499.98	18.20	19.50	1.349	-	-	0.05	0.333	0.449
	FR1 n78 Part27Q	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 23	ECI 10	633332	3499.98	18.20	19.50	1.349	-	-	-0.19	0.249	0.336
	FR1 n78 Part27Q	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 23	ECI 10	633332	3499.98	18.20	19.50	1.349	-	-	-0.14	0.067	0.090
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 23	ECI 10	650000	3750	17.68	19.50	1.521	-	-	-0.14	0.223	0.339
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 23	ECI 10	650000	3750	17.68	19.50	1.521	-	-	0.02	0.368	0.560
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-30	Right Side	10mm	Ant 23	ECI 10	650000	3750	17.68	19.50	1.521	-	-	-0.09	0.423	0.643
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 23	ECI 10	650000	3750	17.68	19.50	1.521	-	-	-0.07	0.136	0.207
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 23	ECI 10	650000	3750	17.67	19.50	1.524	-	-	-0.1	0.237	0.361
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 23	ECI 10	650000	3750	17.67	19.50	1.524	-	-	0.12	0.357	0.544
51	FR1 n78 Part27O	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 23	ECI 10	650000	3750	17.67	19.50	1.524	-	-	-0.01	0.486	0.741
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 23	ECI 10	650000	3750	17.67	19.50	1.524	-	-	0.01	0.122	0.186

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																
	Bluetooth	DH5 1Mbps	Front	10mm	Ant 22	Full	39	2441	9.30	11.00	1.479	76.8	1.302	-0.1	0.034	0.065
52	Bluetooth	DH5 1Mbps	Back	10mm	Ant 22	Full	39	2441	9.30	11.00	1.479	76.8	1.302	0	0.046	0.089
	Bluetooth	DH5 1Mbps	Right Side	10mm	Ant 22	Full	39	2441	9.30	11.00	1.479	76.8	1.302	-0.17	0.039	0.075
	Bluetooth	DH5 1Mbps	Top Side	10mm	Ant 22	Full	39	2441	9.30	11.00	1.479	76.8	1.302	0.17	0.035	0.067
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 22	Full	6	2437	15.20	17.00	1.514	99.58	1.004	-0.11	0.084	0.128
53	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 22	Full	6	2437	15.20	17.00	1.514	99.58	1.004	-0.09	0.137	0.208
	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	Ant 22	Full	6	2437	15.20	17.00	1.514	99.58	1.004	0.02	0.114	0.173
	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	Ant 22	Full	6	2437	15.20	17.00	1.514	99.58	1.004	0.01	0.095	0.144
	WLAN5.2GHz	802.11n-HT40 MCS0	Front	10mm	Ant 22	Hotspot on	46	5230	16.63	18.50	1.538	91.18	1.097	-0.11	0.197	0.333
54	WLAN5.2GHz	802.11n-HT40 MCS0	Back	10mm	Ant 22	Hotspot on	46	5230	16.63	18.50	1.538	91.18	1.097	-0.18	0.320	0.541
	WLAN5.2GHz	802.11n-HT40 MCS0	Right Side	10mm	Ant 22	Hotspot on	46	5230	16.63	18.50	1.538	91.18	1.097	-0.18	0.261	0.440
	WLAN5.2GHz	802.11n-HT40 MCS0	Top Side	10mm	Ant 22	Hotspot on	46	5230	16.63	18.50	1.538	91.18	1.097	0.14	0.254	0.429
	WLAN5.8GHz	802.11n-HT40 MCS0	Front	10mm	Ant 22	Hotspot on	159	5795	14.15	16.00	1.531	91.18	1.097	0.06	0.126	0.211
	WLAN5.8GHz	802.11n-HT40 MCS0	Back	10mm	Ant 22	Hotspot on	159	5795	14.15	16.00	1.531	91.18	1.097	0.02	0.310	0.520
	WLAN5.8GHz	802.11n-HT40 MCS0	Right Side	10mm	Ant 22	Hotspot on	159	5795	14.15	16.00	1.531	91.18	1.097	-0.11	0.368	0.619
55	WLAN5.8GHz	802.11n-HT40 MCS0	Top Side	10mm	Ant 22	Hotspot on	159	5795	14.15	16.00	1.531	91.18	1.097	0.03	0.375	0.630



16.3 Body Worn Accessory SAR

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
750MHz																				
	LTE Band 12	10M	QPSK	1	0	-	Front	15mm	Ant 13	ECI 4	23095	707.5	23.85	24.70	1.216	-	-	0.12	0.122	0.148
	LTE Band 12	10M	QPSK	1	0	-	Back	15mm	Ant 13	ECI 4	23095	707.5	23.85	24.70	1.216	-	-	-0.17	0.154	0.187
	LTE Band 12	10M	QPSK	25	0	-	Front	15mm	Ant 13	ECI 4	23095	707.5	22.83	23.70	1.222	-	-	-0.08	0.098	0.120
	LTE Band 12	10M	QPSK	25	0	-	Back	15mm	Ant 13	ECI 4	23095	707.5	22.83	23.70	1.222	-	-	-0.14	0.129	0.158
	LTE Band 12	10M	QPSK	1	0	-	Front	15mm	Ant 31	ECI 4	23095	707.5	24.07	25.00	1.239	-	-	-0.1	0.166	0.206
56	LTE Band 12	10M	QPSK	1	0	-	Back	15mm	Ant 31	ECI 4	23095	707.5	24.07	25.00	1.239	-	-	-0.18	0.194	0.240
	LTE Band 12	10M	QPSK	25	0	-	Front	15mm	Ant 31	ECI 4	23095	707.5	23.05	24.00	1.245	-	-	-0.11	0.132	0.164
	LTE Band 12	10M	QPSK	25	0	-	Back	15mm	Ant 31	ECI 4	23095	707.5	23.05	24.00	1.245	-	-	0.05	0.146	0.182
	LTE Band 13	10M	QPSK	1	0	-	Front	15mm	Ant 13	ECI 4	23230	782	23.56	24.70	1.300	-	-	0.03	0.101	0.131
	LTE Band 13	10M	QPSK	1	0	-	Back	15mm	Ant 13	ECI 4	23230	782	23.56	24.70	1.300	-	-	-0.19	0.134	0.174
	LTE Band 13	10M	QPSK	25	0	-	Front	15mm	Ant 13	ECI 4	23230	782	22.56	23.70	1.300	-	-	-0.06	0.082	0.107
	LTE Band 13	10M	QPSK	25	0	-	Back	15mm	Ant 13	ECI 4	23230	782	22.56	23.70	1.300	-	-	-0.08	0.103	0.134
	LTE Band 13	10M	QPSK	1	0	-	Front	15mm	Ant 31	ECI 4	23230	782	23.65	25.00	1.365	-	-	-0.12	0.126	0.172
57	LTE Band 13	10M	QPSK	1	0	-	Back	15mm	Ant 31	ECI 4	23230	782	23.65	25.00	1.365	-	-	-0.06	0.177	0.242
	LTE Band 13	10M	QPSK	25	0	-	Front	15mm	Ant 31	ECI 4	23230	782	22.63	24.00	1.371	-	-	0.09	0.100	0.137
	LTE Band 13	10M	QPSK	25	0	-	Back	15mm	Ant 31	ECI 4	23230	782	22.63	24.00	1.371	-	-	0.12	0.113	0.155
835MHz																				
	GSM850	-	-	-	-	GPRS 2 TX Slot	Front	15mm	Ant 13	ECI 4	189	836.4	30.50	31.20	1.175	-	-	0.15	0.168	0.197
	GSM850	-	-	-	-	GPRS 2 TX Slot	Back	15mm	Ant 13	ECI 4	189	836.4	30.50	31.20	1.175	-	-	0.18	0.218	0.256
	GSM850	-	-	-	-	GPRS 2 TX Slot	Front	15mm	Ant 31	ECI 4	189	836.4	30.62	31.20	1.143	-	-	0.16	0.178	0.203
58	GSM850	-	-	-	-	GPRS 2 TX Slot	Back	15mm	Ant 31	ECI 4	189	836.4	30.62	31.20	1.143	-	-	-0.15	0.247	0.282
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 13	ECI 4	4182	836.4	23.64	24.70	1.276	-	-	0.1	0.115	0.147
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 13	ECI 4	4182	836.4	23.64	24.70	1.276	-	-	0.07	0.151	0.193
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 31	ECI 4	4182	836.4	23.83	24.70	1.222	-	-	-0.16	0.171	0.209
59	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 31	ECI 4	4182	836.4	23.83	24.70	1.222	-	-	0.19	0.205	0.250
	LTE Band 5	10M	QPSK	1	0	-	Front	15mm	Ant 13	ECI 4	20525	836.5	23.86	25.00	1.300	-	-	0.19	0.120	0.156
	LTE Band 5	10M	QPSK	1	0	-	Back	15mm	Ant 13	ECI 4	20525	836.5	23.86	25.00	1.300	-	-	-0.06	0.155	0.202
	LTE Band 5	10M	QPSK	25	0	-	Front	15mm	Ant 13	ECI 4	20525	836.5	22.86	24.00	1.300	-	-	0.14	0.099	0.129
	LTE Band 5	10M	QPSK	25	0	-	Back	15mm	Ant 13	ECI 4	20525	836.5	22.86	24.00	1.300	-	-	0.08	0.129	0.168
	LTE Band 5	10M	QPSK	1	0	-	Front	15mm	Ant 31	ECI 4	20525	836.5	24.12	25.30	1.312	-	-	0.15	0.177	0.232
60	LTE Band 5	10M	QPSK	1	0	-	Back	15mm	Ant 31	ECI 4	20525	836.5	24.12	25.30	1.312	-	-	0	0.228	0.299
	LTE Band 5	10M	QPSK	25	0	-	Front	15mm	Ant 31	ECI 4	20525	836.5	23.10	24.30	1.318	-	-	0.18	0.145	0.191
	LTE Band 5	10M	QPSK	25	0	-	Back	15mm	Ant 31	ECI 4	20525	836.5	23.10	24.30	1.318	-	-	0.06	0.156	0.206
	LTE Band 26	15M	QPSK	1	0	-	Front	15mm	Ant 13	ECI 4	26865	831.5	23.74	24.70	1.247	-	-	0.13	0.114	0.142
	LTE Band 26	15M	QPSK	1	0	-	Back	15mm	Ant 13	ECI 4	26865	831.5	23.74	24.70	1.247	-	-	-0.01	0.146	0.182
	LTE Band 26	15M	QPSK	36	0	-	Front	15mm	Ant 13	ECI 4	26865	831.5	22.73	23.70	1.250	-	-	-0.02	0.091	0.114
	LTE Band 26	15M	QPSK	36	0	-	Back	15mm	Ant 13	ECI 4	26865	831.5	22.73	23.70	1.250	-	-	0.1	0.121	0.151
	LTE Band 26	15M	QPSK	1	0	-	Front	15mm	Ant 31	ECI 4	26865	831.5	23.69	25.00	1.352	-	-	-0.13	0.174	0.235
61	LTE Band 26	15M	QPSK	1	0	-	Back	15mm	Ant 31	ECI 4	26865	831.5	23.69	25.00	1.352	-	-	-0.15	0.222	0.300
	LTE Band 26	15M	QPSK	36	0	-	Front	15mm	Ant 31	ECI 4	26865	831.5	22.68	24.00	1.355	-	-	-0.1	0.141	0.191
	LTE Band 26	15M	QPSK	36	0	-	Back	15mm	Ant 31	ECI 4	26865	831.5	22.68	24.00	1.355	-	-	0.08	0.153	0.207
	FR1 n5	20M	QPSK	1	1	DFT-15	Front	15mm	Ant 13	ECI 4	167300	836.5	24.15	25.00	1.216	-	-	-0.17	0.118	0.144
	FR1 n5	20M	QPSK	1	1	DFT-15	Back	15mm	Ant 13	ECI 4	167300	836.5	24.15	25.00	1.216	-	-	0.06	0.157	0.191
	FR1 n5	20M	QPSK	50	28	DFT-15	Front	15mm	Ant 13	ECI 4	167300	836.5	24.13	25.00	1.222	-	-	-0.02	0.127	0.155
	FR1 n5	20M	QPSK	50	28	DFT-15	Back	15mm	Ant 13	ECI 4	167300	836.5	24.13	25.00	1.222	-	-	0.12	0.163	0.199
	FR1 n5	20M	QPSK	1	1	DFT-15	Front	15mm	Ant 31	ECI 4	167300	836.5	24.38	25.30	1.236	-	-	-0.01	0.172	0.213
62	FR1 n5	20M	QPSK	1	1	DFT-15	Back	15mm	Ant 31	ECI 4	167300	836.5	24.38	25.30	1.236	-	-	-0.03	0.230	0.284
	FR1 n5	20M	QPSK	50	28	DFT-15	Front	15mm	Ant 31	ECI 4	167300	836.5	24.35	25.30	1.245	-	-	-0.01	0.163	0.203
	FR1 n5	20M	QPSK	50	28	DFT-15	Back	15mm	Ant 31	ECI 4	167300	836.5	24.35	25.30	1.245	-	-	0.08	0.186	0.231



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	FR1 n26	20M	QPSK	1	1	DFT-15	Front	15mm	Ant 13	ECI 4	166300	831.5	23.90	24.70	1.202	-	-	0.12	0.056	0.067
	FR1 n26	20M	QPSK	1	1	DFT-15	Back	15mm	Ant 13	ECI 4	166300	831.5	23.90	24.70	1.202	-	-	0.03	0.077	0.093
	FR1 n26	20M	QPSK	50	28	DFT-15	Front	15mm	Ant 13	ECI 4	166300	831.5	23.88	24.70	1.208	-	-	-0.09	0.052	0.063
	FR1 n26	20M	QPSK	50	28	DFT-15	Back	15mm	Ant 13	ECI 4	166300	831.5	23.88	24.70	1.208	-	-	0.11	0.066	0.080
	FR1 n26	20M	QPSK	1	1	DFT-15	Front	15mm	Ant 31	ECI 4	166300	831.5	24.10	25.00	1.230	-	-	-0.13	0.175	0.215
	FR1 n26	20M	QPSK	1	1	DFT-15	Back	15mm	Ant 31	ECI 4	166300	831.5	24.10	25.00	1.230	-	-	-0.05	0.211	0.260
	FR1 n26	20M	QPSK	50	28	DFT-15	Front	15mm	Ant 31	ECI 4	166300	831.5	24.08	25.00	1.236	-	-	-0.1	0.174	0.215
63	FR1 n26	20M	QPSK	50	28	DFT-15	Back	15mm	Ant 31	ECI 4	166300	831.5	24.08	25.00	1.236	-	-	0.11	0.235	0.290
1750MHz																				
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 13	ECI 4	1413	1732.6	23.95	24.70	1.189	-	-	0.06	0.315	0.374
64	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 13	ECI 4	1413	1732.6	23.95	24.70	1.189	-	-	0.19	0.360	0.428
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 13	ECI 10	1413	1732.6	19.02	19.70	1.169	-	-	0.05	0.098	0.115
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 13	ECI 10	1413	1732.6	19.02	19.70	1.169	-	-	0.08	0.112	0.131
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 31	ECI 4	1413	1732.6	21.07	22.20	1.297	-	-	0.17	0.108	0.140
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 31	ECI 4	1413	1732.6	21.07	22.20	1.297	-	-	0.15	0.201	0.261
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 31	ECI 10	1413	1732.6	20.56	21.70	1.300	-	-	-0.06	0.094	0.122
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 31	ECI 10	1413	1732.6	20.56	21.70	1.300	-	-	-0.07	0.180	0.234
	LTE Band 4	20M	QPSK	1	0	-	Front	15mm	Ant 31	ECI 4	20175	1732.5	21.30	22.40	1.288	-	-	0.04	0.117	0.151
65	LTE Band 4	20M	QPSK	1	0	-	Back	15mm	Ant 31	ECI 4	20175	1732.5	21.30	22.40	1.288	-	-	-0.06	0.174	0.224
	LTE Band 4	20M	QPSK	1	0	-	Front	15mm	Ant 31	ECI 10	20175	1732.5	20.78	21.90	1.294	-	-	-0.03	0.104	0.135
	LTE Band 4	20M	QPSK	1	0	-	Back	15mm	Ant 31	ECI 10	20175	1732.5	20.78	21.90	1.294	-	-	0.07	0.152	0.197
	LTE Band 4	20M	QPSK	50	0	-	Front	15mm	Ant 31	ECI 4	20175	1732.5	21.28	22.40	1.294	-	-	-0.15	0.116	0.150
	LTE Band 4	20M	QPSK	50	0	-	Back	15mm	Ant 31	ECI 4	20175	1732.5	21.28	22.40	1.294	-	-	0.08	0.170	0.220
	LTE Band 66	20M	QPSK	1	0	-	Front	15mm	Ant 13	ECI 4	132322	1745	23.90	24.70	1.202	-	-	0.18	0.260	0.313
66	LTE Band 66	20M	QPSK	1	0	-	Back	15mm	Ant 13	ECI 4	132322	1745	23.90	24.70	1.202	-	-	-0.01	0.314	0.378
	LTE Band 66C	20M	QPSK	1	0	-	Back	15mm	Ant 13	ECI 4	132322+132124	1745+1725.2	23.87	24.70	1.211	-	-	-0.04	0.305	0.369
	LTE Band 66	20M	QPSK	1	0	-	Front	15mm	Ant 13	ECI 10	132322	1745	18.92	19.70	1.197	-	-	0.06	0.082	0.098
	LTE Band 66	20M	QPSK	1	0	-	Back	15mm	Ant 13	ECI 10	132322	1745	18.92	19.70	1.197	-	-	-0.05	0.098	0.117
	LTE Band 66	20M	QPSK	50	0	-	Front	15mm	Ant 13	ECI 4	132322	1745	22.88	23.70	1.208	-	-	0.02	0.201	0.243
	LTE Band 66	20M	QPSK	50	0	-	Back	15mm	Ant 13	ECI 4	132322	1745	22.88	23.70	1.208	-	-	0.01	0.248	0.300
	LTE Band 66	20M	QPSK	1	0	-	Front	15mm	Ant 31	ECI 4	132322	1745	20.97	21.90	1.239	-	-	0	0.119	0.147
	LTE Band 66	20M	QPSK	1	0	-	Back	15mm	Ant 31	ECI 4	132322	1745	20.97	21.90	1.239	-	-	0.07	0.198	0.245
	LTE Band 66	20M	QPSK	1	0	-	Front	15mm	Ant 31	ECI 10	132322	1745	19.90	20.90	1.259	-	-	0.03	0.090	0.113
	LTE Band 66	20M	QPSK	1	0	-	Back	15mm	Ant 31	ECI 10	132322	1745	19.90	20.90	1.259	-	-	-0.05	0.160	0.201
	LTE Band 66	20M	QPSK	50	0	-	Front	15mm	Ant 31	ECI 4	132322	1745	20.95	21.90	1.245	-	-	0.03	0.121	0.151
	LTE Band 66	20M	QPSK	50	0	-	Back	15mm	Ant 31	ECI 4	132322	1745	20.95	21.90	1.245	-	-	0.17	0.205	0.255
	LTE Band 66C	20M	QPSK	1	0	-	Back	15mm	Ant 31	ECI 4	132322+132124	1745+1725.2	20.58	21.90	1.355	-	-	-0.14	0.180	0.244
	LTE Band 66	20M	QPSK	50	0	-	Front	15mm	Ant 31	ECI 10	132322	1745	19.88	20.90	1.265	-	-	-0.07	0.095	0.120
	LTE Band 66	20M	QPSK	50	0	-	Back	15mm	Ant 31	ECI 10	132322	1745	19.88	20.90	1.265	-	-	0.02	0.165	0.209
	LTE Band 66	20M	QPSK	1	0	-	Front	15mm	Ant 11	ECI 4	132322	1745	23.80	24.90	1.288	-	-	0.01	0.135	0.174
	LTE Band 66	20M	QPSK	1	0	-	Back	15mm	Ant 11	ECI 4	132322	1745	23.80	24.90	1.288	-	-	-0.04	0.173	0.223
	LTE Band 66C	20M	QPSK	1	0	-	Back	15mm	Ant 11	ECI 4	132322+132124	1745+1725.2	23.40	24.90	1.413	-	-	0.17	0.155	0.219
	LTE Band 66	20M	QPSK	1	0	-	Front	15mm	Ant 11	ECI 10	132322	1745	18.82	19.90	1.282	-	-	-0.08	0.043	0.055
	LTE Band 66	20M	QPSK	1	0	-	Back	15mm	Ant 11	ECI 10	132322	1745	18.82	19.90	1.282	-	-	0.05	0.054	0.069
	LTE Band 66	20M	QPSK	50	0	-	Front	15mm	Ant 11	ECI 4	132322	1745	22.80	23.90	1.288	-	-	0.1	0.111	0.143
	LTE Band 66	20M	QPSK	50	0	-	Back	15mm	Ant 11	ECI 4	132322	1745	22.80	23.90	1.288	-	-	0.19	0.141	0.182
	FR1 n66	40M	QPSK	1	1	DFT-15	Front	15mm	Ant 13	ECI 4	349000	1745	23.70	24.70	1.259	-	-	-0.18	0.293	0.369
	FR1 n66	40M	QPSK	1	1	DFT-15	Back	15mm	Ant 13	ECI 4	349000	1745	23.70	24.70	1.259	-	-	0.08	0.325	0.409
	FR1 n66	40M	QPSK	1	1	DFT-15	Front	15mm	Ant 13	ECI 10	349000	1745	17.72	18.70	1.253	-	-	-0.08	0.080	0.100
	FR1 n66	40M	QPSK	1	1	DFT-15	Back	15mm	Ant 13	ECI 10	349000	1745	17.72	18.70	1.253	-	-	0.06	0.095	0.119
	FR1 n66	40M	QPSK	108	54	DFT-15	Front	15mm	Ant 13	ECI 4	349000	1745	23.68	24.70	1.265	-	-	0	0.329	0.416
67	FR1 n66	40M	QPSK	108	54	DFT-15	Back	15mm	Ant 13	ECI 4	349000	1745	23.68	24.70	1.265	-	-	-0.01	0.393	0.497
	FR1 n66	40M	QPSK	108	54	DFT-15	Front	15mm	Ant 13	ECI 10	349000	1745	17.70	18.70	1.259	-	-	0.1	0.084	0.106
	FR1 n66	40M	QPSK	108	54	DFT-15	Back	15mm	Ant 13	ECI 10	349000	1745	17.70	18.70	1.259	-	-	0.04	0.100	0.126
	FR1 n66	40M	QPSK	1	1	DFT-15	Front	15mm	Ant 31	ECI 4	349000	1745	20.33	21.40	1.279	-	-	0.19	0.098	0.125



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	FR1 n66	40M	QPSK	1	1	DFT-15	Back	15mm	Ant 31	ECI 4	349000	1745	20.33	21.40	1.279	-	-	-0.18	0.190	0.243
	FR1 n66	40M	QPSK	1	1	DFT-15	Front	15mm	Ant 31	ECI 10	349000	1745	19.33	20.40	1.279	-	-	0.03	0.080	0.102
	FR1 n66	40M	QPSK	1	1	DFT-15	Back	15mm	Ant 31	ECI 10	349000	1745	19.33	20.40	1.279	-	-	0.11	0.159	0.203
	FR1 n66	40M	QPSK	108	54	DFT-15	Front	15mm	Ant 31	ECI 4	349000	1745	20.31	21.40	1.285	-	-	0	0.105	0.135
	FR1 n66	40M	QPSK	108	54	DFT-15	Back	15mm	Ant 31	ECI 4	349000	1745	20.31	21.40	1.285	-	-	-0.14	0.201	0.258
	FR1 n66	40M	QPSK	108	54	DFT-15	Front	15mm	Ant 31	ECI 10	349000	1745	19.31	20.40	1.285	-	-	-0.09	0.084	0.108
	FR1 n66	40M	QPSK	108	54	DFT-15	Back	15mm	Ant 31	ECI 10	349000	1745	19.31	20.40	1.285	-	-	-0.1	0.163	0.210
	FR1 n66	40M	QPSK	1	1	DFT-15	Front	15mm	Ant 11	ECI 4	349000	1745	23.95	24.90	1.245	-	-	0.02	0.171	0.213
	FR1 n66	40M	QPSK	1	1	DFT-15	Back	15mm	Ant 11	ECI 4	349000	1745	23.95	24.90	1.245	-	-	0.14	0.174	0.217
	FR1 n66	40M	QPSK	1	1	DFT-15	Front	15mm	Ant 11	ECI 10	349000	1745	17.48	18.40	1.236	-	-	-0.05	0.039	0.048
	FR1 n66	40M	QPSK	1	1	DFT-15	Back	15mm	Ant 11	ECI 10	349000	1745	17.48	18.40	1.236	-	-	-0.01	0.040	0.049
	FR1 n66	40M	QPSK	108	54	DFT-15	Front	15mm	Ant 11	ECI 4	349000	1745	23.93	24.90	1.250	-	-	0.05	0.155	0.194
	FR1 n66	40M	QPSK	108	54	DFT-15	Back	15mm	Ant 11	ECI 4	349000	1745	23.93	24.90	1.250	-	-	0.12	0.167	0.209
1900MHz																				
	GSM1900	-	-	-	-	GPRS 2 TX Slot	Front	15mm	Ant 13	ECI 4	661	1880	27.81	28.70	1.227	-	-	0.18	0.159	0.195
68	GSM1900	-	-	-	-	GPRS 2 TX Slot	Back	15mm	Ant 13	ECI 4	661	1880	27.81	28.70	1.227	-	-	0.07	0.235	0.288
	GSM1900	-	-	-	-	GPRS 2 TX Slot	Front	15mm	Ant 13	ECI 10	661	1880	24.87	25.70	1.211	-	-	0.05	0.080	0.097
	GSM1900	-	-	-	-	GPRS 2 TX Slot	Back	15mm	Ant 13	ECI 10	661	1880	24.87	25.70	1.211	-	-	-0.02	0.115	0.139
	GSM1900	-	-	-	-	GPRS 2 TX Slot	Front	15mm	Ant 31	ECI 4	661	1880	25.90	27.20	1.349	-	-	0.18	0.111	0.150
	GSM1900	-	-	-	-	GPRS 2 TX Slot	Back	15mm	Ant 31	ECI 4	661	1880	25.90	27.20	1.349	-	-	0.12	0.206	0.278
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 13	ECI 4	9400	1880	23.07	24.20	1.297	-	-	-0.16	0.260	0.337
69	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 13	ECI 4	9400	1880	23.07	24.20	1.297	-	-	-0.07	0.372	0.483
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 13	ECI 10	9400	1880	17.62	18.70	1.282	-	-	-0.06	0.075	0.096
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 13	ECI 10	9400	1880	17.62	18.70	1.282	-	-	-0.01	0.104	0.133
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 31	ECI 4	9400	1880	19.95	21.20	1.334	-	-	0.16	0.136	0.181
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 31	ECI 4	9400	1880	19.95	21.20	1.334	-	-	-0.06	0.260	0.347
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 31	ECI 10	9400	1880	18.95	20.20	1.334	-	-	-0.06	0.111	0.148
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 31	ECI 10	9400	1880	18.95	20.20	1.334	-	-	0.07	0.202	0.269
	LTE Band 2	20M	QPSK	1	0	-	Front	15mm	Ant 13	ECI 4	18900	1880	23.83	24.70	1.222	-	-	0.02	0.280	0.342
70	LTE Band 2	20M	QPSK	1	0	-	Back	15mm	Ant 13	ECI 4	18900	1880	23.83	24.70	1.222	-	-	0.19	0.391	0.478
	LTE Band 2C	20M	QPSK	1	0	-	Back	15mm	Ant 13	ECI 4	18900+19098	1880+1899.8	23.65	24.70	1.274	-	-	0.05	0.363	0.462
	LTE Band 2	20M	QPSK	1	0	-	Front	15mm	Ant 13	ECI 10	18900	1880	17.91	18.70	1.199	-	-	0.07	0.069	0.083
	LTE Band 2	20M	QPSK	1	0	-	Back	15mm	Ant 13	ECI 10	18900	1880	17.91	18.70	1.199	-	-	0.01	0.096	0.115
	LTE Band 2	20M	QPSK	50	0	-	Front	15mm	Ant 13	ECI 4	18900	1880	22.83	23.70	1.222	-	-	-0.04	0.219	0.268
	LTE Band 2	20M	QPSK	50	0	-	Back	15mm	Ant 13	ECI 4	18900	1880	22.83	23.70	1.222	-	-	-0.17	0.316	0.386
	LTE Band 2	20M	QPSK	1	0	-	Front	15mm	Ant 31	ECI 4	18900	1880	19.90	21.00	1.288	-	-	-0.13	0.161	0.207
	LTE Band 2	20M	QPSK	1	0	-	Back	15mm	Ant 31	ECI 4	18900	1880	19.90	21.00	1.288	-	-	-0.02	0.285	0.367
	LTE Band 2C	20M	QPSK	1	0	-	Back	15mm	Ant 31	ECI 4	18900+19098	1880+1899.8	19.75	21.00	1.334	-	-	0.18	0.239	0.319
	LTE Band 2	20M	QPSK	1	0	-	Front	15mm	Ant 31	ECI 10	18900	1880	18.91	20.00	1.285	-	-	0.09	0.126	0.162
	LTE Band 2	20M	QPSK	1	0	-	Back	15mm	Ant 31	ECI 10	18900	1880	18.91	20.00	1.285	-	-	0.07	0.223	0.287
	LTE Band 2	20M	QPSK	50	0	-	Front	15mm	Ant 31	ECI 4	18900	1880	19.88	21.00	1.294	-	-	0.05	0.160	0.207
	LTE Band 2	20M	QPSK	50	0	-	Back	15mm	Ant 31	ECI 4	18900	1880	19.88	21.00	1.294	-	-	-0.17	0.280	0.362
	LTE Band 2	20M	QPSK	1	0	-	Front	15mm	Ant 11	ECI 4	18900	1880	22.92	24.60	1.472	-	-	-0.06	0.015	0.022
	LTE Band 2	20M	QPSK	1	0	-	Back	15mm	Ant 11	ECI 4	18900	1880	22.92	24.60	1.472	-	-	0.07	0.025	0.037
	LTE Band 2	20M	QPSK	50	0	-	Front	15mm	Ant 11	ECI 4	18900	1880	21.82	23.60	1.507	-	-	-0.01	0.011	0.017
	LTE Band 2	20M	QPSK	50	0	-	Back	15mm	Ant 11	ECI 4	18900	1880	21.82	23.60	1.507	-	-	0.16	0.020	0.030
	FR1 n2	20M	QPSK	1	1	DFT-15	Front	15mm	Ant 13	ECI 4	376000	1880	23.15	24.20	1.274	-	-	0.16	0.246	0.313
	FR1 n2	20M	QPSK	1	1	DFT-15	Back	15mm	Ant 13	ECI 4	376000	1880	23.15	24.20	1.274	-	-	-0.18	0.331	0.422
	FR1 n2	20M	QPSK	1	1	DFT-15	Front	15mm	Ant 13	ECI 10	376000	1880	17.17	18.20	1.268	-	-	0.03	0.060	0.076
	FR1 n2	20M	QPSK	1	1	DFT-15	Back	15mm	Ant 13	ECI 10	376000	1880	17.17	18.20	1.268	-	-	0.06	0.090	0.114
	FR1 n2	20M	QPSK	50	28	DFT-15	Front	15mm	Ant 13	ECI 4	376000	1880	23.13	24.20	1.279	-	-	-0.01	0.259	0.331
71	FR1 n2	20M	QPSK	50	28	DFT-15	Back	15mm	Ant 13	ECI 4	376000	1880	23.13	24.20	1.279	-	-	-0.01	0.385	0.493
	FR1 n2	20M	QPSK	50	28	DFT-15	Front	15mm	Ant 13	ECI 10	376000	1880	17.15	18.20	1.274	-	-	-0.08	0.064	0.082
	FR1 n2	20M	QPSK	50	28	DFT-15	Back	15mm	Ant 13	ECI 10	376000	1880	17.15	18.20	1.274	-	-	-0.1	0.096	0.122
	FR1 n2	20M	QPSK	1	1	DFT-15	Front	15mm	Ant 31	ECI 4	376000	1880	20.07	21.00	1.239	-	-	-0.12	0.145	0.180



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	FR1 n2	20M	QPSK	1	1	DFT-15	Back	15mm	Ant 31	ECI 4	376000	1880	20.07	21.00	1.239	-	-	0.16	0.294	0.364
	FR1 n2	20M	QPSK	1	1	DFT-15	Front	15mm	Ant 31	ECI 10	376000	1880	18.58	19.50	1.236	-	-	-0.05	0.103	0.127
	FR1 n2	20M	QPSK	1	1	DFT-15	Back	15mm	Ant 31	ECI 10	376000	1880	18.58	19.50	1.236	-	-	-0.07	0.212	0.262
	FR1 n2	20M	QPSK	50	28	DFT-15	Front	15mm	Ant 31	ECI 4	376000	1880	20.05	21.00	1.245	-	-	0.12	0.143	0.178
	FR1 n2	20M	QPSK	50	28	DFT-15	Back	15mm	Ant 31	ECI 4	376000	1880	20.05	21.00	1.245	-	-	-0.15	0.286	0.356
	FR1 n2	20M	QPSK	1	1	DFT-15	Front	15mm	Ant 11	ECI 4	376000	1880	23.35	24.20	1.216	-	-	-	n/a	n/a
	FR1 n2	20M	QPSK	1	1	DFT-15	Back	15mm	Ant 11	ECI 4	376000	1880	23.35	24.20	1.216	-	-	0.02	0.050	0.061
	FR1 n2	20M	QPSK	1	1	DFT-15	Front	15mm	Ant 11	ECI 10	376000	1880	21.37	22.20	1.211	-	-	-	n/a	n/a
	FR1 n2	20M	QPSK	1	1	DFT-15	Back	15mm	Ant 11	ECI 10	376000	1880	21.37	22.20	1.211	-	-	-0.1	0.032	0.039
	FR1 n2	20M	QPSK	50	28	DFT-15	Front	15mm	Ant 11	ECI 4	376000	1880	23.33	24.20	1.222	-	-	-	n/a	n/a
	FR1 n2	20M	QPSK	50	28	DFT-15	Back	15mm	Ant 11	ECI 4	376000	1880	23.33	24.20	1.222	-	-	0.08	0.045	0.055
2600MHz																				
	LTE Band 7	20M	QPSK	1	0	-	Front	15mm	Ant 13	ECI 4	21100	2535	21.80	22.70	1.230	-	-	0.18	0.213	0.262
72	LTE Band 7	20M	QPSK	1	0	-	Back	15mm	Ant 13	ECI 4	21100	2535	21.80	22.70	1.230	-	-	-0.07	0.488	0.600
	LTE Band 7C	20M	QPSK	1	0	-	Back	15mm	Ant 13	ECI 4	21100+20902	2535+2515.2	21.72	22.70	1.253	-	-	0.01	0.478	0.599
	LTE Band 7	20M	QPSK	1	0	-	Front	15mm	Ant 13	ECI 10	21100	2535	15.80	16.70	1.230	-	-	0.03	0.056	0.069
	LTE Band 7	20M	QPSK	1	0	-	Back	15mm	Ant 13	ECI 10	21100	2535	15.80	16.70	1.230	-	-	0.07	0.130	0.160
	LTE Band 7	20M	QPSK	50	0	-	Front	15mm	Ant 13	ECI 4	21100	2535	21.78	22.70	1.236	-	-	-0.14	0.216	0.267
	LTE Band 7	20M	QPSK	50	0	-	Back	15mm	Ant 13	ECI 4	21100	2535	21.78	22.70	1.236	-	-	-0.07	0.485	0.599
	LTE Band 7	20M	QPSK	50	0	-	Front	15mm	Ant 13	ECI 10	21100	2535	15.78	16.70	1.236	-	-	0.08	0.054	0.067
	LTE Band 7	20M	QPSK	50	0	-	Back	15mm	Ant 13	ECI 10	21100	2535	15.78	16.70	1.236	-	-	0.09	0.122	0.151
	LTE Band 7	20M	QPSK	1	0	-	Front	15mm	Ant 31	ECI 4	21100	2535	20.50	21.40	1.230	-	-	0.09	0.130	0.160
	LTE Band 7	20M	QPSK	1	0	-	Back	15mm	Ant 31	ECI 4	21100	2535	20.50	21.40	1.230	-	-	-0.11	0.141	0.173
	LTE Band 7	20M	QPSK	50	0	-	Front	15mm	Ant 31	ECI 4	21100	2535	20.48	21.40	1.236	-	-	0.19	0.136	0.168
	LTE Band 7	20M	QPSK	50	0	-	Back	15mm	Ant 31	ECI 4	21100	2535	20.48	21.40	1.236	-	-	-0.06	0.149	0.184
	LTE Band 7C	20M	QPSK	1	0	-	Back	15mm	Ant 31	ECI 4	21100+20902	2535+2515.2	20.29	21.40	1.291	-	-	-0.19	0.142	0.183
	LTE Band 7	20M	QPSK	1	0	-	Front	15mm	Ant 11	ECI 4	21100	2535	23.35	24.40	1.274	-	-	0.09	0.242	0.308
	LTE Band 7	20M	QPSK	1	0	-	Back	15mm	Ant 11	ECI 4	21100	2535	23.35	24.40	1.274	-	-	0.15	0.288	0.367
	LTE Band 7C	20M	QPSK	1	0	-	Back	15mm	Ant 11	ECI 4	21100+20902	2535+2515.2	23.29	24.40	1.291	-	-	0.02	0.215	0.278
	LTE Band 7	20M	QPSK	1	0	-	Front	15mm	Ant 11	ECI 10	21100	2535	17.88	18.90	1.265	-	-	-0.1	0.068	0.086
	LTE Band 7	20M	QPSK	1	0	-	Back	15mm	Ant 11	ECI 10	21100	2535	17.88	18.90	1.265	-	-	-0.01	0.081	0.102
	LTE Band 7	20M	QPSK	50	0	-	Front	15mm	Ant 11	ECI 4	21100	2535	22.34	23.40	1.276	-	-	-0.14	0.199	0.254
	LTE Band 7	20M	QPSK	50	0	-	Back	15mm	Ant 11	ECI 4	21100	2535	22.34	23.40	1.276	-	-	0.03	0.240	0.306
	LTE Band 38	20M	QPSK	1	0	-	Front	15mm	Ant 31	ECI 4	38000	2595	22.36	23.50	1.300	62.9	1.006	-0.08	0.209	0.273
73	LTE Band 38	20M	QPSK	1	0	-	Back	15mm	Ant 31	ECI 4	38000	2595	22.36	23.50	1.300	62.9	1.006	0.11	0.214	0.280
	LTE Band 38	20M	QPSK	50	0	-	Front	15mm	Ant 31	ECI 4	38000	2595	22.35	23.50	1.303	62.9	1.006	0.18	0.170	0.223
	LTE Band 38	20M	QPSK	50	0	-	Back	15mm	Ant 31	ECI 4	38000	2595	22.35	23.50	1.303	62.9	1.006	0.11	0.169	0.222
	LTE Band 41	20M	QPSK	1	0	-	Front	15mm	Ant 13	ECI 4	40185	2549.5	23.01	24.00	1.256	62.9	1.006	0.16	0.175	0.221
74	LTE Band 41	20M	QPSK	1	0	-	Back	15mm	Ant 13	ECI 4	40185	2549.5	23.01	24.00	1.256	62.9	1.006	-0.19	0.438	0.553
	LTE Band 41C	20M	QPSK	1	0	-	Back	15mm	Ant 13	ECI 4	40185+39987	2549.5+2529.7	22.99	24.00	1.262	62.9	1.006	0.19	0.428	0.543
	LTE Band 41	20M	QPSK	1	0	-	Front	15mm	Ant 13	ECI 10	40185	2549.5	17.56	18.50	1.242	62.9	1.006	-0.06	0.050	0.062
	LTE Band 41	20M	QPSK	1	0	-	Back	15mm	Ant 13	ECI 10	40185	2549.5	17.56	18.50	1.242	62.9	1.006	0.02	0.125	0.156
	LTE Band 41	20M	QPSK	50	0	-	Front	15mm	Ant 13	ECI 4	40185	2549.5	23.00	24.00	1.259	62.9	1.006	-0.16	0.170	0.215
	LTE Band 41	20M	QPSK	50	0	-	Back	15mm	Ant 13	ECI 4	40185	2549.5	23.00	24.00	1.259	62.9	1.006	-0.19	0.430	0.545
	LTE Band 41	20M	QPSK	1	0	-	Front	15mm	Ant 31	ECI 4	40185	2549.5	22.67	23.50	1.211	62.9	1.006	-0.16	0.160	0.195
	LTE Band 41	20M	QPSK	1	0	-	Back	15mm	Ant 31	ECI 4	40185	2549.5	22.67	23.50	1.211	62.9	1.006	0.18	0.169	0.206
	LTE Band 41	20M	QPSK	50	0	-	Front	15mm	Ant 31	ECI 4	40185	2549.5	22.65	23.50	1.216	62.9	1.006	-0.07	0.163	0.199
	LTE Band 41	20M	QPSK	50	0	-	Back	15mm	Ant 31	ECI 4	40185	2549.5	22.65	23.50	1.216	62.9	1.006	0.01	0.176	0.215
	LTE Band 41C	20M	QPSK	1	0	-	Back	15mm	Ant 31	ECI 4	40185+39987	2549.5+2529.7	22.60	23.50	1.230	62.9	1.006	-0.19	0.160	0.198
	LTE Band 41	20M	QPSK	1	0	-	Front	15mm	Ant 11	ECI 4	40185	2549.5	24.00	25.00	1.259	62.9	1.006	-0.02	0.183	0.232
	LTE Band 41	20M	QPSK	1	0	-	Back	15mm	Ant 11	ECI 4	40185	2549.5	24.00	25.00	1.259	62.9	1.006	-0.06	0.250	0.317
	LTE Band 41C	20M	QPSK	1	0	-	Back	15mm	Ant 11	ECI 4	40185+39987	2549.5+2529.7	23.94	25.00	1.276	62.9	1.006	-0.16	0.204	0.262
	LTE Band 41	20M	QPSK	1	0	-	Front	15mm	Ant 11	ECI 10	40185	2549.5	18.12	19.00	1.225	62.9	1.006	0.01	0.045	0.055
	LTE Band 41	20M	QPSK	1	0	-	Back	15mm	Ant 11	ECI 10	40185	2549.5	18.12	19.00	1.225	62.9	1.006	0.09	0.062	0.076



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	LTE Band 41	20M	QPSK	50	0	-	Front	15mm	Ant 11	ECI 4	40185	2549.5	22.97	24.00	1.268	62.9	1.006	-0.07	0.159	0.203
	LTE Band 41	20M	QPSK	50	0	-	Back	15mm	Ant 11	ECI 4	40185	2549.5	22.97	24.00	1.268	62.9	1.006	0.19	0.217	0.277
	FR1 n7	50M	QPSK	1	1	DFT-15	Front	15mm	Ant 13	ECI 4	507000	2535	21.38	22.20	1.208	-	-	-0.19	0.193	0.233
	FR1 n7	50M	QPSK	1	1	DFT-15	Back	15mm	Ant 13	ECI 4	507000	2535	21.38	22.20	1.208	-	-	0.02	0.527	0.637
	FR1 n7	50M	QPSK	1	1	DFT-15	Front	15mm	Ant 13	ECI 10	507000	2535	15.37	16.20	1.211	-	-	-0.07	0.051	0.062
	FR1 n7	50M	QPSK	1	1	DFT-15	Back	15mm	Ant 13	ECI 10	507000	2535	15.37	16.20	1.211	-	-	0.05	0.148	0.179
	FR1 n7	50M	QPSK	135	68	DFT-15	Front	15mm	Ant 13	ECI 4	507000	2535	21.36	22.20	1.213	-	-	-0.12	0.223	0.271
75	FR1 n7	50M	QPSK	135	68	DFT-15	Back	15mm	Ant 13	ECI 4	507000	2535	21.36	22.20	1.213	-	-	0.16	0.619	0.751
	FR1 n7	50M	QPSK	135	68	DFT-15	Front	15mm	Ant 13	ECI 10	507000	2535	15.35	16.20	1.216	-	-	0.06	0.055	0.067
	FR1 n7	50M	QPSK	135	68	DFT-15	Back	15mm	Ant 13	ECI 10	507000	2535	15.35	16.20	1.216	-	-	0.1	0.152	0.185
	FR1 n7	50M	QPSK	1	1	DFT-15	Front	15mm	Ant 31	ECI 4	507000	2535	20.57	21.40	1.211	-	-	0.09	0.106	0.128
	FR1 n7	50M	QPSK	1	1	DFT-15	Back	15mm	Ant 31	ECI 4	507000	2535	20.57	21.40	1.211	-	-	-0.16	0.140	0.169
	FR1 n7	50M	QPSK	1	1	DFT-15	Front	15mm	Ant 31	ECI 10	507000	2535	19.58	20.40	1.208	-	-	0.03	0.091	0.110
	FR1 n7	50M	QPSK	1	1	DFT-15	Back	15mm	Ant 31	ECI 10	507000	2535	19.58	20.40	1.208	-	-	0.01	0.120	0.145
	FR1 n7	50M	QPSK	135	68	DFT-15	Front	15mm	Ant 31	ECI 4	507000	2535	20.55	21.40	1.216	-	-	-0.02	0.122	0.148
	FR1 n7	50M	QPSK	135	68	DFT-15	Back	15mm	Ant 31	ECI 4	507000	2535	20.55	21.40	1.216	-	-	0.12	0.160	0.195
	FR1 n7	50M	QPSK	135	68	DFT-15	Front	15mm	Ant 31	ECI 10	507000	2535	19.57	20.40	1.211	-	-	-0.03	0.095	0.115
	FR1 n7	50M	QPSK	135	68	DFT-15	Back	15mm	Ant 31	ECI 10	507000	2535	19.57	20.40	1.211	-	-	-0.03	0.125	0.151
	FR1 n7	50M	QPSK	1	1	DFT-15	Front	15mm	Ant 11	ECI 4	507000	2535	23.43	24.40	1.250	-	-	-0.05	0.197	0.246
	FR1 n7	50M	QPSK	1	1	DFT-15	Back	15mm	Ant 11	ECI 4	507000	2535	23.43	24.40	1.250	-	-	-0.07	0.201	0.251
	FR1 n7	50M	QPSK	1	1	DFT-15	Front	15mm	Ant 11	ECI 10	507000	2535	17.46	18.40	1.242	-	-	0.11	0.065	0.081
	FR1 n7	50M	QPSK	1	1	DFT-15	Back	15mm	Ant 11	ECI 10	507000	2535	17.46	18.40	1.242	-	-	0.03	0.068	0.084
	FR1 n7	50M	QPSK	135	68	DFT-15	Front	15mm	Ant 11	ECI 4	507000	2535	23.41	24.40	1.256	-	-	0	0.272	0.342
	FR1 n7	50M	QPSK	135	68	DFT-15	Back	15mm	Ant 11	ECI 4	507000	2535	23.41	24.40	1.256	-	-	0.13	0.286	0.359
	FR1 n7	50M	QPSK	135	68	DFT-15	Front	15mm	Ant 11	ECI 10	507000	2535	17.45	18.40	1.245	-	-	0.09	0.069	0.086
	FR1 n7	50M	QPSK	135	68	DFT-15	Back	15mm	Ant 11	ECI 10	507000	2535	17.45	18.40	1.245	-	-	-0.03	0.071	0.088
	FR1 n41	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 13	ECI 4	518598	2592.99	22.08	23.40	1.355	-	-	-0.03	0.262	0.355
	FR1 n41	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 13	ECI 4	518598	2592.99	22.08	23.40	1.355	-	-	0.13	0.752	1.019
	FR1 n41	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 13	ECI 10	518598	2592.99	16.03	17.40	1.371	-	-	0.07	0.068	0.093
	FR1 n41	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 13	ECI 10	518598	2592.99	16.03	17.40	1.371	-	-	0.02	0.191	0.262
	FR1 n41	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 13	ECI 4	518598	2592.99	22.06	23.40	1.361	-	-	0.12	0.278	0.378
76	FR1 n41	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 13	ECI 4	518598	2592.99	22.06	23.40	1.361	-	-	0.08	0.786	1.070
	FR1 n41	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 13	ECI 10	518598	2592.99	16.01	17.40	1.377	-	-	0.03	0.071	0.098
	FR1 n41	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 13	ECI 10	518598	2592.99	16.01	17.40	1.377	-	-	0.06	0.197	0.271
	FR1 n41	100M	QPSK	270	0	DFT-30	Back	15mm	Ant 13	ECI 4	518598	2592.99	22.03	23.40	1.371	-	-	-0.15	0.752	1.031
	FR1 n41	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 31	ECI 4	518598	2592.99	22.07	23.50	1.390	-	-	0.17	0.196	0.272
	FR1 n41	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 31	ECI 4	518598	2592.99	22.07	23.50	1.390	-	-	-0.07	0.259	0.360
	FR1 n41	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 31	ECI 4	518598	2592.99	22.05	23.50	1.396	-	-	0.09	0.249	0.348
	FR1 n41	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 31	ECI 4	518598	2592.99	22.05	23.50	1.396	-	-	0.14	0.265	0.370
	FR1 n41	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 11	ECI 4	518598	2592.99	24.90	26.50	1.445	-	-	-0.08	0.398	0.575
	FR1 n41	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 11	ECI 4	518598	2592.99	24.90	26.50	1.445	-	-	0.1	0.449	0.649
	FR1 n41	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 11	ECI 10	518598	2592.99	17.44	19.00	1.432	-	-	-0.08	0.088	0.126
	FR1 n41	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 11	ECI 10	518598	2592.99	17.44	19.00	1.432	-	-	0.06	0.120	0.172
	FR1 n41	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 11	ECI 4	518598	2592.99	24.88	26.50	1.452	-	-	0.16	0.504	0.732
	FR1 n41	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 11	ECI 4	518598	2592.99	24.88	26.50	1.452	-	-	0.04	0.697	1.012
	FR1 n41	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 11	ECI 10	518598	2592.99	17.43	19.00	1.435	-	-	0.16	0.090	0.129
	FR1 n41	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 11	ECI 10	518598	2592.99	17.43	19.00	1.435	-	-	0.04	0.123	0.177
	FR1 n41	100M	QPSK	270	0	DFT-30	Front	15mm	Ant 11	ECI 4	518598	2592.99	23.67	25.50	1.524	-	-	0.11	0.353	0.538
	FR1 n41	100M	QPSK	270	0	DFT-30	Back	15mm	Ant 11	ECI 4	518598	2592.99	23.67	25.50	1.524	-	-	-0.18	0.495	0.754
3300MHZ-4100MHZ																				
	LTE Band 42 Part27Q	20M	QPSK	1	0	-	Front	15mm	Ant 11	ECI 4	42590	3500	23.31	23.70	1.094	62.9	1.006	0.01	0.203	0.223
77	LTE Band 42 Part27Q	20M	QPSK	1	0	-	Back	15mm	Ant 11	ECI 4	42590	3500	23.31	23.70	1.094	62.9	1.006	-0.05	0.433	0.477
	LTE Band 42 Part27Q	20M	QPSK	1	0	-	Front	15mm	Ant 11	ECI 10	42590	3500	17.33	17.70	1.089	62.9	1.006	0.03	0.046	0.050
	LTE Band 42 Part27Q	20M	QPSK	1	0	-	Back	15mm	Ant 11	ECI 10	42590	3500	17.33	17.70	1.089	62.9	1.006	0.08	0.100	0.110
	LTE Band 42 Part27Q	20M	QPSK	50	0	-	Front	15mm	Ant 11	ECI 4	42590	3500	22.23	22.70	1.114	62.9	1.006	-0.02	0.158	0.177
	LTE Band 42 Part27Q	20M	QPSK	50	0	-	Back	15mm	Ant 11	ECI 4	42590	3500	22.23	22.70	1.114	62.9	1.006	-0.01	0.313	0.351



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	LTE Band 42 Part27Q	20M	QPSK	1	0	-	Front	15mm	Ant 12	ECI 4	42590	3500	23.51	24.00	1.119	62.9	1.006	0.18	0.182	0.205
	LTE Band 42 Part27Q	20M	QPSK	1	0	-	Back	15mm	Ant 12	ECI 4	42590	3500	23.51	24.00	1.119	62.9	1.006	-0.02	0.244	0.275
	LTE Band 42 Part27Q	20M	QPSK	1	0	-	Front	15mm	Ant 12	ECI 10	42590	3500	19.09	19.50	1.099	62.9	1.006	0.05	0.065	0.072
	LTE Band 42 Part27Q	20M	QPSK	1	0	-	Back	15mm	Ant 12	ECI 10	42590	3500	19.09	19.50	1.099	62.9	1.006	0.03	0.086	0.095
	LTE Band 42 Part27Q	20M	QPSK	50	0	-	Front	15mm	Ant 12	ECI 4	42590	3500	22.48	23.00	1.127	62.9	1.006	0.15	0.143	0.162
	LTE Band 42 Part27Q	20M	QPSK	50	0	-	Back	15mm	Ant 12	ECI 4	42590	3500	22.48	23.00	1.127	62.9	1.006	-0.05	0.193	0.219
	LTE Band 42 Part27Q	20M	QPSK	1	0	-	Front	15mm	Ant 21	ECI 4	42590	3500	20.21	21.00	1.199	62.9	1.006	0.08	0.126	0.152
	LTE Band 42 Part27Q	20M	QPSK	1	0	-	Back	15mm	Ant 21	ECI 4	42590	3500	20.21	21.00	1.199	62.9	1.006	0.12	0.234	0.282
	LTE Band 42 Part27Q	20M	QPSK	1	0	-	Front	15mm	Ant 21	ECI 10	42590	3500	19.33	20.00	1.167	62.9	1.006	0.09	0.130	0.153
	LTE Band 42 Part27Q	20M	QPSK	1	0	-	Back	15mm	Ant 21	ECI 10	42590	3500	19.33	20.00	1.167	62.9	1.006	0.01	0.270	0.317
	LTE Band 42 Part27Q	20M	QPSK	50	0	-	Front	15mm	Ant 21	ECI 4	42590	3500	19.15	20.00	1.216	62.9	1.006	0.01	0.104	0.127
	LTE Band 42 Part27Q	20M	QPSK	50	0	-	Back	15mm	Ant 21	ECI 4	42590	3500	19.15	20.00	1.216	62.9	1.006	0.19	0.186	0.228
	LTE Band 42 Part27Q	20M	QPSK	1	0	-	Front	15mm	Ant 23	ECI 4	42590	3500	19.94	21.00	1.276	62.9	1.006	-0.1	0.048	0.062
	LTE Band 42 Part27Q	20M	QPSK	1	0	-	Back	15mm	Ant 23	ECI 4	42590	3500	19.94	21.00	1.276	62.9	1.006	-0.13	0.157	0.202
	LTE Band 42 Part27Q	20M	QPSK	50	0	-	Front	15mm	Ant 23	ECI 4	42590	3500	18.86	20.00	1.300	62.9	1.006	0.08	0.044	0.058
	LTE Band 42 Part27Q	20M	QPSK	50	0	-	Back	15mm	Ant 23	ECI 4	42590	3500	18.86	20.00	1.300	62.9	1.006	-0.02	0.131	0.171
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 11	ECI 4	633332	3499.98	23.28	24.20	1.236	-	-	-0.13	0.342	0.423
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 11	ECI 4	633332	3499.98	23.28	24.20	1.236	-	-	0.14	0.581	0.718
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 11	ECI 10	633332	3499.98	16.31	17.20	1.227	-	-	0.06	0.075	0.092
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 11	ECI 10	633332	3499.98	16.31	17.20	1.227	-	-	0.04	0.131	0.161
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 11	ECI 4	633332	3499.98	23.26	24.20	1.242	-	-	0.03	0.373	0.463
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 11	ECI 4	633332	3499.98	23.26	24.20	1.242	-	-	-0.13	0.649	0.806
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 11	ECI 10	633332	3499.98	16.30	17.20	1.230	-	-	-0.07	0.071	0.087
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 11	ECI 10	633332	3499.98	16.30	17.20	1.230	-	-	0.02	0.130	0.160
	FR1 n77 Part27Q	100M	QPSK	270	0	DFT-30	Back	15mm	Ant 11	ECI 4	633332	3499.98	22.13	23.20	1.279	-	-	0	0.553	0.707
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 11	ECI 4	656000	3840	23.30	24.20	1.230	-	-	-0.13	0.390	0.480
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 11	ECI 4	656000	3840	23.30	24.20	1.230	-	-	-0.11	0.669	0.823
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 11	ECI 10	656000	3840	16.32	17.20	1.225	-	-	0.03	0.077	0.094
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 11	ECI 10	656000	3840	16.32	17.20	1.225	-	-	0.08	0.130	0.159
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 11	ECI 4	656000	3840	23.28	24.20	1.236	-	-	-0.19	0.402	0.497
78	FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 11	ECI 4	656000	3840	23.28	24.20	1.236	-	-	-0.19	0.676	0.836
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 11	ECI 10	656000	3840	16.30	17.20	1.230	-	-	0.1	0.080	0.098
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 11	ECI 10	656000	3840	16.30	17.20	1.230	-	-	0.01	0.133	0.164
	FR1 n77 Part27O	100M	QPSK	270	0	DFT-30	Front	15mm	Ant 11	ECI 4	656000	3840	22.15	23.20	1.274	-	-	0.02	0.317	0.404
	FR1 n77 Part27O	100M	QPSK	270	0	DFT-30	Back	15mm	Ant 11	ECI 4	656000	3840	22.15	23.20	1.274	-	-	-0.11	0.543	0.692
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 12	ECI 4	633332	3499.98	23.18	24.20	1.265	-	-	-0.1	0.297	0.376
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 12	ECI 4	633332	3499.98	23.18	24.20	1.265	-	-	0.07	0.353	0.446
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 12	ECI 10	633332	3499.98	16.71	17.70	1.256	-	-	0.11	0.070	0.088
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 12	ECI 10	633332	3499.98	16.71	17.70	1.256	-	-	-0.05	0.081	0.102
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 12	ECI 4	633332	3499.98	23.15	24.20	1.274	-	-	-0.17	0.336	0.428
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 12	ECI 4	633332	3499.98	23.15	24.20	1.274	-	-	-0.03	0.378	0.481
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 12	ECI 10	633332	3499.98	16.70	17.70	1.259	-	-	-0.02	0.074	0.093
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 12	ECI 10	633332	3499.98	16.70	17.70	1.259	-	-	-0.06	0.084	0.106
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 12	ECI 4	656000	3840	23.20	24.20	1.259	-	-	-0.03	0.257	0.324
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 12	ECI 4	656000	3840	23.20	24.20	1.259	-	-	0.01	0.288	0.363
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 12	ECI 10	656000	3840	16.73	17.70	1.250	-	-	0.07	0.070	0.088
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 12	ECI 10	656000	3840	16.73	17.70	1.250	-	-	0.02	0.080	0.100
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 12	ECI 4	656000	3840	23.16	24.20	1.271	-	-	-0.06	0.210	0.267
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 12	ECI 4	656000	3840	23.16	24.20	1.271	-	-	-0.08	0.262	0.333
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 12	ECI 10	656000	3840	16.71	17.70	1.256	-	-	0.02	0.070	0.088
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 12	ECI 10	656000	3840	16.71	17.70	1.256	-	-	0.05	0.077	0.097
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 21	ECI 4	633332	3499.98	18.97	19.70	1.183	-	-	-0.16	0.159	0.188
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 21	ECI 4	633332	3499.98	18.97	19.70	1.183	-	-	-0.04	0.278	0.329
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 21	ECI 10	633332	3499.98	16.48	17.20	1.180	-	-	0.05	0.097	0.114
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 21	ECI 10	633332	3499.98	16.48	17.20	1.180	-	-	0.03	0.193	0.228
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 21	ECI 4	633332	3499.98	18.95	19.70	1.189	-	-	-0.02	0.184	0.219



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	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 21	ECI 4	633332	3499.98	18.95	19.70	1.189	-	-	0.18	0.338	0.402
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 21	ECI 4	656000	3840	18.66	19.70	1.271	-	-	0.1	0.181	0.230
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 21	ECI 4	656000	3840	18.66	19.70	1.271	-	-	-0.19	0.347	0.441
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 21	ECI 10	656000	3840	16.16	17.20	1.271	-	-	-0.08	0.099	0.126
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 21	ECI 10	656000	3840	16.16	17.20	1.271	-	-	-0.07	0.195	0.248
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 21	ECI 4	656000	3840	18.65	19.70	1.274	-	-	-0.17	0.180	0.229
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 21	ECI 4	656000	3840	18.65	19.70	1.274	-	-	-0.08	0.278	0.354
	FR1 n77 Part27O	100M	QPSK	270	0	DFT-30	Back	15mm	Ant 21	ECI 4	656000	3840	18.63	19.70	1.279	-	-	0.14	0.285	0.365
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 23	ECI 4	633332	3499.98	19.17	20.20	1.268	-	-	-0.13	0.058	0.074
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 23	ECI 4	633332	3499.98	19.17	20.20	1.268	-	-	0.02	0.190	0.241
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 23	ECI 10	633332	3499.98	17.68	18.70	1.265	-	-	-0.05	0.156	0.197
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 23	ECI 10	633332	3499.98	17.68	18.70	1.265	-	-	0.07	0.203	0.257
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 23	ECI 4	633332	3499.98	19.15	20.20	1.274	-	-	0.15	0.086	0.110
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 23	ECI 4	633332	3499.98	19.15	20.20	1.274	-	-	0.08	0.270	0.344
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 23	ECI 10	633332	3499.98	17.67	18.70	1.268	-	-	0.06	0.155	0.196
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 23	ECI 10	633332	3499.98	17.67	18.70	1.268	-	-	0.03	0.205	0.260
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 23	ECI 4	656000	3840	18.92	20.20	1.343	-	-	0	0.198	0.266
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 23	ECI 4	656000	3840	18.92	20.20	1.343	-	-	-0.18	0.242	0.325
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 23	ECI 10	656000	3840	17.43	18.70	1.340	-	-	0.03	0.155	0.208
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 23	ECI 10	656000	3840	17.43	18.70	1.340	-	-	0.01	0.205	0.275
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 23	ECI 4	656000	3840	18.90	20.20	1.349	-	-	-0.05	0.224	0.302
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 23	ECI 4	656000	3840	18.90	20.20	1.349	-	-	0.13	0.284	0.383
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 23	ECI 10	656000	3840	17.41	18.70	1.346	-	-	0.1	0.160	0.215
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 23	ECI 10	656000	3840	17.41	18.70	1.346	-	-	0.05	0.206	0.277
	FR1 n78 Part27Q	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 11	ECI 4	633332	3499.98	23.98	24.90	1.236	-	-	0.02	0.452	0.559
	FR1 n78 Part27Q	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 11	ECI 4	633332	3499.98	23.98	24.90	1.236	-	-	0.08	0.790	0.976
	FR1 n78 Part27Q	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 11	ECI 10	633332	3499.98	15.48	16.40	1.236	-	-	0.06	0.060	0.074
	FR1 n78 Part27Q	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 11	ECI 10	633332	3499.98	15.48	16.40	1.236	-	-	0.01	0.111	0.137
	FR1 n78 Part27Q	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 11	ECI 4	633332	3499.98	23.96	24.90	1.242	-	-	0.18	0.458	0.569
	FR1 n78 Part27Q	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 11	ECI 4	633332	3499.98	23.96	24.90	1.242	-	-	-0.06	0.781	0.970
	FR1 n78 Part27Q	100M	QPSK	270	0	DFT-30	Back	15mm	Ant 11	ECI 4	633332	3499.98	23.95	24.90	1.245	-	-	-0.08	0.815	1.014
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 11	ECI 4	650000	3750	23.70	24.90	1.318	-	-	0.15	0.463	0.610
79	FR1 n78 Part27O	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 11	ECI 4	650000	3750	23.70	24.90	1.318	-	-	0.18	0.809	1.066
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 11	ECI 4	650000	3750	23.70	24.90	1.318	-	-	0.19	0.764	1.007
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 11	ECI 10	650000	3750	15.24	16.40	1.306	-	-	-0.07	0.066	0.086
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 11	ECI 10	650000	3750	15.24	16.40	1.306	-	-	-0.09	0.115	0.150
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 11	ECI 4	650000	3750	23.68	24.90	1.324	-	-	0.06	0.439	0.581
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 11	ECI 4	650000	3750	23.68	24.90	1.324	-	-	0.1	0.779	1.032
	FR1 n78 Part27O	100M	QPSK	270	0	DFT-30	Back	15mm	Ant 11	ECI 4	650000	3750	23.65	24.90	1.334	-	-	0.12	0.790	1.053
	FR1 n78 Part27Q	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 12	ECI 4	633332	3499.98	25.68	27.20	1.419	-	-	0.17	0.544	0.772
	FR1 n78 Part27Q	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 12	ECI 4	633332	3499.98	25.68	27.20	1.419	-	-	0.09	0.599	0.850
	FR1 n78 Part27Q	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 12	ECI 10	633332	3499.98	17.21	18.70	1.409	-	-	0.03	0.081	0.114
	FR1 n78 Part27Q	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 12	ECI 10	633332	3499.98	17.21	18.70	1.409	-	-	0.07	0.092	0.130
	FR1 n78 Part27Q	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 12	ECI 4	633332	3499.98	25.65	27.20	1.429	-	-	0.12	0.603	0.862
	FR1 n78 Part27Q	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 12	ECI 4	633332	3499.98	25.65	27.20	1.429	-	-	0.19	0.679	0.970
	FR1 n78 Part27Q	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 12	ECI 10	633332	3499.98	17.20	18.70	1.413	-	-	-0.09	0.084	0.119
	FR1 n78 Part27Q	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 12	ECI 10	633332	3499.98	17.20	18.70	1.413	-	-	-0.06	0.096	0.136
	FR1 n78 Part27Q	100M	QPSK	270	0	DFT-30	Front	15mm	Ant 12	ECI 4	633332	3499.98	24.68	26.20	1.419	-	-	0.01	0.502	0.712
	FR1 n78 Part27Q	100M	QPSK	270	0	DFT-30	Back	15mm	Ant 12	ECI 4	633332	3499.98	24.68	26.20	1.419	-	-	-0.02	0.533	0.756
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 12	ECI 4	650000	3750	25.60	27.20	1.445	-	-	0.1	0.482	0.697
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 12	ECI 4	650000	3750	25.60	27.20	1.445	-	-	-0.03	0.547	0.791
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 12	ECI 10	650000	3750	17.13	18.70	1.435	-	-	0.07	0.081	0.116
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 12	ECI 10	650000	3750	17.13	18.70	1.435	-	-	0.02	0.092	0.132
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 12	ECI 4	650000	3750	25.58	27.20	1.452	-	-	-0.14	0.476	0.691
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 12	ECI 4	650000	3750	25.58	27.20	1.452	-	-	0.06	0.547	0.794
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 12	ECI 10	650000	3750	17.11	18.70	1.442	-	-	0.06	0.078	0.112



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	FR1 n78 Part27O	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 12	ECI 10	650000	3750	17.11	18.70	1.442	-	-	0.02	0.090	0.130
	FR1 n78 Part27Q	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 21	ECI 4	633332	3499.98	20.28	20.70	1.102	-	-	0.01	0.197	0.217
	FR1 n78 Part27Q	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 21	ECI 4	633332	3499.98	20.28	20.70	1.102	-	-	0.08	0.347	0.382
	FR1 n78 Part27Q	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 21	ECI 10	633332	3499.98	18.03	18.70	1.167	-	-	0.09	0.140	0.163
	FR1 n78 Part27Q	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 21	ECI 10	633332	3499.98	18.03	18.70	1.167	-	-	-0.04	0.288	0.336
	FR1 n78 Part27Q	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 21	ECI 4	633332	3499.98	20.26	20.70	1.107	-	-	-0.02	0.226	0.250
	FR1 n78 Part27Q	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 21	ECI 4	633332	3499.98	20.26	20.70	1.107	-	-	0.09	0.440	0.487
	FR1 n78 Part27Q	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 21	ECI 10	633332	3499.98	18.01	18.70	1.172	-	-	0.06	0.144	0.169
	FR1 n78 Part27Q	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 21	ECI 10	633332	3499.98	18.01	18.70	1.172	-	-	-0.05	0.300	0.352
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 21	ECI 4	650000	3750	19.58	20.70	1.294	-	-	-0.14	0.222	0.287
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 21	ECI 4	650000	3750	19.58	20.70	1.294	-	-	-0.01	0.458	0.593
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 21	ECI 10	650000	3750	17.58	18.70	1.294	-	-	0.01	0.138	0.179
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 21	ECI 10	650000	3750	17.58	18.70	1.294	-	-	0.03	0.300	0.388
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 21	ECI 4	650000	3750	19.56	20.70	1.300	-	-	-0.02	0.234	0.304
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 21	ECI 4	650000	3750	19.56	20.70	1.300	-	-	0.05	0.481	0.625
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 21	ECI 10	650000	3750	17.57	18.70	1.297	-	-	0.08	0.144	0.187
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 21	ECI 10	650000	3750	17.57	18.70	1.297	-	-	-0.08	0.302	0.392
	FR1 n78 Part27Q	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 23	ECI 4	633332	3499.98	20.21	21.50	1.346	-	-	0.19	0.067	0.090
	FR1 n78 Part27Q	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 23	ECI 4	633332	3499.98	20.21	21.50	1.346	-	-	0.19	0.177	0.238
	FR1 n78 Part27Q	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 23	ECI 10	633332	3499.98	18.21	19.50	1.346	-	-	0.03	0.050	0.067
	FR1 n78 Part27Q	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 23	ECI 10	633332	3499.98	18.21	19.50	1.346	-	-	0.01	0.190	0.256
	FR1 n78 Part27Q	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 23	ECI 4	633332	3499.98	20.20	21.50	1.349	-	-	0.15	0.083	0.112
	FR1 n78 Part27Q	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 23	ECI 4	633332	3499.98	20.20	21.50	1.349	-	-	-0.06	0.296	0.399
	FR1 n78 Part27Q	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 23	ECI 10	633332	3499.98	18.20	19.50	1.349	-	-	-0.05	0.052	0.070
	FR1 n78 Part27Q	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 23	ECI 10	633332	3499.98	18.20	19.50	1.349	-	-	-0.1	0.191	0.258
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 23	ECI 4	650000	3750	19.72	21.50	1.507	-	-	0.19	0.188	0.283
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 23	ECI 4	650000	3750	19.72	21.50	1.507	-	-	0.05	0.225	0.339
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 23	ECI 10	650000	3750	17.68	19.50	1.521	-	-	-0.05	0.135	0.205
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 23	ECI 10	650000	3750	17.68	19.50	1.521	-	-	0.06	0.150	0.228
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 23	ECI 4	650000	3750	19.70	21.50	1.514	-	-	-0.07	0.223	0.338
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 23	ECI 4	650000	3750	19.70	21.50	1.514	-	-	0.05	0.238	0.360
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 23	ECI 10	650000	3750	17.67	19.50	1.524	-	-	-0.06	0.138	0.210
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 23	ECI 10	650000	3750	17.67	19.50	1.524	-	-	0.09	0.152	0.232

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																
80	Bluetooth	DH5 1Mbps	Front	15mm	Ant 22	Full	39	2441	9.30	11.00	1.479	76.80	1.302	0.08	0.024	0.046
	Bluetooth	DH5 1Mbps	Back	15mm	Ant 22	Full	39	2441	9.30	11.00	1.479	76.80	1.302	0.05	0.030	0.058
81	WLAN2.4GHz	802.11b 1Mbps	Front	15mm	Ant 22	Full	6	2437	15.20	17.00	1.514	99.58	1.004	0.17	0.070	0.106
	WLAN2.4GHz	802.11b 1Mbps	Back	15mm	Ant 22	Full	6	2437	15.20	17.00	1.514	99.58	1.004	0.02	0.083	0.126
82	WLAN5.2GHz	802.11n-HT40 MCS0	Front	15mm	Ant 22	Standalone	46	5230	17.12	19.00	1.541	91.18	1.097	-0.09	0.106	0.179
	WLAN5.2GHz	802.11n-HT40 MCS0	Back	15mm	Ant 22	Standalone	46	5230	17.12	19.00	1.541	91.18	1.097	-0.06	0.177	0.299
	WLAN5.2GHz	802.11n-HT40 MCS0	Back	15mm	Ant 22	Simultaneous	46	5230	16.63	18.50	1.538	91.18	1.097	0.03	0.158	0.267
83	WLAN5.5GHz	802.11n-HT40 MCS0	Front	15mm	Ant 22	Standalone	142	5710	15.22	17.00	1.507	91.18	1.097	0.1	0.106	0.175
	WLAN5.5GHz	802.11n-HT40 MCS0	Back	15mm	Ant 22	Standalone	142	5710	15.22	17.00	1.507	91.18	1.097	-0.18	0.207	0.342
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Back	15mm	Ant 22	Simultaneous	138	5690	13.08	14.50	1.386	91.18	1.097	0.01	0.116	0.176
84	WLAN5.8GHz	802.11n-HT40 MCS0	Front	15mm	Ant 22	Standalone	159	5795	15.65	17.50	1.531	92.86	1.077	0.02	0.090	0.148
	WLAN5.8GHz	802.11n-HT40 MCS0	Back	15mm	Ant 22	Standalone	159	5795	15.65	17.50	1.531	92.86	1.077	0	0.179	0.295
	WLAN5.8GHz	802.11n-HT40 MCS0	Back	15mm	Ant 22	Simultaneous	159	5795	14.15	16.00	1.531	92.86	1.077	0.07	0.121	0.200



16.4 Product specific 10g SAR

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)
1750MHz																				
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Top Side	0mm	Ant 13	ECI 5	1413	1732.6	21.01	21.70	1.172	-	-	-0.19	1.970	2.309
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Top Side	0mm	Ant 13	ECI 5	1312	1712.4	20.99	21.70	1.178	-	-	0.17	1.790	2.108
85	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Top Side	0mm	Ant 13	ECI 5	1513	1752.6	20.98	21.70	1.180	-	-	-0.15	2.240	2.644
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Top Side	14mm	Ant 13	ECI 4	1413	1732.6	23.95	24.70	1.189	-	-	0.17	0.373	0.443
	LTE Band 66	20M	QPSK	1	0	-	Top Side	0mm	Ant 13	ECI 5	132322	1745	20.48	21.20	1.180	-	-	-0.06	2.000	2.361
	LTE Band 66	20M	QPSK	1	0	-	Top Side	0mm	Ant 13	ECI 5	132072	1720	20.47	21.20	1.183	-	-	-0.05	1.920	2.271
86	LTE Band 66	20M	QPSK	1	0	-	Top Side	0mm	Ant 13	ECI 5	132572	1770	20.45	21.20	1.189	-	-	-0.05	2.100	2.496
	LTE Band 66C	20M	QPSK	1	0	-	Top Side	0mm	Ant 13	ECI 5	132572+132374	1770+1750.2	20.33	21.20	1.222	-	-	0.07	1.760	2.150
	LTE Band 66	20M	QPSK	1	0	-	Top Side	14mm	Ant 13	ECI 4	132322	1745	23.90	24.70	1.202	-	-	-0.07	0.375	0.451
	LTE Band 66	20M	QPSK	50	0	-	Top Side	0mm	Ant 13	ECI 5	132322	1745	20.47	21.20	1.183	-	-	0.16	2.050	2.425
	LTE Band 66	20M	QPSK	50	0	-	Top Side	0mm	Ant 13	ECI 5	132072	1720	20.45	21.20	1.189	-	-	-0.06	1.960	2.329
	LTE Band 66	20M	QPSK	50	0	-	Top Side	0mm	Ant 13	ECI 5	132572	1770	20.43	21.20	1.194	-	-	-0.05	2.050	2.448
	LTE Band 66	20M	QPSK	50	0	-	Top Side	14mm	Ant 13	ECI 4	132322	1745	22.88	23.70	1.208	-	-	-0.02	0.298	0.360
	LTE Band 66	20M	QPSK	100	0	-	Top Side	0mm	Ant 13	ECI 5	132322	1745	20.45	21.20	1.189	-	-	-0.09	1.980	2.353
	FR1 n66	40M	QPSK	1	1	DFT-15	Top Side	0mm	Ant 13	ECI 5	349000	1745	19.73	20.70	1.250	-	-	0.05	1.620	2.025
	FR1 n66	40M	QPSK	1	1	DFT-15	Top Side	14mm	Ant 13	ECI 4	349000	1745	23.70	24.70	1.259	-	-	0	0.361	0.454
87	FR1 n66	40M	QPSK	108	54	DFT-15	Top Side	0mm	Ant 13	ECI 5	349000	1745	19.71	20.70	1.256	-	-	0.02	1.800	2.261
	FR1 n66	40M	QPSK	108	54	DFT-15	Top Side	14mm	Ant 13	ECI 4	349000	1745	23.68	24.70	1.265	-	-	0.18	0.392	0.496
	FR1 n66	40M	QPSK	216	0	DFT-15	Top Side	0mm	Ant 13	ECI 5	349000	1745	19.70	20.70	1.259	-	-	-0.14	1.570	1.977
1900MHz																				
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Top Side	0mm	Ant 13	ECI 5	9400	1880	19.13	20.20	1.279	-	-	-0.12	2.190	2.802
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Top Side	0mm	Ant 13	ECI 5	9262	1852.4	19.11	20.20	1.285	-	-	0.06	1.990	2.558
88	WCDMA II	-	-	-	-	RMC 12.2Kbps	Top Side	0mm	Ant 13	ECI 5	9538	1907.6	19.10	20.20	1.288	-	-	-0.12	2.220	2.860
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Top Side	14mm	Ant 13	ECI 4	9400	1880	23.07	24.20	1.297	-	-	-0.02	0.399	0.518
	LTE Band 2	20M	QPSK	1	0	-	Top Side	0mm	Ant 13	ECI 5	18900	1880	19.45	20.20	1.189	-	-	0.16	2.100	2.496
	LTE Band 2	20M	QPSK	1	0	-	Top Side	0mm	Ant 13	ECI 5	18700	1860	19.43	20.20	1.194	-	-	0.1	1.960	2.340
89	LTE Band 2	20M	QPSK	1	0	-	Top Side	0mm	Ant 13	ECI 5	19100	1900	19.41	20.20	1.199	-	-	-0.14	2.180	2.615
	LTE Band 2C	20M	QPSK	1	0	-	Top Side	0mm	Ant 13	ECI 5	19100+18902	1900+1880.2	19.02	20.20	1.312	-	-	0.18	1.900	2.493
	LTE Band 2	20M	QPSK	1	0	-	Top Side	14mm	Ant 13	ECI 4	18900	1880	23.83	24.70	1.222	-	-	0.19	0.425	0.519
	LTE Band 2	20M	QPSK	50	0	-	Top Side	0mm	Ant 13	ECI 5	18900	1880	19.43	20.20	1.194	-	-	0.18	2.140	2.555
	LTE Band 2	20M	QPSK	50	0	-	Top Side	0mm	Ant 13	ECI 5	18700	1860	19.41	20.20	1.199	-	-	0.15	2.000	2.399
	LTE Band 2	20M	QPSK	50	0	-	Top Side	0mm	Ant 13	ECI 5	19100	1900	19.40	20.20	1.202	-	-	-0.14	2.140	2.573
	LTE Band 2	20M	QPSK	50	0	-	Top Side	14mm	Ant 13	ECI 4	18900	1880	22.83	23.70	1.222	-	-	0.02	0.333	0.407
	LTE Band 2	20M	QPSK	100	0	-	Top Side	0mm	Ant 13	ECI 5	18900	1880	19.41	20.20	1.199	-	-	0.07	2.060	2.471
	FR1 n2	20M	QPSK	1	1	DFT-15	Top Side	0mm	Ant 13	ECI 5	376000	1880	18.67	19.70	1.268	-	-	0.06	1.870	2.371
	FR1 n2	20M	QPSK	1	1	DFT-15	Top Side	0mm	Ant 13	ECI 5	372000	1860	18.65	19.70	1.274	-	-	0.04	1.690	2.152
	FR1 n2	20M	QPSK	1	1	DFT-15	Top Side	0mm	Ant 13	ECI 5	380000	1900	18.63	19.70	1.279	-	-	-0.11	1.890	2.418
	FR1 n2	20M	QPSK	1	1	DFT-15	Top Side	14mm	Ant 13	ECI 4	376000	1880	23.15	24.20	1.274	-	-	-0.09	0.376	0.479
	FR1 n2	20M	QPSK	50	28	DFT-15	Top Side	0mm	Ant 13	ECI 5	376000	1880	18.65	19.70	1.274	-	-	0.13	1.950	2.483
	FR1 n2	20M	QPSK	50	28	DFT-15	Top Side	0mm	Ant 13	ECI 5	372000	1860	18.63	19.70	1.279	-	-	0.07	1.780	2.277
90	FR1 n2	20M	QPSK	50	28	DFT-15	Top Side	0mm	Ant 13	ECI 5	380000	1900	18.61	19.70	1.285	-	-	0.17	2.030	2.609
	FR1 n2	20M	QPSK	50	28	DFT-15	Top Side	14mm	Ant 13	ECI 4	376000	1880	23.13	24.20	1.279	-	-	0.04	0.398	0.509
	FR1 n2	20M	QPSK	100	0	DFT-15	Top Side	0mm	Ant 13	ECI 5	376000	1880	18.63	19.70	1.279	-	-	-0.01	1.900	2.431
2600MHz																				
	LTE Band 7	20M	QPSK	1	0	-	Back	0mm	Ant 13	ECI 5	21100	2535	18.35	19.20	1.216	-	-	0.05	1.010	1.228
	LTE Band 7	20M	QPSK	1	0	-	Top Side	0mm	Ant 13	ECI 5	21100	2535	18.35	19.20	1.216	-	-	-0.19	1.660	2.019
	LTE Band 7	20M	QPSK	1	0	-	Top Side	0mm	Ant 13	ECI 5	20850	2510	18.33	19.20	1.222	-	-	-0.17	1.630	1.992
91	LTE Band 7	20M	QPSK	1	0	-	Top Side	0mm	Ant 13	ECI 5	21350	2560	18.31	19.20	1.227	-	-	-0.18	1.730	2.123



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	LTE Band 7	20M	QPSK	1	0	-	Back	12mm	Ant 13	ECI 4	21100	2535	21.80	22.70	1.230	-	-	0.05	0.422	0.519
	LTE Band 7	20M	QPSK	1	0	-	Top Side	14mm	Ant 13	ECI 4	21100	2535	21.80	22.70	1.230	-	-	0	0.440	0.541
	LTE Band 7	20M	QPSK	50	0	-	Back	0mm	Ant 13	ECI 5	21100	2535	18.33	19.20	1.222	-	-	-0.16	1.030	1.258
	LTE Band 7	20M	QPSK	50	0	-	Top Side	0mm	Ant 13	ECI 5	21100	2535	18.33	19.20	1.222	-	-	-0.14	1.720	2.101
	LTE Band 7	20M	QPSK	50	0	-	Top Side	0mm	Ant 13	ECI 5	20850	2510	18.31	19.20	1.227	-	-	-0.05	1.680	2.062
	LTE Band 7	20M	QPSK	50	0	-	Top Side	0mm	Ant 13	ECI 5	21350	2560	18.30	19.20	1.230	-	-	-0.18	1.670	2.055
	LTE Band 7C	20M	QPSK	1	0	-	Top Side	0mm	Ant 13	ECI 5	21350+ 21152	2560+ 2540.2	18.26	19.20	1.242	-	-	0.1	1.700	2.111
	LTE Band 7	20M	QPSK	50	0	-	Back	12mm	Ant 13	ECI 4	21100	2535	21.78	22.70	1.236	-	-	0.13	0.430	0.531
	LTE Band 7	20M	QPSK	50	0	-	Top Side	14mm	Ant 13	ECI 4	21100	2535	21.78	22.70	1.236	-	-	0.02	0.452	0.559
	LTE Band 7	20M	QPSK	100	0	-	Top Side	0mm	Ant 13	ECI 5	21100	2535	18.31	19.20	1.227	-	-	0	1.630	2.001
	LTE Band 38	20M	QPSK	1	0	-	Back	0mm	Ant 13	ECI 5	38000	2595	18.67	19.70	1.268	62.9	1.006	-0.16	0.992	1.265
	LTE Band 38	20M	QPSK	1	0	-	Top Side	0mm	Ant 13	ECI 5	38000	2595	18.67	19.70	1.268	62.9	1.006	-0.19	1.710	2.181
	LTE Band 38	20M	QPSK	1	0	-	Back	12mm	Ant 13	ECI 4	38000	2595	22.58	23.70	1.294	62.9	1.006	-0.01	0.359	0.467
	LTE Band 38	20M	QPSK	1	0	-	Top Side	14mm	Ant 13	ECI 4	38000	2595	22.58	23.70	1.294	62.9	1.006	0.04	0.317	0.413
	LTE Band 38	20M	QPSK	50	0	-	Back	0mm	Ant 13	ECI 5	38000	2595	18.65	19.70	1.274	62.9	1.006	-0.07	0.997	1.277
	LTE Band 38	20M	QPSK	50	0	-	Top Side	0mm	Ant 13	ECI 5	38000	2595	18.65	19.70	1.274	62.9	1.006	-0.01	1.740	2.229
	LTE Band 38	20M	QPSK	50	0	-	Back	12mm	Ant 13	ECI 4	38000	2595	22.56	23.70	1.300	62.9	1.006	0.14	0.331	0.433
	LTE Band 38	20M	QPSK	50	0	-	Top Side	14mm	Ant 13	ECI 4	38000	2595	22.56	23.70	1.300	62.9	1.006	0.13	0.294	0.385
	LTE Band 38	20M	QPSK	100	0	-	Top Side	0mm	Ant 13	ECI 5	38000	2595	18.63	19.70	1.279	62.9	1.006	0.05	1.640	2.111
	LTE Band 38	20M	QPSK	1	0	-	Back	0mm	Ant 11	ECI 5	38000	2595	19.37	20.50	1.297	62.9	1.006	0.05	1.620	2.114
92	LTE Band 38	20M	QPSK	1	0	-	Left Side	0mm	Ant 11	ECI 5	38000	2595	19.37	20.50	1.297	62.9	1.006	0.1	2.280	2.975
	LTE Band 38	20M	QPSK	1	0	-	Back	13mm	Ant 11	ECI 4	38000	2595	23.26	24.50	1.330	62.9	1.006	-0.03	0.194	0.260
	LTE Band 38	20M	QPSK	1	0	-	Left Side	15mm	Ant 11	ECI 4	38000	2595	23.26	24.50	1.330	62.9	1.006	0.05	0.183	0.245
	LTE Band 38	20M	QPSK	50	0	-	Back	0mm	Ant 11	ECI 5	38000	2595	19.35	20.50	1.303	62.9	1.006	-0.02	1.540	2.019
	LTE Band 38	20M	QPSK	50	0	-	Left Side	0mm	Ant 11	ECI 5	38000	2595	19.35	20.50	1.303	62.9	1.006	0.13	2.230	2.923
	LTE Band 38	20M	QPSK	100	0	-	Back	0mm	Ant 11	ECI 5	38000	2595	19.33	20.50	1.309	62.9	1.006	0.1	1.530	2.015
	LTE Band 38	20M	QPSK	100	0	-	Left Side	0mm	Ant 11	ECI 5	38000	2595	19.33	20.50	1.309	62.9	1.006	0.07	2.030	2.674
	LTE Band 41	20M	QPSK	1	0	-	Back	0mm	Ant 13	ECI 5	40185	2549.5	19.06	20.00	1.242	62.9	1.006	-0.05	0.930	1.162
	LTE Band 41	20M	QPSK	1	0	-	Top Side	0mm	Ant 13	ECI 5	40185	2549.5	19.06	20.00	1.242	62.9	1.006	0.05	1.570	1.961
	LTE Band 41	20M	QPSK	1	0	-	Top Side	0mm	Ant 13	ECI 5	39750	2506	18.78	20.00	1.324	62.9	1.006	0.14	1.500	1.998
93	LTE Band 41	20M	QPSK	1	0	-	Top Side	0mm	Ant 13	ECI 5	40620	2593	19.05	20.00	1.245	62.9	1.006	0	1.620	2.028
	LTE Band 41C	20M	QPSK	1	0	-	Top Side	0mm	Ant 13	ECI 5	40620+ 40422	2593+ 2573.2	19.04	20.00	1.247	62.9	1.006	0.16	1.540	1.932
	LTE Band 41	20M	QPSK	1	0	-	Top Side	0mm	Ant 13	ECI 5	41055	2636.5	18.93	20.00	1.279	62.9	1.006	-0.19	1.500	1.931
	LTE Band 41	20M	QPSK	1	0	-	Top Side	0mm	Ant 13	ECI 5	41490	2680	18.99	20.00	1.262	62.9	1.006	0.12	1.320	1.676
	LTE Band 41	20M	QPSK	1	0	-	Back	12mm	Ant 13	ECI 4	40185	2549.5	23.01	24.00	1.256	62.9	1.006	0.02	0.377	0.476
	LTE Band 41	20M	QPSK	1	0	-	Top Side	14mm	Ant 13	ECI 4	40185	2549.5	23.01	24.00	1.256	62.9	1.006	0.1	0.367	0.464
	LTE Band 41	20M	QPSK	50	0	-	Back	0mm	Ant 13	ECI 5	40185	2549.5	19.05	20.00	1.245	62.9	1.006	-0.03	0.952	1.192
	LTE Band 41	20M	QPSK	50	0	-	Top Side	0mm	Ant 13	ECI 5	40185	2549.5	19.05	20.00	1.245	62.9	1.006	0.14	1.610	2.016
	LTE Band 41	20M	QPSK	50	0	-	Top Side	0mm	Ant 13	ECI 5	39750	2506	18.76	20.00	1.330	62.9	1.006	0.06	1.500	2.008
	LTE Band 41	20M	QPSK	50	0	-	Top Side	0mm	Ant 13	ECI 5	40620	2593	19.03	20.00	1.250	62.9	1.006	0	1.600	2.012
	LTE Band 41	20M	QPSK	50	0	-	Top Side	0mm	Ant 13	ECI 5	41055	2636.5	18.91	20.00	1.285	62.9	1.006	-0.15	1.510	1.952
	LTE Band 41	20M	QPSK	50	0	-	Top Side	0mm	Ant 13	ECI 5	41490	2680	18.97	20.00	1.268	62.9	1.006	-0.15	1.310	1.671
	LTE Band 41	20M	QPSK	50	0	-	Back	12mm	Ant 13	ECI 4	40185	2549.5	23.00	24.00	1.259	62.9	1.006	-0.09	0.367	0.465
	LTE Band 41	20M	QPSK	50	0	-	Top Side	14mm	Ant 13	ECI 4	40185	2549.5	23.00	24.00	1.259	62.9	1.006	0.03	0.350	0.443
	LTE Band 41	20M	QPSK	100	0	-	Top Side	0mm	Ant 13	ECI 5	40185	2549.5	19.03	20.00	1.250	62.9	1.006	0.07	1.440	1.811
	FR1 n7	50M	QPSK	1	1	DFT-15	Back	0mm	Ant 13	ECI 5	507000	2535	16.88	17.70	1.208	-	-	0.05	0.806	0.973
	FR1 n7	50M	QPSK	1	1	DFT-15	Top Side	0mm	Ant 13	ECI 5	507000	2535	16.88	17.70	1.208	-	-	-0.03	1.490	1.800
	FR1 n7	50M	QPSK	1	1	DFT-15	Back	12mm	Ant 13	ECI 4	507000	2535	21.38	22.20	1.208	-	-	-0.12	0.340	0.411
	FR1 n7	50M	QPSK	1	1	DFT-15	Top Side	14mm	Ant 13	ECI 4	507000	2535	21.38	22.20	1.208	-	-	-0.07	0.370	0.447
	FR1 n7	50M	QPSK	135	68	DFT-15	Back	0mm	Ant 13	ECI 5	507000	2535	16.86	17.70	1.213	-	-	0	0.884	1.073
94	FR1 n7	50M	QPSK	135	68	DFT-15	Top Side	0mm	Ant 13	ECI 5	507000	2535	16.86	17.70	1.213	-	-	0.05	1.670	2.026
	FR1 n7	50M	QPSK	135	68	DFT-15	Back	12mm	Ant 13	ECI 4	507000	2535	21.36	22.20	1.213	-	-	0.01	0.408	0.495
	FR1 n7	50M	QPSK	135	68	DFT-15	Top Side	14mm	Ant 13	ECI 4	507000	2535	21.36	22.20	1.213	-	-	-0.16	0.425	0.516
	FR1 n7	50M	QPSK	270	0	DFT-15	Top Side	0mm	Ant 13	ECI 5	507000	2535	16.85	17.70	1.216	-	-	-0.04	1.620	1.970
	FR1 n41	100M	QPSK	1	1	DFT-30	Back	0mm	Ant 13	ECI 5	518598	2592.99	17.53	18.90	1.371	-	-	0.14	0.996	1.365



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	FR1 n41	100M	QPSK	1	1	DFT-30	Top Side	0mm	Ant 13	ECI 5	518598	2592.99	17.53	18.90	1.371	-	-	0.07	1.820	2.495
	FR1 n41	100M	QPSK	1	1	DFT-30	Back	12mm	Ant 13	ECI 4	518598	2592.99	22.08	23.40	1.355	-	-	0.11	0.482	0.653
	FR1 n41	100M	QPSK	1	1	DFT-30	Top Side	14mm	Ant 13	ECI 4	518598	2592.99	22.08	23.40	1.355	-	-	-0.09	0.495	0.671
	FR1 n41	100M	QPSK	135	69	DFT-30	Back	0mm	Ant 13	ECI 5	518598	2592.99	17.51	18.90	1.377	-	-	0.09	1.020	1.405
	FR1 n41	100M	QPSK	135	69	DFT-30	Top Side	0mm	Ant 13	ECI 5	518598	2592.99	17.51	18.90	1.377	-	-	0.01	1.830	2.520
	FR1 n41	100M	QPSK	135	69	DFT-30	Back	12mm	Ant 13	ECI 4	518598	2592.99	22.06	23.40	1.361	-	-	0.17	0.528	0.719
	FR1 n41	100M	QPSK	135	69	DFT-30	Top Side	14mm	Ant 13	ECI 4	518598	2592.99	22.06	23.40	1.361	-	-	-0.14	0.526	0.716
	FR1 n41	100M	QPSK	270	0	DFT-30	Top Side	0mm	Ant 13	ECI 5	518598	2592.99	17.49	18.90	1.384	-	-	0.18	1.820	2.518
	FR1 n41	100M	QPSK	1	1	DFT-30	Back	0mm	Ant 11	ECI 5	518598	2592.99	19.63	21.00	1.371	-	-	0	1.300	1.782
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Side	0mm	Ant 11	ECI 5	518598	2592.99	19.63	21.00	1.371	-	-	0.06	2.070	2.838
	FR1 n41	100M	QPSK	1	1	DFT-30	Back	13mm	Ant 11	ECI 4	518598	2592.99	24.90	26.50	1.445	-	-	-0.16	0.337	0.487
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Side	15mm	Ant 11	ECI 4	518598	2592.99	24.90	26.50	1.445	-	-	-0.17	0.342	0.494
	FR1 n41	100M	QPSK	135	69	DFT-30	Back	0mm	Ant 11	ECI 5	518598	2592.99	19.61	21.00	1.377	-	-	0.17	1.230	1.694
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Side	0mm	Ant 11	ECI 5	518598	2592.99	19.61	21.00	1.377	-	-	-0.03	1.840	2.534
	FR1 n41	100M	QPSK	270	0	DFT-30	Back	0mm	Ant 11	ECI 5	518598	2592.99	19.59	21.00	1.384	-	-	0.11	1.320	1.826
95	FR1 n41	100M	QPSK	270	0	DFT-30	Left Side	0mm	Ant 11	ECI 5	518598	2592.99	19.59	21.00	1.384	-	-	0.14	2.100	2.905
	FR1 n41	100M	QPSK	270	0	DFT-30	Back	13mm	Ant 11	ECI 4	518598	2592.99	23.67	25.50	1.524	-	-	0.09	0.336	0.512
	FR1 n41	100M	QPSK	270	0	DFT-30	Left Side	15mm	Ant 11	ECI 4	518598	2592.99	23.67	25.50	1.524	-	-	0.13	0.354	0.540
3300MHz-4100MHz																				
	LTE Band 42 Part27Q	20M	QPSK	1	0	-	Back	0mm	Ant 11	ECI 5	42590	3500	19.35	19.70	1.084	62.9	1.006	0.15	1.330	1.450
	LTE Band 42 Part27Q	20M	QPSK	1	0	-	Left Side	0mm	Ant 11	ECI 5	42590	3500	19.35	19.70	1.084	62.9	1.006	-0.01	2.280	2.486
96	LTE Band 42 Part27Q	20M	QPSK	1	0	-	Left Side	0mm	Ant 11	ECI 5	42190	3460	19.33	19.70	1.089	62.9	1.006	0.05	2.310	2.531
	LTE Band 42 Part27Q	20M	QPSK	1	0	-	Left Side	0mm	Ant 11	ECI 5	42990	3540	19.31	19.70	1.094	62.9	1.006	-0.09	2.200	2.421
	LTE Band 42 Part27Q	20M	QPSK	1	0	-	Back	13mm	Ant 11	ECI 4	42590	3500	23.31	23.70	1.094	62.9	1.006	0.17	0.237	0.261
	LTE Band 42 Part27Q	20M	QPSK	1	0	-	Left Side	15mm	Ant 11	ECI 4	42590	3500	23.31	23.70	1.094	62.9	1.006	-0.09	0.304	0.335
	LTE Band 42 Part27Q	20M	QPSK	50	0	-	Back	0mm	Ant 11	ECI 5	42590	3500	19.33	19.70	1.089	62.9	1.006	-0.15	1.340	1.468
	LTE Band 42 Part27Q	20M	QPSK	50	0	-	Left Side	0mm	Ant 11	ECI 5	42590	3500	19.33	19.70	1.089	62.9	1.006	0.18	2.280	2.498
	LTE Band 42 Part27Q	20M	QPSK	50	0	-	Left Side	0mm	Ant 11	ECI 5	42190	3460	19.31	19.70	1.094	62.9	1.006	0.05	2.260	2.487
	LTE Band 42 Part27Q	20M	QPSK	50	0	-	Left Side	0mm	Ant 11	ECI 5	42990	3540	19.30	19.70	1.096	62.9	1.006	0.03	2.190	2.416
	LTE Band 42 Part27Q	20M	QPSK	50	0	-	Back	13mm	Ant 11	ECI 4	42590	3500	22.23	22.70	1.114	62.9	1.006	-0.04	0.190	0.213
	LTE Band 42 Part27Q	20M	QPSK	50	0	-	Left Side	15mm	Ant 11	ECI 4	42590	3500	22.23	22.70	1.114	62.9	1.006	0.02	0.244	0.274
	LTE Band 42 Part27Q	20M	QPSK	100	0	-	Left Side	0mm	Ant 11	ECI 5	42590	3500	19.30	19.70	1.096	62.9	1.006	0.09	2.060	2.272
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Back	0mm	Ant 11	ECI 5	633332	3499.98	18.31	19.20	1.227	-	-	-0.15	1.550	1.903
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Left Side	0mm	Ant 11	ECI 5	633332	3499.98	18.31	19.20	1.227	-	-	0.18	2.160	2.651
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Back	13mm	Ant 11	ECI 4	633332	3499.98	23.28	24.20	1.236	-	-	0.12	0.324	0.400
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Left Side	15mm	Ant 11	ECI 4	633332	3499.98	23.28	24.20	1.236	-	-	-0.19	0.475	0.587
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Back	0mm	Ant 11	ECI 5	633332	3499.98	18.30	19.20	1.230	-	-	-0.01	1.630	2.005
97	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Left Side	0mm	Ant 11	ECI 5	633332	3499.98	18.30	19.20	1.230	-	-	-0.14	2.220	2.731
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Back	13mm	Ant 11	ECI 4	633332	3499.98	23.26	24.20	1.242	-	-	-0.07	0.412	0.512
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Left Side	15mm	Ant 11	ECI 4	633332	3499.98	23.26	24.20	1.242	-	-	0.18	0.546	0.678
	FR1 n77 Part27Q	100M	QPSK	270	0	DFT-30	Back	0mm	Ant 11	ECI 5	633332	3499.98	18.28	19.20	1.236	-	-	0.05	1.510	1.866
	FR1 n77 Part27Q	100M	QPSK	270	0	DFT-30	Left Side	0mm	Ant 11	ECI 5	633332	3499.98	18.28	19.20	1.236	-	-	-0.15	2.160	2.670
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Back	0mm	Ant 11	ECI 5	656000	3840	18.32	19.20	1.225	-	-	0.17	1.180	1.445
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Left Side	0mm	Ant 11	ECI 5	656000	3840	18.32	19.20	1.225	-	-	0.01	1.650	2.021
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Back	13mm	Ant 11	ECI 4	656000	3840	23.30	24.20	1.230	-	-	-0.13	0.366	0.450
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Left Side	15mm	Ant 11	ECI 4	656000	3840	23.30	24.20	1.230	-	-	0.1	0.407	0.501
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Back	0mm	Ant 11	ECI 5	656000	3840	18.30	19.20	1.230	-	-	-0.18	1.210	1.489
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Left Side	0mm	Ant 11	ECI 5	656000	3840	18.30	19.20	1.230	-	-	-0.1	1.750	2.153
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Back	13mm	Ant 11	ECI 4	656000	3840	23.28	24.20	1.236	-	-	0.12	0.371	0.459
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Left Side	15mm	Ant 11	ECI 4	656000	3840	23.28	24.20	1.236	-	-	0.05	0.414	0.512
	FR1 n77 Part27Q	100M	QPSK	270	0	DFT-30	Back	0mm	Ant 11	ECI 5	656000	3840	18.28	19.20	1.236	-	-	-0.08	1.270	1.570
	FR1 n77 Part27Q	100M	QPSK	270	0	DFT-30	Left Side	0mm	Ant 11	ECI 5	656000	3840	18.28	19.20	1.236	-	-	0.03	1.720	2.126
	FR1 n78 Part27Q	100M	QPSK	1	1	DFT-30	Back	0mm	Ant 11	ECI 5	633332	3499.98	18.68	19.40	1.180	-	-	-0.18	1.700	2.007
	FR1 n78 Part27Q	100M	QPSK	1	1	DFT-30	Left Side	0mm	Ant 11	ECI 5	633332	3499.98	18.68	19.40	1.180	-	-	0.19	2.240	2.644
	FR1 n78 Part27Q	100M	QPSK	1	1	DFT-30	Back	13mm	Ant 11	ECI 4	633332	3499.98	23.98	24.90	1.236	-	-	-0.1	0.448	0.554
	FR1 n78 Part27Q	100M	QPSK	1	1	DFT-30	Left Side	15mm	Ant 11	ECI 4	633332	3499.98	23.98	24.90	1.236	-	-	0.01	0.601	0.743



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	FR1 n78 Part27Q	100M	QPSK	135	69	DFT-30	Back	0mm	Ant 11	ECI 5	633332	3499.98	18.67	19.40	1.183	-	-	0.11	1.780	2.106
98	FR1 n78 Part27Q	100M	QPSK	135	69	DFT-30	Left Side	0mm	Ant 11	ECI 5	633332	3499.98	18.67	19.40	1.183	-	-	-0.02	2.470	2.922
	FR1 n78 Part27Q	100M	QPSK	135	69	DFT-30	Back	13mm	Ant 11	ECI 4	633332	3499.98	23.96	24.90	1.242	-	-	-0.17	0.511	0.634
	FR1 n78 Part27Q	100M	QPSK	135	69	DFT-30	Left Side	15mm	Ant 11	ECI 4	633332	3499.98	23.96	24.90	1.242	-	-	0.09	0.620	0.770
	FR1 n78 Part27Q	100M	QPSK	270	0	DFT-30	Back	0mm	Ant 11	ECI 5	633332	3499.98	18.65	19.40	1.189	-	-	-0.01	1.720	2.044
	FR1 n78 Part27Q	100M	QPSK	270	0	DFT-30	Left Side	0mm	Ant 11	ECI 5	633332	3499.98	18.65	19.40	1.189	-	-	-0.13	2.420	2.876
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-30	Back	0mm	Ant 11	ECI 5	650000	3750	18.26	19.40	1.300	-	-	0.14	1.570	2.041
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-30	Left Side	0mm	Ant 11	ECI 5	650000	3750	18.26	19.40	1.300	-	-	-0.19	2.140	2.782
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-30	Back	13mm	Ant 11	ECI 4	650000	3750	23.70	24.90	1.318	-	-	0.01	0.498	0.656
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-30	Left Side	15mm	Ant 11	ECI 4	650000	3750	23.70	24.90	1.318	-	-	-0.17	0.553	0.729
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-30	Back	0mm	Ant 11	ECI 5	650000	3750	18.25	19.40	1.303	-	-	-0.1	1.790	2.333
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-30	Left Side	0mm	Ant 11	ECI 5	650000	3750	18.25	19.40	1.303	-	-	0.16	2.200	2.867
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-30	Back	13mm	Ant 11	ECI 4	650000	3750	23.68	24.90	1.324	-	-	0.07	0.454	0.601
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-30	Left Side	15mm	Ant 11	ECI 4	650000	3750	23.68	24.90	1.324	-	-	0.18	0.489	0.648
	FR1 n78 Part27O	100M	QPSK	270	0	DFT-30	Back	0mm	Ant 11	ECI 5	650000	3750	18.23	19.40	1.309	-	-	0.11	1.750	2.291
	FR1 n78 Part27O	100M	QPSK	270	0	DFT-30	Left Side	0mm	Ant 11	ECI 5	650000	3750	18.23	19.40	1.309	-	-	-0.03	2.140	2.802
	FR1 n78 Part27Q	100M	QPSK	1	1	DFT-30	Front	0mm	Ant 12	ECI 5	633332	3499.98	19.21	20.70	1.409	-	-	-0.11	0.449	0.633
	FR1 n78 Part27Q	100M	QPSK	1	1	DFT-30	Back	0mm	Ant 12	ECI 5	633332	3499.98	19.21	20.70	1.409	-	-	0.03	0.851	1.199
	FR1 n78 Part27Q	100M	QPSK	1	1	DFT-30	Left Side	0mm	Ant 12	ECI 5	633332	3499.98	19.21	20.70	1.409	-	-	0.07	0.986	1.390
	FR1 n78 Part27Q	100M	QPSK	1	1	DFT-30	Front	7mm	Ant 12	ECI 4	633332	3499.98	25.68	27.20	1.419	-	-	0.11	0.377	0.535
	FR1 n78 Part27Q	100M	QPSK	1	1	DFT-30	Back	13mm	Ant 12	ECI 4	633332	3499.98	25.68	27.20	1.419	-	-	0.04	0.215	0.305
	FR1 n78 Part27Q	100M	QPSK	1	1	DFT-30	Left Side	15mm	Ant 12	ECI 4	633332	3499.98	25.68	27.20	1.419	-	-	0	0.160	0.227
	FR1 n78 Part27Q	100M	QPSK	135	69	DFT-30	Front	0mm	Ant 12	ECI 5	633332	3499.98	19.20	20.70	1.413	-	-	-0.15	0.511	0.722
	FR1 n78 Part27Q	100M	QPSK	135	69	DFT-30	Back	0mm	Ant 12	ECI 5	633332	3499.98	19.20	20.70	1.413	-	-	-0.11	0.948	1.339
	FR1 n78 Part27Q	100M	QPSK	135	69	DFT-30	Left Side	0mm	Ant 12	ECI 5	633332	3499.98	19.20	20.70	1.413	-	-	0.15	1.040	1.469
	FR1 n78 Part27Q	100M	QPSK	135	69	DFT-30	Front	7mm	Ant 12	ECI 4	633332	3499.98	25.65	27.20	1.429	-	-	0.05	0.428	0.612
	FR1 n78 Part27Q	100M	QPSK	135	69	DFT-30	Back	13mm	Ant 12	ECI 4	633332	3499.98	25.65	27.20	1.429	-	-	0.02	0.235	0.336
	FR1 n78 Part27Q	100M	QPSK	135	69	DFT-30	Left Side	15mm	Ant 12	ECI 4	633332	3499.98	25.65	27.20	1.429	-	-	0.1	0.188	0.269
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-30	Front	0mm	Ant 12	ECI 5	650000	3750	19.13	20.70	1.435	-	-	-0.13	0.640	0.919
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-30	Back	0mm	Ant 12	ECI 5	650000	3750	19.13	20.70	1.435	-	-	0	1.150	1.651
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-30	Left Side	0mm	Ant 12	ECI 5	650000	3750	19.13	20.70	1.435	-	-	-0.18	1.210	1.737
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-30	Front	7mm	Ant 12	ECI 4	650000	3750	25.60	27.20	1.445	-	-	-0.03	0.432	0.624
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-30	Back	13mm	Ant 12	ECI 4	650000	3750	25.60	27.20	1.445	-	-	-0.11	0.238	0.344
	FR1 n78 Part27O	100M	QPSK	1	1	DFT-30	Left Side	15mm	Ant 12	ECI 4	650000	3750	25.60	27.20	1.445	-	-	-0.02	0.222	0.321
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-30	Front	0mm	Ant 12	ECI 5	650000	3750	19.11	20.70	1.442	-	-	0.16	0.661	0.953
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-30	Back	0mm	Ant 12	ECI 5	650000	3750	19.11	20.70	1.442	-	-	-0.01	1.200	1.731
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-30	Left Side	0mm	Ant 12	ECI 5	650000	3750	19.11	20.70	1.442	-	-	0.12	1.300	1.875
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-30	Front	7mm	Ant 12	ECI 4	650000	3750	25.58	27.20	1.452	-	-	0.14	0.439	0.637
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-30	Back	13mm	Ant 12	ECI 4	650000	3750	25.58	27.20	1.452	-	-	-0.03	0.227	0.330
	FR1 n78 Part27O	100M	QPSK	135	69	DFT-30	Left Side	15mm	Ant 12	ECI 4	650000	3750	25.58	27.20	1.452	-	-	-0.12	0.228	0.331

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)
WLAN																
	WLAN5.3GHz	802.11n-HT40 MCS0	Front	0mm	Ant 22	Standalone	54	5270	16.13	18.00	1.538	91.18	1.097	0.02	0.303	0.511
	WLAN5.3GHz	802.11n-HT40 MCS0	Back	0mm	Ant 22	Standalone	54	5270	16.13	18.00	1.538	91.18	1.097	0.16	0.242	0.408
99	WLAN5.3GHz	802.11n-HT40 MCS0	Right Side	0mm	Ant 22	Standalone	54	5270	16.13	18.00	1.538	91.18	1.097	-0.05	0.496	0.837
	WLAN5.3GHz	802.11n-HT40 MCS0	Top Side	0mm	Ant 22	Standalone	54	5270	16.13	18.00	1.538	91.18	1.097	-0.08	0.398	0.671
	WLAN5.5GHz	802.11n-HT40 MCS0	Front	0mm	Ant 22	Standalone	142	5710	15.22	17.00	1.507	91.18	1.097	0.16	0.229	0.378
	WLAN5.5GHz	802.11n-HT40 MCS0	Back	0mm	Ant 22	Standalone	142	5710	15.22	17.00	1.507	91.18	1.097	-0.15	0.284	0.469
	WLAN5.5GHz	802.11n-HT40 MCS0	Right Side	0mm	Ant 22	Standalone	142	5710	15.22	17.00	1.507	91.18	1.097	-0.19	0.597	0.987
100	WLAN5.5GHz	802.11n-HT40 MCS0	Top Side	0mm	Ant 22	Standalone	142	5710	15.22	17.00	1.507	91.18	1.097	0.04	0.841	1.390
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Top Side	0mm	Ant 22	Simultaneous	138	5690	13.08	14.50	1.386	86.84	1.152	0.01	0.490	0.782



16.5 Repeated SAR Measurement

<1g>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Ratio	Reported 1g SAR (W/kg)
1st	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 13	ECI 2	9262	1852.4	17.13	18.20	1.279	-	-	0.15	0.835	1	1.068
2nd	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 13	ECI 2	9262	1852.4	17.13	18.20	1.279	-	-	-0.03	0.828	1.008	1.059
1st	LTE Band 42 Part27Q	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 23	ECI 2	42590	3500	18.95	19.50	1.135	62.9	1.006	0.07	0.854	1	0.975
2nd	LTE Band 42 Part27Q	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 23	ECI 2	42590	3500	18.95	19.50	1.135	62.9	1.006	0.11	0.826	1.034	0.943
1st	FR1 n78 Part27O	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 11	ECI 4	650000	3750	23.70	24.90	1.318	62.9	1.006	0.18	0.809	1	1.066
2nd	FR1 n78 Part27O	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 11	ECI 4	650000	3750	23.70	24.90	1.318	62.9	1.006	0.13	0.802	1.009	1.057

<10g>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Ratio	Reported 10g SAR (W/kg)
1st	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Top Side	0mm	Ant 13	ECI 5	1513	1752.6	20.98	21.70	1.180	-	-	-0.15	2.240	1	2.644
2nd	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Top Side	0mm	Ant 13	ECI 5	1513	1752.6	20.98	21.70	1.180	-	-	0.11	2.170	1.032	2.561
1st	WCDMA II	-	-	-	-	RMC 12.2Kbps	Top Side	0mm	Ant 13	ECI 5	9538	1907.6	19.10	20.20	1.288	-	-	-0.12	2.220	1	2.860
2nd	WCDMA II	-	-	-	-	RMC 12.2Kbps	Top Side	0mm	Ant 13	ECI 5	9538	1907.6	19.10	20.20	1.288	-	-	0.07	2.100	1.057	2.705
1st	LTE Band 38	20M	QPSK	1	0	-	Left Side	0mm	Ant 11	ECI 5	38000	2595	19.37	20.50	1.297	62.9	1.006	0.1	2.280	1	2.975
2nd	LTE Band 38	20M	QPSK	1	0	-	Left Side	0mm	Ant 11	ECI 5	38000	2595	19.37	20.50	1.297	62.9	1.006	-0.18	2.180	1.046	2.845
1st	FR1 n78 Part27Q	100M	QPSK	135	69	DFT-30	Left Side	0mm	Ant 11	ECI 5	633332	3499.98	18.67	19.40	1.183	-	-	-0.02	2.470	1	2.922
2nd	FR1 n78 Part27Q	100M	QPSK	135	69	DFT-30	Left Side	0mm	Ant 11	ECI 5	633332	3499.98	18.67	19.40	1.183	-	-	0.16	2.330	1.060	2.756
1st	FR1 n78 Part27O	100M	QPSK	135	69	DFT-30	Left Side	0mm	Ant 11	ECI 5	650000	3750	18.25	19.40	1.303	-	-	0.16	2.200	1	2.867
2nd	FR1 n78 Part27O	100M	QPSK	135	69	DFT-30	Left Side	0mm	Ant 11	ECI 5	650000	3750	18.25	19.40	1.303	-	-	-0.13	2.180	1.009	2.841

General Note:

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

17. Simultaneous Transmission Analysis

No.	Simultaneous Transmission Configurations	Portable Handset			
		Head	Body-worn	Hotspot	Product specific 10g SAR
1.	WWAN + WLAN2.4GHz	Yes	Yes	Yes	Yes
2.	WWAN + WLAN5GHz	Yes	Yes	Yes	Yes
3.	WWAN + Bluetooth	Yes	Yes	Yes	Yes
4.	WLAN5GHz + Bluetooth	Yes	Yes	Yes	Yes
5.	WWAN + WLAN5GHz + Bluetooth	Yes	Yes	Yes	Yes
6.	WWAN + WLAN2.4GHz + NFC				Yes
7.	WWAN + WLAN5GHz + NFC				Yes
8.	WWAN + Bluetooth + NFC				Yes
9.	WLAN5GHz + Bluetooth + NFC				Yes
10.	WWAN + WLAN5GHz + Bluetooth + NFC				Yes

General Note:

- This device supports VoIP in GPRS, EGPRS, WCDMA, LTE and 5GNR (e.g. for 3rd-party VoIP), LTE supports VoLTE operation.
- WWAN above includes 5G NR bands and EN-DC combination.
- EUT will choose each GSM, WCDMA, LTE and 5GNR according to the network signal condition; therefore, they will not operate simultaneously at any moment.
- For EN-DC mode, MediaTek TA-SAR Gen2 algorithm in WWAN adds directly the time-averaged RF exposure from 4G(LTE) and time-averaged RF exposure from 5G NR. TA-SAR Gen2 algorithm controls the total RF exposure from both 4G and 5G NR to not exceed SAR exposure limit. Therefore, simultaneous transmission compliance between 4G+5G NR operation is demonstrated in the Part 2 Report during algorithm validation. In this Report, simultaneous transmission compliance was evaluated individually with other Radios (WLAN or BT) using one of 4G or 5G NR.
- This device 2.4GHz WLAN support hotspot operation and Bluetooth support tethering applications.
- This device 5.2GHz WLAN/5.8GHz WLAN support hotspot operation, and 5.2GHz WLAN/5.8GHz WLAN supports WLAN Direct (GC/GO), and 5.3GHz / 5.5GHz supports WLAN Direct (GC only). WLAN 6GHz has no hotspot function.
- According to the EUT characteristic, WLAN 5GHz and Bluetooth can transmit simultaneously.
- According to the EUT characteristic, WLAN 5GHz and WLAN 2.4GHz can't transmit simultaneously.
- According to the EUT characteristic, WLAN 2.4GHz and Bluetooth cannot transmit simultaneously
- The worst case 5 GHz WLAN SAR for each configuration was used for SAR summation.
- When stand-alone SAR is not required for a transmitter or antenna, its SAR is considered zero in the SAR summing process to assess Multi-band transmission SAR compliance.
- NFC can transmit simultaneously with other Radios in extremity exposure condition.
- For distance SAR and non-distance SAR at extremity exposure conditions always chose higher SAR to do co-located analysis.
- For standalone WWAN, always choose the highest SAR among all WWAN bands within the selected antenna for each exposure position to perform simultaneous transmission analysis with WLAN/BT together. This is the worst co-located analysis and can represent each band.
- The maximum SAR summation is calculated based on the same configuration and test position.
- Per KDB 447498 D01v06, simultaneous transmission SAR is compliant if,
 - 1g Scalar SAR summation < 1.6W/kg and 10g Scalar SAR summation < 4.0W/kg.
 - $SPLSR = (SAR1 + SAR2)^{1.5} / (\min. \text{ separation distance, mm})$, and the peak separation distance is determined from the square root of $[(x1-x2)^2 + (y1-y2)^2 + (z1-z2)^2]$, where (x1, y1, z1) and (x2, y2, z2) are the coordinates of the extrapolated peak SAR locations in the zoom scan.
 - If $SPLSR \leq 0.04$ for 1g SAR and $SPLSR \leq 0.10$ for 10g SAR, simultaneously transmission SAR measurement is not necessary.
 - Simultaneously transmission SAR measurement, and the reported multi-band 1g SAR < 1.6W/kg and 10g SAR < 4.0W/kg.
 - The SPLSR calculated results please refer to section 17.6.

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

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

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

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

$$\begin{aligned} x \cdot A + y \cdot B + m &\leq 1 \\ x + y &= g \leq 1 \\ g + m &\leq 1 \end{aligned}$$

Where, A is normalized reported time-averaged SAR exposure ratio from LTE, and $A \leq 1.0$; B is normalized reported time-averaged exposure ratio from 5G NR (i.e., PD exposure for 5G FR2 or SAR exposure for 5G FR1), and $B \leq 1.0$.

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

$$x \cdot A + y \cdot B + m \leq 1.0 \quad (1)$$

$$x \cdot A + y \cdot B \leq x \cdot \max(A, B) + (g-x) \cdot \max(A, B) \leq \max(A, B)$$

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

If $A + m \leq 1.0$ and $B + m \leq 1.0$ can be proven, then " $x \cdot A + y \cdot B + m \leq 1.0$ ". Therefore simultaneous transmission analysis for 5G NR + LTE + WLAN + BT can be performed in two steps

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

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

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

- i. A and m are decoupled based on the SPLSR criteria, and
- ii. $y \cdot B + m \leq 1.0$, and
- iii. $x \cdot A + y \cdot B \leq 1.0$

Note iii. is covered in Part 2 report; i. and ii. should be addressed in Part 1 report.

Above analysis is also apply to LTE/NR inter-band uplink, LTE(NR)1 + LTE(NR)2 + WLAN + BT simultaneous transmission, so inter-band uplink CA no need to do additional simultaneously analysis again. Only required comply with total exposure ratio (TER) of LTE/NR + WLAN + BT < 1.

The device also enabled Mediatek's TA-SAR Gen2 algorithm to improve antenna performance by applying separate SAR budgets to each predefined antenna group. There are two predefined antenna groups of AG0, AG1, more detail as following table. Each antenna group is spatially separated to others. Simultaneous transmission analysis is performed per antenna group. Below analysis demonstrates the spatially separation of AG0, AG1, and the compliance between AG0 and BT/WLAN/NFC and between AG1 and BT/WLAN/NFC.

Thus, the concept was to split the SAR/TER on the transmitting RATs even they are transmitting on different antennas. Such approach is considered as a worst-case scenario in terms of transmitting power. Thus, to enhance the performance of the transmission power of RATs, consider the spatial properties of each antenna and the correlations between the antenna's transmissions.

SPLSR_Group (Antenna Group):

Antenna Group 0 (AG0)	ANT13 & ANT11 & ANT12 & ANT21 & ANT23
Antenna Group 1 (AG1)	ANT31

Note that BT operations are not enabled with TA-SAR Gen2 feature.

The verification of spatial separation of the antenna groups is demonstrated through the following steps, together with WIF/BT simultaneous transmission analysis results.

- The highest reported SAR at Plimit (or Pmax when Plimit > Pmax) for each antenna should be obtained out of all supported technologies and frequency bands for each power index. Demonstrate that the sum of reported SAR of one antenna from each of the antenna groups and the sum of RF exposure from all supported radios outside of TAS feature should be less than the regulatory limit as given below for each power index.
- If the sum of SAR from step i) is over 1.6 W/kg for 1g, demonstrate for a given power index that every antenna from one antenna group meets SPLSR criteria with every antenna in another antenna group for all frequency bands. SPLSR criteria must be demonstrated for all antenna pair combinations irrespective of supported simultaneous transmission scenarios, SPLSR Hotspot combination procedure (Hybrid SPLSR) also be considered for simultaneous transmission analysis.
- If SPLSR evaluation and analysis is needed to determine compliance for a certain power index configuration, SPLSR is performed by taking the highest summation SAR for each of the supported technologies and bands per antenna, along with the minimum of peak SAR location distance. The minimum of peak location distance is documented in the Highest Report SAR and Hotspot Location below for each power index configuration.
- In section 17.6 SPLSR analysis only evaluation Sim-Tx SAR configuration are rounded to two decimal higher or equal to 1.6W/kg.
- The analysis addresses the simultaneous transmission and the transition among non-simultaneous transmission radios

For summed SAR results and SPLSR detailed analysis, please refer to section 17.2/17.3 / 17.4 / 17.5 / 17.6 of this report. All of the combinations of sub6 antenna groups are sufficient to show that AG0 is mutually exclusive from AG1 and that simultaneous transmission cases will not exceed the SAR limit and therefore no measured volumetric simultaneous SAR summation is required per FCC KDB Publication 447498 D01v06 and IEEE 1528- 2013 Section 6.3.4.1.

17.2 Head Exposure Conditions

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

Standalone

Simultaneous Transmission Evaluation of WWAN+WLAN+BT:

<AG0 maximum reported SAR>:

Test Position	Ant13	Ant11	Ant12	Ant21	Ant23	All Antenna MAX SAR 1g W/kg
Right Cheek	0.993	0.975	0.924	0.498	0.351	0.993
Right Tilted	1.068	0.294	0.539	0.566	0.175	1.068
Left Cheek	0.560	0.333	0.278	0.740	1.004	1.004
Left Tilted	0.667	0.167	0.231	0.815	0.358	0.815

<AG1 maximum reported SAR>:

Test Position	Ant31	All Antenna MAX SAR 1g W/kg
Right Cheek	0.948	0.948
Right Tilted	0.370	0.370
Left Cheek	0.435	0.435
Left Tilted	0.362	0.362

<Simultaneous Transmission analysis of AG0 + AG1 >:

Test Position	AG1	AG0	AG0+AG1
Right Cheek	0.948	0.993	1.94
Right Tilted	0.370	1.068	1.44
Left Cheek	0.435	1.004	1.44
Left Tilted	0.362	0.815	1.18

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

Right Cheek				
Ant,combination	AG1	AG0	AG0+AG1	SPLSR
	SAR	SAR		
Ant31(LTE Band 12)-Ant13	0.126	0.993	1.12	
Ant31(LTE Band 13)-Ant13	0.130	0.993	1.12	
Ant31(GSM850)-Ant13	0.213	0.993	1.21	
Ant31(WCDMA V)-Ant13	0.194	0.993	1.19	
Ant31(LTE Band 5)-Ant13	0.230	0.993	1.22	
Ant31(LTE Band 26)-Ant13	0.218	0.993	1.21	
Ant31(FR1 n5)-Ant13	0.202	0.993	1.20	
Ant31(FR1 n26)-Ant13	0.197	0.993	1.19	
Ant31(WCDMA IV)-Ant13	0.070	0.993	1.06	
Ant31(LTE Band 66)-Ant13	0.085	0.993	1.08	
Ant31(FR1 n66)-Ant13	0.088	0.993	1.08	
Ant31(GSM1900)-Ant13	0.089	0.993	1.08	
Ant31(WCDMA II)-Ant13	0.150	0.993	1.14	
Ant31(LTE Band 2)-Ant13	0.158	0.993	1.15	
Ant31(FR1 n2)-Ant13	0.128	0.993	1.12	
Ant31(LTE Band 7)-Ant13	0.447	0.993	1.44	
Ant31(LTE Band 41)-Ant13	0.336	0.993	1.33	
Ant31(FR1 n7)-Ant13	0.527	0.993	1.52	
Ant31(FR1 n41)-Ant13	0.948	0.993	1.94	Case 1
Ant31(LTE Band 12)-Ant11	0.126	0.975	1.10	
Ant31(LTE Band 13)-Ant11	0.130	0.975	1.11	
Ant31(GSM850)-Ant11	0.213	0.975	1.19	
Ant31(WCDMA V)-Ant11	0.194	0.975	1.17	
Ant31(LTE Band 5)-Ant11	0.230	0.975	1.21	
Ant31(LTE Band 26)-Ant11	0.218	0.975	1.19	



Ant31(FR1 n5)-Ant11	0.202	0.975	1.18	
Ant31(FR1 n26)-Ant11	0.197	0.975	1.17	
Ant31(WCDMA IV)-Ant11	0.070	0.975	1.05	
Ant31(LTE Band 66)-Ant11	0.085	0.975	1.06	
Ant31(FR1 n66)-Ant11	0.088	0.975	1.06	
Ant31(GSM1900)-Ant11	0.089	0.975	1.06	
Ant31(WCDMA II)-Ant11	0.150	0.975	1.13	
Ant31(LTE Band 2)-Ant11	0.158	0.975	1.13	
Ant31(FR1 n2)-Ant11	0.128	0.975	1.10	
Ant31(LTE Band 7)-Ant11	0.447	0.975	1.42	
Ant31(LTE Band 41)-Ant11	0.336	0.975	1.31	
Ant31(FR1 n7)-Ant11	0.527	0.975	1.50	
Ant31(FR1 n41)-Ant11	0.948	0.975	1.92	Case 2
Ant31(LTE Band 12)-Ant12	0.126	0.924	1.05	
Ant31(LTE Band 13)-Ant12	0.130	0.924	1.05	
Ant31(GSM850)-Ant12	0.213	0.924	1.14	
Ant31(WCDMA V)-Ant12	0.194	0.924	1.12	
Ant31(LTE Band 5)-Ant12	0.230	0.924	1.15	
Ant31(LTE Band 26)-Ant12	0.218	0.924	1.14	
Ant31(FR1 n5)-Ant12	0.202	0.924	1.13	
Ant31(FR1 n26)-Ant12	0.197	0.924	1.12	
Ant31(WCDMA IV)-Ant12	0.070	0.924	0.99	
Ant31(LTE Band 66)-Ant12	0.085	0.924	1.01	
Ant31(FR1 n66)-Ant12	0.088	0.924	1.01	
Ant31(GSM1900)-Ant12	0.089	0.924	1.01	
Ant31(WCDMA II)-Ant12	0.150	0.924	1.07	
Ant31(LTE Band 2)-Ant12	0.158	0.924	1.08	
Ant31(FR1 n2)-Ant12	0.128	0.924	1.05	
Ant31(LTE Band 7)-Ant12	0.447	0.924	1.37	
Ant31(LTE Band 41)-Ant12	0.336	0.924	1.26	
Ant31(FR1 n7)-Ant12	0.527	0.924	1.45	
Ant31(FR1 n41)-Ant12	0.948	0.924	1.87	Case 3
Ant31-Ant21	0.948	0.498	1.45	
Ant31-Ant23	0.948	0.393	1.34	

Simultaneous**Simultaneous Transmission Evaluation of WWAN+WLAN+BT:****<AG0 maximum reported SAR>:**

Test Position	Ant13	Ant11	Ant12	Ant21	Ant23	All Antenna MAX SAR 1g W/kg
Right Cheek	0.600	0.546	0.585	0.353	0.212	0.600
Right Tilted	0.700	0.178	0.346	0.401	0.099	0.700
Left Cheek	0.444	0.208	0.177	0.533	0.526	0.533
Left Tilted	0.428	0.119	0.149	0.559	0.201	0.559

<AG1 maximum reported SAR>:

Test Position	Ant31	All Antenna MAX SAR 1g W/kg
Right Cheek	0.527	0.527
Right Tilted	0.236	0.236
Left Cheek	0.315	0.315
Left Tilted	0.189	0.189

<WLAN+BT Worse-case SAR>:

Test Position	1	2	3	1+3 Summed 1g SAR (W/kg)	WLAN/BT worse case
	Bluetooth	2.4GWLAN	5GWLAN		
Right Cheek	0.098	0.293	0.273	0.371	0.371
Right Tilted	0.098	0.340	0.357	0.455	0.455
Left Cheek	0.195	0.441	0.393	0.588	0.588
Left Tilted	0.146	0.394	0.550	0.696	0.696

<Simultaneous Transmission analysis of AG0 + AG1+ WLAN+BT Worse-case >:

Test Position	AG1	AG0	WLAN 2.4G	WLAN 5G+BT worse case	AG0+AG1+WLAN 2.4G	AG0+AG1+WLAN 5G+BT worse case
Right Cheek	0.527	0.600	0.293	0.371	1.42	1.50
Right Tilted	0.236	0.700	0.340	0.455	1.28	1.39
Left Cheek	0.315	0.533	0.441	0.588	1.29	1.44
Left Tilted	0.189	0.559	0.394	0.696	1.14	1.44

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

17.3 Hotspot Exposure Conditions

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

Simultaneous Transmission Evaluation of WWAN+WLAN+BT:

<AG0 maximum reported SAR>:

Test Position	Ant13	Ant11	Ant12	Ant21	Ant23	All Antenna MAX SAR 1g W/kg
Front	0.350	0.304	0.222	0.378	0.393	0.393
Back	0.510	0.518	0.259	0.646	0.573	0.646
Left Side	0.182	0.588	0.264	0.000	0.000	0.588
Right Side	0.000	0.000	0.000	0.150	0.741	0.741
Top Side	0.705	0.082	0.161	0.612	0.207	0.705
Bottom Side	0.000	0.000	0.000	0.000	0.000	0.000

<AG1 maximum reported SAR>:

Test Position	Ant31	All Antenna MAX SAR 1g W/kg
Front	0.571	0.571
Back	0.800	0.800
Left Side	0.316	0.316
Right Side	0.394	0.394
Top Side	0.000	0.000
Bottom Side	0.832	0.832

<WLAN+BT Worse-case SAR>:

Test Position	1 Bluetooth	2 2.4GWLAN	3 5GWLAN	1+3 Summed 1g SAR (W/kg)	WLAN/BT worse case
Front	0.065	0.128	0.333	0.398	0.398
Back	0.089	0.208	0.541	0.630	0.630
Left Side	0.000	0.000	0.000	0.000	0.000
Right Side	0.075	0.173	0.440	0.515	0.515
Top Side	0.067	0.144	0.429	0.496	0.496
Bottom Side	0.000	0.000	0.000	0.000	0.000

<Simultaneous Transmission analysis of AG0 + AG1 + WLAN+BT Worse-case>:

Test Position	AG1	AG0	WLAN 2.4G	WLAN 5G+BT worse case	AG0+AG1+WLAN 2.4G	AG0+AG1+WLAN 5G+BT worse case
Front	0.571	0.393	0.128	0.398	1.09	1.36
Back	0.800	0.646	0.208	0.630	1.65	2.08
Left Side	0.316	0.588	0.000	0.000	0.90	0.90
Right Side	0.394	0.741	0.173	0.515	1.31	1.65
Top Side	0.000	0.705	0.144	0.496	0.85	1.20
Bottom Side	0.832	0.000	0.000	0.000	0.83	0.83

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

Back								
Ant,combination	AG1 SAR	AG0 SAR	WLAN 2.4G	WLAN 5G+BT worse case	AG0+AG1+WLAN 2.4G	SPLSR	AG0+AG1+WLAN 5G+BT worse case	SPLSR
Ant31-Ant13	0.800	0.510	0.208	0.630	1.52		1.94	case 4
Ant31-Ant11	0.800	0.518	0.208	0.630	1.53		1.95	case 5
Ant31-Ant12	0.800	0.259	0.208	0.630	1.27		1.69	case 6
Ant31-Ant21	0.800	0.646	0.208	0.630	1.65	case 3	2.08	case 7
Ant31-Ant23	0.800	0.573	0.208	0.630	1.58		2.00	case 8

Ant,combination	Right side							
	AG1	AG0	WLAN 2.4G	WLAN 5G+BT worse case	AG0+AG1+WLAN 2.4G	SPLSR	AG0+AG1+WLAN 5G+BT worse case	SPLSR
	SAR	SAR						
Ant31-Ant13	0.394	0.000	0.173	0.515	0.57		0.91	
Ant31-Ant11	0.394	0.000	0.173	0.515	0.57		0.91	
Ant31-Ant12	0.394	0.000	0.173	0.515	0.57		0.91	
Ant31-Ant21	0.394	0.150	0.173	0.515	0.72		1.06	
Ant31-Ant23	0.394	0.741	0.173	0.515	1.31		1.65	case 9

17.4 Body-Worn Accessory Exposure Conditions

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

Standalone

Simultaneous Transmission Evaluation of WWAN+WLAN+BT:

<AG0 maximum reported SAR>:

Test Position	Ant13	Ant11	Ant12	Ant21	Ant23	All Antenna MAX SAR 1g W/kg
Front	0.416	0.732	0.862	0.304	0.338	0.862
Back	1.070	1.066	0.970	0.625	0.399	1.070

<AG1 maximum reported SAR>:

Test Position	Ant31	All Antenna MAX SAR 1g W/kg
Front	0.348	0.348
Back	0.370	0.370

<Simultaneous Transmission analysis of AG0 + AG1 >:

Test Position	AG1	AG0	AG0+AG1
Front	0.348	0.862	1.21
Back	0.370	1.070	1.44

Simultaneous

Simultaneous Transmission Evaluation of WWAN+WLAN+BT:

<AG0 maximum reported SAR>:

Test Position	Ant13	Ant11	Ant12	Ant21	Ant23	All Antenna MAX SAR 1g W/kg
Front	0.416	0.732	0.862	0.304	0.338	0.862
Back	0.271	0.177	0.136	0.625	0.399	0.625

<AG1 maximum reported SAR>:

Test Position	Ant31	All Antenna MAX SAR 1g W/kg
Front	0.348	0.348
Back	0.380	0.380

<WLAN+BT Worse-case SAR>:

	1	2	3	1+3 Summed 1g SAR (W/kg)	WLAN/BT worse case
Test Position	Bluetooth	2.4GWLAN	5GWLAN		
Front	0.046	0.106	0.179	0.225	0.225
Back	0.058	0.126	0.267	0.325	0.325

<Simultaneous Transmission analysis of AG0 + AG1 + WLAN+BT Worse-case >:

Test Position	AG1	AG0	WLAN 2.4G	WLAN 5G/BT worse case	AG0+AG1+WLAN 2.4G	AG0+AG1+WLAN 5G/BT worse case
Front	0.348	0.862	0.106	0.225	1.32	1.44
Back	0.380	0.625	0.126	0.325	1.13	1.33

17.5 Product specific 10g SAR Exposure Conditions

Remark:

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

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

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

<AG0 maximum reported SAR>:

Test Position	Ant13	Ant11	Ant12	Ant21	Ant23	All Antenna MAX SAR 10g W/kg
Front	0.000	0.000	0.953	0.000	0.000	0.953
Back	1.405	2.333	1.731	0.000	0.000	2.333
Left Side	0.000	2.975	1.875	0.000	0.000	2.975
Right Side	0.000	0.000	0.000	0.000	0.000	0.000
Top Side	2.860	0.000	0.000	0.000	0.000	2.860
Bottom Side	0.000	0.000	0.000	0.000	0.000	0.000

<AG1 maximum reported SAR>:

Test Position	Ant31	All Antenna MAX SAR 10g W/kg
Front	0.000	0.000
Back	0.000	0.000
Left Side	0.000	0.000
Right Side	0.000	0.000
Top Side	0.000	0.000
Bottom Side	0.000	0.000

<WLAN/BT Worse-case SAR>

Test Position	1 Bluetooth	2 2.4GWLAN	3 5GWLAN	1+3 Summed 10g SAR (W/kg)	WLAN/BT worse case
Front	0.000	0.000	0.511	0.511	0.511
Back	0.000	0.000	0.469	0.469	0.469
Left Side	0.000	0.000	0.000	0.000	0.000
Right Side	0.000	0.000	0.987	0.987	0.987
Top Side	0.000	0.000	0.782	0.782	0.782
Bottom Side	0.000	0.000	0.000	0.000	0.000

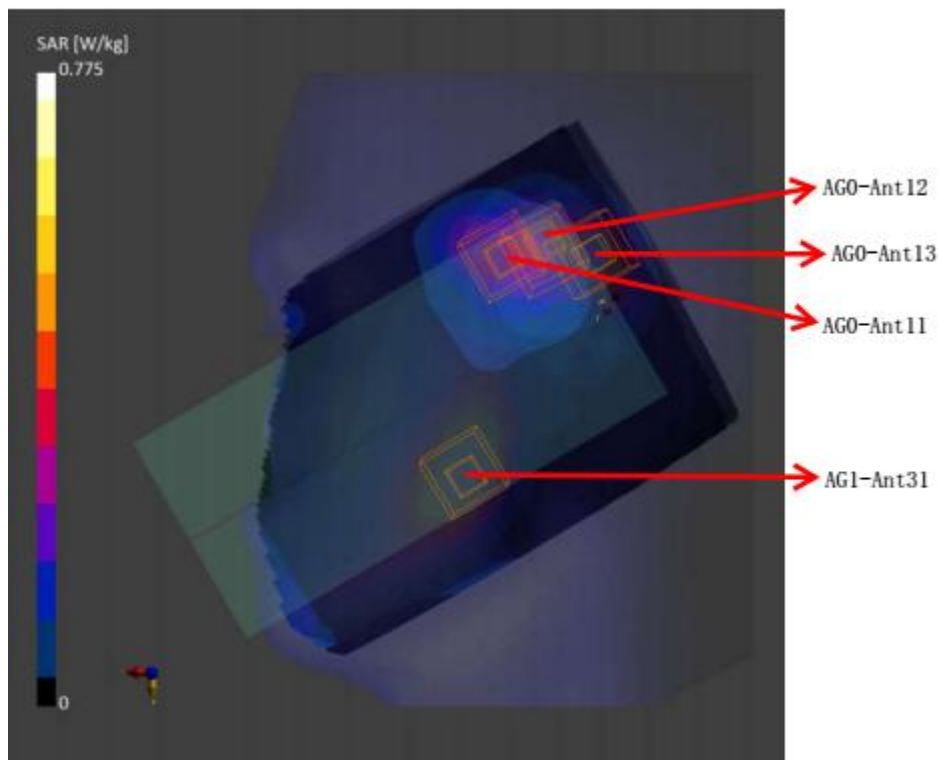
<Simultaneous Transmission analysis of AG0 + AG1 + WLAN/BT Worse-case+NFC>:

Test Position	AG1	AG0	WLAN 2.4G	WLAN 5G/BT worse case	NFC	AG0+AG1+WLAN 2.4G+NFC	AG0+AG1+WLAN 5G/BT worse case+NFC
Front	0.000	0.953	0.000	0.511	0.001	0.95	1.47
Back	0.000	2.333	0.000	0.469	0.039	2.37	2.84
Left Side	0.000	2.975	0.000	0.000	0.002	2.98	2.98
Right Side	0.000	0.000	0.000	0.987	0.001	0.00	0.99
Top Side	0.000	2.860	0.000	0.782	0.001	2.86	3.64
Bottom Side	0.000	0.000	0.000	0.000	0.011	0.01	0.01

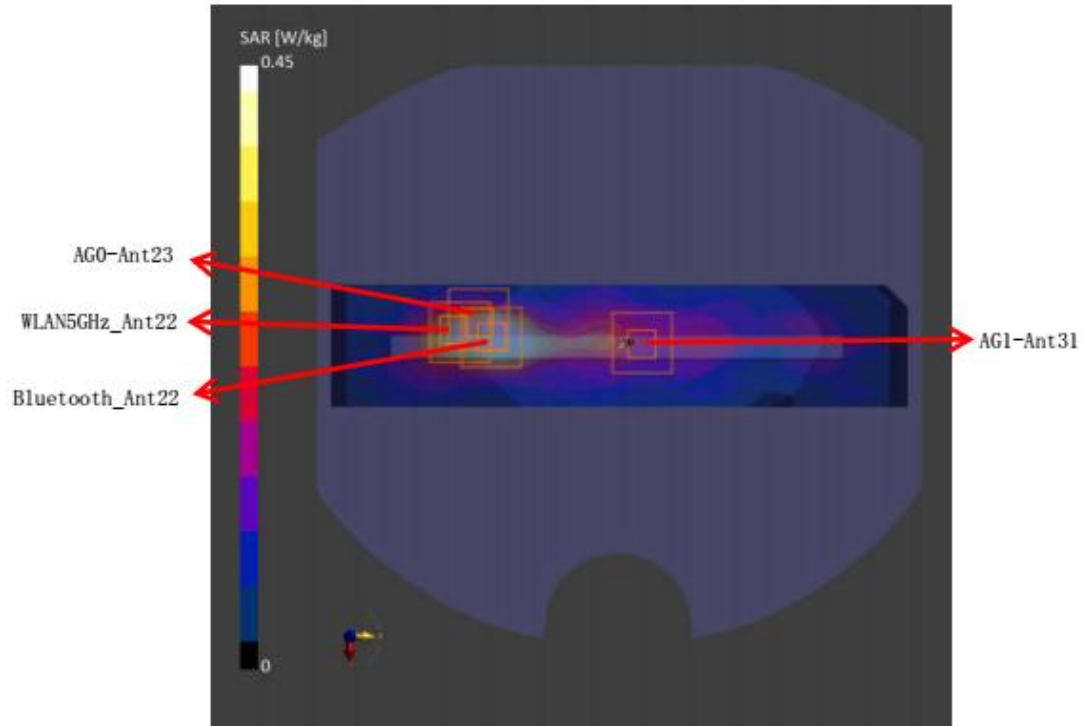
17.6 SPLSR Evaluation and Analysis

General Note:

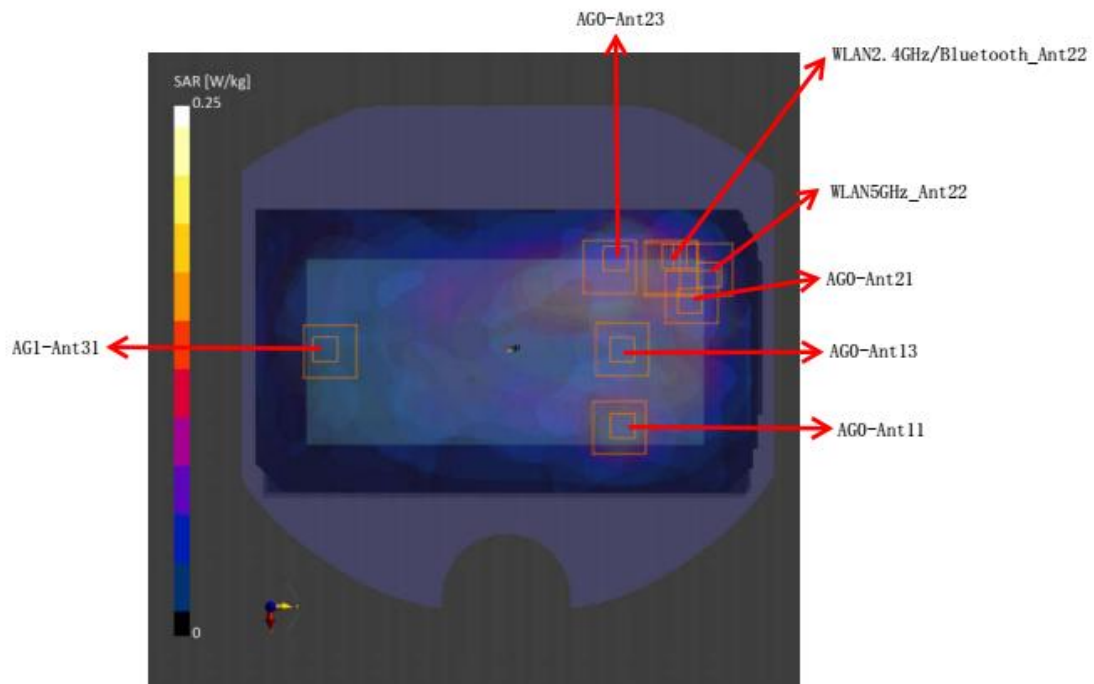
1. When standalone SAR is measured for both antennas in the pair, the peak location separation distance is computed by the square root of $[(x1-x2)^2 + (y1-y2)^2 + (z1-z2)^2]$, where $(x1, y1, z1)$ and $(x2, y2, z2)$ are the coordinates in the area scans or extrapolated peak SAR locations in the zoom scans, as appropriate.
2. $SPLSR = (SAR1 + SAR2)1.5 / (\text{min. separation distance, mm})$. If $SPLSR \leq 0.04$ for 1g SAR and $SPLSR \leq 0.10$ for 10g SAR, simultaneously transmission SAR measurement is not necessary.
3. Per April 2022 TCB Workshop Notes, WLAN /BT/ NFC was summed algebraically with the AG0 for the purposes of hybrid SPLSR combination and they are located at the top of the device
4. Per April 2022 TCB Workshop, instead of doing a small volume scan over a co-located antenna pair, used summing the SAR values of the co-located pair and using that value in SPLSR calculation. In the calculation used the minimum distance between the spatially separated antenna and the closest antenna of the co-located antenna pair to be conservative.
5. The detail hotspot point for each transmitter in each exposure condition are showing as below figure and the minimum 3D distance for each sum combination is used for SPLSR analysis.
6. The axis peak locations refer to Section 17.7.



Head Right Cheek_Standalone 0mm



Hotspot _Right Side_10mm



Hotspot _Back_10mm

<Head Standalone>

Right Cheek												
Case No	Band	Position	SAR (W/kg)	SAR (W/kg)	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					(mm)	X	Y	Z				
Case 1	AG1-Ant31(FR1 n41)	Right Cheek	0.948	1.94	0mm	52.70	-249.80	-174.60	85.8	1.94	0.03	Not required
	AG0-Ant13		0.993		0mm	10.10	-324.10	-169.80				
Case 2	AG1-Ant31(FR1 n41)	Right Cheek	0.948	1.92	0mm	52.70	-249.80	-174.60	75.2	1.92	0.04	Not required
	AG0-Ant11		0.975		0mm	39.40	-323.70	-171.30				
Case 3	AG1-Ant31(FR1 n41)	Right Cheek	0.948	1.87	0mm	52.70	-249.80	-174.60	86.0	1.87	0.03	Not required
	AG0-Ant12		0.924		0mm	26.20	-331.50	-170.60				

<Hotspot>

Back												
Case No	Band	Position	SAR (W/kg)	SAR (W/kg)	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					(mm)	X	Y	Z				
Case 3	AG1-Ant 31	Back	0.800	0.80	10mm	-25.00	-74.30	-203.00	151.5	1.65	0.01	Not required
	AG0-Ant 21		0.646	0.85	10mm	-45.00	75.90	-203.00				
	2.4G WLAN		0.208		10mm							
	AG1-Ant 31	Back	0.800	0.80	10mm	-25.00	-74.30	-203.00	144.4	1.65	0.01	Not required
	AG0-Ant 21		0.646	0.85	10mm							
	2.4G WLAN		0.208		10mm	-65.00	64.50	-203.00				
Case 4	AG1-Ant 31	Back	0.800	0.80	10mm	-25.00	-74.30	-203.00	122.7	1.94	0.02	Not required
	AG0-Ant 13		0.510	1.14	10mm	-25.00	48.40	-203.00				
	5G WLAN+BT		0.630		10mm							
	AG1-Ant 31	Back	0.800	0.80	10mm	-25.00	-74.30	-203.00	156.1	1.94	0.02	Not required
	AG0-Ant 13		0.510	1.14	10mm							
	5G WLAN+BT		0.630		10mm	-65.00	76.60	-203.00				
Case 5	AG1-Ant 31	Back	0.800	0.80	10mm	-25.00	-74.30	-203.00	128.1	1.95	0.02	Not required
	AG0-Ant 11		0.518	1.15	10mm	5.00	50.20	-203.00				
	5G WLAN+BT		0.630		10mm							
	AG1-Ant 31	Back	0.800	0.80	10mm	-25.00	-74.30	-203.00	156.1	1.95	0.02	Not required
	AG0-Ant 11		0.518	1.15	10mm							
	5G WLAN+BT		0.630		10mm	-65.00	76.60	-203.00				
Case 6	AG1-Ant 31	Back	0.800	0.80	10mm	-25.00	-74.30	-203.00	145.5	1.69	0.02	Not required
	AG0-Ant 12		0.259	0.89	10mm	-5.00	69.80	-203.00				
	5G WLAN+BT		0.630		10mm							
	AG1-Ant 31	Back	0.800	0.80	10mm	-25.00	-74.30	-203.00	156.1	1.69	0.01	Not required
	AG0-Ant 12		0.259	0.89	10mm							
	5G WLAN+BT		0.630		10mm	-65.00	76.60	-203.00				
Case 7	AG1-Ant 31	Back	0.800	0.80	10mm	-25.00	-74.30	-203.00	151.5	2.08	0.02	Not required
	AG0-Ant 21		0.646	1.28	10mm	-45.00	75.90	-203.00				
	5G WLAN+BT		0.630		10mm							
	AG1-Ant 31	Back	0.800	0.80	10mm	-25.00	-74.30	-203.00	156.1	2.08	0.02	Not required
	AG0-Ant 21		0.646	1.28	10mm							
	5G WLAN+BT		0.630		10mm	-65.00	76.60	-203.00				
Case 8	AG1-Ant 31	Back	0.800	1.20	10mm	-25.00	-74.30	-203.00	125.4	2.00	0.02	Not required
	AG0-Ant 23		0.573		10mm	-65.00	44.50	-203.00				
	5G WLAN+BT	Back	0.630	1.20	10mm				156.1	2.00	0.02	Not required
	AG1-Ant 31		0.800		10mm	-25.00	-74.30	-203.00				



	AG0-Ant 23		0.573	1.20	10mm							
	5G WLAN+BT		0.630		10mm	-65.00	76.60	-203.00				
Right side												
Case No	Band	Position	SAR (W/kg)	SAR (W/kg)	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					(mm)	X	Y	Z				
Case 9	AG1-Ant 31	Right Side	0.394	0.39	10mm	-25.00	10.40	-203.00	53.3	1.65	0.04	Not required
	AG0-Ant 23		0.741	1.26	10mm	-25.00	-42.90	-203.10				
	5G WLAN+BT		0.515		10mm							
	AG1-Ant 31	Right Side	0.394	0.39	10mm	-25.00	10.40	-203.00	53.9	1.65	0.04	Not required
	AG0-Ant 23		0.741	1.26	10mm							
	5G WLAN+BT		0.515		10mm	-33.00	-42.90	-203.00				

17.7 Maximum Reported SAR and SAR Peak Locations

General Note:

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

<Head Standalone>

Right Cheek									
Freq.	Support,Band		Ant13	Ant11	Ant12	Ant21	Ant23	Ant31	Ant 22
750MHz	LTE,Band,12/13/17	Max,SAR	0.694					0.130	
		Axis(X,Y,Z)	X:22.1 Y:-334.0 Z:-170.3					X:57.7 Y:-278.6 Z:-171.6	
835MHz	GSM850,2TX WCDMA,V LTE,Band,5/26 FR1,n5/26	Max,SAR	0.762					0.230	
		Axis(X,Y,Z)	X:20.7 Y:-334.8 Z:-170.2					X:54.9 Y:-280.3 Z:-172.0	
1750MHz	WCDMA,IV LTE,Band,4/66 FR1,n66	Max,SAR	0.815	0.477				0.088	
		Axis(X,Y,Z)	X:8.5 Y:-325.0 Z:-169.6	X:39.4 Y:-323.7 Z:-171.3				X:53.3 Y:-247.5 Z:-169.8	
1900MHz	GSM1900,2TX WCDMA,II LTE,Band,2 FR1,n2	Max,SAR	0.993	0.361				0.158	
		Axis(X,Y,Z)	X:10.1 Y:-324.1 Z:-169.8	X:53.3 Y:-332.2 Z:-168.9				X:54.0 Y:-247.1 Z:-169.6	
2600MHz	LTE,Band,7/38/41 FR1,n7/38/41	Max,SAR	0.663	0.939				0.948	
		Axis(X,Y,Z)	X:9.2 Y:-330.2 Z:-169.5	X:48.6 Y:-329.3 Z:-170.0				X:52.7 Y:-249.8 Z:-174.6	
3500/3700/3900MHz	LTE,Band,42 FR1,n77/78	Max,SAR		0.975	0.924	0.498	0.393		
		Axis(X,Y,Z)		X:46.5 Y:-330.6 Z:-170.1	X:26.2 Y:-331.5 Z:-170.6	X:-3.8 Y:-293.0 Z:-165.6	X:33.0 Y:-260.0 Z:-169.7		
		Axis(X,Y,Z)							

<Hotspot>

Back									
Freq.	Support,Band		Ant13	Ant11	Ant12	Ant21	Ant23	Ant31	Ant 22
750MHz	LTE,Band,12/13/17	Max,SAR	0.222					0.260	
		Axis(X,Y,Z)	X:-25.0 Y:48.4 Z:-203.0					X:-25.0 Y:-81.2 Z:-203.0	
835MHz	GSM850,2TX WCDMA,V LTE,Band,5/26 FR1,n5/26	Max,SAR	0.444					0.373	
		Axis(X,Y,Z)	X:-25.0 Y:51.9 Z:-203.0					X:-10.0 Y:-75.3 Z:-203.0	
1750MHz	WCDMA,IV LTE,Band,4/66 FR1,n66	Max,SAR	0.292	0.164				0.491	
		Axis(X,Y,Z)	X:-10.0 Y:84.3 Z:-203.0	X:5.0 Y:51.2 Z:-203.0				X:-25.0 Y:-77.4 Z:-203.0	
1900MHz	GSM1900,2TX WCDMA,II LTE,Band,2 FR1,n2	Max,SAR	0.280	0.064				0.616	
		Axis(X,Y,Z)	X:-10.0 Y:84.0 Z:-203.0	X:20.0 Y:49.6 Z:-203.0				X:-25.0 Y:-74.3 Z:-203.0	
2450MHz	2.4GWLAN	Max,SAR							0.208
		Axis(X,Y,Z)							X:-65.0 Y:64.5 Z:-203.0
2450MHz	Bluetooth	Max,SAR							0.089
		Axis(X,Y,Z)							X:-65.0 Y:76.6 Z:-203.0
2600MHz	LTE,Band,7/38/41 FR1,n7/38/41	Max,SAR	0.510	0.518				0.800	
		Axis(X,Y,Z)	X:-5.0 Y:78.8 Z:-203.0	X:5.0 Y:51.1 Z:-203.0				X:-43.0 Y:-74 Z:-207.0	
3500/3700/3900MHz	LTE,Band,42 FR1,n78	Max,SAR		0.371	0.259	0.646	0.573		
		Axis(X,Y,Z)		X:5.0 Y:50.2 Z:-203.0	X:-5.0 Y:69.8 Z:-203.0	X:-45.0 Y:75.9 Z:-203.0	X:-65.0 Y:44.5 Z:-203.0		
5250/5600/5750MHz	5GWLAN	Max,SAR							0.541
		Axis(X,Y,Z)							X:-55.0 Y:81.0 Z:-203.00



Right side									
Freq.	Support,Band		Ant13	Ant11	Ant12	Ant21	Ant23	Ant31	Ant 22
750MHz	LTE,Band,12/13/17	Max,SAR						0.186	
		Axis(X,Y,Z)						X:-25.0 Y:10.8 Z:-203.0	
835MHz	GSM850,2TX WCDMA,V LTE,Band,5/26 FR1,n5/26	Max,SAR						0.169	
		Axis(X,Y,Z)						X:-25.0 Y:10.4 Z:-203.0	
1750MHz	WCDMA,IV LTE,Band,4/66 FR1,n66	Max,SAR						0.106	
		Axis(X,Y,Z)						X:-25.0 Y:62.1 Z:-203.0	
1900MHz	GSM1900,2TX WCDMA,II LTE,Band,2 FR1,n2	Max,SAR						0.166	
		Axis(X,Y,Z)						X:-25.0 Y:69.6 Z:-203.0	
2450MHz	2.4GWLAN	Max,SAR							0.173
		Axis(X,Y,Z)							X:-33.0 Y:-57.9 Z:-203.0
2450MHz	Bluetooth	Max,SAR							0.075
		Axis(X,Y,Z)							X:-33.0 Y:-57.9 Z:-203.0
2600MHz	LTE,Band,7/38/41 FR1,n7/38/41	Max,SAR						0.394	
		Axis(X,Y,Z)						X:-25.0 Y:48.4 Z:-203.0	
3500/3700/3900MHz	LTE,Band,42 FR1,n78	Max,SAR					0.741		
		Axis(X,Y,Z)					X:-25.0 Y:-40.9 Z:-203.1		
5250/5600/5750MHz	5GWLAN	Max,SAR							0.619
		Axis(X,Y,Z)							X:-33.0 Y:-51.3 Z:-203.0

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18. Uncertainty Assessment

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

19. References

- [1] FCC 47 CFR Part 2 "Frequency Allocations and Radio Treaty Matters; General Rules and Regulations"
- [2] ANSI/IEEE Std. C95.1-1992, "IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz", September 1992
- [3] IEEE Std. 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", Sep 2013
- [4] SPEAG DASY System Handbook
- [5] FCC KDB 865664 D01 v01r04, "SAR Measurement Requirements for 100 MHz to 6 GHz", Aug 2015.
- [6] FCC KDB 865664 D02 v01r02, "RF Exposure Compliance Reporting and Documentation Considerations" Oct 2015.
- [7] FCC KDB 648474 D04 v01r03, "SAR Evaluation Considerations for Wireless Handsets", Oct 2015.
- [8] FCC KDB 248227 D01 v02r02, "SAR Guidance for IEEE 802.11 (WiFi) Transmitters", Oct 2015.
- [9] FCC KDB 616217 D04 v01r02, "SAR Evaluation Considerations for Laptop, Notebook, Netbook and Tablet Computers", Oct 2015
- [10] FCC KDB 941225 D01 v03r01, "3G SAR MEAUREMENT PROCEDURES", Oct 2015
- [11] FCC KDB 941225 D05 v02r05, "SAR Evaluation Considerations for LTE Devices", Dec 2015
- [12] FCC KDB 941225 D05A v01r02, "Rel. 10 LTE SAR Test Guidance and KDB Inquiries", Oct 2015
- [13] FCC KDB 941225 D06 v02r01, "SAR Evaluation Procedures for Portable Devices with Wireless Router Capabilities", Oct 2015.
- [14] FCC KDB 447498 D01 v06, "Mobile and Portable Device RF Exposure Procedures and Equipment Authorization Policies", Oct 2015

Appendixes

Please refer to separated files for the following appendixes

Appendix A. Plots of System Performance Check

Appendix B. Plots of High SAR Measurement

Appendix C. DASY Calibration Certificate

Appendix D. Test Setup Photos

Appendix E. Conducted RF Output Power Table

Appendix F. Power measurement connection diagram and CA Conducted RF Output Power Table

Appendix G. Power reduction mechanism verification

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